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STEADY-STATE MOTION OF CABLES IN FLUIDS

Part 1. TABLES OF NEUTRALLY BUOYANT CABLE FUNCTIONS

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STEADY-STATE MOTION OF CABLES IN FLUIDS

Part 1. TABLES OF NEUTRALLY BUOYANT CABLE FUNCTIONS

by

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FOREWORD

This report contains tables constructed to aid engineers in the solution of problems involving the plane motion of cables and wires. The inclusion of a weight of a cable in a vertical plane will be the subject of another report.

The work represented here was done during the first six months of 1960 and was supported by funds from Technical Services, a distributable general overhead expense.

The report was reviewed for technical adequacy and accuracy by Julius Siekmann of the Mathematics Division, Research Department, and Richard White of the Instrument Development Division, Test Department. The reviewers' suggestions and those of the Oceanic Research Division, particularly those of René L. Engel, are gratefully acknowledged.

Corrections or comments will be appreciated. They should be addressed as follows: Commander, U. S. Naval Ordnance Test Station (Code 507), China Lake, California.

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ABSTRACT

The tables in this report make possible simple slide-rule calculations of position, stress, length, physical parameters, etc., in certain steady-state problems of the plane motion of neutrally buoyant cables. The theory behind the cable functions is essentially that of Landweber and Protter. Examples are included to aid engineers in using the tables.

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STEADY-STATE MOTION OF CABLES IN FLUIDS

Part 1

INTRODUCTION

In applying the tables in this report to specific problems involving cables or wires, the major restrictions are that the cable (1) be flexible, (2) remain in a plane, (3) be neutrally buoyant and at Reynolds' numbers below the critical, and (4) be subjected only to the following forces: a normal force, $R \sin^2 \phi$, and a tangential force, F, as shown in Fig. 1. This expression for the forces is the usual one and is in good agreement with experiments.

The mathematical solution of this cable problem is but a slight modification of that given by Landweber and Protter.[1] Example problems are solved to illustrate the use of the tables. Some of these examples are from Landweber and Protter's paper. Certain functions useful for interpolation in the tables are tabulated adjacent to the table entries.

Table A entries were calculated with an error of less than one in the fifth digit given for $\phi \geq 0.433°$, an error of less than one in the fourth digit for $0.432° \geq \phi \geq 0.185°$, an error of less than one in the third digit for $0.184° \geq \phi \geq 0.113°$, and an error of less than one in the second digit for $0.112° \geq \phi \geq 0.1°$.

THEORY

Consider an element, Δs, of a cable (Fig. 1) moving through water at a constant relative velocity, V, in equilibrium under the force system depicted in Fig. 2. (See also Fig. 3, p. xi.)

Forces $R \sin^2 \phi$ and F (R and F constant) distributed along length Δs can be replaced by average forces acting at some angles, ϕ_R and ϕ_F, along segment Δs.

[1] Landweber, L., and M. H. Protter. "The Shape and Tension of a Light Flexible Cable in a Uniform Current," *Journal of Applied Mechanics*, Vol. 14 (1947), pp. A121–A126.

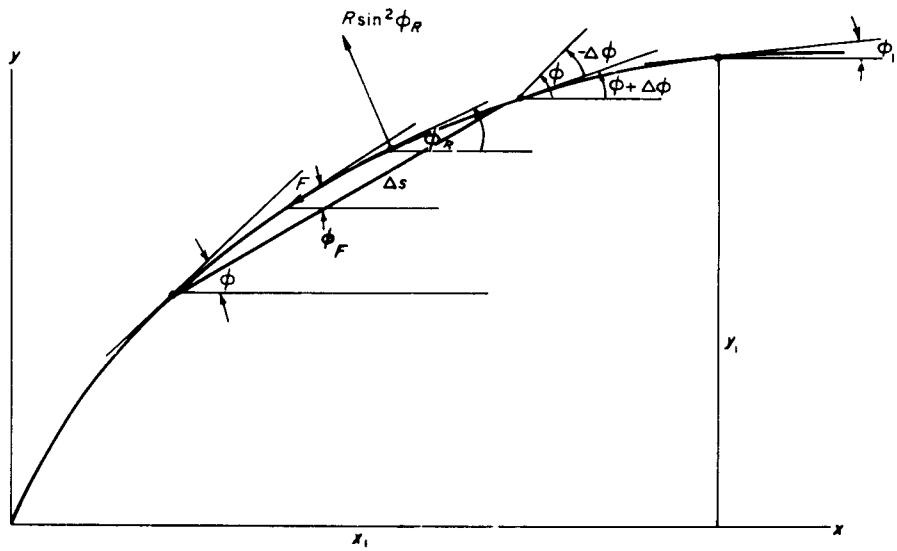


FIG. 1. Symbols.

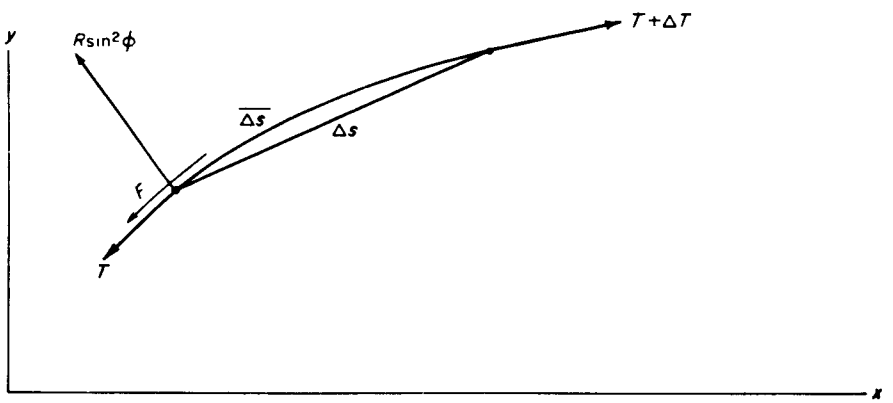


FIG. 2. Forces.

Summing the force components (directions of ϕ and $\perp$ to ϕ), we have

$$(T + \Delta T)\cos(-\Delta\phi) - T + [R \sin^2\phi_R \sin(\phi - \phi_R)]\Delta s - [F\cos(\phi - \phi_F)]\Delta s = 0 \qquad 0 \le \phi \le \pi/2 \quad (1)$$

and

$$-(T + \Delta T)\sin(-\Delta\phi) + [R \sin^2\phi_R \cos(\phi - \phi_R)]\Delta s + [F \sin(\phi - \phi_F)]\Delta s = 0 \qquad 0 \le \phi \le \pi/2 \quad (2)$$

or

$$\frac{T(\cos\Delta\phi - 1)}{\Delta s} + \frac{\Delta T}{\Delta s}\cos\Delta\phi + R \sin^2\phi_R \sin(\phi - \phi_R) - F\cos(\phi - \phi_F) = 0 \quad (3)$$

and

$$(T + \Delta T)\frac{\sin\Delta\phi}{\Delta s} + R \sin^2\phi_R \cos(\phi - \phi_R) + F \sin(\phi - \phi_F) = 0 \quad (4)$$

As $\Delta s \to 0$, $\Delta\phi \to 0$, $\phi_R \to \phi$, and $\phi_F \to \phi$, and since the curve of the cable centerline has a continuous derivative,

$$(\Delta\phi/\Delta s) \to (d\phi/ds)$$

Equations 3 and 4 become

$$(dT/ds) = F \quad (5)$$

and

$$T(d\phi/ds) = -R \sin^2\phi \quad (6)$$

Division gives

$$(dT/Td\phi) = -(F/R)\csc^2\phi \qquad 0 < \phi \le 90° \quad (7)$$

Integrating, with T_o being the value of T at $x = 0$, $y = 0$, $s = 0$, etc.,

$$T = T_o \exp[(F/R)(\cot\phi - \cot\phi_o)] \qquad 0 < \phi \le 90° \quad (8)$$

From Eq. 6

$$-T_o \exp[(F/R)(\cot\phi - \cot\phi_o)]\csc^2\phi d\phi = Rds \quad (9)$$

Integrating, using the previous notation,

$$(Rs/T_o) = (R/F)\{\exp[(F/R)(\cot\phi - \cot\phi_o)] - 1\} \quad (10)$$

Using $dx/ds = \cos\phi$ in Eq. 9,

$$R\,dx = -T_o \exp[(F/R)(\cot\phi - \cot\phi_o)] \csc^2\phi \cos\phi\, d\phi \tag{11}$$

Integrating,

$$(Rx/T_o) = \exp[-(F/R)\cot\phi_o] \int_\phi^{\phi_o} \cot\phi \csc\phi \exp[(F/R)\cot\phi]\, d\phi \tag{12}$$

Using $dy/ds = \sin\phi$,

$$(Ry/T_o) = \exp[-(F/R)\cot\phi_o] \int_\phi^{\phi_o} \csc\phi \exp[(F/R)\cot\phi]\, d\phi \tag{13}$$

Let

$$r(F/R,\phi) = \exp[(F/R)\cot\phi] \tag{14}$$

$$\xi(F/R,\phi) = \int_\phi^{\pi/2} r \cot\phi \csc\phi\, d\phi \tag{15}$$

$$\eta(F/R,\phi) = \int_\phi^{\pi/2} r \csc\phi\, d\phi \tag{16}$$

Then Eq. 8, 10, 12, and 13 with $\phi_o = 90°$ become

$$T = T_o r \qquad 0 < \phi \leq \pi/2 \tag{17}$$

$$s = (T_o/F)(r-1) \qquad 0 < \phi \leq \pi/2 \tag{18}$$

$$x = (T_o/R)\xi \qquad 0 < \phi \leq \pi/2 \tag{19}$$

$$y = (T_o/R)\eta \qquad 0 < \phi \leq \pi/2 \tag{20}$$

Table A tabulates these cable functions ξ, η, and r for $R/F = 45$. The R/F value of 45 was based on a least-square fit[2] (Fig. 3) of the drag data.

$$D = C_D(\rho V^2/2)(\text{area}) = R\sin^3\phi + F\cos\phi$$

$$L = R\sin^2\phi\cos\phi - F\sin\phi$$

[2] This least-square fit was carried out on the IBM 704 by Gladys Radeck, Phoebe Huang, and Robert S. Gardner from data graphed in *Fluid-Dynamic Drag*, by S. F. Hoerner, 1958, published by the author; pp. 3–11, the sources of which are detailed there.

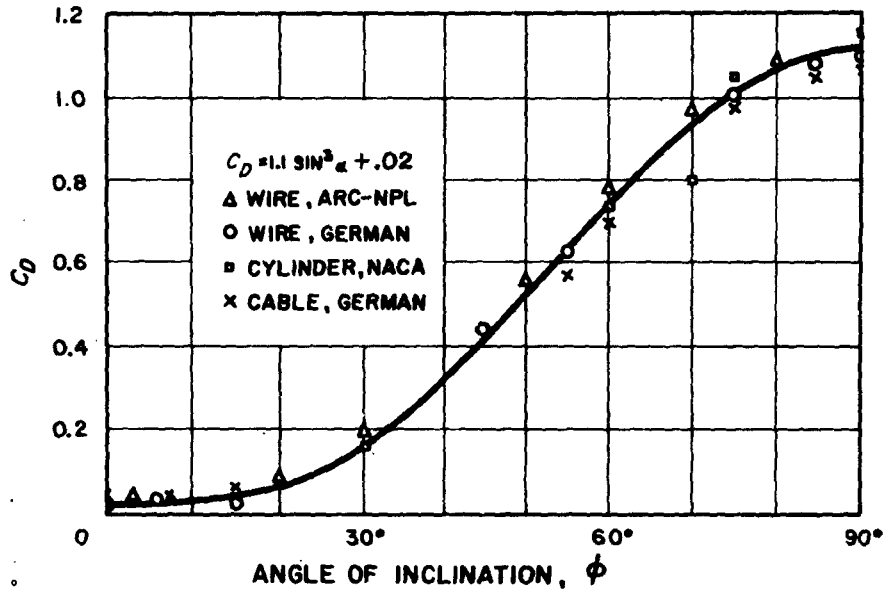


FIG. 3. Least-Square Fit of Drag Data.

CASES

Three cases arise (tables are for $F/R = 1/45$).

Case A (Fig. 4). This case seldom arises directly, but Cases B and C are sums and differences of Case A types.

Equations 17 through 20 define the solution. There are four parameters: T_o, R, F, and ϕ_1. If $F/R = 1/45$, three other independent conditions must be specified.

With the notation $r(F/R,\phi_1) = r_1$, etc.

$$T_1 = T_o r_1$$
$$s_1 = (T_o/F)(r_1 - 1)$$
$$x_1 = (T_o/R)\xi_1$$
$$y_1 = (T_o/R)\eta_1$$

Note that

$$\tan\theta = y_1/x_1 \qquad \text{and} \qquad r^2 = x_1^2 + y_1^2$$

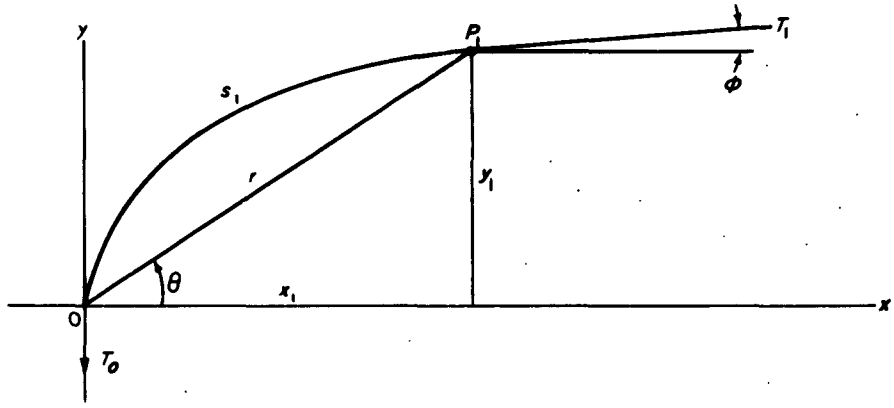


FIG. 4. Case A.

Tables A1–A53 list ξ, η, r, $\csc\phi$, and $\cot\phi$ for $\phi = 89.9°$ (-0.1°) 20.0° (-0.05°) 11.3° (-0.02°) 4.44° (-0.01°) 2.67° (-0.005°) 1.48° (-0.002°) 0.732° (-0.001°) 0.100°. The listings are in a floating-point form, such as 1.52316-6, which equals 1.52316×10^{-6}, 1.00004-0, which equals 1.00004, 1.74534-3, which equals 1.74534×10^{-3} or 0.00174534. The error has been bounded by using the monotonicity of the integrands (see Appendix A) to show that the error is less than one in the fifth digit for $\phi \geq 0.433°$, less than one in the fourth digit for $0.432° \geq \phi \geq 0.185°$, less than one in the third digit for $0.184° \geq \phi \geq 0.113°$, and less than one in the second digit for $0.112° \geq \phi \geq 0.1°$.

Case B (Fig. 5). Equations 17 through 20 give the solutions for the upper part of the cable (that in quadrant 1) and the lower part of the cable (that in quadrant 4) separately. There are eight parameters: $s_1 + s_2$, $y_1 + y_2$, $x_1 - x_2$, T_o, R, F, ϕ_1, and ϕ_2. With $F/R = 1/45$, there are seven parameters.

With the notation $r(F/R,\phi_1) = r_1$, $r(F/R,\phi_2) = r_2$, etc.

$$T_1 = T_o r_1, \qquad T_2 = T_o r_2$$

$$s_1 + s_2 = (T_o/F)(r_1 + r_2 - 2)$$

$$y_1 + y_2 = (T_o/R)(\eta_1 + \eta_2)$$

$$x_1 - x_2 = (T_o/R)(\xi_1 - \xi_2)$$

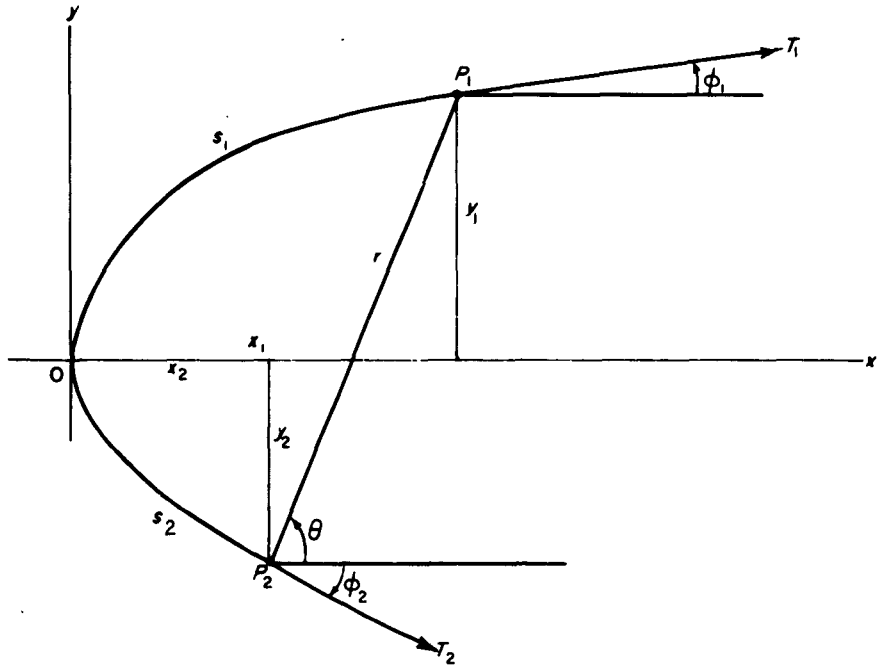


FIG. 5. Case B.

Here,

$$\tan\theta = \frac{y_1 + y_2}{x_1 - x_2}, \qquad r^2 = (x_1 - x_2)^2 + (y_1 + y_2)^2$$

Table B (note that R_1 and R_2 are defined separately for Case B and Case C) lists the values of

$$R_1 = \frac{\xi_1 - \xi_2}{\eta_1 + \eta_2}, \qquad R_2 = 45\frac{(r_1 + r_2 - 2)}{\eta_1 + \eta_2}$$

$$\phi_1, \qquad \phi_2, \qquad \frac{\partial\phi_1}{\partial R_1}, \qquad \frac{\partial\phi_2}{\partial R_1}, \qquad \frac{\partial\phi_1}{\partial R_2}, \qquad \frac{\partial\phi_2}{\partial R_2}$$

for ϕ_1, $\phi_2 = 90.0°$ (-1.0°) $20.0°$ (-0.5°) $10.0°$ (-0.2°) $4.0°$ (-0.1°) $2.0°$ (-0.05°) $1.0°$ (-0.02°) $0.10°$ with $\phi_2 \geq \phi_1$. The listings are sectioned by increasing R_1 intervals as listed at the beginning of each

section and within the section by R_2 values. The uninterpolated values of ϕ_1 and ϕ_2 are direct entries.

Case C (Fig. 6). Equations 17 through 20 give the solution for the quantities of points P_1 and P_2 separately. There are eight parameters: $s_1 - s_2$, $y_1 - y_2$, $x_1 - x_2$, T_o, R, F, ϕ_1, and ϕ_2. With $F/R = 1/45$, there are seven parameters.

With the notation $r(F/R,\phi_1) = r_1$, $r(F/R,\phi_2) = r_2$, etc.

$$T_1 = T_o r_1, \qquad T_2 = T_o r_2$$

$$s_1 - s_2 = (T_o/F)(r_1 - r_2)$$

$$x_1 - x_2 = (T_o/R)(\xi_1 - \xi_2)$$

$$y_1 - y_2 = (T_o/R)(\eta_1 - \eta_2)$$

Here,

$$\tan\theta = \frac{y_1 - y_2}{x_1 - x_2}, \qquad r^2 = (x_1 - x_2)^2 + (y_1 - y_2)^2$$

Table C (note that R_1 and R_2 of Case C are not the R_1 and R_2 of Case B) lists the values of

$$R_1 = \frac{\xi_1 - \xi_2}{\eta_1 - \eta_2}, \qquad R_2 = 45\frac{r_1 - r_2}{\eta_1 - \eta_2}$$

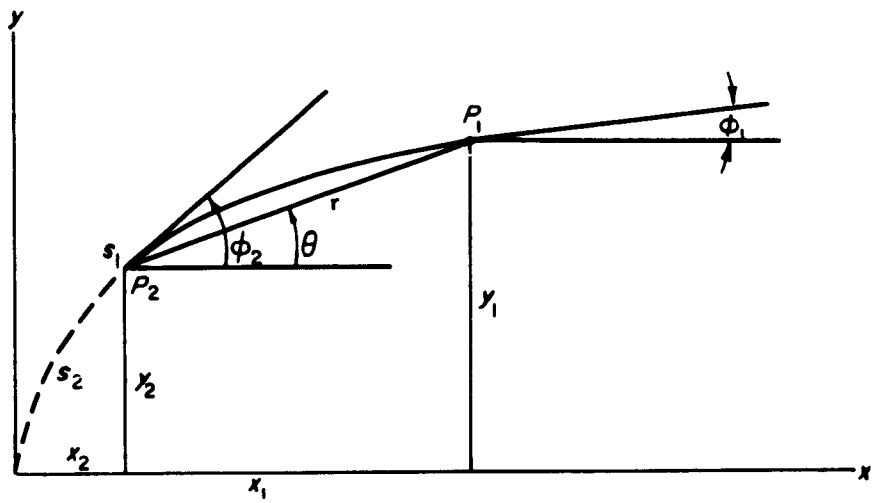


FIG. 6. Case C.

$$\phi_1, \quad \phi_2, \quad \frac{\partial \phi_1}{\partial R_1}, \quad \frac{\partial \phi_2}{\partial R_1}, \quad \frac{\partial \phi_1}{\partial R_2}, \quad \frac{\partial \phi_2}{\partial R_2}$$

for ϕ_1 and ϕ_2 as in Table B with $\phi_2 > \phi_1$.

Table D lists ξ/η, r/η, and r/ξ for the values of ϕ used in Table A.

EXAMPLE PROBLEMS

Example 1. A body whose weight in water is 100 pounds and whose drag is 200 pounds is towed through water by a 500-foot towline connected to a point at the waterline of the ship. The angle of the cable is 5° below the horizontal at the waterline. The tension in the cable at the towed body will be

$$T_2 = [(100)^2 + (200)^2]^{1/2} = 223.6 \text{ pounds}$$

and

$$\phi_2 = \tan^{-1}(100/200) = 26.6°$$

This is Case C. Since $\phi_1 = 5°$ and $\phi_2 = 26.6°$, Table A gives

$$\xi_2 = 1.26741, \quad \eta_2 = 1.47006, \quad r_2 = 1.04538$$
$$\xi_1 = 12.0259, \quad \eta_1 = 3.38080, \quad r_1 = 1.28917$$

Then,

$$s_1 - s_2 = 500 = (T_o/F)(0.24379)$$
$$x_1 - x_2 = (T_o/R)(10.7585), \quad y_1 - y_2 = (T_o/R)(1.91074)$$

Thus,

$$T_o = 2050.9F = 45.576R$$

and

$$x_1 - x_2 = 490.33 \text{ feet}, \quad y_1 - y_2 = 87.084 \text{ feet}$$
$$T_2 = 223.6 = T_o(1.04538)$$

and then,

$$T_o = 213.89 \text{ pounds}, \quad F = 0.10429 \text{ pound/foot}$$

and

$$R = 4.6930 \text{ pounds/foot}$$

Then,

$$T_1 = 275.74 \text{ pounds}$$

Example 2. The conditions are the same as in Example 1, except that the connecting point is 10 feet above the waterline. Therefore, the length of cable out of the water is 114.74 feet, and its horizontal projection is 114.30 feet. Thus,

$$s_1 - s_2 = 385.26 \text{ feet}$$

and

$$T_o = 1{,}580.3F = 35.118R$$

Then,

$$x_1 - x_2 = 377.82 \text{ feet}$$

$$y_1 - y_2 = 67.101 \text{ feet}$$

$$T_2 = 223.6 = T_o(1.04538)$$

or

$$T_o = 213.89 \text{ pounds}$$

and

$$F = 0.13535 \text{ pound/foot}, \qquad R = 6.0906 \text{ pounds/foot}$$

and

$$T_1 = T_o r_1 = 275.74 \text{ pounds}$$

The distance of the body is 492.12 feet aft of the connecting point.

Example 3. A body whose weight in water is 100 pounds and whose drag is 200 pounds is towed through water by a 300-foot towline from a point at the water surface. $R = 15$ pounds/foot is given.

This is Case C. As in Example 1,

$$T_2 = 223.6 \text{ pounds}, \qquad \phi_2 = 26.6°$$

and

$$\xi_2 = 1.26741, \qquad \eta_2 = 1.47006, \qquad r_2 = 1.04538$$

Since

$$R = 15, \qquad F = 1/3; \qquad 223.6 = T_o(1.04538) \text{ or } T_o = 213.89$$

$$s_1 - s_2 = 300 = 641.67(r_1 - 1.04538); \qquad r_1 = 1.5129$$

and

$$\phi_1 = 3.0723°$$

Then,

$$\xi_1 = 22.0705, \qquad \eta_1 = 4.05783$$

and

$$T_1 = 323.59, \qquad x_1 - x_2 = 296.63, \qquad y_1 - y_2 = 36.899$$

Example 4. A body whose weight in water is 100 pounds and whose drag is 200 pounds is to be towed at a depth of 300 feet. How much cable is required? R is given as 15 pounds/foot. T_2, ϕ_2, ξ_2, η_2, r_2, F, and T_o are the same as given in Example 3. $y_1 - y_2$ is to be 300 feet and $300 = 14.259\,(\eta_1 - 1.47006)$. Thus

$$\eta_1 = 22.509$$

and

$$\phi_1 = 0.32456°, \qquad \xi_1 = 2228.7, \qquad r_1 = 50.549$$

Then

$$T_1 = 10{,}812 \text{ pounds}, \qquad x_1 - x_2 = 31{,}762 \text{ feet}$$

and

$$s_1 - s_2 = 31{,}765 \text{ feet}$$

Example 5. A body is towed by a 20-foot cable from a point 3 feet above the water surface. Measured values of $T_1 = 500$ pounds, $\phi_1 = 50°$, and $R = 4$ pounds/foot are given. This is Case C.

Then,

$$500 = T_o(1.01882)$$

or

$$T_o = 490.76 \text{ pounds}$$

The immersed length of cable is $20 - 3 \csc 50° = 16.084$ feet. Since $F = 4/45$, $\xi_1 = 0.309127$, $\eta_1 = 0.769737$, and $r_1 = 1.01882$, $16.084 = 5521.1(1.01882 - r_2)$

or

$$r_2 = 1.01591 \qquad \text{and} \qquad \phi_2 = 54.617°$$

Then,

$$\xi_2 = 0.228897, \qquad \eta_2 = 0.666084$$

and

$$T_2 = 498.57 \text{ pounds}$$

T_2 in horizontal and vertical components gives the lift to be 406.49 pounds and the drag to be 288.70 pounds.

$$x_1 - x_2 = 9.843 \text{ feet}, \qquad y_1 - y_2 = 12.717 \text{ feet}$$

Example 6. A body whose lift-to-drag ratio is 4 is to be towed through water at a speed of 22.94 knots; the vertical distance from the towing point is 200 feet, and the towline is 400 feet long. The major question is what size cable to use. The allowable stress of the cable material limits the tension to 80,000 d^2 pounds, where d is the diameter of the cable in inches. A safety factor of four is used, which limits the tension to 20,000 d^2 pounds. It is also assumed that

$$R = 0.266\ V^2 d$$

where V is the towing speed in knots.[3] Thus,

$$R = 140d \text{ pounds/foot}$$

and

$$T_1 \leq 20{,}000d^2 = 1.02041R^2$$

and we have Case C.

Since

$$\phi_2 = \tan^{-1} 4 = 75.963°, \qquad \xi_2 = 0.0308905$$
$$\eta_2 = 0.248155, \qquad r_2 = 1.00557$$

[3] [at $\phi = 90°$, $D = R = C_D(V^2/2)(ld) \cong 0.266V^2d$]

Then,

$$400 = (T_o/F)(r_1 - r_2), \qquad 200 = (T_o/R)(\eta_1 - \eta_2)$$

and

$$R_2 = \frac{R}{F}\left(\frac{r_1 - r_2}{\eta_1 - \eta_2}\right) = \frac{400}{200} = 2$$

Table A or Table C can be used to find the ϕ_1, which gives $R_2 = 2$ for

$$\phi_2 = 76.0^\circ, \qquad \phi_1 = 14.56^\circ$$

Hence,

$$\xi_1 = 3.10070, \qquad \eta_1 = 2.1180$$

and

$$r_1 = 1.08866$$

Then,

$$400 = (T_o/R)[45(0.08309)]$$

or

$$T_o = 106.98R = 14{,}977d$$

and

$$T_1 = 1.02041R^2 = 106.98R(1.08866)$$

or

$$R = 114.13 \qquad \text{and} \qquad d = 0.8152 \text{ inch}$$

and

$$T_o = 12{,}210 \text{ pounds}, \qquad T_1 = 13{,}293 \text{ pounds}$$

$$T_2 = 12{,}278 \text{ pounds}$$

$$x_1 - x_2 = 328.4 \text{ feet}, \qquad y_1 - y_2 = 200.04 \text{ feet}$$

The lift component of T_2 is 11,911 pounds, and the drag component is 2,978 pounds.

Example 7. A 10-foot cable is pulled through water by two supports 8 feet apart. The measured tension at one end (T_1) is 100 pounds. This is Case A with a 5-foot cable.

$$y_1 = 4, \qquad s_1 = 5$$

Thus,

$$s_1\eta_1 = 45y_1(r_1 - 1)$$

or

$$\eta_1 = 36(r_1 - 1)$$

From Table A,

$$\phi_1 = 34.222°$$

hence,

$$\xi_1 = 0.794242, \qquad \eta_1 = 1.19561, \qquad r_1 = 1.03321$$

Since

$$100 = T_o(1.03321), \qquad T_o = 96.786 \text{ pounds}$$

Since

$$4 = 96.786/R(1.19561), \qquad R = 28.930, \qquad F = 0.64289$$

and

$$x_1 = 2.6572 \text{ feet}$$

Example 8. Two ships traveling at 22.94 knots side by side, but 1,000 feet apart, have a cable entirely in the water being towed between them. If the tension in the cable is not to exceed 40,000 pounds, what is the maximum amount of cable that can be out? R is assumed to be given by $0.266V^2$, where V is the towing speed in knots, or $R = 140$ pounds/foot. This is Case A with $y_1 = 500$.

Hence,

$$T_o = (T_1/r_1)$$

and

$$\frac{T_1}{500R} = \frac{4}{7} = 0.571429 = \frac{r_1}{\eta_1}$$

From Table D, two solutions are possible:

$$\phi_1 = 18.37°$$

with

$$\xi_1 = 2.26006, \qquad \eta_1 = 1.87130, \qquad r_1 = 1.06921$$

and since

$$500 = (T_o/140.0)(1.87130)$$

$$T_o = 37{,}407 \text{ pounds}, \qquad x_1 = 603.9$$

and

$$s_1 = 832.2$$

or 1,664.4 feet of cable.

$$\phi_1 = 0.941°$$

with

$$\xi_1 = 128.049, \qquad \eta_1 = 6.77182, \qquad r_1 = 3.86882$$

and since

$$500 = (T_o/140.0)(6.77182)$$

$$T_o = 10{,}337 \text{ pounds}, \qquad x_1 = 9{,}455$$

and

$$s_1 = 9{,}531.9 \text{ feet}$$

Note that for

$$\phi_1 < 0.941° \qquad (\eta_1/r_1) < 1.75$$

for

$$0.941° < \phi < 18.37° \qquad (\eta_1/r_1) > 1.75$$

and for

$$\phi_1 > 18.37° \qquad (\eta_1/r_1) < 1.75$$

Thus,

$$T_1 < 40{,}000 \text{ pounds}$$

for

$$0.941° < \phi_1 < 18.37°$$

and

$$T_1 > 40{,}000 \text{ pounds}$$

for

$$\phi_1 < 0.941°$$

or

$$\phi_1 > 18.37°$$

Similarly,

$$T_1 < 40{,}000 \text{ pounds}$$

for

$$1{,}665 < 2s_1 < 19{,}060$$

and

$$T_1 > 40{,}000 \text{ pounds}$$

for

$$2s_1 < 1{,}666$$

or

$$2s_1 > 19{,}070 \text{ feet}$$

Example 9. A submarine has a cable connection to a surface ship. The cable connection at the submarine is 100 feet directly aft of the connection to the surface ship. The submarine, 200 feet down, is moving in the same direction as the ship at 22.94 knots. What is the tension in the cable when 300 feet of cable are out?

$$R = 0.266V^2$$

This will be a Case A, B, or C, depending upon the amount of cable out. Consider Case A.

$$x_1 = 100, \qquad y_1 = 200$$

thus,

$$\frac{\xi_1}{\eta_1} = \frac{1}{2} \qquad \text{and} \qquad \phi_1 = 43.16°$$

$$\xi_1 = 0.468986, \qquad \eta_1 = 0.937886, \qquad r_1 = 1.02398$$

and

$$(T_o/R) = 213.23$$

Since

$$R = 140.0$$

$$F = 3.1111, \qquad T_o = 29{,}852 \text{ pounds}, \qquad T_1 = 30{,}568 \text{ pounds}$$

and

$$s_1 = 230.09 \text{ feet}$$

Since 300 > 230.09 we have Case B.

$$x_1 - x_2 = 100, \qquad y_1 + y_2 = 200, \qquad s_1 + s_2 = 300$$

$$R_1 = \frac{1}{2}, \qquad R_2 = \frac{3}{2}$$

An entry in Table B is

$$R_1 = 0.507089, \qquad R_2 = 1.49417, \qquad \phi_1 = 18.50°, \qquad \phi_2 = 36°$$

$$\frac{\partial \phi_1}{\partial R_1} = -2.91, \qquad \frac{\partial \phi_2}{\partial R_1} = 44.7$$

$$\frac{\partial \phi_1}{\partial R_2} = -26.5, \qquad \frac{\partial \phi_2}{\partial R_2} = -67.0$$

Hence,

$$d\phi_1 = (-2.91)(-0.007089) + (-26.5)(0.00583) = -0.134$$

$$\phi_1 = 18.366°$$

$$d\phi_2 = (44.7)(-0.007089) + (-67.0)(0.00583) = -0.707$$

$$\phi_2 = 35.293°$$

Using

$$\phi_1 = 18.35° \quad \text{and} \quad \phi_2 = 35.3°$$

$$\xi_1 = 2.26462, \qquad \eta_1 = 1.87248, \qquad r_1 = 1.06929$$

$$\xi_2 = 0.745130, \qquad \eta_2 = 1.16153, \qquad r_2 = 1.03188$$

Then,

$$T_o = \frac{200(140)}{1.87248 + 1.16153} = 9{,}229$$

$$T_1 = 9{,}868, \qquad T_2 = 9{,}523$$

Example 10. Two ships are towing a 2,100-foot cable at 22.94 knots. The tangent of the angle off the towing direction of one ship from the other is determined to be 0.5 and the ship is 2,000 feet away. Let

$$R = 0.266V^2 = 140$$

This will be Case A, B, or C, as follows.

Consider Case A.

$$x_1^2 + y_1^2 = 4 \times 10^6$$

$$\tan\theta = \frac{y_1}{x_1} = \frac{1}{2} = \frac{\eta_1}{\xi_1}$$

or

$$y = 894.43 \quad \text{and} \quad x_1 = 1{,}788.86$$

From Table A

$$\phi_1 = 10.04°, \qquad \xi_1 = 5.08379$$

$$\eta_1 = 2.54129, \qquad r_1 = 1.13373$$

Then,

$$(T_o/R) = 351.88$$

and

$$s_1 = (T_o/R)45(r_1 - 1) = 2{,}117.6$$

Since 2,100 < 2,117.6, we have Case C.

$$\frac{x_1 - x_2}{y_1 - y_2} = 2 = R_1$$

$$x_1 - x_2 = 1{,}788.86$$

and

$$y_1 - y_2 = 894.43$$

Hence,

$$\frac{s_1 - s_2}{y_1 - y_2} = \frac{2{,}100}{894.43} = 2.3479 = R_2$$

An entry in Table C is

$$R_1 = 1.99710, \qquad R_2 = 2.34913$$

$$\phi_1 = 10.50°, \qquad \phi_2 = 85.00°$$

$$\frac{\partial\phi_1}{\partial R_1} = 21.1, \qquad \frac{\partial\phi_2}{\partial R_1} = -302$$

$$\frac{\partial \phi_1}{\partial R_2} = -29.9, \qquad \frac{\partial \phi_2}{\partial R_2} = 327$$

Hence,

$$d\phi_1 = 21.1(0.00290) + (-29.9)(-0.0012) = 0.097$$

$$d\phi_2 = -302(0.00290) + (327)(-0.0012) = -1.27$$

$$\phi_1 = 10.60°, \qquad \phi_2 = 83.7°$$

From Table A

$$\xi_1 = 4.74500, \qquad \eta_1 = 2.47963, \qquad r_1 = 1.12608$$

$$\xi_2 = 0.00608569, \qquad \eta_2 = 0.110313, \qquad r_2 = 1.00246$$

Then,

$$(T_o/R) = 377.48$$

and

$$T_o = 52{,}847 \text{ pounds}, \qquad T_1 = 59{,}510 \text{ pounds}$$

$$T_2 = 52{,}977 \text{ pounds}$$

APPENDIXES

Appendix A

Since the integrands are such that their slopes are monotonic, the error using the trapezoidal rule for the area is less than the area of triangle $P_1P_2P_3$ (Fig. 7).

Definitions are as follows:

$$y_1' = \text{slope at } \phi = \phi_1$$

$$y_2' = \text{slope at } \phi = \phi_2$$

$$\Delta\phi = \phi_2 - \phi_1$$

$$\Delta y = y_2 - y_1 = -y_1\left(1 - \frac{y_2}{y_1}\right)$$

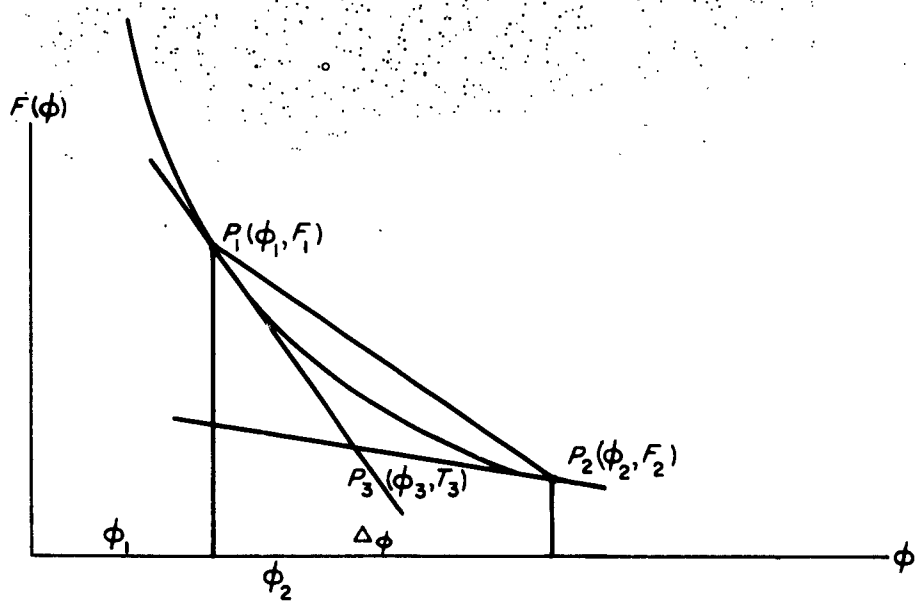


FIG. 7. Area Error.

$$\Delta y' = y_2' - y_1' = -y_1'\left(1 - \frac{y_2'}{y_1'}\right)$$

$$1 - \frac{\Delta y}{y_1'\Delta\phi} = 1 + \frac{y_1}{y_1'\Delta\phi}\left(1 - \frac{y_2}{y_1}\right)$$

The area of the triangle

$$P_1P_2P_3 = -\frac{(\Delta\phi)^2(y_1')^2}{2(\Delta y')}\left(1 - \frac{\Delta y}{y_1'\Delta\phi}\right)\left(1 - \frac{\Delta y}{y_1'\Delta\phi} + \frac{\Delta y'}{y_1'}\right)$$

The following expressions are useful for accurate calculation of

$$1 - \frac{y_2}{y_1} \quad \text{and} \quad 1 - \frac{y_2'}{y_1'}$$

$$\frac{\exp[k\cot(\phi + \Delta\phi)]}{\exp[k\cot\phi]} = \exp\left[-k\frac{\sin\Delta\phi}{\sin\phi(\cos\Delta\phi + \cos\phi)}\right]$$

$$= 1 - \frac{k\sin\Delta\phi}{\sin\phi(\cos\phi + \cos\Delta\phi)} + \frac{\cot(\phi + \Delta\phi)}{\cot\phi}$$

$$= 1 - \frac{\sin\Delta\phi}{\cos\phi\sin(\phi + \Delta\phi)}$$

$$\frac{\csc(\phi + \Delta\phi)}{\csc\phi} = 1 - \frac{2\sin\frac{\Delta\phi}{2}\cos\left(\phi + \frac{\Delta\phi}{2}\right)}{\sin(\phi + \Delta\phi)}$$

Further values for Tables B and C can be calculated readily from the entries in Table A. Interpolation in Tables B and C is possible by using the partial derivatives tabulated in the tables and the formulas.

$$d\phi_1 \cong \frac{\partial\phi_1}{\partial R_1}dR_1 + \frac{\partial\phi_1}{\partial R_2}dR_2$$

$$d\phi_2 \cong \frac{\partial\phi_2}{\partial R_1}dR_1 + \frac{\partial\phi_2}{\partial R_1}dR_2$$

The partial derivatives were calculated from the formulas of Appendix B.

Appendix B

$$R_1 = R_1(\phi_1,\phi_2) \qquad R_2 = R_2(\phi_1,\phi_2)$$

$$1 = \left(\frac{\partial R_1}{\partial \phi_1}\right)\left(\frac{\partial \phi_1}{\partial R_1}\right) + \left(\frac{\partial R_1}{\partial \phi_2}\right)\left(\frac{\partial \phi_2}{\partial R_1}\right)$$

$$0 = \left(\frac{\partial R_2}{\partial \phi_1}\right)\left(\frac{\partial \phi_1}{\partial R_1}\right) + \left(\frac{\partial R_2}{\partial \phi_2}\right)\left(\frac{\partial \phi_2}{\partial R_1}\right)$$

$$0 = \left(\frac{\partial R_1}{\partial \phi_1}\right)\left(\frac{\partial \phi_1}{\partial R_2}\right) + \left(\frac{\partial R_1}{\partial \phi_2}\right)\left(\frac{\partial \phi_2}{\partial R_2}\right)$$

$$1 = \left(\frac{\partial R_2}{\partial \phi_1}\right)\left(\frac{\partial \phi_1}{\partial R_2}\right) + \left(\frac{\partial R_2}{\partial \phi_2}\right)\left(\frac{\partial \phi_2}{\partial R_2}\right)$$

$$\frac{\partial \phi_1}{\partial R_1} = \frac{\dfrac{\partial R_2}{\partial \phi_2}}{\left(\dfrac{\partial R_1}{\partial \phi_1}\right)\left(\dfrac{\partial R_2}{\partial \phi_2}\right) - \left(\dfrac{\partial R_1}{\partial \phi_2}\right)\left(\dfrac{\partial R_2}{\partial \phi_1}\right)}$$

$$\frac{\partial \phi_2}{\partial R_1} = \frac{-\dfrac{\partial R_2}{\partial \phi_1}}{\left(\dfrac{\partial R_1}{\partial \phi_1}\right)\left(\dfrac{\partial R_2}{\partial \phi_2}\right) - \left(\dfrac{\partial R_1}{\partial \phi_2}\right)\left(\dfrac{\partial R_2}{\partial \phi_1}\right)}$$

$$\frac{\partial \phi_1}{\partial R_2} = \frac{-\dfrac{\partial R_1}{\partial \phi_2}}{\left(\dfrac{\partial R_1}{\partial \phi_1}\right)\left(\dfrac{\partial R_2}{\partial \phi_2}\right) - \left(\dfrac{\partial R_1}{\partial \phi_2}\right)\left(\dfrac{\partial R_2}{\partial \phi_1}\right)}$$

$$\frac{\partial \phi_2}{\partial R_2} = \frac{+\dfrac{\partial R_1}{\partial \phi_1}}{\left(\dfrac{\partial R_1}{\partial \phi_1}\right)\left(\dfrac{\partial R_2}{\partial \phi_2}\right) - \left(\dfrac{\partial R_1}{\partial \phi_2}\right)\left(\dfrac{\partial R_2}{\partial \phi_1}\right)}$$

For Case B and Table B,

$$R_1 = \frac{\xi(\phi_1) - \xi(\phi_2)}{\eta(\phi_1) + \eta(\phi_2)} \qquad R_2 = 45\,\frac{r(\phi_1) + r(\phi_2) - 2}{\eta(\phi_1) + \eta(\phi_2)}$$

$$\frac{\partial R_1}{\partial \phi_1} = r(\phi_1)\,\csc\phi_1\,\frac{R_1 - \cot\phi_1}{\eta(\phi_1) + \eta(\phi_2)}$$

$$\frac{\partial R_1}{\partial \phi_2} = r(\phi_2)\,\csc\phi_2\,\frac{R_1 + \cot\phi_2}{\eta(\phi_1) + \eta(\phi_2)}$$

$$\frac{\partial R_2}{\partial \phi_1} = r(\phi_1)\,\csc\phi_1\,\frac{R_2 - \csc\phi_1}{\eta(\phi_1) + \eta(\phi_2)}$$

$$\frac{\partial R_2}{\partial \phi_2} = r(\phi_2)\,\csc\phi_2\,\frac{R_2 - \csc\phi_2}{\eta(\phi_1) + \eta(\phi_2)}$$

For Case C and Table C,

$$R_1 = \frac{\xi(\phi_1) - \xi(\phi_2)}{\eta(\phi_1) - \eta(\phi_2)} \qquad R_2 = 45\,\frac{r(\phi_1) - r(\phi_2)}{\eta(\phi_1) - \eta(\phi_2)}$$

$$\frac{\partial R_1}{\partial \phi_1} = r(\phi_1)\,\csc\phi_1\,\frac{R_1 - \cot\phi_1}{\eta(\phi_1) - \eta(\phi_2)}$$

$$\frac{\partial R_1}{\partial \phi_2} = -r(\phi_2)\,\csc\phi_2\,\frac{R_1 - \cot\phi_2}{\eta(\phi_1) - \eta(\phi_2)}$$

$$\frac{\partial R_2}{\partial \phi_1} = r(\phi_1)\,\csc\phi_1\,\frac{R_2 - \csc\phi_1}{\eta(\phi_1) - \eta(\phi_2)}$$

$$\frac{\partial R_2}{\partial \phi_2} = -r(\phi_2)\,\csc\phi_2\,\frac{R_2 - \csc\phi_2}{\eta(\phi_1) - \eta(\phi_2)}$$

TABLES

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
89.900	1.52316-6	1.74536-3	1.00004 0	1.00000 0	1.74534-3
89.800	6.09278-6	3.49080-3	1.00008 0	1.00001 0	3.49069-3
89.700	1.37091-5	5.23632-3	1.00012 0	1.00001 0	5.23605-3
89.600	2.43726-5	6.98192-3	1.00016 0	1.00002 0	6.98144-3
89.500	3.80835-5	8.72761-3	1.00019 0	1.00004 0	8.72688-3
89.400	5.48424-5	1.04734-2	1.00023 0	1.00005 0	1.04724-2
89.300	7.46498-5	1.22193-2	1.00027 0	1.00007 0	1.22179-2
89.200	9.75061-5	1.39653-2	1.00031 0	1.00010 0	1.39635-2
89.100	1.23412-4	1.57114-2	1.00035 0	1.00012 0	1.57093-2
89.000	1.52368-4	1.74576-2	1.00039 0	1.00015 0	1.74551-2
88.900	1.84375-4	1.92039-2	1.00043 0	1.00018 0	1.92010-2
88.800	2.19433-4	2.09504-2	1.00047 0	1.00022 0	2.09470-2
88.700	2.57544-4	2.26970-2	1.00050 0	1.00026 0	2.26932-2
88.600	2.98708-4	2.44437-2	1.00054 0	1.00030 0	2.44395-2
88.500	3.42926-4	2.61906-2	1.00058 0	1.00034 0	2.61859-2
88.400	3.90199-4	2.79376-2	1.00062 0	1.00039 0	2.79325-2
88.300	4.40528-4	2.96847-2	1.00066 0	1.00044 0	2.96793-2
88.200	4.93914-4	3.14321-2	1.00070 0	1.00049 0	3.14263-2
88.100	5.50358-4	3.31796-2	1.00074 0	1.00055 0	3.31734-2
88.000	6.09861-4	3.49272-2	1.00078 0	1.00061 0	3.49208-2
87.900	6.72424-4	3.66751-2	1.00082 0	1.00067 0	3.66683-2
87.800	7.38049-4	3.84231-2	1.00085 0	1.00074 0	3.84161-2
87.700	8.06736-4	4.01713-2	1.00089 0	1.00081 0	4.01642-2
87.600	8.78487-4	4.19197-2	1.00093 0	1.00088 0	4.19124-2
87.500	9.53304-4	4.36683-2	1.00097 0	1.00095 0	4.36609-2
87.400	1.03119-3	4.54171-2	1.00101 0	1.00103 0	4.54097-2
87.300	1.11214-3	4.71661-2	1.00105 0	1.00111 0	4.71588-2
87.200	1.19616-3	4.89153-2	1.00109 0	1.00120 0	4.89082-2
87.100	1.28325-3	5.06647-2	1.00113 0	1.00128 0	5.06578-2
87.000	1.37341-3	5.24143-2	1.00117 0	1.00137 0	5.24078-2
86.900	1.46665-3	5.41642-2	1.00120 0	1.00147 0	5.41581-2
86.800	1.56297-3	5.59143-2	1.00124 0	1.00156 0	5.59087-2
86.700	1.66236-3	5.76647-2	1.00128 0	1.00166 0	5.76596-2
86.600	1.76483-3	5.94153-2	1.00132 0	1.00176 0	5.94110-2
86.500	1.87038-3	6.11661-2	1.00136 0	1.00187 0	6.11626-2
86.400	1.97902-3	6.29172-2	1.00140 0	1.00198 0	6.29147-2
86.300	2.09074-3	6.46686-2	1.00144 0	1.00209 0	6.46671-2
86.200	2.20555-3	6.64202-2	1.00148 0	1.00220 0	6.64199-2
86.100	2.32345-3	6.81721-2	1.00152 0	1.00232 0	6.81732-2
86.000	2.44443-3	6.99243-2	1.00156 0	1.00244 0	6.99268-2
85.900	2.56851-3	7.16767-2	1.00159 0	1.00257 0	7.16809-2
85.800	2.69569-3	7.34294-2	1.00163 0	1.00269 0	7.34354-2
85.700	2.82596-3	7.51825-2	1.00167 0	1.00282 0	7.51904-2
85.600	2.95934-3	7.69358-2	1.00171 0	1.00296 0	7.69458-2
85.500	3.09581-3	7.86895-2	1.00175 0	1.00309 0	7.87017-2
85.400	3.23539-3	8.04434-2	1.00179 0	1.00323 0	8.04581-2
85.300	3.37807-3	8.21977-2	1.00183 0	1.00337 0	8.22150-2
85.200	3.52387-3	8.39522-2	1.00187 0	1.00352 0	8.39724-2
85.100	3.67278-3	8.57071-2	1.00191 0	1.00367 0	8.57303-2
85.000	3.82480-3	8.74624-2	1.00195 0	1.00382 0	8.74887-2

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
84.900	3.97993-3	8.92180-2	1.00199 0	1.00397 0	8.92476-2
84.800	4.13819-3	9.09739-2	1.00202 0	1.00413 0	9.10071-2
84.700	4.29957-3	9.27301-2	1.00206 0	1.00429 0	9.27672-2
84.600	4.46407-3	9.44868-2	1.00210 0	1.00446 0	9.45278-2
84.500	4.63170-3	9.62437-2	1.00214 0	1.00463 0	9.62891-2
84.400	4.80246-3	9.80011-2	1.00218 0	1.00480 0	9.80509-2
84.300	4.97636-3	9.97588-2	1.00222 0	1.00497 0	9.98133-2
84.200	5.15339-3	1.01517-1	1.00226 0	1.00515 0	1.01576-1
84.100	5.33356-3	1.03275-1	1.00230 0	1.00533 0	1.03340-1
84.000	5.51687-3	1.05034-1	1.00234 0	1.00551 0	1.05104-1
83.900	5.70332-3	1.06793-1	1.00238 0	1.00569 0	1.06869-1
83.800	5.89293-3	1.08553-1	1.00242 0	1.00588 0	1.08635-1
83.700	6.08569-3	1.10313-1	1.00246 0	1.00608 0	1.10401-1
83.600	6.28160-3	1.12074-1	1.00250 0	1.00627 0	1.12168-1
83.500	6.48067-3	1.13834-1	1.00254 0	1.00647 0	1.13936-1
83.400	6.68290-3	1.15596-1	1.00257 0	1.00667 0	1.15704-1
83.300	6.88829-3	1.17357-1	1.00261 0	1.00688 0	1.17473-1
83.200	7.09686-3	1.19120-1	1.00265 0	1.00708 0	1.19243-1
83.100	7.30859-3	1.20882-1	1.00269 0	1.00730 0	1.21013-1
83.000	7.52350-3	1.22645-1	1.00273 0	1.00751 0	1.22785-1
82.900	7.74159-3	1.24409-1	1.00277 0	1.00773 0	1.24557-1
82.800	7.96286-3	1.26173-1	1.00281 0	1.00795 0	1.26329-1
82.700	8.18732-3	1.27937-1	1.00285 0	1.00817 0	1.28103-1
82.600	8.41497-3	1.29702-1	1.00289 0	1.00840 0	1.29877-1
82.500	8.64581-3	1.31467-1	1.00293 0	1.00863 0	1.31652-1
82.400	8.87984-3	1.33233-1	1.00297 0	1.00886 0	1.33428-1
82.300	9.11708-3	1.34999-1	1.00301 0	1.00910 0	1.35205-1
82.200	9.35753-3	1.36766-1	1.00305 0	1.00934 0	1.36983-1
82.100	9.60118-3	1.38533-1	1.00309 0	1.00958 0	1.38761-1
82.000	9.84805-3	1.40301-1	1.00313 0	1.00983 0	1.40541-1
81.900	1.00981-2	1.42069-1	1.00317 0	1.01008 0	1.42321-1
81.800	1.03514-2	1.43838-1	1.00321 0	1.01033 0	1.44102-1
81.700	1.06080-2	1.45607-1	1.00325 0	1.01059 0	1.45884-1
81.600	1.08677-2	1.47377-1	1.00329 0	1.01084 0	1.47667-1
81.500	1.11307-2	1.49147-1	1.00333 0	1.01111 0	1.49451-1
81.400	1.13970-2	1.50918-1	1.00337 0	1.01137 0	1.51236-1
81.300	1.16665-2	1.52689-1	1.00341 0	1.01164 0	1.53022-1
81.200	1.19392-2	1.54461-1	1.00345 0	1.01191 0	1.54808-1
81.100	1.22152-2	1.56234-1	1.00349 0	1.01219 0	1.56596-1
81.000	1.24944-2	1.58007-1	1.00353 0	1.01247 0	1.58384-1
80.900	1.27769-2	1.59781-1	1.00357 0	1.01275 0	1.60174-1
80.800	1.30627-2	1.61555-1	1.00361 0	1.01303 0	1.61965-1
80.700	1.33517-2	1.63329-1	1.00365 0	1.01332 0	1.63756-1
80.600	1.36440-2	1.65105-1	1.00369 0	1.01361 0	1.65549-1
80.500	1.39396-2	1.66881-1	1.00373 0	1.01391 0	1.67343-1
80.400	1.42385-2	1.68657-1	1.00377 0	1.01420 0	1.69137-1
80.300	1.45406-2	1.70434-1	1.00381 0	1.01450 0	1.70933-1
80.200	1.48461-2	1.72212-1	1.00385 0	1.01481 0	1.72730-1
80.100	1.51549-2	1.73990-1	1.00389 0	1.01512 0	1.74528-1
80.000	1.54669-2	1.75769-1	1.00393 0	1.01543 0	1.76327-1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
79.900	1.57823-2	1.77549-1	1.00397 0	1.01574 0	1.78127-1
79.800	1.61010-2	1.79329-1	1.00401 0	1.01606 0	1.79928-1
79.700	1.64230-2	1.81110-1	1.00405 0	1.01638 0	1.81731-1
79.600	1.67484-2	1.82891-1	1.00409 0	1.01670 0	1.83534-1
79.500	1.70770-2	1.84673-1	1.00413 0	1.01703 0	1.85339-1
79.400	1.74091-2	1.86456-1	1.00417 0	1.01736 0	1.87145-1
79.300	1.77444-2	1.88239-1	1.00421 0	1.01769 0	1.88952-1
79.200	1.80831-2	1.90023-1	1.00425 0	1.01803 0	1.90760-1
79.100	1.84252-2	1.91808-1	1.00429 0	1.01837 0	1.92570-1
79.000	1.87706-2	1.93593-1	1.00433 0	1.01872 0	1.94380-1
78.900	1.91194-2	1.95379-1	1.00437 0	1.01906 0	1.96192-1
78.800	1.94716-2	1.97166-1	1.00441 0	1.01941 0	1.98005-1
78.700	1.98271-2	1.98953-1	1.00445 0	1.01977 0	1.99820-1
78.600	2.01860-2	2.00741-1	1.00449 0	1.02013 0	2.01635-1
78.500	2.05483-2	2.02530-1	1.00453 0	1.02049 0	2.03452-1
78.400	2.09140-2	2.04320-1	1.00457 0	1.02085 0	2.05271-1
78.300	2.12831-2	2.06110-1	1.00461 0	1.02122 0	2.07090-1
78.200	2.16557-2	2.07901-1	1.00465 0	1.02159 0	2.08911-1
78.100	2.20316-2	2.09693-1	1.00469 0	1.02196 0	2.10733-1
78.000	2.24109-2	2.11485-1	1.00473 0	1.02234 0	2.12557-1
77.900	2.27937-2	2.13278-1	1.00478 0	1.02272 0	2.14381-1
77.800	2.31799-2	2.15072-1	1.00482 0	1.02311 0	2.16208-1
77.700	2.35696-2	2.16867-1	1.00486 0	1.02349 0	2.18035-1
77.600	2.39627-2	2.18662-1	1.00490 0	1.02388 0	2.19864-1
77.500	2.43592-2	2.20458-1	1.00494 0	1.02428 0	2.21695-1
77.400	2.47593-2	2.22255-1	1.00498 0	1.02468 0	2.23526-1
77.300	2.51627-2	2.24053-1	1.00502 0	1.02508 0	2.25360-1
77.200	2.55697-2	2.25851-1	1.00506 0	1.02548 0	2.27194-1
77.100	2.59801-2	2.27650-1	1.00510 0	1.02589 0	2.29031-1
77.000	2.63940-2	2.29450-1	1.00514 0	1.02630 0	2.30868-1
76.900	2.68115-2	2.31251-1	1.00518 0	1.02672 0	2.32707-1
76.800	2.72324-2	2.33053-1	1.00523 0	1.02714 0	2.34548-1
76.700	2.76568-2	2.34855-1	1.00527 0	1.02756 0	2.36390-1
76.600	2.80847-2	2.36659-1	1.00531 0	1.02799 0	2.38234-1
76.500	2.85162-2	2.38463-1	1.00535 0	1.02842 0	2.40079-1
76.400	2.89512-2	2.40268-1	1.00539 0	1.02885 0	2.41925-1
76.300	2.93897-2	2.42074-1	1.00543 0	1.02928 0	2.43774-1
76.200	2.98318-2	2.43880-1	1.00547 0	1.02972 0	2.45624-1
76.100	3.02774-2	2.45688-1	1.00551 0	1.03017 0	2.47475-1
76.000	3.07266-2	2.47496-1	1.00556 0	1.03061 0	2.49328-1
75.900	3.11794-2	2.49305-1	1.00560 0	1.03106 0	2.51183-1
75.800	3.16357-2	2.51115-1	1.00564 0	1.03152 0	2.53039-1
75.700	3.20956-2	2.52926-1	1.00568 0	1.03197 0	2.54897-1
75.600	3.25592-2	2.54738-1	1.00572 0	1.03244 0	2.56756-1
75.500	3.30263-2	2.56551-1	1.00576 0	1.03290 0	2.58618-1
75.400	3.34970-2	2.58364-1	1.00581 0	1.03337 0	2.60480-1
75.300	3.39713-2	2.60179-1	1.00585 0	1.03384 0	2.62345-1
75.200	3.44493-2	2.61994-1	1.00589 0	1.03432 0	2.64211-1
75.100	3.49309-2	2.63810-1	1.00593 0	1.03479 0	2.66079-1
75.000	3.54161-2	2.65628-1	1.00597 0	1.03528 0	2.67949-1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
74.900	3.59050-2	2.67446-1	1.00601 0	1.03576 0	2.69821-1
74.800	3.63975-2	2.69265-1	1.00606 0	1.03625 0	2.71694-1
74.700	3.68937-2	2.71085-1	1.00610 0	1.03674 0	2.73569-1
74.600	3.73935-2	2.72906-1	1.00614 0	1.03724 0	2.75446-1
74.500	3.78971-2	2.74728-1	1.00618 0	1.03774 0	2.77325-1
74.400	3.84043-2	2.76551-1	1.00622 0	1.03825 0	2.79205-1
74.300	3.89153-2	2.78375-1	1.00627 0	1.03875 0	2.81087-1
74.200	3.94299-2	2.80199-1	1.00631 0	1.03927 0	2.82971-1
74.100	3.99483-2	2.82025-1	1.00635 0	1.03978 0	2.84857-1
74.000	4.04704-2	2.83852-1	1.00639 0	1.04030 0	2.86745-1
73.900	4.09962-2	2.85680-1	1.00643 0	1.04082 0	2.88635-1
73.800	4.15258-2	2.87508-1	1.00648 0	1.04135 0	2.90527-1
73.700	4.20591-2	2.89338-1	1.00652 0	1.04188 0	2.92420-1
73.600	4.25962-2	2.91169-1	1.00656 0	1.04241 0	2.94316-1
73.500	4.31371-2	2.93001-1	1.00660 0	1.04295 0	2.96213-1
73.400	4.36818-2	2.94834-1	1.00665 0	1.04349 0	2.98113-1
73.300	4.42302-2	2.96667-1	1.00669 0	1.04403 0	3.00014-1
73.200	4.47824-2	2.98502-1	1.00673 0	1.04458 0	3.01918-1
73.100	4.53385-2	3.00338-1	1.00677 0	1.04514 0	3.03823-1
73.000	4.58984-2	3.02175-1	1.00682 0	1.04569 0	3.05731-1
72.900	4.64621-2	3.04013-1	1.00686 0	1.04625 0	3.07640-1
72.800	4.70296-2	3.05852-1	1.00690 0	1.04682 0	3.09552-1
72.700	4.76010-2	3.07693-1	1.00695 0	1.04738 0	3.11465-1
72.600	4.81763-2	3.09534-1	1.00699 0	1.04795 0	3.13381-1
72.500	4.87554-2	3.11376-1	1.00703 0	1.04853 0	3.15299-1
72.400	4.93384-2	3.13220-1	1.00707 0	1.04911 0	3.17219-1
72.300	4.99253-2	3.15064-1	1.00712 0	1.04969 0	3.19141-1
72.200	5.05161-2	3.16910-1	1.00716 0	1.05028 0	3.21065-1
72.100	5.11108-2	3.18757-1	1.00720 0	1.05087 0	3.22991-1
72.000	5.17094-2	3.20605-1	1.00725 0	1.05146 0	3.24920-1
71.900	5.23120-2	3.22454-1	1.00729 0	1.05206 0	3.26850-1
71.800	5.29185-2	3.24304-1	1.00733 0	1.05266 0	3.28783-1
71.700	5.35290-2	3.26155-1	1.00738 0	1.05327 0	3.30718-1
71.600	5.41434-2	3.28007-1	1.00742 0	1.05388 0	3.32656-1
71.500	5.47618-2	3.29861-1	1.00746 0	1.05449 0	3.34595-1
71.400	5.53842-2	3.31716-1	1.00751 0	1.05511 0	3.36537-1
71.300	5.60106-2	3.33572-1	1.00755 0	1.05573 0	3.38481-1
71.200	5.66410-2	3.35429-1	1.00759 0	1.05636 0	3.40428-1
71.100	5.72754-2	3.37287-1	1.00764 0	1.05699 0	3.42377-1
71.000	5.79139-2	3.39147-1	1.00768 0	1.05762 0	3.44328-1
70.900	5.85564-2	3.41007-1	1.00772 0	1.05826 0	3.46281-1
70.800	5.92029-2	3.42869-1	1.00777 0	1.05890 0	3.48237-1
70.700	5.98535-2	3.44732-1	1.00781 0	1.05955 0	3.50195-1
70.600	6.05082-2	3.46596-1	1.00786 0	1.06020 0	3.52156-1
70.500	6.11670-2	3.48462-1	1.00790 0	1.06085 0	3.54119-1
70.400	6.18299-2	3.50329-1	1.00794 0	1.06151 0	3.56084-1
70.300	6.24969-2	3.52197-1	1.00799 0	1.06217 0	3.58052-1
70.200	6.31681-2	3.54066-1	1.00803 0	1.06283 0	3.60022-1
70.100	6.38434-2	3.55937-1	1.00808 0	1.06350 0	3.61995-1
70.000	6.45228-2	3.57808-1	1.00812 0	1.06418 0	3.63970-1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
69.900	6.52064-2	3.59681-1	1.00817 0	1.06486 0	3.65948-1
69.800	6.58941-2	3.61556-1	1.00821 0	1.06554 0	3.67928-1
69.700	6.65861-2	3.63431-1	1.00825 0	1.06622 0	3.69911-1
69.600	6.72823-2	3.65308-1	1.00830 0	1.06691 0	3.71897-1
69.500	6.79826-2	3.67187-1	1.00834 0	1.06761 0	3.73885-1
69.400	6.86872-2	3.69066-1	1.00839 0	1.06831 0	3.75875-1
69.300	6.93961-2	3.70947-1	1.00843 0	1.06901 0	3.77869-1
69.200	7.01092-2	3.72829-1	1.00848 0	1.06972 0	3.79864-1
69.100	7.08265-2	3.74713-1	1.00852 0	1.07043 0	3.81863-1
69.000	7.15482-2	3.76597-1	1.00857 0	1.07114 0	3.83864-1
68.900	7.22741-2	3.78484-1	1.00861 0	1.07186 0	3.85868-1
68.800	7.30043-2	3.80371-1	1.00866 0	1.07259 0	3.87874-1
68.700	7.37389-2	3.82260-1	1.00870 0	1.07332 0	3.89884-1
68.600	7.44778-2	3.84150-1	1.00875 0	1.07405 0	3.91896-1
68.500	7.52210-2	3.86042-1	1.00879 0	1.07479 0	3.93910-1
68.400	7.59686-2	3.87935-1	1.00884 0	1.07553 0	3.95928-1
68.300	7.67206-2	3.89829-1	1.00888 0	1.07627 0	3.97948-1
68.200	7.74769-2	3.91725-1	1.00893 0	1.07702 0	3.99971-1
68.100	7.82377-2	3.93623-1	1.00897 0	1.07778 0	4.01997-1
68.000	7.90029-2	3.95521-1	1.00902 0	1.07853 0	4.04026-1
67.900	7.97725-2	3.97421-1	1.00906 0	1.07930 0	4.06058-1
67.800	8.05466-2	3.99323-1	1.00911 0	1.08006 0	4.08092-1
67.700	8.13251-2	4.01226-1	1.00916 0	1.08084 0	4.10130-1
67.600	8.21081-2	4.03130-1	1.00920 0	1.08161 0	4.12170-1
67.500	8.28956-2	4.05036-1	1.00925 0	1.08239 0	4.14214-1
67.400	8.36876-2	4.06943-1	1.00929 0	1.08318 0	4.16260-1
67.300	8.44841-2	4.08852-1	1.00934 0	1.08397 0	4.18309-1
67.200	8.52852-2	4.10763-1	1.00939 0	1.08476 0	4.20361-1
67.100	8.60908-2	4.12674-1	1.00943 0	1.08556 0	4.22417-1
67.000	8.69009-2	4.14588-1	1.00948 0	1.08636 0	4.24475-1
66.900	8.77157-2	4.16502-1	1.00952 0	1.08717 0	4.26536-1
66.800	8.85350-2	4.18419-1	1.00957 0	1.08798 0	4.28601-1
66.700	8.93590-2	4.20336-1	1.00962 0	1.08880 0	4.30668-1
66.600	9.01876-2	4.22256-1	1.00966 0	1.08962 0	4.32739-1
66.500	9.10208-2	4.24177-1	1.00971 0	1.09044 0	4.34812-1
66.400	9.18587-2	4.26099-1	1.00976 0	1.09127 0	4.36889-1
66.300	9.27013-2	4.28023-1	1.00980 0	1.09211 0	4.38969-1
66.200	9.35485-2	4.29949-1	1.00985 0	1.09294 0	4.41053-1
66.100	9.44005-2	4.31876-1	1.00990 0	1.09379 0	4.43139-1
66.000	9.52572-2	4.33804-1	1.00994 0	1.09464 0	4.45229-1
65.900	9.61186-2	4.35735-1	1.00999 0	1.09549 0	4.47322-1
65.800	9.69849-2	4.37667-1	1.01004 0	1.09635 0	4.49418-1
65.700	9.78558-2	4.39600-1	1.01008 0	1.09721 0	4.51517-1
65.600	9.87316-2	4.41535-1	1.01013 0	1.09808 0	4.53620-1
65.500	9.96122-2	4.43472-1	1.01018 0	1.09895 0	4.55726-1
65.400	1.00498-1	4.45410-1	1.01023 0	1.09982 0	4.57836-1
65.300	1.01388-1	4.47350-1	1.01027 0	1.10071 0	4.59949-1
65.200	1.02283-1	4.49292-1	1.01032 0	1.10159 0	4.62065-1
65.100	1.03183-1	4.51235-1	1.01037 0	1.10248 0	4.64185-1
65.000	1.04088-1	4.53180-1	1.01042 0	1.10338 0	4.66308-1

TABLE A

ϕ	ξ	η	τ	$\sec\phi$	$\cot\phi$
64.900	1.04998-1	4.55127-1	1.01046 0	1.10428 0	4.68434-1
64.800	1.05912-1	4.57075-1	1.01051 0	1.10518 0	4.70564-1
64.700	1.06832-1	4.59025-1	1.01056 0	1.10609 0	4.72698-1
64.600	1.07757-1	4.60977-1	1.01061 0	1.10701 0	4.74835-1
64.500	1.08686-1	4.62931-1	1.01066 0	1.10793 0	4.76976-1
64.400	1.09621-1	4.64886-1	1.01070 0	1.10885 0	4.79120-1
64.300	1.10561-1	4.66843-1	1.01075 0	1.10978 0	4.81268-1
64.200	1.11506-1	4.68801-1	1.01080 0	1.11072 0	4.83419-1
64.100	1.12455-1	4.70762-1	1.01085 0	1.11166 0	4.85574-1
64.000	1.13410-1	4.72724-1	1.01090 0	1.11260 0	4.87733-1
63.900	1.14370-1	4.74688-1	1.01095 0	1.11355 0	4.89895-1
63.800	1.15335-1	4.76653-1	1.01099 0	1.11451 0	4.92061-1
63.700	1.16306-1	4.78621-1	1.01104 0	1.11547 0	4.94231-1
63.600	1.17281-1	4.80590-1	1.01109 0	1.11643 0	4.96404-1
63.500	1.18262-1	4.82561-1	1.01114 0	1.11740 0	4.98582-1
63.400	1.19247-1	4.84534-1	1.01119 0	1.11838 0	5.00763-1
63.300	1.20238-1	4.86509-1	1.01124 0	1.11936 0	5.02948-1
63.200	1.21235-1	4.88485-1	1.01129 0	1.12034 0	5.05136-1
63.100	1.22236-1	4.90463-1	1.01134 0	1.12133 0	5.07329-1
63.000	1.23243-1	4.92444-1	1.01139 0	1.12233 0	5.09525-1
62.900	1.24255-1	4.94426-1	1.01144 0	1.12333 0	5.11726-1
62.800	1.25272-1	4.96410-1	1.01149 0	1.12433 0	5.13930-1
62.700	1.26295-1	4.98396-1	1.01154 0	1.12534 0	5.16138-1
62.600	1.27323-1	5.00383-1	1.01159 0	1.12636 0	5.18351-1
62.500	1.28357-1	5.02373-1	1.01164 0	1.12738 0	5.20567-1
62.400	1.29396-1	5.04364-1	1.01169 0	1.12841 0	5.22787-1
62.300	1.30440-1	5.06358-1	1.01174 0	1.12944 0	5.25012-1
62.200	1.31490-1	5.08353-1	1.01179 0	1.13048 0	5.27240-1
62.100	1.32545-1	5.10350-1	1.01184 0	1.13152 0	5.29473-1
62.000	1.33606-1	5.12350-1	1.01189 0	1.13257 0	5.31709-1
61.900	1.34672-1	5.14351-1	1.01194 0	1.13362 0	5.33950-1
61.800	1.35744-1	5.16354-1	1.01199 0	1.13468 0	5.36195-1
61.700	1.36821-1	5.18359-1	1.01204 0	1.13575 0	5.38445-1
61.600	1.37904-1	5.20366-1	1.01209 0	1.13682 0	5.40698-1
61.500	1.38993-1	5.22375-1	1.01214 0	1.13789 0	5.42956-1
61.400	1.40087-1	5.24386-1	1.01219 0	1.13897 0	5.45218-1
61.300	1.41187-1	5.26399-1	1.01224 0	1.14006 0	5.47484-1
61.200	1.42293-1	5.28415-1	1.01229 0	1.14115 0	5.49755-1
61.100	1.43404-1	5.30432-1	1.01234 0	1.14225 0	5.52030-1
61.000	1.44521-1	5.32451-1	1.01239 0	1.14335 0	5.54309-1
60.900	1.45644-1	5.34472-1	1.01245 0	1.14446 0	5.56593-1
60.800	1.46772-1	5.36496-1	1.01250 0	1.14558 0	5.58881-1
60.700	1.47906-1	5.38521-1	1.01255 0	1.14670 0	5.61174-1
60.600	1.49047-1	5.40549-1	1.01260 0	1.14782 0	5.63471-1
60.500	1.50193-1	5.42578-1	1.01265 0	1.14896 0	5.65773-1
60.400	1.51344-1	5.44610-1	1.01270 0	1.15009 0	5.68079-1
60.300	1.52502-1	5.46644-1	1.01276 0	1.15124 0	5.70390-1
60.200	1.53666-1	5.48680-1	1.01281 0	1.15239 0	5.72705-1
60.100	1.54835-1	5.50718-1	1.01286 0	1.15354 0	5.75025-1
60.000	1.56011-1	5.52758-1	1.01291 0	1.15470 0	5.77350-1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
59.900	1.57193-1	5.54801-1	1.01297 0	1.15587 0	5.79680-1
59.800	1.58380-1	5.56845-1	1.01302 0	1.15704 0	5.82014-1
59.700	1.59574-1	5.58892-1	1.01307 0	1.15822 0	5.84353-1
59.600	1.60774-1	5.60941-1	1.01312 0	1.15940 0	5.86697-1
59.500	1.61979-1	5.62992-1	1.01318 0	1.16059 0	5.89045-1
59.400	1.63191-1	5.65046-1	1.01323 0	1.16179 0	5.91398-1
59.300	1.64409-1	5.67101-1	1.01328 0	1.16299 0	5.93757-1
59.200	1.65634-1	5.69159-1	1.01334 0	1.16420 0	5.96120-1
59.100	1.66864-1	5.71219-1	1.01339 0	1.16541 0	5.98488-1
59.000	1.68101-1	5.73282-1	1.01344 0	1.16663 0	6.00861-1
58.900	1.69344-1	5.75346-1	1.01350 0	1.16786 0	6.03239-1
58.800	1.70593-1	5.77413-1	1.01355 0	1.16909 0	6.05622-1
58.700	1.71849-1	5.79483-1	1.01360 0	1.17033 0	6.08010-1
58.600	1.73111-1	5.81554-1	1.01366 0	1.17158 0	6.10403-1
58.500	1.74379-1	5.83628-1	1.01371 0	1.17283 0	6.12801-1
58.400	1.75654-1	5.85704-1	1.01377 0	1.17409 0	6.15204-1
58.300	1.76936-1	5.87783-1	1.01382 0	1.17535 0	6.17613-1
58.200	1.78223-1	5.89864-1	1.01387 0	1.17662 0	6.20026-1
58.100	1.79517-1	5.91947-1	1.01393 0	1.17790 0	6.22445-1
58.000	1.80818-1	5.94032-1	1.01398 0	1.17918 0	6.24869-1
57.900	1.82125-1	5.96120-1	1.01404 0	1.18047 0	6.27299-1
57.800	1.83439-1	5.98211-1	1.01409 0	1.18176 0	6.29734-1
57.700	1.84760-1	6.00304-1	1.01415 0	1.18307 0	6.32174-1
57.600	1.86087-1	6.02399-1	1.01420 0	1.18437 0	6.34619-1
57.500	1.87421-1	6.04497-1	1.01426 0	1.18569 0	6.37070-1
57.400	1.88761-1	6.06597-1	1.01431 0	1.18701 0	6.39527-1
57.300	1.90109-1	6.08699-1	1.01437 0	1.18834 0	6.41989-1
57.200	1.91463-1	6.10805-1	1.01442 0	1.18967 0	6.44456-1
57.100	1.92823-1	6.12912-1	1.01448 0	1.19102 0	6.46929-1
57.000	1.94191-1	6.15022-1	1.01454 0	1.19236 0	6.49408-1
56.900	1.95566-1	6.17135-1	1.01459 0	1.19372 0	6.51892-1
56.800	1.96947-1	6.19250-1	1.01465 0	1.19508 0	6.54382-1
56.700	1.98335-1	6.21367-1	1.01470 0	1.19645 0	6.56877-1
56.600	1.99731-1	6.23488-1	1.01476 0	1.19782 0	6.59379-1
56.500	2.01133-1	6.25610-1	1.01482 0	1.19920 0	6.61886-1
56.400	2.02543-1	6.27736-1	1.01487 0	1.20059 0	6.64398-1
56.300	2.03959-1	6.29864-1	1.01493 0	1.20199 0	6.66917-1
56.200	2.05383-1	6.31994-1	1.01499 0	1.20339 0	6.69442-1
56.100	2.06813-1	6.34127-1	1.01504 0	1.20480 0	6.71972-1
56.000	2.08251-1	6.36263-1	1.01510 0	1.20622 0	6.74508-1
55.900	2.09696-1	6.38401-1	1.01516 0	1.20764 0	6.77051-1
55.800	2.11148-1	6.40542-1	1.01522 0	1.20907 0	6.79599-1
55.700	2.12608-1	6.42686-1	1.01527 0	1.21051 0	6.82154-1
55.600	2.14075-1	6.44832-1	1.01533 0	1.21195 0	6.84714-1
55.500	2.15549-1	6.46981-1	1.01539 0	1.21341 0	6.87281-1
55.400	2.17031-1	6.49133-1	1.01545 0	1.21487 0	6.89854-1
55.300	2.18520-1	6.51287-1	1.01551 0	1.21633 0	6.92433-1
55.200	2.20016-1	6.53445-1	1.01556 0	1.21781 0	6.95018-1
55.100	2.21520-1	6.55605-1	1.01562 0	1.21929 0	6.97610-1
55.000	2.23032-1	6.57767-1	1.01568 0	1.22077 0	7.00208-1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
54.900	2.24551-1	6.59933-1	1.01574 0	1.22227 0	7.02812-1
54.800	2.26078-1	6.62101-1	1.01580 0	1.22377 0	7.05422-1
54.700	2.27612-1	6.64272-1	1.01586 0	1.22528 0	7.08039-1
54.600	2.29154-1	6.66446-1	1.01592 0	1.22680 0	7.10663-1
54.500	2.30704-1	6.68622-1	1.01598 0	1.22833 0	7.13293-1
54.400	2.32261-1	6.70802-1	1.01604 0	1.22986 0	7.15930-1
54.300	2.33826-1	6.72984-1	1.01610 0	1.23140 0	7.18573-1
54.200	2.35400-1	6.75170-1	1.01616 0	1.23295 0	7.21223-1
54.100	2.36981-1	6.77358-1	1.01622 0	1.23450 0	7.23879-1
54.000	2.38570-1	6.79549-1	1.01628 0	1.23607 0	7.26543-1
53.900	2.40167-1	6.81743-1	1.01634 0	1.23764 0	7.29213-1
53.800	2.41771-1	6.83939-1	1.01640 0	1.23922 0	7.31889-1
53.700	2.43384-1	6.86139-1	1.01646 0	1.24081 0	7.34573-1
53.600	2.45005-1	6.88342-1	1.01652 0	1.24240 0	7.37264-1
53.500	2.46635-1	6.90548-1	1.01658 0	1.24400 0	7.39961-1
53.400	2.48272-1	6.92756-1	1.01664 0	1.24561 0	7.42666-1
53.300	2.49917-1	6.94968-1	1.01670 0	1.24723 0	7.45377-1
53.200	2.51571-1	6.97183-1	1.01676 0	1.24886 0	7.48096-1
53.100	2.53233-1	6.99400-1	1.01682 0	1.25049 0	7.50821-1
53.000	2.54904-1	7.01621-1	1.01689 0	1.25214 0	7.53554-1
52.900	2.56583-1	7.03845-1	1.01695 0	1.25379 0	7.56294-1
52.800	2.58270-1	7.06072-1	1.01701 0	1.25545 0	7.59041-1
52.700	2.59966-1	7.08302-1	1.01707 0	1.25711 0	7.61796-1
52.600	2.61670-1	7.10535-1	1.01714 0	1.25879 0	7.64558-1
52.500	2.63383-1	7.12771-1	1.01720 0	1.26047 0	7.67327-1
52.400	2.65104-1	7.15011-1	1.01726 0	1.26216 0	7.70104-1
52.300	2.66834-1	7.17253-1	1.01732 0	1.26387 0	7.72888-1
52.200	2.68573-1	7.19499-1	1.01739 0	1.26557 0	7.75679-1
52.100	2.70320-1	7.21748-1	1.01745 0	1.26729 0	7.78479-1
52.000	2.72077-1	7.24000-1	1.01751 0	1.26902 0	7.81286-1
51.900	2.73842-1	7.26255-1	1.01758 0	1.27075 0	7.84100-1
51.800	2.75616-1	7.28513-1	1.01764 0	1.27250 0	7.86922-1
51.700	2.77399-1	7.30775-1	1.01770 0	1.27425 0	7.89752-1
51.600	2.79191-1	7.33040-1	1.01777 0	1.27601 0	7.92590-1
51.500	2.80992-1	7.35308-1	1.01783 0	1.27778 0	7.95436-1
51.400	2.82802-1	7.37580-1	1.01790 0	1.27956 0	7.98289-1
51.300	2.84621-1	7.39855-1	1.01796 0	1.28134 0	8.01151-1
51.200	2.86450-1	7.42133-1	1.01803 0	1.28314 0	8.04021-1
51.100	2.88288-1	7.44414-1	1.01809 0	1.28495 0	8.06898-1
51.000	2.90135-1	7.46699-1	1.01816 0	1.28676 0	8.09784-1
50.900	2.91991-1	7.48988-1	1.01822 0	1.28858 0	8.12678-1
50.800	2.93857-1	7.51279-1	1.01829 0	1.29042 0	8.15580-1
50.700	2.95732-1	7.53574-1	1.01836 0	1.29226 0	8.18491-1
50.600	2.97616-1	7.55873-1	1.01842 0	1.29411 0	8.21409-1
50.500	2.99511-1	7.58175-1	1.01849 0	1.29597 0	8.24336-1
50.400	3.01415-1	7.60480-1	1.01855 0	1.29784 0	8.27272-1
50.300	3.03328-1	7.62789-1	1.01862 0	1.29971 0	8.30216-1
50.200	3.05251-1	7.65102-1	1.01869 0	1.30160 0	8.33169-1
50.100	3.07184-1	7.67418-1	1.01875 0	1.30350 0	8.36130-1
50.000	3.09127-1	7.69737-1	1.01882 0	1.30541 0	8.39100-1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
49.900	3.11080-1	7.72060-1	1.01889 0	1.30732 0	8.42078-1
49.800	3.13042-1	7.74387-1	1.01896 0	1.30925 0	8.45066-1
49.700	3.15015-1	7.76717-1	1.01902 0	1.31119 0	8.48062-1
49.600	3.16998-1	7.79051-1	1.01909 0	1.31313 0	8.51067-1
49.500	3.18991-1	7.81388-1	1.01916 0	1.31509 0	8.54081-1
49.400	3.20994-1	7.83729-1	1.01923 0	1.31705 0	8.57104-1
49.300	3.23007-1	7.86074-1	1.01930 0	1.31903 0	8.60136-1
49.200	3.25030-1	7.88422-1	1.01937 0	1.32101 0	8.63177-1
49.100	3.27064-1	7.90774-1	1.01944 0	1.32301 0	8.66227-1
49.000	3.29109-1	7.93130-1	1.01951 0	1.32501 0	8.69287-1
48.900	3.31163-1	7.95490-1	1.01957 0	1.32703 0	8.72356-1
48.800	3.33229-1	7.97853-1	1.01964 0	1.32905 0	8.75434-1
48.700	3.35305-1	8.00220-1	1.01971 0	1.33109 0	8.78521-1
48.600	3.37391-1	8.02591-1	1.01978 0	1.33314 0	8.81619-1
48.500	3.39488-1	8.04966-1	1.01986 0	1.33519 0	8.84725-1
48.400	3.41596-1	8.07344-1	1.01993 0	1.33726 0	8.87842-1
48.300	3.43715-1	8.09727-1	1.02000 0	1.33934 0	8.90967-1
48.200	3.45845-1	8.12113-1	1.02007 0	1.34142 0	8.94103-1
48.100	3.47986-1	8.14503-1	1.02014 0	1.34352 0	8.97249-1
48.000	3.50138-1	8.16897-1	1.02021 0	1.34563 0	9.00404-1
47.900	3.52301-1	8.19295-1	1.02028 0	1.34775 0	9.03569-1
47.800	3.54475-1	8.21697-1	1.02035 0	1.34988 0	9.06745-1
47.700	3.56660-1	8.24103-1	1.02043 0	1.35203 0	9.09930-1
47.600	3.58857-1	8.26513-1	1.02050 0	1.35418 0	9.13125-1
47.500	3.61065-1	8.28927-1	1.02057 0	1.35634 0	9.16331-1
47.400	3.63285-1	8.31345-1	1.02064 0	1.35852 0	9.19547-1
47.300	3.65516-1	8.33767-1	1.02072 0	1.36070 0	9.22773-1
47.200	3.67759-1	8.36193-1	1.02079 0	1.36290 0	9.26010-1
47.100	3.70013-1	8.38623-1	1.02086 0	1.36511 0	9.29257-1
47.000	3.72279-1	8.41058-1	1.02094 0	1.36733 0	9.32515-1
46.900	3.74557-1	8.43496-1	1.02101 0	1.36956 0	9.35783-1
46.800	3.76847-1	8.45939-1	1.02109 0	1.37180 0	9.39062-1
46.700	3.79148-1	8.48386-1	1.02116 0	1.37406 0	9.42352-1
46.600	3.81462-1	8.50837-1	1.02124 0	1.37632 0	9.45653-1
46.500	3.83788-1	8.53292-1	1.02131 0	1.37860 0	9.48965-1
46.400	3.86126-1	8.55751-1	1.02139 0	1.38089 0	9.52287-1
46.300	3.88477-1	8.58215-1	1.02146 0	1.38319 0	9.55621-1
46.200	3.90839-1	8.60683-1	1.02154 0	1.38550 0	9.58966-1
46.100	3.93214-1	8.63156-1	1.02162 0	1.38783 0	9.62321-1
46.000	3.95602-1	8.65632-1	1.02169 0	1.39016 0	9.65689-1
45.900	3.98002-1	8.68114-1	1.02177 0	1.39251 0	9.69067-1
45.800	4.00415-1	8.70599-1	1.02185 0	1.39487 0	9.72457-1
45.700	4.02841-1	8.73089-1	1.02192 0	1.39725 0	9.75859-1
45.600	4.05279-1	8.75583-1	1.02200 0	1.39963 0	9.79272-1
45.500	4.07730-1	8.78082-1	1.02208 0	1.40203 0	9.82697-1
45.400	4.10194-1	8.80585-1	1.02216 0	1.40444 0	9.86134-1
45.300	4.12672-1	8.83093-1	1.02223 0	1.40687 0	9.89582-1
45.200	4.15162-1	8.85605-1	1.02231 0	1.40930 0	9.93043-1
45.100	4.17666-1	8.88122-1	1.02239 0	1.41175 0	9.96515-1
45.000	4.20183-1	8.90644-1	1.02247 0	1.41421 0	1.00000 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
44.900	4.22714-1	8.93170-1	1.02255 0	1.41669 0	1.00350 0
44.800	4.25257-1	8.95700-1	1.02263 0	1.41918 0	1.00701 0
44.700	4.27815-1	8.98236-1	1.02271 0	1.42168 0	1.01053 0
44.600	4.30386-1	9.00776-1	1.02279 0	1.42419 0	1.01406 0
44.500	4.32971-1	9.03320-1	1.02287 0	1.42672 0	1.01761 0
44.400	4.35570-1	9.05870-1	1.02295 0	1.42926 0	1.02117 0
44.300	4.38183-1	9.08424-1	1.02303 0	1.43181 0	1.02474 0
44.200	4.40810-1	9.10983-1	1.02311 0	1.43438 0	1.02832 0
44.100	4.43451-1	9.13547-1	1.02320 0	1.43696 0	1.03192 0
44.000	4.46106-1	9.16115-1	1.02328 0	1.43956 0	1.03553 0
43.900	4.48775-1	9.18689-1	1.02336 0	1.44217 0	1.03915 0
43.800	4.51459-1	9.21267-1	1.02344 0	1.44479 0	1.04279 0
43.700	4.54158-1	9.23850-1	1.02353 0	1.44742 0	1.04644 0
43.600	4.56871-1	9.26438-1	1.02361 0	1.45007 0	1.05010 0
43.500	4.59599-1	9.29031-1	1.02369 0	1.45274 0	1.05378 0
43.400	4.62341-1	9.31629-1	1.02378 0	1.45542 0	1.05747 0
43.300	4.65099-1	9.34233-1	1.02386 0	1.45811 0	1.06117 0
43.200	4.67871-1	9.36841-1	1.02395 0	1.46082 0	1.06489 0
43.100	4.70659-1	9.39454-1	1.02403 0	1.46354 0	1.06862 0
43.000	4.73462-1	9.42072-1	1.02412 0	1.46628 0	1.07237 0
42.900	4.76280-1	9.44696-1	1.02420 0	1.46903 0	1.07613 0
42.800	4.79114-1	9.47324-1	1.02429 0	1.47180 0	1.07990 0
42.700	4.81963-1	9.49958-1	1.02437 0	1.47458 0	1.08369 0
42.600	4.84828-1	9.52597-1	1.02446 0	1.47738 0	1.08749 0
42.500	4.87708-1	9.55241-1	1.02455 0	1.48019 0	1.09131 0
42.400	4.90605-1	9.57891-1	1.02463 0	1.48301 0	1.09514 0
42.300	4.93517-1	9.60545-1	1.02472 0	1.48586 0	1.09899 0
42.200	4.96446-1	9.63205-1	1.02481 0	1.48871 0	1.10285 0
42.100	4.99391-1	9.65871-1	1.02490 0	1.49159 0	1.10672 0
42.000	5.02352-1	9.68542-1	1.02499 0	1.49448 0	1.11061 0
41.900	5.05329-1	9.71218-1	1.02508 0	1.49738 0	1.11452 0
41.800	5.08323-1	9.73900-1	1.02517 0	1.50030 0	1.11844 0
41.700	5.11334-1	9.76587-1	1.02526 0	1.50324 0	1.12238 0
41.600	5.14361-1	9.79279-1	1.02535 0	1.50619 0	1.12633 0
41.500	5.17406-1	9.81978-1	1.02544 0	1.50916 0	1.13029 0
41.400	5.20467-1	9.84681-1	1.02553 0	1.51215 0	1.13428 0
41.300	5.23546-1	9.87391-1	1.02562 0	1.51515 0	1.13828 0
41.200	5.26642-1	9.90106-1	1.02571 0	1.51817 0	1.14229 0
41.100	5.29755-1	9.92826-1	1.02580 0	1.52120 0	1.14632 0
41.000	5.32886-1	9.95553-1	1.02589 0	1.52425 0	1.15037 0
40.900	5.36034-1	9.98285-1	1.02599 0	1.52732 0	1.15443 0
40.800	5.39200-1	1.00102 0	1.02608 0	1.53041 0	1.15851 0
40.700	5.42385-1	1.00377 0	1.02617 0	1.53351 0	1.16261 0
40.600	5.45587-1	1.00652 0	1.02627 0	1.53663 0	1.16672 0
40.500	5.48807-1	1.00927 0	1.02636 0	1.53977 0	1.17085 0
40.400	5.52046-1	1.01203 0	1.02645 0	1.54292 0	1.17500 0
40.300	5.55303-1	1.01480 0	1.02655 0	1.54610 0	1.17916 0
40.200	5.58579-1	1.01757 0	1.02665 0	1.54929 0	1.18334 0
40.100	5.61873-1	1.02035 0	1.02674 0	1.55250 0	1.18754 0
40.000	5.65186-1	1.02314 0	1.02684 0	1.55572 0	1.19175 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
39.900	5.68519-1	1.02593 0	1.02693 0	1.55897 0	1.19599 0
39.800	5.71870-1	1.02872 0	1.02703 0	1.56223 0	1.20024 0
39.700	5.75241-1	1.03153 0	1.02713 0	1.56551 0	1.20451 0
39.600	5.78631-1	1.03434 0	1.02723 0	1.56881 0	1.20879 0
39.500	5.82041-1	1.03715 0	1.02732 0	1.57213 0	1.21310 0
39.400	5.85470-1	1.03998 0	1.02742 0	1.57547 0	1.21742 0
39.300	5.88919-1	1.04280 0	1.02752 0	1.57883 0	1.22176 0
39.200	5.92389-1	1.04564 0	1.02762 0	1.58221 0	1.22612 0
39.100	5.95878-1	1.04848 0	1.02772 0	1.58560 0	1.23050 0
39.000	5.99388-1	1.05133 0	1.02782 0	1.58902 0	1.23490 0
38.900	6.02919-1	1.05418 0	1.02792 0	1.59245 0	1.23931 0
38.800	6.06470-1	1.05704 0	1.02802 0	1.59590 0	1.24375 0
38.700	6.10041-1	1.05991 0	1.02813 0	1.59938 0	1.24820 0
38.600	6.13634-1	1.06278 0	1.02823 0	1.60287 0	1.25268 0
38.500	6.17248-1	1.06566 0	1.02833 0	1.60639 0	1.25717 0
38.400	6.20883-1	1.06855 0	1.02843 0	1.60992 0	1.26169 0
38.300	6.24540-1	1.07144 0	1.02854 0	1.61348 0	1.26622 0
38.200	6.28219-1	1.07434 0	1.02864 0	1.61705 0	1.27077 0
38.100	6.31919-1	1.07725 0	1.02875 0	1.62065 0	1.27535 0
38.000	6.35641-1	1.08016 0	1.02885 0	1.62427 0	1.27994 0
37.900	6.39385-1	1.08308 0	1.02896 0	1.62791 0	1.28456 0
37.800	6.43152-1	1.08601 0	1.02906 0	1.63157 0	1.28919 0
37.700	6.46941-1	1.08894 0	1.02917 0	1.63525 0	1.29385 0
37.600	6.50753-1	1.09188 0	1.02928 0	1.63895 0	1.29853 0
37.500	6.54587-1	1.09483 0	1.02938 0	1.64268 0	1.30323 0
37.400	6.58445-1	1.09778 0	1.02949 0	1.64643 0	1.30795 0
37.300	6.62326-1	1.10075 0	1.02960 0	1.65020 0	1.31269 0
37.200	6.66230-1	1.10371 0	1.02971 0	1.65399 0	1.31745 0
37.100	6.70158-1	1.10669 0	1.02982 0	1.65780 0	1.32224 0
37.000	6.74110-1	1.10967 0	1.02993 0	1.66164 0	1.32704 0
36.900	6.78086-1	1.11266 0	1.03004 0	1.66550 0	1.33187 0
36.800	6.82086-1	1.11566 0	1.03015 0	1.66938 0	1.33673 0
36.700	6.86110-1	1.11867 0	1.03026 0	1.67329 0	1.34160 0
36.600	6.90159-1	1.12168 0	1.03037 0	1.67722 0	1.34650 0
36.500	6.94233-1	1.12470 0	1.03049 0	1.68117 0	1.35142 0
36.400	6.98332-1	1.12773 0	1.03060 0	1.68515 0	1.35637 0
36.300	7.02456-1	1.13076 0	1.03071 0	1.68915 0	1.36134 0
36.200	7.06605-1	1.13380 0	1.03083 0	1.69318 0	1.36633 0
36.100	7.10780-1	1.13685 0	1.03094 0	1.69723 0	1.37134 0
36.000	7.14981-1	1.13991 0	1.03106 0	1.70130 0	1.37638 0
35.900	7.19208-1	1.14298 0	1.03117 0	1.70540 0	1.38145 0
35.800	7.23462-1	1.14605 0	1.03129 0	1.70953 0	1.38653 0
35.700	7.27741-1	1.14913 0	1.03141 0	1.71368 0	1.39165 0
35.600	7.32048-1	1.15222 0	1.03153 0	1.71785 0	1.39679 0
35.500	7.36381-1	1.15532 0	1.03164 0	1.72205 0	1.40195 0
35.400	7.40742-1	1.15842 0	1.03176 0	1.72628 0	1.40714 0
35.300	7.45130-1	1.16153 0	1.03188 0	1.73053 0	1.41235 0
35.200	7.49545-1	1.16466 0	1.03200 0	1.73481 0	1.41759 0
35.100	7.53989-1	1.16778 0	1.03212 0	1.73911 0	1.42286 0
35.000	7.58461-1	1.17092 0	1.03225 0	1.74345 0	1.42815 0

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
34.900	7.62961-1	1.17407 0	1.03237 0	1.74781 0	1.43347 0
34.800	7.67489-1	1.17722 0	1.03249 0	1.75219 0	1.43881 0
34.700	7.72047-1	1.18038 0	1.03261 0	1.75661 0	1.44418 0
34.600	7.76634-1	1.18355 0	1.03274 0	1.76105 0	1.44958 0
34.500	7.81250-1	1.18673 0	1.03286 0	1.76552 0	1.45501 0
34.400	7.85895-1	1.18992 0	1.03299 0	1.77001 0	1.46046 0
34.300	7.90571-1	1.19311 0	1.03311 0	1.77454 0	1.46595 0
34.200	7.95277-1	1.19632 0	1.03324 0	1.77910 0	1.47146 0
34.100	8.00013-1	1.19953 0	1.03337 0	1.78368 0	1.47699 0
34.000	8.04780-1	1.20275 0	1.03349 0	1.78829 0	1.48256 0
33.900	8.09578-1	1.20598 0	1.03362 0	1.79293 0	1.48816 0
33.800	8.14407-1	1.20922 0	1.03375 0	1.79761 0	1.49378 0
33.700	8.19267-1	1.21247 0	1.03388 0	1.80231 0	1.49944 0
33.600	8.24160-1	1.21572 0	1.03401 0	1.80704 0	1.50512 0
33.500	8.29084-1	1.21899 0	1.03414 0	1.81180 0	1.51084 0
33.400	8.34041-1	1.22226 0	1.03428 0	1.81659 0	1.51658 0
33.300	8.39031-1	1.22555 0	1.03441 0	1.82142 0	1.52235 0
33.200	8.44054-1	1.22884 0	1.03454 0	1.82627 0	1.52816 0
33.100	8.49109-1	1.23214 0	1.03468 0	1.83116 0	1.53400 0
33.000	8.54199-1	1.23545 0	1.03481 0	1.83608 0	1.53986 0
32.900	8.59322-1	1.23877 0	1.03495 0	1.84103 0	1.54576 0
32.800	8.64480-1	1.24210 0	1.03508 0	1.84601 0	1.55170 0
32.700	8.69672-1	1.24544 0	1.03522 0	1.85103 0	1.55766 0
32.600	8.74899-1	1.24879 0	1.03536 0	1.85608 0	1.56366 0
32.500	8.80161-1	1.25215 0	1.03550 0	1.86116 0	1.56969 0
32.400	8.85459-1	1.25552 0	1.03564 0	1.86627 0	1.57575 0
32.300	8.90793-1	1.25890 0	1.03578 0	1.87142 0	1.58184 0
32.200	8.96162-1	1.26229 0	1.03592 0	1.87661 0	1.58797 0
32.100	9.01569-1	1.26569 0	1.03606 0	1.88183 0	1.59414 0
32.000	9.07012-1	1.26909 0	1.03620 0	1.88708 0	1.60033 0
31.900	9.12492-1	1.27251 0	1.03635 0	1.89237 0	1.60657 0
31.800	9.18010-1	1.27594 0	1.03649 0	1.89769 0	1.61283 0
31.700	9.23566-1	1.27938 0	1.03664 0	1.90305 0	1.61914 0
31.600	9.29160-1	1.28282 0	1.03678 0	1.90845 0	1.62548 0
31.500	9.34793-1	1.28628 0	1.03693 0	1.91388 0	1.63185 0
31.400	9.40465-1	1.28975 0	1.03708 0	1.91935 0	1.63826 0
31.300	9.46176-1	1.29323 0	1.03723 0	1.92486 0	1.64471 0
31.200	9.51927-1	1.29672 0	1.03737 0	1.93040 0	1.65120 0
31.100	9.57718-1	1.30022 0	1.03753 0	1.93598 0	1.65772 0
31.000	9.63550-1	1.30373 0	1.03768 0	1.94160 0	1.66428 0
30.900	9.69423-1	1.30725 0	1.03783 0	1.94726 0	1.67088 0
30.800	9.75337-1	1.31079 0	1.03798 0	1.95296 0	1.67752 0
30.700	9.81293-1	1.31433 0	1.03814 0	1.95870 0	1.68419 0
30.600	9.87292-1	1.31789 0	1.03829 0	1.96448 0	1.69091 0
30.500	9.93333-1	1.32145 0	1.03845 0	1.97029 0	1.69766 0
30.400	9.99417-1	1.32503 0	1.03860 0	1.97615 0	1.70446 0
30.300	1.00554 0	1.32862 0	1.03876 0	1.98205 0	1.71129 0
30.200	1.01172 0	1.33221 0	1.03892 0	1.98799 0	1.71817 0
30.100	1.01793 0	1.33582 0	1.03908 0	1.99398 0	1.72509 0
30.000	1.02419 0	1.33945 0	1.03924 0	2.00000 0	1.73205 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
29.900	1.03050 0	1.34308 0	1.03940 0	2.00607 0	1.73905 0
29.800	1.03685 0	1.34672 0	1.03956 0	2.01218 0	1.74610 0
29.700	1.04325 0	1.35038 0	1.03973 0	2.01833 0	1.75319 0
29.600	1.04969 0	1.35405 0	1.03989 0	2.02453 0	1.76032 0
29.500	1.05618 0	1.35773 0	1.04006 0	2.03077 0	1.76749 0
29.400	1.06272 0	1.36142 0	1.04023 0	2.03706 0	1.77471 0
29.300	1.06931 0	1.36513 0	1.04039 0	2.04339 0	1.78198 0
29.200	1.07595 0	1.36884 0	1.04056 0	2.04977 0	1.78929 0
29.100	1.08263 0	1.37257 0	1.04073 0	2.05619 0	1.79665 0
29.000	1.08937 0	1.37631 0	1.04090 0	2.06267 0	1.80405 0
28.900	1.09615 0	1.38007 0	1.04108 0	2.06918 0	1.81150 0
28.800	1.10299 0	1.38383 0	1.04125 0	2.07575 0	1.81899 0
28.700	1.10988 0	1.38761 0	1.04142 0	2.08236 0	1.82654 0
28.600	1.11682 0	1.39140 0	1.04160 0	2.08903 0	1.83413 0
28.500	1.12381 0	1.39521 0	1.04178 0	2.09574 0	1.84177 0
28.400	1.13085 0	1.39902 0	1.04196 0	2.10250 0	1.84946 0
28.300	1.13795 0	1.40285 0	1.04213 0	2.10931 0	1.85720 0
28.200	1.14511 0	1.40670 0	1.04232 0	2.11617 0	1.86499 0
28.100	1.15231 0	1.41055 0	1.04250 0	2.12309 0	1.87283 0
28.000	1.15958 0	1.41442 0	1.04268 0	2.13005 0	1.88073 0
27.900	1.16689 0	1.41831 0	1.04286 0	2.13707 0	1.88867 0
27.800	1.17427 0	1.42220 0	1.04305 0	2.14414 0	1.89667 0
27.700	1.18170 0	1.42611 0	1.04324 0	2.15127 0	1.90472 0
27.600	1.18919 0	1.43004 0	1.04342 0	2.15845 0	1.91282 0
27.500	1.19674 0	1.43397 0	1.04361 0	2.16568 0	1.92098 0
27.400	1.20435 0	1.43793 0	1.04380 0	2.17297 0	1.92920 0
27.300	1.21201 0	1.44189 0	1.04400 0	2.18031 0	1.93746 0
27.200	1.21974 0	1.44587 0	1.04419 0	2.18771 0	1.94579 0
27.100	1.22753 0	1.44987 0	1.04438 0	2.19517 0	1.95417 0
27.000	1.23538 0	1.45387 0	1.04458 0	2.20269 0	1.96261 0
26.900	1.24329 0	1.45790 0	1.04478 0	2.21026 0	1.97111 0
26.800	1.25127 0	1.46194 0	1.04497 0	2.21790 0	1.97966 0
26.700	1.25931 0	1.46599 0	1.04517 0	2.22559 0	1.98828 0
26.600	1.26741 0	1.47006 0	1.04538 0	2.23334 0	1.99695 0
26.500	1.27558 0	1.47414 0	1.04558 0	2.24116 0	2.00569 0
26.400	1.28382 0	1.47824 0	1.04578 0	2.24903 0	2.01449 0
26.300	1.29212 0	1.48235 0	1.04599 0	2.25697 0	2.02335 0
26.200	1.30049 0	1.48648 0	1.04620 0	2.26498 0	2.03227 0
26.100	1.30893 0	1.49062 0	1.04641 0	2.27304 0	2.04125 0
26.000	1.31744 0	1.49478 0	1.04662 0	2.28117 0	2.05030 0
25.900	1.32602 0	1.49895 0	1.04683 0	2.28937 0	2.05942 0
25.800	1.33467 0	1.50314 0	1.04704 0	2.29763 0	2.06860 0
25.700	1.34339 0	1.50735 0	1.04726 0	2.30596 0	2.07785 0
25.600	1.35219 0	1.51157 0	1.04747 0	2.31436 0	2.08716 0
25.500	1.36105 0	1.51581 0	1.04769 0	2.32282 0	2.09654 0
25.400	1.37000 0	1.52007 0	1.04791 0	2.33135 0	2.10600 0
25.300	1.37901 0	1.52434 0	1.04813 0	2.33996 0	2.11552 0
25.200	1.38811 0	1.52863 0	1.04836 0	2.34863 0	2.12511 0
25.100	1.39728 0	1.53294 0	1.04858 0	2.35738 0	2.13477 0
25.000	1.40653 0	1.53726 0	1.04881 0	2.36620 0	2.14451 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
24.900	1.41586 0	1.54160 0	1.04904 0	2.37509 0	2.15432 0
24.800	1.42527 0	1.54596 0	1.04927 0	2.38406 0	2.16420 0
24.700	1.43476 0	1.55033 0	1.04950 0	2.39311 0	2.17416 0
24.600	1.44433 0	1.55472 0	1.04973 0	2.40222 0	2.18419 0
24.500	1.45398 0	1.55913 0	1.04997 0	2.41142 0	2.19430 0
24.400	1.46372 0	1.56356 0	1.05021 0	2.42070 0	2.20449 0
24.300	1.47355 0	1.56801 0	1.05045 0	2.43005 0	2.21475 0
24.200	1.48346 0	1.57247 0	1.05069 0	2.43948 0	2.22510 0
24.100	1.49345 0	1.57695 0	1.05093 0	2.44900 0	2.23553 0
24.000	1.50354 0	1.58146 0	1.05118 0	2.45859 0	2.24604 0
23.900	1.51372 0	1.58598 0	1.05143 0	2.46827 0	2.25663 0
23.800	1.52398 0	1.59051 0	1.05168 0	2.47804 0	2.26730 0
23.700	1.53434 0	1.59507 0	1.05193 0	2.48789 0	2.27806 0
23.600	1.54480 0	1.59965 0	1.05218 0	2.49782 0	2.28891 0
23.500	1.55534 0	1.60425 0	1.05244 0	2.50784 0	2.29984 0
23.400	1.56598 0	1.60886 0	1.05269 0	2.51795 0	2.31086 0
23.300	1.57672 0	1.61350 0	1.05295 0	2.52815 0	2.32197 0
23.200	1.58756 0	1.61816 0	1.05322 0	2.53845 0	2.33317 0
23.100	1.59850 0	1.62283 0	1.05348 0	2.54883 0	2.34447 0
23.000	1.60954 0	1.62753 0	1.05375 0	2.55930 0	2.35585 0
22.900	1.62068 0	1.63225 0	1.05402 0	2.56988 0	2.36733 0
22.800	1.63192 0	1.63698 0	1.05429 0	2.58054 0	2.37891 0
22.700	1.64327 0	1.64174 0	1.05456 0	2.59130 0	2.39058 0
22.600	1.65472 0	1.64652 0	1.05484 0	2.60217 0	2.40235 0
22.500	1.66629 0	1.65132 0	1.05511 0	2.61313 0	2.41421 0
22.400	1.67796 0	1.65615 0	1.05540 0	2.62419 0	2.42618 0
22.300	1.68974 0	1.66099 0	1.05568 0	2.63535 0	2.43825 0
22.200	1.70164 0	1.66586 0	1.05596 0	2.64662 0	2.45043 0
22.100	1.71365 0	1.67075 0	1.05625 0	2.65799 0	2.46270 0
22.000	1.72578 0	1.67566 0	1.05654 0	2.66947 0	2.47509 0
21.900	1.73802 0	1.68059 0	1.05684 0	2.68105 0	2.48758 0
21.800	1.75038 0	1.68555 0	1.05713 0	2.69275 0	2.50018 0
21.700	1.76286 0	1.69053 0	1.05743 0	2.70455 0	2.51289 0
21.600	1.77547 0	1.69553 0	1.05773 0	2.71647 0	2.52571 0
21.500	1.78819 0	1.70056 0	1.05804 0	2.72850 0	2.53865 0
21.400	1.80105 0	1.70561 0	1.05834 0	2.74065 0	2.55170 0
21.300	1.81403 0	1.71068 0	1.05865 0	2.75292 0	2.56487 0
21.200	1.82714 0	1.71578 0	1.05897 0	2.76530 0	2.57815 0
21.100	1.84039 0	1.72091 0	1.05928 0	2.77780 0	2.59156 0
21.000	1.85376 0	1.72605 0	1.05960 0	2.79043 0	2.60509 0
20.900	1.86727 0	1.73123 0	1.05992 0	2.80318 0	2.61874 0
20.800	1.88092 0	1.73643 0	1.06025 0	2.81605 0	2.63252 0
20.700	1.89471 0	1.74165 0	1.06057 0	2.82906 0	2.64642 0
20.600	1.90864 0	1.74690 0	1.06090 0	2.84219 0	2.66046 0
20.500	1.92271 0	1.75217 0	1.06124 0	2.85545 0	2.67462 0
20.400	1.93693 0	1.75748 0	1.06158 0	2.86885 0	2.68892 0
20.300	1.95130 0	1.76281 0	1.06192 0	2.88238 0	2.70335 0
20.200	1.96582 0	1.76816 0	1.06226 0	2.89605 0	2.71792 0
20.100	1.98049 0	1.77354 0	1.06261 0	2.90986 0	2.73263 0
20.000	1.99531 0	1.77895 0	1.06296 0	2.92380 0	2.74748 0

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
19.950	2.00278 0	1.78167 0	1.06313 0	2.93083 0	2.75496 0
19.900	2.01030 0	1.78439 0	1.06331 0	2.93790 0	2.76247 0
19.850	2.01785 0	1.78712 0	1.06349 0	2.94500 0	2.77002 0
19.800	2.02544 0	1.78986 0	1.06367 0	2.95213 0	2.77761 0
19.750	2.03307 0	1.79260 0	1.06385 0	2.95931 0	2.78523 0
19.700	2.04074 0	1.79535 0	1.06403 0	2.96652 0	2.79289 0
19.650	2.04846 0	1.79811 0	1.06421 0	2.97377 0	2.80059 0
19.600	2.05621 0	1.80088 0	1.06440 0	2.98106 0	2.80833 0
19.550	2.06401 0	1.80365 0	1.06458 0	2.98838 0	2.81610 0
19.500	2.07185 0	1.80643 0	1.06476 0	2.99574 0	2.82391 0
19.450	2.07973 0	1.80922 0	1.06495 0	3.00315 0	2.83176 0
19.400	2.08765 0	1.81201 0	1.06514 0	3.01059 0	2.83965 0
19.350	2.09562 0	1.81481 0	1.06532 0	3.01807 0	2.84758 0
19.300	2.10363 0	1.81762 0	1.06551 0	3.02559 0	2.85555 0
19.250	2.11169 0	1.82044 0	1.06570 0	3.03315 0	2.86356 0
19.200	2.11979 0	1.82327 0	1.06589 0	3.04075 0	2.87161 0
19.150	2.12793 0	1.82610 0	1.06609 0	3.04839 0	2.87970 0
19.100	2.13612 0	1.82894 0	1.06628 0	3.05607 0	2.88783 0
19.050	2.14436 0	1.83178 0	1.06647 0	3.06379 0	2.89600 0
19.000	2.15264 0	1.83464 0	1.06667 0	3.07155 0	2.90421 0
18.950	2.16097 0	1.83750 0	1.06686 0	3.07936 0	2.91246 0
18.900	2.16934 0	1.84037 0	1.06706 0	3.08721 0	2.92076 0
18.850	2.17776 0	1.84325 0	1.06726 0	3.09510 0	2.92910 0
18.800	2.18623 0	1.84614 0	1.06746 0	3.10303 0	2.93748 0
18.750	2.19474 0	1.84903 0	1.06765 0	3.11101 0	2.94590 0
18.700	2.20330 0	1.85194 0	1.06786 0	3.11903 0	2.95437 0
18.650	2.21191 0	1.85485 0	1.06806 0	3.12709 0	2.96288 0
18.600	2.22058 0	1.85777 0	1.06826 0	3.13520 0	2.97144 0
18.550	2.22928 0	1.86069 0	1.06847 0	3.14335 0	2.98004 0
18.500	2.23804 0	1.86363 0	1.06867 0	3.15155 0	2.98868 0
18.450	2.24685 0	1.86657 0	1.06888 0	3.15979 0	2.99737 0
18.400	2.25571 0	1.86952 0	1.06908 0	3.16808 0	3.00611 0
18.350	2.26462 0	1.87248 0	1.06929 0	3.17641 0	3.01489 0
18.300	2.27358 0	1.87545 0	1.06950 0	3.18479 0	3.02372 0
18.250	2.28260 0	1.87843 0	1.06971 0	3.19322 0	3.03260 0
18.200	2.29166 0	1.88141 0	1.06993 0	3.20169 0	3.04152 0
18.150	2.30078 0	1.88441 0	1.07014 0	3.21021 0	3.05049 0
18.100	2.30996 0	1.88741 0	1.07035 0	3.21878 0	3.05950 0
18.050	2.31918 0	1.89042 0	1.07057 0	3.22740 0	3.06857 0
18.000	2.32846 0	1.89344 0	1.07079 0	3.23607 0	3.07768 0
17.950	2.33779 0	1.89647 0	1.07100 0	3.24478 0	3.08685 0
17.900	2.34718 0	1.89950 0	1.07122 0	3.25355 0	3.09606 0
17.850	2.35663 0	1.90255 0	1.07144 0	3.26237 0	3.10532 0
17.800	2.36613 0	1.90560 0	1.07167 0	3.27123 0	3.11464 0
17.750	2.37568 0	1.90867 0	1.07189 0	3.28015 0	3.12400 0
17.700	2.38530 0	1.91174 0	1.07211 0	3.28912 0	3.13341 0
17.650	2.39497 0	1.91482 0	1.07234 0	3.29814 0	3.14288 0
17.600	2.40470 0	1.91791 0	1.07257 0	3.30721 0	3.15240 0
17.550	2.41449 0	1.92101 0	1.07279 0	3.31633 0	3.16197 0
17.500	2.42433 0	1.92412 0	1.07302 0	3.32551 0	3.17159 0

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
17.450	2.43424 0	1.92724 0	1.07325 0	3.33474 0	3.18127 0
17.400	2.44421 0	1.93037 0	1.07349 0	3.34403 0	3.19100 0
17.350	2.45423 0	1.93351 0	1.07372 0	3.35336 0	3.20079 0
17.300	2.46432 0	1.93665 0	1.07395 0	3.36276 0	3.21063 0
17.250	2.47447 0	1.93981 0	1.07419 0	3.37221 0	3.22053 0
17.200	2.48468 0	1.94298 0	1.07443 0	3.38171 0	3.23048 0
17.150	2.49496 0	1.94615 0	1.07467 0	3.39128 0	3.24049 0
17.100	2.50529 0	1.94934 0	1.07491 0	3.40089 0	3.25055 0
17.050	2.51570 0	1.95253 0	1.07515 0	3.41057 0	3.26067 0
17.000	2.52616 0	1.95574 0	1.07539 0	3.42030 0	3.27085 0
16.950	2.53669 0	1.95895 0	1.07564 0	3.43010 0	3.28109 0
16.900	2.54729 0	1.96218 0	1.07588 0	3.43995 0	3.29139 0
16.850	2.55795 0	1.96541 0	1.07613 0	3.44986 0	3.30174 0
16.800	2.56868 0	1.96866 0	1.07638 0	3.45983 0	3.31216 0
16.750	2.57948 0	1.97191 0	1.07663 0	3.46986 0	3.32264 0
16.700	2.59035 0	1.97518 0	1.07688 0	3.47995 0	3.33317 0
16.650	2.60128 0	1.97845 0	1.07714 0	3.49010 0	3.34377 0
16.600	2.61229 0	1.98174 0	1.07739 0	3.50032 0	3.35443 0
16.550	2.62336 0	1.98503 0	1.07765 0	3.51060 0	3.36516 0
16.500	2.63451 0	1.98834 0	1.07791 0	3.52094 0	3.37594 0
16.450	2.64573 0	1.99166 0	1.07817 0	3.53134 0	3.38679 0
16.400	2.65701 0	1.99499 0	1.07843 0	3.54181 0	3.39771 0
16.350	2.66838 0	1.99832 0	1.07869 0	3.55234 0	3.40869 0
16.300	2.67981 0	2.00167 0	1.07896 0	3.56294 0	3.41973 0
16.250	2.69132 0	2.00503 0	1.07922 0	3.57361 0	3.43084 0
16.200	2.70291 0	2.00840 0	1.07949 0	3.58434 0	3.44202 0
16.150	2.71457 0	2.01179 0	1.07976 0	3.59514 0	3.45327 0
16.100	2.72630 0	2.01518 0	1.08003 0	3.60601 0	3.46458 0
16.050	2.73812 0	2.01858 0	1.08031 0	3.61695 0	3.47596 0
16.000	2.75001 0	2.02200 0	1.08058 0	3.62796 0	3.48741 0
15.950	2.76198 0	2.02543 0	1.08086 0	3.63903 0	3.49894 0
15.900	2.77403 0	2.02886 0	1.08114 0	3.65018 0	3.51053 0
15.850	2.78616 0	2.03231 0	1.08142 0	3.66140 0	3.52219 0
15.800	2.79837 0	2.03577 0	1.08170 0	3.67269 0	3.53392 0
15.750	2.81066 0	2.03925 0	1.08198 0	3.68405 0	3.54573 0
15.700	2.82304 0	2.04273 0	1.08227 0	3.69549 0	3.55761 0
15.650	2.83550 0	2.04623 0	1.08255 0	3.70700 0	3.56957 0
15.600	2.84804 0	2.04974 0	1.08284 0	3.71858 0	3.58160 0
15.550	2.86067 0	2.05326 0	1.08314 0	3.73024 0	3.59370 0
15.500	2.87338 0	2.05679 0	1.08343 0	3.74198 0	3.60588 0
15.450	2.88618 0	2.06033 0	1.08372 0	3.75379 0	3.61814 0
15.400	2.89907 0	2.06389 0	1.08402 0	3.76568 0	3.63048 0
15.350	2.91205 0	2.06746 0	1.08432 0	3.77765 0	3.64289 0
15.300	2.92512 0	2.07104 0	1.08462 0	3.78970 0	3.65538 0
15.250	2.93827 0	2.07463 0	1.08492 0	3.80183 0	3.66796 0
15.200	2.95152 0	2.07824 0	1.08523 0	3.81404 0	3.68061 0
15.150	2.96486 0	2.08185 0	1.08554 0	3.82633 0	3.69335 0
15.100	2.97830 0	2.08549 0	1.08585 0	3.83870 0	3.70616 0
15.050	2.99182 0	2.08913 0	1.08616 0	3.85116 0	3.71907 0
15.000	3.00545 0	2.09279 0	1.08647 0	3.86370 0	3.73205 0

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
14.950	3.01917 0	2.09646 0	1.08679 0	3.87633 0	3.74512 0
14.900	3.03299 0	2.10014 0	1.08710 0	3.88904 0	3.75828 0
14.850	3.04690 0	2.10383 0	1.08742 0	3.90184 0	3.77152 0
14.800	3.06092 0	2.10754 0	1.08775 0	3.91473 0	3.78485 0
14.750	3.07503 0	2.11127 0	1.08807 0	3.92770 0	3.79827 0
14.700	3.08925 0	2.11500 0	1.08840 0	3.94076 0	3.81177 0
14.650	3.10357 0	2.11875 0	1.08873 0	3.95392 0	3.82537 0
14.600	3.11799 0	2.12252 0	1.08906 0	3.96716 0	3.83906 0
14.550	3.13251 0	2.12629 0	1.08939 0	3.98050 0	3.85284 0
14.500	3.14715 0	2.13008 0	1.08973 0	3.99393 0	3.86671 0
14.450	3.16189 0	2.13389 0	1.09007 0	4.00745 0	3.88068 0
14.400	3.17674 0	2.13771 0	1.09041 0	4.02107 0	3.89474 0
14.350	3.19169 0	2.14154 0	1.09075 0	4.03479 0	3.90890 0
14.300	3.20676 0	2.14539 0	1.09109 0	4.04860 0	3.92316 0
14.250	3.22194 0	2.14925 0	1.09144 0	4.06251 0	3.93751 0
14.200	3.23723 0	2.15313 0	1.09179 0	4.07652 0	3.95196 0
14.150	3.25264 0	2.15702 0	1.09215 0	4.09063 0	3.96651 0
14.100	3.26816 0	2.16093 0	1.09250 0	4.10484 0	3.98117 0
14.050	3.28380 0	2.16485 0	1.09286 0	4.11915 0	3.99592 0
14.000	3.29956 0	2.16878 0	1.09322 0	4.13357 0	4.01078 0
13.950	3.31543 0	2.17273 0	1.09358 0	4.14809 0	4.02574 0
13.900	3.33143 0	2.17670 0	1.09395 0	4.16271 0	4.04081 0
13.850	3.34755 0	2.18068 0	1.09432 0	4.17744 0	4.05599 0
13.800	3.36379 0	2.18468 0	1.09469 0	4.19228 0	4.07127 0
13.750	3.38016 0	2.18869 0	1.09507 0	4.20723 0	4.08666 0
13.700	3.39666 0	2.19272 0	1.09544 0	4.22229 0	4.10216 0
13.650	3.41328 0	2.19676 0	1.09582 0	4.23746 0	4.11778 0
13.600	3.43003 0	2.20082 0	1.09621 0	4.25275 0	4.13350 0
13.550	3.44691 0	2.20490 0	1.09659 0	4.26814 0	4.14934 0
13.500	3.46392 0	2.20899 0	1.09698 0	4.28366 0	4.16530 0
13.450	3.48107 0	2.21310 0	1.09737 0	4.29929 0	4.18137 0
13.400	3.49836 0	2.21723 0	1.09777 0	4.31503 0	4.19756 0
13.350	3.51578 0	2.22137 0	1.09817 0	4.33090 0	4.21387 0
13.300	3.53334 0	2.22553 0	1.09857 0	4.34689 0	4.23030 0
13.250	3.55104 0	2.22970 0	1.09897 0	4.36299 0	4.24685 0
13.200	3.56888 0	2.23390 0	1.09938 0	4.37923 0	4.26352 0
13.150	3.58686 0	2.23811 0	1.09979 0	4.39558 0	4.28032 0
13.100	3.60499 0	2.24233 0	1.10020 0	4.41206 0	4.29724 0
13.050	3.62327 0	2.24658 0	1.10062 0	4.42867 0	4.31430 0
13.000	3.64170 0	2.25084 0	1.10104 0	4.44541 0	4.33148 0
12.950	3.66027 0	2.25512 0	1.10146 0	4.46228 0	4.34879 0
12.900	3.67900 0	2.25942 0	1.10189 0	4.47928 0	4.36623 0
12.850	3.69789 0	2.26374 0	1.10232 0	4.49641 0	4.38380 0
12.800	3.71693 0	2.26807 0	1.10275 0	4.51368 0	4.40152 0
12.750	3.73612 0	2.27242 0	1.10319 0	4.53109 0	4.41936 0
12.700	3.75548 0	2.27680 0	1.10363 0	4.54863 0	4.43735 0
12.650	3.77500 0	2.28119 0	1.10408 0	4.56632 0	4.45548 0
12.600	3.79469 0	2.28559 0	1.10453 0	4.58414 0	4.47374 0
12.550	3.81454 0	2.29002 0	1.10498 0	4.60211 0	4.49215 0
12.500	3.83456 0	2.29447 0	1.10543 0	4.62023 0	4.51071 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
12.450	3.85475 0	2.29894 0	1.10589 0	4.63849 0	4.52941 0
12.400	3.87511 0	2.30342 0	1.10636 0	4.65690 0	4.54826 0
12.350	3.89565 0	2.30793 0	1.10682 0	4.67545 0	4.56726 0
12.300	3.91636 0	2.31245 0	1.10730 0	4.69417 0	4.58641 0
12.250	3.93726 0	2.31700 0	1.10777 0	4.71303 0	4.60572 0
12.200	3.95833 0	2.32157 0	1.10825 0	4.73205 0	4.62518 0
12.150	3.97959 0	2.32615 0	1.10873 0	4.75123 0	4.64480 0
12.100	4.00104 0	2.33076 0	1.10922 0	4.77057 0	4.66458 0
12.050	4.02267 0	2.33539 0	1.10971 0	4.79007 0	4.68452 0
12.000	4.04450 0	2.34004 0	1.11021 0	4.80973 0	4.70463 0
11.950	4.06652 0	2.34471 0	1.11071 0	4.82956 0	4.72490 0
11.900	4.08874 0	2.34940 0	1.11121 0	4.84956 0	4.74534 0
11.850	4.11115 0	2.35412 0	1.11172 0	4.86973 0	4.76595 0
11.800	4.13377 0	2.35885 0	1.11224 0	4.89007 0	4.78673 0
11.750	4.15660 0	2.36361 0	1.11275 0	4.91058 0	4.80768 0
11.700	4.17962 0	2.36839 0	1.11328 0	4.93127 0	4.82882 0
11.650	4.20286 0	2.37319 0	1.11380 0	4.95214 0	4.85013 0
11.600	4.22632 0	2.37801 0	1.11434 0	4.97320 0	4.87162 0
11.550	4.24999 0	2.38286 0	1.11487 0	4.99443 0	4.89330 0
11.500	4.27387 0	2.38773 0	1.11541 0	5.01585 0	4.91516 0
11.450	4.29798 0	2.39263 0	1.11596 0	5.03746 0	4.93721 0
11.400	4.32232 0	2.39754 0	1.11651 0	5.05926 0	4.95945 0
11.350	4.34688 0	2.40249 0	1.11707 0	5.08125 0	4.98188 0
11.300	4.37167 0	2.40745 0	1.11763 0	5.10344 0	5.00451 0
11.280	4.38165 0	2.40944 0	1.11786 0	5.11237 0	5.01362 0
11.260	4.39167 0	2.41144 0	1.11808 0	5.12134 0	5.02276 0
11.240	4.40173 0	2.41344 0	1.11831 0	5.13033 0	5.03193 0
11.220	4.41183 0	2.41545 0	1.11854 0	5.13936 0	5.04113 0
11.200	4.42196 0	2.41745 0	1.11877 0	5.14842 0	5.05037 0
11.180	4.43214 0	2.41947 0	1.11900 0	5.15751 0	5.05964 0
11.160	4.44235 0	2.42148 0	1.11923 0	5.16664 0	5.06894 0
11.140	4.45260 0	2.42350 0	1.11946 0	5.17580 0	5.07827 0
11.120	4.46289 0	2.42553 0	1.11970 0	5.18499 0	5.08764 0
11.100	4.47322 0	2.42756 0	1.11993 0	5.19421 0	5.09704 0
11.080	4.48359 0	2.42959 0	1.12017 0	5.20347 0	5.10648 0
11.060	4.49400 0	2.43163 0	1.12040 0	5.21276 0	5.11594 0
11.040	4.50445 0	2.43367 0	1.12064 0	5.22209 0	5.12545 0
11.020	4.51494 0	2.43571 0	1.12088 0	5.23145 0	5.13498 0
11.000	4.52547 0	2.43776 0	1.12111 0	5.24084 0	5.14455 0
10.980	4.53604 0	2.43981 0	1.12135 0	5.25027 0	5.15416 0
10.960	4.54666 0	2.44187 0	1.12159 0	5.25973 0	5.16380 0
10.940	4.55731 0	2.44393 0	1.12184 0	5.26923 0	5.17347 0
10.920	4.56801 0	2.44600 0	1.12208 0	5.27877 0	5.18318 0
10.900	4.57875 0	2.44807 0	1.12232 0	5.28833 0	5.19293 0
10.880	4.58952 0	2.45014 0	1.12256 0	5.29794 0	5.20271 0
10.860	4.60035 0	2.45222 0	1.12281 0	5.30758 0	5.21252 0
10.840	4.61121 0	2.45430 0	1.12306 0	5.31725 0	5.22237 0
10.820	4.62212 0	2.45639 0	1.12330 0	5.32696 0	5.23226 0
10.800	4.63307 0	2.45848 0	1.12355 0	5.33671 0	5.24218 0
10.780	4.64406 0	2.46057 0	1.12380 0	5.34649 0	5.25214 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
10.760	4.65510 0	2.46267 0	1.12405 0	5.35631 0	5.26214 0
10.740	4.66618 0	2.46478 0	1.12430 0	5.36617 0	5.27217 0
10.720	4.67731 0	2.46689 0	1.12455 0	5.37607 0	5.28224 0
10.700	4.68848 0	2.46900 0	1.12480 0	5.38600 0	5.29235 0
10.680	4.69969 0	2.47112 0	1.12506 0	5.39597 0	5.30249 0
10.660	4.71095 0	2.47324 0	1.12531 0	5.40597 0	5.31268 0
10.640	4.72225 0	2.47536 0	1.12557 0	5.41602 0	5.32290 0
10.620	4.73360 0	2.47749 0	1.12582 0	5.42610 0	5.33316 0
10.600	4.74500 0	2.47963 0	1.12608 0	5.43622 0	5.34345 0
10.580	4.75644 0	2.48177 0	1.12634 0	5.44638 0	5.35379 0
10.560	4.76793 0	2.48391 0	1.12660 0	5.45658 0	5.36416 0
10.540	4.77946 0	2.48606 0	1.12686 0	5.46681 0	5.37457 0
10.520	4.79104 0	2.48821 0	1.12712 0	5.47709 0	5.38503 0
10.500	4.80267 0	2.49037 0	1.12738 0	5.48740 0	5.39552 0
10.480	4.81434 0	2.49253 0	1.12765 0	5.49776 0	5.40605 0
10.460	4.82607 0	2.49470 0	1.12791 0	5.50815 0	5.41662 0
10.440	4.83784 0	2.49687 0	1.12818 0	5.51859 0	5.42723 0
10.420	4.84966 0	2.49904 0	1.12845 0	5.52906 0	5.43788 0
10.400	4.86152 0	2.50122 0	1.12871 0	5.53958 0	5.44857 0
10.380	4.87344 0	2.50341 0	1.12898 0	5.55013 0	5.45930 0
10.360	4.88541 0	2.50560 0	1.12925 0	5.56073 0	5.47008 0
10.340	4.89742 0	2.50779 0	1.12953 0	5.57137 0	5.48089 0
10.320	4.90949 0	2.50999 0	1.12980 0	5.58205 0	5.49175 0
10.300	4.92160 0	2.51219 0	1.13007 0	5.59277 0	5.50264 0
10.280	4.93376 0	2.51440 0	1.13035 0	5.60353 0	5.51358 0
10.260	4.94598 0	2.51662 0	1.13062 0	5.61434 0	5.52457 0
10.240	4.95825 0	2.51883 0	1.13090 0	5.62519 0	5.53559 0
10.220	4.97057 0	2.52106 0	1.13118 0	5.63608 0	5.54666 0
10.200	4.98293 0	2.52328 0	1.13146 0	5.64701 0	5.55777 0
10.180	4.99536 0	2.52552 0	1.13174 0	5.65799 0	5.56892 0
10.160	5.00783 0	2.52776 0	1.13202 0	5.66901 0	5.58012 0
10.140	5.02036 0	2.53000 0	1.13230 0	5.68007 0	5.59136 0
10.120	5.03294 0	2.53225 0	1.13259 0	5.69118 0	5.60264 0
10.100	5.04557 0	2.53450 0	1.13287 0	5.70234 0	5.61397 0
10.080	5.05825 0	2.53676 0	1.13316 0	5.71353 0	5.62534 0
10.060	5.07099 0	2.53902 0	1.13344 0	5.72477 0	5.63676 0
10.040	5.08379 0	2.54129 0	1.13373 0	5.73606 0	5.64822 0
10.020	5.09664 0	2.54356 0	1.13402 0	5.74739 0	5.65973 0
10.000	5.10954 0	2.54584 0	1.13431 0	5.75877 0	5.67128 0
9.980	5.12250 0	2.54812 0	1.13461 0	5.77019 0	5.68288 0
9.960	5.13552 0	2.55041 0	1.13490 0	5.78166 0	5.69453 0
9.940	5.14859 0	2.55270 0	1.13520 0	5.79318 0	5.70622 0
9.920	5.16171 0	2.55500 0	1.13549 0	5.80474 0	5.71796 0
9.900	5.17490 0	2.55730 0	1.13579 0	5.81635 0	5.72974 0
9.880	5.18814 0	2.55961 0	1.13609 0	5.82801 0	5.74157 0
9.860	5.20144 0	2.56192 0	1.13639 0	5.83971 0	5.75345 0
9.840	5.21480 0	2.56424 0	1.13669 0	5.85146 0	5.76538 0
9.820	5.22821 0	2.56657 0	1.13699 0	5.86326 0	5.77736 0
9.800	5.24168 0	2.56890 0	1.13730 0	5.87511 0	5.78938 0
9.780	5.25522 0	2.57123 0	1.13760 0	5.88701 0	5.80146 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
9.760	5.26881 0	2.57357 0	1.13791 0	5.89896 0	5.81358 0
9.740	5.28246 0	2.57592 0	1.13821 0	5.91095 0	5.82575 0
9.720	5.29617 0	2.57827 0	1.13852 0	5.92300 0	5.83797 0
9.700	5.30994 0	2.58063 0	1.13883 0	5.93509 0	5.85024 0
9.680	5.32378 0	2.58299 0	1.13915 0	5.94724 0	5.86256 0
9.660	5.33767 0	2.58535 0	1.13946 0	5.95943 0	5.87493 0
9.640	5.35163 0	2.58773 0	1.13977 0	5.97168 0	5.88736 0
9.620	5.36565 0	2.59011 0	1.14009 0	5.98398 0	5.89983 0
9.600	5.37973 0	2.59249 0	1.14041 0	5.99633 0	5.91235 0
9.580	5.39387 0	2.59488 0	1.14073 0	6.00873 0	5.92493 0
9.560	5.40808 0	2.59728 0	1.14105 0	6.02118 0	5.93756 0
9.540	5.42235 0	2.59968 0	1.14137 0	6.03369 0	5.95024 0
9.520	5.43669 0	2.60208 0	1.14169 0	6.04625 0	5.96298 0
9.500	5.45109 0	2.60450 0	1.14202 0	6.05886 0	5.97576 0
9.480	5.46556 0	2.60691 0	1.14234 0	6.07152 0	5.98860 0
9.460	5.48009 0	2.60934 0	1.14267 0	6.08424 0	6.00150 0
9.440	5.49468 0	2.61177 0	1.14300 0	6.09701 0	6.01445 0
9.420	5.50935 0	2.61420 0	1.14333 0	6.10984 0	6.02745 0
9.400	5.52408 0	2.61664 0	1.14366 0	6.12272 0	6.04051 0
9.380	5.53888 0	2.61909 0	1.14399 0	6.13566 0	6.05362 0
9.360	5.55374 0	2.62154 0	1.14433 0	6.14866 0	6.06679 0
9.340	5.56868 0	2.62400 0	1.14466 0	6.16170 0	6.08002 0
9.320	5.58368 0	2.62647 0	1.14500 0	6.17481 0	6.09330 0
9.300	5.59876 0	2.62894 0	1.14534 0	6.18797 0	6.10664 0
9.280	5.61390 0	2.63142 0	1.14568 0	6.20119 0	6.12003 0
9.260	5.62911 0	2.63390 0	1.14603 0	6.21447 0	6.13348 0
9.240	5.64439 0	2.63639 0	1.14637 0	6.22780 0	6.14699 0
9.220	5.65975 0	2.63888 0	1.14671 0	6.24119 0	6.16056 0
9.200	5.67518 0	2.64139 0	1.14706 0	6.25464 0	6.17419 0
9.180	5.69067 0	2.64389 0	1.14741 0	6.26815 0	6.18787 0
9.160	5.70625 0	2.64641 0	1.14776 0	6.28172 0	6.20162 0
9.140	5.72189 0	2.64893 0	1.14811 0	6.29535 0	6.21542 0
9.120	5.73761 0	2.65145 0	1.14847 0	6.30904 0	6.22928 0
9.100	5.75340 0	2.65398 0	1.14882 0	6.32279 0	6.24321 0
9.080	5.76927 0	2.65652 0	1.14918 0	6.33660 0	6.25719 0
9.060	5.78521 0	2.65907 0	1.14954 0	6.35047 0	6.27124 0
9.040	5.80123 0	2.66162 0	1.14990 0	6.36440 0	6.28535 0
9.020	5.81732 0	2.66418 0	1.15026 0	6.37840 0	6.29952 0
9.000	5.83350 0	2.66674 0	1.15063 0	6.39245 0	6.31375 0
8.980	5.84975 0	2.66931 0	1.15099 0	6.40657 0	6.32805 0
8.960	5.86607 0	2.67189 0	1.15136 0	6.42076 0	6.34241 0
8.940	5.88248 0	2.67447 0	1.15173 0	6.43500 0	6.35683 0
8.920	5.89896 0	2.67706 0	1.15210 0	6.44931 0	6.37131 0
8.900	5.91553 0	2.67966 0	1.15247 0	6.46369 0	6.38587 0
8.880	5.93217 0	2.68226 0	1.15285 0	6.47813 0	6.40048 0
8.860	5.94890 0	2.68487 0	1.15322 0	6.49264 0	6.41516 0
8.840	5.96571 0	2.68749 0	1.15360 0	6.50721 0	6.42991 0
8.820	5.98260 0	2.69012 0	1.15398 0	6.52185 0	6.44473 0
8.800	5.99957 0	2.69275 0	1.15436 0	6.53655 0	6.45961 0
8.780	6.01663 0	2.69538 0	1.15474 0	6.55132 0	6.47455 0

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
8.760	6.03376 0	2.69803 0	1.15513 0	6.56616 0	6.48957 0
8.740	6.05099 0	2.70068 0	1.15552 0	6.58107 0	6.50465 0
8.720	6.06830 0	2.70334 0	1.15591 0	6.59605 0	6.51981 0
8.700	6.08569 0	2.70600 0	1.15630 0	6.61110 0	6.53503 0
8.680	6.10317 0	2.70867 0	1.15669 0	6.62621 0	6.55032 0
8.660	6.12074 0	2.71135 0	1.15709 0	6.64140 0	6.56568 0
8.640	6.13840 0	2.71404 0	1.15748 0	6.65665 0	6.58111 0
8.620	6.15614 0	2.71673 0	1.15788 0	6.67198 0	6.59662 0
8.600	6.17398 0	2.71943 0	1.15828 0	6.68738 0	6.61219 0
8.580	6.19190 0	2.72214 0	1.15868 0	6.70285 0	6.62784 0
8.560	6.20991 0	2.72485 0	1.15909 0	6.71840 0	6.64356 0
8.540	6.22802 0	2.72758 0	1.15950 0	6.73401 0	6.65935 0
8.520	6.24621 0	2.73030 0	1.15991 0	6.74970 0	6.67522 0
8.500	6.26450 0	2.73304 0	1.16032 0	6.76547 0	6.69116 0
8.480	6.28288 0	2.73578 0	1.16073 0	6.78131 0	6.70717 0
8.460	6.30136 0	2.73854 0	1.16114 0	6.79722 0	6.72326 0
8.440	6.31993 0	2.74129 0	1.16156 0	6.81321 0	6.73943 0
8.420	6.33860 0	2.74406 0	1.16198 0	6.82928 0	6.75567 0
8.400	6.35736 0	2.74683 0	1.16240 0	6.84542 0	6.77199 0
8.380	6.37622 0	2.74962 0	1.16282 0	6.86164 0	6.78838 0
8.360	6.39517 0	2.75240 0	1.16325 0	6.87794 0	6.80486 0
8.340	6.41422 0	2.75520 0	1.16368 0	6.89432 0	6.82141 0
8.320	6.43338 0	2.75801 0	1.16411 0	6.91077 0	6.83804 0
8.300	6.45263 0	2.76082 0	1.16454 0	6.92731 0	6.85475 0
8.280	6.47198 0	2.76364 0	1.16498 0	6.94392 0	6.87154 0
8.260	6.49144 0	2.76647 0	1.16541 0	6.96062 0	6.88841 0
8.240	6.51099 0	2.76930 0	1.16585 0	6.97740 0	6.90537 0
8.220	6.53065 0	2.77214 0	1.16629 0	6.99426 0	6.92240 0
8.200	6.55042 0	2.77500 0	1.16674 0	7.01120 0	6.93952 0
8.180	6.57029 0	2.77786 0	1.16718 0	7.02822 0	6.95672 0
8.160	6.59026 0	2.78072 0	1.16763 0	7.04533 0	6.97400 0
8.140	6.61034 0	2.78360 0	1.16808 0	7.06253 0	6.99137 0
8.120	6.63052 0	2.78648 0	1.16854 0	7.07981 0	7.00883 0
8.100	6.65082 0	2.78937 0	1.16899 0	7.09717 0	7.02637 0
8.080	6.67122 0	2.79227 0	1.16945 0	7.11462 0	7.04399 0
8.060	6.69173 0	2.79518 0	1.16991 0	7.13216 0	7.06170 0
8.040	6.71236 0	2.79810 0	1.17037 0	7.14978 0	7.07950 0
8.020	6.73309 0	2.80102 0	1.17084 0	7.16749 0	7.09739 0
8.000	6.75394 0	2.80396 0	1.17131 0	7.18530 0	7.11537 0
7.980	6.77490 0	2.80690 0	1.17178 0	7.20319 0	7.13344 0
7.960	6.79597 0	2.80985 0	1.17225 0	7.22117 0	7.15159 0
7.940	6.81716 0	2.81281 0	1.17272 0	7.23924 0	7.16984 0
7.920	6.83847 0	2.81578 0	1.17320 0	7.25740 0	7.18818 0
7.900	6.85989 0	2.81875 0	1.17368 0	7.27566 0	7.20661 0
7.880	6.88143 0	2.82174 0	1.17417 0	7.29401 0	7.22514 0
7.860	6.90309 0	2.82473 0	1.17465 0	7.31245 0	7.24375 0
7.840	6.92487 0	2.82774 0	1.17514 0	7.33099 0	7.26247 0
7.820	6.94677 0	2.83075 0	1.17563 0	7.34962 0	7.28127 0
7.800	6.96879 0	2.83377 0	1.17613 0	7.36835 0	7.30018 0
7.780	6.99094 0	2.83680 0	1.17662 0	7.38717 0	7.31918 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
7.760	7.01321 0	2.83984 0	1.17712 0	7.40610 0	7.33827 0
7.740	7.03560 0	2.84288 0	1.17762 0	7.42512 0	7.35747 0
7.720	7.05812 0	2.84594 0	1.17813 0	7.44424 0	7.37676 0
7.700	7.08077 0	2.84901 0	1.17864 0	7.46345 0	7.39616 0
7.680	7.10354 0	2.85208 0	1.17915 0	7.48277 0	7.41565 0
7.660	7.12645 0	2.85517 0	1.17966 0	7.50219 0	7.43525 0
7.640	7.14948 0	2.85826 0	1.18018 0	7.52172 0	7.45495 0
7.620	7.17265 0	2.86136 0	1.18070 0	7.54134 0	7.47475 0
7.600	7.19595 0	2.86448 0	1.18122 0	7.56107 0	7.49465 0
7.580	7.21938 0	2.86760 0	1.18175 0	7.58090 0	7.51466 0
7.560	7.24295 0	2.87073 0	1.18227 0	7.60084 0	7.53477 0
7.540	7.26665 0	2.87387 0	1.18280 0	7.62089 0	7.55499 0
7.520	7.29049 0	2.87702 0	1.18334 0	7.64104 0	7.57532 0
7.500	7.31447 0	2.88018 0	1.18388 0	7.66130 0	7.59575 0
7.480	7.33859 0	2.88336 0	1.18442 0	7.68166 0	7.61630 0
7.460	7.36285 0	2.88654 0	1.18496 0	7.70214 0	7.63695 0
7.440	7.38725 0	2.88973 0	1.18551 0	7.72273 0	7.65771 0
7.420	7.41180 0	2.89293 0	1.18606 0	7.74343 0	7.67859 0
7.400	7.43648 0	2.89614 0	1.18661 0	7.76424 0	7.69957 0
7.380	7.46132 0	2.89936 0	1.18717 0	7.78516 0	7.72067 0
7.360	7.48630 0	2.90259 0	1.18773 0	7.80620 0	7.74189 0
7.340	7.51143 0	2.90583 0	1.18829 0	7.82736 0	7.76321 0
7.320	7.53671 0	2.90909 0	1.18886 0	7.84862 0	7.78466 0
7.300	7.56214 0	2.91235 0	1.18943 0	7.87001 0	7.80622 0
7.280	7.58773 0	2.91562 0	1.19000 0	7.89151 0	7.82790 0
7.260	7.61346 0	2.91890 0	1.19058 0	7.91314 0	7.84970 0
7.240	7.63936 0	2.92220 0	1.19116 0	7.93488 0	7.87161 0
7.220	7.66541 0	2.92550 0	1.19174 0	7.95674 0	7.89365 0
7.200	7.69161 0	2.92882 0	1.19233 0	7.97873 0	7.91581 0
7.180	7.71798 0	2.93214 0	1.19292 0	8.00084 0	7.93810 0
7.160	7.74451 0	2.93548 0	1.19351 0	8.02307 0	7.96050 0
7.140	7.77120 0	2.93883 0	1.19411 0	8.04542 0	7.98304 0
7.120	7.79805 0	2.94219 0	1.19471 0	8.06791 0	8.00569 0
7.100	7.82507 0	2.94556 0	1.19532 0	8.09052 0	8.02848 0
7.080	7.85225 0	2.94894 0	1.19592 0	8.11325 0	8.05139 0
7.060	7.87961 0	2.95233 0	1.19654 0	8.13612 0	8.07443 0
7.040	7.90713 0	2.95574 0	1.19715 0	8.15912 0	8.09761 0
7.020	7.93483 0	2.95915 0	1.19777 0	8.18225 0	8.12091 0
7.000	7.96270 0	2.96258 0	1.19840 0	8.20551 0	8.14435 0
6.980	7.99074 0	2.96602 0	1.19903 0	8.22890 0	8.16791 0
6.960	8.01896 0	2.96947 0	1.19966 0	8.25243 0	8.19162 0
6.940	8.04736 0	2.97293 0	1.20029 0	8.27610 0	8.21546 0
6.920	8.07594 0	2.97640 0	1.20093 0	8.29990 0	8.23944 0
6.900	8.10469 0	2.97989 0	1.20158 0	8.32384 0	8.26355 0
6.880	8.13364 0	2.98338 0	1.20222 0	8.34792 0	8.28781 0
6.860	8.16276 0	2.98689 0	1.20288 0	8.37214 0	8.31220 0
6.840	8.19208 0	2.99041 0	1.20353 0	8.39650 0	8.33674 0
6.820	8.22158 0	2.99395 0	1.20419 0	8.42101 0	8.36142 0
6.800	8.25127 0	2.99749 0	1.20486 0	8.44566 0	8.38625 0
6.780	8.28116 0	3.00105 0	1.20553 0	8.47046 0	8.41122 0

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
6.760	8.31124 0	3.00462 0	1.20620 0	8.49540 0	8.43634 0
6.740	8.34151 0	3.00821 0	1.20688 0	8.52049 0	8.46161 0
6.720	8.37198 0	3.01180 0	1.20756 0	8.54574 0	8.48702 0
6.700	8.40265 0	3.01541 0	1.20824 0	8.57113 0	8.51259 0
6.680	8.43353 0	3.01903 0	1.20894 0	8.59667 0	8.53831 0
6.660	8.46461 0	3.02267 0	1.20963 0	8.62237 0	8.56419 0
6.640	8.49589 0	3.02631 0	1.21033 0	8.64823 0	8.59022 0
6.620	8.52738 0	3.02997 0	1.21104 0	8.67424 0	8.61640 0
6.600	8.55908 0	3.03365 0	1.21174 0	8.70041 0	8.64275 0
6.580	8.59099 0	3.03733 0	1.21246 0	8.72673 0	8.66929 0
6.560	8.62312 0	3.04103 0	1.21318 0	8.75322 0	8.69591 0
6.540	8.65546 0	3.04475 0	1.21390 0	8.77987 0	8.72274 0
6.520	8.68802 0	3.04847 0	1.21463 0	8.80669 0	8.74973 0
6.500	8.72080 0	3.05221 0	1.21536 0	8.83367 0	8.77689 0
6.480	8.75381 0	3.05597 0	1.21610 0	8.86082 0	8.80421 0
6.460	8.78704 0	3.05974 0	1.21684 0	8.88813 0	8.83170 0
6.440	8.82049 0	3.06352 0	1.21759 0	8.91562 0	8.85936 0
6.420	8.85418 0	3.06732 0	1.21834 0	8.94328 0	8.88719 0
6.400	8.88810 0	3.07113 0	1.21910 0	8.97111 0	8.91520 0
6.380	8.92225 0	3.07495 0	1.21987 0	8.99911 0	8.94338 0
6.360	8.95664 0	3.07879 0	1.22064 0	9.02730 0	8.97174 0
6.340	8.99127 0	3.08264 0	1.22141 0	9.05566 0	9.00027 0
6.320	9.02614 0	3.08651 0	1.22219 0	9.08420 0	9.02899 0
6.300	9.06126 0	3.09040 0	1.22297 0	9.11292 0	9.05789 0
6.280	9.09662 0	3.09429 0	1.22377 0	9.14182 0	9.08697 0
6.260	9.13223 0	3.09821 0	1.22456 0	9.17091 0	9.11623 0
6.240	9.16809 0	3.10213 0	1.22536 0	9.20019 0	9.14568 0
6.220	9.20421 0	3.10608 0	1.22617 0	9.22966 0	9.17532 0
6.200	9.24059 0	3.11003 0	1.22698 0	9.25931 0	9.20515 0
6.180	9.27722 0	3.11401 0	1.22780 0	9.28916 0	9.23518 0
6.160	9.31412 0	3.11800 0	1.22863 0	9.31920 0	9.26540 0
6.140	9.35129 0	3.12200 0	1.22946 0	9.34944 0	9.29581 0
6.120	9.38872 0	3.12602 0	1.23029 0	9.37988 0	9.32642 0
6.100	9.42643 0	3.13006 0	1.23114 0	9.41052 0	9.35723 0
6.080	9.46441 0	3.13411 0	1.23199 0	9.44136 0	9.38825 0
6.060	9.50266 0	3.13818 0	1.23284 0	9.47240 0	9.41947 0
6.040	9.54120 0	3.14226 0	1.23370 0	9.50365 0	9.45089 0
6.020	9.58002 0	3.14636 0	1.23457 0	9.53510 0	9.48252 0
6.000	9.61913 0	3.15048 0	1.23544 0	9.56677 0	9.51436 0
5.980	9.65853 0	3.15461 0	1.23632 0	9.59865 0	9.54642 0
5.960	9.69822 0	3.15877 0	1.23721 0	9.63074 0	9.57869 0
5.940	9.73821 0	3.16293 0	1.23810 0	9.66305 0	9.61117 0
5.920	9.77850 0	3.16712 0	1.23900 0	9.69558 0	9.64387 0
5.900	9.81909 0	3.17132 0	1.23991 0	9.72833 0	9.67680 0
5.880	9.85999 0	3.17554 0	1.24083 0	9.76130 0	9.70995 0
5.860	9.90120 0	3.17978 0	1.24175 0	9.79450 0	9.74332 0
5.840	9.94272 0	3.18403 0	1.24267 0	9.82793 0	9.77692 0
5.820	9.98456 0	3.18830 0	1.24361 0	9.86158 0	9.81075 0
5.800	1.00267 1	3.19259 0	1.24455 0	9.89547 0	9.84481 0
5.780	1.00692 1	3.19690 0	1.24550 0	9.92960 0	9.87911 0

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
5.760	1.01120 1	3.20123 0	1.24645 0	9.96396 0	9.91365 0
5.740	1.01552 1	3.20557 0	1.24742 0	9.99856 0	9.94842 0
5.720	1.01986 1	3.20993 0	1.24839 0	1.00334 1	9.98344 0
5.700	1.02425 1	3.21431 0	1.24937 0	1.00685 1	1.00187 1
5.680	1.02866 1	3.21872 0	1.25035 0	1.01038 1	1.00542 1
5.660	1.03311 1	3.22313 0	1.25135 0	1.01394 1	1.00900 1
5.640	1.03760 1	3.22757 0	1.25235 0	1.01752 1	1.01260 1
5.620	1.04212 1	3.23203 0	1.25336 0	1.02113 1	1.01623 1
5.600	1.04668 1	3.23651 0	1.25438 0	1.02477 1	1.01988 1
5.580	1.05128 1	3.24101 0	1.25540 0	1.02843 1	1.02356 1
5.560	1.05591 1	3.24552 0	1.25644 0	1.03212 1	1.02726 1
5.540	1.06058 1	3.25006 0	1.25748 0	1.03583 1	1.03099 1
5.520	1.06528 1	3.25462 0	1.25853 0	1.03957 1	1.03475 1
5.500	1.07003 1	3.25919 0	1.25959 0	1.04334 1	1.03854 1
5.480	1.07481 1	3.26379 0	1.26066 0	1.04714 1	1.04235 1
5.460	1.07963 1	3.26841 0	1.26173 0	1.05096 1	1.04619 1
5.440	1.08450 1	3.27305 0	1.26282 0	1.05482 1	1.05006 1
5.420	1.08940 1	3.27771 0	1.26391 0	1.05870 1	1.05396 1
5.400	1.09434 1	3.28239 0	1.26502 0	1.06261 1	1.05789 1
5.380	1.09933 1	3.28709 0	1.26613 0	1.06654 1	1.06185 1
5.360	1.10435 1	3.29182 0	1.26725 0	1.07051 1	1.06583 1
5.340	1.10942 1	3.29656 0	1.26838 0	1.07451 1	1.06985 1
5.320	1.11453 1	3.30133 0	1.26952 0	1.07854 1	1.07389 1
5.300	1.11969 1	3.30612 0	1.27067 0	1.08260 1	1.07797 1
5.280	1.12489 1	3.31094 0	1.27184 0	1.08668 1	1.08207 1
5.260	1.13013 1	3.31577 0	1.27301 0	1.09080 1	1.08621 1
5.240	1.13542 1	3.32063 0	1.27419 0	1.09496 1	1.09038 1
5.220	1.14075 1	3.32551 0	1.27538 0	1.09914 1	1.09458 1
5.200	1.14613 1	3.33042 0	1.27658 0	1.10336 1	1.09881 1
5.180	1.15155 1	3.33535 0	1.27779 0	1.10760 1	1.10308 1
5.160	1.15703 1	3.34030 0	1.27901 0	1.11189 1	1.10738 1
5.140	1.16255 1	3.34527 0	1.28024 0	1.11620 1	1.11171 1
5.120	1.16812 1	3.35027 0	1.28148 0	1.12055 1	1.11608 1
5.100	1.17374 1	3.35530 0	1.28274 0	1.12493 1	1.12048 1
5.080	1.17941 1	3.36035 0	1.28400 0	1.12935 1	1.12491 1
5.060	1.18513 1	3.36542 0	1.28528 0	1.13380 1	1.12938 1
5.040	1.19090 1	3.37052 0	1.28656 0	1.13829 1	1.13389 1
5.020	1.19672 1	3.37565 0	1.28786 0	1.14281 1	1.13843 1
5.000	1.20259 1	3.38080 0	1.28917 0	1.14737 1	1.14300 1
4.980	1.20852 1	3.38597 0	1.29050 0	1.15197 1	1.14762 1
4.960	1.21451 1	3.39118 0	1.29183 0	1.15660 1	1.15227 1
4.940	1.22054 1	3.39640 0	1.29318 0	1.16127 1	1.15696 1
4.920	1.22664 1	3.40166 0	1.29454 0	1.16598 1	1.16168 1
4.900	1.23278 1	3.40694 0	1.29591 0	1.17073 1	1.16645 1
4.880	1.23899 1	3.41225 0	1.29729 0	1.17551 1	1.17125 1
4.860	1.24525 1	3.41759 0	1.29869 0	1.18034 1	1.17610 1
4.840	1.25158 1	3.42295 0	1.30010 0	1.18521 1	1.18098 1
4.820	1.25796 1	3.42835 0	1.30152 0	1.19011 1	1.18590 1
4.800	1.26440 1	3.43377 0	1.30296 0	1.19506 1	1.19087 1
4.780	1.27091 1	3.43922 0	1.30441 0	1.20005 1	1.19587 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
4.760	1.27747 1	3.44469 0	1.30587 0	1.20508 1	1.20092 1
4.740	1.28410 1	3.45020 0	1.30735 0	1.21015 1	1.20601 1
4.720	1.29079 1	3.45574 0	1.30884 0	1.21527 1	1.21115 1
4.700	1.29755 1	3.46131 0	1.31035 0	1.22043 1	1.21632 1
4.680	1.30437 1	3.46690 0	1.31187 0	1.22563 1	1.22154 1
4.660	1.31126 1	3.47253 0	1.31341 0	1.23088 1	1.22681 1
4.640	1.31822 1	3.47819 0	1.31496 0	1.23617 1	1.23212 1
4.620	1.32524 1	3.48388 0	1.31652 0	1.24151 1	1.23748 1
4.600	1.33234 1	3.48960 0	1.31811 0	1.24690 1	1.24288 1
4.580	1.33951 1	3.49536 0	1.31970 0	1.25233 1	1.24833 1
4.560	1.34674 1	3.50114 0	1.32132 0	1.25781 1	1.25383 1
4.540	1.35405 1	3.50696 0	1.32295 0	1.26334 1	1.25938 1
4.520	1.36144 1	3.51281 0	1.32459 0	1.26892 1	1.26497 1
4.500	1.36890 1	3.[illegible]969 0	1.32626 0	1.27455 1	1.27062 1
4.480	1.37643 1	3.52461 0	1.32794 0	1.28023 1	1.27632 1
4.460	1.38405 1	3.53056 0	1.32963 0	1.28596 1	1.28206 1
4.440	1.39174 1	3.53655 0	1.33135 0	1.29174 1	1.28786 1
4.430	1.39561 1	3.53955 0	1.33221 0	1.29465 1	1.29078 1
4.420	1.39951 1	3.54257 0	1.33308 0	1.29757 1	1.29371 1
4.410	1.40343 1	3.54559 0	1.33395 0	1.30051 1	1.29666 1
4.400	1.40736 1	3.54862 0	1.33483 0	1.30346 1	1.29962 1
4.390	1.41132 1	3.55166 0	1.33571 0	1.30642 1	1.30259 1
4.380	1.41530 1	3.55471 0	1.33660 0	1.30940 1	1.30557 1
4.370	1.41929 1	3.55777 0	1.33749 0	1.31239 1	1.30857 1
4.360	1.42331 1	3.56084 0	1.33838 0	1.31539 1	1.31159 1
4.350	1.42735 1	3.56392 0	1.33929 0	1.31841 1	1.31461 1
4.340	1.43142 1	3.56701 0	1.34019 0	1.32144 1	1.31765 1
4.330	1.43550 1	3.57010 0	1.34110 0	1.32449 1	1.32071 1
4.320	1.43961 1	3.57321 0	1.34202 0	1.32755 1	1.32378 1
4.310	1.44373 1	3.57632 0	1.34294 0	1.33062 1	1.32686 1
4.300	1.44788 1	3.57944 0	1.34386 0	1.33371 1	1.32996 1
4.290	1.45205 1	3.58258 0	1.34479 0	1.33681 1	1.33307 1
4.280	1.45625 1	3.58572 0	1.34572 0	1.33993 1	1.33620 1
4.270	1.46046 1	3.58887 0	1.34666 0	1.34306 1	1.33934 1
4.260	1.46470 1	3.59203 0	1.34761 0	1.34621 1	1.34249 1
4.250	1.46897 1	3.59520 0	1.34856 0	1.34937 1	1.34566 1
4.240	1.47325 1	3.59838 0	1.34951 0	1.35255 1	1.34885 1
4.230	1.47756 1	3.60157 0	1.35047 0	1.35574 1	1.35205 1
4.220	1.48189 1	3.60477 0	1.35144 0	1.35895 1	1.35526 1
4.210	1.48625 1	3.60799 0	1.35241 0	1.36217 1	1.35849 1
4.200	1.49063 1	3.61121 0	1.35339 0	1.36541 1	1.36174 1
4.190	1.49503 1	3.61444 0	1.35437 0	1.36866 1	1.36500 1
4.180	1.49946 1	3.61768 0	1.35535 0	1.37193 1	1.36828 1
4.170	1.50391 1	3.62093 0	1.35635 0	1.37521 1	1.37157 1
4.160	1.50839 1	3.62419 0	1.35734 0	1.37851 1	1.37488 1
4.150	1.51289 1	3.62746 0	1.35835 0	1.38183 1	1.37821 1
4.140	1.51742 1	3.63074 0	1.35935 0	1.38516 1	1.38155 1
4.130	1.52197 1	3.63403 0	1.36037 0	1.38851 1	1.38490 1
4.120	1.52655 1	3.63733 0	1.36139 0	1.39187 1	1.38828 1
4.110	1.53116 1	3.64064 0	1.36242 0	1.39525 1	1.39167 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
4.100	1.53579 1	3.64397 0	1.36345 0	1.39865 1	1.39507 1
4.090	1.54044 1	3.64730 0	1.36448 0	1.40206 1	1.39849 1
4.080	1.54513 1	3.65065 0	1.36553 0	1.40550 1	1.40193 1
4.070	1.54984 1	3.65400 0	1.36658 0	1.40894 1	1.40539 1
4.060	1.55457 1	3.65737 0	1.36763 0	1.41241 1	1.40886 1
4.050	1.55934 1	3.66074 0	1.36869 0	1.41589 1	1.41235 1
4.040	1.56413 1	3.66413 0	1.36976 0	1.41939 1	1.41586 1
4.030	1.56894 1	3.66753 0	1.37083 0	1.42290 1	1.41939 1
4.020	1.57379 1	3.67094 0	1.37191 0	1.42644 1	1.42293 1
4.010	1.57866 1	3.67436 0	1.37300 0	1.42999 1	1.42649 1
4.000	1.58357 1	3.67779 0	1.37409 0	1.43356 1	1.43007 1
3.990	1.58850 1	3.68124 0	1.37519 0	1.43715 1	1.43366 1
3.980	1.59346 1	3.68469 0	1.37629 0	1.44075 1	1.43728 1
3.970	1.59845 1	3.68816 0	1.37741 0	1.44437 1	1.44091 1
3.960	1.60346 1	3.69164 0	1.37852 0	1.44802 1	1.44456 1
3.950	1.60851 1	3.69513 0	1.37965 0	1.45168 1	1.44823 1
3.940	1.61359 1	3.69863 0	1.38078 0	1.45535 1	1.45191 1
3.930	1.61870 1	3.70214 0	1.38192 0	1.45905 1	1.45562 1
3.920	1.62383 1	3.70567 0	1.38306 0	1.46277 1	1.45935 1
3.910	1.62900 1	3.70920 0	1.38421 0	1.46650 1	1.46309 1
3.900	1.63420 1	3.71275 0	1.38537 0	1.47026 1	1.46685 1
3.890	1.63943 1	3.71631 0	1.38653 0	1.47403 1	1.47063 1
3.880	1.64469 1	3.71989 0	1.38771 0	1.47782 1	1.47444 1
3.870	1.64999 1	3.72347 0	1.38889 0	1.48164 1	1.47826 1
3.860	1.65531 1	3.72707 0	1.39007 0	1.48547 1	1.48210 1
3.850	1.66067 1	3.73068 0	1.39127 0	1.48932 1	1.48596 1
3.840	1.66606 1	3.73430 0	1.39247 0	1.49319 1	1.48984 1
3.830	1.67148 1	3.73794 0	1.39367 0	1.49709 1	1.49374 1
3.820	1.67694 1	3.74159 0	1.39489 0	1.50100 1	1.49767 1
3.810	1.68243 1	3.74525 0	1.39611 0	1.50493 1	1.50161 1
3.800	1.68795 1	3.74892 0	1.39734 0	1.50889 1	1.50557 1
3.790	1.69351 1	3.75261 0	1.39858 0	1.51286 1	1.50956 1
3.780	1.69910 1	3.75631 0	1.39982 0	1.51686 1	1.51356 1
3.770	1.70473 1	3.76002 0	1.40108 0	1.52088 1	1.51759 1
3.760	1.71039 1	3.76374 0	1.40234 0	1.52492 1	1.52164 1
3.750	1.71609 1	3.76748 0	1.40361 0	1.52898 1	1.52570 1
3.740	1.72182 1	3.77123 0	1.40488 0	1.53306 1	1.52980 1
3.730	1.72759 1	3.77500 0	1.40617 0	1.53716 1	1.53391 1
3.720	1.73339 1	3.77878 0	1.40746 0	1.54129 1	1.53804 1
3.710	1.73923 1	3.78257 0	1.40876 0	1.54544 1	1.54220 1
3.700	1.74511 1	3.78638 0	1.41007 0	1.54961 1	1.54638 1
3.690	1.75103 1	3.79020 0	1.41139 0	1.55380 1	1.55058 1
3.680	1.75698 1	3.79403 0	1.41271 0	1.55802 1	1.55481 1
3.670	1.76298 1	3.79788 0	1.41405 0	1.56226 1	1.55906 1
3.660	1.76901 1	3.80175 0	1.41539 0	1.56652 1	1.56333 1
3.650	1.77507 1	3.80562 0	1.41674 0	1.57081 1	1.56762 1
3.640	1.78118 1	3.80951 0	1.41810 0	1.57512 1	1.57194 1
3.630	1.78733 1	3.81342 0	1.41947 0	1.57945 1	1.57628 1
3.620	1.79352 1	3.81734 0	1.42085 0	1.58381 1	1.58065 1
3.610	1.79975 1	3.82128 0	1.42224 0	1.58819 1	1.58504 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\sec\phi$	$\cot\phi$
3.600	1.80602 1	3.82522 0	1.42363 0	1.59260 1	1.58945 1
3.590	1.81233 1	3.82919 0	1.42504 0	1.59703 1	1.59389 1
3.580	1.81868 1	3.83317 0	1.42645 0	1.60148 1	1.59836 1
3.570	1.82507 1	3.83716 0	1.42788 0	1.60596 1	1.60285 1
3.560	1.83151 1	3.84117 0	1.42931 0	1.61047 1	1.60736 1
3.550	1.83799 1	3.84520 0	1.43075 0	1.61500 1	1.61190 1
3.540	1.84451 1	3.84924 0	1.43220 0	1.61955 1	1.61646 1
3.530	1.85108 1	3.85330 0	1.43367 0	1.62414 1	1.62106 1
3.520	1.85769 1	3.85737 0	1.43514 0	1.62874 1	1.62567 1
3.510	1.86434 1	3.86145 0	1.43662 0	1.63338 1	1.63032 1
3.500	1.87104 1	3.86556 0	1.43811 0	1.63804 1	1.63498 1
3.490	1.87779 1	3.86968 0	1.43961 0	1.64273 1	1.63968 1
3.480	1.88458 1	3.87381 0	1.44112 0	1.64744 1	1.64440 1
3.470	1.89141 1	3.87797 0	1.44265 0	1.65218 1	1.64916 1
3.460	1.89830 1	3.88213 0	1.44418 0	1.65695 1	1.65393 1
3.450	1.90523 1	3.88632 0	1.44572 0	1.66175 1	1.65874 1
3.440	1.91221 1	3.89052 0	1.44728 0	1.66658 1	1.66357 1
3.430	1.91924 1	3.89474 0	1.44884 0	1.67143 1	1.66843 1
3.420	1.92631 1	3.89897 0	1.45042 0	1.67631 1	1.67332 1
3.410	1.93344 1	3.90322 0	1.45200 0	1.68122 1	1.67824 1
3.400	1.94061 1	3.90749 0	1.45360 0	1.68616 1	1.68319 1
3.390	1.94784 1	3.91178 0	1.45521 0	1.69113 1	1.68817 1
3.380	1.95512 1	3.91608 0	1.45683 0	1.69612 1	1.69317 1
3.370	1.96244 1	3.92041 0	1.45846 0	1.70115 1	1.69821 1
3.360	1.96982 1	3.92474 0	1.46010 0	1.70621 1	1.70328 1
3.350	1.97725 1	3.92910 0	1.46176 0	1.71130 1	1.70837 1
3.340	1.98474 1	3.93348 0	1.46342 0	1.71641 1	1.71350 1
3.330	1.99228 1	3.93787 0	1.46510 0	1.72156 1	1.71866 1
3.320	1.99987 1	3.94228 0	1.46679 0	1.72674 1	1.72384 1
3.310	2.00752 1	3.94671 0	1.46849 0	1.73195 1	1.72906 1
3.300	2.01522 1	3.95116 0	1.47021 0	1.73720 1	1.73431 1
3.290	2.02298 1	3.95563 0	1.47193 0	1.74247 1	1.73960 1
3.280	2.03080 1	3.96011 0	1.47367 0	1.74778 1	1.74491 1
3.270	2.03867 1	3.96462 0	1.47543 0	1.75312 1	1.75026 1
3.260	2.04660 1	3.96914 0	1.47719 0	1.75849 1	1.75564 1
3.250	2.05459 1	3.97368 0	1.47897 0	1.76389 1	1.76106 1
3.240	2.06264 1	3.97825 0	1.48076 0	1.76933 1	1.76650 1
3.230	2.07075 1	3.98283 0	1.48257 0	1.77480 1	1.77198 1
3.220	2.07891 1	3.98743 0	1.48438 0	1.78031 1	1.77750 1
3.210	2.08714 1	3.99205 0	1.48621 0	1.78585 1	1.78305 1
3.200	2.09543 1	3.99670 0	1.48806 0	1.79142 1	1.78863 1
3.190	2.10379 1	4.00136 0	1.48992 0	1.79703 1	1.79425 1
3.180	2.11220 1	4.00604 0	1.49179 0	1.80268 1	1.79990 1
3.170	2.12068 1	4.01075 0	1.49368 0	1.80836 1	1.80559 1
3.160	2.12923 1	4.01547 0	1.49558 0	1.81408 1	1.81132 1
3.150	2.13784 1	4.02022 0	1.49750 0	1.81983 1	1.81708 1
3.140	2.14651 1	4.02498 0	1.49943 0	1.82562 1	1.82288 1
3.130	2.15526 1	4.02977 0	1.50137 0	1.83145 1	1.82871 1
3.120	2.16407 1	4.03458 0	1.50334 0	1.83731 1	1.83459 1
3.110	2.17294 1	4.03941 0	1.50531 0	1.84321 1	1.84050 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
3.100	2.18189 1	4.04427 0	1.50730 0	1.84915 1	1.84645 1
3.090	2.19091 1	4.04914 0	1.50931 0	1.85513 1	1.85243 1
3.080	2.20000 1	4.05404 0	1.51133 0	1.86115 1	1.85846 1
3.070	2.20916 1	4.05896 0	1.51337 0	1.86720 1	1.86452 1
3.060	2.21839 1	4.06391 0	1.51542 0	1.87330 1	1.87063 1
3.050	2.22769 1	4.06887 0	1.51750 0	1.87944 1	1.87677 1
3.040	2.23707 1	4.07386 0	1.51958 0	1.88561 1	1.88296 1
3.030	2.24653 1	4.07887 0	1.52169 0	1.89183 1	1.88919 1
3.020	2.25606 1	4.08391 0	1.52381 0	1.89809 1	1.89545 1
3.010	2.26567 1	4.08897 0	1.52594 0	1.90439 1	1.90176 1
3.000	2.27535 1	4.09405 0	1.52810 0	1.91073 1	1.90811 1
2.990	2.28511 1	4.09916 0	1.53027 0	1.91712 1	1.91451 1
2.980	2.29496 1	4.10429 0	1.53246 0	1.92354 1	1.92094 1
2.970	2.30488 1	4.10945 0	1.53467 0	1.93001 1	1.92742 1
2.960	2.31488 1	4.11463 0	1.53690 0	1.93653 1	1.93395 1
2.950	2.32497 1	4.11984 0	1.53914 0	1.94309 1	1.94051 1
2.940	2.33514 1	4.12507 0	1.54140 0	1.94969 1	1.94712 1
2.930	2.34540 1	4.13033 0	1.54369 0	1.95634 1	1.95378 1
2.920	2.35574 1	4.13561 0	1.54599 0	1.96303 1	1.96048 1
2.910	2.36617 1	4.14092 0	1.54831 0	1.96977 1	1.96723 1
2.900	2.37668 1	4.14626 0	1.55065 0	1.97656 1	1.97403 1
2.890	2.38729 1	4.15162 0	1.55301 0	1.98339 1	1.98087 1
2.880	2.39798 1	4.15701 0	1.55539 0	1.99027 1	1.98776 1
2.870	2.40877 1	4.16243 0	1.55779 0	1.99720 1	1.99470 1
2.860	2.41964 1	4.16787 0	1.56021 0	2.00418 1	2.00168 1
2.850	2.43062 1	4.17334 0	1.56265 0	2.01121 1	2.00872 1
2.840	2.44168 1	4.17884 0	1.56511 0	2.01828 1	2.01580 1
2.830	2.45284 1	4.18437 0	1.56759 0	2.02541 1	2.02294 1
2.820	2.46410 1	4.18993 0	1.57010 0	2.03258 1	2.03012 1
2.810	2.47546 1	4.19551 0	1.57263 0	2.03981 1	2.03736 1
2.800	2.48692 1	4.20112 0	1.57517 0	2.04709 1	2.04465 1
2.790	2.49847 1	4.20677 0	1.57775 0	2.05442 1	2.05199 1
2.780	2.51013 1	4.21244 0	1.58034 0	2.06181 1	2.05938 1
2.770	2.52190 1	4.21814 0	1.58296 0	2.06924 1	2.06683 1
2.760	2.53377 1	4.22387 0	1.58560 0	2.07674 1	2.07433 1
2.750	2.54574 1	4.22963 0	1.58826 0	2.08428 1	2.08188 1
2.740	2.55782 1	4.23543 0	1.59095 0	2.09188 1	2.08949 1
2.730	2.57002 1	4.24125 0	1.59366 0	2.09954 1	2.09716 1
2.720	2.58232 1	4.24711 0	1.59640 0	2.10725 1	2.10488 1
2.710	2.59473 1	4.25299 0	1.59916 0	2.11502 1	2.11266 1
2.700	2.60726 1	4.25891 0	1.60195 0	2.12285 1	2.12049 1
2.690	2.61991 1	4.26487 0	1.60476 0	2.13074 1	2.12839 1
2.680	2.63267 1	4.27085 0	1.60760 0	2.13868 1	2.13634 1
2.670	2.64555 1	4.27687 0	1.61047 0	2.14669 1	2.14435 1
2.665	2.65203 1	4.27989 0	1.61191 0	2.15071 1	2.14838 1
2.660	2.65855 1	4.28292 0	1.61336 0	2.15475 1	2.15243 1
2.655	2.66509 1	4.28596 0	1.61481 0	2.15880 1	2.15649 1
2.650	2.67167 1	4.28900 0	1.61628 0	2.16287 1	2.16056 1
2.645	2.67827 1	4.29206 0	1.61775 0	2.16696 1	2.16465 1
2.640	2.68491 1	4.29512 0	1.61922 0	2.17106 1	2.16876 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
2.635	2.69158 1	4.29819 0	1.62071 0	2.17518 1	2.17288 1
2.630	2.69828 1	4.30127 0	1.62220 0	2.17931 1	2.17702 1
2.625	2.70501 1	4.30436 0	1.62369 0	2.18346 1	2.18117 1
2.620	2.71178 1	4.30746 0	1.62520 0	2.18762 1	2.18534 1
2.615	2.71857 1	4.31057 0	1.62671 0	2.19180 1	2.18952 1
2.610	2.72540 1	4.31368 0	1.62823 0	2.19600 1	2.19372 1
2.605	2.73226 1	4.31681 0	1.62976 0	2.20021 1	2.19794 1
2.600	2.73916 1	4.31994 0	1.63129 0	2.20444 1	2.20217 1
2.595	2.74608 1	4.32308 0	1.63283 0	2.20868 1	2.20642 1
2.590	2.75305 1	4.32624 0	1.63438 0	2.21294 1	2.21068 1
2.585	2.76004 1	4.32940 0	1.63594 0	2.21722 1	2.21497 1
2.580	2.76707 1	4.33257 0	1.63750 0	2.22152 1	2.21926 1
2.575	2.77413 1	4.33575 0	1.63907 0	2.22583 1	2.22358 1
2.570	2.78123 1	4.33893 0	1.64065 0	2.23015 1	2.22791 1
2.565	2.78836 1	4.34213 0	1.64223 0	2.23450 1	2.23226 1
2.560	2.79552 1	4.34534 0	1.64383 0	2.23886 1	2.23663 1
2.555	2.80272 1	4.34856 0	1.64543 0	2.24324 1	2.24101 1
2.550	2.80996 1	4.35178 0	1.64704 0	2.24763 1	2.24541 1
2.545	2.81723 1	4.35502 0	1.64866 0	2.25205 1	2.24983 1
2.540	2.82454 1	4.35826 0	1.65028 0	2.25648 1	2.25426 1
2.535	2.83188 1	4.36152 0	1.65192 0	2.26093 1	2.25871 1
2.530	2.83926 1	4.36478 0	1.65356 0	2.26539 1	2.26318 1
2.525	2.84668 1	4.36805 0	1.65521 0	2.26987 1	2.26767 1
2.520	2.85413 1	4.37134 0	1.65687 0	2.27437 1	2.27217 1
2.515	2.86162 1	4.37463 0	1.65853 0	2.27889 1	2.27670 1
2.510	2.86915 1	4.37793 0	1.66021 0	2.28343 1	2.28124 1
2.505	2.87672 1	4.38125 0	1.66189 0	2.28798 1	2.28580 1
2.500	2.88432 1	4.38457 0	1.66358 0	2.29256 1	2.29038 1
2.495	2.89196 1	4.38790 0	1.66528 0	2.29715 1	2.29497 1
2.490	2.89964 1	4.39125 0	1.66699 0	2.30176 1	2.29959 1
2.485	2.90736 1	4.39460 0	1.66871 0	2.30639 1	2.30422 1
2.480	2.91512 1	4.39796 0	1.67043 0	2.31103 1	2.30887 1
2.475	2.92292 1	4.40134 0	1.67217 0	2.31570 1	2.31354 1
2.470	2.93076 1	4.40472 0	1.67391 0	2.32038 1	2.31823 1
2.465	2.93864 1	4.40812 0	1.67566 0	2.32509 1	2.32294 1
2.460	2.94655 1	4.41152 0	1.67742 0	2.32981 1	2.32766 1
2.455	2.95451 1	4.41494 0	1.67919 0	2.33455 1	2.33241 1
2.450	2.96251 1	4.41836 0	1.68097 0	2.33931 1	2.33718 1
2.445	2.97055 1	4.42180 0	1.68276 0	2.34410 1	2.34196 1
2.440	2.97864 1	4.42525 0	1.68456 0	2.34890 1	2.34677 1
2.435	2.98676 1	4.42871 0	1.68637 0	2.35372 1	2.35159 1
2.430	2.99493 1	4.43218 0	1.68818 0	2.35856 1	2.35644 1
2.425	3.00314 1	4.43566 0	1.69001 0	2.36342 1	2.36130 1
2.420	3.01139 1	4.43915 0	1.69184 0	2.36830 1	2.36618 1
2.415	3.01968 1	4.44265 0	1.69369 0	2.37320 1	2.37109 1
2.410	3.02802 1	4.44616 0	1.69554 0	2.37812 1	2.37601 1
2.405	3.03641 1	4.44969 0	1.69741 0	2.38306 1	2.38096 1
2.400	3.04483 1	4.45322 0	1.69928 0	2.38802 1	2.38593 1
2.395	3.05330 1	4.45677 0	1.70117 0	2.39300 1	2.39091 1
2.390	3.06182 1	4.46033 0	1.70306 0	2.39801 1	2.39592 1

Part 1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
2.385	3.07038 1	4.46390 0	1.70496 0	2.40303 1	2.40095 1
2.380	3.07899 1	4.46748 0	1.70688 0	2.40808 1	2.40600 1
2.375	3.08764 1	4.47107 0	1.70880 0	2.41314 1	2.41107 1
2.370	3.09634 1	4.47468 0	1.71074 0	2.41823 1	2.41616 1
2.365	3.10509 1	4.47829 0	1.71268 0	2.42334 1	2.42128 1
2.360	3.11388 1	4.48192 0	1.71464 0	2.42847 1	2.42641 1
2.355	3.12272 1	4.48556 0	1.71661 0	2.43363 1	2.43157 1
2.350	3.13161 1	4.48921 0	1.71858 0	2.43880 1	2.43675 1
2.345	3.14055 1	4.49287 0	1.72057 0	2.44400 1	2.44195 1
2.340	3.14953 1	4.49655 0	1.72257 0	2.44922 1	2.44717 1
2.335	3.15857 1	4.50024 0	1.72458 0	2.45446 1	2.45242 1
2.330	3.16765 1	4.50394 0	1.72660 0	2.45972 1	2.45769 1
2.325	3.17678 1	4.50765 0	1.72863 0	2.46501 1	2.46298 1
2.320	3.18597 1	4.51137 0	1.73067 0	2.47032 1	2.46829 1
2.315	3.19520 1	4.51511 0	1.73273 0	2.47565 1	2.47363 1
2.310	3.20449 1	4.51886 0	1.73479 0	2.48101 1	2.47899 1
2.305	3.21382 1	4.52262 0	1.73687 0	2.48639 1	2.48437 1
2.300	3.22321 1	4.52640 0	1.73896 0	2.49179 1	2.48978 1
2.295	3.23265 1	4.53019 0	1.74106 0	2.49721 1	2.49521 1
2.290	3.24215 1	4.53399 0	1.74317 0	2.50266 1	2.50067 1
2.285	3.25169 1	4.53780 0	1.74529 0	2.50814 1	2.50614 1
2.280	3.26129 1	4.54163 0	1.74743 0	2.51363 1	2.51164 1
2.275	3.27095 1	4.54547 0	1.74957 0	2.51916 1	2.51717 1
2.270	3.28066 1	4.54932 0	1.75173 0	2.52470 1	2.52272 1
2.265	3.29042 1	4.55318 0	1.75390 0	2.53027 1	2.52830 1
2.260	3.30024 1	4.55706 0	1.75609 0	2.53587 1	2.53390 1
2.255	3.31012 1	4.56096 0	1.75828 0	2.54149 1	2.53952 1
2.250	3.32005 1	4.56486 0	1.76049 0	2.54713 1	2.54517 1
2.245	3.33004 1	4.56878 0	1.76271 0	2.55280 1	2.55084 1
2.240	3.34008 1	4.57272 0	1.76495 0	2.55850 1	2.55654 1
2.235	3.35019 1	4.57666 0	1.76719 0	2.56422 1	2.56227 1
2.230	3.36035 1	4.58063 0	1.76945 0	2.56996 1	2.56802 1
2.225	3.37057 1	4.58460 0	1.77173 0	2.57574 1	2.57380 1
2.220	3.38085 1	4.58859 0	1.77401 0	2.58154 1	2.57960 1
2.215	3.39119 1	4.59259 0	1.77631 0	2.58736 1	2.58543 1
2.210	3.40159 1	4.59661 0	1.77862 0	2.59321 1	2.59128 1
2.205	3.41205 1	4.60064 0	1.78095 0	2.59909 1	2.59716 1
2.200	3.42257 1	4.60469 0	1.78329 0	2.60499 1	2.60307 1
2.195	3.43315 1	4.60875 0	1.78564 0	2.61092 1	2.60901 1
2.190	3.44380 1	4.61283 0	1.78801 0	2.61688 1	2.61497 1
2.185	3.45451 1	4.61692 0	1.79039 0	2.62287 1	2.62096 1
2.180	3.46528 1	4.62102 0	1.79279 0	2.62888 1	2.62698 1
2.175	3.47612 1	4.62514 0	1.79520 0	2.63492 1	2.63302 1
2.170	3.48702 1	4.62928 0	1.79762 0	2.64099 1	2.63909 1
2.165	3.49798 1	4.63343 0	1.80006 0	2.64708 1	2.64520 1
2.160	3.50902 1	4.63760 0	1.80252 0	2.65321 1	2.65132 1
2.155	3.52011 1	4.64178 0	1.80498 0	2.65936 1	2.65748 1
2.150	3.53128 1	4.64597 0	1.80747 0	2.66554 1	2.66367 1
2.145	3.54251 1	4.65019 0	1.80996 0	2.67175 1	2.66988 1
2.140	3.55381 1	4.65441 0	1.81248 0	2.67799 1	2.67613 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
2.135	3.56518 1	4.65866 0	1.81501 0	2.68426 1	2.68240 1
2.130	3.57662 1	4.66292 0	1.81755 0	2.69056 1	2.68870 1
2.125	3.58813 1	4.66719 0	1.82011 0	2.69689 1	2.69503 1
2.120	3.59971 1	4.67148 0	1.82268 0	2.70325 1	2.70140 1
2.115	3.61136 1	4.67579 0	1.82528 0	2.70963 1	2.70779 1
2.110	3.62309 1	4.68012 0	1.82788 0	2.71605 1	2.71421 1
2.105	3.63488 1	4.68446 0	1.83050 0	2.72250 1	2.72066 1
2.100	3.64675 1	4.68881 0	1.83314 0	2.72898 1	2.72715 1
2.095	3.65869 1	4.69319 0	1.83580 0	2.73549 1	2.73366 1
2.090	3.67071 1	4.69758 0	1.83847 0	2.74203 1	2.74021 1
2.085	3.68280 1	4.70199 0	1.84116 0	2.74860 1	2.74678 1
2.080	3.69497 1	4.70641 0	1.84387 0	2.75521 1	2.75339 1
2.075	3.70722 1	4.71085 0	1.84659 0	2.76184 1	2.76003 1
2.070	3.71954 1	4.71531 0	1.84933 0	2.76851 1	2.76671 1
2.065	3.73194 1	4.71979 0	1.85209 0	2.77521 1	2.77341 1
2.060	3.74442 1	4.72428 0	1.85486 0	2.78195 1	2.78015 1
2.055	3.75698 1	4.72880 0	1.85766 0	2.78871 1	2.78692 1
2.050	3.76962 1	4.73333 0	1.86047 0	2.79551 1	2.79372 1
2.045	3.78234 1	4.73787 0	1.86329 0	2.80234 1	2.80056 1
2.040	3.79514 1	4.74244 0	1.86614 0	2.80921 1	2.80743 1
2.035	3.80803 1	4.74702 0	1.86901 0	2.81611 1	2.81433 1
2.030	3.82100 1	4.75163 0	1.87189 0	2.82304 1	2.82127 1
2.025	3.83405 1	4.75625 0	1.87479 0	2.83001 1	2.82824 1
2.020	3.84719 1	4.76089 0	1.87771 0	2.83701 1	2.83525 1
2.015	3.86041 1	4.76554 0	1.88065 0	2.84405 1	2.84229 1
2.010	3.87372 1	4.77022 0	1.88361 0	2.85112 1	2.84937 1
2.005	3.88712 1	4.77492 0	1.88659 0	2.85823 1	2.85648 1
2.000	3.90060 1	4.77963 0	1.88959 0	2.86537 1	2.86362 1
1.995	3.91418 1	4.78437 0	1.89261 0	2.87255 1	2.87081 1
1.990	3.92784 1	4.78912 0	1.89565 0	2.87976 1	2.87803 1
1.985	3.94160 1	4.79389 0	1.89871 0	2.88701 1	2.88528 1
1.980	3.95545 1	4.79869 0	1.90179 0	2.89430 1	2.89257 1
1.975	3.96939 1	4.80350 0	1.90489 0	2.90162 1	2.89990 1
1.970	3.98342 1	4.80833 0	1.90801 0	2.90899 1	2.90727 1
1.965	3.99755 1	4.81319 0	1.91115 0	2.91639 1	2.91467 1
1.960	4.01178 1	4.81806 0	1.91431 0	2.92382 1	2.92211 1
1.955	4.02610 1	4.82296 0	1.91750 0	2.93130 1	2.92959 1
1.950	4.04052 1	4.82787 0	1.92070 0	2.93881 1	2.93711 1
1.945	4.05503 1	4.83281 0	1.92393 0	2.94636 1	2.94467 1
1.940	4.06965 1	4.83777 0	1.92718 0	2.95395 1	2.95226 1
1.935	4.08437 1	4.84274 0	1.93045 0	2.96158 1	2.95989 1
1.930	4.09919 1	4.84774 0	1.93375 0	2.96925 1	2.96757 1
1.925	4.11411 1	4.85277 0	1.93706 0	2.97696 1	2.97528 1
1.920	4.12913 1	4.85781 0	1.94041 0	2.98471 1	2.98304 1
1.915	4.14426 1	4.86287 0	1.94377 0	2.99250 1	2.99083 1
1.910	4.15950 1	4.86796 0	1.94716 0	3.00033 1	2.99857 1
1.905	4.17484 1	4.87307 0	1.95057 0	3.00820 1	3.00654 1
1.900	4.19029 1	4.87820 0	1.95400 0	3.01612 1	3.01446 1
1.895	4.20584 1	4.88336 0	1.95746 0	3.02407 1	3.02242 1
1.890	4.22151 1	4.88853 0	1.96095 0	3.03207 1	3.03042 1

Part 1

TABLE A

ϕ	ξ		η		τ		$\csc\phi$		$\cot\phi$	
1.885	4.23729	1	4.89373	0	1.96445	0	3.04011	1	3.03847	1
1.880	4.25318	1	4.89896	0	1.96799	0	3.04819	1	3.04655	1
1.875	4.26919	1	4.90420	0	1.97155	0	3.05632	1	3.05468	1
1.870	4.28531	1	4.90947	0	1.97513	0	3.06449	1	3.06286	1
1.865	4.30155	1	4.91477	0	1.97874	0	3.07270	1	3.07107	1
1.860	4.31790	1	4.92009	0	1.98238	0	3.08096	1	3.07933	1
1.855	4.33437	1	4.92543	0	1.98604	0	3.08926	1	3.08764	1
1.850	4.35096	1	4.93079	0	1.98973	0	3.09761	1	3.09599	1
1.845	4.36768	1	4.93619	0	1.99344	0	3.10600	1	3.10439	1
1.840	4.38451	1	4.94160	0	1.99719	0	3.11443	1	3.11283	1
1.835	4.40147	1	4.94704	0	2.00096	0	3.12292	1	3.12132	1
1.830	4.41855	1	4.95251	0	2.00476	0	3.13145	1	3.12985	1
1.825	4.43576	1	4.95800	0	2.00858	0	3.14002	1	3.13843	1
1.820	4.45310	1	4.96352	0	2.01244	0	3.14865	1	3.14706	1
1.815	4.47057	1	4.96906	0	2.01632	0	3.15732	1	3.15573	1
1.810	4.48817	1	4.97463	0	2.02023	0	3.16604	1	3.16446	1
1.805	4.50590	1	4.98022	0	2.02417	0	3.17480	1	3.17323	1
1.800	4.52376	1	4.98584	0	2.02815	0	3.18362	1	3.18205	1
1.795	4.54176	1	4.99149	0	2.03215	0	3.19249	1	3.19092	1
1.790	4.55989	1	4.99717	0	2.03618	0	3.20140	1	3.19984	1
1.785	4.57816	1	5.00287	0	2.04024	0	3.21036	1	3.20881	1
1.780	4.59657	1	5.00860	0	2.04433	0	3.21938	1	3.21783	1
1.775	4.61513	1	5.01435	0	2.04846	0	3.22845	1	3.22690	1
1.770	4.63382	1	5.02014	0	2.05262	0	3.23756	1	3.23602	1
1.765	4.65266	1	5.02595	0	2.05680	0	3.24673	1	3.24519	1
1.760	4.67164	1	5.03179	0	2.06103	0	3.25595	1	3.25442	1
1.755	4.69078	1	5.03767	0	2.06528	0	3.26523	1	3.26369	1
1.750	4.71006	1	5.04356	0	2.06957	0	3.27455	1	3.27302	1
1.745	4.72949	1	5.04949	0	2.07389	0	3.28393	1	3.28241	1
1.740	4.74908	1	5.05545	0	2.07824	0	3.29336	1	3.29185	1
1.735	4.76881	1	5.06144	0	2.08263	0	3.30285	1	3.30134	1
1.730	4.78871	1	5.06746	0	2.08705	0	3.31240	1	3.31089	1
1.725	4.80876	1	5.07350	0	2.09151	0	3.32199	1	3.32049	1
1.720	4.82898	1	5.07958	0	2.09600	0	3.33165	1	3.33015	1
1.715	4.84935	1	5.08569	0	2.10053	0	3.34136	1	3.33986	1
1.710	4.86989	1	5.09183	0	2.10510	0	3.35113	1	3.34963	1
1.705	4.89060	1	5.09801	0	2.10970	0	3.36095	1	3.35946	1
1.700	4.91147	1	5.10421	0	2.11434	0	3.37083	1	3.36935	1
1.695	4.93251	1	5.11044	0	2.11902	0	3.38077	1	3.37929	1
1.690	4.95372	1	5.11671	0	2.12374	0	3.39077	1	3.38930	1
1.685	4.97511	1	5.12301	0	2.12849	0	3.40083	1	3.39936	1
1.680	4.99667	1	5.12935	0	2.13328	0	3.41095	1	3.40948	1
1.675	5.01841	1	5.13571	0	2.13812	0	3.42113	1	3.41967	1
1.670	5.04033	1	5.14211	0	2.14299	0	3.43137	1	3.42991	1
1.665	5.06243	1	5.14855	0	2.14790	0	3.44167	1	3.44022	1
1.660	5.08471	1	5.15502	0	2.15286	0	3.45203	1	3.45058	1
1.655	5.10719	1	5.16152	0	2.15785	0	3.46246	1	3.46102	1
1.650	5.12985	1	5.16806	0	2.16289	0	3.47295	1	3.47151	1
1.645	5.15270	1	5.17463	0	2.16797	0	3.48350	1	3.48207	1
1.640	5.17575	1	5.18124	0	2.17310	0	3.49412	1	3.49269	1

Part 1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
1.635	5.19899 1	5.18788 0	2.17826 0	3.50480 1	3.50338 1
1.630	5.22243 1	5.19456 0	2.18347 0	3.51555 1	3.51413 1
1.625	5.24607 1	5.20128 0	2.18873 0	3.52636 1	3.52495 1
1.620	5.26991 1	5.20803 0	2.19403 0	3.53725 1	3.53583 1
1.615	5.29396 1	5.21482 0	2.19938 0	3.54819 1	3.54678 1
1.610	5.31822 1	5.22165 0	2.20477 0	3.55921 1	3.55780 1
1.605	5.34269 1	5.22852 0	2.21021 0	3.57029 1	3.56889 1
1.600	5.36738 1	5.23543 0	2.21570 0	3.58145 1	3.58005 1
1.595	5.39228 1	5.24237 0	2.22123 0	3.59267 1	3.59128 1
1.590	5.41740 1	5.24935 0	2.22682 0	3.60397 1	3.60258 1
1.585	5.44274 1	5.25638 0	2.23245 0	3.61533 1	3.61395 1
1.580	5.46831 1	5.26344 0	2.23814 0	3.62677 1	3.62539 1
1.575	5.49410 1	5.27054 0	2.24387 0	3.63828 1	3.63691 1
1.570	5.52013 1	5.27769 0	2.24966 0	3.64987 1	3.64850 1
1.565	5.54639 1	5.28488 0	2.25549 0	3.66152 1	3.66016 1
1.560	5.57289 1	5.29210 0	2.26138 0	3.67326 1	3.67190 1
1.555	5.59963 1	5.29937 0	2.26733 0	3.68507 1	3.68371 1
1.550	5.62661 1	5.30669 0	2.27333 0	3.69695 1	3.69560 1
1.545	5.65384 1	5.31404 0	2.27938 0	3.70891 1	3.70756 1
1.540	5.68131 1	5.32144 0	2.28549 0	3.72095 1	3.71961 1
1.535	5.70905 1	5.32888 0	2.29165 0	3.73307 1	3.73173 1
1.530	5.73704 1	5.33637 0	2.29787 0	3.74526 1	3.74393 1
1.525	5.76528 1	5.34391 0	2.30415 0	3.75754 1	3.75621 1
1.520	5.79380 1	5.35148 0	2.31049 0	3.76990 1	3.76857 1
1.515	5.82258 1	5.35911 0	2.31689 0	3.78234 1	3.78102 1
1.510	5.85163 1	5.36678 0	2.32335 0	3.79486 1	3.79354 1
1.505	5.88095 1	5.37450 0	2.32987 0	3.80746 1	3.80615 1
1.500	5.91056 1	5.38226 0	2.33645 0	3.82015 1	3.81884 1
1.495	5.94045 1	5.39007 0	2.34309 0	3.83293 1	3.83162 1
1.490	5.97062 1	5.39794 0	2.34980 0	3.84578 1	3.84448 1
1.485	6.00109 1	5.40585 0	2.35657 0	3.85873 1	3.85743 1
1.480	6.03184 1	5.41381 0	2.36341 0	3.87176 1	3.87047 1
1.478	6.04423 1	5.41701 0	2.36616 0	3.87700 1	3.87571 1
1.476	6.05667 1	5.42021 0	2.36893 0	3.88225 1	3.88097 1
1.474	6.06915 1	5.42343 0	2.37170 0	3.88752 1	3.88623 1
1.472	6.08168 1	5.42665 0	2.37449 0	3.89280 1	3.89152 1
1.470	6.09426 1	5.42988 0	2.37728 0	3.89810 1	3.89681 1
1.468	6.10689 1	5.43312 0	2.38009 0	3.90341 1	3.90213 1
1.466	6.11957 1	5.43637 0	2.38291 0	3.90873 1	3.90745 1
1.464	6.13230 1	5.43962 0	2.38574 0	3.91407 1	3.91279 1
1.462	6.14508 1	5.44288 0	2.38858 0	3.91942 1	3.91815 1
1.460	6.15791 1	5.44616 0	2.39143 0	3.92479 1	3.92352 1
1.458	6.17079 1	5.44944 0	2.39430 0	3.93017 1	3.92890 1
1.456	6.18372 1	5.45273 0	2.39717 0	3.93557 1	3.93430 1
1.454	6.19670 1	5.45602 0	2.40006 0	3.94098 1	3.93971 1
1.452	6.20973 1	5.45933 0	2.40295 0	3.94641 1	3.94514 1
1.450	6.22282 1	5.46264 0	2.40586 0	3.95185 1	3.95059 1
1.448	6.23596 1	5.46597 0	2.40878 0	3.95731 1	3.95605 1
1.446	6.24915 1	5.46930 0	2.41171 0	3.96278 1	3.96152 1
1.444	6.26239 1	5.47264 0	2.41466 0	3.96827 1	3.96701 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
1.442	6.27568 1	5.47599 0	2.41761 0	3.97377 1	3.97251 1
1.440	6.28903 1	5.47935 0	2.42058 0	3.97929 1	3.97803 1
1.438	6.30243 1	5.48271 0	2.42356 0	3.98482 1	3.98357 1
1.436	6.31589 1	5.48609 0	2.42655 0	3.99037 1	3.98912 1
1.434	6.32940 1	5.48947 0	2.42955 0	3.99594 1	3.99468 1
1.432	6.34296 1	5.49287 0	2.43257 0	4.00152 1	4.00027 1
1.430	6.35658 1	5.49627 0	2.43560 0	4.00711 1	4.00586 1
1.428	6.37026 1	5.49968 0	2.43864 0	4.01272 1	4.01148 1
1.426	6.38399 1	5.50310 0	2.44169 0	4.01835 1	4.01710 1
1.424	6.39778 1	5.50653 0	2.44475 0	4.02399 1	4.02275 1
1.422	6.41162 1	5.50997 0	2.44783 0	4.02965 1	4.02841 1
1.420	6.42552 1	5.51341 0	2.45092 0	4.03532 1	4.03408 1
1.418	6.43947 1	5.51687 0	2.45402 0	4.04101 1	4.03978 1
1.416	6.45348 1	5.52034 0	2.45714 0	4.04672 1	4.04548 1
1.414	6.46755 1	5.52381 0	2.46026 0	4.05244 1	4.05121 1
1.412	6.48168 1	5.52730 0	2.46340 0	4.05818 1	4.05695 1
1.410	6.49587 1	5.53079 0	2.46656 0	4.06394 1	4.06271 1
1.408	6.51011 1	5.53430 0	2.46972 0	4.06971 1	4.06848 1
1.406	6.52442 1	5.53781 0	2.47290 0	4.07550 1	4.07427 1
1.404	6.53878 1	5.54133 0	2.47610 0	4.08130 1	4.08008 1
1.402	6.55320 1	5.54486 0	2.47930 0	4.08712 1	4.08590 1
1.400	6.56769 1	5.54841 0	2.48252 0	4.09296 1	4.09174 1
1.398	6.58223 1	5.55196 0	2.48575 0	4.09881 1	4.09759 1
1.396	6.59683 1	5.55552 0	2.48900 0	4.10468 1	4.10347 1
1.394	6.61150 1	5.55909 0	2.49226 0	4.11057 1	4.10936 1
1.392	6.62622 1	5.56267 0	2.49553 0	4.11648 1	4.11526 1
1.390	6.64101 1	5.56626 0	2.49882 0	4.12240 1	4.12119 1
1.388	6.65586 1	5.56986 0	2.50212 0	4.12834 1	4.12713 1
1.386	6.67077 1	5.57347 0	2.50544 0	4.13429 1	4.13308 1
1.384	6.68575 1	5.57709 0	2.50877 0	4.14027 1	4.13906 1
1.382	6.70079 1	5.58073 0	2.51211 0	4.14626 1	4.14505 1
1.380	6.71589 1	5.58437 0	2.51547 0	4.15227 1	4.15106 1
1.378	6.73106 1	5.58802 0	2.51884 0	4.15829 1	4.15709 1
1.376	6.74629 1	5.59168 0	2.52222 0	4.16433 1	4.16313 1
1.374	6.76158 1	5.59535 0	2.52562 0	4.17039 1	4.16920 1
1.372	6.77694 1	5.59903 0	2.52904 0	4.17647 1	4.17528 1
1.370	6.79237 1	5.60272 0	2.53247 0	4.18257 1	4.18137 1
1.368	6.80787 1	5.60643 0	2.53591 0	4.18868 1	4.18749 1
1.366	6.82342 1	5.61014 0	2.53937 0	4.19481 1	4.19362 1
1.364	6.83905 1	5.61386 0	2.54284 0	4.20096 1	4.19977 1
1.362	6.85475 1	5.61760 0	2.54633 0	4.20713 1	4.20594 1
1.360	6.87051 1	5.62134 0	2.54984 0	4.21332 1	4.21213 1
1.358	6.88634 1	5.62510 0	2.55335 0	4.21952 1	4.21834 1
1.356	6.90224 1	5.62886 0	2.55689 0	4.22574 1	4.22456 1
1.354	6.91820 1	5.63264 0	2.56044 0	4.23198 1	4.23080 1
1.352	6.93424 1	5.63643 0	2.56400 0	4.23824 1	4.23706 1
1.350	6.95035 1	5.64023 0	2.56758 0	4.24452 1	4.24334 1
1.348	6.96653 1	5.64404 0	2.57118 0	4.25082 1	4.24964 1
1.346	6.98278 1	5.64786 0	2.57479 0	4.25713 1	4.25596 1
1.344	6.99910 1	5.65169 0	2.57842 0	4.26347 1	4.26229 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
1.342	7.01549 1	5.65553 0	2.58206 0	4.26982 1	4.26865 1
1.340	7.03195 1	5.65939 0	2.58572 0	4.27619 1	4.27502 1
1.338	7.04849 1	5.66325 0	2.58940 0	4.28258 1	4.28141 1
1.336	7.06510 1	5.66713 0	2.59309 0	4.28899 1	4.28783 1
1.334	7.08178 1	5.67102 0	2.59680 0	4.29542 1	4.29426 1
1.332	7.09854 1	5.67491 0	2.60052 0	4.30187 1	4.30071 1
1.330	7.11537 1	5.67883 0	2.60426 0	4.30834 1	4.30718 1
1.328	7.13228 1	5.68275 0	2.60802 0	4.31482 1	4.31366 1
1.326	7.14926 1	5.68668 0	2.61180 0	4.32133 1	4.32017 1
1.324	7.16632 1	5.69063 0	2.61559 0	4.32786 1	4.32670 1
1.322	7.18345 1	5.69458 0	2.61940 0	4.33440 1	4.33325 1
1.320	7.20066 1	5.69855 0	2.62322 0	4.34097 1	4.33982 1
1.318	7.21795 1	5.70253 0	2.62707 0	4.34756 1	4.34641 1
1.316	7.23532 1	5.70653 0	2.63093 0	4.35416 1	4.35301 1
1.314	7.25276 1	5.71053 0	2.63480 0	4.36079 1	4.35964 1
1.312	7.27029 1	5.71455 0	2.63870 0	4.36743 1	4.36629 1
1.310	7.28789 1	5.71858 0	2.64261 0	4.37410 1	4.37296 1
1.308	7.30558 1	5.72262 0	2.64654 0	4.38079 1	4.37965 1
1.306	7.32334 1	5.72667 0	2.65049 0	4.38750 1	4.38636 1
1.304	7.34119 1	5.73074 0	2.65446 0	4.39422 1	4.39309 1
1.302	7.35912 1	5.73481 0	2.65844 0	4.40097 1	4.39984 1
1.300	7.37713 1	5.73890 0	2.66245 0	4.40774 1	4.40661 1
1.298	7.39522 1	5.74301 0	2.66647 0	4.41453 1	4.41340 1
1.296	7.41340 1	5.74712 0	2.67051 0	4.42134 1	4.42021 1
1.294	7.43166 1	5.75125 0	2.67457 0	4.42818 1	4.42705 1
1.292	7.45000 1	5.75539 0	2.67865 0	4.43503 1	4.43390 1
1.290	7.46843 1	5.75954 0	2.68274 0	4.44190 1	4.44078 1
1.288	7.48694 1	5.76371 0	2.68686 0	4.44880 1	4.44768 1
1.286	7.50555 1	5.76789 0	2.69099 0	4.45572 1	4.45460 1
1.284	7.52423 1	5.77208 0	2.69515 0	4.46266 1	4.46154 1
1.282	7.54301 1	5.77629 0	2.69932 0	4.46962 1	4.46850 1
1.280	7.56187 1	5.78050 0	2.70351 0	4.47660 1	4.47548 1
1.278	7.58082 1	5.78473 0	2.70773 0	4.48361 1	4.48249 1
1.276	7.59986 1	5.78898 0	2.71196 0	4.49063 1	4.48952 1
1.274	7.61899 1	5.79324 0	2.71621 0	4.49768 1	4.49657 1
1.272	7.63821 1	5.79751 0	2.72048 0	4.50475 1	4.50364 1
1.270	7.65753 1	5.80179 0	2.72477 0	4.51184 1	4.51074 1
1.268	7.67693 1	5.80609 0	2.72909 0	4.51896 1	4.51785 1
1.266	7.69642 1	5.81040 0	2.73342 0	4.52610 1	4.52499 1
1.264	7.71601 1	5.81473 0	2.73777 0	4.53326 1	4.53215 1
1.262	7.73569 1	5.81907 0	2.74215 0	4.54044 1	4.53934 1
1.260	7.75547 1	5.82342 0	2.74654 0	4.54765 1	4.54655 1
1.258	7.77534 1	5.82779 0	2.75096 0	4.55488 1	4.55378 1
1.256	7.79530 1	5.83217 0	2.75540 0	4.56213 1	4.56103 1
1.254	7.81537 1	5.83656 0	2.75986 0	4.56940 1	4.56831 1
1.252	7.83552 1	5.84097 0	2.76434 0	4.57670 1	4.57561 1
1.250	7.85578 1	5.84539 0	2.76884 0	4.58402 1	4.58293 1
1.248	7.87613 1	5.84983 0	2.77337 0	4.59137 1	4.59028 1
1.246	7.89659 1	5.85428 0	2.77791 0	4.59874 1	4.59765 1
1.244	7.91714 1	5.85875 0	2.78248 0	4.60613 1	4.60504 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
1.242	7.93779 1	5.86323 0	2.78707 0	4.61354 1	4.61246 1
1.240	7.95854 1	5.86773 0	2.79168 0	4.62098 1	4.61990 1
1.238	7.97940 1	5.87224 0	2.79632 0	4.62845 1	4.62737 1
1.236	8.00036 1	5.87676 0	2.80098 0	4.63594 1	4.63486 1
1.234	8.02141 1	5.88130 0	2.80566 0	4.64345 1	4.64237 1
1.232	8.04258 1	5.88586 0	2.81036 0	4.65099 1	4.64991 1
1.230	8.06385 1	5.89043 0	2.81509 0	4.65855 1	4.65747 1
1.228	8.08522 1	5.89501 0	2.81984 0	4.66613 1	4.66506 1
1.226	8.10670 1	5.89961 0	2.82461 0	4.67374 1	4.67267 1
1.224	8.12829 1	5.90423 0	2.82941 0	4.68138 1	4.68031 1
1.222	8.14998 1	5.90886 0	2.83423 0	4.68904 1	4.68797 1
1.220	8.17178 1	5.91351 0	2.83908 0	4.69673 1	4.69566 1
1.218	8.19369 1	5.91817 0	2.84395 0	4.70444 1	4.70337 1
1.216	8.21571 1	5.92285 0	2.84885 0	4.71217 1	4.71111 1
1.214	8.23784 1	5.92754 0	2.85376 0	4.71993 1	4.71888 1
1.212	8.26009 1	5.93225 0	2.85871 0	4.72772 1	4.72666 1
1.210	8.28244 1	5.93698 0	2.86368 0	4.73554 1	4.73448 1
1.208	8.30491 1	5.94172 0	2.86867 0	4.74337 1	4.74232 1
1.206	8.32749 1	5.94648 0	2.87369 0	4.75124 1	4.75019 1
1.204	8.35019 1	5.95125 0	2.87874 0	4.75913 1	4.75808 1
1.202	8.37300 1	5.95604 0	2.88381 0	4.76705 1	4.76600 1
1.200	8.39593 1	5.96085 0	2.88890 0	4.77499 1	4.77395 1
1.198	8.41898 1	5.96567 0	2.89403 0	4.78296 1	4.78192 1
1.196	8.44214 1	5.97051 0	2.89917 0	4.79096 1	4.78992 1
1.194	8.46543 1	5.97537 0	2.90435 0	4.79898 1	4.79794 1
1.192	8.48883 1	5.98024 0	2.90955 0	4.80703 1	4.80599 1
1.190	8.51235 1	5.98513 0	2.91478 0	4.81511 1	4.81407 1
1.188	8.53600 1	5.99004 0	2.92004 0	4.82322 1	4.82218 1
1.186	8.55977 1	5.99497 0	2.92532 0	4.83135 1	4.83032 1
1.184	8.58366 1	5.99991 0	2.93063 0	4.83951 1	4.83848 1
1.182	8.60768 1	6.00487 0	2.93597 0	4.84770 1	4.84667 1
1.180	8.63182 1	6.00984 0	2.94133 0	4.85591 1	4.85488 1
1.178	8.65609 1	6.01484 0	2.94673 0	4.86416 1	4.86313 1
1.176	8.68048 1	6.01985 0	2.95215 0	4.87243 1	4.87140 1
1.174	8.70500 1	6.02488 0	2.95760 0	4.88073 1	4.87970 1
1.172	8.72966 1	6.02993 0	2.96308 0	4.88905 1	4.88803 1
1.170	8.75444 1	6.03499 0	2.96859 0	4.89741 1	4.89639 1
1.168	8.77935 1	6.04008 0	2.97413 0	4.90580 1	4.90478 1
1.166	8.80440 1	6.04518 0	2.97969 0	4.91421 1	4.91319 1
1.164	8.82958 1	6.05030 0	2.98529 0	4.92265 1	4.92164 1
1.162	8.85489 1	6.05544 0	2.99092 0	4.93112 1	4.93011 1
1.160	8.88034 1	6.06060 0	2.99657 0	4.93962 1	4.93861 1
1.158	8.90593 1	6.06577 0	3.00226 0	4.94815 1	4.94714 1
1.156	8.93165 1	6.07097 0	3.00798 0	4.95671 1	4.95570 1
1.154	8.95751 1	6.07618 0	3.01372 0	4.96530 1	4.96430 1
1.152	8.98351 1	6.08142 0	3.01950 0	4.97392 1	4.97292 1
1.150	9.00966 1	6.08667 0	3.02531 0	4.98257 1	4.98157 1
1.148	9.03594 1	6.09194 0	3.03116 0	4.99125 1	4.99025 1
1.146	9.06236 1	6.09723 0	3.03703 0	4.99996 1	4.99896 1
1.144	9.08893 1	6.10254 0	3.04294 0	5.00870 1	5.00770 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
1.142	9.11565 1	6.10787 0	3.04887 0	5.01747 1	5.01647 1
1.140	9.14251 1	6.11322 0	3.05484 0	5.02627 1	5.02528 1
1.138	9.16952 1	6.11859 0	3.06085 0	5.03510 1	5.03411 1
1.136	9.19667 1	6.12398 0	3.06688 0	5.04397 1	5.04298 1
1.134	9.22398 1	6.12939 0	3.07295 0	5.05286 1	5.05187 1
1.132	9.25144 1	6.13482 0	3.07905 0	5.06179 1	5.06080 1
1.130	9.27904 1	6.14027 0	3.08519 0	5.07075 1	5.06976 1
1.128	9.30681 1	6.14574 0	3.09136 0	5.07974 1	5.07875 1
1.126	9.33472 1	6.15123 0	3.09757 0	5.08876 1	5.08777 1
1.124	9.36280 1	6.15675 0	3.10381 0	5.09781 1	5.09683 1
1.122	9.39103 1	6.16228 0	3.11008 0	5.10690 1	5.10592 1
1.120	9.41941 1	6.16783 0	3.11639 0	5.11602 1	5.11504 1
1.118	9.44796 1	6.17341 0	3.12273 0	5.12517 1	5.12419 1
1.116	9.47667 1	6.17901 0	3.12911 0	5.13435 1	5.13338 1
1.114	9.50554 1	6.18463 0	3.13553 0	5.14357 1	5.14259 1
1.112	9.53457 1	6.19027 0	3.14198 0	5.15282 1	5.15185 1
1.110	9.56377 1	6.19593 0	3.14847 0	5.16210 1	5.16113 1
1.108	9.59313 1	6.20161 0	3.15500 0	5.17142 1	5.17045 1
1.106	9.62266 1	6.20732 0	3.16156 0	5.18077 1	5.17980 1
1.104	9.65236 1	6.21305 0	3.16817 0	5.19015 1	5.18919 1
1.102	9.68223 1	6.21880 0	3.17480 0	5.19957 1	5.19861 1
1.100	9.71227 1	6.22457 0	3.18148 0	5.20902 1	5.20806 1
1.098	9.74249 1	6.23037 0	3.18820 0	5.21851 1	5.21755 1
1.096	9.77288 1	6.23619 0	3.19495 0	5.22803 1	5.22707 1
1.094	9.80344 1	6.24203 0	3.20175 0	5.23759 1	5.23663 1
1.092	9.83419 1	6.24790 0	3.20858 0	5.24718 1	5.24623 1
1.090	9.86511 1	6.25378 0	3.21545 0	5.25680 1	5.25585 1
1.088	9.89621 1	6.25970 0	3.22236 0	5.26647 1	5.26552 1
1.086	9.92749 1	6.26563 0	3.22932 0	5.27616 1	5.27522 1
1.084	9.95896 1	6.27159 0	3.23631 0	5.28590 1	5.28495 1
1.082	9.99061 1	6.27757 0	3.24334 0	5.29567 1	5.29472 1
1.080	1.00224 2	6.28358 0	3.25042 0	5.30547 1	5.30453 1
1.078	1.00545 2	6.28961 0	3.25754 0	5.31532 1	5.31437 1
1.076	1.00867 2	6.29567 0	3.26470 0	5.32519 1	5.32425 1
1.074	1.01191 2	6.30175 0	3.27190 0	5.33511 1	5.33417 1
1.072	1.01517 2	6.30786 0	3.27915 0	5.34506 1	5.34413 1
1.070	1.01845 2	6.31399 0	3.28644 0	5.35505 1	5.35412 1
1.068	1.02175 2	6.32014 0	3.29377 0	5.36508 1	5.36415 1
1.066	1.02507 2	6.32632 0	3.30115 0	5.37514 1	5.37421 1
1.064	1.02841 2	6.33253 0	3.30857 0	5.38525 1	5.38432 1
1.062	1.03176 2	6.33876 0	3.31603 0	5.39539 1	5.39446 1
1.060	1.03514 2	6.34502 0	3.32354 0	5.40556 1	5.40464 1
1.058	1.03854 2	6.35131 0	3.33110 0	5.41578 1	5.41486 1
1.056	1.04196 2	6.35762 0	3.33870 0	5.42604 1	5.42512 1
1.054	1.04540 2	6.36395 0	3.34635 0	5.43633 1	5.43541 1
1.052	1.04887 2	6.37032 0	3.35404 0	5.44667 1	5.44575 1
1.050	1.05235 2	6.37671 0	3.36178 0	5.45704 1	5.45612 1
1.048	1.05585 2	6.38312 0	3.36957 0	5.46745 1	5.46654 1
1.046	1.05938 2	6.38957 0	3.37741 0	5.47791 1	5.47699 1
1.044	1.06293 2	6.39604 0	3.38530 0	5.48840 1	5.48749 1

Part 1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
1.042	1.06650 2	6.40254 0	3.39323 0	5.49893 1	5.49802 1
1.040	1.07009 2	6.40907 0	3.40122 0	5.50951 1	5.50860 1
1.038	1.07371 2	6.41562 0	3.40925 0	5.52012 1	5.51921 1
1.036	1.07734 2	6.42221 0	3.41733 0	5.53078 1	5.52987 1
1.034	1.08100 2	6.42882 0	3.42547 0	5.54147 1	5.54057 1
1.032	1.08468 2	6.43546 0	3.43365 0	5.55221 1	5.55131 1
1.030	1.08839 2	6.44213 0	3.44189 0	5.56299 1	5.56209 1
1.028	1.09212 2	6.44882 0	3.45018 0	5.57381 1	5.57291 1
1.026	1.09587 2	6.45555 0	3.45852 0	5.58468 1	5.58378 1
1.024	1.09965 2	6.46231 0	3.46691 0	5.59558 1	5.59469 1
1.022	1.10345 2	6.46910 0	3.47536 0	5.60653 1	5.60564 1
1.020	1.10727 2	6.47591 0	3.48386 0	5.61752 1	5.61663 1
1.018	1.11112 2	6.48276 0	3.49241 0	5.62856 1	5.62767 1
1.016	1.11500 2	6.48964 0	3.50102 0	5.63964 1	5.63875 1
1.014	1.11890 2	6.49654 0	3.50969 0	5.65076 1	5.64987 1
1.012	1.12282 2	6.50348 0	3.51841 0	5.66193 1	5.66104 1
1.010	1.12677 2	6.51045 0	3.52719 0	5.67314 1	5.67226 1
1.008	1.13074 2	6.51745 0	3.53602 0	5.68439 1	5.68351 1
1.006	1.13475 2	6.52448 0	3.54491 0	5.69569 1	5.69481 1
1.004	1.13877 2	6.53155 0	3.55386 0	5.70704 1	5.70616 1
1.002	1.14283 2	6.53864 0	3.56287 0	5.71843 1	5.71755 1
1.000	1.14690 2	6.54577 0	3.57194 0	5.72986 1	5.72899 1
0.998	1.15101 2	6.55293 0	3.58107 0	5.74134 1	5.74047 1
0.996	1.15514 2	6.56012 0	3.59025 0	5.75287 1	5.75200 1
0.994	1.15931 2	6.56735 0	3.59950 0	5.76445 1	5.76358 1
0.992	1.16349 2	6.57461 0	3.60881 0	5.77607 1	5.77520 1
0.990	1.16771 2	6.58190 0	3.61818 0	5.78773 1	5.78687 1
0.988	1.17195 2	6.58923 0	3.62761 0	5.79945 1	5.79859 1
0.986	1.17623 2	6.59659 0	3.63711 0	5.81121 1	5.81035 1
0.984	1.18053 2	6.60399 0	3.64667 0	5.82302 1	5.82216 1
0.982	1.18486 2	6.61141 0	3.65629 0	5.83488 1	5.83402 1
0.980	1.18922 2	6.61888 0	3.66598 0	5.84679 1	5.84593 1
0.978	1.19361 2	6.62638 0	3.67573 0	5.85874 1	5.85789 1
0.976	1.19802 2	6.63391 0	3.68555 0	5.87075 1	5.86989 1
0.974	1.20247 2	6.64148 0	3.69544 0	5.88280 1	5.88195 1
0.972	1.20695 2	6.64909 0	3.70540 0	5.89490 1	5.89405 1
0.970	1.21146 2	6.65673 0	3.71542 0	5.90706 1	5.90621 1
0.968	1.21600 2	6.66441 0	3.72551 0	5.91926 1	5.91842 1
0.966	1.22057 2	6.67213 0	3.73567 0	5.93151 1	5.93067 1
0.964	1.22518 2	6.67988 0	3.74590 0	5.94382 1	5.94298 1
0.962	1.22981 2	6.68767 0	3.75620 0	5.95617 1	5.95534 1
0.960	1.23448 2	6.69550 0	3.76657 0	5.96858 1	5.96774 1
0.958	1.23918 2	6.70337 0	3.77702 0	5.98104 1	5.98021 1
0.956	1.24391 2	6.71127 0	3.78753 0	5.99355 1	5.99272 1
0.954	1.24867 2	6.71922 0	3.79813 0	6.00612 1	6.00528 1
0.952	1.25347 2	6.72720 0	3.80879 0	6.01873 1	6.01790 1
0.950	1.25831 2	6.73522 0	3.81953 0	6.03140 1	6.03057 1
0.948	1.26317 2	6.74328 0	3.83035 0	6.04413 1	6.04330 1
0.946	1.26807 2	6.75138 0	3.84124 0	6.05690 1	6.05608 1
0.944	1.27301 2	6.75952 0	3.85221 0	6.06974 1	6.06891 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.942	1.27798 2	6.76771 0	3.86326 0	6.08262 1	6.08180 1
0.940	1.28299 2	6.77593 0	3.87438 0	6.09556 1	6.09474 1
0.938	1.28803 2	6.78419 0	3.88559 0	6.10856 1	6.10774 1
0.936	1.29311 2	6.79250 0	3.89688 0	6.12161 1	6.12079 1
0.934	1.29822 2	6.80085 0	3.90825 0	6.13472 1	6.13390 1
0.932	1.30337 2	6.80924 0	3.91970 0	6.14788 1	6.14707 1
0.930	1.30856 2	6.81767 0	3.93123 0	6.16110 1	6.16029 1
0.928	1.31379 2	6.82615 0	3.94285 0	6.17438 1	6.17357 1
0.926	1.31906 2	6.83467 0	3.95455 0	6.18771 1	6.18690 1
0.924	1.32436 2	6.84323 0	3.96634 0	6.20110 1	6.20030 1
0.922	1.32970 2	6.85184 0	3.97821 0	6.21455 1	6.21375 1
0.920	1.33509 2	6.86049 0	3.99018 0	6.22806 1	6.22726 1
0.918	1.34051 2	6.86919 0	4.00223 0	6.24163 1	6.24083 1
0.916	1.34597 2	6.87793 0	4.01437 0	6.25526 1	6.25446 1
0.914	1.35147 2	6.88672 0	4.02659 0	6.26894 1	6.26814 1
0.912	1.35702 2	6.89555 0	4.03892 0	6.28269 1	6.28189 1
0.910	1.36260 2	6.90443 0	4.05133 0	6.29650 1	6.29570 1
0.908	1.36823 2	6.91336 0	4.06383 0	6.31036 1	6.30957 1
0.906	1.37390 2	6.92234 0	4.07643 0	6.32429 1	6.32350 1
0.904	1.37961 2	6.93136 0	4.08913 0	6.33828 1	6.33749 1
0.902	1.38536 2	6.94043 0	4.10192 0	6.35234 1	6.35155 1
0.900	1.39116 2	6.94955 0	4.11481 0	6.36645 1	6.36567 1
0.898	1.39701 2	6.95872 0	4.12780 0	6.38063 1	6.37985 1
0.896	1.40289 2	6.96794 0	4.14088 0	6.39487 1	6.39409 1
0.894	1.40883 2	6.97721 0	4.15407 0	6.40918 1	6.40840 1
0.892	1.41481 2	6.98653 0	4.16735 0	6.42354 1	6.42277 1
0.890	1.42083 2	6.99590 0	4.18074 0	6.43798 1	6.43720 1
0.888	1.42690 2	7.00532 0	4.19424 0	6.45248 1	6.45170 1
0.886	1.43302 2	7.01479 0	4.20784 0	6.46704 1	6.46627 1
0.884	1.43919 2	7.02432 0	4.22154 0	6.48167 1	6.48090 1
0.882	1.44540 2	7.03389 0	4.23535 0	6.49637 1	6.49560 1
0.880	1.45166 2	7.04352 0	4.24927 0	6.51113 1	6.51036 1
0.878	1.45798 2	7.05321 0	4.26330 0	6.52596 1	6.52520 1
0.876	1.46434 2	7.06295 0	4.27744 0	6.54086 1	6.54010 1
0.874	1.47075 2	7.07274 0	4.29169 0	6.55583 1	6.55506 1
0.872	1.47721 2	7.08259 0	4.30606 0	6.57086 1	6.57010 1
0.870	1.48373 2	7.09250 0	4.32054 0	6.58597 1	6.58521 1
0.868	1.49030 2	7.10246 0	4.33513 0	6.60114 1	6.60038 1
0.866	1.49692 2	7.11247 0	4.34984 0	6.61638 1	6.61563 1
0.864	1.50359 2	7.12255 0	4.36467 0	6.63170 1	6.63094 1
0.862	1.51032 2	7.13268 0	4.37962 0	6.64708 1	6.64633 1
0.860	1.51710 2	7.14287 0	4.39469 0	6.66254 1	6.66179 1
0.858	1.52393 2	7.15312 0	4.40989 0	6.67807 1	6.67732 1
0.856	1.53083 2	7.16343 0	4.42521 0	6.69367 1	6.69292 1
0.854	1.53777 2	7.17380 0	4.44065 0	6.70935 1	6.70860 1
0.852	1.54478 2	7.18423 0	4.45622 0	6.72510 1	6.72435 1
0.850	1.55184 2	7.19472 0	4.47192 0	6.74092 1	6.74018 1
0.848	1.55897 2	7.20528 0	4.48774 0	6.75682 1	6.75607 1
0.846	1.56615 2	7.21589 0	4.50370 0	6.77279 1	6.77205 1
0.844	1.57339 2	7.22657 0	4.51979 0	6.78884 1	6.78810 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.842	1.58069 2	7.23732 0	4.53602 0	6.80496 1	6.80422 1
0.840	1.58805 2	7.24812 0	4.55238 0	6.82116 1	6.82043 1
0.838	1.59547 2	7.25900 0	4.56888 0	6.83744 1	6.83671 1
0.836	1.60296 2	7.26993 0	4.58552 0	6.85380 1	6.85307 1
0.834	1.61051 2	7.28094 0	4.60230 0	6.87023 1	6.86950 1
0.832	1.61812 2	7.29201 0	4.61922 0	6.88674 1	6.88602 1
0.830	1.62580 2	7.30315 0	4.63629 0	6.90334 1	6.90261 1
0.828	1.63355 2	7.31435 0	4.65350 0	6.92001 1	6.91929 1
0.826	1.64136 2	7.32563 0	4.67086 0	6.93677 1	6.93604 1
0.824	1.64924 2	7.33697 0	4.68837 0	6.95360 1	6.95288 1
0.822	1.65718 2	7.34839 0	4.70603 0	6.97052 1	6.96980 1
0.820	1.66520 2	7.35987 0	4.72384 0	6.98752 1	6.98680 1
0.818	1.67329 2	7.37143 0	4.74181 0	7.00460 1	7.00389 1
0.816	1.68144 2	7.38306 0	4.75994 0	7.02177 1	7.02106 1
0.814	1.68967 2	7.39477 0	4.77822 0	7.03902 1	7.03831 1
0.812	1.69797 2	7.40654 0	4.79667 0	7.05636 1	[illegible] 1
0.810	1.70634 2	7.41840 0	4.81528 0	7.07378 1	7 [illegible] 1
0.808	1.71479 2	7.43032 0	4.83405 0	7.09129 1	7.09058 1
0.806	1.72331 2	7.44233 0	4.85299 0	7.10888 1	7.10818 1
0.804	1.73191 2	7.45441 0	4.87210 0	7.12656 1	7.12586 1
0.802	1.74058 2	7.46657 0	4.89138 0	7.14433 1	7.14363 1
0.800	1.74934 2	7.47881 0	4.91083 0	7.16219 1	7.16150 1
0.798	1.75817 2	7.49112 0	4.93046 0	7.18014 1	7.17945 1
0.796	1.76708 2	7.50352 0	4.95027 0	7.19818 1	7.19749 1
0.794	1.77608 2	7.51600 0	4.97026 0	7.21631 1	7.21562 1
0.792	1.78515 2	7.52856 0	4.99042 0	7.23454 1	7.23384 1
0.790	1.79431 2	7.54121 0	5.01078 0	7.25285 1	7.25216 1
0.788	1.80355 2	7.55393 0	5.03132 0	7.27126 1	7.27057 1
0.786	1.81288 2	7.56675 0	5.05205 0	7.28976 1	7.28907 1
0.784	1.82229 2	7.57964 0	5.07297 0	7.30835 1	7.30767 1
0.782	1.83179 2	7.59263 0	5.09408 0	7.32704 1	7.32636 1
0.780	1.84138 2	7.60570 0	5.11540 0	7.34583 1	7.34515 1
0.778	1.85106 2	7.61886 0	5.13691 0	7.36471 1	7.36403 1
0.776	1.86083 2	7.63211 0	5.15862 0	7.38369 1	7.38301 1
0.774	1.87070 2	7.64546 0	5.18054 0	7.40277 1	7.40209 1
0.772	1.88065 2	7.65889 0	5.20267 0	7.42195 1	7.42127 1
0.770	1.89070 2	7.67241 0	5.22500 0	7.44122 1	7.44055 1
0.768	1.90085 2	7.68603 0	5.24755 0	7.46060 1	7.45993 1
0.766	1.91109 2	7.69975 0	5.27032 0	7.48008 1	7.47941 1
0.764	1.92143 2	7.71356 0	5.29330 0	7.49966 1	7.49899 1
0.762	1.93188 2	7.72746 0	5.31651 0	7.51934 1	7.51868 1
0.760	1.94242 2	7.74146 0	5.33994 0	7.53913 1	7.53846 1
0.758	1.95306 2	7.75557 0	5.36360 0	7.55902 1	7.55836 1
0.756	1.96381 2	7.76977 0	5.38749 0	7.57901 1	7.57836 1
0.754	1.97467 2	7.78407 0	5.41161 0	7.59912 1	7.59846 1
0.752	1.98563 2	7.79848 0	5.43597 0	7.61933 1	7.61867 1
0.750	1.99670 2	7.81299 0	5.46057 0	7.63964 1	7.63899 1
0.748	2.00788 2	7.82760 0	5.48541 0	7.66007 1	7.65942 1
0.746	2.01917 2	7.84232 0	5.51050 0	7.68060 1	7.67995 1
0.744	2.03057 2	7.85715 0	5.53585 0	7.70125 1	7.70060 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.742	2.04209 2	7.87209 0	5.56144 0	7.72201 1	7.72136 1
0.740	2.05372 2	7.88713 0	5.58730 0	7.74288 1	7.74223 1
0.738	2.06547 2	7.90229 0	5.61341 0	7.76386 1	7.76321 1
0.736	2.07734 2	7.91756 0	5.63979 0	7.78495 1	7.78431 1
0.734	2.08933 2	7.93294 0	5.66644 0	7.80617 1	7.80552 1
0.732	2.10145 2	7.94844 0	5.69336 0	7.82749 1	7.82685 1
0.731	2.10755 2	7.95624 0	5.70693 0	7.83820 1	7.83756 1
0.730	2.11369 2	7.96406 0	5.72056 0	7.84894 1	7.84830 1
0.729	2.11985 2	7.97191 0	5.73426 0	7.85970 1	7.85907 1
0.728	2.12605 2	7.97979 0	5.74804 0	7.87050 1	7.86986 1
0.727	2.13228 2	7.98770 0	5.76188 0	7.88132 1	7.88069 1
0.726	2.13854 2	7.99564 0	5.77580 0	7.89218 1	7.89155 1
0.725	2.14484 2	8.00361 0	5.78979 0	7.90306 1	7.90243 1
0.724	2.15116 2	8.01161 0	5.80385 0	7.91398 1	7.91335 1
0.723	2.15752 2	8.01964 0	5.81799 0	7.92492 1	7.92429 1
0.722	2.16392 2	8.02771 0	5.83220 0	7.93590 1	7.93527 1
0.721	2.17034 2	8.03580 0	5.84648 0	7.94691 1	7.94628 1
0.720	2.17681 2	8.04393 0	5.86084 0	7.95794 1	7.95732 1
0.719	2.18330 2	8.05208 0	5.87527 0	7.96901 1	7.96838 1
0.718	2.18983 2	8.06027 0	5.88978 0	7.98011 1	7.97948 1
0.717	2.19639 2	8.06849 0	5.90436 0	7.99124 1	7.99061 1
0.716	2.20299 2	8.07674 0	5.91903 0	8.00240 1	8.00177 1
0.715	2.20962 2	8.08502 0	5.93377 0	8.01359 1	8.01297 1
0.714	2.21629 2	8.09334 0	5.94859 0	8.02481 1	8.02419 1
0.713	2.22299 2	8.10169 0	5.96348 0	8.03607 1	8.03545 1
0.712	2.22973 2	8.11007 0	5.97846 0	8.04735 1	8.04673 1
0.711	2.23651 2	8.11848 0	5.99351 0	8.05867 1	8.05805 1
0.710	2.24332 2	8.12693 0	6.00865 0	8.07002 1	8.06940 1
0.709	2.25016 2	8.13540 0	6.02387 0	8.08140 1	8.08078 1
0.708	2.25705 2	8.14392 0	6.03917 0	8.09282 1	8.09220 1
0.707	2.26397 2	8.15247 0	6.05455 0	8.10426 1	8.10365 1
0.706	2.27093 2	8.16105 0	6.07002 0	8.11574 1	8.11513 1
0.705	2.27793 2	8.16966 0	6.08556 0	8.12725 1	8.12664 1
0.704	2.28496 2	8.17831 0	6.10120 0	8.13880 1	8.13818 1
0.703	2.29203 2	8.18699 0	6.11691 0	8.15037 1	8.14976 1
0.702	2.29914 2	8.19571 0	6.13272 0	8.16198 1	8.16137 1
0.701	2.30629 2	8.20447 0	6.14860 0	8.17363 1	8.17301 1
0.700	2.31348 2	8.21326 0	6.16458 0	8.18530 1	8.18469 1
0.699	2.32071 2	8.22208 0	6.18064 0	8.19701 1	8.19640 1
0.698	2.32798 2	8.23094 0	6.19679 0	8.20875 1	8.20814 1
0.697	2.33528 2	8.23984 0	6.21303 0	8.22053 1	8.21992 1
0.696	2.34263 2	8.24877 0	6.22936 0	8.23234 1	8.23173 1
0.695	2.35002 2	8.25774 0	6.24578 0	8.24419 1	8.24358 1
0.694	2.35745 2	8.26674 0	6.26229 0	8.25606 1	8.25546 1
0.693	2.36492 2	8.27578 0	6.27889 0	8.26798 1	8.26737 1
0.692	2.37243 2	8.28486 0	6.29559 0	8.27992 1	8.27932 1
0.691	2.37998 2	8.29398 0	6.31237 0	8.29191 1	8.29130 1
0.690	2.38758 2	8.30313 0	6.32925 0	8.30392 1	8.30332 1
0.689	2.39522 2	8.31233 0	6.34623 0	8.31597 1	8.31537 1
0.688	2.40290 2	8.32156 0	6.36330 0	8.32806 1	8.32746 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.687	2.41062 2	8.33083 0	6.38046 0	8.34018 1	8.33958 1
0.686	2.41839 2	8.34013 0	6.39772 0	8.35234 1	8.35174 1
0.685	2.42620 2	8.34948 0	6.41508 0	8.36453 1	8.36393 1
0.684	2.43405 2	8.35886 0	6.43254 0	8.37676 1	8.37616 1
0.683	2.44195 2	8.36829 0	6.45010 0	8.38902 1	8.38843 1
0.682	2.44990 2	8.37775 0	6.46775 0	8.40132 1	8.40073 1
0.681	2.45789 2	8.38725 0	6.48551 0	8.41366 1	8.41307 1
0.680	2.46592 2	8.39680 0	6.50337 0	8.42603 1	8.42544 1
0.679	2.47400 2	8.40638 0	6.52133 0	8.43844 1	8.43785 1
0.678	2.48213 2	8.41601 0	6.53939 0	8.45089 1	8.45030 1
0.677	2.49031 2	8.42567 0	6.55755 0	8.46337 1	8.46278 1
0.676	2.49853 2	8.43538 0	6.57582 0	8.47589 1	8.47530 1
0.675	2.50679 2	8.44513 0	6.59420 0	8.48845 1	8.48786 1
0.674	2.51511 2	8.45492 0	6.61268 0	8.50104 1	8.50045 1
0.673	2.52347 2	8.46475 0	6.63127 0	8.51367 1	8.51308 1
0.672	2.53189 2	8.47463 0	6.64996 0	8.52634 1	8.52575 1
0.671	2.54035 2	8.48454 0	6.66877 0	8.53904 1	8.53846 1
0.670	2.54886 2	8.49450 0	6.68768 0	8.55179 1	8.55120 1
0.669	2.55742 2	8.50451 0	6.70671 0	8.56457 1	8.56399 1
0.668	2.56603 2	8.51455 0	6.72584 0	8.57739 1	8.57681 1
0.667	2.57469 2	8.52464 0	6.74509 0	8.59025 1	8.58967 1
0.666	2.58340 2	8.53478 0	6.76445 0	8.60315 1	8.60257 1
0.665	2.59217 2	8.54496 0	6.78393 0	8.61608 1	8.61550 1
0.664	2.60098 2	8.55518 0	6.80352 0	8.62906 1	8.62848 1
0.663	2.60985 2	8.56545 0	6.82323 0	8.64207 1	8.64150 1
0.662	2.61877 2	8.57577 0	6.84305 0	8.65513 1	8.65455 1
0.661	2.62774 2	8.58613 0	6.86299 0	8.66822 1	8.66765 1
0.660	2.63677 2	8.59653 0	6.88305 0	8.68136 1	8.68078 1
0.659	2.64585 2	8.60698 0	6.90323 0	8.69453 1	8.69395 1
0.658	2.65498 2	8.61748 0	6.92353 0	8.70774 1	8.70717 1
0.657	2.66417 2	8.62803 0	6.94395 0	8.72099 1	8.72042 1
0.656	2.67342 2	8.63862 0	6.96450 0	8.73429 1	8.73372 1
0.655	2.68272 2	8.64926 0	6.98517 0	8.74762 1	8.74705 1
0.654	2.69208 2	8.65995 0	7.00596 0	8.76100 1	8.76043 1
0.653	2.70149 2	8.67069 0	7.02688 0	8.77441 1	8.77384 1
0.652	2.71096 2	8.68147 0	7.04793 0	8.78787 1	8.78730 1
0.651	2.72049 2	8.69231 0	7.06910 0	8.80137 1	8.80080 1
0.650	2.73007 2	8.70319 0	7.09040 0	8.81491 1	8.81434 1
0.649	2.73972 2	8.71412 0	7.11184 0	8.82849 1	8.82792 1
0.648	2.74942 2	8.72511 0	7.13340 0	8.84211 1	8.84155 1
0.647	2.75918 2	8.73614 0	7.15510 0	8.85578 1	8.85521 1
0.646	2.76901 2	8.74723 0	7.17693 0	8.86949 1	8.86892 1
0.645	2.77889 2	8.75836 0	7.19890 0	8.88324 1	8.88267 1
0.644	2.78884 2	8.76955 0	7.22100 0	8.89703 1	8.89647 1
0.643	2.79884 2	8.78079 0	7.24324 0	8.91087 1	8.91031 1
0.642	2.80891 2	8.79208 0	7.26561 0	8.92475 1	8.92419 1
0.641	2.81904 2	8.80342 0	7.28813 0	8.93867 1	8.93811 1
0.640	2.82924 2	8.81482 0	7.31078 0	8.95264 1	8.95208 1
0.639	2.83950 2	8.82627 0	7.33358 0	8.96664 1	8.96609 1
0.638	2.84982 2	8.83777 0	7.35652 0	8.98070 1	8.98014 1

Part 1

TABLE A

ϕ	ξ	η	τ	$\sec\phi$	$\cot\phi$
0.637	2.86021 2	8.84933 0	7.37960 0	8.99480 1	8.99424 1
0.636	2.87066 2	8.86094 0	7.40283 0	9.00894 1	9.00838 1
0.635	2.88118 2	8.87261 0	7.42621 0	9.02313 1	9.02257 1
0.634	2.89176 2	8.88433 0	7.44974 0	9.03736 1	9.03680 1
0.633	2.90241 2	8.89611 0	7.47341 0	9.05163 1	9.05108 1
0.632	2.91313 2	8.90795 0	7.49723 0	9.06595 1	9.06540 1
0.631	2.92392 2	8.91984 0	7.52121 0	9.08032 1	9.07977 1
0.630	2.93478 2	8.93179 0	7.54534 0	9.09473 1	9.09418 1
0.629	2.94571 2	8.94379 0	7.56962 0	9.10919 1	9.10864 1
0.628	2.95670 2	8.95586 0	7.59406 0	9.12370 1	9.12315 1
0.627	2.96777 2	8.96798 0	7.61866 0	9.13825 1	9.13770 1
0.626	2.97891 2	8.98016 0	7.64341 0	9.15285 1	9.15230 1
0.625	2.99012 2	8.99240 0	7.66833 0	9.16749 1	9.16694 1
0.624	3.00141 2	9.00470 0	7.69340 0	9.18218 1	9.18164 1
0.623	3.01276 2	9.01706 0	7.71864 0	9.19692 1	9.19637 1
0.622	3.02420 2	9.02948 0	7.74405 0	9.21170 1	9.21116 1
0.621	3.03570 2	9.04196 0	7.76962 0	9.22654 1	9.22599 1
0.620	3.04728 2	9.05450 0	7.79536 0	9.24142 1	9.24088 1
0.619	3.05894 2	9.06710 0	7.82126 0	9.25635 1	9.25581 1
0.618	3.07067 2	9.07977 0	7.84734 0	9.27132 1	9.27078 1
0.617	3.08248 2	9.09250 0	7.87359 0	9.28635 1	9.28581 1
0.616	3.09437 2	9.10529 0	7.90001 0	9.30142 1	9.30089 1
0.615	3.10634 2	9.11815 0	7.92660 0	9.31655 1	9.31601 1
0.614	3.11839 2	9.13107 0	7.95338 0	9.33172 1	9.33118 1
0.613	3.13052 2	9.14406 0	7.98033 0	9.34694 1	9.34641 1
0.612	3.14272 2	9.15711 0	8.00746 0	9.36222 1	9.36168 1
0.611	3.15501 2	9.17023 0	8.03477 0	9.37754 1	9.37700 1
0.610	3.16739 2	9.18341 0	8.06227 0	9.39291 1	9.39238 1
0.609	3.17984 2	9.19666 0	8.08995 0	9.40833 1	9.40780 1
0.608	3.19238 2	9.20998 0	8.11782 0	9.42381 1	9.42328 1
0.607	3.20501 2	9.22337 0	8.14587 0	9.43933 1	9.43880 1
0.606	3.21772 2	9.23682 0	8.17412 0	9.45491 1	9.45438 1
0.605	3.23051 2	9.25034 0	8.20256 0	9.47053 1	9.47001 1
0.604	3.24340 2	9.26394 0	8.23119 0	9.48621 1	9.48569 1
0.603	3.25637 2	9.27760 0	8.26001 0	9.50194 1	9.50142 1
0.602	3.26943 2	9.29133 0	8.28904 0	9.51773 1	9.51720 1
0.601	3.28258 2	9.30514 0	8.31826 0	9.53356 1	9.53304 1
0.600	3.29582 2	9.31902 0	8.34768 0	9.54945 1	9.54893 1
0.599	3.30915 2	9.33296 0	8.37731 0	9.56539 1	9.56487 1
0.598	3.32257 2	9.34699 0	8.40714 0	9.58139 1	9.58087 1
0.597	3.33609 2	9.36108 0	8.43718 0	9.59744 1	9.59692 1
0.596	3.34970 2	9.37525 0	8.46743 0	9.61354 1	9.61302 1
0.595	3.36340 2	9.38950 0	8.49788 0	9.62970 1	9.62918 1
0.594	3.37720 2	9.40382 0	8.52855 0	9.64591 1	9.64539 1
0.593	3.39110 2	9.41821 0	8.55944 0	9.66217 1	9.66166 1
0.592	3.40510 2	9.43269 0	8.59054 0	9.67849 1	9.67798 1
0.591	3.41919 2	9.44724 0	8.62186 0	9.69487 1	9.69435 1
0.590	3.43338 2	9.46186 0	8.65340 0	9.71130 1	9.71079 1
0.589	3.44768 2	9.47657 0	8.68517 0	9.72779 1	9.72727 1
0.588	3.46207 2	9.49136 0	8.71716 0	9.74433 1	9.74382 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.587	3.47657 2	9.50622 0	8.74937 0	9.76093 1	9.76042 1
0.586	3.49117 2	9.52117 0	8.78182 0	9.77759 1	9.77708 1
0.585	3.50587 2	9.53619 0	8.81450 0	9.79430 1	9.79379 1
0.584	3.52068 2	9.55130 0	8.84741 0	9.81107 1	9.81056 1
0.583	3.53560 2	9.56649 0	8.88056 0	9.82790 1	9.82739 1
0.582	3.55062 2	9.58177 0	8.91395 0	9.84478 1	9.84428 1
0.581	3.56575 2	9.59713 0	8.94758 0	9.86173 1	9.86122 1
0.580	3.58100 2	9.61257 0	8.98145 0	9.87873 1	9.87823 1
0.579	3.59635 2	9.62810 0	9.01557 0	9.89579 1	9.89529 1
0.578	3.61181 2	9.64371 0	9.04993 0	9.91291 1	9.91241 1
0.577	3.62739 2	9.65941 0	9.08455 0	9.93009 1	9.92959 1
0.576	3.64308 2	9.67520 0	9.11942 0	9.94733 1	9.94683 1
0.575	3.65889 2	9.69108 0	9.15455 0	9.96463 1	9.96413 1
0.574	3.67481 2	9.70705 0	9.18993 0	9.98199 1	9.98149 1
0.573	3.69085 2	9.72310 0	9.22558 0	9.99941 1	9.99891 1
0.572	3.70701 2	9.73925 0	9.26149 0	1.00169 2	1.00164 2
0.571	3.72329 2	9.75548 0	9.29766 0	1.00344 2	1.00339 2
0.570	3.73969 2	9.77181 0	9.33411 0	1.00520 2	1.00515 2
0.569	3.75621 2	9.78824 0	9.37083 0	1.00697 2	1.00692 2
0.568	3.77285 2	9.80475 0	9.40782 0	1.00874 2	1.00869 2
0.567	3.78962 2	9.82136 0	9.44508 0	1.01052 2	1.01047 2
0.566	3.80652 2	9.83807 0	9.48263 0	1.01231 2	1.01226 2
0.565	3.82354 2	9.85487 0	9.52046 0	1.01410 2	1.01405 2
0.564	3.84069 2	9.87177 0	9.55858 0	1.01590 2	1.01585 2
0.563	3.85798 2	9.88877 0	9.59699 0	1.01770 2	1.01765 2
0.562	3.87539 2	9.90586 0	9.63568 0	1.01951 2	1.01946 2
0.561	3.89294 2	9.92306 0	9.67468 0	1.02133 2	1.02128 2
0.560	3.91062 2	9.94036 0	9.71397 0	1.02315 2	1.02310 2
0.559	3.92843 2	9.95775 0	9.75356 0	1.02498 2	1.02493 2
0.558	3.94638 2	9.97525 0	9.79346 0	1.02682 2	1.02677 2
0.557	3.96447 2	9.99286 0	9.83366 0	1.02866 2	1.02861 2
0.556	3.98270 2	1.00106 1	9.87417 0	1.03051 2	1.03047 2
0.555	4.00108 2	1.00284 1	9.91500 0	1.03237 2	1.03232 2
0.554	4.01959 2	1.00463 1	9.95614 0	1.03423 2	1.03419 2
0.553	4.03825 2	1.00643 1	9.99761 0	1.03610 2	1.03606 2
0.552	4.05705 2	1.00825 1	1.00394 1	1.03798 2	1.03793 2
0.551	4.07600 2	1.01007 1	1.00815 1	1.03986 2	1.03982 2
0.550	4.09510 2	1.01190 1	1.01240 1	1.04176 2	1.04171 2
0.549	4.11436 2	1.01375 1	1.01667 1	1.04365 2	1.04360 2
0.548	4.13376 2	1.01561 1	1.02099 1	1.04556 2	1.04551 2
0.547	4.15332 2	1.01748 1	1.02533 1	1.04747 2	1.04742 2
0.546	4.17303 2	1.01936 1	1.02971 1	1.04939 2	1.04934 2
0.545	4.19290 2	1.02125 1	1.03413 1	1.05131 2	1.05126 2
0.544	4.21292 2	1.02315 1	1.03858 1	1.05324 2	1.05320 2
0.543	4.23311 2	1.02507 1	1.04307 1	1.05518 2	1.05514 2
0.542	4.25346 2	1.02699 1	1.04759 1	1.05713 2	1.05708 2
0.541	4.27398 2	1.02893 1	1.05215 1	1.05909 2	1.05904 2
0.540	4.29466 2	1.03088 1	1.05674 1	1.06105 2	1.06100 2
0.539	4.31550 2	1.03285 1	1.06138 1	1.06301 2	1.06297 2
0.538	4.33652 2	1.03482 1	1.06605 1	1.06499 2	1.06494 2

Part 1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
0.537	4.35771 2	1.03681 1	1.07075 1	1.06697 2	1.06693 2
0.536	4.37907 2	1.03881 1	1.07550 1	1.06896 2	1.06892 2
0.535	4.40061 2	1.04082 1	1.08029 1	1.07096 2	1.07092 2
0.534	4.42232 2	1.04285 1	1.08511 1	1.07297 2	1.07292 2
0.533	4.44421 2	1.04489 1	1.08998 1	1.07498 2	1.07493 2
0.532	4.46629 2	1.04694 1	1.09488 1	1.07700 2	1.07695 2
0.531	4.48854 2	1.04900 1	1.09983 1	1.07903 2	1.07898 2
0.530	4.51098 2	1.05108 1	1.10482 1	1.08107 2	1.08102 2
0.529	4.53361 2	1.05317 1	1.10985 1	1.08311 2	1.08306 2
0.528	4.55643 2	1.05528 1	1.11492 1	1.08516 2	1.08511 2
0.527	4.57944 2	1.05740 1	1.12003 1	1.08722 2	1.08717 2
0.526	4.60264 2	1.05953 1	1.12519 1	1.08929 2	1.08924 2
0.525	4.62604 2	1.06167 1	1.13039 1	1.09136 2	1.09132 2
0.524	4.64964 2	1.06384 1	1.13563 1	1.09344 2	1.09340 2
0.523	4.67344 2	1.06601 1	1.14092 1	1.09553 2	1.09549 2
0.522	4.69744 2	1.06820 1	1.14625 1	1.09763 2	1.09759 2
0.521	4.72164 2	1.07040 1	1.15163 1	1.09974 2	1.09969 2
0.520	4.74606 2	1.07262 1	1.15706 1	1.10185 2	1.10181 2
0.519	4.77068 2	1.07485 1	1.16253 1	1.10398 2	1.10393 2
0.518	4.79551 2	1.07710 1	1.16805 1	1.10611 2	1.10606 2
0.517	4.82056 2	1.07936 1	1.17361 1	1.10825 2	1.10820 2
0.516	4.84583 2	1.08164 1	1.17923 1	1.11040 2	1.11035 2
0.515	4.87131 2	1.08393 1	1.18489 1	1.11255 2	1.11251 2
0.514	4.89702 2	1.08624 1	1.19061 1	1.11472 2	1.11467 2
0.513	4.92295 2	1.08857 1	1.19637 1	1.11689 2	1.11684 2
0.512	4.94911 2	1.09091 1	1.20218 1	1.11907 2	1.11903 2
0.511	4.97551 2	1.09326 1	1.20805 1	1.12126 2	1.12122 2
0.510	5.00213 2	1.09563 1	1.21396 1	1.12346 2	1.12341 2
0.509	5.02899 2	1.09802 1	1.21993 1	1.12567 2	1.12562 2
0.508	5.05609 2	1.10043 1	1.22596 1	1.12788 2	1.12784 2
0.507	5.08343 2	1.10285 1	1.23203 1	1.13011 2	1.13006 2
0.506	5.11101 2	1.10529 1	1.23816 1	1.13234 2	1.13230 2
0.505	5.13884 2	1.10774 1	1.24435 1	1.13458 2	1.13454 2
0.504	5.16693 2	1.11022 1	1.25059 1	1.13683 2	1.13679 2
0.503	5.19526 2	1.11271 1	1.25688 1	1.13909 2	1.13905 2
0.502	5.22385 2	1.11521 1	1.26324 1	1.14136 2	1.14132 2
0.501	5.25270 2	1.11774 1	1.26965 1	1.14364 2	1.14360 2
0.500	5.28182 2	1.12028 1	1.27612 1	1.14593 2	1.14588 2
0.499	5.31120 2	1.12284 1	1.28265 1	1.14822 2	1.14818 2
0.498	5.34085 2	1.12542 1	1.28924 1	1.15053 2	1.15049 2
0.497	5.37077 2	1.12802 1	1.29589 1	1.15284 2	1.15280 2
0.496	5.40096 2	1.13064 1	1.30260 1	1.15517 2	1.15513 2
0.495	5.43144 2	1.13327 1	1.30937 1	1.15750 2	1.15746 2
0.494	5.46220 2	1.13593 1	1.31621 1	1.15985 2	1.15980 2
0.493	5.49325 2	1.13860 1	1.32310 1	1.16220 2	1.16215 2
0.492	5.52458 2	1.14130 1	1.33007 1	1.16456 2	1.16452 2
0.491	5.55621 2	1.14401 1	1.33710 1	1.16693 2	1.16689 2
0.490	5.58814 2	1.14674 1	1.34419 1	1.16931 2	1.16927 2
0.489	5.62037 2	1.14950 1	1.35135 1	1.17170 2	1.17166 2
0.488	5.65290 2	1.15227 1	1.35858 1	1.17411 2	1.17406 2

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.487	5.68574 2	1.15506 1	1.36588 1	1.17652 2	1.17647 2
0.486	5.71889 2	1.15788 1	1.37325 1	1.17894 2	1.17889 2
0.485	5.75236 2	1.16072 1	1.38069 1	1.18137 2	1.18133 2
0.484	5.78616 2	1.16357 1	1.38820 1	1.18381 2	1.18377 2
0.483	5.82027 2	1.16645 1	1.39578 1	1.18626 2	1.18622 2
0.482	5.85472 2	1.16935 1	1.40343 1	1.18872 2	1.18868 2
0.481	5.88950 2	1.17228 1	1.41116 1	1.19119 2	1.19115 2
0.480	5.92461 2	1.17522 1	1.41897 1	1.19367 2	1.19363 2
0.479	5.96007 2	1.17819 1	1.42685 1	1.19617 2	1.19612 2
0.478	5.99588 2	1.18118 1	1.43480 1	1.19867 2	1.19863 2
0.477	6.03203 2	1.18419 1	1.44284 1	1.20118 2	1.20114 2
0.476	6.06854 2	1.18723 1	1.45095 1	1.20370 2	1.20366 2
0.475	6.10541 2	1.19029 1	1.45915 1	1.20624 2	1.20620 2
0.474	6.14265 2	1.19337 1	1.46742 1	1.20878 2	1.20874 2
0.473	6.18026 2	1.19648 1	1.47578 1	1.21134 2	1.21130 2
0.472	6.21824 2	1.19961 1	1.48422 1	1.21390 2	1.21386 2
0.471	6.25660 2	1.20277 1	1.49274 1	1.21648 2	1.21644 2
0.470	6.29535 2	1.20595 1	1.50135 1	1.21907 2	1.21903 2
0.469	6.33449 2	1.20916 1	1.51005 1	1.22167 2	1.22163 2
0.468	6.37402 2	1.21239 1	1.51884 1	1.22428 2	1.22424 2
0.467	6.41395 2	1.21565 1	1.52771 1	1.22690 2	1.22686 2
0.466	6.45429 2	1.21893 1	1.53668 1	1.22953 2	1.22949 2
0.465	6.49504 2	1.22224 1	1.54573 1	1.23218 2	1.23214 2
0.464	6.53621 2	1.22558 1	1.55488 1	1.23483 2	1.23479 2
0.463	6.57780 2	1.22895 1	1.56412 1	1.23750 2	1.23746 2
0.462	6.61982 2	1.23234 1	1.57346 1	1.24018 2	1.24014 2
0.461	6.66228 2	1.23576 1	1.58290 1	1.24287 2	1.24283 2
0.460	6.70517 2	1.23921 1	1.59243 1	1.24557 2	1.24553 2
0.459	6.74852 2	1.24268 1	1.60206 1	1.24828 2	1.24824 2
0.458	6.79231 2	1.24619 1	1.61179 1	1.25101 2	1.25097 2
0.457	6.83657 2	1.24972 1	1.62163 1	1.25375 2	1.25371 2
0.456	6.88129 2	1.25328 1	1.63157 1	1.25650 2	1.25646 2
0.455	6.92649 2	1.25688 1	1.64161 1	1.25926 2	1.25922 2
0.454	6.97216 2	1.26050 1	1.65176 1	1.26203 2	1.26199 2
0.453	7.01832 2	1.26415 1	1.66202 1	1.26482 2	1.26478 2
0.452	7.06497 2	1.26784 1	1.67238 1	1.26762 2	1.26758 2
0.451	7.11212 2	1.27155 1	1.68286 1	1.27043 2	1.27039 2
0.450	7.15978 2	1.27530 1	1.69345 1	1.27325 2	1.27321 2
0.449	7.20795 2	1.27908 1	1.70416 1	1.27608 2	1.27605 2
0.448	7.25665 2	1.28289 1	1.71498 1	1.27893 2	1.27889 2
0.447	7.30587 2	1.28674 1	1.72592 1	1.28179 2	1.28176 2
0.446	7.35563 2	1.29062 1	1.73698 1	1.28467 2	1.28463 2
0.445	7.40594 2	1.29453 1	1.74816 1	1.28756 2	1.28752 2
0.444	7.45680 2	1.29847 1	1.75946 1	1.29045 2	1.29042 2
0.443	7.50822 2	1.30245 1	1.77089 1	1.29337 2	1.29333 2
0.442	7.56020 2	1.30647 1	1.78244 1	1.29629 2	1.29626 2
0.441	7.61277 2	1.31052 1	1.79412 1	1.29923 2	1.29919 2
0.440	7.66592 2	1.31460 1	1.80593 1	1.30219 2	1.30215 2
0.439	7.71966 2	1.31873 1	1.81787 1	1.30515 2	1.30511 2
0.438	7.77401 2	1.32289 1	1.82995 1	1.30813 2	1.30809 2

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.437	7.82897 2	1.32708 1	1.84217 1	1.31113 2	1.31109 2
0.436	7.88455 2	1.33132 1	1.85452 1	1.31413 2	1.31409 2
0.435	7.94077 2	1.33559 1	1.86701 1	1.31715 2	1.31712 2
0.434	7.99762 2	1.33990 1	1.87964 1	1.32019 2	1.32015 2
0.433	8.05512 2	1.34425 1	1.89242 1	1.32324 2	1.32320 2
0.432	8.11329 2	1.34864 1	1.90535 1	1.32630 2	1.32626 2
0.431	8.17212 2	1.35307 1	1.91842 1	1.32938 2	1.32934 2
0.430	8.23163 2	1.35755 1	1.93165 1	1.33247 2	1.33243 2
0.429	8.29184 2	1.36206 1	1.94503 1	1.33557 2	1.33554 2
0.428	8.35274 2	1.36661 1	1.95856 1	1.33870 2	1.33866 2
0.427	8.41436 2	1.37121 1	1.97225 1	1.34183 2	1.34179 2
0.426	8.47670 2	1.37585 1	1.98611 1	1.34498 2	1.34494 2
0.425	8.53977 2	1.38054 1	2.00012 1	1.34814 2	1.34811 2
0.424	8.60359 2	1.38526 1	2.01431 1	1.35132 2	1.35129 2
0.423	8.66817 2	1.39004 1	2.02866 1	1.35452 2	1.35448 2
0.422	8.73352 2	1.39486 1	2.04318 1	1.35773 2	1.35769 2
0.421	8.79965 2	1.39972 1	2.05787 1	1.36095 2	1.36092 2
0.420	8.86657 2	1.40463 1	2.07275 1	1.36419 2	1.36416 2
0.419	8.93430 2	1.40959 1	2.08780 1	1.36745 2	1.36741 2
0.418	9.00285 2	1.41460 1	2.10303 1	1.37072 2	1.37068 2
0.417	9.07223 2	1.41966 1	2.11845 1	1.37401 2	1.37397 2
0.416	9.14246 2	1.42476 1	2.13406 1	1.37731 2	1.37727 2
0.415	9.21355 2	1.42992 1	2.14985 1	1.38063 2	1.38059 2
0.414	9.28551 2	1.43512 1	2.16584 1	1.38396 2	1.38393 2
0.413	9.35835 2	1.44038 1	2.18203 1	1.38732 2	1.38728 2
0.412	9.43211 2	1.44569 1	2.19842 1	1.39068 2	1.39065 2
0.411	9.50677 2	1.45105 1	2.21502 1	1.39407 2	1.39403 2
0.410	9.58237 2	1.45647 1	2.23182 1	1.39747 2	1.39743 2
0.409	9.65892 2	1.46194 1	2.24883 1	1.40088 2	1.40085 2
0.408	9.73643 2	1.46746 1	2.26605 1	1.40432 2	1.40428 2
0.407	9.81492 2	1.47305 1	2.28349 1	1.40777 2	1.40773 2
0.406	9.89440 2	1.47869 1	2.30116 1	1.41123 2	1.41120 2
0.405	9.97489 2	1.48438 1	2.31904 1	1.41472 2	1.41468 2
0.404	1.00564 3	1.49014 1	2.33716 1	1.41822 2	1.41818 2
0.403	1.01390 3	1.49595 1	2.35551 1	1.42174 2	1.42170 2
0.402	1.02226 3	1.50183 1	2.37409 1	1.42528 2	1.42524 2
0.401	1.03073 3	1.50777 1	2.39292 1	1.42883 2	1.42879 2
0.400	1.03932 3	1.51376 1	2.41199 1	1.43240 2	1.43237 2
0.399	1.04801 3	1.51983 1	2.43131 1	1.43599 2	1.43596 2
0.398	1.05682 3	1.52595 1	2.45088 1	1.43960 2	1.43956 2
0.397	1.06574 3	1.53214 1	2.47071 1	1.44323 2	1.44319 2
0.396	1.07478 3	1.53840 1	2.49080 1	1.44687 2	1.44684 2
0.395	1.08394 3	1.54472 1	2.51116 1	1.45053 2	1.45050 2
0.394	1.09322 3	1.55111 1	2.53179 1	1.45421 2	1.45418 2
0.393	1.10263 3	1.55758 1	2.55269 1	1.45791 2	1.45788 2
0.392	1.11217 3	1.56411 1	2.57388 1	1.46163 2	1.46160 2
0.391	1.12183 3	1.57071 1	2.59535 1	1.46537 2	1.46534 2
0.390	1.13162 3	1.57738 1	2.61711 1	1.46913 2	1.46910 2
0.389	1.14155 3	1.58413 1	2.63917 1	1.47291 2	1.47287 2
0.388	1.15161 3	1.59095 1	2.66153 1	1.47670 2	1.47667 2

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.387	1.16181 3	1.59785 1	2.68419 1	1.48052 2	1.48048 2
0.386	1.17214 3	1.60482 1	2.70717 1	1.48435 2	1.48432 2
0.385	1.18263 3	1.61188 1	2.73046 1	1.48821 2	1.48818 2
0.384	1.19325 3	1.61901 1	2.75408 1	1.49208 2	1.49205 2
0.383	1.20403 3	1.62622 1	2.77803 1	1.49598 2	1.49595 2
0.382	1.21496 3	1.63352 1	2.80231 1	1.49990 2	1.49986 2
0.381	1.22604 3	1.64089 1	2.82693 1	1.50383 2	1.50380 2
0.380	1.23727 3	1.64836 1	2.85190 1	1.50779 2	1.50776 2
0.379	1.24867 3	1.65591 1	2.87723 1	1.51177 2	1.51174 2
0.378	1.26023 3	1.66354 1	2.90291 1	1.51577 2	1.51573 2
0.377	1.27195 3	1.67127 1	2.92896 1	1.51979 2	1.51976 2
0.376	1.28384 3	1.67908 1	2.95539 1	1.52383 2	1.52380 2
0.375	1.29591 3	1.68699 1	2.98220 1	1.52789 2	1.52786 2
0.374	1.30815 3	1.69499 1	3.00940 1	1.53198 2	1.53195 2
0.373	1.32056 3	1.70308 1	3.03699 1	1.53609 2	1.53605 2
0.372	1.33316 3	1.71127 1	3.06499 1	1.54022 2	1.54018 2
0.371	1.34595 3	1.71956 1	3.09339 1	1.54437 2	1.54433 2
0.370	1.35892 3	1.72795 1	3.12222 1	1.54854 2	1.54851 2
0.369	1.37208 3	1.73644 1	3.15147 1	1.55274 2	1.55270 2
0.368	1.38544 3	1.74503 1	3.18116 1	1.55696 2	1.55692 2
0.367	1.39900 3	1.75373 1	3.21129 1	1.56120 2	1.56117 2
0.366	1.41276 3	1.76253 1	3.24188 1	1.56546 2	1.56543 2
0.365	1.42674 3	1.77144 1	3.27292 1	1.56975 2	1.56972 2
0.364	1.44092 3	1.78047 1	3.30444 1	1.57407 2	1.57403 2
0.363	1.45532 3	1.78960 1	3.33644 1	1.57840 2	1.57837 2
0.362	1.46993 3	1.79885 1	3.36892 1	1.58276 2	1.58273 2
0.361	1.48478 3	1.80821 1	3.40191 1	1.58715 2	1.58711 2
0.360	1.49985 3	1.81770 1	3.43540 1	1.59155 2	1.59152 2
0.359	1.51515 3	1.82730 1	3.46941 1	1.59599 2	1.59596 2
0.358	1.53070 3	1.83703 1	3.50395 1	1.60045 2	1.60041 2
0.357	1.54649 3	1.84688 1	3.53904 1	1.60493 2	1.60490 2
0.356	1.56252 3	1.85685 1	3.57467 1	1.60944 2	1.60941 2
0.355	1.57881 3	1.86696 1	3.61086 1	1.61397 2	1.61394 2
0.354	1.59536 3	1.87720 1	3.64763 1	1.61853 2	1.61850 2
0.353	1.61217 3	1.88757 1	3.68499 1	1.62311 2	1.62308 2
0.352	1.62925 3	1.89808 1	3.72294 1	1.62773 2	1.62770 2
0.351	1.64660 3	1.90872 1	3.76151 1	1.63236 2	1.63233 2
0.350	1.66423 3	1.91951 1	3.80070 1	1.63703 2	1.63700 2
0.349	1.68216 3	1.93044 1	3.84052 1	1.64172 2	1.64169 2
0.348	1.70037 3	1.94152 1	3.88100 1	1.64643 2	1.64640 2
0.347	1.71888 3	1.95275 1	3.92213 1	1.65118 2	1.65115 2
0.346	1.73770 3	1.96413 1	3.96395 1	1.65595 2	1.65592 2
0.345	1.75683 3	1.97566 1	4.00646 1	1.66075 2	1.66072 2
0.344	1.77627 3	1.98736 1	4.04967 1	1.66558 2	1.66555 2
0.343	1.79604 3	1.99921 1	4.09361 1	1.67044 2	1.67041 2
0.342	1.81615 3	2.01123 1	4.13828 1	1.67532 2	1.67529 2
0.341	1.83659 3	2.02341 1	4.18371 1	1.68023 2	1.68020 2
0.340	1.85738 3	2.03577 1	4.22991 1	1.68517 2	1.68514 2
0.339	1.87852 3	2.04830 1	4.27689 1	1.69014 2	1.69012 2
0.338	1.90003 3	2.06100 1	4.32468 1	1.69515 2	1.69512 2

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.337	1.92191 3	2.07389 1	4.37330 1	1.70018 2	1.70015 2
0.336	1.94416 3	2.08696 1	4.42275 1	1.70524 2	1.70521 2
0.335	1.96680 3	2.10022 1	4.47306 1	1.71033 2	1.71030 2
0.334	1.98984 3	2.11366 1	4.52425 1	1.71545 2	1.71542 2
0.333	2.01328 3	2.12731 1	4.57634 1	1.72060 2	1.72057 2
0.332	2.03713 3	2.14115 1	4.62935 1	1.72578 2	1.72575 2
0.331	2.06141 3	2.15520 1	4.68330 1	1.73099 2	1.73096 2
0.330	2.08612 3	2.16945 1	4.73821 1	1.73624 2	1.73621 2
0.329	2.11127 3	2.18392 1	4.79411 1	1.74152 2	1.74149 2
0.328	2.13688 3	2.19860 1	4.85101 1	1.74683 2	1.74680 2
0.327	2.16295 3	2.21350 1	4.90894 1	1.75217 2	1.75214 2
0.326	2.18949 3	2.22862 1	4.96792 1	1.75754 2	1.75751 2
0.325	2.21652 3	2.24398 1	5.02798 1	1.76295 2	1.76292 2
0.324	2.24405 3	2.25957 1	5.08915 1	1.76839 2	1.76836 2
0.323	2.27208 3	2.27540 1	5.15144 1	1.77387 2	1.77384 2
0.322	2.30063 3	2.29147 1	5.21489 1	1.77937 2	1.77935 2
0.321	2.32972 3	2.30779 1	5.27953 1	1.78492 2	1.78489 2
0.320	2.35935 3	2.32437 1	5.34538 1	1.79050 2	1.79047 2
0.319	2.38954 3	2.34120 1	5.41247 1	1.79611 2	1.79608 2
0.318	2.42031 3	2.35830 1	5.48083 1	1.80176 2	1.80173 2
0.317	2.45166 3	2.37567 1	5.55050 1	1.80744 2	1.80741 2
0.316	2.48361 3	2.39332 1	5.62150 1	1.81316 2	1.81313 2
0.315	2.51617 3	2.41126 1	5.69386 1	1.81892 2	1.81889 2
0.314	2.54937 3	2.42948 1	5.76763 1	1.82471 2	1.82468 2
0.313	2.58321 3	2.44800 1	5.84284 1	1.83054 2	1.83051 2
0.312	2.61772 3	2.46682 1	5.91952 1	1.83641 2	1.83638 2
0.311	2.65291 3	2.48595 1	5.99770 1	1.84231 2	1.84228 2
0.310	2.68879 3	2.50539 1	6.07744 1	1.84825 2	1.84823 2
0.309	2.72538 3	2.52516 1	6.15876 1	1.85423 2	1.85421 2
0.308	2.76271 3	2.54526 1	6.24171 1	1.86025 2	1.86023 2
0.307	2.80079 3	2.56569 1	6.32632 1	1.86631 2	1.86629 2
0.306	2.83964 3	2.58647 1	6.41265 1	1.87241 2	1.87239 2
0.305	2.87927 3	2.60761 1	6.50073 1	1.87855 2	1.87853 2
0.304	2.91972 3	2.62911 1	6.59062 1	1.88473 2	1.88470 2
0.303	2.96100 3	2.65097 1	6.68235 1	1.89095 2	1.89092 2
0.302	3.00314 3	2.67322 1	6.77598 1	1.89721 2	1.89719 2
0.301	3.04615 3	2.69585 1	6.87156 1	1.90352 2	1.90349 2
0.300	3.09006 3	2.71888 1	6.96914 1	1.90986 2	1.90983 2
0.299	3.13490 3	2.74232 1	7.06876 1	1.91625 2	1.91622 2
0.298	3.18068 3	2.76617 1	7.17050 1	1.92268 2	1.92265 2
0.297	3.22743 3	2.79045 1	7.27440 1	1.92915 2	1.92913 2
0.296	3.27519 3	2.81516 1	7.38052 1	1.93567 2	1.93564 2
0.295	3.32398 3	2.84032 1	7.48893 1	1.94223 2	1.94220 2
0.294	3.37382 3	2.86594 1	7.59968 1	1.94884 2	1.94881 2
0.293	3.42474 3	2.89202 1	7.71284 1	1.95549 2	1.95546 2
0.292	3.47678 3	2.91859 1	7.82848 1	1.96218 2	1.96216 2
0.291	3.52997 3	2.94565 1	7.94667 1	1.96893 2	1.96890 2
0.290	3.58433 3	2.97321 1	8.06748 1	1.97572 2	1.97569 2
0.289	3.63991 3	3.00129 1	8.19097 1	1.98255 2	1.98253 2
0.288	3.69673 3	3.02991 1	8.31724 1	1.98944 2	1.98941 2

TABLE A

ϕ	ξ	η	r	$\sec\phi$	$\cot\phi$
0.287	3.75483 3	3.05906 1	8.44635 1	1.99637 2	1.99634 2
0.286	3.81425 3	3.08877 1	8.57839 1	2.00335 2	2.00332 2
0.285	3.87503 3	3.11906 1	8.71344 1	2.01038 2	2.01035 2
0.284	3.93720 3	3.14993 1	8.85159 1	2.01746 2	2.01743 2
0.283	4.00080 3	3.18140 1	8.99293 1	2.02459 2	2.02456 2
0.282	4.06589 3	3.21349 1	9.13756 1	2.03176 2	2.03174 2
0.281	4.13249 3	3.24621 1	9.28556 1	2.03900 2	2.03897 2
0.280	4.20067 3	3.27959 1	9.43705 1	2.04628 2	2.04625 2
0.279	4.27045 3	3.31363 1	9.59212 1	2.05361 2	2.05359 2
0.278	4.34190 3	3.34836 1	9.75088 1	2.06100 2	2.06097 2
0.277	4.41505 3	3.38379 1	9.91345 1	2.06844 2	2.06841 2
0.276	4.48997 3	3.41994 1	1.00799 2	2.07593 2	2.07591 2
0.275	4.56671 3	3.45684 1	1.02504 2	2.08348 2	2.08346 2
0.274	4.64532 3	3.49450 1	1.04251 2	2.09109 2	2.09106 2
0.273	4.72586 3	3.53295 1	1.06041 2	2.09875 2	2.09872 2
0.272	4.80839 3	3.57220 1	1.07875 2	2.10646 2	2.10644 2
0.271	4.89298 3	3.61228 1	1.09754 2	2.11423 2	2.11421 2
0.270	4.97968 3	3.65321 1	1.11681 2	2.12206 2	2.12204 2
0.269	5.06856 3	3.69502 1	1.13656 2	2.12995 2	2.12993 2
0.268	5.15970 3	3.73773 1	1.15681 2	2.13790 2	2.13788 2
0.267	5.25316 3	3.78136 1	1.17758 2	2.14591 2	2.14588 2
0.266	5.34902 3	3.82595 1	1.19888 2	2.15397 2	2.15395 2
0.265	5.44736 3	3.87151 1	1.22073 2	2.16210 2	2.16208 2
0.264	5.54825 3	3.91809 1	1.24315 2	2.17029 2	2.17027 2
0.263	5.65179 3	3.96571 1	1.26616 2	2.17854 2	2.17852 2
0.262	5.75806 3	4.01439 1	1.28977 2	2.18686 2	2.18684 2
0.261	5.86714 3	4.06418 1	1.31401 2	2.19524 2	2.19522 2
0.260	5.97914 3	4.11510 1	1.33890 2	2.20368 2	2.20366 2
0.259	6.09415 3	4.16719 1	1.36446 2	2.21219 2	2.21217 2
0.258	6.21228 3	4.22048 1	1.39070 2	2.22076 2	2.22074 2
0.257	6.33362 3	4.27501 1	1.41767 2	2.22940 2	2.22938 2
0.256	6.45829 3	4.33083 1	1.44537 2	2.23811 2	2.23809 2
0.255	6.58640 3	4.38795 1	1.47384 2	2.24689 2	2.24687 2
0.254	6.71807 3	4.44644 1	1.50310 2	2.25574 2	2.25571 2
0.253	6.85344 3	4.50633 1	1.53318 2	2.26465 2	2.26463 2
0.252	6.99261 3	4.56766 1	1.56410 2	2.27364 2	2.27362 2
0.251	7.13574 3	4.63049 1	1.59590 2	2.28270 2	2.28267 2
0.250	7.28296 3	4.69485 1	1.62862 2	2.29183 2	2.29181 2
0.249	7.43441 3	4.76080 1	1.66227 2	2.30103 2	2.30101 2
0.248	7.59026 3	4.82839 1	1.69690 2	2.31031 2	2.31029 2
0.247	7.75065 3	4.89768 1	1.73254 2	2.31966 2	2.31964 2
0.246	7.91575 3	4.96871 1	1.76923 2	2.32909 2	2.32907 2
0.245	8.08575 3	5.04154 1	1.80700 2	2.33860 2	2.33858 2
0.244	8.26081 3	5.11625 1	1.84590 2	2.34818 2	2.34816 2
0.243	8.44113 3	5.19288 1	1.88597 2	2.35785 2	2.35783 2
0.242	8.62690 3	5.27150 1	1.92725 2	2.36759 2	2.36757 2
0.241	8.81833 3	5.35219 1	1.96978 2	2.37741 2	2.37739 2
0.240	9.01564 3	5.43501 1	2.01363 2	2.38732 2	2.38730 2
0.239	9.21904 3	5.52003 1	2.05882 2	2.39731 2	2.39729 2
0.238	9.42878 3	5.60733 1	2.10543 2	2.40738 2	2.40736 2

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.237	9.64509 3	5.69700 1	2.15349 2	2.41754 2	2.41752 2
0.236	9.86824 3	5.78910 1	2.20308 2	2.42778 2	2.42776 2
0.235	1.00985 4	5.88374 1	2.25424 2	2.43811 2	2.43809 2
0.234	1.03361 4	5.98100 1	2.30704 2	2.44853 2	2.44851 2
0.233	1.05814 4	6.08097 1	2.36155 2	2.45904 2	2.45902 2
0.232	1.08348 4	6.18376 1	2.41784 2	2.46964 2	2.46962 2
0.231	1.10964 4	6.28946 1	2.47597 2	2.48033 2	2.48031 2
0.230	1.13666 4	6.39818 1	2.53602 2	2.49111 2	2.49109 2
0.229	1.16459 4	6.51004 1	2.59807 2	2.50199 2	2.50197 2
0.228	1.19345 4	6.62515 1	2.66221 2	2.51297 2	2.51295 2
0.227	1.22329 4	6.74363 1	2.72851 2	2.52404 2	2.52402 2
0.226	1.25415 4	6.86561 1	2.79708 2	2.53520 2	2.53519 2
0.225	1.28607 4	6.99122 1	2.86799 2	2.54647 2	2.54645 2
0.224	1.31909 4	7.12061 1	2.94137 2	2.55784 2	2.55782 2
0.223	1.35327 4	7.25392 1	3.01731 2	2.56931 2	2.56929 2
0.222	1.38864 4	7.39130 1	3.09592 2	2.58088 2	2.58086 2
0.221	1.42528 4	7.53291 1	3.17731 2	2.59256 2	2.59254 2
0.220	1.46322 4	7.67892 1	3.26162 2	2.60435 2	2.60433 2
0.219	1.50253 4	7.82951 1	3.34896 2	2.61624 2	2.61622 2
0.218	1.54326 4	7.98486 1	3.43947 2	2.62824 2	2.62822 2
0.217	1.58549 4	8.14516 1	3.53330 2	2.64035 2	2.64033 2
0.216	1.62928 4	8.31061 1	3.63060 2	2.65257 2	2.65256 2
0.215	1.67470 4	8.48143 1	3.73151 2	2.66491 2	2.66489 2
0.214	1.72182 4	8.65784 1	3.83622 2	2.67736 2	2.67735 2
0.213	1.77073 4	8.84007 1	3.94488 2	2.68993 2	2.68992 2
0.212	1.82150 4	9.02838 1	4.05770 2	2.70262 2	2.70260 2
0.211	1.87423 4	9.22301 1	4.17485 2	2.71543 2	2.71541 2
0.210	1.92900 4	9.42423 1	4.29656 2	2.72836 2	2.72834 2
0.209	1.98592 4	9.63235 1	4.42302 2	2.74142 2	2.74140 2
0.208	2.04509 4	9.84764 1	4.55448 2	2.75460 2	2.75458 2
0.207	2.10661 4	1.00704 2	4.69118 2	2.76790 2	2.76788 2
0.206	2.17060 4	1.03011 2	4.83336 2	2.78134 2	2.78132 2
0.205	2.23718 4	1.05399 2	4.98130 2	2.79491 2	2.79489 2
0.204	2.30649 4	1.07872 2	5.13530 2	2.80861 2	2.80859 2
0.203	2.37866 4	1.10435 2	5.29563 2	2.82244 2	2.82242 2
0.202	2.45382 4	1.13092 2	5.46264 2	2.83641 2	2.83640 2
0.201	2.53214 4	1.15846 2	5.63666 2	2.85053 2	2.85051 2
0.200	2.61378 4	1.18703 2	5.81804 2	2.86478 2	2.86476 2
0.199	2.69890 4	1.21667 2	6.00717 2	2.87917 2	2.87916 2
0.198	2.78770 4	1.24743 2	6.20446 2	2.89371 2	2.89370 2
0.197	2.88035 4	1.27936 2	6.41033 2	2.90840 2	2.90839 2
0.196	2.97708 4	1.31254 2	6.62523 2	2.92324 2	2.92322 2
0.195	3.07809 4	1.34700 2	6.84966 2	2.93823 2	2.93822 2
0.194	3.18361 4	1.38282 2	7.08411 2	2.95338 2	2.95336 2
0.193	3.29390 4	1.42007 2	7.32916 2	2.96868 2	2.96866 2
0.192	3.40922 4	1.45881 2	7.58536 2	2.98414 2	2.98413 2
0.191	3.52983 4	1.49912 2	7.85334 2	2.99977 2	2.99975 2
0.190	3.65605 4	1.54108 2	8.13377 2	3.01555 2	3.01554 2
0.189	3.78818 4	1.58478 2	8.42733 2	3.03151 2	3.03149 2
0.188	3.92656 4	1.63031 2	8.73478 2	3.04763 2	3.04762 2

Part 1

TABLE A

ϕ	ξ	η	r	$\csc\phi$	$\cot\phi$
0.187	4.07156 4	1.67775 2	9.05693 2	3.06393 2	3.06392 2
0.186	4.22355 4	1.72722 2	9.39461 2	3.08040 2	3.08039 2
0.185	4.38294 4	1.77882 2	9.74873 2	3.09705 2	3.09704 2
0.184	4.55018 4	1.83267 2	1.01203 3	3.11389 2	3.11387 2
0.183	4.72572 4	1.88889 2	1.05103 3	3.13090 2	3.13089 2
0.182	4.91007 4	1.94761 2	1.09198 3	3.14810 2	3.14809 2
0.181	5.10376 4	2.00896 2	1.13502 3	3.16550 2	3.16548 2
0.180	5.30736 4	2.07310 2	1.18025 3	3.18308 2	3.18307 2
0.179	5.52150 4	2.14018 2	1.22783 3	3.20087 2	3.20085 2
0.178	5.74682 4	2.21037 2	1.27788 3	3.21885 2	3.21883 2
0.177	5.98403 4	2.28385 2	1.33058 3	3.23703 2	3.23702 2
0.176	6.23389 4	2.36082 2	1.38609 3	3.25543 2	3.25541 2
0.175	6.49721 4	2.44147 2	1.44459 3	3.27403 2	3.27401 2
0.174	6.77486 4	2.52603 2	1.50628 3	3.29284 2	3.29283 2
0.173	7.06779 4	2.61472 2	1.57135 3	3.31188 2	3.31186 2
0.172	7.37701 4	2.70781 2	1.64005 3	3.33113 2	3.33112 2
0.171	7.70361 4	2.80557 2	1.71261 3	3.35061 2	3.35060 2
0.170	8.04876 4	2.90827 2	1.78928 3	3.37032 2	3.37031 2
0.169	8.41373 4	3.01623 2	1.87036 3	3.39026 2	3.39025 2
0.168	8.79988 4	3.12978 2	1.95615 3	3.41044 2	3.41043 2
0.167	9.20869 4	3.24929 2	2.04696 3	3.43087 2	3.43085 2
0.166	9.64176 4	3.37513 2	2.14317 3	3.45153 2	3.45152 2
0.165	1.01008 5	3.50771 2	2.24515 3	3.47245 2	3.47244 2
0.164	1.05877 5	3.64750 2	2.35331 3	3.49362 2	3.49361 2
0.163	1.11045 5	3.79495 2	2.46811 3	3.51506 2	3.51504 2
0.162	1.16533 5	3.95060 2	2.59003 3	3.53676 2	3.53674 2
0.161	1.22366 5	4.11500 2	2.71960 3	3.55872 2	3.55871 2
0.160	1.28569 5	4.28875 2	2.85740 3	3.58096 2	3.58095 2
0.159	1.35171 5	4.47251 2	3.00405 3	3.60349 2	3.60347 2
0.158	1.42202 5	4.66698 2	3.16022 3	3.62629 2	3.62628 2
0.157	1.49694 5	4.87293 2	3.32666 3	3.64939 2	3.64938 2
0.156	1.57686 5	5.09119 2	3.50417 3	3.67278 2	3.67277 2
0.155	1.66215 5	5.32265 2	3.69363 3	3.69648 2	3.69646 2
0.154	1.75325 5	5.56829 2	3.89600 3	3.72048 2	3.72047 2
0.153	1.85064 5	5.82917 2	4.11232 3	3.74480 2	3.74478 2
0.152	1.95482 5	6.10644 2	4.34374 3	3.76943 2	3.76942 2
0.151	2.06637 5	6.40136 2	4.59151 3	3.79440 2	3.79438 2
0.150	2.18590 5	6.71530 2	4.85700 3	3.81969 2	3.81968 2
0.149	2.31409 5	7.04974 2	5.14173 3	3.84533 2	3.84531 2
0.148	2.45168 5	7.40631 2	5.44733 3	3.87131 2	3.87130 2
0.147	2.59949 5	7.78679 2	5.77564 3	3.89764 2	3.89763 2
0.146	2.75842 5	8.19312 2	6.12864 3	3.92434 2	3.92433 2
0.145	2.92947 5	8.62743 2	6.50855 3	3.95140 2	3.95139 2
0.144	3.11372 5	9.09206 2	6.91778 3	3.97884 2	3.97883 2
0.143	3.31239 5	9.58957 2	7.35901 3	4.00667 2	4.00666 2
0.142	3.52680 5	1.01228 3	7.83520 3	4.03488 2	4.03487 2
0.141	3.75843 5	1.06947 3	8.34964 3	4.06350 2	4.06349 2
0.140	4.00891 5	1.13089 3	8.90593 3	4.09252 2	4.09251 2
0.139	4.28006 5	1.19690 3	9.50811 3	4.12197 2	4.12195 2
0.138	4.57388 5	1.26791 3	1.01606 4	4.15184 2	4.15182 2

Part 1

TABLE A

ϕ	ξ	η	τ	$\csc\phi$	$\cot\phi$
0.137	4.89261 5	1.34439 3	1.08685 4	4.18214 2	4.18213 2
0.136	5.23874 5	1.42684 3	1.16371 4	4.21289 2	4.21288 2
0.135	5.61503 5	1.51582 3	1.24728 4	4.24410 2	4.24409 2
0.134	6.02459 5	1.61195 3	1.33823 4	4.27577 2	4.27576 2
0.133	6.47087 5	1.71591 3	1.43733 4	4.30792 2	4.30791 2
0.132	6.95774 5	1.82849 3	1.54544 4	4.34055 2	4.34054 2
0.131	7.48952 5	1.95052 3	1.66353 4	4.37369 2	4.37368 2
0.130	8.07110 5	2.08296 3	1.79266 4	4.40733 2	4.40732 2
0.129	8.70792 5	2.22687 3	1.93407 4	4.44150 2	4.44148 2
0.128	9.40615 5	2.38344 3	2.08910 4	4.47619 2	4.47618 2
0.127	1.01727 6	2.55399 3	2.25931 4	4.51144 2	4.51143 2
0.126	1.10154 6	2.74002 3	2.44642 4	4.54724 2	4.54723 2
0.125	1.19432 6	2.94319 3	2.65239 4	4.58362 2	4.58361 2
0.124	1.29660 6	3.16540 3	2.87947 4	4.62059 2	4.62058 2
0.123	1.40951 6	3.40874 3	3.13016 4	4.65815 2	4.65814 2
0.122	1.53437 6	3.67563 3	3.40734 4	4.69633 2	4.69632 2
0.121	1.67262 6	3.96875 3	3.71427 4	4.73515 2	4.73513 2
0.120	1.82596 6	4.29118 3	4.05467 4	4.77460 2	4.77459 2
0.119	1.99630 6	4.64637 3	4.43279 4	4.81473 2	4.81472 2
0.118	2.18583 6	5.03827 3	4.85351 4	4.85553 2	4.85552 2
0.117	2.39707 6	5.47138 3	5.32239 4	4.89703 2	4.89702 2
0.116	2.63291 6	5.95081 3	5.84587 4	4.93924 2	4.93923 2
0.115	2.89667 6	6.48240 3	6.43131 4	4.98219 2	4.98218 2
0.114	3.19221 6	7.07286 3	7.08724 4	5.02590 2	5.02589 2
0.113	3.52396 6	7.72987 3	7.82351 4	5.07037 2	5.07036 2
0.112	3.89706 6	8.46226 3	8.65152 4	5.11564 2	5.11563 2
0.111	4.31748 6	9.28022 3	9.58451 4	5.16173 2	5.16172 2
0.110	4.79219 6	1.01955 4	1.06379 5	5.20865 2	5.20864 2
0.109	5.32928 6	1.12217 4	1.18297 5	5.25644 2	5.25643 2
0.108	5.93824 6	1.23745 4	1.31809 5	5.30511 2	5.30510 2
0.107	6.63019 6	1.36724 4	1.47162 5	5.35469 2	5.35468 2
0.106	7.41819 6	1.51367 4	1.64645 5	5.40520 2	5.40520 2
0.105	8.31763 6	1.67923 4	1.84599 5	5.45668 2	5.45667 2
0.104	9.34668 6	1.86686 4	2.07427 5	5.50915 2	5.50914 2
0.103	1.05269 7	2.07998 4	2.33606 5	5.56264 2	5.56263 2
0.102	1.18838 7	2.32265 4	2.63704 5	5.61717 2	5.61716 2
0.101	1.34478 7	2.59963 4	2.98394 5	5.67279 2	5.67278 2
0.100	1.52555 7	2.91659 4	3.38483 5	5.72951 2	5.72950 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
$R_1 = 0.$							
0.	0.99986	89.00	89.00	-5.73 1	5.73 1	-3.43 3	-3.43 3
0.	1.00017	88.00	88.00	-5.72 1	5.72 1	-4.52 3	-4.52 3
0.	1.00045	87.00	87.00	-5.72 1	5.72 1	-3.24 3	-3.24 3
0.	1.00078	86.00	86.00	-5.71 1	5.71 1	-2.40 3	-2.40 3
0.	1.00122	85.00	85.00	-5.69 1	5.69 1	-1.92 3	-1.92 3
0.	1.00180	84.00	84.00	-5.68 1	5.68 1	-1.61 3	-1.61 3
0.	1.00247	83.00	83.00	-5.66 1	5.66 1	-1.38 3	-1.38 3
0.	1.00327	82.00	82.00	-5.65 1	5.65 1	-1.21 3	-1.21 3
0.	1.00417	81.00	81.00	-5.63 1	5.63 1	-1.07 3	-1.07 3
0.	1.00512	80.00	80.00	-5.60 1	5.60 1	-9.59 2	-9.59 2
0.	1.00623	79.00	79.00	-5.58 1	5.58 1	-8.69 2	-8.69 2
0.	1.00743	78.00	78.00	-5.55 1	5.55 1	-7.91 2	-7.91 2
0.	1.00875	77.00	77.00	-5.52 1	5.52 1	-7.26 2	-7.26 2
0.	1.01020	76.00	76.00	-5.49 1	5.49 1	-6.70 2	-6.70 2
0.	1.01175	75.00	75.00	-5.45 1	5.45 1	-6.21 2	-6.21 2
0.	1.01342	74.00	74.00	-5.42 1	5.42 1	-5.78 2	-5.78 2
0.	1.01520	73.00	73.00	-5.38 1	5.38 1	-5.39 2	-5.39 2
0.	1.01712	72.00	72.00	-5.34 1	5.34 1	-5.05 2	-5.05 2
0.	1.01916	71.00	71.00	-5.30 1	5.30 1	-4.74 2	-4.74 2
0.	1.02134	70.00	70.00	-5.25 1	5.25 1	-4.46 2	-4.46 2
0.	1.02365	69.00	69.00	-5.20 1	5.20 1	-4.21 2	-4.21 2
0.	1.02609	68.00	68.00	-5.15 1	5.15 1	-3.97 2	-3.97 2
0.	1.02869	67.00	67.00	-5.10 1	5.10 1	-3.76 2	-3.76 2
0.	1.03142	66.00	66.00	-5.05 1	5.05 1	-3.56 2	-3.56 2
0.	1.03431	65.00	65.00	-4.99 1	4.99 1	-3.37 2	-3.37 2
0.	1.03736	64.00	64.00	-4.94 1	4.94 1	-3.20 2	-3.20 2
0.	1.04056	63.00	63.00	-4.88 1	4.88 1	-3.04 2	-3.04 2
0.	1.04394	62.00	62.00	-4.82 1	4.82 1	-2.89 2	-2.89 2
0.	1.04748	61.00	61.00	-4.75 1	4.75 1	-2.75 2	-2.75 2
0.	1.05121	60.00	60.00	-4.69 1	4.69 1	-2.62 2	-2.62 2
0.	1.05514	59.00	59.00	-4.62 1	4.62 1	-2.49 2	-2.49 2
0.	1.05924	58.00	58.00	-4.56 1	4.56 1	-2.37 2	-2.37 2
0.	1.06356	57.00	57.00	-4.49 1	4.49 1	-2.26 2	-2.26 2
0.	1.06810	56.00	56.00	-4.41 1	4.41 1	-2.16 2	-2.16 2
0.	1.07284	55.00	55.00	-4.34 1	4.34 1	-2.05 2	-2.05 2
0.	1.07783	54.00	54.00	-4.27 1	4.27 1	-1.96 2	-1.96 2
0.	1.08306	53.00	53.00	-4.19 1	4.19 1	-1.87 2	-1.87 2
0.	1.08854	52.00	52.00	-4.11 1	4.11 1	-1.78 2	-1.78 2
0.	1.09430	51.00	51.00	-4.03 1	4.03 1	-1.70 2	-1.70 2
0.	1.10033	50.00	50.00	-3.95 1	3.95 1	-1.62 2	-1.62 2
0.	1.10668	49.00	49.00	-3.87 1	3.87 1	-1.54 2	-1.54 2
0.	1.11332	48.00	48.00	-3.79 1	3.79 1	-1.47 2	-1.47 2
0.	1.12031	47.00	47.00	-3.70 1	3.70 1	-1.40 2	-1.40 2
0.	1.12764	46.00	46.00	-3.62 1	3.62 1	-1.33 2	-1.33 2
0.	1.13535	45.00	45.00	-3.53 1	3.53 1	-1.27 2	-1.27 2
0.	1.14345	44.00	44.00	-3.44 1	3.44 1	-1.20 2	-1.20 2
0.	1.15198	43.00	43.00	-3.35 1	3.35 1	-1.14 2	-1.14 2
0.	1.16095	42.00	42.00	-3.26 1	3.26 1	-1.09 2	-1.09 2
0.	1.17040	41.00	41.00	-3.17 1	3.17 1	-1.03 2	-1.03 2
0.	1.18036	40.00	40.00	-3.08 1	3.08 1	-9.78 1	-9.78 1
0.	1.19087	39.00	39.00	-2.99 1	2.99 1	-9.26 1	-9.26 1
0.	1.20197	38.00	38.00	-2.89 1	2.89 1	-8.77 1	-8.77 1
0.	1.21369	37.00	37.00	-2.80 1	2.80 1	-8.29 1	-8.29 1
0.	1.22610	36.00	36.00	-2.71 1	2.71 1	-7.84 1	-7.84 1
0.	1.23924	35.00	35.00	-2.61 1	2.61 1	-7.39 1	-7.39 1
0.	1.25317	34.00	34.00	-2.52 1	2.52 1	-6.97 1	-6.97 1
0.	1.26797	33.00	33.00	-2.42 1	2.42 1	-6.56 1	-6.56 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.	1.28370	32.00	32.00	-2.32 1	2.32 1	-6.16 1	-6.16 1
0.	1.30045	31.00	31.00	-2.23 1	2.23 1	-5.78 1	-5.78 1
0.	1.31832	30.00	30.00	-2.13 1	2.13 1	-5.42 1	-5.42 1
0.	1.33741	29.00	29.00	-2.04 1	2.04 1	-5.06 1	-5.06 1
0.	1.35785	28.00	28.00	-1.94 1	1.94 1	-4.73 1	-4.73 1
0.	1.37979	27.00	27.00	-1.84 1	1.84 1	-4.40 1	-4.40 1
0.	1.40337	26.00	26.00	-1.75 1	1.75 1	-4.09 1	-4.09 1
0.	1.42879	25.00	25.00	-1.65 1	1.65 1	-3.79 1	-3.79 1
0.	1.45627	24.00	24.00	-1.56 1	1.56 1	-3.50 1	-3.50 1
0.	1.48606	23.00	23.00	-1.47 1	1.47 1	-3.22 1	-3.22 1
0.	1.51846	22.00	22.00	-1.38 1	1.38 1	-2.96 1	-2.96 1
0.	1.55381	21.00	21.00	-1.28 1	1.28 1	-2.70 1	-2.70 1
0.	1.59255	20.00	20.00	-1.19 1	1.19 1	-2.46 1	-2.46 1
0.	1.61335	19.50	19.50	-1.15 1	1.15 1	-2.35 1	-2.35 1
0.	1.63518	19.00	19.00	-1.10 1	1.10 1	-2.23 1	-2.23 1
0.	1.65814	18.50	18.50	-1.06 1	1.06 1	-2.12 1	-2.12 1
0.	1.68232	18.00	18.00	-1.02 1	1.02 1	-2.01 1	-2.01 1
0.	1.70781	17.50	17.50	-9.74 0	9.74 0	-1.91 1	-1.91 1
0.	1.73472	17.00	17.00	-9.31 0	9.31 0	-1.81 1	-1.81 1
0.	1.76318	16.50	16.50	-8.89 0	8.89 0	-1.71 1	-1.71 1
0.	1.79333	16.00	16.00	-8.47 0	8.47 0	-1.61 1	-1.61 1
0.	1.82532	15.50	15.50	-8.06 0	8.06 0	-1.52 1	-1.52 1
0.	1.85933	15.00	15.00	-7.65 0	7.65 0	-1.43 1	-1.43 1
0.	1.89556	14.50	14.50	-7.25 0	7.25 0	-1.34 1	-1.34 1
0.	1.93424	14.00	14.00	-6.86 0	6.86 0	-1.25 1	-1.25 1
0.	1.97563	13.50	13.50	-6.47 0	6.47 0	-1.17 1	-1.17 1
0.	2.02004	13.00	13.00	-6.08 0	6.08 0	-1.09 1	-1.09 1
0.	2.06781	12.50	12.50	-5.71 0	5.71 0	-1.01 1	-1.01 1
0.	2.11935	12.00	12.00	-5.34 0	5.34 0	-9.33 0	-9.33 0
0.	2.17513	11.50	11.50	-4.97 0	4.97 0	-8.61 0	-8.61 0
0.	2.23572	11.00	11.00	-4.62 0	4.62 0	-7.91 0	-7.91 0
0.	2.30179	10.50	10.50	-4.27 0	4.27 0	-7.24 0	-7.24 0
0.	2.37413	10.00	10.00	-3.94 0	3.94 0	-6.60 0	-6.60 0
0.	2.40504	9.80	9.80	-3.80 0	3.80 0	-6.35 0	-6.35 0
0.	2.43717	9.60	9.60	-3.67 0	3.67 0	-6.10 0	-6.10 0
0.	2.47060	9.40	9.40	-3.54 0	3.54 0	-5.86 0	-5.86 0
0.	2.50543	9.20	9.20	-3.42 0	3.42 0	-5.63 0	-5.63 0
0.	2.54173	9.00	9.00	-3.29 0	3.29 0	-5.39 0	-5.39 0
0.	2.57961	8.80	8.80	-3.17 0	3.17 0	-5.17 0	-5.17 0
0.	2.61918	8.60	8.60	-3.04 0	3.04 0	-4.94 0	-4.94 0
0.	2.66055	8.40	8.40	-2.92 0	2.92 0	-4.73 0	-4.73 0
0.	2.70386	8.20	8.20	-2.80 0	2.80 0	-4.51 0	-4.51 0
0.	2.74924	8.00	8.00	-2.68 0	2.68 0	-4.30 0	-4.30 0
0.	2.79687	7.80	7.80	-2.57 0	2.57 0	-4.10 0	-4.10 0
0.	2.84691	7.60	7.60	-2.45 0	2.45 0	-3.90 0	-3.90 0
0.	2.89955	7.40	7.40	-2.34 0	2.34 0	-3.70 0	-3.70 0
0.	2.95502	7.20	7.20	-2.23 0	2.23 0	-3.51 0	-3.51 0
0.	3.01356	7.00	7.00	-2.12 0	2.12 0	-3.32 0	-3.32 0
0.	3.07543	6.80	6.80	-2.01 0	2.01 0	-3.14 0	-3.14 0
0.	3.14094	6.60	6.60	-1.91 0	1.91 0	-2.97 0	-2.97 0
0.	3.21043	6.40	6.40	-1.80 0	1.80 0	-2.79 0	-2.79 0
0.	3.28430	6.20	6.20	-1.70 0	1.70 0	-2.63 0	-2.63 0
0.	3.36297	6.00	6.00	-1.61 0	1.61 0	-2.46 0	-2.46 0
0.	3.44696	5.80	5.80	-1.51 0	1.51 0	-2.30 0	-2.30 0
0.	3.53684	5.60	5.60	-1.41 0	1.41 0	-2.15 0	-2.15 0
0.	3.63327	5.40	5.40	-1.32 0	1.32 0	-2.00 0	-2.00 0
0.	3.73704	5.20	5.20	-1.23 0	1.23 0	-1.86 0	-1.86 0
0.	3.84903	5.00	5.00	-1.15 0	1.15 0	-1.72 0	-1.72 0
0.	3.97031	4.80	4.80	-1.06 0	1.06 0	-1.58 0	-1.58 0
0.	4.10213	4.60	4.60	-9.79-1	9.79-1	-1.45 0	-1.45 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.	4.24596	4.40	4.40	-8.99-1	8.99-1	-1.33 0	-1.33 0
0.	4.40361	4.20	4.20	-8.22-1	8.22-1	-1.21 0	-1.21 0
0.	4.57723	4.00	4.00	-7.48-1	7.48-1	-1.10 0	-1.10 0
0.	4.67083	3.90	3.90	-7.12-1	7.12-1	-1.04 0	-1.04 0
0.	4.76947	3.80	3.80	-6.77-1	6.77-1	-9.87-1	-9.87-1
0.	4.87358	3.70	3.70	-6.42-1	6.42-1	-9.35-1	-9.35-1
0.	4.98362	3.60	3.60	-6.08-1	6.08-1	-8.83-1	-8.83-1
0.	5.10016	3.50	3.50	-5.75-1	5.75-1	-8.33-1	-8.33-1
0.	5.22380	3.40	3.40	-5.43-1	5.43-1	-7.85-1	-7.85-1
0.	5.35522	3.30	3.30	-5.11-1	5.11-1	-7.38-1	-7.38-1
0.	5.49522	3.20	3.20	-4.80-1	4.80-1	-6.92-1	-6.92-1
0.	5.64468	3.10	3.10	-4.50-1	4.50-1	-6.47-1	-6.47-1
0.	5.80464	3.00	3.00	-4.21-1	4.21-1	-6.04-1	-6.04-1
0.	5.97627	2.90	2.90	-3.93-1	3.93-1	-5.62-1	-5.62-1
0.	6.16094	2.80	2.80	-3.65-1	3.65-1	-5.22-1	-5.22-1
0.	6.36024	2.70	2.70	-3.38-1	3.38-1	-4.83-1	-4.83-1
0.	6.57603	2.60	2.60	-3.13-1	3.13-1	-4.45-1	-4.45-1
0.	6.81051	2.50	2.50	-2.88-1	2.88-1	-4.09-1	-4.09-1
0.	7.06628	2.40	2.40	-2.64-1	2.64-1	-3.74-1	-3.74-1
0.	7.34646	2.30	2.30	-2.40-1	2.40-1	-3.41-1	-3.41-1
0.	7.65483	2.20	2.20	-2.18-1	2.18-1	-3.09-1	-3.09-1
0.	7.99595	2.10	2.10	-1.97-1	1.97-1	-2.78-1	-2.78-1
0.	8.37547	2.00	2.00	-1.77-1	1.77-1	-2.49-1	-2.49-1
0.	8.58176	1.95	1.95	-1.67-1	1.67-1	-2.36-1	-2.36-1
0.	8.80040	1.90	1.90	-1.57-1	1.57-1	-2.22-1	-2.22-1
0.	9.03258	1.85	1.85	-1.48-1	1.48-1	-2.09-1	-2.09-1
0.	9.27960	1.80	1.80	-1.39-1	1.39-1	-1.96-1	-1.96-1
0.	9.54295	1.75	1.75	-1.30-1	1.30-1	-1.84-1	-1.84-1
0.	9.82434	1.70	1.70	-1.22-1	1.22-1	-1.72-1	-1.72-1
0.	10.1257	1.65	1.65	-1.14-1	1.14-1	-1.60-1	-1.60-1
0.	10.4493	1.60	1.60	-1.06-1	1.06-1	-1.49-1	-1.49-1
0.	10.7976	1.55	1.55	-9.79-2	9.79-2	-1.38-1	-1.38-1
0.	11.1738	1.50	1.50	-9.05-2	9.05-2	-1.28-1	-1.28-1
0.	11.5812	1.45	1.45	-8.33-2	8.33-2	-1.18-1	-1.18-1
0.	12.0239	1.40	1.40	-7.65-2	7.65-2	-1.08-1	-1.08-1
0.	12.5068	1.35	1.35	-6.99-2	6.99-2	-9.90-2	-9.90-2
0.	13.0356	1.30	1.30	-6.36-2	6.36-2	-9.03-2	-9.03-2
0.	13.6172	1.25	1.25	-5.76-2	5.76-2	-8.19-2	-8.19-2
0.	14.2598	1.20	1.20	-5.19-2	5.19-2	-7.39-2	-7.39-2
0.	14.9736	1.15	1.15	-4.64-2	4.64-2	-6.64-2	-6.64-2
0.	15.7709	1.10	1.10	-4.13-2	4.13-2	-5.93-2	-5.93-2
0.	16.6670	1.05	1.05	-3.65-2	3.65-2	-5.25-2	-5.25-2
0.	17.6813	1.00	1.00	-3.20-2	3.20-2	-4.63-2	-4.63-2
0.	18.1253	0.98	0.98	-3.03-2	3.03-2	-4.39-2	-4.39-2
0.	18.5940	0.96	0.96	-2.86-2	2.86-2	-4.15-2	-4.15-2
0.	19.0893	0.94	0.94	-2.70-2	2.70-2	-3.93-2	-3.93-2
0.	19.6135	0.92	0.92	-2.54-2	2.54-2	-3.71-2	-3.71-2
0.	20.1692	0.90	0.90	-2.39-2	2.39-2	-3.49-2	-3.49-2
0.	20.7591	0.88	0.88	-2.24-2	2.24-2	-3.29-2	-3.29-2
0.	21.3866	0.86	0.86	-2.10-2	2.10-2	-3.09-2	-3.09-2
0.	22.0550	0.84	0.84	-1.96-2	1.96-2	-2.90-2	-2.90-2
0.	22.7685	0.82	0.82	-1.83-2	1.83-2	-2.71-2	-2.71-2
0.	23.5315	0.80	0.80	-1.70-2	1.70-2	-2.53-2	-2.53-2
0.	24.3493	0.78	0.78	-1.58-2	1.58-2	-2.36-2	-2.36-2
0.	25.2275	0.76	0.76	-1.46-2	1.46-2	-2.20-2	-2.20-2
0.	26.1729	0.74	0.74	-1.35-2	1.35-2	-2.04-2	-2.04-2
0.	27.1930	0.72	0.72	-1.24-2	1.24-2	-1.89-2	-1.89-2
0.	28.2965	0.70	0.70	-1.14-2	1.14-2	-1.74-2	-1.74-2
0.	29.4936	0.68	0.68	-1.04-2	1.04-2	-1.60-2	-1.60-2
0.	30.7959	0.66	0.66	-9.50-3	9.50-3	-1.47-2	-1.47-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.	32.2169	0.64	0.64	-8.62-3	8.62-3	-1.35-2	-1.35-2
0.	33.7724	0.62	0.62	-7.79-3	7.79-3	-1.23-2	-1.23-2
0.	35.4809	0.60	0.60	-7.01-3	7.01-3	-1.12-2	-1.12-2
0.	37.3642	0.58	0.58	-6.28-3	6.28-3	-1.01-2	-1.01-2
0.	39.4483	0.56	0.56	-5.60-3	5.60-3	-9.12-3	-9.12-3
0.	41.7637	0.54	0.54	-4.96-3	4.96-3	-8.19-3	-8.19-3
0.	44.3473	0.52	0.52	-4.38-3	4.38-3	-7.32-3	-7.32-3
0.	47.2431	0.50	0.50	-3.83-3	3.83-3	-6.52-3	-6.52-3
0.	50.5043	0.48	0.48	-3.33-3	3.33-3	-5.77-3	-5.77-3
0.	54.1956	0.46	0.46	-2.87-3	2.87-3	-5.09-3	-5.09-3
0.	58.3957	0.44	0.44	-2.46-3	2.46-3	-4.46-3	-4.46-3
0.	63.2009	0.42	0.42	-2.09-3	2.09-3	-3.89-3	-3.89-3
0.	68.7294	0.40	0.40	-1.75-3	1.75-3	-3.37-3	-3.37-3
0.	75.1271	0.38	0.38	-1.46-3	1.46-3	-2.90-3	-2.90-3
0.	82.5736	0.36	0.36	-1.20-3	1.20-3	-2.49-3	-2.49-3
0.	91.2909	0.34	0.34	-9.71-4	9.71-4	-2.12-3	-2.12-3
0.	101.552	0.32	0.32	-7.77-4	7.77-4	-1.80-3	-1.80-3
0.	113.691	0.30	0.30	-6.13-4	6.13-4	-1.51-3	-1.51-3
0.	128.117	0.28	0.28	-4.76-4	4.76-4	-1.27-3	-1.27-3
0.	145.321	0.26	0.26	-3.63-4	3.63-4	-1.06-3	-1.06-3
0.	165.895	0.24	0.24	-2.71-4	2.71-4	-8.89-4	-8.89-4
0.	190.553	0.22	0.22	-1.99-4	1.99-4	-7.41-4	-7.41-4
0.	220.184	0.20	0.20	-1.42-4	1.42-4	-6.15-4	-6.15-4
0.	255.978	0.18	0.18	-9.93-5	9.93-5	-5.07-4	-5.07-4
0.	299.713	0.16	0.16	-6.71-5	6.71-5	-4.11-4	-4.11-4
0.	354.346	0.14	0.14	-4.34-5	4.34-5	-3.24-4	-3.24-4
0.	425.192	0.12	0.12	-2.66-5	2.66-5	-2.43-4	-2.43-4
0.	522.251	0.10	0.10	-1.50-5	1.50-5	-1.70-4	-1.70-4
0.	0.03						
0.008728	0.99982	89.00	90.00	-4.00 1	7.45 1	-1.97 3	-1.97 3
0.008733	1.00005	88.00	89.00	-1.74 1	9.72 1	-4.57 3	-4.57 3
0.017461	1.00017	88.00	90.00	7.00 1	1.85 2	-7.29 3	-7.30 3
0.017475	1.00030	87.00	89.00	1.86 1	1.33 2	-4.34 3	-4.35 3
0.008742	1.00033	87.00	88.00	-2.42 1	9.02 1	-3.77 3	-3.77 3
0.026203	1.00044	87.00	90.00	9.96 1	2.14 2	-5.99 3	-6.00 3
0.017497	1.00058	86.00	88.00	-1.99 0	1.12 2	-3.15 3	-3.16 3
0.026230	1.00059	86.00	89.00	3.52 1	1.50 2	-3.52 3	-3.54 3
0.008755	1.00063	86.00	87.00	-3.31 1	8.11 1	-2.74 3	-2.74 3
0.026268	1.00092	85.00	88.00	1.35 1	1.28 2	-2.69 3	-2.70 3
0.017525	1.00093	85.00	87.00	-1.50 1	9.92 1	-2.40 3	-2.40 3
0.008771	1.00102	85.00	86.00	-3.83 1	7.57 1	-2.13 3	-2.13 3
0.026316	1.00134	84.00	87.00	-7.49-1	1.14 2	-2.14 3	-2.15 3
0.017561	1.00139	84.00	86.00	-2.31 1	9.09 1	-1.92 3	-1.93 3
0.008790	1.00153	84.00	85.00	-4.15 1	7.23 1	-1.75 3	-1.75 3
0.026375	1.00186	83.00	86.00	-1.06 1	1.03 2	-1.75 3	-1.76 3
0.017604	1.00195	83.00	85.00	-2.85 1	8.52 1	-1.60 3	-1.61 3
0.008813	1.00216	83.00	84.00	-4.36 1	6.99 1	-1.48 3	-1.49 3
0.026445	1.00248	82.00	85.00	-1.74 1	9.63 1	-1.48 3	-1.50 3
0.017654	1.00264	82.00	84.00	-3.22 1	8.12 1	-1.38 3	-1.39 3
0.008840	1.00290	82.00	83.00	-4.51 1	6.80 1	-1.29 3	-1.29 3
0.026526	1.00322	81.00	84.00	-2.24 1	9.10 1	-1.29 3	-1.30 3
0.017712	1.00342	81.00	83.00	-3.50 1	7.80 1	-1.21 3	-1.21 3
0.008871	1.00374	81.00	82.00	-4.63 1	6.65 1	-1.14 3	-1.14 3
0.026619	1.00403	80.00	83.00	-2.62 1	8.67 1	-1.13 3	-1.14 3
0.017777	1.00430	80.00	82.00	-3.72 1	7.54 1	-1.07 3	-1.07 3
0.008906	1.00467	80.00	81.00	-4.71 1	6.52 1	-1.01 3	-1.02 3
0.026723	1.00499	79.00	82.00	-2.91 1	8.34 1	-1.01 3	-1.02 3
0.017850	1.00531	79.00	81.00	-3.89 1	7.33 1	-9.57 2	-9.65 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.008944	1.00571	79.00	80.00	-4.77 1	6.41 1	-9.10 2	-9.14 2
0.026838	1.00604	78.00	81.00	-3.14 1	8.06 1	-9.06 2	-9.18 2
0.017931	1.00638	78.00	80.00	-4.02 1	7.15 1	-8.63 2	-8.72 2
0.008987	1.00686	78.00	79.00	-4.82 1	6.31 1	-8.26 2	-8.30 2
0.026966	1.00717	77.00	80.00	-3.33 1	7.82 1	-8.21 2	-8.33 2
0.018020	1.00760	77.00	79.00	-4.12 1	6.99 1	-7.87 2	-7.95 2
0.009033	1.00811	77.00	78.00	-4.85 1	6.23 1	-7.55 2	-7.59 2
0.027106	1.00846	76.00	79.00	-3.48 1	7.61 1	-7.51 2	-7.64 2
0.018118	1.00892	76.00	78.00	-4.20 1	6.85 1	-7.22 2	-7.30 2
0.009084	1.00950	76.00	77.00	-4.87 1	6.14 1	-6.95 2	-6.99 2
0.027258	1.00984	75.00	78.00	-3.60 1	7.43 1	-6.91 2	-7.03 2
0.018223	1.01036	75.00	77.00	-4.26 1	6.72 1	-6.66 2	-6.74 2
0.009139	1.01100	75.00	76.00	-4.88 1	6.07 1	-6.43 2	-6.47 2
0.027423	1.01133	74.00	77.00	-3.70 1	7.27 1	-6.38 2	-6.51 2
0.018338	1.01192	74.00	76.00	-4.31 1	6.61 1	-6.17 2	-6.25 2
0.009198	1.01261	74.00	75.00	-4.88 1	5.99 1	-5.97 2	-6.01 2
0.027601	1.01295	73.00	76.00	-3.78 1	7.12 1	-5.92 2	-6.05 2
0.018461	1.01359	73.00	75.00	-4.34 1	6.50 1	-5.74 2	-5.82 2
0.009262	1.01434	73.00	74.00	-4.88 1	5.92 1	-5.56 2	-5.60 2
0.027793	1.01468	72.00	75.00	-3.84 1	6.98 1	-5.52 2	-5.64 2
0.018594	1.01538	72.00	74.00	-4.37 1	6.40 1	-5.35 2	-5.43 2
0.009331	1.01619	72.00	73.00	-4.87 1	5.85 1	-5.20 2	-5.24 2
0.027999	1.01655	71.00	74.00	-3.89 1	6.85 1	-5.16 2	-5.28 2
0.018736	1.01730	71.00	73.00	-4.38 1	6.30 1	-5.01 2	-5.09 2
0.009404	1.01817	71.00	72.00	-4.85 1	5.79 1	-4.87 2	-4.91 2
0.028220	1.01853	70.00	73.00	-3.93 1	6.73 1	-4.83 2	-4.95 2
0.018887	1.01934	70.00	72.00	-4.39 1	6.21 1	-4.70 2	-4.78 2
0.009483	1.02028	70.00	71.00	-4.83 1	5.72 1	-4.58 2	-4.62 2
0.028455	1.02065	69.00	72.00	-3.96 1	6.61 1	-4.54 2	-4.66 2
0.019049	1.02152	69.00	71.00	-4.39 1	6.12 1	-4.42 2	-4.50 2
0.009566	1.02253	69.00	70.00	-4.81 1	5.65 1	-4.31 2	-4.35 2
0.028706	1.02289	68.00	71.00	-3.98 1	6.50 1	-4.27 2	-4.39 2
0.019221	1.02384	68.00	70.00	-4.39 1	6.03 1	-4.17 2	-4.24 2
0.009655	1.02490	68.00	69.00	-4.78 1	5.58 1	-4.07 2	-4.10 2
0.028972	1.02529	67.00	70.00	-3.99 1	6.40 1	-4.03 2	-4.14 2
0.019405	1.02629	67.00	69.00	-4.37 1	5.95 1	-3.93 2	-4.01 2
0.009749	1.02742	67.00	68.00	-4.75 1	5.51 1	-3.84 2	-3.88 2
0.029256	1.02781	66.00	69.00	-3.99 1	6.29 1	-3.80 2	-3.92 2
0.019599	1.02888	66.00	68.00	-4.36 1	5.86 1	-3.72 2	-3.79 2
0.009850	1.03009	66.00	67.00	-4.71 1	5.45 1	-3.64 2	-3.67 2
0.029557	1.03048	65.00	68.00	-3.99 1	6.19 1	-3.60 2	-3.71 2
0.019806	1.03163	65.00	67.00	-4.33 1	5.78 1	-3.52 2	-3.59 2
0.009956	1.03290	65.00	66.00	-4.67 1	5.38 1	-3.44 2	-3.48 2
0.029876	1.03331	64.00	67.00	-3.98 1	6.09 1	-3.40 2	-3.52 2
0.020025	1.03451	64.00	66.00	-4.31 1	5.69 1	-3.33 2	-3.41 2
0.010068	1.03586	64.00	65.00	-4.63 1	5.31 1	-3.27 2	-3.30 2
0.020256	1.03757	63.00	65.00	-4.28 1	5.61 1	-3.16 2	-3.24 2
0.010188	1.03899	63.00	64.00	-4.58 1	5.24 1	-3.10 2	-3.14 2
0.020502	1.04078	62.00	64.00	-4.24 1	5.53 1	-3.00 2	-3.08 2
0.010314	1.04228	62.00	63.00	-4.53 1	5.16 1	-2.95 2	-2.98 2
0.020761	1.04416	61.00	63.00	-4.20 1	5.44 1	-2.85 2	-2.93 2
0.010447	1.04574	61.00	62.00	-4.48 1	5.09 1	-2.80 2	-2.84 2
0.021035	1.04771	60.00	62.00	-4.16 1	5.36 1	-2.71 2	-2.79 2
0.010588	1.04938	60.00	61.00	-4.43 1	5.02 1	-2.66 2	-2.70 2
0.021325	1.05145	59.00	61.00	-4.12 1	5.27 1	-2.58 2	-2.65 2
0.010737	1.05321	59.00	60.00	-4.37 1	4.94 1	-2.53 2	-2.57 2
0.021632	1.05537	58.00	60.00	-4.07 1	5.19 1	-2.46 2	-2.53 2
0.010894	1.05723	58.00	59.00	-4.32 1	4.87 1	-2.41 2	-2.45 2
0.021956	1.05950	57.00	59.00	-4.02 1	5.10 1	-2.34 2	-2.41 2
0.011061	1.06144	57.00	58.00	-4.26 1	4.79 1	-2.30 2	-2.33 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.022298	1.06382	56.00	58.00	-3.97 1	5.02 1	-2.23 2	-2.30 2
0.011236	1.06587	56.00	57.00	-4.19 1	4.71 1	-2.19 2	-2.23 2
0.022659	1.06836	55.00	57.00	-3.91 1	4.93 1	-2.12 2	-2.19 2
0.011422	1.07051	55.00	56.00	-4.13 1	4.63 1	-2.09 2	-2.12 2
0.023042	1.07312	54.00	56.00	-3.85 1	4.84 1	-2.02 2	-2.09 2
0.011619	1.07538	54.00	55.00	-4.06 1	4.55 1	-1.99 2	-2.02 2
0.023446	1.07811	53.00	55.00	-3.79 1	4.75 1	-1.92 2	-1.99 2
0.011826	1.08049	53.00	54.00	-3.99 1	4.47 1	-1.90 2	-1.93 2
0.023873	1.08335	52.00	54.00	-3.73 1	4.66 1	-1.83 2	-1.90 2
0.012046	1.08584	52.00	53.00	-3.92 1	4.38 1	-1.81 2	-1.84 2
0.024325	1.08885	51.00	53.00	-3.66 1	4.57 1	-1.75 2	-1.81 2
0.012278	1.09146	51.00	52.00	-3.85 1	4.30 1	-1.72 2	-1.75 2
0.024804	1.09462	50.00	52.00	-3.60 1	4.48 1	-1.66 2	-1.73 2
0.012524	1.09736	50.00	51.00	-3.78 1	4.21 1	-1.64 2	-1.67 2
0.025311	1.10067	49.00	51.00	-3.53 1	4.39 1	-1.58 2	-1.65 2
0.012785	1.10355	49.00	50.00	-3.70 1	4.12 1	-1.56 2	-1.60 2
0.025848	1.10702	48.00	50.00	-3.46 1	4.29 1	-1.51 2	-1.57 2
0.013061	1.11005	48.00	49.00	-3.62 1	4.04 1	-1.49 2	-1.52 2
0.026417	1.11369	47.00	49.00	-3.39 1	4.20 1	-1.44 2	-1.50 2
0.013354	1.11687	47.00	48.00	-3.55 1	3.95 1	-1.42 2	-1.45 2
0.027021	1.12069	46.00	48.00	-3.31 1	4.10 1	-1.37 2	-1.43 2
0.013666	1.12403	46.00	47.00	-3.46 1	3.86 1	-1.35 2	-1.38 2
0.027663	1.12805	45.00	47.00	-3.24 1	4.01 1	-1.30 2	-1.36 2
0.013996	1.13155	45.00	46.00	-3.38 1	3.76 1	-1.28 2	-1.31 2
0.028345	1.13577	44.00	46.00	-3.16 1	3.91 1	-1.23 2	-1.30 2
0.014348	1.13946	44.00	45.00	-3.30 1	3.67 1	-1.22 2	-1.25 2
0.029071	1.14390	43.00	45.00	-3.08 1	3.81 1	-1.17 2	-1.23 2
0.014722	1.14777	43.00	44.00	-3.22 1	3.58 1	-1.16 2	-1.19 2
0.029844	1.15244	42.00	44.00	-3.00 1	3.72 1	-1.11 2	-1.17 2
0.015121	1.15653	42.00	43.00	-3.13 1	3.49 1	-1.10 2	-1.13 2
0.015546	1.16574	41.00	42.00	-3.05 1	3.39 1	-1.04 2	-1.07 2
0.016001	1.17545	40.00	41.00	-2.96 1	3.29 1	-9.89 1	-1.02 2
0.016487	1.18569	39.00	40.00	-2.87 1	3.20 1	-9.37 1	-9.66 1
0.017008	1.19649	38.00	39.00	-2.78 1	3.10 1	-8.87 1	-9.16 1
0.017567	1.20791	37.00	38.00	-2.69 1	3.00 1	-8.39 1	-8.67 1
0.018168	1.21998	36.00	37.00	-2.60 1	2.91 1	-7.92 1	-8.20 1
0.018815	1.23276	35.00	36.00	-2.51 1	2.81 1	-7.48 1	-7.75 1
0.019514	1.24630	34.00	35.00	-2.42 1	2.71 1	-7.05 1	-7.31 1
0.020269	1.26067	33.00	34.00	-2.33 1	2.61 1	-6.63 1	-6.89 1
0.021087	1.27594	32.00	33.00	-2.24 1	2.51 1	-6.23 1	-6.49 1
0.021975	1.29218	31.00	32.00	-2.14 1	2.41 1	-5.85 1	-6.10 1
0.022943	1.30950	30.00	31.00	-2.05 1	2.31 1	-5.48 1	-5.72 1
0.024000	1.32799	29.00	30.00	-1.96 1	2.21 1	-5.12 1	-5.36 1
0.025157	1.34777	28.00	29.00	-1.87 1	2.11 1	-4.78 1	-5.01 1
0.026428	1.36897	27.00	28.00	-1.77 1	2.01 1	-4.45 1	-4.68 1
0.027830	1.39174	26.00	27.00	-1.68 1	1.91 1	-4.13 1	-4.35 1
0.029382	1.41626	25.00	26.00	-1.59 1	1.82 1	-3.83 1	-4.04 1
0.021346	1.60303	19.50	20.00	-1.13 1	1.22 1	-2.36 1	-2.45 1
0.022189	1.62435	19.00	19.50	-1.08 1	1.17 1	-2.25 1	-2.34 1
0.023093	1.64675	18.50	19.00	-1.04 1	1.13 1	-2.13 1	-2.22 1
0.024066	1.67033	18.00	18.50	-9.96 0	1.08 1	-2.03 1	-2.11 1
0.025114	1.69517	17.50	18.00	-9.53 0	1.04 1	-1.92 1	-2.00 1
0.026246	1.72137	17.00	17.50	-9.11 0	9.95 0	-1.82 1	-1.90 1
0.027471	1.74907	16.50	17.00	-8.70 0	9.52 0	-1.72 1	-1.80 1
0.028800	1.77838	16.00	16.50	-8.29 0	9.09 0	-1.62 1	-1.70 1
0.025836	2.38965	9.80	10.00	-3.76 0	3.98 0	-6.36 0	-6.58 0
0.026746	2.42118	9.60	9.80	-3.63 0	3.85 0	-6.12 0	-6.33 0
0.027711	2.45396	9.40	9.60	-3.50 0	3.72 0	-5.88 0	-6.09 0
0.028736	2.48810	9.20	9.40	-3.38 0	3.59 0	-5.64 0	-5.85 0
0.029826	2.52367	9.00	9.20	-3.25 0	3.46 0	-5.41 0	-5.61 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.03	0.06						
0.034958	1.00078	86.00	90.00	1.01 2	2.16 2	-4.53 3	-4.55 3
0.035002	1.00100	85.00	89.00	4.87 1	1.63 2	-3.02 3	-3.04 3
0.043731	1.00122	85.00	90.00	9.99 1	2.15 2	-3.59 3	-3.62 3
0.035060	1.00139	84.00	88.00	2.67 1	1.41 2	-2.39 3	-2.40 3
0.043795	1.00152	84.00	89.00	5.91 1	1.74 2	-2.65 3	-2.67 3
0.052524	1.00180	84.00	90.00	1.07 2	2.23 2	-3.13 3	-3.15 3
0.035131	1.00186	83.00	87.00	1.08 1	1.25 2	-1.93 3	-1.94 3
0.043876	1.00196	83.00	88.00	3.66 1	1.51 2	-2.13 3	-2.15 3
0.052612	1.00214	83.00	89.00	6.69 1	1.82 2	-2.36 3	-2.38 3
0.035218	1.00244	82.00	86.00	1.60-3	1.14 2	-1.61 3	-1.63 3
0.043975	1.00250	82.00	87.00	2.06 1	1.35 2	-1.76 3	-1.78 3
0.052721	1.00265	82.00	88.00	4.50 1	1.60 2	-1.93 3	-1.96 3
0.035318	1.00312	81.00	85.00	-7.87 0	1.06 2	-1.38 3	-1.39 3
0.044092	1.00313	81.00	86.00	8.90 0	1.23 2	-1.49 3	-1.51 3
0.052851	1.00324	81.00	87.00	2.87 1	1.43 2	-1.61 3	-1.64 3
0.044228	1.00383	80.00	85.00	8.09-2	1.14 2	-1.28 3	-1.30 3
0.035434	1.00388	80.00	84.00	-1.39 1	9.95 1	-1.20 3	-1.21 3
0.053003	1.00389	80.00	86.00	1.61 1	1.30 2	-1.37 3	-1.39 3
0.044382	1.00467	79.00	84.00	-6.29 0	1.07 2	-1.12 3	-1.14 3
0.053177	1.00468	79.00	85.00	7.26 0	1.21 2	-1.19 3	-1.22 3
0.035565	1.00477	79.00	83.00	-1.83 1	9.46 1	-1.06 3	-1.08 3
0.053375	1.00556	78.00	84.00	3.45-1	1.14 2	-1.06 3	-1.08 3
0.044556	1.00561	78.00	83.00	-1.14 1	1.02 2	-1.00 3	-1.02 3
0.035712	1.00577	78.00	82.00	-2.19 1	9.06 1	-9.51 2	-9.67 2
0.053595	1.00656	77.00	83.00	-5.08 0	1.08 2	-9.45 2	-9.70 2
0.044749	1.00667	77.00	82.00	-1.54 1	9.72 1	-9.00 2	-9.21 2
0.035874	1.00688	77.00	81.00	-2.47 1	8.73 1	-8.60 2	-8.76 2
0.053839	1.00769	76.00	82.00	-9.40 0	1.03 2	-8.55 2	-8.80 2
0.044962	1.00785	76.00	81.00	-1.86 1	9.34 1	-8.18 2	-8.38 2
0.036052	1.00809	76.00	80.00	-2.70 1	8.44 1	-7.83 2	-7.99 2
0.054107	1.00892	75.00	81.00	-1.30 1	9.90 1	-7.79 2	-8.03 2
0.045195	1.00911	75.00	80.00	-2.13 1	9.01 1	-7.47 2	-7.67 2
0.036247	1.00942	75.00	79.00	-2.89 1	8.19 1	-7.18 2	-7.34 2
0.054400	1.01025	74.00	80.00	-1.60 1	9.54 1	-7.13 2	-7.38 2
0.045450	1.01051	74.00	79.00	-2.35 1	8.73 1	-6.87 2	-7.07 2
0.036459	1.01087	74.00	78.00	-3.05 1	7.97 1	-6.62 2	-6.78 2
0.054719	1.01170	73.00	79.00	-1.85 1	9.23 1	-6.57 2	-6.81 2
0.045726	1.01200	73.00	78.00	-2.54 1	8.48 1	-6.34 2	-6.54 2
0.036688	1.01241	73.00	77.00	-3.18 1	7.77 1	-6.12 2	-6.28 2
0.055063	1.01327	72.00	78.00	-2.06 1	8.95 1	-6.08 2	-6.32 2
0.046023	1.01362	72.00	77.00	-2.69 1	8.25 1	-5.88 2	-6.08 2
0.036935	1.01410	72.00	76.00	-3.28 1	7.59 1	-5.69 2	-5.85 2
0.055434	1.01496	71.00	77.00	-2.24 1	8.70 1	-5.65 2	-5.89 2
0.046344	1.01538	71.00	76.00	-2.82 1	8.05 1	-5.48 2	-5.68 2
0.037200	1.01591	71.00	75.00	-3.37 1	7.43 1	-5.31 2	-5.47 2
0.055833	1.01678	70.00	76.00	-2.39 1	8.47 1	-5.27 2	-5.51 2
0.046688	1.01726	70.00	75.00	-2.93 1	7.86 1	-5.11 2	-5.31 2
0.037485	1.01784	70.00	74.00	-3.44 1	7.28 1	-4.97 2	-5.13 2
0.056261	1.01873	69.00	75.00	-2.51 1	8.26 1	-4.93 2	-5.16 2
0.047055	1.01926	69.00	74.00	-3.02 1	7.68 1	-4.79 2	-4.99 2
0.037788	1.01989	69.00	73.00	-3.50 1	7.13 1	-4.66 2	-4.82 2
0.056718	1.02080	68.00	74.00	-2.62 1	8.07 1	-4.62 2	-4.85 2
0.047448	1.02137	68.00	73.00	-3.10 1	7.52 1	-4.50 2	-4.69 2
0.038113	1.02207	68.00	72.00	-3.55 1	7.00 1	-4.38 2	-4.54 2
0.057205	1.02300	67.00	73.00	-2.71 1	7.89 1	-4.34 2	-4.57 2
0.047867	1.02364	67.00	72.00	-3.16 1	7.37 1	-4.23 2	-4.42 2
0.038458	1.02440	67.00	71.00	-3.58 1	6.87 1	-4.13 2	-4.28 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.057724	1.02534	66.00	72.00	-2.79 1	7.72 1	-4.08 2	-4.32 2
0.048313	1.02604	66.00	71.00	-3.21 1	7.22 1	-3.99 2	-4.18 2
0.038825	1.02687	66.00	70.00	-3.61 1	6.75 1	-3.89 2	-4.05 2
0.058276	1.02783	65.00	71.00	-2.85 1	7.56 1	-3.85 2	-4.08 2
0.048786	1.02859	65.00	70.00	-3.24 1	7.08 1	-3.76 2	-3.95 2
0.039215	1.02947	65.00	69.00	-3.62 1	6.63 1	-3.68 2	-3.83 2
0.058863	1.03046	64.00	70.00	-2.90 1	7.41 1	-3.64 2	-3.87 2
0.049289	1.03128	64.00	69.00	-3.27 1	6.95 1	-3.56 2	-3.75 2
0.039629	1.03222	64.00	68.00	-3.63 1	6.51 1	-3.48 2	-3.63 2
0.059485	1.03324	63.00	69.00	-2.94 1	7.26 1	-3.44 2	-3.67 2
0.049822	1.03412	63.00	68.00	-3.29 1	6.82 1	-3.36 2	-3.56 2
0.040067	1.03514	63.00	67.00	-3.63 1	6.40 1	-3.29 2	-3.45 2
0.030214	1.03628	63.00	66.00	-3.96 1	6.00 1	-3.23 2	-3.34 2
0.050386	1.03712	62.00	67.00	-3.31 1	6.70 1	-3.19 2	-3.38 2
0.040531	1.03820	62.00	66.00	-3.63 1	6.29 1	-3.12 2	-3.27 2
0.030572	1.03942	62.00	65.00	-3.94 1	5.90 1	-3.06 2	-3.17 2
0.050984	1.04027	61.00	66.00	-3.31 1	6.57 1	-3.02 2	-3.21 2
0.041022	1.04143	61.00	65.00	-3.62 1	6.18 1	-2.96 2	-3.11 2
0.030951	1.04272	61.00	64.00	-3.92 1	5.80 1	-2.91 2	-3.02 2
0.051617	1.04360	60.00	65.00	-3.31 1	6.46 1	-2.87 2	-3.05 2
0.041542	1.04482	60.00	64.00	-3.60 1	6.08 1	-2.81 2	-2.96 2
0.031351	1.04620	60.00	63.00	-3.89 1	5.71 1	-2.76 2	-2.87 2
0.052285	1.04710	59.00	64.00	-3.30 1	6.34 1	-2.72 2	-2.91 2
0.042092	1.04840	59.00	63.00	-3.58 1	5.97 1	-2.67 2	-2.82 2
0.031774	1.04985	59.00	62.00	-3.86 1	5.62 1	-2.63 2	-2.74 2
0.052993	1.05078	58.00	63.00	-3.29 1	6.22 1	-2.59 2	-2.77 2
0.042673	1.05216	58.00	62.00	-3.56 1	5.87 1	-2.54 2	-2.69 2
0.032222	1.05369	58.00	61.00	-3.82 1	5.52 1	-2.50 2	-2.61 2
0.053740	1.05464	57.00	62.00	-3.28 1	6.11 1	-2.46 2	-2.64 2
0.043287	1.05610	57.00	61.00	-3.53 1	5.76 1	-2.42 2	-2.56 2
0.032695	1.05772	57.00	60.00	-3.78 1	5.43 1	-2.38 2	-2.49 2
0.054530	1.05870	56.00	61.00	-3.25 1	6.00 1	-2.34 2	-2.52 2
0.043935	1.06025	56.00	60.00	-3.50 1	5.66 1	-2.30 2	-2.44 2
0.033194	1.06195	56.00	59.00	-3.74 1	5.33 1	-2.26 2	-2.37 2
0.055365	1.06297	55.00	60.00	-3.23 1	5.89 1	-2.23 2	-2.40 2
0.044621	1.06460	55.00	59.00	-3.46 1	5.56 1	-2.19 2	-2.33 2
0.033722	1.06639	55.00	58.00	-3.69 1	5.24 1	-2.15 2	-2.26 2
0.056247	1.06744	54.00	59.00	-3.20 1	5.77 1	-2.12 2	-2.30 2
0.045346	1.06916	54.00	58.00	-3.42 1	5.45 1	-2.08 2	-2.23 2
0.034281	1.07105	54.00	57.00	-3.64 1	5.14 1	-2.05 2	-2.16 2
0.057180	1.07214	53.00	58.00	-3.16 1	5.66 1	-2.02 2	-2.19 2
0.046112	1.07395	53.00	57.00	-3.38 1	5.35 1	-1.98 2	-2.12 2
0.034870	1.07594	53.00	56.00	-3.59 1	5.05 1	-1.95 2	-2.06 2
0.058166	1.07707	52.00	57.00	-3.13 1	5.55 1	-1.92 2	-2.09 2
0.046922	1.07898	52.00	56.00	-3.33 1	5.25 1	-1.89 2	-2.03 2
0.035494	1.08107	52.00	55.00	-3.53 1	4.95 1	-1.86 2	-1.96 2
0.059209	1.08224	51.00	56.00	-3.08 1	5.44 1	-1.83 2	-2.00 2
0.047778	1.08425	51.00	55.00	-3.28 1	5.14 1	-1.80 2	-1.94 2
0.036154	1.08645	51.00	54.00	-3.48 1	4.85 1	-1.77 2	-1.87 2
0.048684	1.08978	50.00	54.00	-3.23 1	5.04 1	-1.71 2	-1.85 2
0.036853	1.09210	50.00	53.00	-3.42 1	4.76 1	-1.69 2	-1.79 2
0.049644	1.09559	49.00	53.00	-3.18 1	4.94 1	-1.63 2	-1.76 2
0.037592	1.09802	49.00	52.00	-3.35 1	4.66 1	-1.61 2	-1.71 2
0.050660	1.10168	48.00	52.00	-3.12 1	4.83 1	-1.55 2	-1.68 2
0.038375	1.10424	48.00	51.00	-3.29 1	4.56 1	-1.53 2	-1.63 2
0.051736	1.10808	47.00	51.00	-3.06 1	4.73 1	-1.47 2	-1.61 2
0.039205	1.11076	47.00	50.00	-3.22 1	4.46 1	-1.45 2	-1.55 2
0.052878	1.11479	46.00	50.00	-3.00 1	4.62 1	-1.40 2	-1.53 2
0.040086	1.11762	46.00	49.00	-3.16 1	4.36 1	-1.38 2	-1.48 2
0.054089	1.12184	45.00	49.00	-2.93 1	4.52 1	-1.33 2	-1.46 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.041021	1.12481	45.00	48.00	-3.09 1	4.26 1	-1.32 2	-1.41 2
0.055376	1.12925	44.00	48.00	-2.87 1	4.41 1	-1.27 2	-1.39 2
0.042015	1.13237	44.00	47.00	-3.01 1	4.16 1	-1.25 2	-1.34 2
0.056745	1.13704	43.00	47.00	-2.80 1	4.31 1	-1.20 2	-1.33 2
0.043071	1.14032	43.00	46.00	-2.94 1	4.06 1	-1.19 2	-1.28 2
0.058200	1.14523	42.00	46.00	-2.73 1	4.20 1	-1.14 2	-1.27 2
0.044196	1.14869	42.00	45.00	-2.87 1	3.95 1	-1.13 2	-1.22 2
0.059751	1.15385	41.00	45.00	-2.66 1	4.09 1	-1.08 2	-1.20 2
0.045395	1.15748	41.00	44.00	-2.79 1	3.85 1	-1.07 2	-1.16 2
0.030668	1.16144	41.00	43.00	-2.92 1	3.62 1	-1.06 2	-1.12 2
0.046674	1.16676	40.00	43.00	-2.71 1	3.75 1	-1.01 2	-1.10 2
0.031549	1.17092	40.00	42.00	-2.84 1	3.52 1	-1.00 2	-1.06 2
0.048041	1.17652	39.00	42.00	-2.63 1	3.64 1	-9.60 1	-1.05 2
0.032490	1.18091	39.00	41.00	-2.75 1	3.42 1	-9.48 1	-1.01 2
0.049504	1.18683	38.00	41.00	-2.55 1	3.54 1	-9.08 1	-9.95 1
0.033497	1.19146	38.00	40.00	-2.67 1	3.32 1	-8.98 1	-9.55 1
0.051071	1.19771	37.00	40.00	-2.47 1	3.43 1	-8.59 1	-9.45 1
0.034578	1.20259	37.00	39.00	-2.58 1	3.22 1	-8.49 1	-9.05 1
0.052752	1.20920	36.00	39.00	-2.39 1	3.33 1	-8.11 1	-8.95 1
0.035738	1.21436	36.00	38.00	-2.50 1	3.11 1	-8.02 1	-8.57 1
0.054560	1.22135	35.00	38.00	-2.31 1	3.22 1	-7.65 1	-8.48 1
0.036986	1.22681	35.00	37.00	-2.41 1	3.01 1	-7.56 1	-8.11 1
0.056508	1.23423	34.00	37.00	-2.23 1	3.12 1	-7.21 1	-8.02 1
0.038332	1.24000	34.00	36.00	-2.32 1	2.91 1	-7.13 1	-7.66 1
0.058609	1.24787	33.00	36.00	-2.14 1	3.01 1	-6.78 1	-7.58 1
0.039785	1.25399	33.00	35.00	-2.24 1	2.81 1	-6.70 1	-7.23 1
0.041359	1.26884	32.00	34.00	-2.15 1	2.70 1	-6.30 1	-6.82 1
0.043065	1.28464	31.00	33.00	-2.06 1	2.60 1	-5.91 1	-6.42 1
0.044922	1.30147	30.00	32.00	-1.97 1	2.50 1	-5.54 1	-6.03 1
0.046947	1.31943	29.00	31.00	-1.88 1	2.40 1	-5.17 1	-5.66 1
0.049161	1.33862	28.00	30.00	-1.79 1	2.29 1	-4.83 1	-5.30 1
0.051590	1.35918	27.00	29.00	-1.70 1	2.19 1	-4.49 1	-4.96 1
0.054265	1.38124	26.00	28.00	-1.62 1	2.09 1	-4.17 1	-4.63 1
0.057219	1.40497	25.00	27.00	-1.53 1	1.99 1	-3.87 1	-4.31 1
0.031106	1.44273	24.00	25.00	-1.50 1	1.72 1	-3.53 1	-3.75 1
0.033031	1.47138	23.00	24.00	-1.41 1	1.62 1	-3.26 1	-3.46 1
0.035190	1.50250	22.00	23.00	-1.32 1	1.53 1	-2.99 1	-3.19 1
0.037624	1.53640	21.00	22.00	-1.23 1	1.43 1	-2.73 1	-2.93 1
0.040385	1.57348	20.00	21.00	-1.15 1	1.34 1	-2.49 1	-2.68 1
0.043537	1.61420	19.00	20.00	-1.06 1	1.24 1	-2.26 1	-2.44 1
0.045284	1.63609	18.50	19.50	-1.02 1	1.20 1	-2.15 1	-2.32 1
0.047161	1.65912	18.00	19.00	-9.74 0	1.15 1	-2.04 1	-2.21 1
0.049182	1.68337	17.50	18.50	-9.33 0	1.11 1	-1.93 1	-2.10 1
0.051362	1.70895	17.00	18.00	-8.91 0	1.06 1	-1.83 1	-1.99 1
0.053720	1.73595	16.50	17.50	-8.51 0	1.02 1	-1.73 1	-1.89 1
0.056275	1.76451	16.00	17.00	-8.10 0	9.72 0	-1.63 1	-1.79 1
0.059052	1.79477	15.50	16.50	-7.70 0	9.28 0	-1.53 1	-1.69 1
0.030248	1.80946	15.50	16.00	-7.88 0	8.66 0	-1.52 1	-1.60 1
0.031827	1.84247	15.00	15.50	-7.48 0	8.24 0	-1.43 1	-1.51 1
0.033555	1.87760	14.50	15.00	-7.09 0	7.83 0	-1.34 1	-1.42 1
0.035454	1.91507	14.00	14.50	-6.70 0	7.42 0	-1.26 1	-1.33 1
0.037546	1.95513	13.50	14.00	-6.31 0	7.02 0	-1.17 1	-1.24 1
0.039860	1.99804	13.00	13.50	-5.94 0	6.62 0	-1.09 1	-1.16 1
0.042431	2.04415	12.50	13.00	-5.57 0	6.23 0	-1.01 1	-1.08 1
0.045300	2.09383	12.00	12.50	-5.20 0	5.85 0	-9.38 0	-1.00 1
0.048516	2.14752	11.50	12.00	-4.85 0	5.47 0	-8.66 0	-9.28 0
0.052140	2.20574	11.00	11.50	-4.50 0	5.10 0	-7.95 0	-8.56 0
0.056248	2.26911	10.50	11.00	-4.16 0	4.74 0	-7.28 0	-7.87 0
0.052583	2.40594	9.60	10.00	-3.59 0	4.03 0	-6.13 0	-6.57 0
0.054458	2.43812	9.40	9.80	-3.46 0	3.89 0	-5.89 0	-6.32 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.056449	2.47162	9.20	9.60	-3.34 0	3.76 0	-5.65 0	-6.08 0
0.058564	2.50650	9.00	9.40	-3.21 0	3.63 0	-5.42 0	-5.84 0
0.030987	2.56076	8.80	9.00	-3.13 0	3.33 0	-5.18 0	-5.38 0
0.032225	2.59949	8.60	8.80	-3.01 0	3.20 0	-4.96 0	-5.1 0
0.033548	2.63997	8.40	8.60	-2.88 0	3.08 0	-4.74 0	-4.93 0
0.034963	2.68231	8.20	8.40	-2.77 0	2.96 0	-4.52 0	-4.72 0
0.036480	2.72667	8.00	8.20	-2.65 0	2.84 0	-4.31 0	-4.50 0
0.038110	2.77318	7.80	8.00	-2.53 0	2.72 0	-4.11 0	-4.29 0
0.039864	2.82202	7.60	7.80	-2.42 0	2.60 0	-3.91 0	-4.09 0
0.041755	2.87337	7.40	7.60	-2.31 0	2.48 0	-3.71 0	-3.89 0
0.043799	2.92744	7.20	7.40	-2.20 0	2.37 0	-3.52 0	-3.69 0
0.046014	2.98446	7.00	7.20	-2.09 0	2.26 0	-3.33 0	-3.50 0
0.048418	3.04467	6.80	7.00	-1.98 0	2.15 0	-3.15 0	-3.32 0
0.051036	3.10838	6.60	6.80	-1.88 0	2.04 0	-2.97 0	-3.14 0
0.053895	3.17590	6.40	6.60	-1.78 0	1.94 0	-2.80 0	-2.96 0
0.057026	3.24760	6.20	6.40	-1.68 0	1.83 0	-2.63 0	-2.79 0
0.06	0.09						
0.061344	1.00247	83.00	90.00	1.10 2	2.25 2	-2.72 3	-2.75 3
0.061459	1.00289	82.00	89.00	7.37 1	1.89 2	-2.13 3	-2.16 3
0.070192	1.00327	82.00	90.00	1.13 2	2.29 2	-2.42 3	-2.46 3
0.061599	1.00344	81.00	88.00	5.16 1	1.67 2	-1.76 3	-1.79 3
0.070339	1.00374	81.00	89.00	7.88 1	1.95 2	-1.93 3	-1.96 3
0.061764	1.00405	80.00	87.00	3.46 1	1.50 2	-1.48 3	-1.51 3
0.079075	1.00416	81.00	90.00	1.14 2	2.30 2	-2.16 3	-2.20 3
0.070514	1.00430	80.00	88.00	5.58 1	1.71 2	-1.60 3	-1.63 3
0.079257	1.00465	80.00	89.00	8.06 1	1.97 2	-1.73 3	-1.77 3
0.061955	1.00478	79.00	86.00	2.26 1	1.37 2	-1.27 3	-1.30 3
0.070718	1.00500	79.00	87.00	4.03 1	1.56 2	-1.37 3	-1.40 3
0.087996	1.00512	80.00	90.00	1.11 2	2.28 2	-1.91 3	-1.96 3
0.079471	1.00530	79.00	88.00	6.04 1	1.76 2	-1.47 3	-1.51 3
0.062172	1.00562	78.00	85.00	1.34 1	1.28 2	-1.12 3	-1.15 3
0.088217	1.00571	79.00	89.00	8.36 1	2.00 2	-1.59 3	-1.63 3
0.070952	1.00578	78.00	86.00	2.81 1	1.43 2	-1.19 3	-1.22 3
0.079718	1.00604	78.00	87.00	4.49 1	1.60 2	-1.27 3	-1.31 3
0.088474	1.00640	78.00	88.00	6.37 1	1.80 2	-1.36 3	-1.40 3
0.062416	1.00656	77.00	84.00	6.27 0	1.20 2	-9.95 2	-1.02 3
0.071216	1.00667	77.00	85.00	1.88 1	1.33 2	-1.05 3	-1.08 3
0.079999	1.00689	77.00	86.00	3.30 1	1.48 2	-1.11 3	-1.15 3
0.088768	1.00720	77.00	87.00	4.88 1	1.65 2	-1.18 3	-1.22 3
0.062687	1.00764	76.00	83.00	6.13-1	1.14 2	-8.96 2	-9.25 2
0.071511	1.00769	76.00	84.00	1.16 1	1.26 2	-9.41 2	-9.74 2
0.080314	1.00785	76.00	85.00	2.38 1	1.38 2	-9.90 2	-1.03 3
0.089100	1.00812	76.00	86.00	3.74 1	1.53 2	-1.05 3	-1.09 3
0.062987	1.00882	75.00	82.00	-4.04 0	1.09 2	-8.13 2	-8.41 2
0.071838	1.00882	75.00	83.00	5.71 0	1.19 2	-8.50 2	-8.83 2
0.080664	1.00893	75.00	84.00	1.64 1	1.31 2	-8.90 2	-9.28 2
0.089471	1.00914	75.00	85.00	2.81 1	1.43 2	-9.35 2	-9.77 2
0.072197	1.01006	74.00	82.00	8.58-1	1.14 2	-7.74 2	-8.07 2
0.063314	1.01011	74.00	81.00	-7.88 0	1.04 2	-7.43 2	-7.71 2
0.081051	1.01012	74.00	83.00	1.03 1	1.24 2	-8.07 2	-8.44 2
0.089881	1.01028	74.00	84.00	2.07 1	1.35 2	-8.45 2	-8.86 2
0.072589	1.01141	73.00	81.00	-3.23 0	1.09 2	-7.09 2	-7.41 2
0.081474	1.01142	73.00	82.00	5.28 0	1.18 2	-7.37 2	-7.74 2
0.063671	1.01150	73.00	80.00	-1.12 1	1.00 2	-6.82 2	-7.10 2
0.081935	1.01284	72.00	81.00	1.06 0	1.13 2	-6.77 2	-7.14 2
0.073015	1.01287	72.00	80.00	-6.69 0	1.05 2	-6.52 2	-6.84 2
0.064059	1.01302	72.00	79.00	-1.39 1	9.69 1	-6.29 2	-6.58 2
0.082435	1.01437	71.00	80.00	-2.55 0	1.09 2	-6.25 2	-6.61 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.073475	1.01446	71.00	79.00	-9.58 0	1.01 2	-6.04 2	-6.36 2
0.064477	1.01466	71.00	78.00	-1.62 1	9.39 1	-5.84 2	-6.12 2
0.082974	1.01604	70.00	79.00	-5.59 0	1.05 2	-5.79 2	-6.15 2
0.073972	1.01617	70.00	78.00	-1.21 1	9.81 1	-5.61 2	-5.93 2
0.064927	1.01642	70.00	77.00	-1.81 1	9.12 1	-5.43 2	-5.71 2
0.083555	1.01782	69.00	78.00	-8.22 0	1.02 2	-5.39 2	-5.74 2
0.074506	1.01801	69.00	77.00	-1.42 1	9.52 1	-5.22 2	-5.54 2
0.065409	1.01832	69.00	76.00	-1.98 1	8.87 1	-5.07 2	-5.35 2
0.084178	1.01972	68.00	77.00	-1.05 1	9.89 1	-5.02 2	-5.38 2
0.075078	1.01997	68.00	76.00	-1.60 1	9.25 1	-4.88 2	-5.20 2
0.065926	1.02033	68.00	75.00	-2.12 1	8.65 1	-4.75 2	-5.02 2
0.084845	1.02178	67.00	76.00	-1.24 1	9.62 1	-4.70 2	-5.06 2
0.075689	1.02208	67.00	75.00	-1.76 1	9.01 1	-4.57 2	-4.89 2
0.066478	1.02249	67.00	74.00	-2.25 1	8.44 1	-4.45 2	-4.73 2
0.085557	1.02395	66.00	75.00	-1.41 1	9.36 1	-4.41 2	-4.76 2
0.076341	1.02430	66.00	74.00	-1.89 1	8.79 1	-4.30 2	-4.61 2
0.067065	1.02476	66.00	73.00	-2.35 1	8.24 1	-4.19 2	-4.46 2
0.086316	1.02627	65.00	74.00	-1.56 1	9.12 1	-4.14 2	-4.49 2
0.077036	1.02667	65.00	73.00	-2.01 1	8.58 1	-4.04 2	-4.35 2
0.067691	1.02719	65.00	72.00	-2.44 1	8.06 1	-3.94 2	-4.21 2
0.087123	1.02872	64.00	73.00	-1.69 1	8.90 1	-3.90 2	-4.25 2
0.077775	1.02918	64.00	72.00	-2.11 1	8.38 1	-3.81 2	-4.12 2
0.068356	1.02975	64.00	71.00	-2.51 1	7.88 1	-3.72 2	-3.99 2
0.087982	1.03132	63.00	72.00	-1.79 1	8.69 1	-3.68 2	-4.02 2
0.078559	1.03184	63.00	71.00	-2.19 1	8.19 1	-3.59 2	-3.90 2
0.069062	1.03248	63.00	70.00	-2.57 1	7.72 1	-3.52 2	-3.78 2
0.088893	1.03407	62.00	71.00	-1.89 1	8.49 1	-3.47 2	-3.82 2
0.079391	1.03465	62.00	70.00	-2.26 1	8.02 1	-3.40 2	-3.70 2
0.069810	1.03534	62.00	69.00	-2.62 1	7.56 1	-3.32 2	-3.59 2
0.060144	1.03616	62.00	68.00	-2.97 1	7.12 1	-3.25 2	-3.48 2
0.089859	1.03698	61.00	70.00	-1.97 1	8.30 1	-3.28 2	-3.63 2
0.080274	1.03761	61.00	69.00	-2.32 1	7.85 1	-3.21 2	-3.52 2
0.070603	1.03837	61.00	68.00	-2.66 1	7.41 1	-3.15 2	-3.41 2
0.060842	1.03926	61.00	67.00	-2.99 1	6.98 1	-3.08 2	-3.31 2
0.081208	1.04073	60.00	68.00	-2.37 1	7.68 1	-3.04 2	-3.34 2
0.071443	1.04156	60.00	67.00	-2.70 1	7.26 1	-2.98 2	-3.25 2
0.061581	1.04251	60.00	66.00	-3.01 1	6.85 1	-2.92 2	-3.15 2
0.082197	1.04404	59.00	67.00	-2.41 1	7.53 1	-2.89 2	-3.18 2
0.072331	1.04492	59.00	66.00	-2.72 1	7.12 1	-2.83 2	-3.09 2
0.062363	1.04594	59.00	65.00	-3.02 1	6.72 1	-2.78 2	-3.00 2
0.083244	1.04750	58.00	66.00	-2.44 1	7.37 1	-2.74 2	-3.03 2
0.073271	1.04845	58.00	65.00	-2.73 1	6.98 1	-2.69 2	-2.94 2
0.063190	1.04954	58.00	64.00	-3.02 1	6.59 1	-2.64 2	-2.86 2
0.084350	1.05115	57.00	65.00	-2.46 1	7.23 1	-2.60 2	-2.89 2
0.074264	1.05217	57.00	64.00	-2.74 1	6.84 1	-2.55 2	-2.81 2
0.064064	1.05334	57.00	63.00	-3.01 1	6.47 1	-2.50 2	-2.72 2
0.085520	1.05499	56.00	64.00	-2.48 1	7.08 1	-2.47 2	-2.76 2
0.075315	1.05608	56.00	63.00	-2.74 1	6.71 1	-2.42 2	-2.68 2
0.064987	1.05737	56.00	62.00	-3.00 1	6.35 1	-2.38 2	-2.60 2
0.086757	1.05902	55.00	63.00	-2.49 1	6.94 1	-2.34 2	-2.63 2
0.076425	1.06019	55.00	62.00	-2.74 1	6.58 1	-2.30 2	-2.56 2
0.065963	1.06150	55.00	61.00	-2.99 1	6.23 1	-2.26 2	-2.48 2
0.088064	1.06326	54.00	62.00	-2.49 1	6.80 1	-2.23 2	-2.51 2
0.077598	1.06450	54.00	61.00	-2.73 1	6.45 1	-2.19 2	-2.44 2
0.066995	1.06589	54.00	60.00	-2.97 1	6.11 1	-2.15 2	-2.37 2
0.089446	1.06771	53.00	61.00	-2.49 1	6.67 1	-2.12 2	-2.40 2
0.078838	1.06902	53.00	60.00	-2.72 1	6.32 1	-2.08 2	-2.33 2
0.068086	1.07050	53.00	59.00	-2.94 1	5.99 1	-2.05 2	-2.26 2
0.080149	1.07378	52.00	59.00	-2.70 1	6.20 1	-1.98 2	-2.23 2
0.069239	1.07534	52.00	58.00	-2.91 1	5.87 1	-1.95 2	-2.16 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.081535	1.07876	51.00	58.00	-2.68 1	6.07 1	-1.88 2	-2.13 2
0.070458	1.08041	51.00	57.00	-2.88 1	5.75 1	-1.85 2	-2.06 2
0.083001	1.08400	50.00	57.00	-2.65 1	5.95 1	-1.79 2	-2.03 2
0.071747	1.08574	50.00	56.00	-2.85 1	5.64 1	-1.76 2	-1.97 2
0.060312	1.08767	50.00	55.00	-3.04 1	5.33 1	-1.74 2	-1.91 2
0.084552	1.08950	49.00	56.00	-2.62 1	5.83 1	-1.70 2	-1.94 2
0.073111	1.09134	49.00	55.00	-2.81 1	5.52 1	-1.68 2	-1.88 2
0.061479	1.09337	49.00	54.00	-2.99 1	5.22 1	-1.65 2	-1.82 2
0.086193	1.09527	48.00	55.00	-2.58 1	5.70 1	-1.62 2	-1.86 2
0.074555	1.09721	48.00	54.00	-2.76 1	5.41 1	-1.59 2	-1.80 2
0.062715	1.09934	48.00	53.00	-2.94 1	5.11 1	-1.57 2	-1.74 2
0.087932	1.10133	47.00	54.00	-2.54 1	5.58 1	-1.54 2	-1.77 2
0.076085	1.10337	47.00	53.00	-2.72 1	5.29 1	-1.52 2	-1.72 2
0.064025	1.10561	47.00	52.00	-2.89 1	5.00 1	-1.50 2	-1.66 2
0.089774	1.10768	46.00	53.00	-2.50 1	5.46 1	-1.46 2	-1.69 2
0.077707	1.10983	46.00	52.00	-2.67 1	5.17 1	-1.44 2	-1.64 2
0.065413	1.11220	46.00	51.00	-2.84 1	4.89 1	-1.42 2	-1.59 2
0.079427	1.11663	45.00	51.00	-2.62 1	5.06 1	-1.37 2	-1.56 2
0.066886	1.11912	45.00	50.00	-2.78 1	4.78 1	-1.35 2	-1.51 2
0.081252	1.12376	44.00	50.00	-2.57 1	4.94 1	-1.30 2	-1.49 2
0.068450	1.12639	44.00	49.00	-2.72 1	4.67 1	-1.28 2	-1.44 2
0.083191	1.13127	43.00	49.00	-2.51 1	4.83 1	-1.23 2	-1.43 2
0.070112	1.13403	43.00	48.00	-2.66 1	4.56 1	-1.22 2	-1.38 2
0.085253	1.13916	42.00	48.00	-2.45 1	4.71 1	-1.17 2	-1.36 2
0.071879	1.14206	42.00	47.00	-2.59 1	4.45 1	-1.16 2	-1.31 2
0.087447	1.14746	41.00	47.00	-2.39 1	4.60 1	-1.11 2	-1.30 2
0.073761	1.15051	41.00	46.00	-2.53 1	4.34 1	-1.10 2	-1.25 2
0.089786	1.15620	40.00	46.00	-2.33 1	4.48 1	-1.05 2	-1.24 2
0.075768	1.15942	40.00	45.00	-2.46 1	4.23 1	-1.04 2	-1.19 2
0.061405	1.16293	40.00	44.00	-2.59 1	3.98 1	-1.03 2	-1.15 2
0.077909	1.16879	39.00	44.00	-2.39 1	4.12 1	-9.84 1	-1.13 2
0.063172	1.17249	39.00	43.00	-2.51 1	3.88 1	-9.72 1	-1.09 2
0.080198	1.17868	38.00	43.00	-2.32 1	4.00 1	-9.31 1	-1.08 2
0.065060	1.18258	38.00	42.00	-2.44 1	3.77 1	-9.19 1	-1.04 2
0.082647	1.18911	37.00	42.00	-2.25 1	3.89 1	-8.80 1	-1.02 2
0.067083	1.19322	37.00	41.00	-2.36 1	3.66 1	-8.69 1	-9.84 1
0.085272	1.20013	36.00	41.00	-2.18 1	3.78 1	-8.31 1	-9.73 1
0.069252	1.20447	36.00	40.00	-2.29 1	3.55 1	-8.21 1	-9.34 1
0.088090	1.21178	35.00	40.00	-2.10 1	3.67 1	-7.83 1	-9.24 1
0.071582	1.21635	35.00	39.00	-2.21 1	3.44 1	-7.74 1	-8.86 1
0.074089	1.22894	34.00	38.00	-2.13 1	3.33 1	-7.29 1	-8.39 1
0.076793	1.24229	33.00	37.00	-2.05 1	3.22 1	-6.86 1	-7.94 1
0.079714	1.25644	32.00	36.00	-1.97 1	3.11 1	-6.45 1	-7.50 1
0.060881	1.26236	32.00	35.00	-2.06 1	2.90 1	-6.37 1	-7.16 1
0.082876	1.27148	31.00	35.00	-1.89 1	3.00 1	-6.05 1	-7.08 1
0.063344	1.27776	31.00	34.00	-1.97 1	2.80 1	-5.98 1	-6.75 1
0.086308	1.28749	30.00	34.00	-1.81 1	2.89 1	-5.66 1	-6.68 1
0.066019	1.29416	30.00	33.00	-1.89 1	2.69 1	-5.60 1	-6.35 1
0.068934	1.31164	29.00	32.00	-1.80 1	2.58 1	-5.23 1	-5.97 1
0.072117	1.33032	28.00	31.00	-1.72 1	2.48 1	-4.88 1	-5.61 1
0.075604	1.35031	27.00	30.00	-1.63 1	2.37 1	-4.54 1	-5.25 1
0.079437	1.37175	26.00	29.00	-1.55 1	2.27 1	-4.22 1	-4.91 1
0.083665	1.39480	25.00	28.00	-1.46 1	2.16 1	-3.91 1	-4.58 1
0.088347	1.41964	24.00	27.00	-1.38 1	2.06 1	-3.61 1	-4.27 1
0.060496	1.43057	24.00	26.00	-1.44 1	1.88 1	-3.57 1	-4.00 1
0.064146	1.45824	23.00	25.00	-1.35 1	1.78 1	-3.29 1	-3.71 1
0.068231	1.48826	22.00	24.00	-1.27 1	1.68 1	-3.02 1	-3.43 1
0.072825	1.52093	21.00	23.00	-1.18 1	1.58 1	-2.76 1	-3.16 1
0.078023	1.55661	20.00	22.00	-1.10 1	1.48 1	-2.52 1	-2.90 1
0.061737	1.58426	19.50	21.00	-1.08 1	1.36 1	-2.38 1	-2.66 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.083938	1.59574	19.00	21.00	-1.01 1	1.39 1	-2.28 1	-2.65 1
0.066637	1.62611	18.50	20.00	-9.95 0	1.27 1	-2.16 1	-2.43 1
0.069357	1.64864	18.00	19.50	-9.53 0	1.22 1	-2.05 1	-2.31 1
0.072283	1.67236	17.50	19.00	-9.12 0	1.17 1	-1.94 1	-2.20 1
0.075436	1.69736	17.00	18.50	-8.72 0	1.13 1	-1.84 1	-2.09 1
0.078842	1.72374	16.50	18.00	-8.31 0	1.08 1	-1.74 1	-1.99 1
0.082530	1.75163	16.00	17.50	-7.92 0	1.04 1	-1.64 1	-1.88 1
0.086534	1.78116	15.50	17.00	-7.53 0	9.92 0	-1.54 1	-1.78 1
0.062079	1.82689	15.00	16.00	-7.31 0	8.85 0	-1.44 1	-1.59 1
0.065387	1.86105	14.50	15.50	-6.92 0	8.42 0	-1.35 1	-1.50 1
0.069014	1.89745	14.00	15.00	-6.54 0	8.00 0	-1.26 1	-1.41 1
0.073006	1.93632	13.50	14.50	-6.16 0	7.59 0	-1.18 1	-1.32 1
0.077413	1.97794	13.00	14.00	-5.79 0	7.18 0	-1.10 1	-1.24 1
0.082300	2.02260	12.50	13.50	-5.43 0	6.78 0	-1.02 1	-1.16 1
0.087740	2.07066	12.00	13.00	-5.07 0	6.38 0	-9.44 0	-1.08 1
0.060934	2.33836	10.00	10.50	-3.83 0	4.39 0	-6.63 0	-7.20 0
0.086775	2.35421	9.80	10.50	-3.66 0	4.44 0	-6.40 0	-7.19 0
0.080298	2.42303	9.40	10.00	-3.42 0	4.07 0	-5.90 0	-6.56 0
0.083199	2.45593	9.20	9.80	-3.30 0	3.93 0	-5.66 0	-6.31 0
0.086280	2.49019	9.00	9.60	-3.17 0	3.80 0	-5.43 0	-6.07 0
0.089556	2.52589	8.80	9.40	-3.05 0	3.67 0	-5.20 0	-5.83 0
0.060815	2.54288	8.80	9.20	-3.09 0	3.50 0	-5.19 0	-5.60 0
0.063214	2.58083	8.60	9.00	-2.97 0	3.37 0	-4.97 0	-5.37 0
0.065775	2.62048	8.40	8.80	-2.85 0	3.24 0	-4.75 0	-5.15 0
0.068513	2.66195	8.20	8.60	-2.73 0	3.12 0	-4.53 0	-4.92 0
0.071446	2.70535	8.00	8.40	-2.62 0	2.99 0	-4.32 0	-4.71 0
0.074593	2.75085	7.80	8.20	-2.50 0	2.87 0	-4.12 0	-4.49 0
0.077977	2.79860	7.60	8.00	-2.39 0	2.75 0	-3.92 0	-4.28 0
0.081623	2.84877	7.40	7.80	-2.28 0	2.63 0	-3.72 0	-4.08 0
0.085558	2.90156	7.20	7.60	-2.17 0	2.52 0	-3.53 0	-3.88 0
0.089817	2.95720	7.00	7.40	-2.06 0	2.40 0	-3.34 0	-3.69 0
0.060466	3.32389	6.00	6.20	-1.58 0	1.73 0	-2.47 0	-2.62 0
0.064258	3.40524	5.80	6.00	-1.49 0	1.63 0	-2.31 0	-2.46 0
0.068453	3.49220	5.60	5.80	-1.39 0	1.53 0	-2.15 0	-2.30 0
0.073113	3.58539	5.40	5.60	-1.30 0	1.44 0	-2.01 0	-2.14 0
0.078311	3.68553	5.20	5.40	-1.21 0	1.34 0	-1.86 0	-2.00 0
0.084137	3.79346	5.00	5.20	-1.13 0	1.25 0	-1.72 0	-1.85 0
0.068513	4.62425	3.90	4.00	-7.04-1	7.56-1	-1.04 0	-1.10 0
0.072036	4.72039	3.80	3.90	-6.69-1	7.20-1	-9.88-1	-1.04 0
0.075858	4.82178	3.70	3.80	-6.35-1	6.84-1	-9.36-1	-9.86-1
0.080015	4.92888	3.60	3.70	-6.01-1	6.49-1	-8.84-1	-9.34-1
0.084548	5.04220	3.50	3.60	-5.68-1	6.15-1	-8.34-1	-8.83-1
0.089504	5.16231	3.40	3.50	-5.36-1	5.82-1	-7.86-1	-8.33-1
0.09	0.12						
0.096959	1.00623	79.00	90.00	1.12 2	2.29 2	-1.74 3	-1.79 3
0.097223	1.00685	78.00	89.00	8.53 1	2.02 2	-1.46 3	-1.51 3
0.105969	1.00743	78.00	90.00	1.11 2	2.29 2	-1.59 3	-1.64 3
0.097528	1.00761	77.00	88.00	6.67 1	1.83 2	-1.26 3	-1.31 3
0.106281	1.00811	77.00	89.00	8.68 1	2.04 2	-1.35 3	-1.40 3
0.097873	1.00849	76.00	87.00	5.25 1	1.69 2	-1.11 3	-1.16 3
0.115032	1.00875	77.00	90.00	1.11 2	2.29 2	-1.46 3	-1.51 3
0.106637	1.00896	76.00	88.00	6.95 1	1.87 2	-1.18 3	-1.23 3
0.098261	1.00946	75.00	86.00	4.11 1	1.57 2	-9.85 2	-1.03 3
0.115395	1.00951	76.00	89.00	8.85 1	2.07 2	-1.26 3	-1.31 3
0.107038	1.00989	75.00	87.00	5.56 1	1.72 2	-1.04 3	-1.09 3
0.115807	1.01040	75.00	88.00	7.17 1	1.89 2	-1.10 3	-1.16 3
0.098692	1.01055	74.00	85.00	3.20 1	1.47 2	-8.85 2	-9.31 2
0.107486	1.01092	74.00	86.00	4.45 1	1.61 2	-9.30 2	-9.80 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.116268	1.01140	74.00	87.00	5.83 1	1.75 2	-9.81 2	-1.04 3
0.090332	1.01153	73.00	83.00	1.45 1	1.28 2	-7.68 2	-8.09 2
0.099166	1.01174	73.00	84.00	2.45 1	1.39 2	-8.02 2	-8.47 2
0.107981	1.01206	73.00	85.00	3.54 1	1.51 2	-8.39 2	-8.88 2
0.116780	1.01249	73.00	86.00	4.73 1	1.64 2	-8.79 2	-9.33 2
0.090824	1.01290	72.00	82.00	9.35 0	1.23 2	-7.03 2	-7.44 2
0.099686	1.01306	72.00	83.00	1.83 1	1.32 2	-7.32 2	-7.77 2
0.108525	1.01334	72.00	84.00	2.79 1	1.43 2	-7.63 2	-8.12 2
0.117345	1.01371	72.00	85.00	3.84 1	1.54 2	-7.96 2	-8.49 2
0.091359	1.01440	71.00	81.00	5.01 0	1.18 2	-6.48 2	-6.88 2
0.100253	1.01451	71.00	82.00	1.31 1	1.27 2	-6.72 2	-7.16 2
0.109119	1.01473	71.00	83.00	2.17 1	1.36 2	-6.98 2	-7.47 2
0.117963	1.01505	71.00	84.00	3.11 1	1.47 2	-7.26 2	-7.79 2
0.091938	1.01600	70.00	80.00	1.28 0	1.13 2	-5.99 2	-6.39 2
0.100866	1.01608	70.00	81.00	8.65 0	1.21 2	-6.20 2	-6.64 2
0.109765	1.01625	70.00	82.00	1.65 1	1.30 2	-6.43 2	-6.91 2
0.118636	1.01652	70.00	83.00	2.49 1	1.40 2	-6.67 2	-7.19 2
0.092561	1.01774	69.00	79.00	-1.89 0	1.09 2	-5.56 2	-5.96 2
0.101529	1.01776	69.00	80.00	4.82 0	1.17 2	-5.74 2	-6.18 2
0.110463	1.01789	69.00	81.00	1.20 1	1.25 2	-5.94 2	-6.42 2
0.119366	1.01812	69.00	82.00	1.96 1	1.34 2	-6.15 2	-6.67 2
0.102242	1.01957	68.00	79.00	1.53 0	1.13 2	-5.34 2	-5.78 2
0.093231	1.01959	68.00	78.00	-4.66 0	1.06 2	-5.18 2	-5.57 2
0.111215	1.01964	68.00	80.00	8.07 0	1.20 2	-5.51 2	-5.99 2
0.103007	1.02151	67.00	78.00	-1.31 0	1.09 2	-4.98 2	-5.42 2
0.112023	1.02154	67.00	79.00	4.73 0	1.16 2	-5.13 2	-5.61 2
0.093949	1.02158	67.00	77.00	-7.03 0	1.03 2	-4.84 2	-5.23 2
0.112889	1.02356	66.00	78.00	1.79 0	1.13 2	-4.79 2	-5.26 2
0.103826	1.02358	66.00	77.00	-3.80 0	1.06 2	-4.65 2	-5.09 2
0.094717	1.02371	66.00	76.00	-9.09 0	9.96 1	-4.53 2	-4.92 2
0.113815	1.02572	65.00	77.00	-7.65-1	1.09 2	-4.48 2	-4.95 2
0.104701	1.02579	65.00	76.00	-5.94 0	1.03 2	-4.36 2	-4.80 2
0.095536	1.02597	65.00	75.00	-1.09 1	9.69 1	-4.25 2	-4.64 2
0.114803	1.02802	64.00	76.00	-2.99 0	1.06 2	-4.21 2	-4.67 2
0.105633	1.02814	64.00	75.00	-7.83 0	1.00 2	-4.10 2	-4.53 2
0.096408	1.02838	64.00	74.00	-1.24 1	9.44 1	-4.00 2	-4.39 2
0.115856	1.03047	63.00	75.00	-4.95 0	1.03 2	-3.95 2	-4.42 2
0.106625	1.03064	63.00	74.00	-9.47 0	9.75 1	-3.86 2	-4.28 2
0.097335	1.03092	63.00	73.00	-1.38 1	9.21 1	-3.77 2	-4.15 2
0.116975	1.03306	62.00	74.00	-6.68 0	1.00 2	-3.72 2	-4.19 2
0.107679	1.03328	62.00	73.00	-1.09 1	9.50 1	-3.63 2	-4.06 2
0.098321	1.03361	62.00	72.00	-1.50 1	8.99 1	-3.55 2	-3.94 2
0.118164	1.03580	61.00	73.00	-8.19 0	9.79 1	-3.51 2	-3.97 2
0.108799	1.03607	61.00	72.00	-1.22 1	9.27 1	-3.43 2	-3.85 2
0.099366	1.03646	61.00	71.00	-1.60 1	8.78 1	-3.36 2	-3.74 2
0.119425	1.03870	60.00	72.00	-9.52 0	9.55 1	-3.31 2	-3.77 2
0.109986	1.03902	60.00	71.00	-1.33 1	9.06 1	-3.24 2	-3.66 2
0.100474	1.03948	60.00	70.00	-1.69 1	8.58 1	-3.17 2	-3.55 2
0.090883	1.04004	60.00	69.00	-2.04 1	8.12 1	-3.11 2	-3.45 2
0.111244	1.04215	59.00	70.00	-1.42 1	8.85 1	-3.07 2	-3.48 2
0.101648	1.04265	59.00	69.00	-1.76 1	8.39 1	-3.00 2	-3.38 2
0.091967	1.04328	59.00	68.00	-2.09 1	7.95 1	-2.94 2	-3.28 2
0.112576	1.04544	58.00	69.00	-1.50 1	8.65 1	-2.90 2	-3.31 2
0.102890	1.04599	58.00	68.00	-1.83 1	8.21 1	-2.84 2	-3.22 2
0.093115	1.04669	58.00	67.00	-2.14 1	7.79 1	-2.79 2	-3.12 2
0.113986	1.04890	57.00	68.00	-1.57 1	8.46 1	-2.75 2	-3.16 2
0.104205	1.04952	57.00	67.00	-1.88 1	8.04 1	-2.70 2	-3.07 2
0.094328	1.05027	57.00	66.00	-2.18 1	7.63 1	-2.65 2	-2.98 2
0.115478	1.05255	56.00	67.00	-1.63 1	8.28 1	-2.61 2	-3.01 2
0.105595	1.05323	56.00	66.00	-1.92 1	7.87 1	-2.56 2	-2.93 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.095611	1.05404	56.00	65.00	-2.20 1	7.47 1	-2.51 2	-2.84 2
0.117056	1.05638	55.00	66.00	-1.68 1	8.11 1	-2.47 2	-2.88 2
0.107065	1.05712	55.00	65.00	-1.96 1	7.70 1	-2.43 2	-2.79 2
0.096968	1.05800	55.00	64.00	-2.23 1	7.32 1	-2.38 2	-2.71 2
0.118724	1.06042	54.00	65.00	-1.72 1	7.93 1	-2.35 2	-2.75 2
0.108620	1.06123	54.00	64.00	-1.99 1	7.55 1	-2.30 2	-2.67 2
0.098402	1.06217	54.00	63.00	-2.24 1	7.17 1	-2.26 2	-2.59 2
0.110263	1.06553	53.00	63.00	-2.01 1	7.39 1	-2.19 2	-2.55 2
0.099918	1.06655	53.00	62.00	-2.25 1	7.02 1	-2.15 2	-2.47 2
0.112000	1.07006	52.00	62.00	-2.02 1	7.24 1	-2.08 2	-2.43 2
0.101521	1.07114	52.00	61.00	-2.25 1	6.88 1	-2.04 2	-2.36 2
0.090907	1.07238	52.00	60.00	-2.48 1	6.53 1	-2.01 2	-2.29 2
0.113836	1.07481	51.00	61.00	-2.03 1	7.09 1	-1.97 2	-2.33 2
0.103215	1.07597	51.00	60.00	-2.25 1	6.74 1	-1.94 2	-2.26 2
0.092451	1.07729	51.00	59.00	-2.46 1	6.40 1	-1.91 2	-2.19 2
0.115778	1.07980	50.00	60.00	-2.03 1	6.94 1	-1.88 2	-2.23 2
0.105007	1.08104	50.00	59.00	-2.24 1	6.60 1	-1.85 2	-2.16 2
0.094084	1.08244	50.00	58.00	-2.45 1	6.27 1	-1.82 2	-2.10 2
0.117832	1.08505	49.00	59.00	-2.02 1	6.80 1	-1.78 2	-2.13 2
0.106902	1.08636	49.00	58.00	-2.23 1	6.46 1	-1.75 2	-2.07 2
0.095812	1.08785	49.00	57.00	-2.42 1	6.14 1	-1.73 2	-2.00 2
0.108908	1.09195	48.00	57.00	-2.21 1	6.33 1	-1.67 2	-1.97 2
0.097640	1.09352	48.00	56.00	-2.40 1	6.01 1	-1.64 2	-1.91 2
0.111031	1.09782	47.00	56.00	-2.19 1	6.19 1	-1.58 2	-1.89 2
0.099576	1.09948	47.00	55.00	-2.37 1	5.88 1	-1.56 2	-1.83 2
0.113280	1.10398	46.00	55.00	-2.16 1	6.06 1	-1.50 2	-1.81 2
0.101627	1.10573	46.00	54.00	-2.33 1	5.76 1	-1.48 2	-1.75 2
0.115663	1.11046	45.00	54.00	-2.13 1	5.93 1	-1.43 2	-1.73 2
0.103801	1.11231	45.00	53.00	-2.30 1	5.63 1	-1.41 2	-1.67 2
0.091727	1.11436	45.00	52.00	-2.46 1	5.34 1	-1.39 2	-1.62 2
0.118191	1.11726	44.00	53.00	-2.10 1	5.80 1	-1.36 2	-1.65 2
0.106108	1.11921	44.00	52.00	-2.26 1	5.50 1	-1.34 2	-1.60 2
0.093800	1.12138	44.00	51.00	-2.41 1	5.22 1	-1.32 2	-1.55 2
0.108557	1.12647	43.00	51.00	-2.21 1	5.38 1	-1.27 2	-1.53 2
0.096001	1.12876	43.00	50.00	-2.36 1	5.10 1	-1.25 2	-1.48 2
0.111159	1.13411	42.00	50.00	-2.17 1	5.25 1	-1.20 2	-1.46 2
0.098340	1.13651	42.00	49.00	-2.31 1	4.98 1	-1.19 2	-1.41 2
0.113926	1.14214	41.00	49.00	-2.12 1	5.13 1	-1.14 2	-1.39 2
0.100829	1.14467	41.00	48.00	-2.26 1	4.86 1	-1.13 2	-1.34 2
0.116872	1.15060	40.00	48.00	-2.07 1	5.00 1	-1.08 2	-1.33 2
0.103480	1.15327	40.00	47.00	-2.20 1	4.74 1	-1.07 2	-1.28 2
0.106307	1.16232	39.00	46.00	-2.14 1	4.62 1	-1.01 2	-1.22 2
0.092280	1.16541	39.00	45.00	-2.27 1	4.36 1	-9.96 1	-1.18 2
0.109325	1.17186	38.00	45.00	-2.08 1	4.50 1	-9.54 1	-1.16 2
0.094944	1.17511	38.00	44.00	-2.20 1	4.25 1	-9.42 1	-1.12 2
0.112551	1.18193	37.00	44.00	-2.02 1	4.38 1	-9.02 1	-1.11 2
0.097794	1.18536	37.00	43.00	-2.14 1	4.13 1	-8.90 1	-1.07 2
0.116004	1.19256	36.00	43.00	-1.96 1	4.26 1	-8.51 1	-1.05 2
0.100846	1.19617	36.00	42.00	-2.07 1	4.01 1	-8.41 1	-1.01 2
0.119707	1.20380	35.00	42.00	-1.90 1	4.14 1	-8.02 1	-1.00 2
0.104121	1.20760	35.00	41.00	-2.00 1	3.90 1	-7.93 1	-9.63 1
0.107640	1.21971	34.00	40.00	-1.93 1	3.78 1	-7.47 1	-9.14 1
0.091120	1.22411	34.00	39.00	-2.03 1	3.55 1	-7.38 1	-8.76 1
0.111428	1.23252	33.00	39.00	-1.86 1	3.66 1	-7.02 1	-8.67 1
0.094385	1.23718	33.00	38.00	-1.96 1	3.44 1	-6.94 1	-8.30 1
0.115514	1.24612	32.00	38.00	-1.79 1	3.55 1	-6.60 1	-8.21 1
0.097908	1.25104	32.00	37.00	-1.88 1	3.33 1	-6.52 1	-7.86 1
0.119930	1.26056	31.00	37.00	-1.72 1	3.43 1	-6.19 1	-7.78 1
0.101721	1.26576	31.00	36.00	-1.80 1	3.21 1	-6.12 1	-7.43 1
0.105854	1.28143	30.00	35.00	-1.72 1	3.10 1	-5.73 1	-7.01 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.110346	1.29813	29.00	34.00	-1.65 1	2.98 1	-5.35 1	-6.61 1
0.090043	1.30456	29.00	33.00	-1.73 1	2.78 1	-5.29 1	-6.29 1
0.115242	1.31594	28.00	33.00	-1.57 1	2.87 1	-4.99 1	-6.23 1
0.094117	1.32278	28.00	32.00	-1.64 1	2.67 1	-4.94 1	-5.91 1
0.098574	1.34228	27.00	31.00	-1.56 1	2.56 1	-4.60 1	-5.55 1
0.103467	1.36317	26.00	30.00	-1.48 1	2.45 1	-4.27 1	-5.20 1
0.108856	1.38563	25.00	29.00	-1.40 1	2.34 1	-3.95 1	-4.86 1
0.114813	1.40981	24.00	28.00	-1.32 1	2.23 1	-3.65 1	-4.54 1
0.093551	1.44647	23.00	26.00	-1.30 1	1.95 1	-3.33 1	-3.97 1
0.099363	1.47556	22.00	25.00	-1.21 1	1.85 1	-3.05 1	-3.68 1
0.105887	1.50718	21.00	24.00	-1.13 1	1.74 1	-2.79 1	-3.40 1
0.113248	1.54168	20.00	23.00	-1.05 1	1.64 1	-2.54 1	-3.13 1
0.099386	1.56768	19.50	22.00	-1.03 1	1.51 1	-2.41 1	-2.89 1
0.107052	1.60798	18.50	21.00	-9.51 0	1.41 1	-2.18 1	-2.64 1
0.090717	1.63884	18.00	20.00	-9.32 0	1.29 1	-2.06 1	-2.42 1
0.115855	1.65244	17.50	20.00	-8.71 0	1.32 1	-1.96 1	-2.40 1
0.094486	1.66207	17.50	19.50	-8.92 0	1.24 1	-1.95 1	-2.30 1
0.098545	1.68654	17.00	19.00	-8.52 0	1.20 1	-1.85 1	-2.19 1
0.102925	1.71236	16.50	18.50	-8.12 0	1.15 1	-1.75 1	-2.08 1
0.107663	1.73965	16.00	18.00	-7.73 0	1.10 1	-1.65 1	-1.98 1
0.112800	1.76852	15.50	17.50	-7.35 0	1.06 1	-1.55 1	-1.87 1
0.118386	1.79913	15.00	17.00	-6.97 0	1.01 1	-1.46 1	-1.77 1
0.090892	1.81248	15.00	16.50	-7.14 0	9.48 0	-1.45 1	-1.68 1
0.095648	1.84577	14.50	16.00	-6.76 0	9.04 0	-1.36 1	-1.59 1
0.100857	1.88122	14.00	15.50	-6.38 0	8.61 0	-1.27 1	-1.49 1
0.106578	1.91905	13.50	15.00	-6.01 0	8.18 0	-1.19 1	-1.40 1
0.112887	1.95952	13.00	14.50	-5.65 0	7.76 0	-1.10 1	-1.32 1
0.119868	2.00291	12.50	14.00	-5.29 0	7.34 0	-1.03 1	-1.23 1
0.093826	2.12254	11.50	12.50	-4.72 0	5.99 0	-8.70 0	-9.98 0
0.100668	2.17872	11.00	12.00	-4.38 0	5.61 0	-8.00 0	-9.24 0
0.108402	2.23979	10.50	11.50	-4.05 0	5.23 0	-7.32 0	-8.52 0
0.117198	2.30643	10.00	11.00	-3.72 0	4.87 0	-6.67 0	-7.83 0
0.113531	2.37084	9.60	10.50	-3.49 0	4.49 0	-6.17 0	-7.18 0
0.109044	2.44099	9.20	10.00	-3.26 0	4.11 0	-5.68 0	-6.54 0
0.113035	2.47466	9.00	9.80	-3.14 0	3.98 0	-5.45 0	-6.30 0
0.117278	2.50974	8.80	9.60	-3.02 0	3.84 0	-5.22 0	-6.05 0
0.093046	2.56313	8.60	9.20	-2.93 0	3.54 0	-4.98 0	-5.59 0
0.096768	2.60202	8.40	9.00	-2.81 0	3.41 0	-4.76 0	-5.36 0
0.100745	2.64267	8.20	8.80	-2.70 0	3.28 0	-4.54 0	-5.14 0
0.105001	2.68521	8.00	8.60	-2.58 0	3.15 0	-4.33 0	-4.91 0
0.109565	2.72977	7.80	8.40	-2.47 0	3.03 0	-4.13 0	-4.70 0
0.114467	2.77652	7.60	8.20	-2.36 0	2.91 0	-3.93 0	-4.48 0
0.119743	2.82561	7.40	8.00	-2.25 0	2.79 0	-3.73 0	-4.28 0
0.094436	3.01592	6.80	7.20	-1.96 0	2.29 0	-3.16 0	-3.50 0
0.099460	3.07800	6.60	7.00	-1.85 0	2.18 0	-2.98 0	-3.31 0
0.104938	3.14375	6.40	6.80	-1.75 0	2.07 0	-2.81 0	-3.13 0
0.110928	3.21351	6.20	6.60	-1.65 0	1.96 0	-2.64 0	-2.95 0
0.117499	3.28767	6.00	6.40	-1.56 0	1.86 0	-2.47 0	-2.78 0
0.090698	3.91014	4.80	5.00	-1.04 0	1.17 0	-1.59 0	-1.71 0
0.098129	4.03675	4.60	4.80	-9.61-1	1.08 0	-1.46 0	-1.58 0
0.106593	4.17465	4.40	4.60	-8.82-1	9.97-1	-1.33 0	-1.45 0
0.116297	4.32548	4.20	4.40	-8.06-1	9.17-1	-1.21 0	-1.33 0
0.094940	5.28987	3.30	3.40	-5.05-1	5.49-1	-7.38-1	-7.84-1
0.100921	5.42562	3.20	3.30	-4.74-1	5.17-1	-6.92-1	-7.37-1
0.107523	5.57039	3.10	3.20	-4.44-1	4.86-1	-6.48-1	-6.91-1
0.114837	5.72515	3.00	3.10	-4.15-1	4.56-1	-6.05-1	-6.47-1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.12	0.15						
0.124150	1.01020	76.00	90.00	1.11 2	2.30 2	-1.35 3	-1.41 3
0.124569	1.01102	75.00	89.00	8.96 1	2.08 2	-1.17 3	-1.23 3
0.133330	1.01175	75.00	90.00	1.10 2	2.30 2	-1.25 3	-1.32 3
0.125041	1.01197	74.00	88.00	7.35 1	1.92 2	-1.04 3	-1.09 3
0.133809	1.01264	74.00	89.00	9.05 1	2.10 2	-1.10 3	-1.16 3
0.125568	1.01302	73.00	87.00	6.05 1	1.78 2	-9.24 2	-9.83 2
0.142576	1.01342	74.00	90.00	1.10 2	2.30 2	-1.17 3	-1.24 3
0.134346	1.01364	73.00	88.00	7.49 1	1.94 2	-9.73 2	-1.04 3
0.126149	1.01419	72.00	86.00	4.99 1	1.67 2	-8.33 2	-8.91 2
0.143120	1.01436	73.00	89.00	9.09 1	2.11 2	-1.03 3	-1.09 3
0.134942	1.01477	72.00	87.00	6.25 1	1.81 2	-8.74 2	-9.36 2
0.143727	1.01545	72.00	88.00	7.63 1	1.96 2	-9.18 2	-9.84 2
0.126788	1.01548	71.00	85.00	4.12 1	1.58 2	-7.57 2	-8.14 2
0.135599	1.01602	71.00	86.00	5.22 1	1.70 2	-7.91 2	-8.52 2
0.144398	1.01666	71.00	87.00	6.43 1	1.83 2	-8.28 2	-8.94 2
0.127486	1.01691	70.00	84.00	3.39 1	1.50 2	-6.93 2	-7.50 2
0.136317	1.01739	70.00	85.00	4.37 1	1.61 2	-7.21 2	-7.82 2
0.145134	1.01798	70.00	86.00	5.43 1	1.73 2	-7.52 2	-8.17 2
0.128244	1.01845	69.00	83.00	2.78 1	1.43 2	-6.37 2	-6.94 2
0.137099	1.01889	69.00	84.00	3.65 1	1.53 2	-6.61 2	-7.22 2
0.145937	1.01943	69.00	85.00	4.59 1	1.64 2	-6.87 2	-7.52 2
0.120154	1.01983	68.00	81.00	1.51 1	1.28 2	-5.69 2	-6.21 2
0.129063	1.02012	68.00	82.00	2.25 1	1.37 2	-5.89 2	-6.45 2
0.137947	1.02050	68.00	83.00	3.04 1	1.46 2	-6.09 2	-6.70 2
0.146809	1.02099	68.00	84.00	3.88 1	1.56 2	-6.32 2	-6.96 2
0.121001	1.02167	67.00	80.00	1.11 1	1.24 2	-5.29 2	-5.81 2
0.129946	1.02192	67.00	81.00	1.79 1	1.32 2	-5.46 2	-6.02 2
0.138862	1.02226	67.00	82.00	2.51 1	1.40 2	-5.64 2	-6.24 2
0.147752	1.02270	67.00	83.00	3.28 1	1.49 2	-5.83 2	-6.48 2
0.121911	1.02365	66.00	79.00	7.69 0	1.20 2	-4.93 2	-5.45 2
0.130895	1.02384	66.00	80.00	1.39 1	1.27 2	-5.08 2	-5.64 2
0.139847	1.02414	66.00	81.00	2.05 1	1.35 2	-5.24 2	-5.84 2
0.148769	1.02454	66.00	82.00	2.75 1	1.43 2	-5.41 2	-6.05 2
0.122884	1.02576	65.00	78.00	4.69 0	1.16 2	-4.61 2	-5.12 2
0.131912	1.02591	65.00	79.00	1.04 1	1.23 2	-4.74 2	-5.29 2
0.140903	1.02615	65.00	80.00	1.65 1	1.30 2	-4.88 2	-5.48 2
0.149862	1.02652	65.00	81.00	2.29 1	1.38 2	-5.03 2	-5.67 2
0.123924	1.02801	64.00	77.00	2.07 0	1.12 2	-4.32 2	-4.83 2
0.132999	1.02811	64.00	78.00	7.40 0	1.19 2	-4.44 2	-4.99 2
0.142034	1.02831	64.00	79.00	1.30 1	1.26 2	-4.56 2	-5.15 2
0.125032	1.03041	63.00	76.00	-2.25-1	1.09 2	-4.05 2	-4.56 2
0.134159	1.03045	63.00	77.00	4.72 0	1.15 2	-4.16 2	-4.71 2
0.143242	1.03061	63.00	78.00	9.93 0	1.22 2	-4.27 2	-4.86 2
0.126212	1.03295	62.00	75.00	-2.25 0	1.06 2	-3.81 2	-4.32 2
0.135395	1.03295	62.00	76.00	2.37 0	1.12 2	-3.91 2	-4.45 2
0.144529	1.03305	62.00	77.00	7.20 0	1.18 2	-4.01 2	-4.59 2
0.136709	1.03559	61.00	75.00	2.85-1	1.09 2	-3.68 2	-4.22 2
0.127465	1.03564	61.00	74.00	-4.04 0	1.03 2	-3.59 2	-4.09 2
0.145900	1.03565	61.00	76.00	4.80 0	1.15 2	-3.77 2	-4.35 2
0.138106	1.03839	60.00	74.00	-1.56 0	1.06 2	-3.46 2	-4.00 2
0.147357	1.03840	60.00	75.00	2.67 0	1.12 2	-3.55 2	-4.12 2
0.128797	1.03848	60.00	73.00	-5.62 0	1.01 2	-3.39 2	-3.88 2
0.148904	1.04132	59.00	74.00	7.85-1	1.09 2	-3.34 2	-3.92 2
0.139587	1.04135	59.00	73.00	-3.19 0	1.03 2	-3.27 2	-3.80 2
0.130209	1.04150	59.00	72.00	-7.00 0	9.82 1	-3.20 2	-3.69 2
0.120763	1.04176	59.00	71.00	-1.07 1	9.32 1	-3.13 2	-3.59 2
0.141158	1.04448	58.00	72.00	-4.63 0	1.01 2	-3.09 2	-3.62 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.131705	1.04468	58.00	71.00	-8.22 0	9.58 1	-3.02 2	-3.51 2
0.122179	1.04500	58.00	70.00	-1.17 1	9.11 1	-2.96 2	-3.41 2
0.142823	1.04778	57.00	71.00	-5.90 0	9.83 1	-2.92 2	-3.45 2
0.133290	1.04803	57.00	70.00	-9.29 0	9.36 1	-2.86 2	-3.35 2
0.123679	1.04841	57.00	69.00	-1.26 1	8.90 1	-2.80 2	-3.25 2
0.144585	1.05127	56.00	70.00	-7.01 0	9.61 1	-2.76 2	-3.28 2
0.134967	1.05157	56.00	69.00	-1.02 1	9.15 1	-2.71 2	-3.19 2
0.125267	1.05199	56.00	68.00	-1.33 1	8.71 1	-2.66 2	-3.10 2
0.146451	1.05493	55.00	69.00	-7.99 0	9.39 1	-2.62 2	-3.13 2
0.136742	1.05529	55.00	68.00	-1.10 1	8.95 1	-2.57 2	-3.05 2
0.126946	1.05577	55.00	67.00	-1.40 1	8.52 1	-2.52 2	-2.96 2
0.148424	1.05879	54.00	68.00	-8.85 0	9.18 1	-2.48 2	-2.99 2
0.138620	1.05921	54.00	67.00	-1.17 1	8.75 1	-2.43 2	-2.91 2
0.128721	1.05975	54.00	66.00	-1.45 1	8.34 1	-2.39 2	-2.83 2
0.140605	1.06333	53.00	66.00	-1.23 1	8.56 1	-2.31 2	-2.78 2
0.130599	1.06393	53.00	65.00	-1.50 1	8.16 1	-2.27 2	-2.70 2
0.120487	1.06466	53.00	64.00	-1.75 1	7.77 1	-2.23 2	-2.62 2
0.142705	1.06766	52.00	65.00	-1.28 1	8.38 1	-2.19 2	-2.66 2
0.132584	1.06832	52.00	64.00	-1.53 1	7.99 1	-2.15 2	-2.58 2
0.122352	1.06912	52.00	63.00	-1.78 1	7.61 1	-2.11 2	-2.51 2
0.144925	1.07222	51.00	64.00	-1.32 1	8.20 1	-2.08 2	-2.54 2
0.134683	1.07294	51.00	63.00	-1.56 1	7.82 1	-2.04 2	-2.47 2
0.124323	1.07380	51.00	62.00	-1.80 1	7.45 1	-2.01 2	-2.40 2
0.147272	1.07701	50.00	63.00	-1.36 1	8.02 1	-1.97 2	-2.43 2
0.136903	1.07780	50.00	62.00	-1.59 1	7.65 1	-1.94 2	-2.36 2
0.126407	1.07872	50.00	61.00	-1.81 1	7.29 1	-1.91 2	-2.29 2
0.149755	1.08205	49.00	62.00	-1.39 1	7.85 1	-1.87 2	-2.33 2
0.139250	1.08290	49.00	61.00	-1.60 1	7.49 1	-1.84 2	-2.26 2
0.128612	1.08390	49.00	60.00	-1.82 1	7.14 1	-1.81 2	-2.19 2
0.141734	1.08826	48.00	60.00	-1.61 1	7.33 1	-1.75 2	-2.16 2
0.130945	1.08933	48.00	59.00	-1.82 1	6.99 1	-1.72 2	-2.10 2
0.120006	1.09056	48.00	58.00	-2.01 1	6.65 1	-1.69 2	-2.04 2
0.144363	1.09389	47.00	59.00	-1.62 1	7.18 1	-1.66 2	-2.07 2
0.133414	1.09503	47.00	58.00	-1.81 1	6.84 1	-1.63 2	-2.01 2
0.122306	1.09634	47.00	57.00	-2.00 1	6.51 1	-1.61 2	-1.95 2
0.147146	1.09980	46.00	58.00	-1.62 1	7.02 1	-1.57 2	-1.98 2
0.136028	1.10102	46.00	57.00	-1.80 1	6.69 1	-1.55 2	-1.92 2
0.124743	1.10241	46.00	56.00	-1.98 1	6.37 1	-1.53 2	-1.86 2
0.138798	1.10733	45.00	56.00	-1.79 1	6.55 1	-1.47 2	-1.84 2
0.127325	1.10880	45.00	55.00	-1.96 1	6.24 1	-1.45 2	-1.78 2
0.141735	1.11394	44.00	55.00	-1.77 1	6.41 1	-1.39 2	-1.76 2
0.130063	1.11550	44.00	54.00	-1.93 1	6.10 1	-1.37 2	-1.70 2
0.144850	1.12091	43.00	54.00	-1.75 1	6.26 1	-1.32 2	-1.68 2
0.132968	1.12256	43.00	53.00	-1.91 1	5.96 1	-1.30 2	-1.63 2
0.120874	1.12441	43.00	52.00	-2.06 1	5.67 1	-1.29 2	-1.58 2
0.148158	1.12823	42.00	53.00	-1.72 1	6.12 1	-1.25 2	-1.61 2
0.136053	1.12998	42.00	52.00	-1.87 1	5.83 1	-1.24 2	-1.56 2
0.123724	1.13193	42.00	51.00	-2.02 1	5.54 1	-1.22 2	-1.51 2
0.139332	1.13778	41.00	51.00	-1.84 1	5.69 1	-1.17 2	-1.49 2
0.126755	1.13985	41.00	50.00	-1.98 1	5.41 1	-1.16 2	-1.44 2
0.142821	1.14600	40.00	50.00	-1.80 1	5.56 1	-1.11 2	-1.42 2
0.129980	1.14819	40.00	49.00	-1.94 1	5.28 1	-1.09 2	-1.37 2
0.146536	1.15467	39.00	49.00	-1.76 1	5.42 1	-1.05 2	-1.36 2
0.133416	1.15696	39.00	48.00	-1.89 1	5.15 1	-1.04 2	-1.31 2
0.120012	1.15951	39.00	47.00	-2.02 1	4.88 1	-1.02 2	-1.27 2
0.137081	1.16622	38.00	47.00	-1.84 1	5.02 1	-9.79 1	-1.25 2
0.123363	1.16890	38.00	46.00	-1.96 1	4.75 1	-9.66 1	-1.21 2
0.140995	1.17598	37.00	46.00	-1.79 1	4.89 1	-9.25 1	-1.19 2
0.126943	1.17881	37.00	45.00	-1.91 1	4.63 1	-9.13 1	-1.15 2
0.145181	1.18630	36.00	45.00	-1.74 1	4.76 1	-8.73 1	-1.14 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.130774	1.18927	36.00	44.00	-1.85 1	4.50 1	-8.62 1	-1.10 2
0.149664	1.19719	35.00	44.00	-1.68 1	4.63 1	-8.23 1	-1.08 2
0.134879	1.20033	35.00	43.00	-1.79 1	4.38 1	-8.12 1	-1.04 2
0.139285	1.21203	34.00	42.00	-1.73 1	4.26 1	-7.65 1	-9.92 1
0.123684	1.21569	34.00	41.00	-1.83 1	4.01 1	-7.56 1	-9.53 1
0.144022	1.22443	33.00	41.00	-1.67 1	4.13 1	-7.20 1	-9.43 1
0.127962	1.22828	33.00	40.00	-1.76 1	3.89 1	-7.11 1	-9.05 1
0.149124	1.23757	32.00	40.00	-1.60 1	4.01 1	-6.76 1	-8.95 1
0.132572	1.24164	32.00	39.00	-1.70 1	3.77 1	-6.68 1	-8.58 1
0.137552	1.25582	31.00	38.00	-1.63 1	3.65 1	-6.26 1	-8.13 1
0.142942	1.27091	30.00	37.00	-1.56 1	3.53 1	-5.86 1	-7.70 1
0.124714	1.27592	30.00	36.00	-1.64 1	3.31 1	-5.79 1	-7.35 1
0.148789	1.28698	29.00	36.00	-1.49 1	3.41 1	-5.48 1	-7.28 1
0.129909	1.29228	29.00	35.00	-1.57 1	3.19 1	-5.42 1	-6.94 1
0.135564	1.30974	28.00	34.00	-1.49 1	3.08 1	-5.05 1	-6.55 1
0.141738	1.32842	27.00	33.00	-1.42 1	2.96 1	-4.70 1	-6.17 1
0.120592	1.33500	27.00	32.00	-1.49 1	2.76 1	-4.65 1	-5.85 1
0.148498	1.34842	26.00	32.00	-1.35 1	2.84 1	-4.37 1	-5.80 1
0.126457	1.35542	26.00	31.00	-1.41 1	2.64 1	-4.32 1	-5.50 1
0.132908	1.37735	25.00	30.00	-1.34 1	2.53 1	-4.00 1	-5.15 1
0.140028	1.40096	24.00	29.00	-1.26 1	2.42 1	-3.70 1	-4.82 1
0.147919	1.42645	23.00	28.00	-1.18 1	2.31 1	-3.40 1	-4.50 1
0.121424	1.43592	23.00	27.00	-1.24 1	2.13 1	-3.36 1	-4.23 1
0.128794	1.46420	22.00	26.00	-1.16 1	2.02 1	-3.09 1	-3.93 1
0.137049	1.49492	21.00	25.00	-1.08 1	1.91 1	-2.83 1	-3.64 1
0.146343	1.52842	20.00	24.00	-1.00 1	1.81 1	-2.57 1	-3.37 1
0.134629	1.55302	19.50	23.00	-9.85 0	1.67 1	-2.44 1	-3.11 1
0.121603	1.57946	19.00	22.00	-9.69 0	1.54 1	-2.31 1	-2.87 1
0.144738	1.59201	18.50	22.00	-9.07 0	1.57 1	-2.21 1	-2.86 1
0.131150	1.62104	18.00	21.00	-8.90 0	1.44 1	-2.08 1	-2.63 1
0.142140	1.66700	17.00	20.00	-8.13 0	1.34 1	-1.87 1	-2.39 1
0.120759	1.67644	17.00	19.50	-8.32 0	1.27 1	-1.86 1	-2.29 1
0.148273	1.69185	16.50	19.50	-7.74 0	1.29 1	-1.77 1	-2.28 1
0.126046	1.70176	16.50	19.00	-7.93 0	1.22 1	-1.76 1	-2.18 1
0.131759	1.72849	16.00	18.50	-7.55 0	1.17 1	-1.66 1	-2.07 1
0.137947	1.75677	15.50	18.00	-7.17 0	1.13 1	-1.56 1	-1.97 1
0.144667	1.78675	15.00	17.50	-6.80 0	1.08 1	-1.47 1	-1.86 1
0.124475	1.83165	14.50	16.50	-6.59 0	9.68 0	-1.37 1	-1.68 1
0.131133	1.86625	14.00	16.00	-6.22 0	9.23 0	-1.28 1	-1.58 1
0.138437	1.90316	13.50	15.50	-5.86 0	8.79 0	-1.19 1	-1.49 1
0.146478	1.94261	13.00	15.00	-5.50 0	8.36 0	-1.11 1	-1.40 1
0.127626	2.04956	12.00	13.50	-4.94 0	6.94 0	-9.49 0	-1.15 1
0.136287	2.09987	11.50	13.00	-4.60 0	6.53 0	-8.76 0	-1.07 1
0.146002	2.15431	11.00	12.50	-4.26 0	6.14 0	-8.05 0	-9.94 0
0.143052	2.32260	9.80	11.00	-3.55 0	4.92 0	-6.44 0	-7.82 0
0.141259	2.38828	9.40	10.50	-3.32 0	4.53 0	-5.94 0	-7.16 0
0.138886	2.45988	9.00	10.00	-3.10 0	4.16 0	-5.46 0	-6.53 0
0.144040	2.49438	8.80	9.80	-2.98 0	4.02 0	-5.23 0	-6.29 0
0.149522	2.53035	8.60	9.60	-2.86 0	3.89 0	-5.00 0	-6.04 0
0.121793	2.54632	8.60	9.40	-2.90 0	3.71 0	-4.99 0	-5.82 0
0.126606	2.58451	8.40	9.20	-2.78 0	3.58 0	-4.77 0	-5.58 0
0.131745	2.62441	8.20	9.00	-2.66 0	3.45 0	-4.56 0	-5.35 0
0.137241	2.66614	8.00	8.80	-2.55 0	3.32 0	-4.34 0	-5.13 0
0.143128	2.70985	7.80	8.60	-2.44 0	3.19 0	-4.14 0	-4.90 0
0.149447	2.75568	7.60	8.40	-2.33 0	3.07 0	-3.94 0	-4.69 0
0.125433	2.87725	7.20	7.80	-2.14 0	2.67 0	-3.54 0	-4.07 0
0.131584	2.93164	7.00	7.60	-2.03 0	2.55 0	-3.35 0	-3.87 0
0.138249	2.98900	6.80	7.40	-1.93 0	2.43 0	-3.17 0	-3.68 0
0.145488	3.04962	6.60	7.20	-1.83 0	2.32 0	-2.99 0	-3.49 0
0.124732	3.36669	5.80	6.20	-1.46 0	1.76 0	-2.31 0	-2.61 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.132720	3.45107	5.60	6.00	-1.37 0	1.66 0	-2.16 0	-2.45 0
0.141577	3.54141	5.40	5.80	-1.28 0	1.56 0	-2.01 0	-2.29 0
0.127505	4.49121	4.00	4.20	-7.33-1	8.39-1	-1.10 0	-1.21 0
0.140554	4.67427	3.80	4.00	-6.62-1	7.64-1	-9.90-1	-1.09 0
0.147900	4.77320	3.70	3.90	-6.28-1	7.27-1	-9.37-1	-1.04 0
0.122972	5.89100	2.90	3.00	-3.87-1	4.27-1	-5.63-1	-6.03-1
0.132058	6.06921	2.80	2.90	-3.60-1	3.98-1	-5.22-1	-5.62-1
0.142252	6.26127	2.70	2.80	-3.33-1	3.70-1	-4.83-1	-5.21-1
0.145630	8.47913	1.95	2.00	-1.65-1	1.78-1	-2.36-1	-2.49-1
0.15	0.18						
0.151893	1.01520	73.00	90.00	1.09 2	2.30 2	-1.09 3	-1.16 3
0.152508	1.01622	72.00	89.00	9.13 1	2.12 2	-9.66 2	-1.04 3
0.161287	1.01712	72.00	90.00	1.08 2	2.30 2	-1.02 3	-1.10 3
0.153189	1.01739	71.00	88.00	7.73 1	1.97 2	-8.67 2	-9.38 2
0.161977	1.01822	71.00	89.00	9.17 1	2.13 2	-9.11 2	-9.86 2
0.153939	1.01867	70.00	87.00	6.58 1	1.85 2	-7.85 2	-8.55 2
0.170764	1.01916	71.00	90.00	1.08 2	2.30 2	-9.60 2	-1.04 3
0.162738	1.01946	70.00	88.00	7.83 1	1.99 2	-8.22 2	-8.96 2
0.154760	1.02007	69.00	86.00	5.62 1	1.75 2	-7.16 2	-7.85 2
0.171533	1.02034	70.00	89.00	9.20 1	2.14 2	-8.61 2	-9.40 2
0.163573	1.02082	69.00	87.00	6.72 1	1.87 2	-7.46 2	-8.20 2
0.155653	1.02159	68.00	85.00	4.79 1	1.66 2	-6.55 2	-7.24 2
0.172379	1.02166	69.00	88.00	7.91 1	2.01 2	-7.79 2	-8.58 2
0.164484	1.02229	68.00	86.00	5.77 1	1.77 2	-6.81 2	-7.55 2
0.173305	1.02309	68.00	87.00	6.83 1	1.89 2	-7.09 2	-7.87 2
0.156622	1.02325	67.00	84.00	4.10 1	1.58 2	-6.04 2	-6.73 2
0.165474	1.02391	67.00	85.00	4.97 1	1.69 2	-6.26 2	-6.99 2
0.174313	1.02466	67.00	86.00	5.91 1	1.79 2	-6.50 2	-7.27 2
0.157667	1.02504	66.00	83.00	3.49 1	1.52 2	-5.59 2	-6.27 2
0.166544	1.02564	66.00	84.00	4.28 1	1.61 2	-5.78 2	-6.50 2
0.175404	1.02635	66.00	85.00	5.13 1	1.71 2	-5.98 2	-6.75 2
0.158792	1.02697	65.00	82.00	2.97 1	1.46 2	-5.19 2	-5.87 2
0.167697	1.02753	65.00	83.00	3.69 1	1.54 2	-5.35 2	-6.07 2
0.176583	1.02819	65.00	84.00	4.45 1	1.63 2	-5.53 2	-6.29 2
0.161032	1.02862	64.00	80.00	1.89 1	1.33 2	-4.69 2	-5.32 2
0.159998	1.02904	64.00	81.00	2.52 1	1.40 2	-4.83 2	-5.51 2
0.168936	1.02956	64.00	82.00	3.17 1	1.48 2	-4.98 2	-5.69 2
0.177851	1.03017	64.00	83.00	3.87 1	1.57 2	-5.13 2	-5.89 2
0.152284	1.03088	63.00	79.00	1.54 1	1.28 2	-4.39 2	-5.02 2
0.161290	1.03124	63.00	80.00	2.11 1	1.36 2	-4.51 2	-5.18 2
0.170264	1.03172	63.00	81.00	2.72 1	1.43 2	-4.64 2	-5.35 2
0.179211	1.03229	63.00	82.00	3.36 1	1.51 2	-4.78 2	-5.53 2
0.153619	1.03327	62.00	78.00	1.23 1	1.24 2	-4.11 2	-4.74 2
0.162669	1.03360	62.00	79.00	1.76 1	1.31 2	-4.22 2	-4.89 2
0.171684	1.03402	62.00	80.00	2.32 1	1.38 2	-4.34 2	-5.04 2
0.155042	1.03582	61.00	77.00	9.52 0	1.21 2	-3.86 2	-4.48 2
0.164140	1.03610	61.00	78.00	1.45 1	1.27 2	-3.96 2	-4.62 2
0.173199	1.03649	61.00	79.00	1.96 1	1.34 2	-4.06 2	-4.77 2
0.156556	1.03853	60.00	76.00	7.08 0	1.17 2	-3.63 2	-4.25 2
0.165706	1.03875	60.00	77.00	1.17 1	1.23 2	-3.72 2	-4.38 2
0.174813	1.03910	60.00	78.00	1.65 1	1.30 2	-3.81 2	-4.51 2
0.158164	1.04140	59.00	75.00	4.91 0	1.14 2	-3.42 2	-4.03 2
0.167371	1.04158	59.00	76.00	9.21 0	1.20 2	-3.50 2	-4.15 2
0.176531	1.04187	59.00	77.00	1.37 1	1.26 2	-3.58 2	-4.28 2
0.150545	1.04439	58.00	73.00	-8.97-1	1.06 2	-3.15 2	-3.72 2
0.159870	1.04443	58.00	74.00	2.98 0	1.11 2	-3.22 2	-3.83 2
0.169139	1.04457	58.00	75.00	7.01 0	1.17 2	-3.30 2	-3.95 2
0.178356	1.04482	58.00	76.00	1.12 1	1.22 2	-3.37 2	-4.06 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.161680	1.04763	57.00	73.00	1.26 0	1.08 2	-3.04 2	-3.65 2
0.152285	1.04765	57.00	72.00	-2.38 0	1.03 2	-2.98 2	-3.55 2
0.171015	1.04773	57.00	74.00	5.05 0	1.14 2	-3.11 2	-3.76 2
0.163598	1.05102	56.00	72.00	-2.63-1	1.06 2	-2.88 2	-3.48 2
0.173003	1.05106	56.00	73.00	3.30 0	1.11 2	-2.94 2	-3.58 2
0.154127	1.05108	56.00	71.00	-3.70 0	1.01 2	-2.82 2	-3.38 2
0.165629	1.05458	55.00	71.00	-1.62 0	1.03 2	-2.72 2	-3.32 2
0.175110	1.05458	55.00	72.00	1.73 0	1.08 2	-2.77 2	-3.41 2
0.156078	1.05470	55.00	70.00	-4.86 0	9.84 1	-2.67 2	-3.22 2
0.177340	1.05830	54.00	71.00	3.40-1	1.05 2	-2.62 2	-3.26 2
0.167779	1.05835	54.00	70.00	-2.82 0	1.01 2	-2.57 2	-3.17 2
0.158142	1.05851	54.00	69.00	-5.88 0	9.62 1	-2.52 2	-3.08 2
0.179701	1.06221	53.00	70.00	-8.97-1	1.03 2	-2.48 2	-3.11 2
0.170054	1.06231	53.00	69.00	-3.89 0	9.84 1	-2.44 2	-3.03 2
0.160326	1.06252	53.00	68.00	-6.79 0	9.40 1	-2.39 2	-2.94 2
0.150512	1.06286	53.00	67.00	-9.59 0	8.97 1	-2.35 2	-2.86 2
0.172461	1.06648	52.00	68.00	-4.83 0	9.62 1	-2.31 2	-2.89 2
0.162636	1.06675	52.00	67.00	-7.57 0	9.19 1	-2.27 2	-2.81 2
0.152720	1.06714	52.00	66.00	-1.02 1	8.78 1	-2.23 2	-2.73 2
0.175007	1.07087	51.00	67.00	-5.65 0	9.41 1	-2.19 2	-2.77 2
0.165080	1.07119	51.00	66.00	-8.25 0	8.99 1	-2.15 2	-2.69 2
0.155054	1.07164	51.00	65.00	-1.08 1	8.59 1	-2.11 2	-2.61 2
0.177700	1.07549	50.00	66.00	-6.37 0	9.20 1	-2.07 2	-2.65 2
0.167664	1.07587	50.00	65.00	-8.84 0	8.80 1	-2.04 2	-2.57 2
0.157524	1.07637	50.00	64.00	-1.12 1	8.40 1	-2.00 2	-2.50 2
0.170398	1.08079	49.00	64.00	-9.34 0	8.61 1	-1.93 2	-2.46 2
0.160135	1.08135	49.00	63.00	-1.16 1	8.23 1	-1.90 2	-2.39 2
0.173289	1.08596	48.00	63.00	-9.75 0	8.42 1	-1.83 2	-2.36 2
0.162898	1.08658	48.00	62.00	-1.19 1	8.05 1	-1.80 2	-2.29 2
0.152382	1.08734	48.00	61.00	-1.41 1	7.69 1	-1.77 2	-2.23 2
0.176350	1.09140	47.00	62.00	-1.01 1	8.24 1	-1.74 2	-2.26 2
0.165822	1.09208	47.00	61.00	-1.22 1	7.88 1	-1.71 2	-2.19 2
0.155163	1.09291	47.00	60.00	-1.42 1	7.52 1	-1.68 2	-2.13 2
0.179589	1.09711	46.00	61.00	-1.04 1	8.07 1	-1.65 2	-2.16 2
0.168917	1.09785	46.00	60.00	-1.23 1	7.71 1	-1.62 2	-2.10 2
0.158106	1.09875	46.00	59.00	-1.43 1	7.36 1	-1.60 2	-2.04 2
0.172196	1.10394	45.00	59.00	-1.25 1	7.54 1	-1.54 2	-2.01 2
0.161224	1.10490	45.00	58.00	-1.43 1	7.20 1	-1.51 2	-1.95 2
0.150094	1.10603	45.00	57.00	-1.61 1	6.87 1	-1.49 2	-1.90 2
0.175670	1.11033	44.00	58.00	-1.25 1	7.38 1	-1.46 2	-1.93 2
0.164528	1.11136	44.00	57.00	-1.43 1	7.05 1	-1.44 2	-1.87 2
0.153220	1.11256	44.00	56.00	-1.60 1	6.72 1	-1.41 2	-1.81 2
0.179354	1.11706	43.00	57.00	-1.25 1	7.22 1	-1.38 2	-1.85 2
0.168032	1.11816	43.00	56.00	-1.42 1	6.89 1	-1.36 2	-1.79 2
0.156534	1.11944	43.00	55.00	-1.59 1	6.58 1	-1.34 2	-1.74 2
0.171751	1.12531	42.00	55.00	-1.41 1	6.74 1	-1.29 2	-1.71 2
0.160053	1.12668	42.00	54.00	-1.57 1	6.43 1	-1.27 2	-1.66 2
0.175700	1.13285	41.00	54.00	-1.40 1	6.59 1	-1.22 2	-1.64 2
0.163791	1.13429	41.00	53.00	-1.55 1	6.28 1	-1.20 2	-1.59 2
0.151673	1.13593	41.00	52.00	-1.69 1	5.98 1	-1.19 2	-1.54 2
0.179899	1.14078	40.00	53.00	-1.38 1	6.44 1	-1.15 2	-1.57 2
0.167766	1.14231	40.00	52.00	-1.52 1	6.14 1	-1.14 2	-1.52 2
0.155411	1.14405	40.00	51.00	-1.66 1	5.84 1	-1.12 2	-1.47 2
0.171996	1.15076	39.00	51.00	-1.49 1	6.00 1	-1.08 2	-1.45 2
0.159391	1.15260	39.00	50.00	-1.63 1	5.71 1	-1.06 2	-1.41 2
0.176504	1.15968	38.00	50.00	-1.46 1	5.85 1	-1.02 2	-1.39 2
0.163633	1.16162	38.00	49.00	-1.59 1	5.57 1	-1.00 2	-1.34 2
0.150498	1.16380	38.00	48.00	-1.72 1	5.29 1	-9.92 1	-1.30 2
0.168160	1.17114	37.00	48.00	-1.55 1	5.43 1	-9.49 1	-1.28 2
0.154727	1.17343	37.00	47.00	-1.67 1	5.16 1	-9.37 1	-1.24 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.172997	1.18118	36.00	47.00	-1.51 1	5.29 1	-8.95 1	-1.22 2
0.159248	1.18360	36.00	46.00	-1.62 1	5.02 1	-8.84 1	-1.18 2
0.178173	1.19180	35.00	46.00	-1.46 1	5.16 1	-8.44 1	-1.17 2
0.164088	1.19436	35.00	45.00	-1.57 1	4.89 1	-8.33 1	-1.13 2
0.169276	1.20573	34.00	44.00	-1.52 1	4.76 1	-7.84 1	-1.07 2
0.154473	1.20872	34.00	43.00	-1.63 1	4.50 1	-7.75 1	-1.03 2
0.174848	1.21779	33.00	43.00	-1.47 1	4.63 1	-7.38 1	-1.02 2
0.159641	1.22094	33.00	42.00	-1.57 1	4.38 1	-7.28 1	-9.82 1
0.165203	1.23389	32.00	41.00	-1.51 1	4.25 1	-6.84 1	-9.33 1
0.171202	1.24764	31.00	40.00	-1.45 1	4.12 1	-6.42 1	-8.86 1
0.154630	1.25153	31.00	39.00	-1.54 1	3.88 1	-6.34 1	-8.49 1
0.177685	1.26227	30.00	39.00	-1.39 1	3.99 1	-6.01 1	-8.41 1
0.160585	1.26638	30.00	38.00	-1.47 1	3.76 1	-5.93 1	-8.05 1
0.167040	1.28219	29.00	37.00	-1.41 1	3.63 1	-5.55 1	-7.62 1
0.174055	1.29906	28.00	36.00	-1.34 1	3.51 1	-5.17 1	-7.21 1
0.155149	1.30413	28.00	35.00	-1.42 1	3.29 1	-5.11 1	-6.88 1
0.162085	1.32246	27.00	34.00	-1.35 1	3.17 1	-4.76 1	-6.49 1
0.169671	1.34210	26.00	33.00	-1.28 1	3.05 1	-4.42 1	-6.11 1
0.177995	1.36318	25.00	32.00	-1.21 1	2.93 1	-4.09 1	-5.75 1
0.155924	1.36989	25.00	31.00	-1.27 1	2.73 1	-4.05 1	-5.45 1
0.164110	1.39301	24.00	30.00	-1.20 1	2.61 1	-3.74 1	-5.10 1
0.173167	1.41795	23.00	29.00	-1.12 1	2.50 1	-3.44 1	-4.78 1
0.156699	1.45404	22.00	27.00	-1.10 1	2.20 1	-3.13 1	-4.19 1
0.166516	1.48399	21.00	26.00	-1.03 1	2.09 1	-2.86 1	-3.89 1
0.177547	1.51664	20.00	25.00	-9.53 0	1.98 1	-2.60 1	-3.61 1
0.167747	1.54003	19.50	24.00	-9.39 0	1.84 1	-2.47 1	-3.35 1
0.156868	1.56508	19.00	23.00	-9.24 0	1.70 1	-2.33 1	-3.10 1
0.168862	1.60539	18.00	22.00	-8.48 0	1.60 1	-2.11 1	-2.85 1
0.156313	1.63499	17.50	21.00	-8.31 0	1.47 1	-1.99 1	-2.62 1
0.169670	1.68261	16.50	20.00	-7.56 0	1.37 1	-1.78 1	-2.38 1
0.177138	1.70840	16.00	19.50	-7.19 0	1.32 1	-1.68 1	-2.27 1
0.154894	1.71810	16.00	19.00	-7.37 0	1.24 1	-1.67 1	-2.17 1
0.162059	1.74585	15.50	18.50	-7.00 0	1.20 1	-1.57 1	-2.06 1
0.169832	1.77525	15.00	18.00	-6.63 0	1.15 1	-1.47 1	-1.96 1
0.178288	1.80645	14.50	17.50	-6.27 0	1.10 1	-1.38 1	-1.86 1
0.151986	1.81857	14.50	17.00	-6.43 0	1.03 1	-1.37 1	-1.76 1
0.159978	1.85242	14.00	16.50	-6.07 0	9.88 0	-1.29 1	-1.67 1
0.168735	1.88851	13.50	16.00	-5.71 0	9.43 0	-1.20 1	-1.57 1
0.178361	1.92706	13.00	15.50	-5.36 0	8.98 0	-1.12 1	-1.48 1
0.155363	1.98488	12.50	14.50	-5.15 0	7.93 0	-1.03 1	-1.31 1
0.165219	2.03031	12.00	14.00	-4.81 0	7.51 0	-9.55 0	-1.23 1
0.176201	2.07926	11.50	13.50	-4.47 0	7.10 0	-8.81 0	-1.15 1
0.156957	2.21341	10.50	12.00	-3.93 0	5.75 0	-7.37 0	-9.20 0
0.169384	2.27782	10.00	11.50	-3.62 0	5.37 0	-6.72 0	-8.48 0
0.169824	2.33954	9.60	11.00	-3.39 0	4.97 0	-6.21 0	-7.80 0
0.170021	2.40661	9.20	10.50	-3.16 0	4.58 0	-5.71 0	-7.15 0
0.169899	2.47975	8.80	10.00	-2.94 0	4.21 0	-5.24 0	-6.52 0
0.176293	2.51515	8.60	9.80	-2.83 0	4.07 0	-5.02 0	-6.27 0
0.155361	2.56788	8.40	9.40	-2.74 0	3.75 0	-4.78 0	-5.89 0
0.161592	2.60709	8.20	9.20	-2.63 0	3.62 0	-4.57 0	-5.57 0
0.168250	2.64809	8.00	9.00	-2.52 0	3.49 0	-4.36 0	-5.34 0
0.175377	2.69101	7.80	8.80	-2.40 0	3.36 0	-4.15 0	-5.12 0
0.156242	2.80379	7.40	8.20	-2.22 0	2.94 0	-3.74 0	-4.48 0
0.163564	2.85437	7.20	8.00	-2.11 0	2.82 0	-3.55 0	-4.27 0
0.171471	2.90762	7.00	7.80	-2.00 0	2.70 0	-3.36 0	-4.07 0
0.153372	3.11377	6.40	7.00	-1.73 0	2.21 0	-2.81 0	-3.30 0
0.161983	3.18179	6.20	6.80	-1.63 0	2.10 0	-2.64 0	-3.12 0
0.171415	3.25405	6.00	6.60	-1.53 0	1.99 0	-2.48 0	-2.95 0
0.151437	3.63837	5.20	5.60	-1.19 0	1.46 0	-1.87 0	-2.14 0
0.162463	3.74275	5.00	5.40	-1.11 0	1.37 0	-1.73 0	-1.99 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.174852	3.85546	4.80	5.20	-1.02 0	1.28 0	-1.59 0	-1.85 0
0.155879	4.87763	3.60	3.80	-5.94-1	6.92-1	-8.86-1	-9.85-1
0.164570	4.98804	3.50	3.70	-5.62-1	6.57-1	-8.36-1	-9.33-1
0.174060	5.10499	3.40	3.60	-5.30-1	6.22-1	-7.87-1	-8.82-1
0.153744	6.46890	2.60	2.70	-3.08-1	3.43-1	-4.45-1	-4.82-1
0.166769	6.69414	2.50	2.60	-2.83-1	3.17-1	-4.09-1	-4.45-1
0.154305	8.69165	1.90	1.95	-1.56-1	1.69-1	-2.22-1	-2.36-1
0.163807	8.91711	1.85	1.90	-1.46-1	1.59-1	-2.09-1	-2.22-1
0.174247	9.15677	1.80	1.85	-1.37-1	1.50-1	-1.96-1	-2.09-1
0.18	0.21						
0.180328	1.02134	70.00	90.00	1.07 2	2.31 2	-9.05 2	-9.89 2
0.181182	1.02260	69.00	89.00	9.21 1	2.15 2	-8.15 2	-8.98 2
0.189986	1.02365	69.00	90.00	1.07 2	2.31 2	-8.55 2	-9.43 2
0.182119	1.02399	68.00	88.00	7.97 1	2.02 2	-7.40 2	-8.22 2
0.190931	1.02498	68.00	89.00	9.20 1	2.16 2	-7.72 2	-8.59 2
0.183142	1.02552	67.00	87.00	6.93 1	1.91 2	-6.76 2	-7.58 2
0.199744	1.02609	68.00	90.00	1.06 2	2.31 2	-8.08 2	-9.00 2
0.191965	1.02647	67.00	88.00	8.02 1	2.03 2	-7.04 2	-7.90 2
0.184251	1.02717	66.00	86.00	6.03 1	1.81 2	-6.20 2	-7.01 2
0.200786	1.02753	67.00	89.00	9.20 1	2.17 2	-7.33 2	-8.24 2
0.193090	1.02808	66.00	87.00	7.01 1	1.93 2	-6.44 2	-7.29 2
0.209608	1.02869	67.00	90.00	1.05 2	2.31 2	-7.66 2	-8.62 2
0.185452	1.02896	65.00	85.00	5.27 1	1.73 2	-5.72 2	-6.53 2
0.201922	1.02909	66.00	88.00	8.05 1	2.05 2	-6.69 2	-7.59 2
0.194308	1.02983	65.00	86.00	6.14 1	1.83 2	-5.93 2	-6.77 2
0.203156	1.03080	65.00	87.00	7.08 1	1.94 2	-6.15 2	-7.04 2
0.186745	1.03089	64.00	84.00	4.61 1	1.66 2	-5.30 2	-6.10 2
0.195623	1.03171	64.00	85.00	5.40 1	1.75 2	-5.48 2	-6.32 2
0.204489	1.03264	64.00	86.00	6.24 1	1.85 2	-5.67 2	-6.55 2
0.188134	1.03297	63.00	83.00	4.03 1	1.59 2	-4.92 2	-5.72 2
0.197038	1.03375	63.00	84.00	4.75 1	1.68 2	-5.08 2	-5.92 2
0.180667	1.03456	62.00	81.00	2.91 1	1.45 2	-4.46 2	-5.21 2
0.205927	1.03463	63.00	85.00	5.51 1	1.77 2	-5.24 2	-6.12 2
0.189623	1.03519	62.00	82.00	3.53 1	1.53 2	-4.59 2	-5.38 2
0.198557	1.03593	62.00	83.00	4.18 1	1.61 2	-4.73 2	-5.56 2
0.207471	1.03677	62.00	84.00	4.87 1	1.70 2	-4.87 2	-5.74 2
0.182223	1.03697	61.00	80.00	2.51 1	1.41 2	-4.17 2	-4.92 2
0.191216	1.03757	61.00	81.00	3.08 1	1.48 2	-4.29 2	-5.07 2
0.200182	1.03826	61.00	82.00	3.68 1	1.55 2	-4.41 2	-5.24 2
0.209126	1.03906	61.00	83.00	4.31 1	1.63 2	-4.54 2	-5.40 2
0.183882	1.03955	60.00	79.00	2.15 1	1.36 2	-3.91 2	-4.65 2
0.192915	1.04009	60.00	80.00	2.68 1	1.43 2	-4.01 2	-4.79 2
0.201918	1.04075	60.00	81.00	3.24 1	1.50 2	-4.12 2	-4.94 2
0.185648	1.04228	59.00	78.00	1.84 1	1.32 2	-3.67 2	-4.41 2
0.194726	1.04279	59.00	79.00	2.33 1	1.38 2	-3.76 2	-4.54 2
0.203770	1.04340	59.00	80.00	2.84 1	1.45 2	-3.86 2	-4.68 2
0.187526	1.04517	58.00	77.00	1.56 1	1.28 2	-3.45 2	-4.18 2
0.196653	1.04564	58.00	78.00	2.01 1	1.34 2	-3.54 2	-4.31 2
0.205742	1.04621	58.00	79.00	2.49 1	1.41 2	-3.62 2	-4.44 2
0.180293	1.04793	57.00	75.00	8.98 0	1.19 2	-3.18 2	-3.87 2
0.189520	1.04825	57.00	76.00	1.31 1	1.25 2	-3.25 2	-3.98 2
0.198700	1.04867	57.00	77.00	1.73 1	1.30 2	-3.33 2	-4.09 2
0.207839	1.04920	57.00	78.00	2.18 1	1.37 2	-3.41 2	-4.21 2
0.182348	1.05123	56.00	74.00	6.99 0	1.16 2	-3.00 2	-3.68 2
0.191636	1.05150	56.00	75.00	1.08 1	1.21 2	-3.07 2	-3.79 2
0.200874	1.05188	56.00	76.00	1.48 1	1.27 2	-3.13 2	-3.90 2
0.184525	1.05470	55.00	73.00	5.20 0	1.13 2	-2.83 2	-3.51 2
0.193880	1.05493	55.00	74.00	8.81 0	1.18 2	-2.89 2	-3.61 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial k_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.203180	1.05527	55.00	75.00	1.25 1	1.24 2	-2.95 2	-3.71 2
0.186832	1.05837	54.00	72.00	3.61 0	1.10 2	-2.68 2	-3.35 2
0.196258	1.05855	54.00	73.00	7.00 0	1.15 2	-2.73 2	-3.44 2
0.205625	1.05885	54.00	74.00	1.05 1	1.20 2	-2.79 2	-3.54 2
0.189274	1.06224	53.00	71.00	2.19 0	1.08 2	-2.53 2	-3.20 2
0.198776	1.06238	53.00	72.00	5.38 0	1.12 2	-2.58 2	-3.29 2
0.208215	1.06263	53.00	73.00	8.68 0	1.17 2	-2.63 2	-3.38 2
0.191858	1.06631	52.00	70.00	9.20-1	1.05 2	-2.39 2	-3.06 2
0.182200	1.06634	52.00	69.00	-2.00 0	1.01 2	-2.35 2	-2.97 2
0.201443	1.06641	52.00	71.00	3.93 0	1.10 2	-2.44 2	-3.14 2
0.194594	1.07061	51.00	69.00	-2.09-1	1.03 2	-2.27 2	-2.92 2
0.204265	1.07066	51.00	70.00	2.63 0	1.07 2	-2.31 2	-3.00 2
0.184843	1.07068	51.00	68.00	-2.97 0	9.83 1	-2.23 2	-2.84 2
0.197488	1.07513	50.00	68.00	-1.21 0	1.00 2	-2.15 2	-2.80 2
0.207251	1.07514	50.00	69.00	1.48 0	1.05 2	-2.19 2	-2.88 2
0.187640	1.07525	50.00	67.00	-3.83 0	9.61 1	-2.11 2	-2.72 2
0.200550	1.07990	49.00	67.00	-2.10 0	9.82 1	-2.03 2	-2.68 2
0.190598	1.08007	49.00	66.00	-4.58 0	9.40 1	-2.00 2	-2.61 2
0.180549	1.08036	49.00	65.00	-6.99 0	9.00 1	-1.96 2	-2.53 2
0.203790	1.08492	48.00	66.00	-2.88 0	9.60 1	-1.93 2	-2.57 2
0.193728	1.08513	48.00	65.00	-5.23 0	9.20 1	-1.89 2	-2.50 2
0.183564	1.08548	48.00	64.00	-7.52 0	8.81 1	-1.86 2	-2.43 2
0.207219	1.09020	47.00	65.00	-3.57 0	9.39 1	-1.82 2	-2.46 2
0.197041	1.09046	47.00	64.00	-5.80 0	9.00 1	-1.79 2	-2.39 2
0.186754	1.09086	47.00	63.00	-7.97 0	8.62 1	-1.76 2	-2.32 2
0.200548	1.09607	46.00	63.00	-6.28 0	8.81 1	-1.70 2	-2.29 2
0.190130	1.09652	46.00	62.00	-8.35 0	8.43 1	-1.67 2	-2.23 2
0.204261	1.10197	45.00	62.00	-6.69 0	8.62 1	-1.61 2	-2.20 2
0.193706	1.10248	45.00	61.00	-8.66 0	8.25 1	-1.58 2	-2.13 2
0.183020	1.10313	45.00	60.00	-1.06 1	7.89 1	-1.56 2	-2.07 2
0.208195	1.10818	44.00	61.00	-7.03 0	8.43 1	-1.52 2	-2.11 2
0.197495	1.10874	44.00	60.00	-8.91 0	8.07 1	-1.50 2	-2.05 2
0.186656	1.10946	44.00	59.00	-1.07 1	7.72 1	-1.48 2	-1.99 2
0.201511	1.11534	43.00	59.00	-9.09 0	7.90 1	-1.42 2	-1.96 2
0.190510	1.11612	43.00	58.00	-1.08 1	7.56 1	-1.40 2	-1.90 2
0.205772	1.12229	42.00	58.00	-9.22 0	7.73 1	-1.35 2	-1.88 2
0.194599	1.12313	42.00	57.00	-1.09 1	7.39 1	-1.33 2	-1.82 2
0.183263	1.12414	42.00	56.00	-1.25 1	7.06 1	-1.31 2	-1.77 2
0.198941	1.13051	41.00	56.00	-1.09 1	7.23 1	-1.26 2	-1.75 2
0.187413	1.13159	41.00	55.00	-1.24 1	6.91 1	-1.24 2	-1.69 2
0.203554	1.13829	40.00	55.00	-1.08 1	7.07 1	-1.19 2	-1.67 2
0.191824	1.13944	40.00	54.00	-1.23 1	6.75 1	-1.17 2	-1.62 2
0.208460	1.14649	39.00	54.00	-1.08 1	6.91 1	-1.12 2	-1.60 2
0.196517	1.14772	39.00	53.00	-1.22 1	6.60 1	-1.11 2	-1.55 2
0.184367	1.14914	39.00	52.00	-1.36 1	6.29 1	-1.09 2	-1.50 2
0.201514	1.15645	38.00	52.00	-1.20 1	6.44 1	-1.05 2	-1.49 2
0.189126	1.15796	38.00	51.00	-1.33 1	6.14 1	-1.03 2	-1.44 2
0.206842	1.16567	37.00	51.00	-1.18 1	6.29 1	-9.87 1	-1.42 2
0.194201	1.16727	37.00	50.00	-1.30 1	6.00 1	-9.74 1	-1.37 2
0.181312	1.16909	37.00	49.00	-1.43 1	5.71 1	-9.61 1	-1.33 2
0.199619	1.17710	36.00	49.00	-1.27 1	5.85 1	-9.19 1	-1.31 2
0.186448	1.17902	36.00	48.00	-1.39 1	5.57 1	-9.07 1	-1.27 2
0.205412	1.18749	35.00	48.00	-1.24 1	5.71 1	-8.66 1	-1.26 2
0.191941	1.18952	35.00	47.00	-1.35 1	5.43 1	-8.55 1	-1.21 2
0.197825	1.20064	34.00	46.00	-1.31 1	5.29 1	-8.05 1	-1.16 2
0.183719	1.20305	34.00	45.00	-1.42 1	5.02 1	-7.94 1	-1.11 2
0.204137	1.21241	33.00	45.00	-1.27 1	5.15 1	-7.56 1	-1.10 2
0.189672	1.21495	33.00	44.00	-1.37 1	4.88 1	-7.47 1	-1.06 2
0.196073	1.22758	32.00	43.00	-1.32 1	4.75 1	-7.01 1	-1.01 2
0.180842	1.23057	32.00	42.00	-1.42 1	4.49 1	-6.93 1	-9.72 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.202968	1.24099	31.00	42.00	-1.27 1	4.61 1	-6.58 1	-9.62 1
0.187304	1.24414	31.00	41.00	-1.36 1	4.36 1	-6.49 1	-9.24 1
0.194281	1.25857	30.00	40.00	-1.30 1	4.23 1	-6.08 1	-8.78 1
0.201834	1.27395	29.00	39.00	-1.25 1	4.10 1	-5.68 1	-8.33 1
0.184707	1.27785	29.00	38.00	-1.33 1	3.86 1	-5.61 1	-7.97 1
0.192332	1.29448	28.00	37.00	-1.27 1	3.74 1	-5.24 1	-7.55 1
0.200633	1.31224	27.00	36.00	-1.20 1	3.61 1	-4.87 1	-7.14 1
0.181697	1.31709	27.00	35.00	-1.28 1	3.39 1	-4.82 1	-6.81 1
0.209694	1.33127	26.00	35.00	-1.14 1	3.48 1	-4.53 1	-6.75 1
0.190049	1.33640	26.00	34.00	-1.21 1	3.26 1	-4.47 1	-6.43 1
0.199202	1.35713	25.00	33.00	-1.14 1	3.14 1	-4.14 1	-6.05 1
0.209268	1.37944	24.00	32.00	-1.07 1	3.02 1	-3.83 1	-5.70 1
0.187159	1.38586	24.00	31.00	-1.14 1	2.81 1	-3.78 1	-5.40 1
0.197287	1.41033	23.00	30.00	-1.07 1	2.69 1	-3.49 1	-5.06 1
0.208523	1.43681	22.00	29.00	-9.95 0	2.57 1	-3.20 1	-4.73 1
0.183231	1.44494	22.00	28.00	-1.05 1	2.38 1	-3.16 1	-4.46 1
0.194464	1.47425	21.00	27.00	-9.77 0	2.27 1	-2.89 1	-4.15 1
0.207064	1.50617	20.00	26.00	-9.05 0	2.15 1	-2.64 1	-3.86 1
0.198977	1.52850	19.50	25.00	-8.92 0	2.01 1	-2.50 1	-3.59 1
0.190012	1.55236	19.00	24.00	-8.79 0	1.87 1	-2.36 1	-3.34 1
0.180028	1.57792	18.50	23.00	-8.64 0	1.73 1	-2.23 1	-3.09 1
0.204184	1.59160	18.00	23.00	-8.06 0	1.76 1	-2.13 1	-3.07 1
0.194056	1.61967	17.50	22.00	-7.90 0	1.62 1	-2.01 1	-2.84 1
0.182629	1.64991	17.00	21.00	-7.73 0	1.49 1	-1.89 1	-2.61 1
0.198554	1.69936	16.00	20.00	-7.01 0	1.39 1	-1.69 1	-2.37 1
0.207478	1.72620	15.50	19.50	-6.65 0	1.34 1	-1.59 1	-2.26 1
0.185213	1.73568	15.50	19.00	-6.82 0	1.27 1	-1.58 1	-2.16 1
0.193965	1.76456	15.00	18.50	-6.46 0	1.22 1	-1.48 1	-2.06 1
0.203475	1.79521	14.50	18.00	-6.11 0	1.17 1	-1.39 1	-1.95 1
0.187512	1.83963	14.00	17.00	-5.91 0	1.05 1	-1.29 1	-1.76 1
0.197606	1.87499	13.50	16.50	-5.56 0	1.01 1	-1.21 1	-1.66 1
0.208687	1.91275	13.00	16.00	-5.22 0	9.62 0	-1.13 1	-1.57 1
0.188982	1.96836	12.50	15.00	-5.02 0	8.54 0	-1.04 1	-1.39 1
0.200745	2.01271	12.00	14.50	-4.68 0	8.11 0	-9.61 0	-1.31 1
0.188495	2.13218	11.00	13.00	-4.15 0	6.69 0	-8.10 0	-1.07 1
0.202329	2.18959	10.50	12.50	-3.82 0	6.28 0	-7.42 0	-9.90 0
0.195256	2.29429	9.80	11.50	-3.45 0	5.42 0	-6.48 0	-8.47 0
0.197572	2.35732	9.40	11.00	-3.23 0	5.02 0	-5.98 0	-7.79 0
0.199885	2.42586	9.00	10.50	-3.01 0	4.63 0	-5.49 0	-7.14 0
0.202162	2.50069	8.60	10.00	-2.79 0	4.25 0	-5.03 0	-6.51 0
0.209881	2.53707	8.40	9.80	-2.68 0	4.11 0	-4.81 0	-6.26 0
0.183100	2.55209	8.40	9.60	-2.71 0	3.93 0	-4.80 0	-6.03 0
0.190357	2.59066	8.20	9.40	-2.60 0	3.80 0	-4.58 0	-5.79 0
0.198108	2.63098	8.00	9.20	-2.48 0	3.66 0	-4.37 0	-5.56 0
0.206399	2.67317	7.80	9.00	-2.37 0	3.53 0	-4.16 0	-5.33 0
0.183021	2.73600	7.60	8.60	-2.29 0	3.23 0	-3.95 0	-4.90 0
0.191234	2.78321	7.40	8.40	-2.19 0	3.10 0	-3.75 0	-4.68 0
0.200076	2.83283	7.20	8.20	-2.08 0	2.98 0	-3.56 0	-4.47 0
0.209616	2.88504	7.00	8.00	-1.98 0	2.86 0	-3.37 0	-4.26 0
0.180029	2.96376	6.80	7.60	-1.90 0	2.58 0	-3.17 0	-3.87 0
0.189315	3.02305	6.60	7.40	-1.80 0	2.47 0	-3.00 0	-3.67 0
0.199416	3.08576	6.40	7.20	-1.70 0	2.35 0	-2.82 0	-3.48 0
0.181781	3.33099	5.80	6.40	-1.44 0	1.89 0	-2.32 0	-2.78 0
0.193212	3.41308	5.60	6.20	-1.35 0	1.78 0	-2.17 0	-2.61 0
0.205864	3.50089	5.40	6.00	-1.26 0	1.68 0	-2.02 0	-2.45 0
0.188846	3.97758	4.60	5.00	-9.43-1	1.19 0	-1.46 0	-1.71 0
0.204744	4.11040	4.40	4.80	-8.65-1	1.10 0	-1.34 0	-1.58 0
0.196032	4.53907	3.90	4.20	-6.90-1	8.48-1	-1.05 0	-1.21 0
0.184454	5.22909	3.30	3.50	-4.99-1	5.89-1	-7.39-1	-8.32-1
0.195871	5.36104	3.20	3.40	-4.68-1	5.56-1	-6.93-1	-7.83-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.208455	5.50164	3.10	3.30	-4.39-1	5.24-1	-6.49-1	-7.36-1
0.181618	6.93939	2.40	2.50	-2.59-1	2.92-1	-3.74-1	-4.08-1
0.198651	7.20751	2.30	2.40	-2.36-1	2.68-1	-3.41-1	-3.74-1
0.185753	9.41203	1.75	1.80	-1.29-1	1.41-1	-1.84-1	-1.96-1
0.198476	9.68448	1.70	1.75	-1.20-1	1.32-1	-1.72-1	-1.84-1
0.21	0.24						
0.210753	1.03020	66.00	89.00	9.17 1	2.17 2	-6.97 2	-7.91 2
0.219586	1.03142	66.00	90.00	1.04 2	2.31 2	-7.27 2	-8.26 2
0.211998	1.03187	65.00	88.00	8.08 1	2.06 2	-6.38 2	-7.31 2
0.220840	1.03303	65.00	89.00	9.15 1	2.18 2	-6.63 2	-7.61 2
0.213347	1.03367	64.00	87.00	7.13 1	1.96 2	-5.87 2	-6.80 2
0.229683	1.03431	65.00	90.00	1.03 2	2.32 2	-6.91 2	-7.93 2
0.222201	1.03480	64.00	88.00	8.09 1	2.07 2	-6.09 2	-7.06 2
0.214803	1.03562	63.00	86.00	6.32 1	1.87 2	-5.42 2	-6.34 2
0.231053	1.03602	64.00	89.00	9.12 1	2.19 2	-6.32 2	-7.33 2
0.223672	1.03671	63.00	87.00	7.18 1	1.97 2	-5.61 2	-6.57 2
0.239908	1.03736	64.00	90.00	1.02 2	2.32 2	-6.57 2	-7.63 2
0.216370	1.03771	62.00	85.00	5.60 1	1.79 2	-5.02 2	-5.94 2
0.232537	1.03789	63.00	88.00	8.10 1	2.08 2	-5.81 2	-6.82 2
0.225257	1.03875	62.00	86.00	6.38 1	1.88 2	-5.19 2	-6.15 2
0.234138	1.03990	62.00	87.00	7.21 1	1.98 2	-5.36 2	-6.37 2
0.218051	1.03996	61.00	84.00	4.98 1	1.72 2	-4.67 2	-5.58 2
0.226961	1.04096	61.00	85.00	5.69 1	1.80 2	-4.81 2	-5.77 2
0.210895	1.04151	60.00	82.00	3.82 1	1.58 2	-4.24 2	-5.10 2
0.235860	1.04206	61.00	86.00	6.44 1	1.90 2	-4.97 2	-5.96 2
0.219850	1.04236	60.00	83.00	4.43 1	1.65 2	-4.35 2	-5.26 2
0.228787	1.04332	60.00	84.00	5.08 1	1.73 2	-4.48 2	-5.43 2
0.212784	1.04412	59.00	81.00	3.38 1	1.52 2	-3.96 2	-4.82 2
0.237709	1.04438	60.00	85.00	5.76 1	1.82 2	-4.62 2	-5.61 2
0.221773	1.04494	59.00	82.00	3.94 1	1.60 2	-4.07 2	-4.97 2
0.230739	1.04585	59.00	83.00	4.54 1	1.67 2	-4.18 2	-5.12 2
0.239688	1.04688	59.00	84.00	5.16 1	1.75 2	-4.30 2	-5.29 2
0.214797	1.04689	58.00	80.00	2.99 1	1.47 2	-3.71 2	-4.57 2
0.223823	1.04767	58.00	81.00	3.51 1	1.54 2	-3.81 2	-4.71 2
0.232824	1.04855	58.00	82.00	4.06 1	1.62 2	-3.91 2	-4.85 2
0.216939	1.04984	57.00	79.00	2.64 1	1.43 2	-3.49 2	-4.34 2
0.226007	1.05057	57.00	80.00	3.12 1	1.49 2	-3.57 2	-4.46 2
0.235045	1.05142	57.00	81.00	3.63 1	1.56 2	-3.66 2	-4.60 2
0.210066	1.05237	56.00	77.00	1.89 1	1.33 2	-3.20 2	-4.01 2
0.219216	1.05296	56.00	78.00	2.33 1	1.39 2	-3.28 2	-4.12 2
0.228329	1.05366	56.00	79.00	2.78 1	1.45 2	-3.36 2	-4.24 2
0.237410	1.05446	56.00	80.00	3.24 1	1.51 2	-3.44 2	-4.36 2
0.212430	1.05571	55.00	76.00	1.64 1	1.29 2	-3.02 2	-3.82 2
0.221634	1.05626	55.00	77.00	2.04 1	1.35 2	-3.09 2	-3.92 2
0.230797	1.05693	55.00	78.00	2.46 1	1.41 2	-3.16 2	-4.04 2
0.239923	1.05770	55.00	79.00	2.90 1	1.47 2	-3.23 2	-4.15 2
0.214937	1.05926	54.00	75.00	1.41 1	1.26 2	-2.85 2	-3.64 2
0.224199	1.05977	54.00	76.00	1.79 1	1.31 2	-2.91 2	-3.74 2
0.233417	1.06039	54.00	77.00	2.18 1	1.37 2	-2.97 2	-3.84 2
0.217594	1.06300	53.00	74.00	1.21 1	1.23 2	-2.69 2	-3.47 2
0.226920	1.06347	53.00	75.00	1.56 1	1.28 2	-2.74 2	-3.57 2
0.236195	1.06406	53.00	76.00	1.93 1	1.33 2	-2.80 2	-3.67 2
0.210958	1.06662	52.00	72.00	7.04 0	1.15 2	-2.49 2	-3.23 2
0.220409	1.06694	52.00	73.00	1.03 1	1.20 2	-2.54 2	-3.32 2
0.229802	1.06738	52.00	74.00	1.36 1	1.25 2	-2.59 2	-3.41 2
0.239141	1.06793	52.00	75.00	1.70 1	1.30 2	-2.64 2	-3.50 2
0.213862	1.07083	51.00	71.00	5.57 0	1.12 2	-2.35 2	-3.09 2
0.223390	1.07111	51.00	72.00	8.59 0	1.17 2	-2.40 2	-3.17 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.232855	1.07151	51.00	73.00	1.17 1	1.22 2	-2.45 2	-3.26 2
0.216935	1.07527	50.00	70.00	4.25 0	1.09 2	-2.23 2	-2.95 2
0.226546	1.07551	50.00	71.00	7.10 0	1.14 2	-2.27 2	-3.04 2
0.236089	1.07586	50.00	72.00	1.00 1	1.19 2	-2.31 2	-3.12 2
0.210411	1.07986	49.00	68.00	4.47-1	1.02 2	-2.07 2	-2.75 2
0.220188	1.07995	49.00	69.00	3.07 0	1.07 2	-2.11 2	-2.83 2
0.229887	1.08015	49.00	70.00	5.77 0	1.11 2	-2.14 2	-2.91 2
0.239513	1.08046	49.00	71.00	8.54 0	1.16 2	-2.18 2	-2.99 2
0.213756	1.08483	48.00	67.00	-4.69-1	1.00 2	-1.96 2	-2.64 2
0.223631	1.08487	48.00	68.00	2.01 0	1.04 2	-1.99 2	-2.71 2
0.233423	1.08503	48.00	69.00	4.56 0	1.09 2	-2.03 2	-2.78 2
0.227276	1.09006	47.00	67.00	1.07 0	1.02 2	-1.89 2	-2.60 2
0.217295	1.09006	47.00	66.00	-1.28 0	9.80 1	-1.85 2	-2.53 2
0.237167	1.09017	47.00	68.00	3.48 0	1.06 2	-1.92 2	-2.67 2
0.231135	1.09552	46.00	66.00	2.32-1	9.99 1	-1.78 2	-2.49 2
0.221043	1.09557	46.00	65.00	-1.99 0	9.59 1	-1.76 2	-2.42 2
0.210850	1.09575	46.00	64.00	-4.17 0	9.19 1	-1.73 2	-2.36 2
0.235221	1.10128	45.00	65.00	-5.06-1	9.77 1	-1.69 2	-2.39 2
0.225011	1.10137	45.00	64.00	-2.62 0	9.38 1	-1.66 2	-2.32 2
0.214694	1.10160	45.00	63.00	-4.68 0	8.99 1	-1.64 2	-2.26 2
0.239549	1.10734	44.00	64.00	-1.16 0	9.56 1	-1.60 2	-2.29 2
0.229215	1.10748	44.00	63.00	-3.16 0	9.18 1	-1.57 2	-2.23 2
0.218766	1.10776	44.00	62.00	-5.12 0	8.80 1	-1.55 2	-2.17 2
0.233671	1.11392	43.00	62.00	-3.63 0	8.98 1	-1.49 2	-2.14 2
0.223083	1.11425	43.00	61.00	-5.49 0	8.61 1	-1.47 2	-2.08 2
0.212366	1.11472	43.00	60.00	-7.31 0	8.25 1	-1.44 2	-2.02 2
0.238396	1.12070	42.00	61.00	-4.02 0	8.79 1	-1.41 2	-2.05 2
0.227661	1.12108	42.00	60.00	-5.79 0	8.43 1	-1.39 2	-1.99 2
0.216789	1.12161	42.00	59.00	-7.52 0	8.07 1	-1.37 2	-1.94 2
0.232520	1.12828	41.00	59.00	-6.04 0	8.24 1	-1.31 2	-1.91 2
0.221484	1.12886	41.00	58.00	-7.68 0	7.90 1	-1.29 2	-1.86 2
0.210294	1.12960	41.00	57.00	-9.30 0	7.56 1	-1.27 2	-1.80 2
0.237680	1.13587	40.00	58.00	-6.23 0	8.06 1	-1.24 2	-1.83 2
0.226471	1.13651	40.00	57.00	-7.79 0	7.72 1	-1.22 2	-1.78 2
0.215099	1.13732	40.00	56.00	-9.33 0	7.39 1	-1.20 2	-1.73 2
0.231773	1.14458	39.00	56.00	-7.85 0	7.55 1	-1.15 2	-1.70 2
0.220208	1.14545	39.00	55.00	-9.32 0	7.23 1	-1.14 2	-1.65 2
0.237415	1.15310	38.00	55.00	-7.87 0	7.39 1	-1.09 2	-1.63 2
0.225646	1.15403	38.00	54.00	-9.26 0	7.06 1	-1.08 2	-1.58 2
0.213684	1.15514	38.00	53.00	-1.06 1	6.75 1	-1.06 2	-1.53 2
0.231440	1.16309	37.00	53.00	-9.17 0	6.90 1	-1.01 2	-1.52 2
0.219250	1.16428	37.00	52.00	-1.05 1	6.59 1	-1.00 2	-1.47 2
0.237621	1.17267	36.00	52.00	-9.05 0	6.74 1	-9.57 1	-1.45 2
0.225190	1.17393	36.00	51.00	-1.03 1	6.44 1	-9.44 1	-1.41 2
0.212528	1.17541	36.00	50.00	-1.15 1	6.14 1	-9.31 1	-1.36 2
0.231537	1.18414	35.00	50.00	-1.01 1	6.29 1	-8.89 1	-1.34 2
0.218605	1.18570	35.00	49.00	-1.12 1	5.99 1	-8.77 1	-1.30 2
0.238327	1.19496	34.00	49.00	-9.83 0	6.13 1	-8.37 1	-1.29 2
0.225110	1.19661	34.00	48.00	-1.09 1	5.84 1	-8.26 1	-1.24 2
0.211615	1.19850	34.00	47.00	-1.20 1	5.56 1	-8.15 1	-1.20 2
0.232082	1.20816	33.00	47.00	-1.06 1	5.70 1	-7.76 1	-1.19 2
0.218267	1.21015	33.00	46.00	-1.17 1	5.42 1	-7.66 1	-1.14 2
0.239567	1.22042	32.00	46.00	-1.03 1	5.55 1	-7.29 1	-1.13 2
0.225411	1.22252	32.00	45.00	-1.13 1	5.28 1	-7.19 1	-1.09 2
0.210921	1.22490	32.00	44.00	-1.22 1	5.01 1	-7.10 1	-1.05 2
0.233099	1.23565	31.00	44.00	-1.08 1	5.13 1	-6.74 1	-1.04 2
0.218224	1.23817	31.00	43.00	-1.18 1	4.87 1	-6.66 1	-1.00 2
0.226102	1.25228	30.00	42.00	-1.13 1	4.73 1	-6.23 1	-9.53 1
0.210410	1.25525	30.00	41.00	-1.22 1	4.48 1	-6.16 1	-9.15 1
0.234618	1.26731	29.00	41.00	-1.08 1	4.59 1	-5.83 1	-9.06 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.218460	1.27045	29.00	40.00	-1.16 1	4.34 1	-5.75 1	-8.69 1
0.227187	1.28666	28.00	39.00	-1.11 1	4.21 1	-5.37 1	-8.25 1
0.210029	1.29035	28.00	38.00	-1.19 1	3.97 1	-5.30 1	-7.90 1
0.236673	1.30399	27.00	38.00	-1.05 1	4.08 1	-5.00 1	-7.83 1
0.218942	1.30789	27.00	37.00	-1.13 1	3.84 1	-4.93 1	-7.48 1
0.228664	1.32667	26.00	36.00	-1.07 1	3.71 1	-4.58 1	-7.08 1
0.239300	1.34683	25.00	35.00	-1.01 1	3.58 1	-4.25 1	-6.69 1
0.219616	1.35170	25.00	34.00	-1.08 1	3.36 1	-4.19 1	-6.37 1
0.230516	1.37368	24.00	33.00	-1.01 1	3.23 1	-3.88 1	-6.00 1
0.220378	1.40351	23.00	31.00	-1.01 1	2.90 1	-3.53 1	-5.35 1
0.232689	1.42955	22.00	30.00	-9.40 0	2.77 1	-3.24 1	-5.02 1
0.221045	1.46556	21.00	28.00	-9.26 0	2.46 1	-2.93 1	-4.42 1
0.235068	1.49687	20.00	27.00	-8.57 0	2.34 1	-2.67 1	-4.12 1
0.228524	1.51827	19.50	26.00	-8.46 0	2.19 1	-2.53 1	-3.85 1
0.221273	1.54109	19.00	25.00	-8.34 0	2.04 1	-2.39 1	-3.58 1
0.213203	1.56548	18.50	24.00	-8.21 0	1.90 1	-2.26 1	-3.32 1
0.237394	1.57944	18.00	24.00	-7.64 0	1.93 1	-2.16 1	-3.31 1
0.229413	1.60619	17.50	23.00	-7.50 0	1.79 1	-2.03 1	-3.06 1
0.220408	1.63493	17.00	22.00	-7.34 0	1.65 1	-1.91 1	-2.82 1
0.210195	1.66589	16.50	21.00	-7.18 0	1.52 1	-1.80 1	-2.59 1
0.239123	1.68303	16.00	21.00	-6.64 0	1.55 1	-1.71 1	-2.58 1
0.228917	1.71736	15.50	20.00	-6.48 0	1.42 1	-1.60 1	-2.36 1
0.239433	1.74537	15.00	19.50	-6.13 0	1.37 1	-1.50 1	-2.25 1
0.217142	1.75462	15.00	19.00	-6.30 0	1.29 1	-1.49 1	-2.15 1
0.227634	1.78477	14.50	18.50	-5.95 0	1.24 1	-1.40 1	-2.05 1
0.239056	1.81682	14.00	18.00	-5.61 0	1.19 1	-1.31 1	-1.94 1
0.213840	1.82779	14.00	17.50	-5.76 0	1.12 1	-1.30 1	-1.85 1
0.225168	1.86250	13.50	17.00	-5.42 0	1.08 1	-1.22 1	-1.75 1
0.237590	1.89956	13.00	16.50	-5.08 0	1.03 1	-1.13 1	-1.65 1
0.220897	1.95319	12.50	15.50	-4.88 0	9.17 0	-1.04 1	-1.48 1
0.234400	1.99659	12.00	15.00	-4.55 0	8.73 0	-9.67 0	-1.39 1
0.213829	2.06047	11.50	14.00	-4.35 0	7.68 0	-8.87 0	-1.22 1
0.228449	2.11208	11.00	13.50	-4.03 0	7.26 0	-8.15 0	-1.14 1
0.217984	2.25211	10.00	12.00	-3.51 0	5.89 0	-6.76 0	-9.16 0
0.222050	2.31154	9.60	11.50	-3.29 0	5.48 0	-6.25 0	-8.46 0
0.226357	2.37598	9.20	11.00	-3.07 0	5.07 0	-5.75 0	-7.78 0
0.230923	2.44612	8.80	10.50	-2.85 0	4.68 0	-5.28 0	-7.13 0
0.235763	2.52278	8.40	10.00	-2.64 0	4.30 0	-4.82 0	-6.50 0
0.218107	2.57505	8.20	9.60	-2.56 0	3.97 0	-4.59 0	-6.02 0
0.226886	2.61474	8.00	9.40	-2.45 0	3.84 0	-4.38 0	-5.79 0
0.236271	2.65627	7.80	9.20	-2.34 0	3.70 0	-4.17 0	-5.55 0
0.215284	2.71739	7.60	8.80	-2.26 0	3.40 0	-3.96 0	-5.11 0
0.224823	2.76378	7.40	8.60	-2.16 0	3.27 0	-3.76 0	-4.89 0
0.235084	2.81251	7.20	8.40	-2.05 0	3.14 0	-3.57 0	-4.67 0
0.219931	2.94006	6.80	7.80	-1.87 0	2.74 0	-3.18 0	-4.06 0
0.231113	2.99814	6.60	7.60	-1.77 0	2.62 0	-3.00 0	-3.86 0
0.210435	3.15221	6.20	7.00	-1.60 0	2.24 0	-2.65 0	-3.30 0
0.222490	3.22278	6.00	6.80	-1.51 0	2.13 0	-2.49 0	-3.12 0
0.235719	3.29785	5.80	6.60	-1.42 0	2.02 0	-2.33 0	-2.94 0
0.219924	3.59506	5.20	5.80	-1.17 0	1.58 0	-1.87 0	-2.29 0
0.235615	3.69634	5.00	5.60	-1.09 0	1.48 0	-1.73 0	-2.14 0
0.222917	4.25545	4.20	4.60	-7.90-1	1.02 0	-1.22 0	-1.45 0
0.216429	4.72756	3.70	4.00	-6.21-1	7.72-1	-9.38-1	-1.09 0
0.227934	4.82956	3.60	3.90	-5.88-1	7.35-1	-8.87-1	-1.04 0
0.222373	5.65179	3.00	3.20	-4.10-1	4.93-1	-6.05-1	-6.91-1
0.237825	5.81254	2.90	3.10	-3.82-1	4.62-1	-5.63-1	-6.46-1
0.218326	7.50197	2.20	2.30	-2.14-1	2.45-1	-3.09-1	-3.40-1
0.212593	9.97596	1.65	1.70	-1.12-1	1.23-1	-1.60-1	-1.72-1
0.228317	10.2885	1.60	1.65	-1.04-1	1.15-1	-1.49-1	-1.60-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.24	0.27						
0.241401	1.03917	63.00	89.00	9.08 1	2.19 2	-6.02 2	-7.08 2
0.250268	1.04056	63.00	90.00	1.01 2	2.32 2	-6.25 2	-7.35 2
0.243014	1.04114	62.00	88.00	8.09 1	2.09 2	-5.55 2	-6.59 2
0.251891	1.04248	62.00	89.00	9.03 1	2.20 2	-5.74 2	-6.84 2
0.244753	1.04327	61.00	87.00	7.23 1	1.99 2	-5.13 2	-6.17 2
0.260771	1.04394	62.00	90.00	1.00 2	2.32 2	-5.96 2	-7.10 2
0.253642	1.04457	61.00	88.00	8.08 1	2.10 2	-5.30 2	-6.38 2
0.246621	1.04555	60.00	86.00	6.48 1	1.91 2	-4.76 2	-5.79 2
0.262532	1.04597	61.00	89.00	8.97 1	2.21 2	-5.48 2	-6.61 2
0.255526	1.04682	60.00	87.00	7.24 1	2.01 2	-4.91 2	-5.99 2
0.248623	1.04800	59.00	85.00	5.82 1	1.84 2	-4.43 2	-5.45 2
0.264429	1.04818	60.00	88.00	8.05 1	2.11 2	-5.07 2	-6.19 2
0.257548	1.04923	59.00	86.00	6.51 1	1.93 2	-4.56 2	-5.63 2
0.241803	1.04953	58.00	83.00	4.63 1	1.69 2	-4.02 2	-4.99 2
0.266467	1.05055	59.00	87.00	7.25 1	2.02 2	-4.70 2	-5.81 2
0.250765	1.05061	58.00	84.00	5.23 1	1.77 2	-4.13 2	-5.15 2
0.259713	1.05180	58.00	85.00	5.87 1	1.85 2	-4.25 2	-5.31 2
0.244058	1.05236	57.00	82.00	4.16 1	1.63 2	-3.76 2	-4.73 2
0.268653	1.05309	58.00	86.00	6.54 1	1.94 2	-4.37 2	-5.48 2
0.253051	1.05341	57.00	83.00	4.71 1	1.71 2	-3.86 2	-4.87 2
0.262027	1.05455	57.00	84.00	5.29 1	1.79 2	-3.96 2	-5.02 2
0.246461	1.05538	56.00	81.00	3.74 1	1.58 2	-3.52 2	-4.49 2
0.255488	1.05638	56.00	82.00	4.25 1	1.65 2	-3.61 2	-4.62 2
0.264495	1.05749	56.00	83.00	4.78 1	1.73 2	-3.71 2	-4.76 2
0.249017	1.05856	55.00	80.00	3.35 1	1.53 2	-3.31 2	-4.27 2
0.258083	1.05954	55.00	81.00	3.83 1	1.60 2	-3.39 2	-4.39 2
0.267125	1.06061	55.00	82.00	4.33 1	1.67 2	-3.47 2	-4.51 2
0.242593	1.06112	54.00	78.00	2.59 1	1.43 2	-3.04 2	-3.95 2
0.251733	1.06195	54.00	79.00	3.01 1	1.49 2	-3.11 2	-4.06 2
0.260842	1.06289	54.00	80.00	3.45 1	1.55 2	-3.18 2	-4.18 2
0.269923	1.06393	54.00	81.00	3.91 1	1.62 2	-3.26 2	-4.29 2
0.245427	1.06474	53.00	77.00	2.31 1	1.39 2	-2.86 2	-3.77 2
0.254618	1.06554	53.00	78.00	2.71 1	1.45 2	-2.93 2	-3.87 2
0.263773	1.06644	53.00	79.00	3.12 1	1.51 2	-2.99 2	-3.98 2
0.248431	1.06858	52.00	76.00	2.06 1	1.35 2	-2.70 2	-3.60 2
0.257678	1.06934	52.00	77.00	2.43 1	1.41 2	-2.76 2	-3.70 2
0.266884	1.07020	52.00	78.00	2.81 1	1.47 2	-2.81 2	-3.80 2
0.242263	1.07202	51.00	74.00	1.50 1	1.27 2	-2.49 2	-3.35 2
0.251617	1.07264	51.00	75.00	1.83 1	1.32 2	-2.54 2	-3.44 2
0.260922	1.07336	51.00	76.00	2.18 1	1.37 2	-2.60 2	-3.53 2
0.245569	1.07633	50.00	73.00	1.31 1	1.24 2	-2.36 2	-3.20 2
0.254992	1.07692	50.00	74.00	1.62 1	1.29 2	-2.40 2	-3.29 2
0.264362	1.07761	50.00	75.00	1.95 1	1.34 2	-2.45 2	-3.38 2
0.249071	1.08090	49.00	72.00	1.14 1	1.21 2	-2.22 2	-3.07 2
0.258567	1.08144	49.00	73.00	1.44 1	1.26 2	-2.27 2	-3.15 2
0.268006	1.08210	49.00	74.00	1.74 1	1.31 2	-2.31 2	-3.23 2
0.243138	1.08531	48.00	70.00	7.19 0	1.13 2	-2.06 2	-2.86 2
0.252779	1.08570	48.00	71.00	9.89 0	1.18 2	-2.10 2	-2.94 2
0.262354	1.08621	48.00	72.00	1.27 1	1.23 2	-2.14 2	-3.02 2
0.246975	1.09042	47.00	69.00	5.96 0	1.11 2	-1.95 2	-2.74 2
0.256706	1.09077	47.00	70.00	8.52 0	1.15 2	-1.99 2	-2.82 2
0.266365	1.09124	47.00	71.00	1.11 1	1.20 2	-2.02 2	-2.89 2
0.241131	1.09560	46.00	67.00	2.52 0	1.04 2	-1.82 2	-2.56 2
0.251039	1.09579	46.00	68.00	4.86 0	1.08 2	-1.85 2	-2.63 2
0.260865	1.09612	46.00	69.00	7.28 0	1.13 2	-1.88 2	-2.70 2
0.245329	1.10131	45.00	66.00	1.66 0	1.02 2	-1.72 2	-2.45 2
0.255343	1.10147	45.00	67.00	3.88 0	1.06 2	-1.75 2	-2.52 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.265269	1.10175	45.00	68.00	6.16 0	1.10 2	-1.78 2	-2.59 2
0.249777	1.10733	44.00	65.00	8.96-1	9.96 1	-1.62 2	-2.35 2
0.259903	1.10745	44.00	66.00	3.00 0	1.04 2	-1.65 2	-2.42 2
0.269936	1.10770	44.00	67.00	5.16 0	1.08 2	-1.68 2	-2.49 2
0.254490	1.11368	43.00	64.00	2.23-1	9.74 1	-1.54 2	-2.26 2
0.244137	1.11373	43.00	63.00	-1.72 0	9.36 1	-1.51 2	-2.20 2
0.264736	1.11376	43.00	65.00	2.22 0	1.01 2	-1.56 2	-2.32 2
0.259488	1.12037	42.00	63.00	-3.69-1	9.53 1	-1.45 2	-2.17 2
0.269861	1.12041	42.00	64.00	1.52 0	9.92 1	-1.48 2	-2.23 2
0.249003	1.12047	42.00	62.00	-2.22 0	9.16 1	-1.43 2	-2.11 2
0.264792	1.12743	41.00	62.00	-8.86-1	9.33 1	-1.37 2	-2.08 2
0.254165	1.12757	41.00	61.00	-2.64 0	8.96 1	-1.35 2	-2.02 2
0.243410	1.12785	41.00	60.00	-4.36 0	8.60 1	-1.33 2	-1.97 2
0.259646	1.13506	40.00	60.00	-3.00 0	8.77 1	-1.28 2	-1.94 2
0.248735	1.13539	40.00	59.00	-4.63 0	8.41 1	-1.26 2	-1.89 2
0.265471	1.14297	39.00	59.00	-3.29 0	8.58 1	-1.21 2	-1.86 2
0.254394	1.14335	39.00	58.00	-4.84 0	8.23 1	-1.19 2	-1.81 2
0.243165	1.14388	39.00	57.00	-6.36 0	7.89 1	-1.17 2	-1.76 2
0.260414	1.15175	38.00	57.00	-5.01 0	8.05 1	-1.12 2	-1.74 2
0.249000	1.15234	38.00	56.00	-6.45 0	7.71 1	-1.11 2	-1.69 2
0.266825	1.16063	37.00	56.00	-5.12 0	7.87 1	-1.06 2	-1.67 2
0.255216	1.16128	37.00	55.00	-6.50 0	7.54 1	-1.04 2	-1.62 2
0.243425	1.16209	37.00	54.00	-7.85 0	7.22 1	-1.03 2	-1.57 2
0.261842	1.17072	36.00	54.00	-6.50 0	7.37 1	-9.83 1	-1.55 2
0.249834	1.17160	36.00	53.00	-7.79 0	7.05 1	-9.70 1	-1.50 2
0.268916	1.18072	35.00	53.00	-6.47 0	7.20 1	-9.26 1	-1.48 2
0.256678	1.18166	35.00	52.00	-7.69 0	6.89 1	-9.14 1	-1.44 2
0.244223	1.18280	35.00	51.00	-8.89 0	6.59 1	-9.01 1	-1.39 2
0.263995	1.19232	34.00	51.00	-7.56 0	6.73 1	-8.59 1	-1.38 2
0.251283	1.19353	34.00	50.00	-8.70 0	6.43 1	-8.48 1	-1.33 2
0.258846	1.20490	33.00	49.00	-8.49 0	6.27 1	-7.97 1	-1.27 2
0.245602	1.20641	33.00	48.00	-9.55 0	5.98 1	-7.87 1	-1.23 2
0.266959	1.21698	32.00	48.00	-8.24 0	6.12 1	-7.48 1	-1.22 2
0.253410	1.21857	32.00	47.00	-9.26 0	5.83 1	-7.38 1	-1.17 2
0.261804	1.23149	31.00	46.00	-8.95 0	5.68 1	-6.92 1	-1.12 2
0.247618	1.23344	31.00	45.00	-9.90 0	5.40 1	-6.83 1	-1.08 2
0.256294	1.24729	30.00	44.00	-9.52 0	5.26 1	-6.39 1	-1.03 2
0.241388	1.24963	30.00	43.00	-1.04 1	4.99 1	-6.31 1	-9.92 1
0.265662	1.26206	29.00	43.00	-9.12 0	5.11 1	-5.98 1	-9.82 1
0.250343	1.26452	29.00	42.00	-9.97 0	4.85 1	-5.90 1	-9.44 1
0.260040	1.28042	28.00	41.00	-9.51 0	4.71 1	-5.50 1	-8.98 1
0.243846	1.28335	28.00	40.00	-1.03 1	4.46 1	-5.43 1	-8.61 1
0.253868	1.30051	27.00	39.00	-9.80 0	4.32 1	-5.06 1	-8.18 1
0.264783	1.31888	26.00	38.00	-9.29 0	4.18 1	-4.70 1	-7.76 1
0.247012	1.32256	26.00	37.00	-1.00 1	3.94 1	-4.64 1	-7.42 1
0.258313	1.34249	25.00	36.00	-9.44 0	3.81 1	-4.30 1	-7.02 1
0.250973	1.36854	24.00	34.00	-9.50 0	3.45 1	-3.92 1	-6.31 1
0.263829	1.39195	23.00	33.00	-8.90 0	3.32 1	-3.62 1	-5.95 1
0.242532	1.39740	23.00	32.00	-9.49 0	3.10 1	-3.57 1	-5.65 1
0.255832	1.42306	22.00	31.00	-8.86 0	2.98 1	-3.28 1	-5.31 1
0.246390	1.45781	21.00	29.00	-8.74 0	2.65 1	-2.96 1	-4.70 1
0.261710	1.48860	20.00	28.00	-8.09 0	2.53 1	-2.70 1	-4.39 1
0.256561	1.50919	19.50	27.00	-8.00 0	2.38 1	-2.56 1	-4.10 1
0.250854	1.53111	19.00	26.00	-7.89 0	2.22 1	-2.42 1	-3.83 1
0.244499	1.55447	18.50	25.00	-7.77 0	2.08 1	-2.29 1	-3.57 1
0.268730	1.56872	18.00	25.00	-7.22 0	2.11 1	-2.19 1	-3.55 1
0.262665	1.59433	17.50	24.00	-7.09 0	1.96 1	-2.06 1	-3.30 1
0.255807	1.62178	17.00	23.00	-6.96 0	1.82 1	-1.94 1	-3.05 1
0.248017	1.65126	16.50	22.00	-6.81 0	1.68 1	-1.82 1	-2.81 1
0.269538	1.70143	15.50	21.00	-6.13 0	1.57 1	-1.62 1	-2.57 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.260900	1.73675	15.00	20.00	-5.96 0	1.44 1	-1.51 1	-2.36 1
0.250839	1.77507	14.50	19.00	-5.79 0	1.32 1	-1.41 1	-2.14 1
0.263246	1.80664	14.00	18.50	-5.45 0	1.27 1	-1.32 1	-2.04 1
0.251527	1.85095	13.50	17.50	-5.27 0	1.15 1	-1.22 1	-1.84 1
0.265188	1.88739	13.00	17.00	-4.94 0	1.10 1	-1.14 1	-1.74 1
0.251259	1.93923	12.50	16.00	-4.75 0	9.82 0	-1.05 1	-1.56 1
0.266356	1.98180	12.00	15.50	-4.43 0	9.37 0	-9.74 0	-1.47 1
0.249396	2.04332	11.50	14.50	-4.23 0	8.29 0	-8.93 0	-1.30 1
0.266125	2.09378	11.00	14.00	-3.91 0	7.85 0	-8.21 0	-1.22 1
0.244869	2.16803	10.50	13.00	-3.71 0	6.84 0	-7.46 0	-1.06 1
0.263410	2.22892	10.00	12.50	-3.41 0	6.44 0	-6.81 0	-9.86 0
0.243878	2.26885	9.80	12.00	-3.35 0	5.95 0	-6.52 0	-9.15 0
0.249823	2.32963	9.40	11.50	-3.13 0	5.53 0	-6.02 0	-8.44 0
0.256249	2.39559	9.00	11.00	-2.91 0	5.12 0	-5.53 0	-7.77 0
0.263217	2.46746	8.60	10.50	-2.70 0	4.73 0	-5.07 0	-7.12 0
0.244903	2.56021	8.20	9.80	-2.53 0	4.16 0	-4.60 0	-6.25 0
0.254651	2.59932	8.00	9.60	-2.42 0	4.02 0	-4.39 0	-6.01 0
0.265065	2.64024	7.80	9.40	-2.31 0	3.88 0	-4.18 0	-5.78 0
0.246321	2.69977	7.60	9.00	-2.23 0	3.57 0	-3.97 0	-5.32 0
0.257102	2.74540	7.40	8.80	-2.13 0	3.44 0	-3.77 0	-5.10 0
0.268691	2.79332	7.20	8.60	-2.02 0	3.31 0	-3.58 0	-4.88 0
0.246146	2.86377	7.00	8.20	-1.95 0	3.02 0	-3.38 0	-4.46 0
0.258096	2.91778	6.80	8.00	-1.85 0	2.89 0	-3.19 0	-4.25 0
0.243263	3.05955	6.40	7.40	-1.68 0	2.50 0	-2.83 0	-3.67 0
0.256501	3.12460	6.20	7.20	-1.58 0	2.38 0	-2.66 0	-3.48 0
0.250286	3.37791	5.60	6.40	-1.33 0	1.91 0	-2.17 0	-2.77 0
0.266385	3.46349	5.40	6.20	-1.24 0	1.81 0	-2.02 0	-2.61 0
0.253209	3.80559	4.80	5.40	-1.00 0	1.39 0	-1.60 0	-1.99 0
0.243835	4.41456	4.00	4.40	-7.17-1	9.35-1	-1.10 0	-1.32 0
0.268098	4.58996	3.80	4.20	-6.48-1	8.56-1	-9.93-1	-1.21 0
0.240449	4.93735	3.50	3.80	-5.55-1	6.99-1	-8.37-1	-9.85-1
0.254098	5.05144	3.40	3.70	-5.24-1	6.64-1	-7.88-1	-9.32-1
0.269027	5.17243	3.30	3.60	-4.93-1	6.30-1	-7.40-1	-8.81-1
0.255048	5.98509	2.80	3.00	-3.55-1	4.33-1	-5.23-1	-6.03-1
0.241226	7.82693	2.10	2.20	-1.93-1	2.22-1	-2.79-1	-3.09-1
0.268103	8.18753	2.00	2.10	-1.73-1	2.01-1	-2.50-1	-2.78-1
0.245901	10.6246	1.55	1.60	-9.66-2	1.07-1	-1.38-1	-1.49-1
0.265650	10.9870	1.50	1.55	-8.92-2	9.92-2	-1.28-1	-1.38-1

0.27 0.30

0.271426	1.04748	61.00	90.00	9.94 1	2.32 2	-5.68 2	-6.85 2
0.273333	1.04964	60.00	89.00	8.92 1	2.21 2	-5.24 2	-6.40 2
0.282241	1.05121	60.00	90.00	9.84 1	2.33 2	-5.42 2	-6.63 2
0.275384	1.05198	59.00	88.00	8.03 1	2.12 2	-4.85 2	-6.01 2
0.284303	1.05350	59.00	89.00	8.85 1	2.22 2	-5.01 2	-6.21 2
0.277586	1.05448	58.00	87.00	7.24 1	2.03 2	-4.50 2	-5.65 2
0.293226	1.05513	59.00	90.00	9.74 1	2.33 2	-5.18 2	-6.42 2
0.270990	1.05580	57.00	85.00	5.91 1	1.87 2	-4.07 2	-5.17 2
0.286518	1.05596	58.00	88.00	7.99 1	2.12 2	-4.64 2	-5.83 2
0.279944	1.05715	57.00	86.00	6.55 1	1.95 2	-4.19 2	-5.33 2
0.295452	1.05755	58.00	89.00	8.78 1	2.22 2	-4.79 2	-6.02 2
0.288893	1.05861	57.00	87.00	7.23 1	2.04 2	-4.31 2	-5.50 2
0.273486	1.05870	56.00	84.00	5.35 1	1.80 2	-3.80 2	-4.90 2
0.282464	1.06001	56.00	85.00	5.94 1	1.88 2	-3.91 2	-5.04 2
0.297840	1.06016	57.00	88.00	7.95 1	2.13 2	-4.44 2	-5.67 2
0.291434	1.06143	56.00	86.00	6.56 1	1.96 2	-4.02 2	-5.19 2
0.276147	1.06178	55.00	83.00	4.84 1	1.74 2	-3.56 2	-4.64 2
0.285153	1.06306	55.00	84.00	5.39 1	1.82 2	-3.65 2	-4.78 2
0.294147	1.06444	55.00	85.00	5.96 1	1.89 2	-3.75 2	-4.92 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.278980	1.06507	54.00	82.00	4.39 1	1.69 2	-3.34 2	-4.41 2
0.288018	1.06631	54.00	83.00	4.89 1	1.76 2	-3.42 2	-4.54 2
0.272897	1.06744	53.00	80.00	3.54 1	1.57 2	-3.06 2	-4.09 2
0.297040	1.06765	54.00	84.00	5.42 1	1.83 2	-3.51 2	-4.67 2
0.281993	1.06856	53.00	81.00	3.99 1	1.64 2	-3.13 2	-4.20 2
0.291067	1.06976	53.00	82.00	4.45 1	1.70 2	-3.21 2	-4.32 2
0.276055	1.07117	52.00	79.00	3.21 1	1.53 2	-2.88 2	-3.90 2
0.285195	1.07224	52.00	80.00	3.62 1	1.59 2	-2.94 2	-4.01 2
0.294309	1.07342	52.00	81.00	4.05 1	1.65 2	-3.01 2	-4.12 2
0.270184	1.07419	51.00	77.00	2.53 1	1.43 2	-2.65 2	-3.63 2
0.279407	1.07512	51.00	78.00	2.91 1	1.49 2	-2.71 2	-3.72 2
0.288595	1.07616	51.00	79.00	3.29 1	1.55 2	-2.77 2	-3.82 2
0.297753	1.07730	51.00	80.00	3.69 1	1.61 2	-2.83 2	-3.93 2
0.273684	1.07840	50.00	76.00	2.28 1	1.39 2	-2.50 2	-3.47 2
0.282963	1.07930	50.00	77.00	2.63 1	1.45 2	-2.55 2	-3.56 2
0.292203	1.08031	50.00	78.00	2.99 1	1.50 2	-2.60 2	-3.65 2
0.277393	1.08286	49.00	75.00	2.06 1	1.36 2	-2.36 2	-3.32 2
0.286733	1.08373	49.00	76.00	2.38 1	1.41 2	-2.40 2	-3.41 2
0.296030	1.08470	49.00	77.00	2.72 1	1.47 2	-2.45 2	-3.50 2
0.271868	1.08683	48.00	73.00	1.55 1	1.27 2	-2.18 2	-3.10 2
0.281324	1.08756	48.00	74.00	1.85 1	1.32 2	-2.22 2	-3.18 2
0.290729	1.08840	48.00	75.00	2.16 1	1.38 2	-2.27 2	-3.26 2
0.275958	1.09183	47.00	72.00	1.38 1	1.25 2	-2.06 2	-2.97 2
0.285489	1.09253	47.00	73.00	1.66 1	1.29 2	-2.10 2	-3.05 2
0.294965	1.09334	47.00	74.00	1.95 1	1.34 2	-2.14 2	-3.13 2
0.270613	1.09655	46.00	70.00	9.75 0	1.17 2	-1.91 2	-2.77 2
0.280290	1.09710	46.00	71.00	1.23 1	1.22 2	-1.95 2	-2.85 2
0.289902	1.09777	46.00	72.00	1.49 1	1.26 2	-1.98 2	-2.92 2
0.299453	1.09855	46.00	73.00	1.76 1	1.31 2	-2.02 2	-3.00 2
0.275113	1.10216	45.00	69.00	8.50 0	1.15 2	-1.81 2	-2.66 2
0.284881	1.10268	45.00	70.00	1.09 1	1.19 2	-1.84 2	-2.73 2
0.294578	1.10331	45.00	71.00	1.34 1	1.24 2	-1.87 2	-2.80 2
0.279882	1.10806	44.00	68.00	7.37 0	1.12 2	-1.71 2	-2.55 2
0.289745	1.10855	44.00	69.00	9.64 0	1.16 2	-1.74 2	-2.62 2
0.299534	1.10915	44.00	70.00	1.20 1	1.21 2	-1.77 2	-2.69 2
0.274883	1.11397	43.00	66.00	4.26 0	1.05 2	-1.59 2	-2.39 2
0.284936	1.11430	43.00	67.00	6.35 0	1.10 2	-1.61 2	-2.45 2
0.294902	1.11475	43.00	68.00	8.50 0	1.14 2	-1.64 2	-2.52 2
0.280128	1.12058	42.00	65.00	3.46 0	1.03 2	-1.50 2	-2.29 2
0.290295	1.12088	42.00	66.00	5.44 0	1.07 2	-1.52 2	-2.35 2
0.275298	1.12743	41.00	63.00	9.07-1	9.71 1	-1.39 2	-2.14 2
0.285692	1.12756	41.00	64.00	2.74 0	1.01 2	-1.42 2	-2.20 2
0.295981	1.12783	41.00	65.00	4.61 0	1.05 2	-1.44 2	-2.26 2
0.281071	1.13484	40.00	62.00	3.68-1	9.50 1	-1.32 2	-2.06 2
0.270422	1.13488	40.00	61.00	-1.33 0	9.13 1	-1.30 2	-2.00 2
0.291600	1.13494	40.00	63.00	2.10 0	9.88 1	-1.34 2	-2.11 2
0.287204	1.14267	39.00	61.00	-1.02-1	9.30 1	-1.24 2	-1.97 2
0.297876	1.14273	39.00	62.00	1.54 0	9.67 1	-1.26 2	-2.03 2
0.276405	1.14275	39.00	60.00	-1.71 0	8.94 1	-1.22 2	-1.92 2
0.293726	1.15094	38.00	60.00	-5.07-1	9.10 1	-1.17 2	-1.90 2
0.282768	1.15106	38.00	59.00	-2.04 0	8.74 1	-1.16 2	-1.84 2
0.271667	1.15133	38.00	58.00	-3.54 0	8.39 1	-1.14 2	-1.79 2
0.289541	1.15984	37.00	58.00	-2.30 0	8.55 1	-1.09 2	-1.77 2
0.278263	1.16016	37.00	57.00	-3.73 0	8.21 1	-1.07 2	-1.72 2
0.296758	1.16914	36.00	57.00	-2.52 0	8.37 1	-1.03 2	-1.70 2
0.285293	1.16950	36.00	56.00	-3.87 0	8.03 1	-1.01 2	-1.65 2
0.273658	1.17002	36.00	55.00	-5.20 0	7.70 1	-9.97 1	-1.60 2
0.292794	1.17938	35.00	55.00	-3.97 0	7.85 1	-9.52 1	-1.58 2
0.280951	1.17996	35.00	54.00	-5.23 0	7.52 1	-9.39 1	-1.53 2
0.288744	1.19050	34.00	53.00	-5.22 0	7.35 1	-8.83 1	-1.47 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.276478	1.19131	34.00	52.00	-6.40 0	7.04 1	-8.71 1	-1.42 2
0.297084	1.20167	33.00	52.00	-5.18 0	7.18 1	-8.30 1	-1.41 2
0.284572	1.20254	33.00	51.00	-6.30 0	6.87 1	-8.19 1	-1.36 2
0.271830	1.20362	33.00	50.00	-7.40 0	6.57 1	-8.08 1	-1.32 2
0.293249	1.21447	32.00	50.00	-6.17 0	6.71 1	-7.68 1	-1.30 2
0.280233	1.21561	32.00	49.00	-7.21 0	6.41 1	-7.58 1	-1.26 2
0.289259	1.22836	31.00	48.00	-7.00 0	6.25 1	-7.11 1	-1.21 2
0.275678	1.22981	31.00	47.00	-7.98 0	5.96 1	-7.01 1	-1.16 2
0.298974	1.24194	30.00	47.00	-6.77 0	6.09 1	-6.65 1	-1.15 2
0.285065	1.24346	30.00	46.00	-7.70 0	5.81 1	-6.56 1	-1.11 2
0.270845	1.24524	30.00	45.00	-8.61 0	5.53 1	-6.48 1	-1.07 2
0.295191	1.25803	29.00	45.00	-7.39 0	5.66 1	-6.13 1	-1.06 2
0.280603	1.25990	29.00	44.00	-8.26 0	5.38 1	-6.05 1	-1.02 2
0.291158	1.27555	28.00	43.00	-7.90 0	5.23 1	-5.65 1	-9.73 1
0.275801	1.27782	28.00	42.00	-8.71 0	4.97 1	-5.57 1	-9.35 1
0.286799	1.29468	27.00	41.00	-8.29 0	4.82 1	-5.19 1	-8.90 1
0.270565	1.29741	27.00	40.00	-9.05 0	4.57 1	-5.12 1	-8.54 1
0.298761	1.31275	26.00	40.00	-7.86 0	4.68 1	-4.82 1	-8.46 1
0.282020	1.31563	26.00	39.00	-8.57 0	4.43 1	-4.76 1	-8.11 1
0.294522	1.33519	25.00	38.00	-8.09 0	4.29 1	-4.41 1	-7.69 1
0.276705	1.33862	25.00	37.00	-8.77 0	4.04 1	-4.35 1	-7.35 1
0.289766	1.35986	24.00	36.00	-8.24 0	3.91 1	-4.02 1	-6.96 1
0.270704	1.36394	24.00	35.00	-8.87 0	3.68 1	-3.97 1	-6.63 1
0.284338	1.38709	23.00	34.00	-8.31 0	3.54 1	-3.66 1	-6.26 1
0.299396	1.41215	22.00	33.00	-7.75 0	3.41 1	-3.36 1	-5.90 1
0.278042	1.41728	22.00	32.00	-8.30 0	3.19 1	-3.32 1	-5.60 1
0.293820	1.44479	21.00	31.00	-7.71 0	3.06 1	-3.04 1	-5.26 1
0.270615	1.45092	21.00	30.00	-8.23 0	2.86 1	-3.00 1	-4.98 1
0.287121	1.48126	20.00	29.00	-7.61 0	2.73 1	-2.74 1	-4.66 1
0.283239	1.50115	19.50	28.00	-7.53 0	2.57 1	-2.59 1	-4.37 1
0.278928	1.52227	19.00	27.00	-7.44 0	2.41 1	-2.45 1	-4.09 1
0.274119	1.54475	18.50	26.00	-7.34 0	2.26 1	-2.32 1	-3.82 1
0.298393	1.55926	18.00	26.00	-6.80 0	2.29 1	-2.21 1	-3.80 1
0.294046	1.58389	17.50	25.00	-6.69 0	2.14 1	-2.09 1	-3.54 1
0.289105	1.61023	17.00	24.00	-6.57 0	1.99 1	-1.96 1	-3.28 1
0.283465	1.63845	16.50	23.00	-6.43 0	1.85 1	-1.84 1	-3.04 1
0.276995	1.66876	16.00	22.00	-6.29 0	1.71 1	-1.73 1	-2.80 1
0.294659	1.75767	14.50	20.00	-5.47 0	1.47 1	-1.43 1	-2.35 1
0.273161	1.76605	14.50	19.50	-5.63 0	1.39 1	-1.42 1	-2.24 1
0.286485	1.79719	14.00	19.00	-5.30 0	1.34 1	-1.33 1	-2.14 1
0.276779	1.84026	13.50	18.00	-5.12 0	1.22 1	-1.23 1	-1.94 1
0.291586	1.87614	13.00	17.50	-4.80 0	1.17 1	-1.15 1	-1.84 1
0.280202	1.92638	12.50	16.50	-4.62 0	1.05 1	-1.06 1	-1.65 1
0.296763	1.96822	12.00	16.00	-4.30 0	1.00 1	-9.80 0	-1.56 1
0.283098	2.02762	11.50	15.00	-4.11 0	8.91 0	-8.99 0	-1.38 1
0.284878	2.14848	10.50	13.50	-3.61 0	7.42 0	-7.52 0	-1.14 1
0.289332	2.24594	9.80	12.50	-3.25 0	6.50 0	-6.57 0	-9.85 0
0.270698	2.28639	9.60	12.00	-3.19 0	6.01 0	-6.29 0	-9.13 0
0.298502	2.30478	9.40	12.00	-3.03 0	6.06 0	-6.06 0	-9.12 0
0.278638	2.34861	9.20	11.50	-2.97 0	5.59 0	-5.79 0	-8.43 0
0.287320	2.41621	8.80	11.00	-2.76 0	5.18 0	-5.31 0	-7.76 0
0.296855	2.48995	8.40	10.50	-2.56 0	4.78 0	-4.86 0	-7.11 0
0.270799	2.54610	8.20	10.00	-2.50 0	4.35 0	-4.62 0	-6.49 0
0.281462	2.58467	8.00	9.80	-2.39 0	4.20 0	-4.40 0	-6.25 0
0.292847	2.62502	7.80	9.60	-2.28 0	4.06 0	-4.20 0	-6.00 0
0.276210	2.68309	7.60	9.20	-2.20 0	3.75 0	-3.98 0	-5.54 0
0.288158	2.72802	7.40	9.00	-2.10 0	3.61 0	-3.78 0	-5.32 0
0.281174	2.84372	7.00	8.40	-1.92 0	3.18 0	-3.39 0	-4.67 0
0.294648	2.89680	6.80	8.20	-1.82 0	3.06 0	-3.20 0	-4.46 0
0.271037	2.97477	6.60	7.80	-1.75 0	2.77 0	-3.01 0	-4.05 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.285085	3.03500	6.40	7.60	-1.65 0	2.65 0	-2.84 0	-3.84 0
0.270967	3.19363	6.00	7.00	-1.49 0	2.27 0	-2.49 0	-3.29 0
0.286822	3.26705	5.80	6.80	-1.39 0	2.16 0	-2.33 0	-3.11 0
0.284244	3.55520	5.20	6.00	-1.15 0	1.71 0	-1.88 0	-2.44 0
0.273036	3.92384	4.60	5.20	-9.25-1	1.30 0	-1.47 0	-1.85 0
0.295504	4.05230	4.40	5.00	-8.49-1	1.21 0	-1.34 0	-1.71 0
0.296481	4.78442	3.60	4.00	-5.81-1	7.80-1	-8.88-1	-1.09 0
0.285405	5.30098	3.20	3.50	-4.62-1	5.96-1	-6.94-1	-8.31-1
0.274331	6.17083	2.70	2.90	-3.29-1	4.04-1	-4.94-1	-5.61-1
0.296020	6.37138	2.60	2.80	-3.03-1	3.76-1	-4.46-1	-5.21-1
0.299947	8.59010	1.90	2.00	-1.54-1	1.80-1	-2.22-1	-2.49-1
0.287932	11.3790	1.45	1.50	-8.21-2	9.18-2	-1.18-1	-1.28-1
0.30	0.33						
0.304391	1.05924	58.00	90.00	9.62 1	2.33 2	-4.95 2	-6.23 2
0.306790	1.06181	57.00	89.00	8.71 1	2.23 2	-4.58 2	-5.85 2
0.300399	1.06295	56.00	87.00	7.21 1	2.05 2	-4.13 2	-5.35 2
0.315746	1.06356	57.00	90.00	9.51 1	2.33 2	-4.73 2	-6.04 2
0.309363	1.06456	56.00	88.00	7.90 1	2.14 2	-4.25 2	-5.52 2
0.303133	1.06592	55.00	86.00	6.55 1	1.97 2	-3.85 2	-5.06 2
0.318330	1.06627	56.00	89.00	8.63 1	2.23 2	-4.38 2	-5.69 2
0.312115	1.06750	55.00	87.00	7.18 1	2.06 2	-3.96 2	-5.21 2
0.327303	1.06810	56.00	90.00	9.40 1	2.33 2	-4.52 2	-5.87 2
0.306051	1.06909	54.00	85.00	5.97 1	1.91 2	-3.60 2	-4.80 2
0.321097	1.06918	55.00	88.00	7.84 1	2.15 2	-4.07 2	-5.37 2
0.315055	1.07064	54.00	86.00	6.54 1	1.99 2	-3.69 2	-4.94 2
0.300122	1.07107	53.00	83.00	4.94 1	1.77 2	-3.28 2	-4.44 2
0.324055	1.07229	54.00	87.00	7.15 1	2.07 2	-3.80 2	-5.08 2
0.309162	1.07248	53.00	84.00	5.44 1	1.84 2	-3.37 2	-4.56 2
0.318191	1.07399	53.00	85.00	5.97 1	1.92 2	-3.45 2	-4.69 2
0.303400	1.07470	52.00	82.00	4.50 1	1.72 2	-3.08 2	-4.23 2
0.327212	1.07560	53.00	86.00	6.53 1	2.00 2	-3.54 2	-4.82 2
0.312473	1.07607	52.00	83.00	4.97 1	1.79 2	-3.15 2	-4.34 2
0.321531	1.07755	52.00	84.00	5.46 1	1.86 2	-3.23 2	-4.46 2
0.306884	1.07855	51.00	81.00	4.11 1	1.67 2	-2.89 2	-4.03 2
0.315994	1.07990	51.00	82.00	4.54 1	1.73 2	-2.96 2	-4.14 2
0.325085	1.08134	51.00	83.00	4.99 1	1.80 2	-3.03 2	-4.25 2
0.301409	1.08142	50.00	79.00	3.37 1	1.56 2	-2.66 2	-3.75 2
0.310585	1.08263	50.00	80.00	3.75 1	1.62 2	-2.72 2	-3.85 2
0.319735	1.08395	50.00	81.00	4.16 1	1.69 2	-2.78 2	-3.95 2
0.328864	1.08537	50.00	82.00	4.57 1	1.75 2	-2.84 2	-4.06 2
0.305289	1.08578	49.00	78.00	3.07 1	1.52 2	-2.50 2	-3.59 2
0.314514	1.08697	49.00	79.00	3.43 1	1.58 2	-2.56 2	-3.68 2
0.323709	1.08825	49.00	80.00	3.80 1	1.64 2	-2.61 2	-3.78 2
0.300088	1.08934	48.00	76.00	2.47 1	1.43 2	-2.31 2	-3.35 2
0.309404	1.09039	48.00	77.00	2.80 1	1.48 2	-2.36 2	-3.43 2
0.318682	1.09155	48.00	78.00	3.14 1	1.54 2	-2.41 2	-3.52 2
0.327927	1.09281	48.00	79.00	3.49 1	1.60 2	-2.46 2	-3.61 2
0.304389	1.09425	47.00	75.00	2.25 1	1.39 2	-2.18 2	-3.21 2
0.313767	1.09527	47.00	76.00	2.55 1	1.45 2	-2.22 2	-3.29 2
0.323103	1.09640	47.00	77.00	2.87 1	1.50 2	-2.27 2	-3.37 2
0.308949	1.09943	46.00	74.00	2.04 1	1.36 2	-2.06 2	-3.08 2
0.318393	1.10043	46.00	75.00	2.33 1	1.41 2	-2.10 2	-3.15 2
0.327793	1.10153	46.00	76.00	2.62 1	1.46 2	-2.14 2	-3.24 2
0.304210	1.10406	45.00	72.00	1.59 1	1.28 2	-1.90 2	-2.88 2
0.313782	1.10492	45.00	73.00	1.85 1	1.33 2	-1.94 2	-2.95 2
0.323298	1.10588	45.00	74.00	2.12 1	1.38 2	-1.98 2	-3.03 2
0.309252	1.10987	44.00	71.00	1.44 1	1.25 2	-1.80 2	-2.76 2
0.318905	1.11070	44.00	72.00	1.68 1	1.30 2	-1.83 2	-2.83 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.285085	3.03500	6.40	7.60	-1.65 0	2.65 0	-2.84 0	-3.86 0
0.270967	3.19363	6.00	7.00	-1.49 0	2.27 0	-2.49 0	-3.29 0
0.286822	3.26705	5.80	6.80	-1.39 0	2.16 0	-2.33 0	-3.11 0
0.284244	3.55520	5.20	6.00	-1.15 0	1.71 0	-1.88 0	-2.44 0
0.273036	3.92384	4.60	5.20	-9.25-1	1.20 0	-1.47 0	-1.85 0
0.295504	4.05230	4.40	5.00	-8.49-1	1.21 0	-1.34 0	-1.71 0
0.296481	4.78442	3.60	4.00	-5.81-1	7.80-1	-8.88-1	-1.09 0
0.285405	5.30098	3.20	3.50	-4.62-1	5.96-1	-6.94-1	-8.31-1
0.274331	6.17083	2.70	2.90	-3.29-1	4.04-1	-4.84-1	-5.61-1
0.296020	6.37138	2.60	2.80	-3.03-1	3.76-1	-4.46-1	-5.21-1
0.299947	8.59010	1.90	2.00	-1.54-1	1.80-1	-2.22-1	-2.49-1
0.287932	11.3790	1.45	1.50	-8.21-2	9.18-2	-1.18-1	-1.28-1
0.30	0.33						
0.304391	1.05924	58.00	90.00	9.62 1	2.33 2	-4.95 2	-6.23 2
0.306790	1.06181	57.00	89.00	8.71 1	2.23 2	-4.58 2	-5.85 2
0.300399	1.06295	56.00	87.00	7.21 1	2.05 2	-4.13 2	-5.35 2
0.315746	1.06356	57.00	90.00	9.51 1	2.33 2	-4.73 2	-6.04 2
0.309363	1.06456	56.00	88.00	7.90 1	2.14 2	-4.25 2	-5.52 2
0.303133	1.06592	55.00	86.00	6.55 1	1.97 2	-3.85 2	-5.06 2
0.318330	1.06627	56.00	89.00	8.63 1	2.23 2	-4.38 2	-5.69 2
0.312115	1.06750	55.00	87.00	7.18 1	2.06 2	-3.96 2	-5.21 2
0.327303	1.06810	56.00	90.00	9.40 1	2.33 2	-4.52 2	-5.87 2
0.306051	1.06909	54.00	85.00	5.97 1	1.91 2	-3.60 2	-4.80 2
0.321097	1.06918	55.00	88.00	7.84 1	2.15 2	-4.07 2	-5.37 2
0.315055	1.07064	54.00	86.00	6.54 1	1.99 2	-3.69 2	-4.94 2
0.300122	1.07107	53.00	83.00	4.94 1	1.77 2	-3.28 2	-4.44 2
0.324055	1.07229	54.00	87.00	7.15 1	2.07 2	-3.80 2	-5.08 2
0.309162	1.07248	53.00	84.00	5.44 1	1.84 2	-3.37 2	-4.56 2
0.318191	1.07399	53.00	85.00	5.97 1	1.92 2	-3.45 2	-4.69 2
0.303400	1.07470	52.00	82.00	4.50 1	1.72 2	-3.08 2	-4.23 2
0.327212	1.07560	53.00	86.00	6.53 1	2.00 2	-3.54 2	-4.82 2
0.312473	1.07607	52.00	83.00	4.97 1	1.79 2	-3.15 2	-4.34 2
0.321531	1.07755	52.00	84.00	5.46 1	1.86 2	-3.23 2	-4.46 2
0.306884	1.07855	51.00	81.00	4.11 1	1.67 2	-2.89 2	-4.03 2
0.315994	1.07990	51.00	82.00	4.54 1	1.73 2	-2.96 2	-4.14 2
0.325085	1.08134	51.00	83.00	4.99 1	1.80 2	-3.03 2	-4.25 2
0.301409	1.08142	50.00	79.00	3.37 1	1.56 2	-2.66 2	-3.75 2
0.310585	1.08263	50.00	80.00	3.75 1	1.62 2	-2.72 2	-3.85 2
0.319735	1.08395	50.00	81.00	4.16 1	1.69 2	-2.78 2	-3.95 2
0.328864	1.08537	50.00	82.00	4.57 1	1.75 2	-2.84 2	-4.06 2
0.305289	1.08578	49.00	78.00	3.07 1	1.52 2	-2.50 2	-3.59 2
0.314514	1.08697	49.00	79.00	3.43 1	1.58 2	-2.56 2	-3.68 2
0.323709	1.08825	49.00	80.00	3.80 1	1.64 2	-2.61 2	-3.78 2
0.300088	1.08934	48.00	76.00	2.47 1	1.43 2	-2.31 2	-3.35 2
0.309404	1.09039	48.00	77.00	2.80 1	1.48 2	-2.36 2	-3.43 2
0.318682	1.09155	48.00	78.00	3.14 1	1.54 2	-2.41 2	-3.52 2
0.327927	1.09281	48.00	79.00	3.49 1	1.60 2	-2.46 2	-3.61 2
0.304389	1.09425	47.00	75.00	2.25 1	1.39 2	-2.18 2	-3.21 2
0.313767	1.09527	47.00	76.00	2.55 1	1.45 2	-2.22 2	-3.29 2
0.323103	1.09640	47.00	77.00	2.87 1	1.50 2	-2.27 2	-3.37 2
0.308949	1.09943	46.00	74.00	2.04 1	1.36 2	-2.06 2	-3.08 2
0.318393	1.10043	46.00	75.00	2.33 1	1.41 2	-2.10 2	-3.15 2
0.327793	1.10153	46.00	76.00	2.62 1	1.46 2	-2.14 2	-3.24 2
0.304210	1.10406	45.00	72.00	1.59 1	1.28 2	-1.90 2	-2.88 2
0.313782	1.10492	45.00	73.00	1.85 1	1.33 2	-1.94 2	-2.95 2
0.323298	1.10588	45.00	74.00	2.12 1	1.38 2	-1.98 2	-3.03 2
0.309252	1.10987	44.00	71.00	1.44 1	1.25 2	-1.80 2	-2.76 2
0.318905	1.11070	44.00	72.00	1.68 1	1.30 2	-1.83 2	-2.83 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.328499	1.11164	44.00	73.00	1.94 1	1.35 2	-1.86 2	-2.91 2
0.304787	1.11533	43.00	69.00	1.07 1	1.18 2	-1.67 2	-2.58 2
0.314597	1.11602	43.00	70.00	1.30 1	1.23 2	-1.70 2	-2.65 2
0.324338	1.11682	43.00	71.00	1.53 1	1.27 2	-1.73 2	-2.72 2
0.300370	1.12131	42.00	67.00	7.47 0	1.11 2	-1.55 2	-2.42 2
0.310359	1.12185	42.00	68.00	9.54 0	1.16 2	-1.57 2	-2.48 2
0.320267	1.12251	42.00	69.00	1.17 1	1.20 2	-1.60 2	-2.55 2
0.306172	1.12822	41.00	66.00	6.53 0	1.09 2	-1.46 2	-2.32 2
0.316270	1.12874	41.00	67.00	8.50 0	1.13 2	-1.49 2	-2.39 2
0.326282	1.12937	41.00	68.00	1.05 1	1.17 2	-1.51 2	-2.45 2
0.302018	1.13517	40.00	64.00	3.88 0	1.03 2	-1.36 2	-2.17 2
0.312330	1.13553	40.00	65.00	5.70 0	1.07 2	-1.38 2	-2.23 2
0.322545	1.13602	40.00	66.00	7.55 0	1.11 2	-1.40 2	-2.29 2
0.308430	1.14292	39.00	63.00	3.23 0	1.01 2	-1.28 2	-2.09 2
0.318873	1.14325	39.00	64.00	4.94 0	1.04 2	-1.30 2	-2.15 2
0.329211	1.14371	39.00	65.00	6.70 0	1.08 2	-1.32 2	-2.20 2
0.304550	1.15096	38.00	61.00	1.05 0	9.47 1	-1.19 2	-1.95 2
0.315248	1.15113	38.00	62.00	2.65 0	9.84 1	-1.21 2	-2.01 2
0.325828	1.15143	38.00	63.00	4.27 0	1.02 2	-1.23 2	-2.06 2
0.311651	1.15967	37.00	60.00	6.27-1	9.27 1	-1.12 2	-1.87 2
0.300667	1.15968	37.00	59.00	-8.52-1	8.91 1	-1.11 2	-1.82 2
0.322503	1.15980	37.00	61.00	2.14 0	9.63 1	-1.14 2	-1.93 2
0.319217	1.16889	36.00	59.00	2.59-1	9.07 1	-1.06 2	-1.80 2
0.308062	1.16894	36.00	58.00	-1.14 0	8.71 1	-1.04 2	-1.75 2
0.327285	1.17866	35.00	58.00	-5.46-2	8.87 1	-9.94 1	-1.73 2
0.315951	1.17874	35.00	57.00	-1.38 0	8.53 1	-9.80 1	-1.68 2
0.304457	1.17898	35.00	56.00	-2.69 0	8.18 1	-9.66 1	-1.63 2
0.324374	1.18914	34.00	56.00	-1.57 0	8.34 1	-9.21 1	-1.61 2
0.312681	1.18942	34.00	55.00	-2.81 0	8.00 1	-9.08 1	-1.56 2
0.300808	1.18987	34.00	54.00	-4.03 0	7.68 1	-8.96 1	-1.52 2
0.321477	1.20049	33.00	54.00	-2.90 0	7.83 1	-8.53 1	-1.50 2
0.309382	1.20099	33.00	53.00	-4.05 0	7.50 1	-8.41 1	-1.45 2
0.318568	1.21280	32.00	52.00	-4.03 0	7.33 1	-7.89 1	-1.39 2
0.306022	1.21354	32.00	51.00	-5.11 0	7.02 1	-7.79 1	-1.35 2
0.328426	1.22537	31.00	51.00	-3.99 0	7.16 1	-7.40 1	-1.34 2
0.315617	1.22616	31.00	50.00	-5.01 0	6.85 1	-7.30 1	-1.29 2
0.302567	1.22715	31.00	49.00	-6.01 0	6.55 1	-7.20 1	-1.25 2
0.325936	1.23960	30.00	49.00	-4.88 0	6.68 1	-6.83 1	-1.24 2
0.312591	1.24066	30.00	48.00	-5.83 0	6.39 1	-6.74 1	-1.19 2
0.323397	1.25506	29.00	47.00	-5.63 0	6.23 1	-6.30 1	-1.14 2
0.309449	1.25642	29.00	46.00	-6.52 0	5.94 1	-6.21 1	-1.10 2
0.320768	1.27188	28.00	45.00	-6.24 0	5.78 1	-5.79 1	-1.05 2
0.306139	1.27357	28.00	44.00	-7.08 0	5.50 1	-5.72 1	-1.01 2
0.318003	1.29021	27.00	43.00	-6.74 0	5.35 1	-5.32 1	-9.65 1
0.302602	1.29229	27.00	42.00	-7.52 0	5.08 1	-5.26 1	-9.27 1
0.315041	1.31024	26.00	41.00	-7.13 0	4.94 1	-4.88 1	-8.83 1
0.328599	1.32952	25.00	40.00	-6.73 0	4.79 1	-4.52 1	-8.39 1
0.311808	1.33216	25.00	39.00	-7.42 0	4.54 1	-4.47 1	-8.04 1
0.326080	1.35307	24.00	38.00	-6.97 0	4.39 1	-4.13 1	-7.63 1
0.308209	1.35625	24.00	37.00	-7.61 0	4.15 1	-4.07 1	-7.29 1
0.323243	1.37898	23.00	36.00	-7.12 0	4.01 1	-3.76 1	-6.90 1
0.304124	1.38279	23.00	35.00	-7.72 0	3.77 1	-3.71 1	-6.58 1
0.319967	1.40761	22.00	34.00	-7.19 0	3.64 1	-3.41 1	-6.21 1
0.316095	1.43936	21.00	32.00	-7.19 0	3.28 1	-3.08 1	-5.56 1
0.311416	1.47476	20.00	30.00	-7.12 0	2.94 1	-2.77 1	-4.94 1
0.308689	1.49402	19.50	29.00	-7.06 0	2.77 1	-2.62 1	-4.64 1
0.305646	1.51445	19.00	28.00	-6.99 0	2.61 1	-2.48 1	-4.35 1
0.328997	1.52857	18.50	28.00	-6.47 0	2.65 1	-2.38 1	-4.34 1
0.302235	1.53616	18.50	27.00	-6.90 0	2.45 1	-2.35 1	-4.07 1
0.326555	1.55092	18.00	27.00	-6.38 0	2.49 1	-2.24 1	-4.06 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.323757	1.57470	17.50	26.00	-6.29 0	2.33 1	-2.11 1	-3.79 1
0.320537	1.60008	17.00	25.00	-6.18 0	2.18 1	-1.99 1	-3.53 1
0.316816	1.62722	16.50	24.00	-6.06 0	2.03 1	-1.87 1	-3.27 1
0.312498	1.65630	16.00	23.00	-5.93 0	1.88 1	-1.75 1	-3.03 1
0.307468	1.68755	15.50	22.00	-5.78 0	1.74 1	-1.64 1	-2.79 1
0.301580	1.72124	15.00	21.00	-5.63 0	1.60 1	-1.53 1	-2.57 1
0.308842	1.78842	14.00	19.50	-5.15 0	1.42 1	-1.34 1	-2.24 1
0.324284	1.82117	13.50	19.00	-4.83 0	1.37 1	-1.25 1	-2.13 1
0.301006	1.83035	13.50	18.50	-4.98 0	1.29 1	-1.24 1	-2.03 1
0.316879	1.86574	13.00	18.00	-4.66 0	1.24 1	-1.15 1	-1.93 1
0.307843	1.91454	12.50	17.00	-4.48 0	1.12 1	-1.07 1	-1.74 1
0.325755	1.95573	12.00	16.50	-4.17 0	1.07 1	-9.87 0	-1.64 1
0.315105	2.01325	11.50	15.50	-3.99 0	9.56 0	-9.05 0	-1.46 1
0.301745	2.07710	11.00	14.50	-3.80 0	8.47 0	-8.26 0	-1.30 1
0.322615	2.13070	10.50	14.00	-3.50 0	8.03 0	-7.57 0	-1.21 1
0.306013	2.20797	10.00	13.00	-3.31 0	7.00 0	-6.85 0	-1.06 1
0.316182	2.26375	9.60	12.50	-3.09 0	6.56 0	-6.33 0	-9.83 0
0.327351	2.32407	9.20	12.00	-2.88 0	6.12 0	-5.83 0	-9.11 0
0.308563	2.36855	9.00	11.50	-2.82 0	5.64 0	-5.57 0	-8.42 0
0.319651	2.43792	8.60	11.00	-2.62 0	5.23 0	-5.10 0	-7.75 0
0.307376	2.57074	8.00	10.00	-2.36 0	4.39 0	-4.42 0	-6.48 0
0.319678	2.61056	7.80	9.80	-2.25 0	4.25 0	-4.21 0	-6.24 0
0.305023	2.66726	7.60	9.40	-2.17 0	3.93 0	-3.99 0	-5.77 0
0.318068	2.71156	7.40	9.20	-2.07 0	3.79 0	-3.79 0	-5.54 0
0.300992	2.77520	7.20	8.80	-2.00 0	3.48 0	-3.59 0	-5.09 0
0.314804	2.82481	7.00	8.60	-1.89 0	3.35 0	-3.40 0	-4.87 0
0.329702	2.87704	6.80	8.40	-1.79 0	3.22 0	-3.21 0	-4.66 0
0.309226	2.95280	6.60	8.00	-1.72 0	2.93 0	-3.02 0	-4.25 0
0.325036	3.01196	6.40	7.80	-1.63 0	2.81 0	-2.85 0	-4.05 0
0.300375	3.09877	6.20	7.40	-1.56 0	2.53 0	-2.67 0	-3.66 0
0.317063	3.16643	6.00	7.20	-1.46 0	2.42 0	-2.50 0	-3.47 0
0.304256	3.34529	5.60	6.60	-1.30 0	2.05 0	-2.18 0	-2.94 0
0.323495	3.42888	5.40	6.40	-1.22 0	1.94 0	-2.03 0	-2.77 0
0.304139	3.65375	5.00	5.80	-1.07 0	1.61 0	-1.74 0	-2.29 0
0.326404	3.75998	4.80	5.60	-9.87-1	1.51 0	-1.60 0	-2.13 0
0.321118	4.19242	4.20	4.80	-7.74-1	1.12 0	-1.22 0	-1.57 0
0.312392	4.46320	3.90	4.40	-6.75-1	9.44-1	-1.05 0	-1.32 0
0.312523	4.88983	3.50	3.90	-5.49-1	7.43-1	-8.38-1	-1.04 0
0.330000	5.00134	3.40	3.80	-5.17-1	7.07-1	-7.89-1	-9.84-1
0.303428	5.43786	3.10	3.40	-4.33-1	5.63-1	-6.50-1	-7.83-1
0.323331	5.58392	3.00	3.30	-4.05-1	5.31-1	-6.06-1	-7.36-1
0.320542	6.58864	2.50	2.70	-2.79-1	3.49-1	-4.10-1	-4.82-1
0.318125	8.80954	1.85	1.95	-1.45-1	1.70-1	-2.09-1	-2.36-1
0.313201	11.8043	1.40	1.45	-7.53-2	8.46-2	-1.08-1	-1.18-1
0.321409	17.9045	0.98	1.00	-3.00-2	3.23-2	-4.38-2	-4.63-2
0.33	0.36						
0.330082	1.07096	55.00	89.00	8.54 1	2.24 2	-4.19 2	-5.53 2
0.339074	1.07284	55.00	90.00	9.28 1	2.34 2	-4.32 2	-5.71 2
0.333055	1.07403	54.00	88.00	7.79 1	2.16 2	-3.90 2	-5.23 2
0.342059	1.07588	54.00	89.00	8.45 1	2.25 2	-4.01 2	-5.39 2
0.336231	1.07732	53.00	87.00	7.11 1	2.08 2	-3.64 2	-4.96 2
0.351071	1.07783	54.00	90.00	9.16 1	2.34 2	-4.13 2	-5.55 2
0.345251	1.07913	53.00	88.00	7.72 1	2.16 2	-3.74 2	-5.10 2
0.330579	1.07913	52.00	85.00	5.97 1	1.93 2	-3.31 2	-4.58 2
0.339620	1.08081	52.00	86.00	6.50 1	2.01 2	-3.40 2	-4.71 2
0.354275	1.08104	53.00	89.00	8.36 1	2.25 2	-3.84 2	-5.25 2
0.348659	1.08259	52.00	87.00	7.06 1	2.09 2	-3.49 2	-4.84 2
0.334163	1.08289	51.00	84.00	5.46 1	1.87 2	-3.10 2	-4.37 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.357698	1.08447	52.00	88.00	7.65 1	2.17 2	-3.58 2	-4.98 2
0.343230	1.08454	51.00	85.00	5.96 1	1.94 2	-3.18 2	-4.48 2
0.352292	1.08629	51.00	86.00	6.47 1	2.02 2	-3.26 2	-4.61 2
0.337976	1.08688	50.00	83.00	5.01 1	1.82 2	-2.91 2	-4.16 2
0.347074	1.08850	50.00	84.00	5.46 1	1.88 2	-2.98 2	-4.27 2
0.332880	1.08965	49.00	81.00	4.19 1	1.70 2	-2.67 2	-3.88 2
0.356162	1.09022	50.00	85.00	5.94 1	1.96 2	-3.05 2	-4.39 2
0.342029	1.09113	49.00	82.00	4.60 1	1.76 2	-2.73 2	-3.98 2
0.351161	1.09272	49.00	83.00	5.02 1	1.83 2	-2.79 2	-4.08 2
0.337143	1.09417	48.00	80.00	3.85 1	1.66 2	-2.51 2	-3.71 2
0.346335	1.09563	48.00	81.00	4.22 1	1.72 2	-2.56 2	-3.80 2
0.355506	1.09719	48.00	82.00	4.61 1	1.78 2	-2.62 2	-3.90 2
0.332403	1.09763	47.00	78.00	3.20 1	1.56 2	-2.31 2	-3.46 2
0.341669	1.09897	47.00	79.00	3.53 1	1.61 2	-2.36 2	-3.55 2
0.350907	1.10040	47.00	80.00	3.88 1	1.67 2	-2.41 2	-3.64 2
0.337151	1.10273	46.00	77.00	2.93 1	1.52 2	-2.18 2	-3.32 2
0.346472	1.10404	46.00	78.00	3.25 1	1.57 2	-2.22 2	-3.40 2
0.355761	1.10545	46.00	79.00	3.57 1	1.63 2	-2.27 2	-3.49 2
0.332765	1.10696	45.00	75.00	2.40 1	1.43 2	-2.01 2	-3.10 2
0.342187	1.10814	45.00	76.00	2.69 1	1.48 2	-2.05 2	-3.18 2
0.351568	1.10942	45.00	77.00	2.98 1	1.53 2	-2.09 2	-3.26 2
0.338039	1.11269	44.00	74.00	2.20 1	1.40 2	-1.90 2	-2.98 2
0.347529	1.11385	44.00	75.00	2.47 1	1.45 2	-1.93 2	-3.06 2
0.356974	1.11511	44.00	76.00	2.74 1	1.50 2	-1.97 2	-3.13 2
0.334015	1.11774	43.00	72.00	1.77 1	1.32 2	-1.76 2	-2.79 2
0.343632	1.11876	43.00	73.00	2.01 1	1.36 2	-1.79 2	-2.86 2
0.353196	1.11990	43.00	74.00	2.26 1	1.41 2	-1.82 2	-2.93 2
0.330100	1.12329	42.00	70.00	1.39 1	1.24 2	-1.63 2	-2.61 2
0.339865	1.12418	42.00	71.00	1.61 1	1.29 2	-1.66 2	-2.68 2
0.349566	1.12518	42.00	72.00	1.84 1	1.33 2	-1.69 2	-2.75 2
0.359209	1.12629	42.00	73.00	2.08 1	1.38 2	-1.72 2	-2.82 2
0.336215	1.13012	41.00	69.00	1.26 1	1.22 2	-1.54 2	-2.51 2
0.346074	1.13099	41.00	70.00	1.47 1	1.26 2	-1.56 2	-2.58 2
0.355864	1.13197	41.00	71.00	1.69 1	1.31 2	-1.59 2	-2.64 2
0.332668	1.13663	40.00	67.00	9.46 0	1.15 2	-1.42 2	-2.35 2
0.342707	1.13735	40.00	68.00	1.14 1	1.19 2	-1.45 2	-2.42 2
0.352666	1.13820	40.00	69.00	1.34 1	1.23 2	-1.47 2	-2.48 2
0.339452	1.14430	39.00	66.00	8.50 0	1.12 2	-1.34 2	-2.26 2
0.349603	1.14500	39.00	67.00	1.03 1	1.17 2	-1.36 2	-2.32 2
0.359668	1.14582	39.00	68.00	1.22 1	1.21 2	-1.39 2	-2.38 2
0.336297	1.15186	38.00	64.00	5.93 0	1.06 2	-1.25 2	-2.12 2
0.346664	1.15242	38.00	65.00	7.63 0	1.10 2	-1.27 2	-2.18 2
0.356933	1.15310	38.00	66.00	9.37 0	1.14 2	-1.29 2	-2.24 2
0.333228	1.16007	37.00	62.00	3.67 0	1.00 2	-1.16 2	-1.98 2
0.343837	1.16048	37.00	63.00	5.25 0	1.04 2	-1.17 2	-2.04 2
0.354336	1.16101	37.00	64.00	6.85 0	1.08 2	-1.19 2	-2.09 2
0.330230	1.16899	36.00	60.00	1.69 0	9.43 1	-1.07 2	-1.85 2
0.341110	1.16923	36.00	61.00	3.14 0	9.80 1	-1.09 2	-1.91 2
0.351866	1.16961	36.00	62.00	4.63 0	1.02 2	-1.10 2	-1.96 2
0.338470	1.17873	35.00	59.00	1.30 0	9.23 1	-1.01 2	-1.78 2
0.349514	1.17894	35.00	60.00	2.68 0	9.59 1	-1.02 2	-1.83 2
0.335900	1.18902	34.00	57.00	-3.17-1	8.68 1	-9.34 1	-1.66 2
0.347266	1.18906	34.00	58.00	9.63-1	9.03 1	-9.48 1	-1.71 2
0.358484	1.18925	34.00	59.00	2.27 0	9.39 1	-9.62 1	-1.76 2
0.345110	1.20002	33.00	56.00	-5.33-1	8.49 1	-8.77 1	-1.60 2
0.356669	1.20003	33.00	57.00	6.78-1	8.84 1	-8.90 1	-1.64 2
0.333383	1.20017	33.00	55.00	-1.72 0	8.16 1	-8.65 1	-1.55 2
0.354971	1.21172	32.00	55.00	-7.06-1	8.31 1	-8.23 1	-1.53 2
0.343030	1.21190	32.00	54.00	-1.83 0	7.97 1	-8.12 1	-1.48 2
0.330899	1.21226	32.00	53.00	-2.94 0	7.65 1	-8.00 1	-1.44 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.353377	1.22439	31.00	53.00	-1.91 0	7.79 1	-7.60 1	-1.42 2
0.341008	1.22478	31.00	52.00	-2.96 0	7.47 1	-7.50 1	-1.38 2
0.351873	1.23813	30.00	51.00	-2.94 0	7.30 1	-7.02 1	-1.32 2
0.339025	1.23876	30.00	50.00	-3.92 0	6.99 1	-6.92 1	-1.28 2
0.350440	1.25306	29.00	49.00	-3.81 0	6.82 1	-6.47 1	-1.22 2
0.337054	1.25395	29.00	48.00	-4.73 0	6.52 1	-6.38 1	-1.18 2
0.349059	1.26927	28.00	47.00	-4.55 0	6.36 1	-5.95 1	-1.13 2
0.335068	1.27045	28.00	46.00	-5.40 0	6.07 1	-5.87 1	-1.09 2
0.347703	1.28693	27.00	45.00	-5.16 0	5.91 1	-5.47 1	-1.04 2
0.333028	1.28843	27.00	44.00	-5.96 0	5.63 1	-5.39 1	-1.00 2
0.346340	1.30618	26.00	43.00	-5.65 0	5.47 1	-5.01 1	-9.57 1
0.330891	1.30805	26.00	42.00	-6.39 0	5.20 1	-4.94 1	-9.19 1
0.344930	1.32723	25.00	41.00	-6.04 0	5.05 1	-4.58 1	-8.75 1
0.343421	1.35029	24.00	39.00	-6.32 0	4.65 1	-4.18 1	-7.98 1
0.359678	1.37273	23.00	38.00	-5.91 0	4.50 1	-3.85 1	-7.57 1
0.341745	1.37564	23.00	37.00	-6.52 0	4.25 1	-3.80 1	-7.23 1
0.359001	1.40009	22.00	36.00	-6.07 0	4.11 1	-3.49 1	-6.85 1
0.339816	1.40360	22.00	35.00	-6.63 0	3.87 1	-3.45 1	-6.53 1
0.358161	1.43035	21.00	34.00	-6.14 0	3.73 1	-3.16 1	-6.17 1
0.337518	1.43457	21.00	33.00	-6.67 0	3.50 1	-3.12 1	-5.86 1
0.357049	1.46396	20.00	32.00	-6.15 0	3.37 1	-2.84 1	-5.52 1
0.334696	1.46902	20.00	31.00	-6.63 0	3.15 1	-2.81 1	-5.22 1
0.356347	1.48218	19.50	31.00	-6.12 0	3.19 1	-2.69 1	-5.21 1
0.333025	1.48773	19.50	30.00	-6.59 0	2.98 1	-2.66 1	-4.92 1
0.355518	1.50147	19.00	30.00	-6.08 0	3.02 1	-2.55 1	-4.90 1
0.331138	1.50755	19.00	29.00	-6.54 0	2.81 1	-2.51 1	-4.62 1
0.354536	1.52190	18.50	29.00	-6.03 0	2.85 1	-2.41 1	-4.61 1
0.353366	1.54358	18.00	28.00	-5.96 0	2.69 1	-2.27 1	-4.32 1
0.351970	1.56663	17.50	27.00	-5.88 0	2.52 1	-2.14 1	-4.04 1
0.350301	1.59118	17.00	26.00	-5.79 0	2.36 1	-2.01 1	-3.78 1
0.348304	1.61738	16.50	25.00	-5.68 0	2.21 1	-1.89 1	-3.51 1
0.345909	1.64540	16.00	24.00	-5.57 0	2.06 1	-1.77 1	-3.26 1
0.343034	1.67545	15.50	23.00	-5.44 0	1.91 1	-1.66 1	-3.02 1
0.339576	1.70776	15.00	22.00	-5.30 0	1.77 1	-1.55 1	-2.78 1
0.335410	1.74259	14.50	21.00	-5.15 0	1.63 1	-1.45 1	-2.56 1
0.330378	1.78027	14.00	20.00	-5.00 0	1.50 1	-1.35 1	-2.34 1
0.346683	1.81265	13.50	19.50	-4.69 0	1.44 1	-1.26 1	-2.23 1
0.341150	1.85612	13.00	18.50	-4.52 0	1.31 1	-1.16 1	-2.03 1
0.359630	1.89352	12.50	18.00	-4.22 0	1.26 1	-1.08 1	-1.92 1
0.334288	1.90361	12.50	17.50	-4.35 0	1.19 1	-1.07 1	-1.83 1
0.353449	1.94424	12.00	17.00	-4.05 0	1.14 1	-9.94 0	-1.73 1
0.345569	2.00006	11.50	16.00	-3.87 0	1.02 1	-9.11 0	-1.55 1
0.335506	2.06186	11.00	15.00	-3.69 0	9.10 0	-8.32 0	-1.38 1
0.358303	2.11451	10.50	14.50	-3.39 0	8.65 0	-7.62 0	-1.29 1
0.346094	2.18900	10.00	13.50	-3.20 0	7.59 0	-6.90 0	-1.13 1
0.331966	2.22524	9.80	13.00	-3.15 0	7.07 0	-6.61 0	-1.06 1
0.358851	2.24332	9.60	13.00	-3.00 0	7.13 0	-6.38 0	-1.06 1
0.344020	2.28242	9.40	12.50	-2.94 0	6.62 0	-6.10 0	-9.82 0
0.357314	2.34432	9.00	12.00	-2.73 0	6.18 0	-5.61 0	-9.10 0
0.339672	2.38951	8.80	11.50	-2.68 0	5.70 0	-5.35 0	-8.41 0
0.353332	2.46080	8.40	11.00	-2.47 0	5.28 0	-4.89 0	-7.74 0
0.331933	2.51369	8.20	10.50	-2.42 0	4.83 0	-4.65 0	-7.10 0
0.345612	2.59681	7.80	10.00	-2.22 0	4.44 0	-4.22 0	-6.47 0
0.359678	2.63799	7.60	9.80	-2.11 0	4.30 0	-4.02 0	-6.23 0
0.332826	2.65225	7.60	9.60	-2.14 0	4.11 0	-4.00 0	-6.00 0
0.346904	2.69595	7.40	9.40	-2.04 0	3.97 0	-3.80 0	-5.76 0
0.332070	2.75805	7.20	9.00	-1.97 0	3.66 0	-3.60 0	-5.31 0
0.347129	2.80694	7.00	8.80	-1.87 0	3.52 0	-3.41 0	-5.09 0
0.345806	2.93213	6.60	8.20	-1.70 0	3.09 0	-3.03 0	-4.45 0
0.342227	3.07459	6.20	7.60	-1.53 0	2.69 0	-2.68 0	-3.85 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.335332	3.23835	5.80	7.00	-1.37 0	2.30 0	-2.34 0	-3.29 0
0.355396	3.31498	5.60	6.80	-1.28 0	2.19 0	-2.19 0	-3.11 0
0.344805	3.51841	5.20	6.20	-1.13 0	1.84 0	-1.88 0	-2.60 0
0.351443	3.87487	4.60	5.40	-9.08-1	1.41 0	-1.47 0	-1.99 0
0.350514	4.34591	4.00	4.60	-7.03-1	1.04 0	-1.11 0	-1.45 0
0.344011	4.64416	3.70	4.20	-6.07-1	8.65-1	-9.41-1	-1.21 0
0.349091	5.11953	3.30	3.70	-4.87-1	6.72-1	-7.42-1	-9.32-1
0.345390	5.74016	2.90	3.20	-3.77-1	4.99-1	-5.64-1	-6.90-1
0.348420	6.82488	2.40	2.60	-2.55-1	3.22-1	-3.75-1	-4.44-1
0.338069	9.04261	1.80	1.90	-1.36-1	1.61-1	-1.96-1	-2.22-1
0.342012	12.2673	1.35	1.40	-6.88-2	7.77-2	-9.90-2	-1.08-1
0.339936	18.3610	0.96	0.98	-2.83-2	3.06-2	-4.15-2	-4.39-2
0.36	0.40						
0.363307	1.08306	53.00	90.00	9.04 1	2.34 2	-3.95 2	-5.41 2
0.366743	1.08645	52.00	89.00	8.26 1	2.26 2	-3.68 2	-5.12 2
0.361352	1.08814	51.00	87.00	7.01 1	2.10 2	-3.34 2	-4.73 2
0.375797	1.08854	52.00	90.00	8.91 1	2.35 2	-3.78 2	-5.27 2
0.370413	1.09009	51.00	88.00	7.57 1	2.18 2	-3.43 2	-4.86 2
0.365246	1.09204	50.00	86.00	6.43 1	2.03 2	-3.12 2	-4.51 2
0.379480	1.09214	51.00	89.00	8.16 1	2.26 2	-3.52 2	-5.00 2
0.374327	1.09397	50.00	87.00	6.95 1	2.11 2	-3.20 2	-4.63 2
0.388556	1.09430	51.00	90.00	8.78 1	2.35 2	-3.62 2	-5.14 2
0.360281	1.09441	49.00	84.00	5.46 1	1.90 2	-2.86 2	-4.19 2
0.383411	1.09598	50.00	88.00	7.49 1	2.18 2	-3.28 2	-4.75 2
0.369392	1.09620	49.00	85.00	5.91 1	1.97 2	-2.92 2	-4.30 2
0.378498	1.09810	49.00	86.00	6.39 1	2.04 2	-2.99 2	-4.41 2
0.392501	1.09810	50.00	89.00	8.05 1	2.27 2	-3.37 2	-4.88 2
0.364661	1.09885	48.00	83.00	5.02 1	1.84 2	-2.68 2	-4.00 2
0.387602	1.10009	49.00	87.00	6.89 1	2.11 2	-3.07 2	-4.53 2
0.373803	1.10062	48.00	84.00	5.44 1	1.91 2	-2.74 2	-4.10 2
0.360121	1.10194	47.00	81.00	4.25 1	1.73 2	-2.46 2	-3.73 2
0.396710	1.10218	49.00	88.00	7.40 1	2.19 2	-3.15 2	-4.65 2
0.382937	1.10248	48.00	85.00	5.88 1	1.98 2	-2.80 2	-4.21 2
0.369316	1.10358	47.00	82.00	4.62 1	1.79 2	-2.51 2	-3.83 2
0.392067	1.10445	48.00	86.00	6.34 1	2.05 2	-2.87 2	-4.32 2
0.378494	1.10531	47.00	83.00	5.01 1	1.86 2	-2.57 2	-3.92 2
0.365023	1.10696	46.00	80.00	3.91 1	1.69 2	-2.31 2	-3.58 2
0.387660	1.10715	47.00	84.00	5.42 1	1.92 2	-2.63 2	-4.02 2
0.374260	1.10858	46.00	81.00	4.26 1	1.75 2	-2.36 2	-3.67 2
0.396819	1.10909	47.00	85.00	5.84 1	1.99 2	-2.69 2	-4.13 2
0.383479	1.11029	46.00	82.00	4.62 1	1.81 2	-2.41 2	-3.76 2
0.360913	1.11081	45.00	78.00	3.29 1	1.59 2	-2.13 2	-3.34 2
0.392682	1.11211	46.00	83.00	5.00 1	1.87 2	-2.46 2	-3.85 2
0.370226	1.11230	45.00	79.00	3.60 1	1.64 2	-2.17 2	-3.43 2
0.379512	1.11389	45.00	80.00	3.93 1	1.70 2	-2.22 2	-3.51 2
0.388774	1.11559	45.00	81.00	4.27 1	1.76 2	-2.27 2	-3.60 2
0.366379	1.11647	44.00	77.00	3.03 1	1.55 2	-2.01 2	-3.21 2
0.398018	1.11738	45.00	82.00	4.62 1	1.82 2	-2.31 2	-3.69 2
0.375749	1.11794	44.00	78.00	3.32 1	1.60 2	-2.05 2	-3.29 2
0.385088	1.11951	44.00	79.00	3.63 1	1.66 2	-2.09 2	-3.37 2
0.362711	1.12114	43.00	75.00	2.52 1	1.46 2	-1.85 2	-3.01 2
0.394400	1.12118	44.00	80.00	3.94 1	1.72 2	-2.13 2	-3.45 2
0.372181	1.12248	43.00	76.00	2.79 1	1.51 2	-1.89 2	-3.08 2
0.381613	1.12392	43.00	77.00	3.07 1	1.57 2	-1.92 2	-3.16 2
0.391009	1.12548	43.00	78.00	3.35 1	1.62 2	-1.96 2	-3.24 2
0.368799	1.12751	42.00	74.00	2.32 1	1.43 2	-1.75 2	-2.89 2
0.378340	1.12884	42.00	75.00	2.57 1	1.48 2	-1.78 2	-2.96 2
0.387837	1.13027	42.00	76.00	2.83 1	1.53 2	-1.81 2	-3.04 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.397296	1.13180	42.00	77.00	3.10 1	1.58 2	-1.84 2	-3.11 2
0.365592	1.13306	41.00	72.00	1.91 1	1.35 2	-1.62 2	-2.71 2
0.375262	1.13426	41.00	73.00	2.14 1	1.40 2	-1.64 2	-2.78 2
0.384878	1.13557	41.00	74.00	2.37 1	1.45 2	-1.67 2	-2.85 2
0.394448	1.13698	41.00	75.00	2.62 1	1.50 2	-1.70 2	-2.92 2
0.362551	1.13916	40.00	70.00	1.54 1	1.28 2	-1.50 2	-2.54 2
0.372369	1.14023	40.00	71.00	1.75 1	1.32 2	-1.52 2	-2.61 2
0.382125	1.14142	40.00	72.00	1.97 1	1.37 2	-1.55 2	-2.67 2
0.391823	1.14271	40.00	73.00	2.19 1	1.42 2	-1.58 2	-2.74 2
0.369656	1.14677	39.00	69.00	1.41 1	1.25 2	-1.41 2	-2.45 2
0.379570	1.14782	39.00	70.00	1.61 1	1.29 2	-1.43 2	-2.51 2
0.389417	1.14899	39.00	71.00	1.81 1	1.34 2	-1.46 2	-2.57 2
0.399203	1.15027	39.00	72.00	2.02 1	1.38 2	-1.48 2	-2.64 2
0.367112	1.15391	38.00	67.00	1.11 1	1.18 2	-1.31 2	-2.29 2
0.377208	1.15483	38.00	68.00	1.30 1	1.22 2	-1.33 2	-2.35 2
0.387225	1.15587	38.00	69.00	1.48 1	1.27 2	-1.35 2	-2.42 2
0.397170	1.15702	38.00	70.00	1.67 1	1.31 2	-1.37 2	-2.48 2
0.364732	1.16168	37.00	65.00	8.49 0	1.12 2	-1.21 2	-2.15 2
0.375032	1.16247	37.00	66.00	1.02 1	1.16 2	-1.23 2	-2.21 2
0.385242	1.16338	37.00	67.00	1.19 1	1.20 2	-1.25 2	-2.27 2
0.395369	1.16440	37.00	68.00	1.36 1	1.24 2	-1.27 2	-2.33 2
0.362506	1.17013	36.00	63.00	6.15 0	1.06 2	-1.12 2	-2.01 2
0.373036	1.17077	36.00	64.00	7.69 0	1.09 2	-1.14 2	-2.07 2
0.383464	1.17154	36.00	65.00	9.27 0	1.13 2	-1.16 2	-2.13 2
0.393797	1.17243	36.00	66.00	1.09 1	1.17 2	-1.17 2	-2.18 2
0.360426	1.17930	35.00	61.00	4.08 0	9.96 1	-1.04 2	-1.88 2
0.371215	1.17979	35.00	62.00	5.51 0	1.03 2	-1.05 2	-1.94 2
0.381887	1.18042	35.00	63.00	6.97 0	1.07 2	-1.07 2	-1.99 2
0.392451	1.18117	35.00	64.00	8.47 0	1.11 2	-1.09 2	-2.05 2
0.369562	1.18958	34.00	60.00	3.59 0	9.75 1	-9.76 1	-1.81 2
0.380509	1.19006	34.00	61.00	4.95 0	1.01 2	-9.90 1	-1.86 2
0.391332	1.19067	34.00	62.00	6.33 0	1.05 2	-1.01 2	-1.92 2
0.368071	1.20019	33.00	58.00	1.91 0	9.19 1	-9.03 1	-1.69 2
0.379325	1.20051	33.00	59.00	3.17 0	9.54 1	-9.16 1	-1.74 2
0.390439	1.20096	33.00	60.00	4.44 0	9.91 1	-9.29 1	-1.79 2
0.366735	1.21170	32.00	56.00	4.39-1	8.65 1	-8.35 1	-1.58 2
0.378332	1.21184	32.00	57.00	1.60 0	8.99 1	-8.47 1	-1.63 2
0.389772	1.21213	32.00	58.00	2.79 0	9.34 1	-8.59 1	-1.68 2
0.377527	1.22412	31.00	55.00	2.43-1	8.46 1	-7.82 1	-1.52 2
0.365546	1.22417	31.00	54.00	-8.40-1	8.12 1	-7.71 1	-1.47 2
0.389330	1.22424	31.00	56.00	1.34 0	8.80 1	-7.93 1	-1.56 2
0.389116	1.23737	30.00	54.00	8.55-2	8.27 1	-7.31 1	-1.46 2
0.376905	1.23744	30.00	53.00	-9.37-1	7.94 1	-7.21 1	-1.41 2
0.364495	1.23769	30.00	52.00	-1.94 0	7.62 1	-7.11 1	-1.37 2
0.389129	1.25162	29.00	52.00	-1.00 0	7.76 1	-6.74 1	-1.35 2
0.376462	1.25190	29.00	51.00	-1.95 0	7.44 1	-6.64 1	-1.31 2
0.363571	1.25238	29.00	50.00	-2.89 0	7.13 1	-6.55 1	-1.27 2
0.389371	1.26710	28.00	50.00	-1.93 0	7.27 1	-6.20 1	-1.26 2
0.376193	1.26761	28.00	49.00	-2.82 0	6.96 1	-6.11 1	-1.21 2
0.362761	1.26833	28.00	48.00	-3.69 0	6.65 1	-6.03 1	-1.17 2
0.389842	1.28393	27.00	48.00	-2.72 0	6.79 1	-5.69 1	-1.16 2
0.376090	1.28469	27.00	47.00	-3.54 0	6.49 1	-5.61 1	-1.12 2
0.362050	1.28569	27.00	46.00	-4.36 0	6.20 1	-5.54 1	-1.08 2
0.390542	1.30225	26.00	46.00	-3.38 0	6.33 1	-5.21 1	-1.07 2
0.376142	1.30330	26.00	45.00	-4.15 0	6.04 1	-5.14 1	-1.03 2
0.361416	1.30460	26.00	44.00	-4.90 0	5.75 1	-5.08 1	-9.85 1
0.391470	1.32224	25.00	44.00	-3.92 0	5.88 1	-4.77 1	-9.87 1
0.376338	1.32361	25.00	43.00	-4.63 0	5.60 1	-4.70 1	-9.49 1
0.360834	1.32527	25.00	42.00	-5.34 0	5.32 1	-4.64 1	-9.12 1
0.392623	1.34410	24.00	42.00	-4.35 0	5.44 1	-4.35 1	-9.05 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.376659	1.34583	24.00	41.00	-5.01 0	5.17 1	-4.29 1	-8.68 1
0.360269	1.34789	24.00	40.00	-5.67 0	4.90 1	-4.24 1	-8.33 1
0.393996	1.36807	23.00	40.00	-4.68 0	5.02 1	-3.96 1	-8.26 1
0.377082	1.37021	23.00	39.00	-5.30 0	4.76 1	-3.90 1	-7.91 1
0.395576	1.39441	22.00	38.00	-4.92 0	4.61 1	-3.59 1	-7.52 1
0.377573	1.39704	22.00	37.00	-5.50 0	4.36 1	-3.54 1	-7.18 1
0.397346	1.42347	21.00	36.00	-5.08 0	4.21 1	-3.24 1	-6.80 1
0.378085	1.42667	21.00	35.00	-5.61 0	3.97 1	-3.20 1	-6.48 1
0.399279	1.45566	20.00	34.00	-5.16 0	3.83 1	-2.92 1	-6.12 1
0.378553	1.45952	20.00	33.00	-5.65 0	3.60 1	-2.88 1	-5.82 1
0.378744	1.47732	19.50	32.00	-5.65 0	3.41 1	-2.73 1	-5.50 1
0.378887	1.49613	19.00	31.00	-5.63 0	3.24 1	-2.58 1	-5.19 1
0.378964	1.51604	18.50	30.00	-5.59 0	3.06 1	-2.44 1	-4.89 1
0.378956	1.53714	18.00	29.00	-5.54 0	2.89 1	-2.30 1	-4.59 1
0.378835	1.55954	17.50	28.00	-5.48 0	2.72 1	-2.17 1	-4.31 1
0.378572	1.58338	17.00	27.00	-5.40 0	2.56 1	-2.04 1	-4.03 1
0.378129	1.60877	16.50	26.00	-5.31 0	2.40 1	-1.92 1	-3.76 1
0.377461	1.63588	16.00	25.00	-5.21 0	2.24 1	-1.80 1	-3.50 1
0.376512	1.66490	15.50	24.00	-5.09 0	2.09 1	-1.68 1	-3.25 1
0.375213	1.69604	15.00	23.00	-4.97 0	1.94 1	-1.57 1	-3.01 1
0.373481	1.72952	14.50	22.00	-4.84 0	1.80 1	-1.47 1	-2.77 1
0.371208	1.76565	14.00	21.00	-4.70 0	1.66 1	-1.36 1	-2.55 1
0.368263	1.80475	13.50	20.00	-4.54 0	1.52 1	-1.27 1	-2.33 1
0.386922	1.83897	13.00	19.50	-4.25 0	1.47 1	-1.18 1	-2.22 1
0.364475	1.84722	13.00	19.00	-4.39 0	1.39 1	-1.17 1	-2.12 1
0.383953	1.88420	12.50	18.50	-4.09 0	1.34 1	-1.09 1	-2.02 1
0.379950	1.93365	12.00	17.50	-3.92 0	1.21 1	-1.00 1	-1.82 1
0.374620	1.98795	11.50	16.50	-3.75 0	1.09 1	-9.18 0	-1.64 1
0.398108	2.03515	11.00	16.00	-3.46 0	1.04 1	-8.44 0	-1.55 1
0.367577	2.04791	11.00	15.50	-3.57 0	9.76 0	-8.38 0	-1.46 1
0.392136	2.09975	10.50	15.00	-3.28 0	9.30 0	-7.68 0	-1.37 1
0.383909	2.17178	10.00	14.00	-3.10 0	8.20 0	-6.95 0	-1.21 1
0.372080	2.20651	9.80	13.50	-3.05 0	7.66 0	-6.66 0	-1.13 1
0.399003	2.22483	9.60	13.50	-2.90 0	7.73 0	-6.43 0	-1.13 1
0.386726	2.26225	9.40	13.00	-2.85 0	7.20 0	-6.15 0	-1.05 1
0.372907	2.30200	9.20	12.50	-2.79 0	6.68 0	-5.88 0	-9.81 0
0.388467	2.36561	8.80	12.00	-2.59 0	6.24 0	-5.39 0	-9.09 0
0.372047	2.41157	8.60	11.50	-2.53 0	5.76 0	-5.14 0	-8.40 0
0.388459	2.48493	8.20	11.00	-2.33 0	5.34 0	-4.69 0	-7.73 0
0.368559	2.53877	8.00	10.50	-2.28 0	4.88 0	-4.45 0	-7.09 0
0.385635	2.62444	7.60	10.00	-2.08 0	4.49 0	-4.03 0	-6.44 0
0.374730	2.68115	7.40	9.60	-2.01 0	4.16 0	-3.82 0	-5.99 0
0.390866	2.72645	7.20	9.40	-1.91 0	4.02 0	-3.62 0	-5.75 0
0.362004	2.74183	7.20	9.20	-1.94 0	3.83 0	-3.61 0	-5.53 0
0.378234	2.79004	7.00	9.00	-1.84 0	3.70 0	-3.42 0	-5.30 0
0.395713	2.84080	6.80	8.80	-1.74 0	3.56 0	-3.23 0	-5.08 0
0.363359	2.85840	6.80	8.60	-1.77 0	3.39 0	-3.22 0	-4.87 0
0.380889	2.91266	6.60	8.40	-1.67 0	3.26 0	-3.04 0	-4.65 0
0.399869	2.96998	6.40	8.20	-1.58 0	3.13 0	-2.87 0	-4.44 0
0.363256	2.99032	6.40	8.00	-1.60 0	2.97 0	-2.86 0	-4.24 0
0.382212	3.05191	6.20	7.80	-1.51 0	2.84 0	-2.68 0	-4.04 0
0.360970	3.14101	6.00	7.40	-1.44 0	2.57 0	-2.51 0	-3.66 0
0.381466	3.21159	5.80	7.20	-1.35 0	2.45 0	-2.35 0	-3.47 0
0.377507	3.39680	5.40	6.60	-1.20 0	2.08 0	-2.04 0	-2.93 0
0.368506	3.61457	5.00	6.00	-1.05 0	1.73 0	-1.74 0	-2.44 0
0.394983	3.71816	4.80	5.80	-9.69-1	1.63 0	-1.61 0	-2.28 0
0.379753	3.99957	4.40	5.20	-8.32-1	1.32 0	-1.35 0	-1.84 0
0.384500	4.51490	3.80	4.40	-6.34-1	9.54-1	-9.96-1	-1.32 0
0.381096	4.84520	3.50	4.00	-5.43-1	7.89-1	-8.39-1	-1.09 0
0.370007	5.24503	3.20	3.60	-4.57-1	6.37-1	-6.96-1	-8.81-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.392994	5.37857	3.10	3.50	-4.28-1	6.03-1	-6.51-1	-8.31-1
0.369934	5.90772	2.80	3.10	-3.50-1	4.68-1	-5.24-1	-6.46-1
0.397360	6.08792	2.70	3.00	-3.24-1	4.39-1	-4.84-1	-6.03-1
0.380308	7.08275	2.30	2.50	-2.32-1	2.97-1	-3.41-1	-4.08-1
0.360017	9.29065	1.75	1.85	-1.27-1	1.51-1	-1.84-1	-2.09-1
0.384248	9.55516	1.70	1.80	-1.19-1	1.42-1	-1.72-1	-1.96-1
0.375054	12.7735	1.30	1.35	-6.25-2	7.10-2	-9.02-2	-9.91-2
0.360090	18.8431	0.94	0.96	-2.67-2	2.89-2	-3.92-2	-4.16-2
0.382061	19.3530	0.92	0.94	-2.51-2	2.73-2	-3.70-2	-3.93-2
0.40	0.44						
0.401601	1.10033	50.00	90.00	8.65 1	2.35 2	-3.46 2	-5.02 2
0.405824	1.10437	49.00	89.00	7.95 1	2.27 2	-3.23 2	-4.77 2
0.401196	1.10652	48.00	87.00	6.82 1	2.12 2	-2.94 2	-4.43 2
0.414949	1.10668	49.00	90.00	8.52 1	2.35 2	-3.31 2	-4.90 2
0.410329	1.10868	48.00	88.00	7.31 1	2.20 2	-3.01 2	-4.55 2
0.419468	1.11095	48.00	89.00	7.83 1	2.28 2	-3.09 2	-4.67 2
0.405974	1.11114	47.00	86.00	6.28 1	2.06 2	-2.75 2	-4.23 2
0.415128	1.11328	47.00	87.00	6.74 1	2.13 2	-2.82 2	-4.34 2
0.428619	1.11332	48.00	90.00	8.38 1	2.36 2	-3.17 2	-4.79 2
0.401873	1.11402	46.00	84.00	5.39 1	1.93 2	-2.52 2	-3.95 2
0.424287	1.11552	47.00	88.00	7.22 1	2.21 2	-2.88 2	-4.45 2
0.411058	1.11604	46.00	85.00	5.80 1	2.00 2	-2.58 2	-4.05 2
0.433454	1.11786	47.00	89.00	7.72 1	2.28 2	-2.96 2	-4.57 2
0.420239	1.11816	46.00	86.00	6.22 1	2.07 2	-2.63 2	-4.15 2
0.407248	1.11927	45.00	83.00	4.98 1	1.88 2	-2.36 2	-3.78 2
0.429421	1.12038	46.00	87.00	6.66 1	2.14 2	-2.70 2	-4.25 2
0.416466	1.12126	45.00	84.00	5.36 1	1.95 2	-2.41 2	-3.87 2
0.438607	1.12270	46.00	88.00	7.12 1	2.21 2	-2.76 2	-4.36 2
0.403689	1.12296	44.00	81.00	4.27 1	1.77 2	-2.17 2	-3.54 2
0.425678	1.12336	45.00	85.00	5.75 1	2.01 2	-2.47 2	-3.97 2
0.412960	1.12483	44.00	82.00	4.61 1	1.83 2	-2.22 2	-3.63 2
0.434887	1.12556	45.00	86.00	6.15 1	2.08 2	-2.52 2	-4.07 2
0.422217	1.12680	44.00	83.00	4.95 1	1.89 2	-2.26 2	-3.71 2
0.400374	1.12713	43.00	79.00	3.65 1	1.67 2	-2.00 2	-3.32 2
0.431464	1.12888	44.00	84.00	5.32 1	1.96 2	-2.31 2	-3.80 2
0.409714	1.12889	43.00	80.00	3.95 1	1.73 2	-2.04 2	-3.40 2
0.419031	1.13075	43.00	81.00	4.26 1	1.79 2	-2.08 2	-3.48 2
0.428331	1.13270	43.00	82.00	4.59 1	1.85 2	-2.12 2	-3.56 2
0.406720	1.13344	42.00	78.00	3.37 1	1.63 2	-1.88 2	-3.19 2
0.437617	1.13476	43.00	83.00	4.92 1	1.91 2	-2.17 2	-3.65 2
0.416114	1.13518	42.00	79.00	3.66 1	1.69 2	-1.92 2	-3.26 2
0.425483	1.13701	42.00	80.00	3.95 1	1.74 2	-1.95 2	-3.34 2
0.403974	1.13850	41.00	76.00	2.87 1	1.55 2	-1.74 2	-2.99 2
0.434830	1.13896	42.00	81.00	4.25 1	1.80 2	-1.99 2	-3.42 2
0.413462	1.14012	41.00	77.00	3.12 1	1.60 2	-1.77 2	-3.06 2
0.422915	1.14185	41.00	78.00	3.39 1	1.65 2	-1.80 2	-3.14 2
0.432340	1.14367	41.00	79.00	3.66 1	1.70 2	-1.84 2	-3.21 2
0.401469	1.14411	40.00	74.00	2.42 1	1.46 2	-1.60 2	-2.81 2
0.411068	1.14561	40.00	75.00	2.65 1	1.51 2	-1.63 2	-2.88 2
0.420625	1.14722	40.00	76.00	2.89 1	1.56 2	-1.66 2	-2.95 2
0.430144	1.14893	40.00	77.00	3.14 1	1.61 2	-1.69 2	-3.02 2
0.439629	1.15074	40.00	78.00	3.39 1	1.66 2	-1.72 2	-3.09 2
0.408932	1.15165	39.00	73.00	2.24 1	1.43 2	-1.51 2	-2.70 2
0.418609	1.15315	39.00	74.00	2.45 1	1.48 2	-1.53 2	-2.77 2
0.428240	1.15474	39.00	75.00	2.68 1	1.53 2	-1.56 2	-2.84 2
0.437828	1.15644	39.00	76.00	2.91 1	1.58 2	-1.59 2	-2.91 2
0.407049	1.15829	38.00	71.00	1.87 1	1.36 2	-1.39 2	-2.54 2
0.416866	1.15966	38.00	72.00	2.07 1	1.40 2	-1.42 2	-2.60 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.392994	5.37857	3.10	3.50	-4.28-1	6.03-1	-6.51-1	-8.31-1
0.369934	5.90772	2.80	3.10	-3.50-1	4.68-1	-5.24-1	-6.46-1
0.397360	6.08792	2.70	3.00	-3.24-1	4.39-1	-4.84-1	-6.03-1
0.380308	7.08275	2.30	2.50	-2.32-1	2.97-1	-3.41-1	-4.08-1
0.360017	9.29065	1.75	1.85	-1.27-1	1.51-1	-1.84-1	-2.09-1
0.384248	9.55516	1.70	1.80	-1.19-1	1.42-1	-1.72-1	-1.96-1
0.375054	12.7735	1.30	1.35	-6.25-2	7.10-2	-9.02-2	-9.91-2
0.360090	18.8431	0.94	0.96	-2.67-2	2.89-2	-3.92-2	-4.16-2
0.382061	19.3530	0.92	0.94	-2.51-2	2.73-2	-3.70-2	-3.93-2
0.40	0.44						
0.401601	1.10033	50.00	90.00	8.65 1	2.35 2	-3.46 2	-5.02 2
0.405824	1.10437	49.00	89.00	7.95 1	2.27 2	-3.23 2	-4.77 2
0.401196	1.10652	48.00	87.00	6.82 1	2.12 2	-2.94 2	-4.43 2
0.414949	1.10668	49.00	90.00	8.52 1	2.35 2	-3.31 2	-4.90 2
0.410329	1.10868	48.00	88.00	7.31 1	2.20 2	-3.01 2	-4.55 2
0.419468	1.11095	48.00	89.00	7.83 1	2.28 2	-3.09 2	-4.67 2
0.405974	1.11114	47.00	86.00	6.28 1	2.06 2	-2.75 2	-4.23 2
0.415128	1.11328	47.00	87.00	6.74 1	2.13 2	-2.82 2	-4.34 2
0.428619	1.11332	48.00	90.00	8.38 1	2.36 2	-3.17 2	-4.79 2
0.401873	1.11402	46.00	84.00	5.39 1	1.93 2	-2.52 2	-3.95 2
0.424287	1.11552	47.00	88.00	7.22 1	2.21 2	-2.88 2	-4.45 2
0.411058	1.11604	46.00	85.00	5.80 1	2.00 2	-2.58 2	-4.05 2
0.433454	1.11786	47.00	89.00	7.72 1	2.28 2	-2.96 2	-4.57 2
0.420239	1.11816	46.00	86.00	6.22 1	2.07 2	-2.63 2	-4.15 2
0.407248	1.11927	45.00	83.00	4.98 1	1.88 2	-2.36 2	-3.78 2
0.429421	1.12038	46.00	87.00	6.66 1	2.14 2	-2.70 2	-4.25 2
0.416466	1.12126	45.00	84.00	5.36 1	1.95 2	-2.41 2	-3.87 2
0.438607	1.12270	46.00	88.00	7.12 1	2.21 2	-2.76 2	-4.34 2
0.403689	1.12296	44.00	81.00	4.27 1	1.77 2	-2.17 2	-3.54 2
0.425678	1.12336	45.00	85.00	5.75 1	2.01 2	-2.47 2	-3.97 2
0.412960	1.12483	44.00	82.00	4.61 1	1.83 2	-2.22 2	-3.63 2
0.434887	1.12556	45.00	86.00	6.15 1	2.08 2	-2.52 2	-4.07 2
0.422217	1.12680	44.00	83.00	4.95 1	1.89 2	-2.26 2	-3.71 2
0.400374	1.12713	43.00	79.00	3.65 1	1.67 2	-2.00 2	-3.32 2
0.431464	1.12888	44.00	84.00	5.32 1	1.96 2	-2.31 2	-3.80 2
0.409714	1.12889	43.00	80.00	3.95 1	1.73 2	-2.04 2	-3.40 2
0.419031	1.13075	43.00	81.00	4.26 1	1.79 2	-2.08 2	-3.48 2
0.428331	1.13270	43.00	82.00	4.59 1	1.85 2	-2.12 2	-3.56 2
0.406720	1.13344	42.00	78.00	3.37 1	1.63 2	-1.88 2	-3.19 2
0.437617	1.13476	43.00	83.00	4.92 1	1.91 2	-2.17 2	-3.65 2
0.416114	1.13518	42.00	79.00	3.66 1	1.69 2	-1.92 2	-3.26 2
0.425483	1.13701	42.00	80.00	3.95 1	1.74 2	-1.95 2	-3.34 2
0.403974	1.13850	41.00	76.00	2.87 1	1.55 2	-1.74 2	-2.99 2
0.434830	1.13896	42.00	81.00	4.25 1	1.80 2	-1.99 2	-3.42 2
0.413462	1.14012	41.00	77.00	3.12 1	1.60 2	-1.77 2	-3.05 2
0.422915	1.14185	41.00	78.00	3.39 1	1.65 2	-1.80 2	-3.14 2
0.432340	1.14367	41.00	79.00	3.66 1	1.70 2	-1.84 2	-3.21 2
0.401469	1.14411	40.00	74.00	2.42 1	1.46 2	-1.60 2	-2.81 2
0.411068	1.14561	40.00	75.00	2.65 1	1.51 2	-1.63 2	-2.88 2
0.420625	1.14722	40.00	76.00	2.89 1	1.56 2	-1.66 2	-2.95 2
0.430144	1.14893	40.00	77.00	3.14 1	1.61 2	-1.69 2	-3.02 2
0.439629	1.15074	40.00	78.00	3.39 1	1.66 2	-1.72 2	-3.09 2
0.408932	1.15165	39.00	73.00	2.24 1	1.43 2	-1.51 2	-2.70 2
0.418609	1.15315	39.00	74.00	2.45 1	1.48 2	-1.53 2	-2.77 2
0.428240	1.15474	39.00	75.00	2.68 1	1.53 2	-1.56 2	-2.84 2
0.437828	1.15644	39.00	76.00	2.91 1	1.58 2	-1.59 2	-2.91 2
0.407049	1.15829	38.00	71.00	1.87 1	1.36 2	-1.39 2	-2.54 2
0.416866	1.15966	38.00	72.00	2.07 1	1.40 2	-1.42 2	-2.60 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.426628	1.16114	38.00	73.00	2.27 1	1.45 2	-1.44 2	-2.67 2
0.436338	1.16273	38.00	74.00	2.48 1	1.50 2	-1.47 2	-2.73 2
0.405419	1.16554	37.00	69.00	1.54 1	1.28 2	-1.29 2	-2.39 2
0.415397	1.16679	37.00	70.00	1.73 1	1.33 2	-1.31 2	-2.45 2
0.425309	1.16816	37.00	71.00	1.91 1	1.37 2	-1.33 2	-2.51 2
0.435161	1.16963	37.00	72.00	2.11 1	1.42 2	-1.36 2	-2.57 2
0.404040	1.17345	36.00	67.00	1.25 1	1.22 2	-1.19 2	-2.24 2
0.414201	1.17458	36.00	68.00	1.42 1	1.26 2	-1.21 2	-2.30 2
0.424286	1.17583	36.00	69.00	1.60 1	1.30 2	-1.23 2	-2.36 2
0.434299	1.17718	36.00	70.00	1.77 1	1.34 2	-1.25 2	-2.42 2
0.402914	1.18205	35.00	65.00	9.99 0	1.15 2	-1.10 2	-2.10 2
0.413282	1.18306	35.00	66.00	1.15 1	1.19 2	-1.12 2	-2.16 2
0.423561	1.18418	35.00	67.00	1.31 1	1.23 2	-1.14 2	-2.21 2
0.433759	1.18542	35.00	68.00	1.48 1	1.27 2	-1.16 2	-2.27 2
0.402041	1.19141	34.00	63.00	7.73 0	1.09 2	-1.02 2	-1.97 2
0.412641	1.19228	34.00	64.00	9.17 0	1.13 2	-1.04 2	-2.02 2
0.423141	1.19328	34.00	65.00	1.06 1	1.17 2	-1.05 2	-2.08 2
0.433547	1.19439	34.00	66.00	1.21 1	1.21 2	-1.07 2	-2.13 2
0.401423	1.20156	33.00	61.00	5.74 0	1.03 2	-9.43 1	-1.84 2
0.412285	1.20229	33.00	62.00	7.07 0	1.07 2	-9.57 1	-1.90 2
0.423032	1.20316	33.00	63.00	8.42 0	1.10 2	-9.72 1	-1.95 2
0.433672	1.20415	33.00	64.00	9.80 0	1.14 2	-9.87 1	-2.00 2
0.401064	1.21258	32.00	59.00	4.00 0	9.70 1	-8.71 1	-1.73 2
0.412218	1.21316	32.00	60.00	5.22 0	1.01 2	-8.84 1	-1.77 2
0.423243	1.21388	32.00	61.00	6.47 0	1.04 2	-8.97 1	-1.83 2
0.434146	1.21474	32.00	62.00	7.75 0	1.08 2	-9.11 1	-1.88 2
0.400968	1.22452	31.00	57.00	2.46 0	9.15 1	-8.04 1	-1.61 2
0.412449	1.22495	31.00	58.00	3.60 0	9.50 1	-8.16 1	-1.66 2
0.423784	1.22552	31.00	59.00	4.76 0	9.86 1	-8.28 1	-1.71 2
0.434981	1.22624	31.00	60.00	5.94 0	1.02 2	-8.40 1	-1.76 2
0.401139	1.23747	30.00	55.00	1.12 0	8.61 1	-7.42 1	-1.50 2
0.412986	1.23773	30.00	56.00	2.18 0	8.95 1	-7.52 1	-1.55 2
0.424668	1.23815	30.00	57.00	3.25 0	9.30 1	-7.63 1	-1.60 2
0.436195	1.23872	30.00	58.00	4.34 0	9.65 1	-7.74 1	-1.64 2
0.401584	1.25153	29.00	53.00	-3.59-2	8.09 1	-6.83 1	-1.40 2
0.413841	1.25161	29.00	54.00	9.44-1	8.42 1	-6.93 1	-1.44 2
0.425911	1.25186	29.00	55.00	1.94 0	8.76 1	-7.02 1	-1.49 2
0.437806	1.25227	29.00	56.00	2.95 0	9.10 1	-7.12 1	-1.53 2
0.415025	1.26667	28.00	52.00	-1.25-1	7.91 1	-6.37 1	-1.34 2
0.427529	1.26674	28.00	53.00	7.98-1	8.23 1	-6.46 1	-1.39 2
0.402310	1.26679	28.00	51.00	-1.03 0	7.58 1	-6.28 1	-1.30 2
0.439837	1.26698	28.00	54.00	1.74 0	8.57 1	-6.55 1	-1.43 2
0.429545	1.28291	27.00	51.00	-1.84-1	7.73 1	-5.93 1	-1.29 2
0.416553	1.28305	27.00	50.00	-1.04 0	7.41 1	-5.85 1	-1.25 2
0.403324	1.28339	27.00	49.00	-1.89 0	7.10 1	-5.77 1	-1.20 2
0.431981	1.30052	26.00	49.00	-1.02 0	7.23 1	-5.43 1	-1.19 2
0.418443	1.30087	26.00	48.00	-1.82 0	6.92 1	-5.36 1	-1.15 2
0.404636	1.30145	26.00	47.00	-2.60 0	6.62 1	-5.28 1	-1.11 2
0.434866	1.31970	25.00	47.00	-1.73 0	6.75 1	-4.96 1	-1.10 2
0.420713	1.32030	25.00	46.00	-2.47 0	6.46 1	-4.90 1	-1.06 2
0.406254	1.32115	25.00	45.00	-3.20 0	6.16 1	-4.83 1	-1.03 2
0.438234	1.34065	24.00	45.00	-2.32 0	6.29 1	-4.53 1	-1.02 2
0.423385	1.34153	24.00	44.00	-3.00 0	6.00 1	-4.47 1	-9.79 1
0.408190	1.34267	24.00	43.00	-3.68 0	5.72 1	-4.41 1	-9.42 1
0.426485	1.36477	23.00	42.00	-3.43 0	5.56 1	-4.06 1	-8.98 1
0.410453	1.36626	23.00	41.00	-4.06 0	5.29 1	-4.01 1	-8.62 1
0.430040	1.39028	22.00	40.00	-3.76 0	5.13 1	-3.68 1	-8.20 1
0.413052	1.39216	22.00	39.00	-4.34 0	4.87 1	-3.64 1	-7.86 1
0.434080	1.41838	21.00	38.00	-4.00 0	4.72 1	-3.33 1	-7.46 1
0.415996	1.42072	21.00	37.00	-4.54 0	4.46 1	-3.29 1	-7.13 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.438640	1.44944	20.00	36.00	-4.16 0	4.32 1	-3.00 1	-6.76 1
0.419290	1.45231	20.00	35.00	-4.66 0	4.07 1	-2.96 1	-6.44 1
0.421067	1.46939	19.50	34.00	-4.69 0	3.88 1	-2.80 1	-6.10 1
0.400294	1.47307	19.50	33.00	-5.17 0	3.64 1	-2.76 1	-5.80 1
0.422932	1.48741	19.00	33.00	-4.71 0	3.69 1	-2.65 1	-5.78 1
0.401332	1.49146	19.00	32.00	-5.17 0	3.46 1	-2.62 1	-5.48 1
0.424881	1.50645	18.50	32.00	-4.71 0	3.51 1	-2.51 1	-5.46 1
0.402383	1.51091	18.50	31.00	-5.15 0	3.28 1	-2.47 1	-5.17 1
0.426912	1.52660	18.00	31.00	-4.69 0	3.32 1	-2.36 1	-5.16 1
0.403438	1.53151	18.00	30.00	-5.12 0	3.10 1	-2.33 1	-4.87 1
0.429021	1.54795	17.50	30.00	-4.66 0	3.15 1	-2.23 1	-4.86 1
0.404481	1.55335	17.50	29.00	-5.07 0	2.93 1	-2.20 1	-4.58 1
0.431204	1.57061	17.00	29.00	-4.62 0	2.97 1	-2.10 1	-4.56 1
0.405496	1.57655	17.00	28.00	-5.01 0	2.76 1	-2.07 1	-4.29 1
0.433452	1.59470	16.50	28.00	-4.56 0	2.80 1	-1.97 1	-4.28 1
0.406462	1.60125	16.50	27.00	-4.93 0	2.60 1	-1.94 1	-4.02 1
0.435755	1.62035	16.00	27.00	-4.49 0	2.64 1	-1.85 1	-4.01 1
0.407352	1.62758	16.00	26.00	-4.85 0	2.44 1	-1.82 1	-3.75 1
0.438100	1.64773	15.50	26.00	-4.40 0	2.47 1	-1.73 1	-3.74 1
0.408134	1.65571	15.50	25.00	-4.75 0	2.28 1	-1.71 1	-3.49 1
0.408767	1.68585	15.00	24.00	-4.64 0	2.12 1	-1.59 1	-3.24 1
0.409199	1.71819	14.50	23.00	-4.52 0	1.97 1	-1.49 1	-3.00 1
0.409366	1.75302	14.00	22.00	-4.39 0	1.83 1	-1.38 1	-2.77 1
0.409185	1.79061	13.50	21.00	-4.26 0	1.69 1	-1.28 1	-2.54 1
0.408552	1.83133	13.00	20.00	-4.11 0	1.55 1	-1.19 1	-2.32 1
0.429835	1.86762	12.50	19.50	-3.83 0	1.50 1	-1.10 1	-2.22 1
0.407332	1.87559	12.50	19.00	-3.96 0	1.42 1	-1.10 1	-2.12 1
0.429734	1.91488	12.00	18.50	-3.67 0	1.36 1	-1.02 1	-2.01 1
0.405350	1.92389	12.00	18.00	-3.80 0	1.29 1	-1.01 1	-1.92 1
0.428943	1.96659	11.50	17.50	-3.51 0	1.24 1	-9.31 0	-1.82 1
0.402377	1.97683	11.50	17.00	-3.63 0	1.16 1	-9.24 0	-1.73 1
0.427230	2.02344	11.00	16.50	-3.35 0	1.11 1	-8.50 0	-1.69 1
0.424284	2.08627	10.50	15.50	-3.18 0	9.96 0	-7.74 0	-1.46 1
0.419681	2.15612	10.00	14.50	-3.00 0	8.84 0	-7.01 0	-1.29 1
0.409932	2.18952	9.80	14.00	-2.95 0	8.28 0	-6.71 0	-1.21 1
0.436894	2.20808	9.60	14.00	-2.80 0	8.35 0	-6.48 0	-1.21 1
0.426919	2.24403	9.40	13.50	-2.75 0	7.80 0	-6.20 0	-1.13 1
0.415655	2.28211	9.20	13.00	-2.70 0	7.26 0	-5.92 0	-1.05 1
0.402913	2.32255	9.00	12.50	-2.64 0	6.75 0	-5.66 0	-9.80 0
0.434112	2.34415	8.80	12.50	-2.50 0	6.81 0	-5.44 0	-9.79 0
0.420889	2.38800	8.60	12.00	-2.45 0	6.30 0	-5.18 0	-9.08 0
0.405776	2.43482	8.40	11.50	-2.39 0	5.81 0	-4.93 0	-8.39 0
0.425141	2.51042	8.00	11.00	-2.20 0	5.39 0	-4.49 0	-7.72 0
0.406850	2.56530	7.80	10.50	-2.14 0	4.93 0	-4.25 0	-7.08 0
0.427592	2.65375	7.40	10.00	-1.96 0	4.54 0	-3.84 0	-6.46 0
0.401608	2.66710	7.40	9.80	-1.98 0	4.35 0	-3.83 0	-6.22 0
0.418720	2.71187	7.20	9.60	-1.88 0	4.20 0	-3.63 0	-5.98 0
0.437089	2.75891	7.00	9.40	-1.79 0	4.06 0	-3.44 0	-5.75 0
0.408197	2.77405	7.00	9.20	-1.81 0	3.88 0	-3.43 0	-5.52 0
0.426850	2.82416	6.80	9.00	-1.72 0	3.74 0	-3.24 0	-5.30 0
0.414579	2.89431	6.60	8.60	-1.65 0	3.43 0	-3.05 0	-4.86 0
0.434988	2.95082	6.40	8.40	-1.55 0	3.30 0	-2.87 0	-4.65 0
0.420468	3.03062	6.20	8.00	-1.49 0	3.01 0	-2.69 0	-4.24 0
0.402860	3.11721	6.00	7.60	-1.42 0	2.72 0	-2.52 0	-3.85 0
0.425415	3.18658	5.80	7.40	-1.33 0	2.60 0	-2.36 0	-3.65 0
0.403949	3.28676	5.60	7.00	-1.26 0	2.33 0	-2.19 0	-3.29 0
0.428695	3.36700	5.40	6.80	-1.18 0	2.22 0	-2.04 0	-3.11 0
0.401964	3.48440	5.20	6.40	-1.11 0	1.97 0	-1.89 0	-2.76 0
0.429123	3.57844	5.00	6.20	-1.03 0	1.87 0	-1.75 0	-2.60 0
0.424701	3.83012	4.60	5.60	-8.91-1	1.53 0	-1.48 0	-2.13 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.411948	4.13546	4.20	5.00	-7.59-1	1.23 0	-1.22 0	-1.71 0
0.419116	4.39529	3.90	4.60	-6.61-1	1.05 0	-1.05 0	-1.45 0
0.424113	4.70196	3.60	4.20	-5.68-1	8.74-1	-8.91-1	-1.20 0
0.402102	4.95438	3.40	3.90	-5.11-1	7.52-1	-7.90-1	-1.04 0
0.425023	5.07004	3.30	3.80	-4.81-1	7.15-1	-7.43-1	-9.84-1
0.418340	5.52099	3.00	3.40	-3.99-1	5.70-1	-6.07-1	-7.83-1
0.428144	6.28230	2.60	2.90	-2.99-1	4.10-1	-4.47-1	-5.61-1
0.417024	7.36547	2.20	2.40	-2.10-1	2.73-1	-3.09-1	-3.74-1
0.413764	8.29313	1.95	2.10	-1.62-1	2.03-1	-2.36-1	-2.78-1
0.411091	9.83788	1.65	1.75	-1.11-1	1.33-1	-1.60-1	-1.84-1
0.413192	13.3291	1.25	1.30	-5.66-2	6.47-2	-8.18-2	-9.04-2
0.406069	19.8931	0.90	0.92	-2.36-2	2.57-2	-3.49-2	-3.71-2
0.432365	20.4661	0.88	0.90	-2.21-2	2.42-2	-3.28-2	-3.50-2
0.44	0.48						
0.442632	1.12031	47.00	90.00	8.24 1	2.36 2	-3.03 2	-4.68 2
0.447802	1.12511	46.00	89.00	7.60 1	2.29 2	-2.83 2	-4.47 2
0.457009	1.12764	46.00	90.00	8.10 1	2.37 2	-2.90 2	-4.58 2
0.444097	1.12785	45.00	87.00	6.58 1	2.15 2	-2.58 2	-4.17 2
0.453313	1.13025	45.00	88.00	7.02 1	2.22 2	-2.64 2	-4.27 2
0.440704	1.13105	44.00	85.00	5.69 1	2.02 2	-2.36 2	-3.90 2
0.462537	1.13275	45.00	89.00	7.47 1	2.29 2	-2.71 2	-4.38 2
0.449943	1.13333	44.00	86.00	6.08 1	2.09 2	-2.42 2	-3.99 2
0.471775	1.13535	45.00	90.00	7.95 1	2.37 2	-2.77 2	-4.49 2
0.459183	1.13571	44.00	87.00	6.49 1	2.16 2	-2.47 2	-4.09 2
0.446893	1.13691	43.00	84.00	5.27 1	1.97 2	-2.21 2	-3.74 2
0.468429	1.13819	44.00	88.00	6.91 1	2.23 2	-2.53 2	-4.19 2
0.456164	1.13917	43.00	85.00	5.63 1	2.03 2	-2.26 2	-3.83 2
0.477685	1.14076	44.00	89.00	7.35 1	2.30 2	-2.59 2	-4.29 2
0.444160	1.14100	42.00	82.00	4.56 1	1.86 2	-2.03 2	-3.50 2
0.465434	1.14153	43.00	86.00	6.00 1	2.10 2	-2.31 2	-3.92 2
0.453477	1.14314	42.00	83.00	4.88 1	1.92 2	-2.08 2	-3.59 2
0.474706	1.14399	43.00	87.00	6.39 1	2.16 2	-2.36 2	-4.01 2
0.462785	1.14538	42.00	84.00	5.22 1	1.98 2	-2.12 2	-3.67 2
0.441739	1.14560	41.00	80.00	3.94 1	1.76 2	-1.87 2	-3.29 2
0.451118	1.14763	41.00	81.00	4.23 1	1.81 2	-1.91 2	-3.37 2
0.472088	1.14772	42.00	85.00	5.56 1	2.04 2	-2.16 2	-3.76 2
0.460480	1.14975	41.00	82.00	4.53 1	1.87 2	-1.95 2	-3.45 2
0.469829	1.15198	41.00	83.00	4.84 1	1.93 2	-1.99 2	-3.53 2
0.449086	1.15266	40.00	79.00	3.66 1	1.72 2	-1.76 2	-3.17 2
0.479171	1.15431	41.00	84.00	5.16 1	1.99 2	-2.03 2	-3.61 2
0.458518	1.15467	40.00	80.00	3.93 1	1.77 2	-1.79 2	-3.24 2
0.467930	1.15679	40.00	81.00	4.21 1	1.83 2	-1.82 2	-3.32 2
0.447380	1.15824	39.00	77.00	3.15 1	1.63 2	-1.62 2	-2.98 2
0.477325	1.15901	40.00	82.00	4.49 1	1.88 2	-1.86 2	-3.39 2
0.456899	1.16015	39.00	78.00	3.39 1	1.68 2	-1.65 2	-3.05 2
0.466390	1.16216	39.00	79.00	3.65 1	1.73 2	-1.68 2	-3.12 2
0.475856	1.16426	39.00	80.00	3.91 1	1.79 2	-1.71 2	-3.19 2
0.446003	1.16442	38.00	75.00	2.70 1	1.54 2	-1.49 2	-2.80 2
0.455626	1.16622	38.00	76.00	2.92 1	1.59 2	-1.52 2	-2.87 2
0.465212	1.16811	38.00	77.00	3.15 1	1.64 2	-1.55 2	-2.93 2
0.474767	1.17012	38.00	78.00	3.39 1	1.69 2	-1.58 2	-3.00 2
0.444957	1.17121	37.00	73.00	2.30 1	1.46 2	-1.38 2	-2.63 2
0.454703	1.17290	37.00	74.00	2.51 1	1.51 2	-1.40 2	-2.70 2
0.464403	1.17469	37.00	75.00	2.72 1	1.56 2	-1.43 2	-2.76 2
0.474063	1.17658	37.00	76.00	2.93 1	1.61 2	-1.45 2	-2.83 2
0.444247	1.17865	36.00	71.00	1.95 1	1.39 2	-1.27 2	-2.48 2
0.454135	1.18022	36.00	72.00	2.14 1	1.43 2	-1.29 2	-2.54 2
0.463968	1.18191	36.00	73.00	2.33 1	1.48 2	-1.32 2	-2.60 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.473752	1.18370	36.00	74.00	2.52 1	1.53 2	-1.34 2	-2.66 2
0.443880	1.18677	35.00	69.00	1.64 1	1.32 2	-1.18 2	-2.33 2
0.453931	1.18824	35.00	70.00	1.81 1	1.36 2	-1.19 2	-2.39 2
0.463918	1.18981	35.00	71.00	1.99 1	1.40 2	-1.21 2	-2.45 2
0.473845	1.19149	35.00	72.00	2.16 1	1.45 2	-1.23 2	-2.51 2
0.443865	1.19563	34.00	67.00	1.37 1	1.25 2	-1.09 2	-2.19 2
0.454101	1.19698	34.00	68.00	1.52 1	1.29 2	-1.10 2	-2.24 2
0.464263	1.19844	34.00	69.00	1.68 1	1.33 2	-1.12 2	-2.30 2
0.474354	1.20002	34.00	70.00	1.84 1	1.38 2	-1.14 2	-2.36 2
0.444212	1.20526	33.00	65.00	1.12 1	1.18 2	-1.00 2	-2.05 2
0.454658	1.20649	33.00	66.00	1.26 1	1.22 2	-1.02 2	-2.11 2
0.465017	1.20785	33.00	67.00	1.41 1	1.26 2	-1.03 2	-2.16 2
0.475296	1.20931	33.00	68.00	1.56 1	1.31 2	-1.05 2	-2.22 2
0.444935	1.21573	32.00	63.00	9.05 0	1.12 2	-9.25 1	-1.93 2
0.455617	1.21684	32.00	64.00	1.04 1	1.16 2	-9.39 1	-1.98 2
0.466200	1.21808	32.00	65.00	1.17 1	1.20 2	-9.53 1	-2.03 2
0.476690	1.21943	32.00	66.00	1.31 1	1.24 2	-9.68 1	-2.09 2
0.446050	1.22709	31.00	61.00	7.14 0	1.06 2	-8.52 1	-1.81 2
0.456997	1.22808	31.00	62.00	8.36 0	1.10 2	-8.65 1	-1.86 2
0.467831	1.22920	31.00	63.00	9.60 0	1.14 2	-8.78 1	-1.91 2
0.478559	1.23044	31.00	64.00	1.09 1	1.18 2	-8.92 1	-1.96 2
0.447576	1.23944	30.00	59.00	5.45 0	1.00 2	-7.85 1	-1.69 2
0.458820	1.24029	30.00	60.00	6.58 0	1.04 2	-7.97 1	-1.74 2
0.469936	1.24128	30.00	61.00	7.73 0	1.08 2	-8.09 1	-1.79 2
0.449536	1.25283	29.00	57.00	3.98 0	9.45 1	-7.23 1	-1.58 2
0.461112	1.25355	29.00	58.00	5.02 0	9.81 1	-7.33 1	-1.63 2
0.472543	1.25441	29.00	59.00	6.08 0	1.02 2	-7.44 1	-1.68 2
0.451958	1.26738	28.00	55.00	2.69 0	8.91 1	-6.64 1	-1.48 2
0.463905	1.26795	28.00	56.00	3.65 0	9.25 1	-6.74 1	-1.52 2
0.475689	1.26867	28.00	57.00	4.63 0	9.61 1	-6.83 1	-1.57 2
0.442313	1.28297	27.00	52.00	6.85-1	8.05 1	-6.01 1	-1.33 2
0.454872	1.28320	27.00	53.00	1.57 0	8.38 1	-6.09 1	-1.37 2
0.467235	1.28361	27.00	54.00	2.46 0	8.72 1	-6.18 1	-1.42 2
0.479413	1.28417	27.00	55.00	3.37 0	9.06 1	-6.27 1	-1.46 2
0.445267	1.30036	26.00	50.00	-2.16-1	7.55 1	-5.51 1	-1.24 2
0.458317	1.30041	26.00	51.00	6.01-1	7.87 1	-5.58 1	-1.28 2
0.471144	1.30064	26.00	52.00	1.43 0	8.19 1	-5.66 1	-1.32 2
0.462335	1.31916	25.00	49.00	-2.24-1	7.37 1	-5.10 1	-1.18 2
0.475684	1.31920	25.00	50.00	5.43-1	7.69 1	-5.17 1	-1.23 2
0.448734	1.31932	25.00	48.00	-9.81-1	7.06 1	-5.03 1	-1.14 2
0.466978	1.33963	24.00	47.00	-9.21-1	6.89 1	-4.65 1	-1.10 2
0.452758	1.34002	24.00	46.00	-1.62 0	6.59 1	-4.59 1	-1.06 2
0.472308	1.36202	23.00	45.00	-1.50 0	6.42 1	-4.23 1	-1.01 2
0.457387	1.36267	23.00	44.00	-2.15 0	6.13 1	-4.17 1	-9.72 1
0.442121	1.36358	23.00	43.00	-2.79 0	5.84 1	-4.12 1	-9.35 1
0.478397	1.38657	22.00	43.00	-1.97 0	5.96 1	-3.84 1	-9.28 1
0.462682	1.38751	22.00	42.00	-2.57 0	5.68 1	-3.79 1	-8.92 1
0.446572	1.38874	22.00	41.00	-3.17 0	5.40 1	-3.74 1	-8.56 1
0.468711	1.41483	21.00	40.00	-2.90 0	5.25 1	-3.42 1	-8.15 1
0.451639	1.41643	21.00	39.00	-3.45 0	4.98 1	-3.38 1	-7.80 1
0.475557	1.44499	20.00	38.00	-3.15 0	4.83 1	-3.08 1	-7.42 1
0.457381	1.44701	20.00	37.00	-3.66 0	4.57 1	-3.04 1	-7.08 1
0.479317	1.46127	19.50	37.00	-3.24 0	4.62 1	-2.92 1	-7.06 1
0.460526	1.46352	19.50	36.00	-3.73 0	4.37 1	-2.88 1	-6.74 1
0.441126	1.46622	19.50	35.00	-4.21 0	4.12 1	-2.84 1	-6.42 1
0.463866	1.48093	19.00	35.00	-3.78 0	4.17 1	-2.72 1	-6.40 1
0.443756	1.48391	19.00	34.00	-4.25 0	3.93 1	-2.69 1	-6.09 1
0.467413	1.49930	18.50	34.00	-3.82 0	3.98 1	-2.57 1	-6.07 1
0.446534	1.50260	18.50	33.00	-4.26 0	3.74 1	-2.54 1	-5.76 1
0.471177	1.51871	18.00	33.00	-3.84 0	3.79 1	-2.43 1	-5.74 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.449465	1.52236	18.00	32.00	-4.27 0	3.55 1	-2.40 1	-5.45 1
0.475170	1.53925	17.50	32.00	-3.84 0	3.60 1	-2.29 1	-5.43 1
0.452555	1.54327	17.50	31.00	-4.25 0	3.37 1	-2.26 1	-5.14 1
0.479407	1.56102	17.00	31.00	-3.83 0	3.41 1	-2.16 1	-5.13 1
0.455808	1.56546	17.00	30.00	-4.22 0	3.19 1	-2.13 1	-4.84 1
0.459227	1.58902	16.50	29.00	-4.18 0	3.01 1	-2.00 1	-4.55 1
0.462817	1.61409	16.00	28.00	-4.13 0	2.84 1	-1.87 1	-4.27 1
0.466579	1.64081	15.50	27.00	-4.06 0	2.67 1	-1.75 1	-4.00 1
0.470516	1.66935	15.00	26.00	-3.98 0	2.51 1	-1.64 1	-3.73 1
0.440468	1.67700	15.00	25.00	-4.31 0	2.31 1	-1.62 1	-3.48 1
0.474627	1.69990	14.50	25.00	-3.89 0	2.35 1	-1.53 1	-3.47 1
0.442837	1.70838	14.50	24.00	-4.21 0	2.16 1	-1.51 1	-3.23 1
0.478908	1.73268	14.00	24.00	-3.79 0	2.19 1	-1.42 1	-3.22 1
0.445175	1.74210	14.00	23.00	-4.09 0	2.01 1	-1.40 1	-2.99 1
0.447440	1.77843	13.50	22.00	-3.97 0	1.86 1	-1.30 1	-2.76 1
0.449580	1.81769	13.00	21.00	-3.84 0	1.72 1	-1.20 1	-2.53 1
0.451523	1.86025	12.50	20.00	-3.70 0	1.58 1	-1.11 1	-2.32 1
0.475743	1.89891	12.00	19.50	-3.43 0	1.52 1	-1.03 1	-2.21 1
0.453176	1.90657	12.00	19.00	-3.55 0	1.44 1	-1.02 1	-2.11 1
0.478866	1.94851	11.50	18.50	-3.28 0	1.39 1	-9.45 0	-2.01 1
0.454412	1.95718	11.50	18.00	-3.40 0	1.31 1	-9.38 0	-1.91 1
0.455061	2.01270	11.00	17.00	-3.24 0	1.19 1	-8.57 0	-1.72 1
0.454897	2.07395	10.50	16.00	-3.07 0	1.07 1	-7.80 0	-1.54 1
0.453603	2.14187	10.00	15.00	-2.90 0	9.49 0	-7.06 0	-1.37 1
0.479706	2.16005	9.80	15.00	-2.76 0	9.57 0	-6.82 0	-1.37 1
0.445743	2.17409	9.80	14.50	-2.85 0	8.91 0	-6.77 0	-1.29 1
0.472747	2.19288	9.60	14.50	-2.71 0	8.99 0	-6.53 0	-1.29 1
0.464853	2.22752	9.40	14.00	-2.66 0	8.42 0	-6.25 0	-1.21 1
0.455892	2.26414	9.20	13.50	-2.61 0	7.87 0	-5.97 0	-1.13 1
0.445707	2.30295	9.00	13.00	-2.56 0	7.33 0	-5.70 0	-1.05 1
0.476956	2.32484	8.80	13.00	-2.42 0	7.40 0	-5.48 0	-1.05 1
0.466586	2.36686	8.60	12.50	-2.36 0	6.87 0	-5.22 0	-9.78 0
0.454671	2.41159	8.40	12.00	-2.31 0	6.36 0	-4.97 0	-9.07 0
0.440958	2.45932	8.20	11.50	-2.26 0	5.87 0	-4.72 0	-8.38 0
0.477699	2.48520	8.00	11.50	-2.12 0	5.93 0	-4.52 0	-8.37 0
0.463494	2.53737	7.80	11.00	-2.07 0	5.45 0	-4.29 0	-7.71 0
0.446938	2.59339	7.60	10.50	-2.01 0	4.99 0	-4.06 0	-7.07 0
0.471641	2.68490	7.20	10.00	-1.83 0	4.59 0	-3.66 0	-6.45 0
0.445627	2.69803	7.20	9.80	-1.86 0	4.39 0	-3.64 0	-6.22 0
0.464975	2.74456	7.00	9.60	-1.76 0	4.25 0	-3.45 0	-5.98 0
0.456846	2.80843	6.80	9.20	-1.69 0	3.92 0	-3.25 0	-5.52 0
0.478140	2.86062	6.60	9.00	-1.60 0	3.79 0	-3.07 0	-5.29 0
0.446967	2.87698	6.60	8.80	-1.62 0	3.61 0	-3.06 0	-5.08 0
0.468715	2.93276	6.40	8.60	-1.53 0	3.47 0	-2.88 0	-4.86 0
0.457121	3.01060	6.20	8.20	-1.46 0	3.17 0	-2.70 0	-4.44 0
0.442886	3.09490	6.00	7.80	-1.39 0	2.88 0	-2.53 0	-4.04 0
0.467351	3.16318	5.80	7.60	-1.31 0	2.76 0	-2.37 0	-3.84 0
0.450130	3.26045	5.60	7.20	-1.24 0	2.48 0	-2.20 0	-3.47 0
0.477302	3.33928	5.40	7.00	-1.16 0	2.37 0	-2.05 0	-3.28 0
0.456030	3.45289	5.20	6.60	-1.09 0	2.11 0	-1.90 0	-2.93 0
0.459413	3.67971	4.80	6.00	-9.52-1	1.76 0	-1.61 0	-2.44 0
0.458233	3.95156	4.40	5.40	-8.16-1	1.44 0	-1.35 0	-1.98 0
0.448798	4.28418	4.00	4.80	-6.88-1	1.14 0	-1.11 0	-1.57 0
0.460465	4.56994	3.70	4.40	-5.94-1	9.63-1	-9.44-1	-1.32 0
0.470709	4.91030	3.40	4.00	-5.05-1	7.97-1	-7.92-1	-1.09 0
0.450105	5.19280	3.20	3.70	-4.51-1	6.79-1	-6.97-1	-9.31-1
0.477636	5.32335	3.10	3.60	-4.22-1	6.45-1	-6.52-1	-8.80-1
0.446389	5.67323	2.90	3.30	-3.72-1	5.37-1	-5.65-1	-7.36-1
0.477546	5.83638	2.80	3.20	-3.45-1	5.06-1	-5.25-1	-6.90-1
0.462869	6.49266	2.50	2.80	-2.74-1	3.81-1	-4.10-1	-5.21-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.459608	7.67693	2.10	2.30	-1.90-1	2.49-1	-2.79-1	-3.40-1
0.463792	8.70914	1.85	2.00	-1.43-1	1.82-1	-2.09-1	-2.49-1
0.440935	10.1408	1.60	1.70	-1.03-1	1.25-1	-1.49-1	-1.72-1
0.474247	10.4661	1.55	1.65	-9.53-2	1.16-1	-1.38-1	-1.60-1
0.457515	13.9417	1.20	1.25	-5.09-2	5.86-2	-7.39-2	-8.20-2
0.461241	21.0750	0.86	0.88	-2.07-2	2.27-2	-3.09-2	-3.29-2
0.48	0.52						
0.486954	1.14345	44.00	90.00	7.80 1	2.37 2	-2.65 2	-4.40 2
0.483984	1.14655	43.00	88.00	6.80 1	2.23 2	-2.42 2	-4.11 2
0.493272	1.14921	43.00	89.00	7.22 1	2.30 2	-2.47 2	-4.21 2
0.481390	1.15016	42.00	86.00	5.92 1	2.11 2	-2.21 2	-3.85 2
0.502575	1.15198	43.00	90.00	7.65 1	2.38 2	-2.53 2	-4.31 2
0.490695	1.15271	42.00	87.00	6.30 1	2.17 2	-2.26 2	-3.94 2
0.500007	1.15535	42.00	88.00	6.68 1	2.24 2	-2.31 2	-4.03 2
0.488507	1.15674	41.00	85.00	5.49 1	2.05 2	-2.07 2	-3.70 2
0.509330	1.15810	42.00	89.00	7.08 1	2.31 2	-2.36 2	-4.13 2
0.497844	1.15927	41.00	86.00	5.84 1	2.12 2	-2.11 2	-3.78 2
0.518668	1.16095	42.00	90.00	7.50 1	2.38 2	-2.42 2	-4.23 2
0.486710	1.16132	40.00	83.00	4.79 1	1.94 2	-1.90 2	-3.47 2
0.507184	1.16190	41.00	87.00	6.19 1	2.18 2	-2.16 2	-3.87 2
0.496086	1.16374	40.00	84.00	5.10 1	2.00 2	-1.94 2	-3.55 2
0.516532	1.16463	41.00	88.00	6.56 1	2.25 2	-2.21 2	-3.96 2
0.505458	1.16626	40.00	85.00	5.42 1	2.06 2	-1.98 2	-3.63 2
0.485303	1.16648	39.00	81.00	4.17 1	1.84 2	-1.74 2	-3.27 2
0.494735	1.16878	39.00	82.00	4.45 1	1.90 2	-1.78 2	-3.34 2
0.514831	1.16888	40.00	86.00	5.75 1	2.13 2	-2.02 2	-3.72 2
0.504156	1.17119	39.00	83.00	4.74 1	1.95 2	-1.81 2	-3.42 2
0.484294	1.17222	38.00	79.00	3.63 1	1.75 2	-1.61 2	-3.07 2
0.513569	1.17370	39.00	84.00	5.03 1	2.01 2	-1.85 2	-3.50 2
0.493797	1.17442	38.00	80.00	3.88 1	1.80 2	-1.64 2	-3.14 2
0.503282	1.17673	38.00	81.00	4.14 1	1.85 2	-1.67 2	-3.22 2
0.483686	1.17858	37.00	77.00	3.15 1	1.66 2	-1.48 2	-2.89 2
0.512752	1.17913	38.00	82.00	4.40 1	1.91 2	-1.70 2	-3.29 2
0.493279	1.18068	37.00	78.00	3.38 1	1.71 2	-1.50 2	-2.96 2
0.502844	1.18288	37.00	79.00	3.61 1	1.76 2	-1.53 2	-3.03 2
0.512386	1.18517	37.00	80.00	3.85 1	1.81 2	-1.56 2	-3.10 2
0.483491	1.18559	36.00	75.00	2.72 1	1.57 2	-1.36 2	-2.73 2
0.493189	1.18758	36.00	76.00	2.93 1	1.62 2	-1.39 2	-2.79 2
0.502852	1.18968	36.00	77.00	3.14 1	1.67 2	-1.41 2	-2.86 2
0.512485	1.19188	36.00	78.00	3.36 1	1.72 2	-1.44 2	-2.92 2
0.483718	1.19328	35.00	73.00	2.35 1	1.50 2	-1.26 2	-2.57 2
0.493541	1.19516	35.00	74.00	2.53 1	1.54 2	-1.28 2	-2.63 2
0.503321	1.19717	35.00	75.00	2.73 1	1.59 2	-1.30 2	-2.69 2
0.513061	1.19927	35.00	76.00	2.92 1	1.64 2	-1.32 2	-2.75 2
0.484381	1.20170	34.00	71.00	2.01 1	1.42 2	-1.16 2	-2.42 2
0.494350	1.20349	34.00	72.00	2.18 1	1.47 2	-1.18 2	-2.48 2
0.504265	1.20539	34.00	73.00	2.36 1	1.51 2	-1.20 2	-2.54 2
0.514132	1.20739	34.00	74.00	2.54 1	1.56 2	-1.22 2	-2.60 2
0.485500	1.21089	33.00	69.00	1.71 1	1.35 2	-1.07 2	-2.28 2
0.495635	1.21258	33.00	70.00	1.87 1	1.39 2	-1.08 2	-2.33 2
0.505706	1.21438	33.00	71.00	2.03 1	1.44 2	-1.10 2	-2.39 2
0.515719	1.21628	33.00	72.00	2.20 1	1.48 2	-1.12 2	-2.45 2
0.487094	1.22090	32.00	67.00	1.45 1	1.28 2	-9.83 1	-2.14 2
0.497418	1.22249	32.00	68.00	1.59 1	1.32 2	-9.99 1	-2.20 2
0.507667	1.22419	32.00	69.00	1.74 1	1.37 2	-1.01 2	-2.25 2
0.517849	1.22600	32.00	70.00	1.89 1	1.41 2	-1.03 2	-2.31 2
0.489189	1.23180	31.00	65.00	1.22 1	1.22 2	-9.05 1	-2.01 2
0.499726	1.23328	31.00	66.00	1.35 1	1.26 2	-9.19 1	-2.06 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.510178	1.23488	31.00	67.00	1.48 1	1.30 2	-9.34 1	-2.12 2
0.480931	1.24240	30.00	62.00	8.90 0	1.11 2	-8.21 1	-1.84 2
0.491814	1.24365	30.00	63.00	1.01 1	1.15 2	-8.33 1	-1.89 2
0.502592	1.24502	30.00	64.00	1.13 1	1.19 2	-8.46 1	-1.94 2
0.513272	1.24652	30.00	65.00	1.25 1	1.23 2	-8.59 1	-1.99 2
0.483838	1.25540	29.00	60.00	7.16 0	1.05 2	-7.55 1	-1.72 2
0.495005	1.25654	29.00	61.00	8.26 0	1.09 2	-7.66 1	-1.77 2
0.506053	1.25780	29.00	62.00	9.38 0	1.13 2	-7.78 1	-1.82 2
0.516989	1.25919	29.00	63.00	1.05 1	1.17 2	-7.89 1	-1.87 2
0.487318	1.26953	28.00	58.00	5.63 0	9.96 1	-6.93 1	-1.61 2
0.498803	1.27054	28.00	59.00	6.65 0	1.03 2	-7.03 1	-1.66 2
0.510153	1.27169	28.00	60.00	7.68 0	1.07 2	-7.14 1	-1.71 2
0.491417	1.28490	27.00	56.00	4.29 0	9.41 1	-6.36 1	-1.51 2
0.503258	1.28578	27.00	57.00	5.23 0	9.76 1	-6.45 1	-1.55 2
0.514946	1.28681	27.00	58.00	6.18 0	1.01 2	-6.54 1	-1.60 2
0.483763	1.30105	26.00	53.00	2.27 0	8.53 1	-5.74 1	-1.36 2
0.496187	1.30163	26.00	54.00	3.12 0	8.86 1	-5.82 1	-1.41 2
0.508426	1.30237	26.00	55.00	3.99 0	9.21 1	-5.91 1	-1.45 2
0.488798	1.31943	25.00	51.00	1.32 0	8.01 1	-5.25 1	-1.27 2
0.501691	1.31985	25.00	52.00	2.11 0	8.34 1	-5.32 1	-1.31 2
0.514376	1.32045	25.00	53.00	2.91 0	8.67 1	-5.40 1	-1.35 2
0.480914	1.33946	24.00	48.00	-2.11-1	7.20 1	-4.72 1	-1.13 2
0.494584	1.33951	24.00	49.00	5.08-1	7.51 1	-4.78 1	-1.18 2
0.508003	1.33974	24.00	50.00	1.24 0	7.83 1	-4.85 1	-1.22 2
0.501201	1.36145	23.00	47.00	-1.78-1	7.02 1	-4.35 1	-1.09 2
0.515212	1.36150	23.00	48.00	4.94-1	7.33 1	-4.41 1	-1.13 2
0.486906	1.36162	23.00	46.00	-8.43-1	6.72 1	-4.29 1	-1.05 2
0.508744	1.38550	22.00	45.00	-7.51-1	6.55 1	-3.95 1	-1.00 2
0.493743	1.38590	22.00	44.00	-1.37 0	6.25 1	-3.89 1	-9.65 1
0.517329	1.41193	21.00	43.00	-1.22 0	6.09 1	-3.57 1	-9.22 1
0.501526	1.41260	21.00	42.00	-1.79 0	5.80 1	-3.52 1	-8.86 1
0.485330	1.41356	21.00	41.00	-2.35 0	5.52 1	-3.47 1	-8.50 1
0.510378	1.44205	20.00	40.00	-2.12 0	5.36 1	-3.17 1	-8.10 1
0.493211	1.44335	20.00	39.00	-2.63 0	5.09 1	-3.12 1	-7.75 1
0.515250	1.45792	19.50	39.00	-2.25 0	5.15 1	-3.00 1	-7.73 1
0.497544	1.45941	19.50	38.00	-2.74 0	4.88 1	-2.96 1	-7.39 1
0.502164	1.47633	19.00	37.00	-2.84 0	4.68 1	-2.80 1	-7.04 1
0.483319	1.47841	19.00	36.00	-3.31 0	4.42 1	-2.76 1	-6.72 1
0.507089	1.49417	18.50	36.00	-2.91 0	4.47 1	-2.65 1	-6.70 1
0.487579	1.49650	18.50	35.00	-3.37 0	4.22 1	-2.61 1	-6.38 1
0.512342	1.51301	18.00	35.00	-2.97 0	4.27 1	-2.50 1	-6.36 1
0.492115	1.51561	18.00	34.00	-3.40 0	4.03 1	-2.46 1	-6.05 1
0.517947	1.53293	17.50	34.00	-3.01 0	4.08 1	-2.36 1	-6.03 1
0.496944	1.53582	17.50	33.00	-3.42 0	3.83 1	-2.32 1	-5.73 1
0.502089	1.55723	17.00	32.00	-3.43 0	3.64 1	-2.19 1	-5.42 1
0.507570	1.57993	16.50	31.00	-3.42 0	3.46 1	-2.05 1	-5.11 1
0.483900	1.58412	16.50	30.00	-3.80 0	3.23 1	-2.03 1	-4.83 1
0.513415	1.60405	16.00	30.00	-3.40 0	3.28 1	-1.93 1	-4.82 1
0.488666	1.60868	16.00	29.00	-3.76 0	3.06 1	-1.90 1	-4.54 1
0.519650	1.62972	15.50	29.00	-3.36 0	3.10 1	-1.81 1	-4.53 1
0.493720	1.63484	15.50	28.00	-3.71 0	2.88 1	-1.78 1	-4.26 1
0.499080	1.66275	15.00	27.00	-3.65 0	2.71 1	-1.66 1	-3.99 1
0.504766	1.69260	14.50	26.00	-3.57 0	2.55 1	-1.55 1	-3.72 1
0.510796	1.72458	14.00	25.00	-3.49 0	2.39 1	-1.44 1	-3.47 1
0.517191	1.75894	13.50	24.00	-3.39 0	2.23 1	-1.34 1	-3.22 1
0.483351	1.76795	13.50	23.00	-3.68 0	2.04 1	-1.32 1	-2.98 1
0.487946	1.80599	13.00	22.00	-3.56 0	1.89 1	-1.22 1	-2.75 1
0.492671	1.84715	12.50	21.00	-3.44 0	1.75 1	-1.13 1	-2.53 1
0.497497	1.89183	12.00	20.00	-3.30 0	1.60 1	-1.04 1	-2.31 1
0.502380	1.94052	11.50	19.00	-3.16 0	1.47 1	-9.52 0	-2.11 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.507253	1.99380	11.00	18.00	-3.02 0	1.34 1	-8.70 0	-1.91 1
0.481705	2.00285	11.00	17.50	-3.13 0	1.26 1	-8.63 0	-1.81 1
0.512023	2.05235	10.50	17.00	-2.86 0	1.21 1	-7.92 0	-1.72 1
0.484104	2.06267	10.50	16.50	-2.97 0	1.14 1	-7.86 0	-1.63 1
0.516554	2.11703	10.00	16.00	-2.71 0	1.09 1	-7.17 0	-1.54 1
0.485845	2.12888	10.00	15.50	-2.80 0	1.02 1	-7.11 0	-1.45 1
0.511990	2.14727	9.80	15.50	-2.66 0	1.03 1	-6.87 0	-1.45 1
0.506754	2.17906	9.60	15.00	-2.62 0	9.65 0	-6.58 0	-1.37 1
0.500752	2.21255	9.40	14.50	-2.57 0	9.07 0	-6.30 0	-1.28 1
0.493874	2.24789	9.20	14.00	-2.52 0	8.50 0	-6.02 0	-1.20 1
0.485993	2.28525	9.00	13.50	-2.47 0	7.94 0	-5.74 0	-1.13 1
0.517295	2.30742	8.80	13.50	-2.33 0	8.01 0	-5.52 0	-1.13 1
0.509485	2.34785	8.60	13.00	-2.28 0	7.47 0	-5.26 0	-1.05 1
0.500426	2.39077	8.40	12.50	-2.23 0	6.94 0	-5.01 0	-9.77 0
0.489912	2.43645	8.20	12.00	-2.18 0	6.43 0	-4.76 0	-9.06 0
0.516120	2.51256	7.80	11.50	-1.99 0	5.99 0	-4.32 0	-8.37 0
0.503651	2.56591	7.60	11.00	-1.94 0	5.51 0	-4.10 0	-7.70 0
0.488966	2.62319	7.40	10.50	-1.88 0	5.04 0	-3.87 0	-7.07 0
0.517963	2.71803	7.00	10.00	-1.71 0	4.64 0	-3.48 0	-6.45 0
0.491915	2.73095	7.00	9.80	-1.73 0	4.44 0	-3.46 0	-6.21 0
0.513694	2.77942	6.80	9.60	-1.64 0	4.30 0	-3.28 0	-5.97 0
0.485772	2.79353	6.80	9.40	-1.67 0	4.11 0	-3.26 0	-5.74 0
0.508174	2.84515	6.60	9.20	-1.57 0	3.97 0	-3.08 0	-5.51 0
0.501144	2.91573	6.40	8.80	-1.51 0	3.65 0	-2.89 0	-5.07 0
0.492282	2.99176	6.20	8.40	-1.44 0	3.34 0	-2.71 0	-4.64 0
0.517885	3.05430	6.00	8.20	-1.35 0	3.21 0	-2.55 0	-4.44 0
0.481186	3.07396	6.00	8.00	-1.37 0	3.04 0	-2.54 0	-4.24 0
0.507426	3.14127	5.80	7.80	-1.29 0	2.92 0	-2.37 0	-4.03 0
0.494131	3.23588	5.60	7.40	-1.22 0	2.64 0	-2.21 0	-3.65 0
0.507279	3.42364	5.20	6.80	-1.07 0	2.25 0	-1.90 0	-3.10 0
0.486343	3.54506	5.00	6.40	-1.01 0	2.00 0	-1.75 0	-2.76 0
0.493352	3.78910	4.60	5.80	-8.75-1	1.66 0	-1.48 0	-2.28 0
0.496282	4.08381	4.20	5.20	-7.44-1	1.34 0	-1.23 0	-1.84 0
0.517455	4.33425	3.90	4.80	-6.47-1	1.15 0	-1.06 0	-1.57 0
0.491278	4.44775	3.80	4.60	-6.20-1	1.06 0	-9.99-1	-1.45 0
0.508794	4.76373	3.50	4.20	-5.30-1	8.83-1	-8.42-1	-1.20 0
0.497164	5.02367	3.30	3.90	-4.75-1	7.60-1	-7.44-1	-1.04 0
0.507951	5.46251	3.00	3.50	-3.94-1	6.10-1	-6.08-1	-8.31-1
0.512299	6.01171	2.70	3.10	-3.19-1	4.75-1	-4.85-1	-6.46-1
0.502253	6.72113	2.40	2.70	-2.51-1	3.54-1	-3.75-1	-4.82-1
0.509398	8.02186	2.00	2.20	-1.70-1	2.26-1	-2.50-1	-3.09-1
0.492415	8.93629	1.80	1.95	-1.34-1	1.72-1	-1.96-1	-2.36-1
0.511564	10.8165	1.50	1.60	-8.80-2	1.08-1	-1.28-1	-1.49-1
0.509421	14.6204	1.15	1.20	-4.55-2	5.29-2	-6.63-2	-7.40-2
0.493034	21.7232	0.84	0.86	-1.94-2	2.13-2	-2.89-2	-3.10-2
0.52	0.56						
0.525891	1.16746	41.00	89.00	6.95 1	2.32 2	-2.26 2	-4.05 2
0.535266	1.17040	41.00	90.00	7.35 1	2.39 2	-2.31 2	-4.15 2
0.524209	1.17160	40.00	87.00	6.09 1	2.19 2	-2.06 2	-3.80 2
0.533594	1.17442	40.00	88.00	6.44 1	2.25 2	-2.11 2	-3.89 2
0.522980	1.17631	39.00	85.00	5.34 1	2.07 2	-1.89 2	-3.58 2
0.542992	1.17734	40.00	89.00	6.81 1	2.32 2	-2.15 2	-3.98 2
0.532391	1.17902	39.00	86.00	5.65 1	2.13 2	-1.93 2	-3.66 2
0.552406	1.18036	40.00	90.00	7.19 1	2.39 2	-2.20 2	-4.07 2
0.522211	1.18163	38.00	83.00	4.68 1	1.97 2	-1.73 2	-3.37 2
0.541807	1.18183	39.00	87.00	5.98 1	2.20 2	-1.97 2	-3.74 2
0.531663	1.18423	38.00	84.00	4.96 1	2.02 2	-1.77 2	-3.44 2
0.551232	1.18474	39.00	88.00	6.32 1	2.26 2	-2.01 2	-3.83 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.541114	1.18693	38.00	85.00	5.25 1	2.08 2	-1.80 2	-3.52 2
0.521911	1.18758	37.00	81.00	4.09 1	1.87 2	-1.59 2	-3.17 2
0.550566	1.18974	38.00	86.00	5.55 1	2.14 2	-1.84 2	-3.60 2
0.531421	1.19008	37.00	82.00	4.35 1	1.92 2	-1.62 2	-3.24 2
0.540921	1.19267	37.00	83.00	4.61 1	1.98 2	-1.65 2	-3.32 2
0.522091	1.19418	36.00	79.00	3.58 1	1.77 2	-1.46 2	-2.99 2
0.550415	1.19537	37.00	84.00	4.88 1	2.04 2	-1.69 2	-3.39 2
0.531675	1.19658	36.00	80.00	3.81 1	1.83 2	-1.49 2	-3.06 2
0.559907	1.19817	37.00	85.00	5.16 1	2.09 2	-1.72 2	-3.47 2
0.541241	1.19908	36.00	81.00	4.05 1	1.88 2	-1.52 2	-3.13 2
0.522766	1.20147	35.00	77.00	3.13 1	1.69 2	-1.34 2	-2.82 2
0.550794	1.20168	36.00	82.00	4.29 1	1.93 2	-1.55 2	-3.20 2
0.532441	1.20377	35.00	78.00	3.33 1	1.74 2	-1.37 2	-2.88 2
0.542091	1.20618	35.00	79.00	3.55 1	1.79 2	-1.39 2	-2.95 2
0.551719	1.20868	35.00	80.00	3.77 1	1.84 2	-1.42 2	-3.02 2
0.523955	1.20950	34.00	75.00	2.72 1	1.60 2	-1.24 2	-2.66 2
0.533739	1.21171	34.00	76.00	2.91 1	1.65 2	-1.26 2	-2.72 2
0.543490	1.21401	34.00	77.00	3.10 1	1.70 2	-1.28 2	-2.78 2
0.553210	1.21642	34.00	78.00	3.30 1	1.75 2	-1.30 2	-2.85 2
0.525680	1.21829	33.00	73.00	2.36 1	1.53 2	-1.14 2	-2.51 2
0.535592	1.22041	33.00	74.00	2.54 1	1.57 2	-1.16 2	-2.57 2
0.545462	1.22263	33.00	75.00	2.71 1	1.62 2	-1.18 2	-2.63 2
0.555293	1.22494	33.00	76.00	2.89 1	1.67 2	-1.20 2	-2.69 2
0.527967	1.22791	32.00	71.00	2.05 1	1.45 2	-1.05 2	-2.36 2
0.538028	1.22993	32.00	72.00	2.20 1	1.50 2	-1.06 2	-2.42 2
0.548037	1.23206	32.00	73.00	2.36 1	1.54 2	-1.08 2	-2.48 2
0.557999	1.23430	32.00	74.00	2.53 1	1.59 2	-1.10 2	-2.54 2
0.520550	1.23659	31.00	68.00	1.62 1	1.34 2	-9.48 1	-2.17 2
0.530849	1.23841	31.00	69.00	1.76 1	1.38 2	-9.64 1	-2.23 2
0.541080	1.24034	31.00	70.00	1.91 1	1.42 2	-9.79 1	-2.28 2
0.551249	1.24238	31.00	71.00	2.05 1	1.47 2	-9.95 1	-2.34 2
0.523860	1.24813	30.00	66.00	1.38 1	1.27 2	-8.72 1	-2.04 2
0.534363	1.24986	30.00	67.00	1.51 1	1.31 2	-8.86 1	-2.10 2
0.544788	1.25170	30.00	68.00	1.64 1	1.36 2	-9.00 1	-2.15 2
0.555140	1.25365	30.00	69.00	1.78 1	1.40 2	-9.14 1	-2.20 2
0.527820	1.26070	29.00	64.00	1.17 1	1.21 2	-8.01 1	-1.92 2
0.538554	1.26233	29.00	65.00	1.29 1	1.25 2	-8.13 1	-1.97 2
0.549197	1.26408	29.00	66.00	1.41 1	1.29 2	-8.26 1	-2.02 2
0.559756	1.26594	29.00	67.00	1.53 1	1.33 2	-8.39 1	-2.08 2
0.521376	1.27297	28.00	61.00	8.73 0	1.11 2	-7.24 1	-1.76 2
0.532481	1.27438	28.00	62.00	9.80 0	1.15 2	-7.35 1	-1.81 2
0.543474	1.27591	28.00	63.00	1.09 1	1.18 2	-7.46 1	-1.85 2
0.554363	1.27757	28.00	64.00	1.20 1	1.22 2	-7.58 1	-1.90 2
0.526490	1.28797	27.00	59.00	7.15 0	1.05 2	-6.64 1	-1.65 2
0.537900	1.28928	27.00	60.00	8.13 0	1.09 2	-6.74 1	-1.69 2
0.549184	1.29071	27.00	61.00	9.13 0	1.12 2	-6.84 1	-1.74 2
0.520492	1.30327	26.00	56.00	4.87 0	9.56 1	-5.99 1	-1.50 2
0.532396	1.30431	26.00	57.00	5.76 0	9.92 1	-6.08 1	-1.54 2
0.544149	1.30551	26.00	58.00	6.66 0	1.03 2	-6.17 1	-1.59 2
0.555758	1.30684	26.00	59.00	7.58 0	1.06 2	-6.26 1	-1.63 2
0.526865	1.32121	25.00	54.00	3.72 0	9.01 1	-5.47 1	-1.40 2
0.539172	1.32213	25.00	55.00	4.54 0	9.36 1	-5.55 1	-1.44 2
0.551307	1.32320	25.00	56.00	5.38 0	9.71 1	-5.63 1	-1.48 2
0.521188	1.34018	24.00	51.00	1.97 0	8.15 1	-4.92 1	-1.26 2
0.534152	1.34079	24.00	52.00	2.72 0	8.49 1	-4.99 1	-1.30 2
0.546910	1.34158	24.00	53.00	3.48 0	8.82 1	-5.06 1	-1.34 2
0.559473	1.34253	24.00	54.00	4.25 0	9.17 1	-5.13 1	-1.39 2
0.528958	1.36176	23.00	49.00	1.18 0	7.65 1	-4.47 1	-1.17 2
0.542455	1.36221	23.00	50.00	1.87 0	7.97 1	-4.54 1	-1.21 2
0.555718	1.36285	23.00	51.00	2.56 0	8.30 1	-4.60 1	-1.25 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.523424	1.38533	22.00	46.00	-1.30-1	6.85 1	-4.00 1	-1.04 2
0.537802	1.38540	22.00	47.00	4.99-1	7.16 1	-4.06 1	-1.08 2
0.551898	1.38568	22.00	48.00	1.13 0	7.47 1	-4.11 1	-1.12 2
0.547858	1.41138	21.00	45.00	-6.71-2	6.68 1	-3.67 1	-9.97 1
0.532765	1.41153	21.00	44.00	-6.46-1	6.38 1	-3.62 1	-9.59 1
0.559293	1.44002	20.00	43.00	-5.32-1	6.22 1	-3.30 1	-9.17 1
0.543390	1.44041	20.00	42.00	-1.06 0	5.93 1	-3.26 1	-8.80 1
0.527094	1.44108	20.00	41.00	-1.59 0	5.64 1	-3.21 1	-8.45 1
0.549240	1.45597	19.50	41.00	-1.24 0	5.70 1	-3.09 1	-8.42 1
0.532471	1.45679	19.50	40.00	-1.75 0	5.42 1	-3.04 1	-8.07 1
0.555485	1.47235	19.00	40.00	-1.39 0	5.48 1	-2.92 1	-8.05 1
0.538208	1.47333	19.00	39.00	-1.88 0	5.21 1	-2.88 1	-7.71 1
0.520447	1.47464	19.00	38.00	-2.36 0	4.94 1	-2.84 1	-7.37 1
0.544334	1.49076	18.50	38.00	-1.99 0	4.99 1	-2.72 1	-7.35 1
0.525992	1.49227	18.50	37.00	-2.45 0	4.73 1	-2.68 1	-7.02 1
0.550879	1.50916	18.00	37.00	-2.09 0	4.79 1	-2.57 1	-7.00 1
0.531913	1.51088	18.00	36.00	-2.53 0	4.53 1	-2.53 1	-6.68 1
0.557876	1.52860	17.50	36.00	-2.16 0	4.58 1	-2.42 1	-6.66 1
0.538239	1.53054	17.50	35.00	-2.59 0	4.32 1	-2.39 1	-6.34 1
0.545002	1.55135	17.00	34.00	-2.63 0	4.13 1	-2.25 1	-6.02 1
0.523931	1.55402	17.00	33.00	-3.03 0	3.88 1	-2.22 1	-5.71 1
0.552241	1.57340	16.50	33.00	-2.65 0	3.93 1	-2.11 1	-5.70 1
0.530325	1.57637	16.50	32.00	-3.04 0	3.69 1	-2.08 1	-5.40 1
0.559996	1.59681	16.00	32.00	-2.67 0	3.74 1	-1.98 1	-5.39 1
0.537162	1.60011	16.00	31.00	-3.03 0	3.51 1	-1.96 1	-5.10 1
0.544482	1.62536	15.50	30.00	-3.01 0	3.32 1	-1.83 1	-4.80 1
0.552328	1.65227	15.00	29.00	-2.98 0	3.14 1	-1.71 1	-4.52 1
0.526308	1.65709	15.00	28.00	-3.32 0	2.92 1	-1.69 1	-4.25 1
0.533424	1.68633	14.50	27.00	-3.26 0	2.75 1	-1.57 1	-3.98 1
0.541036	1.71764	14.00	26.00	-3.19 0	2.59 1	-1.47 1	-3.71 1
0.549188	1.75124	13.50	25.00	-3.11 0	2.42 1	-1.36 1	-3.46 1
0.557930	1.78739	13.00	24.00	-3.02 0	2.26 1	-1.26 1	-3.21 1
0.523972	1.79596	13.00	23.00	-3.29 0	2.07 1	-1.24 1	-2.98 1
0.531163	1.83595	12.50	22.00	-3.18 0	1.92 1	-1.15 1	-2.75 1
0.538782	1.87928	12.00	21.00	-3.06 0	1.77 1	-1.05 1	-2.52 1
0.546852	1.92640	11.50	20.00	-2.93 0	1.63 1	-9.67 0	-2.31 1
0.525022	1.93317	11.50	19.50	-3.04 0	1.55 1	-9.60 0	-2.21 1
0.555387	1.97784	11.00	19.00	-2.79 0	1.49 1	-8.84 0	-2.10 1
0.531789	1.98548	11.00	18.50	-2.90 0	1.41 1	-8.77 0	-2.00 1
0.538757	2.04289	10.50	17.50	-2.76 0	1.28 1	-7.98 0	-1.81 1
0.545862	2.10622	10.00	16.50	-2.61 0	1.16 1	-7.23 0	-1.63 1
0.542743	2.13562	9.80	16.00	-2.57 0	1.10 1	-6.93 0	-1.54 1
0.539083	2.16649	9.60	15.50	-2.52 0	1.03 1	-6.63 0	-1.45 1
0.534806	2.19896	9.40	15.00	-2.48 0	9.74 0	-6.35 0	-1.37 1
0.529822	2.23317	9.20	14.50	-2.43 0	9.15 0	-6.07 0	-1.28 1
0.524025	2.26927	9.00	14.00	-2.38 0	8.57 0	-5.79 0	-1.20 1
0.555383	2.29170	8.80	14.00	-2.25 0	8.65 0	-5.57 0	-1.20 1
0.549882	2.33073	8.60	13.50	-2.20 0	8.08 0	-5.31 0	-1.13 1
0.543385	2.37208	8.40	13.00	-2.15 0	7.54 0	-5.05 0	-1.05 1
0.535729	2.41598	8.20	12.50	-2.10 0	7.01 0	-4.80 0	-9.76 0
0.526719	2.46270	8.00	12.00	-2.05 0	6.49 0	-4.56 0	-9.05 0
0.556352	2.54151	7.60	11.50	-1.87 0	6.05 0	-4.13 0	-8.36 0
0.545757	2.59616	7.40	11.00	-1.82 0	5.56 0	-3.91 0	-7.70 0
0.533096	2.65483	7.20	10.50	-1.76 0	5.09 0	-3.69 0	-7.06 0
0.540672	2.76604	6.80	9.80	-1.61 0	4.49 0	-3.29 0	-6.21 0
0.537141	2.83051	6.60	9.40	-1.55 0	4.16 0	-3.09 0	-5.74 0
0.532359	2.89965	6.40	9.00	-1.48 0	3.83 0	-2.90 0	-5.29 0
0.558528	2.95729	6.20	8.80	-1.39 0	3.69 0	-2.73 0	-5.07 0
0.526053	2.97402	6.20	8.60	-1.42 0	3.52 0	-2.72 0	-4.85 0
0.553095	3.03580	6.00	8.40	-1.33 0	3.38 0	-2.55 0	-4.64 0

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.545778	3.12071	5.80	8.00	-1.26 0	3.08 0	-2.38 0	-4.23 0
0.536121	3.21291	5.60	7.60	-1.20 0	2.79 0	-2.22 0	-3.84 0
0.523540	3.31345	5.40	7.20	-1.14 0	2.52 0	-2.06 0	-3.46 0
0.555950	3.39644	5.20	7.00	-1.06 0	2.40 0	-1.91 0	-3.28 0
0.540479	3.51415	5.00	6.60	-9.95-1	2.14 0	-1.76 0	-2.93 0
0.520100	3.64427	4.80	6.20	-9.34-1	1.89 0	-1.62 0	-2.60 0
0.557864	3.75142	4.60	6.00	-8.58-1	1.79 0	-1.49 0	-2.44 0
0.531575	3.90771	4.40	5.60	-8.01-1	1.56 0	-1.35 0	-2.13 0
0.539729	4.22845	4.00	5.00	-6.74-1	1.25 0	-1.11 0	-1.70 0
0.540634	4.62863	3.60	4.40	-5.55-1	9.73-1	-8.95-1	-1.32 0
0.526080	5.14395	3.20	3.80	-4.46-1	7.23-1	-6.98-1	-9.83-1
0.557782	5.27183	3.10	3.70	-4.17-1	6.87-1	-6.53-1	-9.31-1
0.541449	5.61119	2.90	3.40	-3.67-1	5.77-1	-5.66-1	-7.83-1
0.551234	6.20069	2.60	3.00	-2.94-1	4.45-1	-4.47-1	-6.03-1
0.547183	6.97024	2.30	2.60	-2.28-1	3.28-1	-3.42-1	-4.45-1
0.523871	9.17786	1.75	1.90	-1.26-1	1.63-1	-1.84-1	-2.22-1
0.558548	9.43530	1.70	1.85	-1.18-1	1.53-1	-1.72-1	-2.09-1
0.553621	11.1951	1.45	1.55	-8.10-2	1.01-1	-1.18-1	-1.38-1
0.528140	22.4145	0.82	0.84	-1.80-2	1.99-2	-2.71-2	-2.90-2
0.56	0.60						
0.560671	1.18775	39.00	89.00	6.67 1	2.33 2	-2.05 2	-3.91 2
0.570126	1.19087	39.00	90.00	7.03 1	2.40 2	-2.10 2	-4.00 2
0.560023	1.19264	38.00	87.00	5.86 1	2.21 2	-1.88 2	-3.68 2
0.569490	1.19565	38.00	88.00	6.19 1	2.27 2	-1.92 2	-3.76 2
0.578971	1.19875	38.00	89.00	6.52 1	2.33 2	-1.96 2	-3.85 2
0.569402	1.20107	37.00	86.00	5.45 1	2.15 2	-1.75 2	-3.54 2
0.588470	1.20197	38.00	90.00	6.87 1	2.40 2	-2.00 2	-3.93 2
0.578903	1.20408	37.00	87.00	5.75 1	2.21 2	-1.79 2	-3.62 2
0.560337	1.20438	36.00	83.00	4.54 1	1.99 2	-1.58 2	-3.27 2
0.569876	1.20718	36.00	84.00	4.80 1	2.05 2	-1.61 2	-3.34 2
0.588415	1.20718	37.00	88.00	6.06 1	2.28 2	-1.83 2	-3.70 2
0.579413	1.21007	36.00	85.00	5.07 1	2.10 2	-1.64 2	-3.41 2
0.597941	1.21038	37.00	89.00	6.38 1	2.34 2	-1.87 2	-3.78 2
0.561330	1.21129	35.00	81.00	3.99 1	1.89 2	-1.45 2	-3.08 2
0.588953	1.21308	36.00	86.00	5.34 1	2.16 2	-1.67 2	-3.49 2
0.570928	1.21399	35.00	82.00	4.23 1	1.95 2	-1.47 2	-3.15 2
0.598500	1.21618	36.00	87.00	5.63 1	2.22 2	-1.71 2	-3.57 2
0.580517	1.21679	35.00	83.00	4.47 1	2.00 2	-1.50 2	-3.22 2
0.562906	1.21894	34.00	79.00	3.51 1	1.80 2	-1.33 2	-2.91 2
0.590102	1.21969	35.00	84.00	4.71 1	2.06 2	-1.53 2	-3.29 2
0.572580	1.22154	34.00	80.00	3.72 1	1.85 2	-1.35 2	-2.98 2
0.599687	1.22269	35.00	85.00	4.97 1	2.11 2	-1.56 2	-3.36 2
0.582239	1.22426	34.00	81.00	3.93 1	1.91 2	-1.38 2	-3.04 2
0.591885	1.22707	34.00	82.00	4.16 1	1.96 2	-1.40 2	-3.11 2
0.565091	1.22736	33.00	77.00	3.08 1	1.72 2	-1.22 2	-2.75 2
0.574861	1.22989	33.00	78.00	3.27 1	1.77 2	-1.24 2	-2.81 2
0.584605	1.23251	33.00	79.00	3.46 1	1.82 2	-1.26 2	-2.87 2
0.594330	1.23523	33.00	80.00	3.67 1	1.87 2	-1.29 2	-2.94 2
0.567918	1.23663	32.00	75.00	2.70 1	1.64 2	-1.12 2	-2.60 2
0.577800	1.23906	32.00	76.00	2.87 1	1.68 2	-1.14 2	-2.66 2
0.587649	1.24160	32.00	77.00	3.05 1	1.73 2	-1.16 2	-2.72 2
0.597470	1.24424	32.00	78.00	3.23 1	1.78 2	-1.18 2	-2.78 2
0.561362	1.24452	31.00	72.00	2.20 1	1.51 2	-1.01 2	-2.39 2
0.571422	1.24677	31.00	73.00	2.36 1	1.56 2	-1.03 2	-2.45 2
0.581437	1.24913	31.00	74.00	2.51 1	1.60 2	-1.05 2	-2.51 2
0.591409	1.25158	31.00	75.00	2.67 1	1.65 2	-1.06 2	-2.57 2
0.565425	1.25571	30.00	70.00	1.91 1	1.44 2	-9.29 1	-2.26 2
0.575648	1.25787	30.00	71.00	2.05 1	1.48 2	-9.44 1	-2.31 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.585815	1.26014	30.00	72.00	2.20 1	1.53 2	-9.59 1	-2.37 2
0.595931	1.26252	30.00	73.00	2.34 1	1.57 2	-9.75 1	-2.42 2
0.570237	1.26792	29.00	68.00	1.66 1	1.37 2	-8.52 1	-2.13 2
0.580646	1.27000	29.00	69.00	1.78 1	1.41 2	-8.66 1	-2.18 2
0.590989	1.27220	29.00	70.00	1.92 1	1.46 2	-8.79 1	-2.24 2
0.565156	1.27934	28.00	65.00	1.31 1	1.26 2	-7.69 1	-1.95 2
0.575859	1.28123	28.00	66.00	1.43 1	1.30 2	-7.81 1	-2.01 2
0.586478	1.28324	28.00	67.00	1.54 1	1.35 2	-7.93 1	-2.06 2
0.597019	1.28535	28.00	68.00	1.66 1	1.39 2	-8.06 1	-2.11 2
0.560350	1.29227	27.00	62.00	1.02 1	1.16 2	-6.94 1	-1.79 2
0.571405	1.29396	27.00	63.00	1.12 1	1.20 2	-7.05 1	-1.84 2
0.582358	1.29577	27.00	64.00	1.22 1	1.24 2	-7.15 1	-1.89 2
0.593214	1.29769	27.00	65.00	1.33 1	1.28 2	-7.26 1	-1.94 2
0.567233	1.30830	26.00	60.00	8.52 0	1.10 2	-6.35 1	-1.68 2
0.578583	1.30990	26.00	61.00	9.47 0	1.14 2	-6.44 1	-1.73 2
0.589816	1.31162	26.00	62.00	1.04 1	1.18 2	-6.54 1	-1.77 2
0.563280	1.32443	25.00	57.00	6.22 0	1.01 2	-5.71 1	-1.53 2
0.575102	1.32579	25.00	58.00	7.08 0	1.04 2	-5.80 1	-1.57 2
0.586782	1.32730	25.00	59.00	7.96 0	1.08 2	-5.88 1	-1.62 2
0.598329	1.32893	25.00	60.00	8.85 0	1.12 2	-5.97 1	-1.67 2
0.571854	1.34364	24.00	55.00	5.03 0	9.51 1	-5.21 1	-1.43 2
0.584064	1.34491	24.00	56.00	5.82 0	9.87 1	-5.28 1	-1.47 2
0.596113	1.34631	24.00	57.00	6.63 0	1.02 2	-5.36 1	-1.52 2
0.568762	1.36367	23.00	52.00	3.27 0	8.63 1	-4.67 1	-1.29 2
0.581600	1.36466	23.00	53.00	3.99 0	8.97 1	-4.73 1	-1.33 2
0.594244	1.36582	23.00	54.00	4.72 0	9.32 1	-4.80 1	-1.38 2
0.565729	1.38617	22.00	49.00	1.78 0	7.79 1	-4.17 1	-1.16 2
0.579312	1.38684	22.00	50.00	2.43 0	8.12 1	-4.23 1	-1.20 2
0.592662	1.38771	22.00	51.00	3.09 0	8.45 1	-4.29 1	-1.24 2
0.562630	1.41147	21.00	46.00	5.18-1	6.99 1	-3.72 1	-1.03 2
0.577101	1.41179	21.00	47.00	1.11 0	7.30 1	-3.77 1	-1.07 2
0.591291	1.41231	21.00	48.00	1.71 0	7.61 1	-3.83 1	-1.11 2
0.574830	1.43989	20.00	44.00	7.02-3	6.51 1	-3.35 1	-9.53 1
0.590025	1.44002	20.00	45.00	5.51-1	6.81 1	-3.40 1	-9.91 1
0.581548	1.45521	19.50	43.00	-2.12-1	6.28 1	-3.17 1	-9.14 1
0.597140	1.45523	19.50	44.00	3.09-1	6.58 1	-3.22 1	-9.51 1
0.565590	1.45545	19.50	42.00	-7.29-1	5.99 1	-3.13 1	-8.78 1
0.588719	1.47133	19.00	42.00	-4.09-1	6.05 1	-3.00 1	-8.76 1
0.572312	1.47169	19.00	41.00	-9.04-1	5.76 1	-2.96 1	-8.40 1
0.596380	1.48831	18.50	41.00	-5.84-1	5.83 1	-2.84 1	-8.38 1
0.579492	1.48881	18.50	40.00	-1.06 0	5.54 1	-2.80 1	-8.03 1
0.562155	1.48961	18.50	39.00	-1.53 0	5.27 1	-2.76 1	-7.69 1
0.587168	1.50687	18.00	39.00	-1.19 0	5.32 1	-2.64 1	-7.67 1
0.569283	1.50783	18.00	38.00	-1.64 0	5.05 1	-2.61 1	-7.33 1
0.595381	1.52594	17.50	38.00	-1.31 0	5.11 1	-2.49 1	-7.31 1
0.576908	1.52707	17.50	37.00	-1.74 0	4.84 1	-2.46 1	-6.98 1
0.585073	1.54743	17.00	36.00	-1.82 0	4.63 1	-2.31 1	-6.64 1
0.565365	1.54916	17.00	35.00	-2.22 0	4.38 1	-2.28 1	-6.33 1
0.593825	1.56899	16.50	35.00	-1.88 0	4.43 1	-2.18 1	-6.31 1
0.573387	1.57095	16.50	34.00	-2.27 0	4.18 1	-2.14 1	-6.00 1
0.581991	1.59407	16.00	33.00	-2.30 0	3.98 1	-2.01 1	-5.69 1
0.591233	1.61864	15.50	32.00	-2.31 0	3.79 1	-1.89 1	-5.38 1
0.568314	1.62169	15.50	31.00	-2.66 0	3.55 1	-1.86 1	-5.09 1
0.577250	1.64820	15.00	30.00	-2.65 0	3.37 1	-1.74 1	-4.79 1
0.586864	1.67648	14.50	29.00	-2.62 0	3.19 1	-1.62 1	-4.51 1
0.560747	1.68099	14.50	28.00	-2.94 0	2.97 1	-1.60 1	-4.24 1
0.597226	1.70672	14.00	28.00	-2.58 0	3.01 1	-1.51 1	-4.23 1
0.569797	1.71172	14.00	27.00	-2.88 0	2.79 1	-1.49 1	-3.97 1
0.579540	1.74468	13.50	26.00	-2.82 0	2.62 1	-1.38 1	-3.71 1
0.590049	1.78010	13.00	25.00	-2.74 0	2.46 1	-1.28 1	-3.45 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.567319	1.82640	12.50	23.00	-2.92 0	2.11 1	-1.16 1	-2.97 1
0.577416	1.86861	12.00	22.00	-2.81 0	1.95 1	-1.07 1	-2.74 1
0.588293	1.91444	11.50	21.00	-2.69 0	1.81 1	-9.82 0	-2.52 1
0.578114	1.97082	11.00	19.50	-2.68 0	1.58 1	-8.91 0	-2.20 1
0.589028	2.02629	10.50	18.50	-2.55 0	1.44 1	-8.11 0	-2.00 1
0.564397	2.03423	10.50	18.00	-2.65 0	1.36 1	-8.04 0	-1.90 1
0.573884	2.09634	10.00	17.00	-2.51 0	1.23 1	-7.29 0	-1.72 1
0.572096	2.12499	9.80	16.50	-2.47 0	1.17 1	-6.98 0	-1.63 1
0.599285	2.14462	9.60	16.50	-2.33 0	1.18 1	-6.74 0	-1.62 1
0.569883	2.15505	9.60	16.00	-2.43 0	1.10 1	-6.69 0	-1.54 1
0.598035	2.17538	9.40	16.00	-2.29 0	1.11 1	-6.45 0	-1.54 1
0.567185	2.18661	9.40	15.50	-2.38 0	1.04 1	-6.40 0	-1.45 1
0.596358	2.20769	9.20	15.50	-2.25 0	1.05 1	-6.17 0	-1.45 1
0.563927	2.21981	9.20	15.00	-2.34 0	9.82 0	-6.12 0	-1.37 1
0.594187	2.24167	9.00	15.00	-2.21 0	9.90 0	-5.89 0	-1.36 1
0.560026	2.25479	9.00	14.50	-2.29 0	9.23 0	-5.84 0	-1.28 1
0.591442	2.27749	8.80	14.50	-2.16 0	9.31 0	-5.62 0	-1.28 1
0.588031	2.31529	8.60	14.00	-2.12 0	8.72 0	-5.35 0	-1.20 1
0.583844	2.35526	8.40	13.50	-2.07 0	8.16 0	-5.10 0	-1.12 1
0.578754	2.39761	8.20	13.00	-2.02 0	7.61 0	-4.84 0	-1.05 1
0.572604	2.44257	8.00	12.50	-1.97 0	7.07 0	-4.60 0	-9.76 0
0.565211	2.49044	7.80	12.00	-1.92 0	6.55 0	-4.36 0	-9.05 0
0.598541	2.57219	7.40	11.50	-1.75 0	6.11 0	-3.94 0	-8.36 0
0.589974	2.62828	7.20	11.00	-1.69 0	5.62 0	-3.72 0	-7.70 0
0.579509	2.68849	7.00	10.50	-1.64 0	5.15 0	-3.51 0	-7.06 0
0.566759	2.75335	6.80	10.00	-1.59 0	4.69 0	-3.30 0	-6.44 0
0.592123	2.80351	6.60	9.80	-1.50 0	4.54 0	-3.12 0	-6.20 0
0.565104	2.81665	6.60	9.60	-1.52 0	4.35 0	-3.10 0	-5.97 0
0.591448	2.87008	6.40	9.40	-1.44 0	4.20 0	-2.93 0	-5.74 0
0.562436	2.88445	6.40	9.20	-1.46 0	4.02 0	-2.92 0	-5.51 0
0.589791	2.94150	6.20	9.00	-1.37 0	3.88 0	-2.74 0	-5.29 0
0.586918	3.01838	6.00	8.60	-1.31 0	3.56 0	-2.56 0	-4.85 0
0.582531	3.10141	5.80	8.20	-1.24 0	3.25 0	-2.39 0	-4.43 0
0.576254	3.19140	5.60	7.80	-1.18 0	2.96 0	-2.23 0	-4.03 0
0.567602	3.28935	5.40	7.40	-1.12 0	2.67 0	-2.06 0	-3.65 0
0.591801	3.48548	5.00	6.80	-9.77-1	2.29 0	-1.77 0	-3.10 0
0.577399	3.61155	4.80	6.40	-9.17-1	2.03 0	-1.62 0	-2.76 0
0.574861	4.03681	4.20	5.40	-7.29-1	1.46 0	-1.23 0	-1.98 0
0.589683	4.38743	3.80	4.80	-6.07-1	1.16 0	-1.00 0	-1.57 0
0.567310	4.50358	3.70	4.60	-5.81-1	1.07 0	-9.48-1	-1.44 0
0.598488	4.82986	3.40	4.20	-4.93-1	8.92-1	-7.95-1	-1.20 0
0.565814	4.98016	3.30	4.00	-4.69-1	8.06-1	-7.46-1	-1.09 0
0.598269	5.09821	3.20	3.90	-4.40-1	7.68-1	-6.99-1	-1.04 0
0.592646	5.40807	3.00	3.60	-3.89-1	6.52-1	-6.10-1	-9.80-1
0.578604	5.77043	2.80	3.30	-3.40-1	5.44-1	-5.26-1	-7.36-1
0.595065	6.40504	2.50	2.90	-2.70-1	4.16-1	-4.11-1	-5.61-1
0.598767	7.24303	2.20	2.50	-2.07-1	3.02-1	-3.10-1	-4.08-1
0.568135	8.40614	1.90	2.10	-1.51-1	2.05-1	-2.22-1	-2.79-1
0.596903	9.71024	1.65	1.80	-1.09-1	1.44-1	-1.60-1	-1.96-1
0.570715	15.3767	1.10	1.15	-4.05-2	4.74-2	-5.92-2	-6.65-2
0.567017	23.1531	0.80	0.82	-1.68-2	1.85-2	-2.53-2	-2.72-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.60	0.65						
0.607485	1.21369	37.00	90.00	6.71 1	2.41 2	-1.91 2	-3.87 2
0.608059	1.21938	36.00	88.00	5.92 1	2.28 2	-1.74 2	-3.64 2
0.617632	1.22269	36.00	89.00	6.23 1	2.35 2	-1.78 2	-3.72 2
0.609275	1.22580	35.00	86.00	5.23 1	2.17 2	-1.59 2	-3.44 2
0.627225	1.22610	36.00	90.00	6.54 1	2.41 2	-1.81 2	-3.80 2
0.618872	1.22900	35.00	87.00	5.50 1	2.23 2	-1.62 2	-3.51 2
0.601524	1.22997	34.00	83.00	4.39 1	2.01 2	-1.43 2	-3.18 2
0.628480	1.23231	35.00	88.00	5.78 1	2.29 2	-1.66 2	-3.59 2
0.611158	1.23298	34.00	84.00	4.62 1	2.07 2	-1.46 2	-3.25 2
0.638104	1.23572	35.00	89.00	6.07 1	2.35 2	-1.69 2	-3.66 2
0.620793	1.23609	34.00	85.00	4.87 1	2.13 2	-1.48 2	-3.32 2
0.604039	1.23805	33.00	81.00	3.87 1	1.92 2	-1.31 2	-3.00 2
0.647747	1.23924	35.00	90.00	6.37 1	2.42 2	-1.73 2	-3.74 2
0.630433	1.23930	34.00	86.00	5.12 1	2.18 2	-1.51 2	-3.39 2
0.613737	1.24097	33.00	82.00	4.09 1	1.97 2	-1.33 2	-3.07 2
0.640081	1.24262	34.00	87.00	5.38 1	2.24 2	-1.54 2	-3.46 2
0.623427	1.24399	33.00	83.00	4.30 1	2.03 2	-1.36 2	-3.14 2
0.649741	1.24603	34.00	88.00	5.64 1	2.30 2	-1.57 2	-3.53 2
0.607267	1.24697	32.00	79.00	3.41 1	1.83 2	-1.20 2	-2.84 2
0.633114	1.24711	33.00	84.00	4.53 1	2.08 2	-1.38 2	-3.20 2
0.617045	1.24981	32.00	80.00	3.61 1	1.88 2	-1.22 2	-2.90 2
0.642803	1.25033	33.00	85.00	4.76 1	2.14 2	-1.41 2	-3.27 2
0.626808	1.25275	32.00	81.00	3.80 1	1.93 2	-1.24 2	-2.97 2
0.601345	1.25414	31.00	76.00	2.84 1	1.70 2	-1.08 2	-2.63 2
0.636560	1.25578	32.00	82.00	4.01 1	1.98 2	-1.27 2	-3.03 2
0.611249	1.25679	31.00	77.00	3.01 1	1.75 2	-1.10 2	-2.68 2
0.646306	1.25891	32.00	83.00	4.21 1	2.04 2	-1.29 2	-3.10 2
0.621125	1.25955	31.00	78.00	3.18 1	1.79 2	-1.12 2	-2.75 2
0.630978	1.26241	31.00	79.00	3.36 1	1.84 2	-1.14 2	-2.81 2
0.606002	1.26500	30.00	74.00	2.49 1	1.62 2	-9.91 1	-2.48 2
0.640812	1.26536	31.00	80.00	3.54 1	1.89 2	-1.16 2	-2.87 2
0.616031	1.26758	30.00	75.00	2.65 1	1.67 2	-1.01 2	-2.54 2
0.626025	1.27026	30.00	76.00	2.81 1	1.71 2	-1.02 2	-2.60 2
0.635987	1.27304	30.00	77.00	2.97 1	1.76 2	-1.04 2	-2.66 2
0.601270	1.27449	29.00	71.00	2.05 1	1.50 2	-8.94 1	-2.29 2
0.645922	1.27592	30.00	78.00	3.13 1	1.81 2	-1.06 2	-2.71 2
0.611497	1.27690	29.00	72.00	2.19 1	1.54 2	-9.08 1	-2.34 2
0.621673	1.27940	29.00	73.00	2.33 1	1.59 2	-9.23 1	-2.40 2
0.631804	1.28202	29.00	74.00	2.47 1	1.64 2	-9.38 1	-2.46 2
0.641894	1.28473	29.00	75.00	2.62 1	1.68 2	-9.54 1	-2.51 2
0.607490	1.28758	28.00	69.00	1.79 1	1.43 2	-8.19 1	-2.14 2
0.617894	1.28991	28.00	70.00	1.91 1	1.47 2	-8.32 1	-2.21 2
0.628239	1.29235	28.00	71.00	2.04 1	1.52 2	-8.45 1	-2.27 2
0.638529	1.29489	28.00	72.00	2.17 1	1.56 2	-8.59 1	-2.32 2
0.648769	1.29753	28.00	73.00	2.30 1	1.61 2	-8.73 1	-2.38 2
0.603981	1.29973	27.00	66.00	1.44 1	1.32 2	-7.37 1	-1.99 2
0.614665	1.30188	27.00	67.00	1.55 1	1.36 2	-7.49 1	-2.04 2
0.625273	1.30414	27.00	68.00	1.67 1	1.40 2	-7.61 1	-2.09 2
0.635809	1.30652	27.00	69.00	1.78 1	1.45 2	-7.73 1	-2.14 2
0.646281	1.30899	27.00	70.00	1.90 1	1.49 2	-7.85 1	-2.19 2
0.600939	1.31347	26.00	63.00	1.14 1	1.22 2	-6.64 1	-1.82 2
0.611959	1.31543	26.00	64.00	1.24 1	1.26 2	-6.74 1	-1.87 2
0.622885	1.31751	26.00	65.00	1.35 1	1.30 2	-6.84 1	-1.92 2
0.633721	1.31971	26.00	66.00	1.45 1	1.34 2	-6.95 1	-1.97 2
0.644476	1.32202	26.00	67.00	1.56 1	1.38 2	-7.06 1	-2.02 2
0.609751	1.33070	25.00	61.00	9.75 0	1.16 2	-6.06 1	-1.71 2
0.621057	1.33259	25.00	62.00	1.07 1	1.19 2	-6.15 1	-1.76 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.632253	1.33460	25.00	63.00	1.16 1	1.23 2	-6.24 1	-1.81 2
0.643348	1.33673	25.00	64.00	1.26 1	1.27 2	-6.34 1	-1.86 2
0.608012	1.34786	24.00	58.00	7.44 0	1.06 2	-5.44 1	-1.56 2
0.619769	1.34955	24.00	59.00	8.27 0	1.10 2	-5.52 1	-1.61 2
0.631394	1.35136	24.00	60.00	9.12 0	1.13 2	-5.60 1	-1.65 2
0.642895	1.35331	24.00	61.00	9.97 0	1.17 2	-5.69 1	-1.70 2
0.606707	1.36713	23.00	55.00	5.46 0	9.67 1	-4.87 1	-1.42 2
0.618999	1.36859	23.00	56.00	6.21 0	1.00 2	-4.94 1	-1.46 2
0.631132	1.37019	23.00	57.00	6.97 0	1.04 2	-5.02 1	-1.51 2
0.643115	1.37193	23.00	58.00	7.74 0	1.08 2	-5.09 1	-1.55 2
0.605794	1.38875	22.00	52.00	3.76 0	8.78 1	-4.35 1	-1.29 2
0.618720	1.38996	22.00	53.00	4.44 0	9.12 1	-4.42 1	-1.32 2
0.631454	1.39132	22.00	54.00	5.12 0	9.47 1	-4.48 1	-1.37 2
0.644007	1.39284	22.00	55.00	5.82 0	9.83 1	-4.55 1	-1.41 2
0.605217	1.41304	21.00	49.00	2.32 0	7.93 1	-3.88 1	-1.15 2
0.618896	1.41395	21.00	50.00	2.93 0	8.26 1	-3.94 1	-1.19 2
0.632343	1.41505	21.00	51.00	3.55 0	8.60 1	-3.99 1	-1.23 2
0.645572	1.41632	21.00	52.00	4.18 0	8.93 1	-4.05 1	-1.27 2
0.604900	1.44038	20.00	46.00	1.10 0	7.12 1	-3.45 1	-1.03 2
0.619476	1.44096	20.00	47.00	1.66 0	7.44 1	-3.50 1	-1.07 2
0.633771	1.44174	20.00	48.00	2.22 0	7.75 1	-3.55 1	-1.11 2
0.647803	1.44273	20.00	49.00	2.79 0	8.08 1	-3.60 1	-1.15 2
0.612391	1.45550	19.50	45.00	8.36-1	6.88 1	-3.27 1	-9.88 1
0.627323	1.45600	19.50	46.00	1.37 0	7.19 1	-3.31 1	-1.03 2
0.641955	1.45672	19.50	47.00	1.91 0	7.51 1	-3.36 1	-1.06 2
0.604736	1.47124	19.00	43.00	9.02-2	6.34 1	-3.05 1	-9.12 1
0.620387	1.47142	19.00	44.00	5.95-1	6.64 1	-3.09 1	-9.48 1
0.635697	1.47184	19.00	45.00	1.10 0	6.95 1	-3.14 1	-9.85 1
0.612849	1.48811	18.50	42.00	-1.06-1	6.11 1	-2.88 1	-8.73 1
0.628928	1.48819	18.50	43.00	3.76-1	6.41 1	-2.92 1	-9.09 1
0.644642	1.48852	18.50	44.00	8.64-1	6.71 1	-2.97 1	-9.46 1
0.638058	1.50588	18.00	42.00	1.80-1	6.18 1	-2.76 1	-8.71 1
0.621523	1.50591	18.00	41.00	-2.82-1	5.89 1	-2.72 1	-8.36 1
0.604570	1.50623	18.00	40.00	-7.39-1	5.60 1	-2.68 1	-8.01 1
0.647828	1.52456	17.50	41.00	4.46-3	5.95 1	-2.60 1	-8.34 1
0.630805	1.52471	17.50	40.00	-4.37-1	5.66 1	-2.57 1	-7.99 1
0.613334	1.52516	17.50	39.00	-8.74-1	5.38 1	-2.53 1	-7.65 1
0.640749	1.54458	17.00	39.00	-5.73-1	5.44 1	-2.42 1	-7.63 1
0.622723	1.54517	17.00	38.00	-9.90-1	5.17 1	-2.38 1	-7.30 1
0.604177	1.54611	17.00	37.00	-1.40 0	4.90 1	-2.35 1	-6.97 1
0.632792	1.56636	16.50	37.00	-1.09 0	4.95 1	-2.24 1	-6.95 1
0.613610	1.56747	16.50	36.00	-1.48 0	4.69 1	-2.21 1	-6.63 1
0.643607	1.58883	16.00	36.00	-1.17 0	4.74 1	-2.10 1	-6.67 1
0.623739	1.59013	16.00	35.00	-1.55 0	4.48 1	-2.07 1	-6.30 1
0.603219	1.59186	16.00	34.00	-1.92 0	4.23 1	-2.04 1	-5.99 1
0.634630	1.61420	15.50	34.00	-1.60 0	4.28 1	-1.94 1	-5.98 1
0.613315	1.61616	15.50	33.00	-1.95 0	4.03 1	-1.91 1	-5.67 1
0.646363	1.63981	15.00	33.00	-1.63 0	4.08 1	-1.82 1	-5.66 1
0.624186	1.64203	15.00	32.00	-1.97 0	3.84 1	-1.79 1	-5.37 1
0.601174	1.64480	15.00	31.00	-2.31 0	3.60 1	-1.76 1	-5.08 1
0.635910	1.66961	14.50	31.00	-1.98 0	3.65 1	-1.67 1	-5.07 1
0.611885	1.67271	14.50	30.00	-2.30 0	3.41 1	-1.65 1	-4.78 1
0.648580	1.69908	14.00	30.00	-1.97 0	3.46 1	-1.56 1	-4.78 1
0.623450	1.70253	14.00	29.00	-2.27 0	3.23 1	-1.53 1	-4.50 1
0.635961	1.73448	13.50	28.00	-2.24 0	3.05 1	-1.42 1	-4.22 1
0.608415	1.73913	13.50	27.00	-2.53 0	2.83 1	-1.40 1	-3.96 1
0.649528	1.76878	13.00	27.00	-2.19 0	2.87 1	-1.32 1	-3.95 1
0.620526	1.77394	13.00	26.00	-2.47 0	2.66 1	-1.30 1	-3.70 1
0.633664	1.81144	12.50	25.00	-2.40 0	2.50 1	-1.20 1	-3.45 1
0.601410	1.81829	12.50	24.00	-2.66 0	2.30 1	-1.18 1	-3.20 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.647957	1.85194	12.00	24.00	-2.32 0	2.33 1	-1.10 1	-3.20 1
0.613717	1.85957	12.00	23.00	-2.56 0	2.14 1	-1.09 1	-2.97 1
0.627087	1.90433	11.50	22.00	-2.46 0	1.99 1	-9.98 0	-2.74 1
0.641650	1.95305	11.00	21.00	-2.35 0	1.84 1	-9.13 0	-2.52 1
0.600031	1.96438	11.00	20.00	-2.57 0	1.66 1	-8.98 0	-2.30 1
0.635548	2.01236	10.50	19.50	-2.34 0	1.61 1	-8.24 0	-2.20 1
0.612723	2.01902	10.50	19.00	-2.45 0	1.52 1	-8.18 0	-2.10 1
0.626472	2.07906	10.00	18.00	-2.31 0	1.39 1	-7.41 0	-1.90 1
0.600724	2.08731	10.00	17.50	-2.41 0	1.31 1	-7.35 0	-1.81 1
0.627051	2.10645	9.80	17.50	-2.28 0	1.32 1	-7.10 0	-1.81 1
0.600164	2.11530	9.80	17.00	-2.37 0	1.24 1	-7.04 0	-1.71 1
0.627402	2.13512	9.60	17.00	-2.24 0	1.25 1	-6.80 0	-1.71 1
0.627488	2.16515	9.40	16.50	-2.20 0	1.19 1	-6.51 0	-1.62 1
0.627263	2.19667	9.20	16.00	-2.16 0	1.12 1	-6.22 0	-1.53 1
0.626674	2.22978	9.00	15.50	-2.12 0	1.06 1	-5.94 0	-1.45 1
0.625661	2.26462	8.80	15.00	-2.08 0	9.99 0	-5.67 0	-1.36 1
0.624151	2.30134	8.60	14.50	-2.04 0	9.39 0	-5.40 0	-1.28 1
0.622058	2.34010	8.40	14.00	-1.99 0	8.80 0	-5.14 0	-1.20 1
0.619282	2.38109	8.20	13.50	-1.94 0	8.23 0	-4.89 0	-1.12 1
0.615701	2.42454	8.00	13.00	-1.90 0	7.68 0	-4.64 0	-1.05 1
0.611172	2.47067	7.80	12.50	-1.85 0	7.14 0	-4.40 0	-9.75 0
0.605522	2.51978	7.60	12.00	-1.80 0	6.62 0	-4.17 0	-9.04 0
0.647798	2.55088	7.40	12.00	-1.68 0	6.68 0	-3.98 0	-9.04 0
0.642849	2.60476	7.20	11.50	-1.63 0	6.17 0	-3.75 0	-8.35 0
0.636483	2.66244	7.00	11.00	-1.58 0	5.68 0	-3.54 0	-7.69 0
0.628406	2.72435	6.80	10.50	-1.53 0	5.20 0	-3.33 0	-7.05 0
0.618254	2.79106	6.60	10.00	-1.48 0	4.74 0	-3.13 0	-6.44 0
0.646525	2.84359	6.40	9.80	-1.39 0	4.59 0	-2.95 0	-6.20 0
0.619457	2.85648	6.40	9.60	-1.41 0	4.40 0	-2.94 0	-5.97 0
0.648981	2.91250	6.20	9.40	-1.33 0	4.25 0	-2.76 0	-5.73 0
0.619919	2.92659	6.20	9.20	-1.35 0	4.06 0	-2.75 0	-5.51 0
0.619446	3.00197	6.00	8.80	-1.29 0	3.74 0	-2.57 0	-5.07 0
0.617798	3.08326	5.80	8.40	-1.22 0	3.43 0	-2.40 0	-4.64 0
0.614667	3.17124	5.60	8.00	-1.16 0	3.12 0	-2.23 0	-4.23 0
0.649858	3.24575	5.40	7.80	-1.09 0	3.00 0	-2.08 0	-4.03 0
0.609657	3.26682	5.40	7.60	-1.10 0	2.83 0	-2.07 0	-3.84 0
0.646393	3.34750	5.20	7.40	-1.02 0	2.71 0	-1.92 0	-3.65 0
0.602258	3.37112	5.20	7.20	-1.04 0	2.55 0	-1.92 0	-3.46 0
0.640551	3.45884	5.00	7.00	-9.59-1	2.44 0	-1.77 0	-3.28 0
0.631619	3.58128	4.80	6.60	-9.00-1	2.17 0	-1.63 0	-2.93 0
0.618642	3.71673	4.60	6.20	-8.42-1	1.92 0	-1.49 0	-2.60 0
0.600322	3.86756	4.40	5.80	-7.85-1	1.69 0	-1.36 0	-2.28 0
0.648315	3.99394	4.20	5.60	-7.14-1	1.59 0	-1.24 0	-2.13 0
0.624180	4.17796	4.00	5.20	-6.60-1	1.37 0	-1.12 0	-1.84 0
0.608450	4.27916	3.90	5.00	-6.33-1	1.26 0	-1.06 0	-1.70 0
0.647558	4.56310	3.60	4.60	-5.43-1	1.08 0	-8.98-1	-1.44 0
0.625395	4.69132	3.50	4.40	-5.18-1	9.83-1	-8.46-1	-1.32 0
0.633810	5.22366	3.10	3.80	-4.11-1	7.32-1	-6.54-1	-9.83-1
0.631120	5.55356	2.90	3.50	-3.62-1	6.18-1	-5.67-1	-8.31-1
0.619978	5.94146	2.70	3.20	-3.15-1	5.12-1	-4.86-1	-6.90-1
0.644665	6.62679	2.40	2.80	-2.47-1	3.87-1	-3.76-1	-5.21-1
0.638122	8.83708	1.80	2.00	-1.33-1	1.84-1	-1.96-1	-2.50-1
0.639479	10.0046	1.60	1.75	-1.02-1	1.35-1	-1.49-1	-1.84-1
0.601177	11.6053	1.40	1.50	-7.42-2	9.31-2	-1.08-1	-1.28-1
0.643763	16.2243	1.05	1.10	-3.57-2	4.22-2	-5.25-2	-5.94-2
0.610204	23.9438	0.78	0.80	-1.56-2	1.73-2	-2.36-2	-2.54-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.65	0.70						
0.659419	1.24955	34.00	89.00	5.92 1	2.36 2	-1.61 2	-3.61 2
0.669117	1.25317	34.00	90.00	6.21 1	2.42 2	-1.64 2	-3.69 2
0.652496	1.25365	33.00	86.00	5.00 1	2.19 2	-1.44 2	-3.34 2
0.662199	1.25708	33.00	87.00	5.25 1	2.25 2	-1.47 2	-3.41 2
0.671916	1.26060	33.00	88.00	5.50 1	2.31 2	-1.50 2	-3.48 2
0.656049	1.26215	32.00	84.00	4.43 1	2.09 2	-1.31 2	-3.16 2
0.681650	1.26423	33.00	89.00	5.76 1	2.37 2	-1.53 2	-3.56 2
0.665794	1.26548	32.00	85.00	4.65 1	2.15 2	-1.34 2	-3.23 2
0.691405	1.26796	33.00	90.00	6.03 1	2.43 2	-1.56 2	-3.63 2
0.650633	1.26842	31.00	81.00	3.73 1	1.95 2	-1.18 2	-2.93 2
0.675546	1.26892	32.00	86.00	4.88 1	2.20 2	-1.36 2	-3.30 2
0.660443	1.27157	31.00	82.00	3.92 1	2.00 2	-1.20 2	-2.99 2
0.685307	1.27246	32.00	87.00	5.11 1	2.26 2	-1.39 2	-3.37 2
0.670248	1.27482	31.00	83.00	4.12 1	2.05 2	-1.22 2	-3.06 2
0.695083	1.27610	32.00	88.00	5.35 1	2.32 2	-1.42 2	-3.44 2
0.680051	1.27818	31.00	84.00	4.33 1	2.10 2	-1.25 2	-3.12 2
0.655835	1.27891	30.00	79.00	3.30 1	1.86 2	-1.08 2	-2.77 2
0.689857	1.28163	31.00	85.00	4.54 1	2.16 2	-1.27 2	-3.19 2
0.665731	1.28198	30.00	80.00	3.48 1	1.91 2	-1.10 2	-2.83 2
0.675612	1.28517	30.00	81.00	3.65 1	1.96 2	-1.12 2	-2.90 2
0.699669	1.28519	31.00	86.00	4.75 1	2.21 2	-1.29 2	-3.25 2
0.651950	1.28754	29.00	76.00	2.77 1	1.73 2	-9.70 1	-2.57 2
0.685485	1.28844	30.00	82.00	3.84 1	2.01 2	-1.14 2	-2.96 2
0.661975	1.29045	29.00	77.00	2.92 1	1.78 2	-9.87 1	-2.63 2
0.695352	1.29182	30.00	83.00	4.03 1	2.06 2	-1.16 2	-3.02 2
0.671973	1.29346	29.00	78.00	3.08 1	1.82 2	-1.00 2	-2.68 2
0.681950	1.29657	29.00	79.00	3.24 1	1.87 2	-1.02 2	-2.74 2
0.691910	1.29978	29.00	80.00	3.40 1	1.92 2	-1.04 2	-2.80 2
0.658965	1.30028	28.00	74.00	2.44 1	1.65 2	-8.87 1	-2.43 2
0.669122	1.30313	28.00	75.00	2.58 1	1.70 2	-9.02 1	-2.49 2
0.679244	1.30608	28.00	76.00	2.72 1	1.74 2	-9.17 1	-2.54 2
0.689336	1.30912	28.00	77.00	2.87 1	1.79 2	-9.33 1	-2.60 2
0.656694	1.31157	27.00	71.00	2.02 1	1.53 2	-7.98 1	-2.25 2
0.699402	1.31227	28.00	78.00	3.02 1	1.84 2	-9.49 1	-2.66 2
0.667052	1.31426	27.00	72.00	2.15 1	1.58 2	-8.10 1	-2.30 2
0.677362	1.31705	27.00	73.00	2.27 1	1.62 2	-8.24 1	-2.35 2
0.687628	1.31994	27.00	74.00	2.40 1	1.67 2	-8.37 1	-2.41 2
0.697855	1.32293	27.00	75.00	2.54 1	1.71 2	-8.51 1	-2.46 2
0.655155	1.32443	26.00	68.00	1.66 1	1.42 2	-7.17 1	-2.07 2
0.665763	1.32696	26.00	69.00	1.77 1	1.46 2	-7.28 1	-2.12 2
0.676308	1.32959	26.00	70.00	1.89 1	1.51 2	-7.40 1	-2.17 2
0.686793	1.33232	26.00	71.00	2.00 1	1.55 2	-7.52 1	-2.23 2
0.697226	1.33516	26.00	72.00	2.12 1	1.59 2	-7.64 1	-2.28 2
0.654349	1.33898	25.00	65.00	1.35 1	1.31 2	-6.44 1	-1.91 2
0.665261	1.34134	25.00	66.00	1.45 1	1.35 2	-6.54 1	-1.95 2
0.676092	1.34381	25.00	67.00	1.55 1	1.40 2	-6.64 1	-2.00 2
0.686848	1.34638	25.00	68.00	1.66 1	1.44 2	-6.74 1	-2.05 2
0.697534	1.34907	25.00	69.00	1.76 1	1.48 2	-6.85 1	-2.10 2
0.654280	1.35538	24.00	62.00	1.08 1	1.21 2	-5.77 1	-1.75 2
0.665557	1.35756	24.00	63.00	1.17 1	1.25 2	-5.86 1	-1.79 2
0.676733	1.35987	24.00	64.00	1.26 1	1.29 2	-5.95 1	-1.84 2
0.687815	1.36229	24.00	65.00	1.36 1	1.33 2	-6.04 1	-1.89 2
0.698810	1.36482	24.00	66.00	1.45 1	1.37 2	-6.13 1	-1.94 2
0.654957	1.37381	23.00	59.00	8.52 0	1.11 2	-5.17 1	-1.60 2
0.666667	1.37582	23.00	60.00	9.32 0	1.15 2	-5.24 1	-1.64 2
0.678254	1.37795	23.00	61.00	1.01 1	1.19 2	-5.32 1	-1.69 2
0.689726	1.38020	23.00	62.00	1.10 1	1.23 2	-5.40 1	-1.73 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.656391	1.39451	22.00	56.00	6.53 0	1.02 2	-4.62 1	-1.45 2
0.668615	1.39632	22.00	57.00	7.25 0	1.05 2	-4.68 1	-1.50 2
0.680690	1.39827	22.00	58.00	7.98 0	1.09 2	-4.75 1	-1.54 2
0.692626	1.40035	22.00	59.00	8.72 0	1.13 2	-4.82 1	-1.59 2
0.658596	1.41776	21.00	53.00	4.82 0	9.78 1	-4.11 1	-1.32 2
0.671429	1.41936	21.00	54.00	5.47 0	9.63 1	-4.17 1	-1.36 2
0.684082	1.42110	21.00	55.00	6.13 0	9.98 1	-4.23 1	-1.40 2
0.696567	1.42299	21.00	56.00	6.79 0	1.03 2	-4.30 1	-1.44 2
0.661589	1.44390	20.00	50.00	3.37 0	8.41 1	-3.65 1	-1.19 2
0.675143	1.44525	20.00	51.00	3.95 0	8.75 1	-3.70 1	-1.23 2
0.688481	1.44676	20.00	52.00	4.54 0	9.09 1	-3.76 1	-1.27 2
0.656308	1.45764	19.50	48.00	2.45 0	7.83 1	-3.41 1	-1.10 2
0.670398	1.45876	19.50	49.00	3.00 0	8.15 1	-3.46 1	-1.14 2
0.684241	1.46006	19.50	50.00	3.56 0	8.49 1	-3.51 1	-1.18 2
0.697854	1.46154	19.50	51.00	4.13 0	8.82 1	-3.56 1	-1.22 2
0.650689	1.47248	19.00	46.00	1.62 0	7.26 1	-3.18 1	-1.02 2
0.665381	1.47334	19.00	47.00	2.14 0	7.58 1	-3.23 1	-1.06 2
0.679795	1.47441	19.00	48.00	2.67 0	7.90 1	-3.27 1	-1.10 2
0.693946	1.47567	19.00	49.00	3.20 0	8.23 1	-3.32 1	-1.14 2
0.660015	1.48909	18.50	45.00	1.36 0	7.02 1	-3.01 1	-9.83 1
0.675070	1.48989	18.50	46.00	1.86 0	7.33 1	-3.05 1	-1.02 2
0.689827	1.49090	18.50	47.00	2.36 0	7.65 1	-3.10 1	-1.06 2
0.654203	1.50612	18.00	43.00	6.46-1	6.48 1	-2.80 1	-9.07 1
0.669983	1.50661	18.00	44.00	1.12 0	6.78 1	-2.84 1	-9.44 1
0.685424	1.50734	18.00	45.00	1.59 0	7.09 1	-2.88 1	-9.81 1
0.664433	1.52470	17.50	42.00	4.50-1	6.24 1	-2.64 1	-8.69 1
0.680648	1.52511	17.50	43.00	9.00-1	6.54 1	-2.68 1	-9.05 1
0.696501	1.52577	17.50	44.00	1.35 0	6.85 1	-2.72 1	-9.42 1
0.658294	1.54432	17.00	40.00	-1.51-1	5.73 1	-2.45 1	-7.97 1
0.675392	1.54436	17.00	41.00	2.74-1	6.01 1	-2.49 1	-8.32 1
0.692072	1.54468	17.00	42.00	7.03-1	6.31 1	-2.53 1	-8.67 1
0.687145	1.56517	16.50	40.00	1.18-1	5.79 1	-2.34 1	-7.96 1
0.669521	1.56524	16.50	39.00	-2.88-1	5.50 1	-2.31 1	-7.62 1
0.651415	1.56562	16.50	38.00	-6.90-1	5.23 1	-2.27 1	-7.28 1
0.699770	1.58724	16.00	39.00	-2.02-2	5.57 1	-2.20 1	-7.60 1
0.681579	1.58742	16.00	38.00	-4.07-1	5.29 1	-2.17 1	-7.27 1
0.662872	1.58794	16.00	37.00	-7.90-1	5.01 1	-2.13 1	-6.94 1
0.694552	1.61098	15.50	37.00	-5.09-1	5.07 1	-2.03 1	-6.93 1
0.675196	1.61164	15.50	36.00	-8.74-1	4.80 1	-2.00 1	-6.60 1
0.655239	1.61270	15.50	35.00	-1.24 0	4.54 1	-1.97 1	-6.29 1
0.688477	1.63686	15.00	35.00	-9.43-1	4.59 1	-1.87 1	-6.28 1
0.667773	1.63810	15.00	34.00	-1.29 0	4.33 1	-1.84 1	-5.97 1
0.681302	1.66518	14.50	33.00	-1.32 0	4.13 1	-1.72 1	-5.65 1
0.659023	1.66712	14.50	32.00	-1.65 0	3.89 1	-1.70 1	-5.36 1
0.695937	1.69409	14.00	32.00	-1.35 0	3.94 1	-1.60 1	-5.35 1
0.672713	1.69629	14.00	31.00	-1.66 0	3.69 1	-1.58 1	-5.06 1
0.687551	1.72751	13.50	30.00	-1.65 0	3.51 1	-1.47 1	-4.77 1
0.662302	1.73063	13.50	29.00	-1.95 0	3.27 1	-1.45 1	-4.49 1
0.677201	1.76450	13.00	28.00	-1.91 0	3.09 1	-1.34 1	-4.22 1
0.693421	1.80094	12.50	27.00	-1.87 0	2.92 1	-1.24 1	-3.95 1
0.664279	1.80570	12.50	26.00	-2.13 0	2.70 1	-1.22 1	-3.69 1
0.680364	1.84556	12.00	25.00	-2.07 0	2.53 1	-1.12 1	-3.44 1
0.697959	1.88871	11.50	24.00	-2.00 0	2.37 1	-1.03 1	-3.20 1
0.663552	1.89583	11.50	23.00	-2.23 0	2.17 1	-1.01 1	-2.95 1
0.680625	1.94353	11.00	22.00	-2.13 0	2.02 1	-9.28 0	-2.73 1
0.699386	1.99560	10.50	21.00	-2.03 0	1.87 1	-8.45 0	-2.51 1
0.657565	2.00626	10.50	20.00	-2.24 0	1.69 1	-8.31 0	-2.30 1
0.697957	2.05836	10.00	19.50	-2.02 0	1.63 1	-7.60 0	-2.20 1
0.675019	2.06464	10.00	19.00	-2.12 0	1.55 1	-7.53 0	-2.10 1
0.651213	2.07153	10.00	18.50	-2.22 0	1.47 1	-7.47 0	-2.00 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.677637	2.09101	9.80	18.50	-2.09 0	1.48 1	-7.22 0	-2.00 1
0.652848	2.09838	9.80	18.00	-2.18 0	1.40 1	-7.16 0	-1.90 1
0.680187	2.11856	9.60	18.00	-2.06 0	1.41 1	-6.92 0	-1.90 1
0.654339	2.12645	9.60	17.50	-2.15 0	1.33 1	-6.86 0	-1.81 1
0.682648	2.14737	9.40	17.50	-2.02 0	1.34 1	-6.62 0	-1.81 1
0.655658	2.15585	9.40	17.00	-2.11 0	1.26 1	-6.56 0	-1.71 1
0.684997	2.17755	9.20	17.00	-1.99 0	1.27 1	-6.33 0	-1.71 1
0.656770	2.18665	9.20	16.50	-2.08 0	1.20 1	-6.27 0	-1.62 1
0.687203	2.20919	9.00	16.50	-1.95 0	1.21 1	-6.04 0	-1.62 1
0.657637	2.21898	9.00	16.00	-2.04 0	1.13 1	-5.99 0	-1.53 1
0.689234	2.24240	8.80	16.00	-1.91 0	1.14 1	-5.77 0	-1.53 1
0.658210	2.25296	8.80	15.50	-2.00 0	1.07 1	-5.72 0	-1.45 1
0.691048	2.27732	8.60	15.50	-1.87 0	1.08 1	-5.50 0	-1.45 1
0.658434	2.28873	8.60	15.00	-1.95 0	1.01 1	-5.45 0	-1.36 1
0.692598	2.31408	8.40	15.00	-1.83 0	1.02 1	-5.23 0	-1.36 1
0.658246	2.32643	8.40	14.50	-1.91 0	9.47 0	-5.19 0	-1.28 1
0.693826	2.35284	8.20	14.50	-1.79 0	9.55 0	-4.97 0	-1.28 1
0.657566	2.36623	8.20	14.00	-1.87 0	8.88 0	-4.93 0	-1.20 1
0.694664	2.39379	8.00	14.00	-1.75 0	8.96 0	-4.72 0	-1.20 1
0.656303	2.40835	8.00	13.50	-1.82 0	8.31 0	-4.68 0	-1.12 1
0.695030	2.43712	7.80	13.50	-1.70 0	8.38 0	-4.48 0	-1.12 1
0.654347	2.45298	7.80	13.00	-1.77 0	7.75 0	-4.44 0	-1.05 1
0.694826	2.48307	7.60	13.00	-1.66 0	7.82 0	-4.24 0	-1.05 1
0.651565	2.50040	7.60	12.50	-1.73 0	7.21 0	-4.20 0	-9.75 0
0.693931	2.53189	7.40	12.50	-1.61 0	7.28 0	-4.01 0	-9.74 0
0.692202	2.58388	7.20	12.00	-1.56 0	6.75 0	-3.79 0	-9.04 0
0.689460	2.63939	7.00	11.50	-1.51 0	6.24 0	-3.57 0	-8.35 0
0.685488	2.69881	6.80	11.00	-1.47 0	5.74 0	-3.36 0	-7.69 0
0.680015	2.76263	6.60	10.50	-1.42 0	5.26 0	-3.16 0	-7.05 0
0.672705	2.83139	6.40	10.00	-1.37 0	4.80 0	-2.96 0	-6.44 0
0.677043	2.89917	6.20	9.60	-1.30 0	4.45 0	-2.77 0	-5.96 0
0.680948	2.97189	6.00	9.20	-1.24 0	4.11 0	-2.59 0	-5.51 0
0.650764	2.98650	6.00	9.00	-1.26 0	3.92 0	-2.58 0	-5.28 0
0.684269	3.05012	5.80	8.80	-1.18 0	3.78 0	-2.42 0	-5.06 0
0.651680	3.06619	5.80	8.60	-1.20 0	3.60 0	-2.41 0	-4.85 0
0.686816	3.13455	5.60	8.40	-1.12 0	3.47 0	-2.25 0	-4.64 0
0.651483	3.15232	5.60	8.20	-1.14 0	3.29 0	-2.24 0	-4.43 0
0.688342	3.22600	5.40	8.00	-1.06 0	3.16 0	-2.09 0	-4.23 0
0.688525	3.32545	5.20	7.60	-1.00 0	2.87 0	-1.93 0	-3.84 0
0.686942	3.43405	5.00	7.20	-9.41-1	2.59 0	-1.78 0	-3.46 0
0.683030	3.55322	4.80	6.80	-8.83-1	2.32 0	-1.64 0	-3.10 0
0.676038	3.68472	4.60	6.40	-8.26-1	2.06 0	-1.50 0	-2.76 0
0.664938	3.83070	4.40	6.00	-7.70-1	1.82 0	-1.37 0	-2.44 0
0.692974	4.22928	3.90	5.20	-6.20-1	1.38 0	-1.06 0	-1.84 0
0.680753	4.33302	3.80	5.00	-5.94-1	1.28 0	-1.01 0	-1.70 0
0.665792	4.44400	3.70	4.80	-5.68-1	1.17 0	-9.52-1	-1.57 0
0.693692	4.90080	3.30	4.20	-4.58-1	9.02-1	-7.49-1	-1.20 0
0.666972	5.05530	3.20	4.00	-4.35-1	8.15-1	-7.01-1	-1.09 0
0.672853	5.35728	3.00	3.70	-3.84-1	6.96-1	-6.11-1	-9.31-1
0.673733	5.70934	2.80	3.40	-3.36-1	5.84-1	-5.27-1	-7.83-1
0.666251	6.12570	2.60	3.10	-2.90-1	4.81-1	-4.48-1	-6.46-1
0.658409	7.54309	2.10	2.40	-1.86-1	2.77-1	-2.79-1	-3.74-1
0.655124	8.12926	1.95	2.20	-1.59-1	2.29-1	-2.36-1	-3.09-1
0.678262	9.07285	1.75	1.95	-1.24-1	1.74-1	-1.84-1	-2.36-1
0.686917	10.3205	1.55	1.70	-9.41-2	1.26-1	-1.38-1	-1.72-1
0.655265	12.0514	1.35	1.45	-6.77-2	8.59-2	-9.90-2	-1.18-1
0.661362	18.1428	0.96	1.00	-2.80-2	3.26-2	-4.14-2	-4.64-2
0.658338	24.7923	0.76	0.78	-1.44-2	1.60-2	-2.19-2	-2.37-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.70	0.75						
0.704877	1.27985	32.00	89.00	5.60 1	2.38 2	-1.45 2	-3.51 2
0.714693	1.28370	32.00	90.00	5.86 1	2.44 2	-1.48 2	-3.58 2
0.709493	1.28885	31.00	87.00	4.97 1	2.27 2	-1.32 2	-3.32 2
0.719331	1.29261	31.00	88.00	5.20 1	2.33 2	-1.34 2	-3.39 2
0.705219	1.29530	30.00	84.00	4.22 1	2.12 2	-1.18 2	-3.08 2
0.729189	1.29647	31.00	89.00	5.44 1	2.39 2	-1.37 2	-3.46 2
0.715089	1.29888	30.00	85.00	4.42 1	2.17 2	-1.20 2	-3.15 2
0.739070	1.30044	31.00	90.00	5.69 1	2.44 2	-1.40 2	-3.53 2
0.724967	1.30256	30.00	86.00	4.62 1	2.22 2	-1.22 2	-3.21 2
0.701858	1.30309	29.00	81.00	3.57 1	1.97 2	-1.06 2	-2.86 2
0.734857	1.30635	30.00	87.00	4.84 1	2.28 2	-1.25 2	-3.28 2
0.711797	1.30650	29.00	82.00	3.75 1	2.02 2	-1.08 2	-2.92 2
0.721731	1.31001	29.00	83.00	3.93 1	2.08 2	-1.10 2	-2.99 2
0.744763	1.31023	30.00	88.00	5.05 1	2.34 2	-1.27 2	-3.34 2
0.731666	1.31361	29.00	84.00	4.11 1	2.13 2	-1.12 2	-3.05 2
0.709448	1.31552	28.00	79.00	3.17 1	1.89 2	-9.65 1	-2.71 2
0.741606	1.31732	29.00	85.00	4.30 1	2.18 2	-1.14 2	-3.11 2
0.719478	1.31886	28.00	80.00	3.33 1	1.94 2	-9.82 1	-2.77 2
0.729495	1.32231	28.00	81.00	3.49 1	1.99 2	-9.99 1	-2.83 2
0.739505	1.32585	28.00	82.00	3.65 1	2.04 2	-1.02 2	-2.89 2
0.708048	1.32602	27.00	76.00	2.67 1	1.76 2	-8.65 1	-2.52 2
0.718213	1.32921	27.00	77.00	2.81 1	1.81 2	-8.80 1	-2.57 2
0.749512	1.32950	28.00	83.00	3.82 1	2.09 2	-1.04 2	-2.95 2
0.728352	1.33250	27.00	78.00	2.95 1	1.85 2	-8.95 1	-2.63 2
0.738472	1.33589	27.00	79.00	3.10 1	1.90 2	-9.10 1	-2.69 2
0.707610	1.33810	26.00	73.00	2.24 1	1.64 2	-7.76 1	-2.33 2
0.748576	1.33938	27.00	80.00	3.24 1	1.95 2	-9.26 1	-2.74 2
0.717952	1.34114	26.00	74.00	2.36 1	1.68 2	-7.89 1	-2.39 2
0.728255	1.34428	26.00	75.00	2.49 1	1.73 2	-8.02 1	-2.44 2
0.738526	1.34752	26.00	76.00	2.62 1	1.78 2	-8.15 1	-2.49 2
0.748768	1.35086	26.00	77.00	2.75 1	1.82 2	-8.29 1	-2.55 2
0.708157	1.35186	25.00	70.00	1.87 1	1.52 2	-6.96 1	-2.16 2
0.718723	1.35475	25.00	71.00	1.98 1	1.57 2	-7.07 1	-2.21 2
0.729235	1.35775	25.00	72.00	2.09 1	1.61 2	-7.18 1	-2.26 2
0.739701	1.36085	25.00	73.00	2.20 1	1.65 2	-7.30 1	-2.31 2
0.709724	1.36746	24.00	67.00	1.54 1	1.41 2	-6.23 1	-1.99 2
0.720564	1.37021	24.00	68.00	1.64 1	1.45 2	-6.33 1	-2.04 2
0.731335	1.37307	24.00	69.00	1.74 1	1.50 2	-6.43 1	-2.09 2
0.742043	1.37603	24.00	70.00	1.84 1	1.54 2	-6.53 1	-2.14 2
0.701091	1.38258	23.00	63.00	1.18 1	1.27 2	-5.49 1	-1.78 2
0.712355	1.38507	23.00	64.00	1.26 1	1.31 2	-5.57 1	-1.83 2
0.723527	1.38767	23.00	65.00	1.35 1	1.35 2	-5.66 1	-1.88 2
0.734612	1.39038	23.00	66.00	1.44 1	1.39 2	-5.74 1	-1.93 2
0.745616	1.39321	23.00	67.00	1.53 1	1.43 2	-5.83 1	-1.97 2
0.704430	1.40256	22.00	60.00	9.47 0	1.17 2	-4.90 1	-1.63 2
0.716112	1.40489	22.00	61.00	1.02 1	1.21 2	-4.97 1	-1.68 2
0.727680	1.40734	22.00	62.00	1.10 1	1.24 2	-5.05 1	-1.72 2
0.739141	1.40991	22.00	63.00	1.18 1	1.28 2	-5.12 1	-1.77 2
0.708892	1.42502	21.00	57.00	7.47 0	1.07 2	-4.36 1	-1.49 2
0.721070	1.42719	21.00	58.00	8.15 0	1.11 2	-4.42 1	-1.53 2
0.733108	1.42948	21.00	59.00	8.85 0	1.15 2	-4.49 1	-1.58 2
0.745016	1.43190	21.00	60.00	9.56 0	1.18 2	-4.56 1	-1.62 2
0.701615	1.44845	20.00	53.00	5.14 0	9.44 1	-3.81 1	-1.31 2
0.714558	1.45028	20.00	54.00	5.75 0	9.79 1	-3.87 1	-1.35 2
0.727322	1.45226	20.00	55.00	6.37 0	1.01 2	-3.93 1	-1.39 2
0.739918	1.45439	20.00	56.00	6.99 0	1.05 2	-3.99 1	-1.44 2
0.711251	1.46319	19.50	52.00	4.70 0	9.17 1	-3.61 1	-1.26 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.724444	1.46500	19.50	53.00	5.28 0	9.52 1	-3.67 1	-1.31 2
0.737447	1.46696	19.50	54.00	5.87 0	9.87 1	-3.72 1	-1.35 2
0.707851	1.47711	19.00	50.00	3.74 0	8.56 1	-3.37 1	-1.18 2
0.721526	1.47872	19.00	51.00	4.29 0	8.90 1	-3.42 1	-1.22 2
0.734985	1.48050	19.00	52.00	4.84 0	9.25 1	-3.47 1	-1.26 2
0.748241	1.48245	19.00	53.00	5.40 0	9.60 1	-3.52 1	-1.30 2
0.704305	1.49211	18.50	48.00	2.87 0	7.97 1	-3.14 1	-1.10 2
0.718521	1.49351	18.50	49.00	3.38 0	8.30 1	-3.19 1	-1.14 2
0.732491	1.49510	18.50	50.00	3.91 0	8.64 1	-3.24 1	-1.18 2
0.746232	1.49685	18.50	51.00	4.44 0	8.98 1	-3.28 1	-1.22 2
0.700547	1.50829	18.00	46.00	2.07 0	7.40 1	-2.93 1	-1.02 2
0.715372	1.50946	18.00	47.00	2.56 0	7.72 1	-2.97 1	-1.06 2
0.729918	1.51082	18.00	48.00	3.05 0	8.05 1	-3.01 1	-1.10 2
0.744203	1.51238	18.00	49.00	3.55 0	8.38 1	-3.06 1	-1.13 2
0.712013	1.52667	17.50	45.00	1.81 0	7.16 1	-2.76 1	-9.79 1
0.727208	1.52779	17.50	46.00	2.28 0	7.47 1	-2.80 1	-1.02 2
0.742105	1.52911	17.50	47.00	2.75 0	7.80 1	-2.84 1	-1.05 2
0.708363	1.54527	17.00	43.00	1.14 0	6.61 1	-2.56 1	-9.03 1
0.724291	1.54611	17.00	44.00	1.57 0	6.92 1	-2.60 1	-9.40 1
0.739880	1.54718	17.00	45.00	2.02 0	7.23 1	-2.64 1	-9.77 1
0.704323	1.56540	16.50	41.00	5.27-1	6.08 1	-2.38 1	-8.31 1
0.721083	1.56592	16.50	42.00	9.40-1	6.38 1	-2.41 1	-8.66 1
0.737455	1.56669	16.50	43.00	1.36 0	6.68 1	-2.45 1	-9.02 1
0.717479	1.58738	16.00	40.00	3.70-1	5.85 1	-2.23 1	-7.94 1
0.734742	1.58781	16.00	41.00	7.64-1	6.14 1	-2.26 1	-8.29 1
0.713350	1.61068	15.50	38.00	-1.41-1	5.35 1	-2.06 1	-7.26 1
0.731631	1.61071	15.50	39.00	2.31-1	5.63 1	-2.09 1	-7.59 1
0.749432	1.61107	15.50	40.00	6.05-1	5.92 1	-2.12 1	-7.93 1
0.746880	1.63554	15.00	38.00	1.09-1	5.41 1	-1.96 1	-7.24 1
0.727984	1.63561	15.00	37.00	-2.44-1	5.13 1	-1.93 1	-6.92 1
0.708531	1.63604	15.00	36.00	-5.95-1	4.86 1	-1.90 1	-6.59 1
0.743783	1.66219	14.50	36.00	-3.32-1	4.92 1	-1.80 1	-6.58 1
0.723624	1.66275	14.50	35.00	-6.65-1	4.65 1	-1.77 1	-6.27 1
0.702816	1.66373	14.50	34.00	-9.96-1	4.39 1	-1.75 1	-5.96 1
0.739954	1.69128	14.00	34.00	-7.22-1	4.44 1	-1.65 1	-5.95 1
0.718328	1.69244	14.00	33.00	-1.04 0	4.19 1	-1.63 1	-5.65 1
0.735150	1.72316	13.50	32.00	-1.06 0	3.99 1	-1.51 1	-5.34 1
0.711805	1.72504	13.50	31.00	-1.36 0	3.74 1	-1.49 1	-5.05 1
0.729051	1.75824	13.00	30.00	-1.36 0	3.55 1	-1.38 1	-4.76 1
0.703672	1.76102	13.00	29.00	-1.64 0	3.32 1	-1.36 1	-4.49 1
0.747848	1.79396	12.50	29.00	-1.35 0	3.37 1	-1.28 1	-4.48 1
0.721235	1.79706	12.50	28.00	-1.61 0	3.14 1	-1.26 1	-4.21 1
0.740429	1.83594	12.00	27.00	-1.57 0	2.96 1	-1.16 1	-3.95 1
0.711132	1.84027	12.00	26.00	-1.82 0	2.74 1	-1.14 1	-3.69 1
0.730535	1.88282	11.50	25.00	-1.76 0	2.57 1	-1.05 1	-3.44 1
0.717277	1.93560	11.00	23.00	-1.91 0	2.21 1	-9.43 0	-2.96 1
0.738568	1.98672	10.50	22.00	-1.83 0	2.05 1	-8.59 0	-2.73 1
0.720088	2.05264	10.00	20.00	-1.93 0	1.72 1	-7.66 0	-2.30 1
0.746661	2.07260	9.80	20.00	-1.81 0	1.73 1	-7.41 0	-2.30 1
0.724480	2.07817	9.80	19.50	-1.90 0	1.65 1	-7.35 0	-2.20 1
0.701492	2.08429	9.80	19.00	-1.99 0	1.56 1	-7.28 0	-2.10 1
0.728935	2.10482	9.60	19.00	-1.87 0	1.57 1	-7.04 0	-2.10 1
0.705028	2.11137	9.60	18.50	-1.96 0	1.49 1	-6.98 0	-2.00 1
0.733446	2.13265	9.40	18.50	-1.84 0	1.50 1	-6.74 0	-2.00 1
0.708550	2.13966	9.40	18.00	-1.93 0	1.42 1	-6.68 0	-1.90 1
0.738004	2.16175	9.20	18.00	-1.81 0	1.43 1	-6.44 0	-1.90 1
0.712044	2.16927	9.20	17.50	-1.90 0	1.35 1	-6.38 0	-1.81 1
0.742597	2.19222	9.00	17.50	-1.78 0	1.36 1	-6.15 0	-1.80 1
0.715489	2.20029	9.00	17.00	-1.87 0	1.28 1	-6.10 0	-1.71 1
0.747213	2.22414	8.80	17.00	-1.75 0	1.29 1	-5.87 0	-1.71 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.718863	2.23282	8.80	16.50	-1.83 0	1.22 1	-5.82 0	-1.62 1
0.722138	2.26699	8.60	16.00	-1.79 0	1.15 1	-5.55 0	-1.53 1
0.725281	2.30292	8.40	15.50	-1.75 0	1.09 1	-5.28 0	-1.45 1
0.728252	2.34077	8.20	15.00	-1.71 0	1.02 1	-5.02 0	-1.36 1
0.731002	2.38070	8.00	14.50	-1.67 0	9.64 0	-4.77 0	-1.28 1
0.733473	2.42289	7.80	14.00	-1.63 0	9.04 0	-4.52 0	-1.20 1
0.735596	2.46755	7.60	13.50	-1.59 0	8.46 0	-4.28 0	-1.12 1
0.737285	2.51493	7.40	13.00	-1.54 0	7.90 0	-4.05 0	-1.05 1
0.738434	2.56529	7.20	12.50	-1.50 0	7.35 0	-3.83 0	-9.74 0
0.738917	2.61894	7.00	12.00	-1.45 0	6.82 0	-3.61 0	-9.04 0
0.738576	2.67625	6.80	11.50	-1.40 0	6.30 0	-3.39 0	-8.35 0
0.737216	2.73762	6.60	11.00	-1.36 0	5.80 0	-3.19 0	-7.69 0
0.734592	2.80355	6.40	10.50	-1.31 0	5.32 0	-2.99 0	-7.05 0
0.730400	2.87461	6.20	10.00	-1.26 0	4.85 0	-2.80 0	-6.44 0
0.704165	2.88656	6.20	9.80	-1.28 0	4.65 0	-2.78 0	-6.20 0
0.738190	2.94504	6.00	9.60	-1.20 0	4.50 0	-2.61 0	-5.96 0
0.710068	2.95809	6.00	9.40	-1.22 0	4.30 0	-2.60 0	-5.73 0
0.745897	3.02067	5.80	9.20	-1.14 0	4.16 0	-2.44 0	-5.51 0
0.715649	3.03496	5.80	9.00	-1.16 0	3.97 0	-2.43 0	-5.28 0
0.720766	3.11784	5.60	8.60	-1.10 0	3.65 0	-2.26 0	-4.85 0
0.725232	3.20749	5.40	8.20	-1.04 0	3.34 0	-2.10 0	-4.43 0
0.728806	3.30483	5.20	7.80	-9.82-1	3.04 0	-1.94 0	-4.03 0
0.731163	3.41095	5.00	7.40	-9.24-1	2.75 0	-1.79 0	-3.65 0
0.731875	3.52717	4.80	7.00	-8.67-1	2.47 0	-1.64 0	-3.28 0
0.730360	3.65512	4.60	6.60	-8.10-1	2.21 0	-1.50 0	-2.93 0
0.725827	3.79680	4.40	6.20	-7.54-1	1.95 0	-1.37 0	-2.60 0
0.717182	3.95471	4.20	5.80	-7.00-1	1.71 0	-1.24 0	-2.28 0
0.702890	4.13206	4.00	5.40	-6.46-1	1.49 0	-1.12 0	-1.98 0
0.746131	4.50429	3.60	4.80	-5.31-1	1.19 0	-9.02-1	-1.57 0
0.732413	4.62665	3.50	4.60	-5.06-1	1.09 0	-8.49-1	-1.44 0
0.715187	4.75841	3.40	4.40	-4.82-1	9.93-1	-7.98-1	-1.32 0
0.706058	5.17857	3.10	3.90	-4.06-1	7.77-1	-6.56-1	-1.04 0
0.748948	5.30983	3.00	3.80	-3.79-1	7.40-1	-6.12-1	-9.83-1
0.715884	5.49994	2.90	3.60	-3.57-1	6.60-1	-5.69-1	-8.80-1
0.721114	5.87657	2.70	3.30	-3.10-1	5.51-1	-4.87-1	-7.36-1
0.718245	6.32481	2.50	3.00	-2.66-1	4.51-1	-4.12-1	-6.03-1
0.701115	6.86836	2.30	2.70	-2.25-1	3.60-1	-3.43-1	-4.82-1
0.727905	7.87497	2.00	2.30	-1.66-1	2.54-1	-2.50-1	-3.41-1
0.732061	8.52730	1.85	2.10	-1.40-1	2.07-1	-2.09-1	-2.79-1
0.722452	9.32396	1.70	1.90	-1.16-1	1.64-1	-1.72-1	-2.22-1
0.739990	10.6604	1.50	1.65	-8.68-2	1.18-1	-1.28-1	-1.60-1
0.717128	12.5383	1.30	1.40	-6.15-2	7.89-2	-9.02-2	-1.08-1
0.731712	17.1808	1.00	1.05	-3.12-2	3.74-2	-4.62-2	-5.27-2
0.700045	18.6129	0.94	0.98	-2.64-2	3.09-2	-3.92-2	-4.40-2
0.742172	19.1099	0.92	0.96	-2.48-2	2.92-2	-3.70-2	-4.16-2
0.712174	25.7046	0.74	0.76	-1.33-2	1.48-2	-2.03-2	-2.20-2
0.75	0.80						
0.754689	1.31422	30.00	89.00	5.28 1	2.39 2	-1.30 2	-3.41 2
0.764638	1.31831	30.00	90.00	5.51 1	2.45 2	-1.32 2	-3.48 2
0.751553	1.32114	29.00	86.00	4.49 1	2.24 2	-1.16 2	-3.17 2
0.761514	1.32505	29.00	87.00	4.69 1	2.29 2	-1.18 2	-3.24 2
0.771491	1.32906	29.00	88.00	4.90 1	2.35 2	-1.20 2	-3.30 2
0.781489	1.33318	29.00	89.00	5.11 1	2.40 2	-1.23 2	-3.37 2
0.759520	1.33324	28.00	84.00	4.00 1	2.14 2	-1.05 2	-3.01 2
0.769533	1.33708	28.00	85.00	4.18 1	2.19 2	-1.07 2	-3.07 2
0.791512	1.33741	29.00	90.00	5.33 1	2.46 2	-1.25 2	-3.44 2
0.779555	1.34103	28.00	86.00	4.36 1	2.25 2	-1.09 2	-3.14 2
0.758669	1.34297	27.00	81.00	3.40 1	2.00 2	-9.43 1	-2.80 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.789591	1.34508	28.00	87.00	4.55 1	2.30 2	-1.11 2	-3.20 2
0.768756	1.34665	27.00	82.00	3.55 1	2.05 2	-9.59 1	-2.86 2
0.799644	1.34923	28.00	88.00	4.74 1	2.36 2	-1.14 2	-3.26 2
0.778839	1.35043	27.00	83.00	3.71 1	2.10 2	-9.77 1	-2.92 2
0.758986	1.35430	26.00	78.00	2.88 1	1.87 2	-8.43 1	-2.60 2
0.788925	1.35432	27.00	84.00	3.88 1	2.15 2	-9.94 1	-2.98 2
0.769185	1.35783	26.00	79.00	3.02 1	1.92 2	-8.58 1	-2.66 2
0.799017	1.35831	27.00	85.00	4.05 1	2.21 2	-1.01 2	-3.04 2
0.779370	1.36147	26.00	80.00	3.16 1	1.97 2	-8.72 1	-2.72 2
0.750124	1.36405	25.00	74.00	2.32 1	1.70 2	-7.42 1	-2.36 2
0.789544	1.36521	26.00	81.00	3.30 1	2.02 2	-8.88 1	-2.77 2
0.760510	1.36735	25.00	75.00	2.43 1	1.75 2	-7.54 1	-2.42 2
0.799713	1.36904	26.00	82.00	3.45 1	2.07 2	-9.03 1	-2.83 2
0.770863	1.37074	25.00	76.00	2.56 1	1.79 2	-7.67 1	-2.47 2
0.781189	1.37424	25.00	77.00	2.68 1	1.84 2	-7.79 1	-2.53 2
0.791493	1.37783	25.00	78.00	2.81 1	1.89 2	-7.93 1	-2.58 2
0.752694	1.37909	24.00	71.00	1.94 1	1.68 2	-6.63 1	-2.19 2
0.763294	1.38225	24.00	72.00	2.05 1	1.63 2	-6.74 1	-2.24 2
0.773847	1.38552	24.00	73.00	2.16 1	1.67 2	-6.85 1	-2.29 2
0.784359	1.38888	24.00	74.00	2.27 1	1.72 2	-6.96 1	-2.35 2
0.794834	1.39235	24.00	75.00	2.38 1	1.76 2	-7.08 1	-2.40 2
0.756548	1.39613	23.00	68.00	1.62 1	1.47 2	-5.92 1	-2.02 2
0.767411	1.39917	23.00	69.00	1.71 1	1.51 2	-6.02 1	-2.07 2
0.778212	1.40231	23.00	70.00	1.81 1	1.56 2	-6.11 1	-2.12 2
0.788957	1.40555	23.00	71.00	1.91 1	1.60 2	-6.21 1	-2.17 2
0.799651	1.40889	23.00	72.00	2.01 1	1.64 2	-6.31 1	-2.22 2
0.750502	1.41260	22.00	64.00	1.26 1	1.32 2	-5.20 1	-1.82 2
0.761771	1.41539	22.00	65.00	1.34 1	1.36 2	-5.28 1	-1.86 2
0.772954	1.41830	22.00	66.00	1.43 1	1.41 2	-5.36 1	-1.91 2
0.784058	1.42132	22.00	67.00	1.51 1	1.45 2	-5.45 1	-1.96 2
0.795089	1.42443	22.00	68.00	1.60 1	1.49 2	-5.53 1	-2.01 2
0.756802	1.43445	21.00	61.00	1.03 1	1.22 2	-4.63 1	-1.67 2
0.768475	1.43711	21.00	62.00	1.10 1	1.26 2	-4.70 1	-1.71 2
0.780041	1.43989	21.00	63.00	1.17 1	1.30 2	-4.77 1	-1.76 2
0.791509	1.44278	21.00	64.00	1.25 1	1.34 2	-4.84 1	-1.81 2
0.752356	1.45665	20.00	57.00	7.63 0	1.09 2	-4.05 1	-1.48 2
0.764646	1.45905	20.00	58.00	8.27 0	1.13 2	-4.11 1	-1.52 2
0.776798	1.46158	20.00	59.00	8.92 0	1.16 2	-4.17 1	-1.57 2
0.788820	1.46422	20.00	60.00	9.59 0	1.20 2	-4.23 1	-1.61 2
0.750271	1.46907	19.50	55.00	6.47 0	1.02 2	-3.78 1	-1.39 2
0.762927	1.47132	19.50	56.00	7.07 0	1.06 2	-3.83 1	-1.43 2
0.775426	1.47371	19.50	57.00	7.69 0	1.10 2	-3.89 1	-1.48 2
0.787777	1.47623	19.50	58.00	8.31 0	1.13 2	-3.95 1	-1.52 2
0.799990	1.47887	19.50	59.00	8.94 0	1.17 2	-4.01 1	-1.56 2
0.761307	1.48454	19.00	54.00	5.97 0	9.95 1	-3.58 1	-1.34 2
0.774194	1.48678	19.00	55.00	6.55 0	1.03 2	-3.63 1	-1.39 2
0.786914	1.48916	19.00	56.00	7.14 0	1.07 2	-3.69 1	-1.43 2
0.799477	1.49167	19.00	57.00	7.73 0	1.10 2	-3.74 1	-1.47 2
0.759757	1.49877	18.50	52.00	4.97 0	9.33 1	-3.33 1	-1.26 2
0.773079	1.50085	18.50	53.00	5.51 0	9.68 1	-3.38 1	-1.30 2
0.786211	1.50308	18.50	54.00	6.06 0	1.00 2	-3.43 1	-1.34 2
0.799166	1.50545	18.50	55.00	6.62 0	1.04 2	-3.49 1	-1.38 2
0.758243	1.51411	18.00	50.00	4.05 0	8.72 1	-3.10 1	-1.17 2
0.772053	1.51601	18.00	51.00	4.57 0	9.06 1	-3.15 1	-1.21 2
0.785647	1.51808	18.00	52.00	5.08 0	9.41 1	-3.20 1	-1.26 2
0.799040	1.52030	18.00	53.00	5.61 0	9.76 1	-3.25 1	-1.30 2
0.756724	1.53064	17.50	48.00	3.22 0	8.12 1	-2.89 1	-1.09 2
0.771082	1.53234	17.50	49.00	3.70 0	8.46 1	-2.93 1	-1.13 2
0.785195	1.53423	17.50	50.00	4.19 0	8.80 1	-2.97 1	-1.17 2
0.799079	1.53628	17.50	51.00	4.68 0	9.14 1	-3.02 1	-1.21 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.755151	1.54846	17.00	46.00	2.46 0	7.55 1	-2.68 1	-1.01 2
0.770126	1.54995	17.00	47.00	2.92 0	7.87 1	-2.72 1	-1.05 2
0.784822	1.55164	17.00	48.00	3.37 0	8.20 1	-2.76 1	-1.09 2
0.799258	1.55351	17.00	49.00	3.84 0	8.54 1	-2.80 1	-1.13 2
0.753464	1.56771	16.50	44.00	1.78 0	6.99 1	-2.48 1	-9.38 1
0.769134	1.56895	16.50	45.00	2.21 0	7.30 1	-2.52 1	-9.75 1
0.784488	1.57042	16.50	46.00	2.64 0	7.62 1	-2.56 1	-1.01 2
0.799545	1.57208	16.50	47.00	3.07 0	7.95 1	-2.60 1	-1.05 2
0.751589	1.58852	16.00	42.00	1.16 0	6.44 1	-2.30 1	-8.64 1
0.768047	1.58949	16.00	43.00	1.56 0	6.75 1	-2.33 1	-9.00 1
0.784143	1.59069	16.00	44.00	1.97 0	7.06 1	-2.37 1	-9.37 1
0.799901	1.59213	16.00	45.00	2.38 0	7.37 1	-2.40 1	-9.73 1
0.766787	1.61171	15.50	41.00	9.84-1	6.21 1	-2.16 1	-8.28 1
0.783726	1.61262	15.50	42.00	1.37 0	6.51 1	-2.19 1	-8.63 1
0.765259	1.63581	15.00	39.00	4.65-1	5.69 1	-1.99 1	-7.58 1
0.783159	1.63639	15.00	40.00	8.24-1	5.98 1	-2.02 1	-7.92 1
0.763340	1.66201	14.50	37.00	3.22-3	5.19 1	-1.83 1	-6.91 1
0.782342	1.66218	14.50	38.00	3.42-1	5.47 1	-1.86 1	-7.24 1
0.781147	1.69027	14.00	36.00	-8.72-2	4.98 1	-1.71 1	-6.58 1
0.760875	1.69057	14.00	35.00	-4.06-1	4.71 1	-1.68 1	-6.26 1
0.779410	1.72094	13.50	34.00	-4.65-1	4.50 1	-1.56 1	-5.94 1
0.757662	1.72181	13.50	33.00	-7.65-1	4.24 1	-1.54 1	-5.64 1
0.799558	1.75352	13.00	33.00	-5.11-1	4.30 1	-1.45 1	-5.64 1
0.776913	1.75456	13.00	32.00	-7.95-1	4.04 1	-1.43 1	-5.34 1
0.753436	1.75611	13.00	31.00	-1.08 0	3.79 1	-1.40 1	-5.05 1
0.797901	1.78977	12.50	31.00	-8.14-1	3.84 1	-1.32 1	-5.04 1
0.773371	1.79155	12.50	30.00	-1.08 0	3.60 1	-1.30 1	-4.76 1
0.795170	1.82976	12.00	29.00	-1.07 0	3.41 1	-1.20 1	-4.48 1
0.768399	1.83247	12.00	28.00	-1.32 0	3.18 1	-1.18 1	-4.21 1
0.790943	1.87413	11.50	27.00	-1.29 0	3.00 1	-1.08 1	-3.94 1
0.761474	1.87800	11.50	26.00	-1.53 0	2.79 1	-1.06 1	-3.69 1
0.784636	1.92366	11.00	25.00	-1.47 0	2.61 1	-9.75 0	-3.44 1
0.751871	1.92903	11.00	24.00	-1.69 0	2.41 1	-9.59 0	-3.19 1
0.775428	1.97939	10.50	23.00	-1.62 0	2.25 1	-8.74 0	-2.96 1
0.762141	2.04268	10.00	21.00	-1.73 0	1.90 1	-7.80 0	-2.51 1
0.788815	2.06295	9.80	21.00	-1.62 0	1.91 1	-7.54 0	-2.51 1
0.774210	2.09345	9.60	20.00	-1.69 0	1.75 1	-7.16 0	-2.30 1
0.751976	2.09886	9.60	19.50	-1.78 0	1.66 1	-7.10 0	-2.20 1
0.780505	2.12049	9.40	19.50	-1.66 0	1.67 1	-6.86 0	-2.20 1
0.757409	2.12628	9.40	19.00	-1.75 0	1.59 1	-6.79 0	-2.10 1
0.786979	2.14873	9.20	19.00	-1.64 0	1.60 1	-6.56 0	-2.10 1
0.762957	2.15493	9.20	18.50	-1.73 0	1.51 1	-6.50 0	-2.00 1
0.793634	2.17826	9.00	18.50	-1.61 0	1.52 1	-6.26 0	-2.00 1
0.768618	2.18489	9.00	18.00	-1.70 0	1.44 1	-6.21 0	-1.90 1
0.774386	2.21628	8.80	17.50	-1.67 0	1.37 1	-5.92 0	-1.80 1
0.780253	2.24919	8.60	17.00	-1.63 0	1.30 1	-5.65 0	-1.71 1
0.751835	2.25764	8.60	16.50	-1.71 0	1.23 1	-5.60 0	-1.62 1
0.786212	2.28374	8.40	16.50	-1.60 0	1.24 1	-5.38 0	-1.62 1
0.756443	2.29284	8.40	16.00	-1.68 0	1.16 1	-5.33 0	-1.53 1
0.792248	2.32006	8.20	16.00	-1.56 0	1.17 1	-5.11 0	-1.53 1
0.761010	2.32988	8.20	15.50	-1.64 0	1.10 1	-5.07 0	-1.45 1
0.798347	2.35829	8.00	15.50	-1.53 0	1.11 1	-4.86 0	-1.45 1
0.765507	2.36891	8.00	15.00	-1.60 0	1.03 1	-4.81 0	-1.36 1
0.769895	2.41010	7.80	14.50	-1.56 0	9.72 0	-4.57 0	-1.28 1
0.774129	2.45365	7.60	14.00	-1.52 0	9.12 0	-4.32 0	-1.20 1
0.778150	2.49977	7.40	13.50	-1.48 0	8.54 0	-4.09 0	-1.12 1
0.781889	2.54872	7.20	13.00	-1.43 0	7.97 0	-3.86 0	-1.05 1
0.785258	2.60078	7.00	12.50	-1.39 0	7.42 0	-3.64 0	-9.74 0
0.788149	2.65627	6.80	12.00	-1.34 0	6.88 0	-3.43 0	-9.04 0
0.790428	2.71557	6.60	11.50	-1.30 0	6.36 0	-3.22 0	-8.35 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.791925	2.77911	6.40	11.00	-1.25 0	5.86 0	-3.02 0	-7.69 0
0.792429	2.84740	6.20	10.50	-1.20 0	5.37 0	-2.82 0	-7.05 0
0.791668	2.92103	6.00	10.00	-1.16 0	4.90 0	-2.64 0	-6.44 0
0.765372	2.93271	6.00	9.80	-1.18 0	4.70 0	-2.63 0	-6.20 0
0.775083	3.00718	5.80	9.40	-1.12 0	4.35 0	-2.45 0	-5.73 0
0.784876	3.08731	5.60	9.00	-1.06 0	4.02 0	-2.28 0	-5.28 0
0.753424	3.10212	5.60	8.80	-1.08 0	3.83 0	-2.27 0	-5.06 0
0.794668	3.17379	5.40	8.60	-1.00 0	3.69 0	-2.12 0	-4.85 0
0.760640	3.19011	5.40	8.40	-1.02 0	3.51 0	-2.11 0	-4.64 0
0.767372	3.28553	5.20	8.00	-9.64-1	3.21 0	-1.95 0	-4.23 0
0.773385	3.38939	5.00	7.60	-9.07-1	2.91 0	-1.80 0	-3.84 0
0.778364	3.50296	4.80	7.20	-8.50-1	2.63 0	-1.65 0	-3.46 0
0.781879	3.62772	4.60	6.80	-7.94-1	2.35 0	-1.51 0	-3.10 0
0.783341	3.76555	4.40	6.40	-7.39-1	2.09 0	-1.38 0	-2.76 0
0.781928	3.91874	4.20	6.00	-6.86-1	1.85 0	-1.25 0	-2.44 0
0.776486	4.09023	4.00	5.60	-6.33-1	1.61 0	-1.13 0	-2.13 0
0.771763	4.18397	3.90	5.40	-6.07-1	1.50 0	-1.07 0	-1.98 0
0.765359	4.28377	3.80	5.20	-5.81-1	1.39 0	-1.01 0	-1.84 0
0.756949	4.39029	3.70	5.00	-5.56-1	1.29 0	-9.56-1	-1.70 0
0.794970	4.97707	3.20	4.20	-4.24-1	9.12-1	-7.04-1	-1.20 0
0.774826	5.13629	3.10	4.00	-4.01-1	8.24-1	-6.57-1	-1.09 0
0.796166	5.44994	2.90	3.70	-3.52-1	7.04-1	-5.70-1	-9.31-1
0.763482	5.65261	2.80	3.50	-3.31-1	6.26-1	-5.28-1	-8.31-1
0.774020	6.05663	2.60	3.20	-2.86-1	5.19-1	-4.49-1	-6.90-1
0.776965	6.54073	2.40	2.90	-2.43-1	4.22-1	-3.77-1	-5.61-1
0.765759	7.13264	2.20	2.60	-2.03-1	3.33-1	-3.11-1	-4.45-1
0.771261	9.59198	1.65	1.85	-1.08-1	1.55-1	-1.60-1	-2.09-1
0.799625	11.0272	1.45	1.60	-7.98-2	1.10-1	-1.18-1	-1.49-1
0.788319	13.0719	1.25	1.35	-5.56-2	7.22-2	-8.18-2	-9.93-2
0.788153	19.6360	0.90	0.94	-2.33-2	2.76-2	-3.49-2	-3.94-2
0.772604	26.6879	0.72	0.74	-1.22-2	1.37-2	-1.88-2	-2.04-2
0.80	0.85						
0.809720	1.35349	28.00	89.00	4.95 1	2.41 2	-1.16 2	-3.33 2
0.819822	1.35785	28.00	90.00	5.15 1	2.47 2	-1.18 2	-3.39 2
0.809119	1.36239	27.00	86.00	4.22 1	2.26 2	-1.03 2	-3.10 2
0.819236	1.36659	27.00	87.00	4.40 1	2.31 2	-1.05 2	-3.16 2
0.829371	1.37088	27.00	88.00	4.59 1	2.37 2	-1.07 2	-3.23 2
0.809879	1.37297	26.00	83.00	3.60 1	2.12 2	-9.19 1	-2.89 2
0.839530	1.37528	27.00	89.00	4.78 1	2.42 2	-1.09 2	-3.29 2
0.820049	1.37701	26.00	84.00	3.76 1	2.17 2	-9.36 1	-2.95 2
0.849715	1.37979	27.00	90.00	4.97 1	2.48 2	-1.11 2	-3.35 2
0.830225	1.38114	26.00	85.00	3.92 1	2.22 2	-9.53 1	-3.01 2
0.801778	1.38153	25.00	79.00	2.94 1	1.93 2	-8.06 1	-2.64 2
0.812049	1.38532	25.00	80.00	3.07 1	1.98 2	-8.20 1	-2.69 2
0.840413	1.38538	26.00	86.00	4.08 1	2.27 2	-9.71 1	-3.07 2
0.822310	1.38921	25.00	81.00	3.21 1	2.03 2	-8.34 1	-2.75 2
0.832567	1.39320	25.00	82.00	3.35 1	2.08 2	-8.49 1	-2.80 2
0.805278	1.39591	24.00	76.00	2.49 1	1.81 2	-7.19 1	-2.45 2
0.842823	1.39729	25.00	83.00	3.49 1	2.13 2	-8.64 1	-2.86 2
0.815695	1.39957	24.00	77.00	2.61 1	1.85 2	-7.31 1	-2.50 2
0.826090	1.40333	24.00	78.00	2.73 1	1.90 2	-7.44 1	-2.56 2
0.836467	1.40719	24.00	79.00	2.85 1	1.95 2	-7.56 1	-2.61 2
0.846832	1.41115	24.00	80.00	2.98 1	2.00 2	-7.69 1	-2.67 2
0.810299	1.41233	23.00	73.00	2.11 1	1.69 2	-6.41 1	-2.28 2
0.820907	1.41587	23.00	74.00	2.21 1	1.73 2	-6.52 1	-2.33 2
0.831479	1.41951	23.00	75.00	2.32 1	1.78 2	-6.63 1	-2.38 2
0.842021	1.42325	23.00	76.00	2.42 1	1.82 2	-6.74 1	-2.43 2
0.806053	1.42766	22.00	69.00	1.68 1	1.53 2	-5.62 1	-2.06 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.816956	1.43099	22.00	70.00	1.77 1	1.57 2	-5.71 1	-2.11 2
0.827803	1.43441	22.00	71.00	1.86 1	1.62 2	-5.80 1	-2.16 2
0.838600	1.43794	22.00	72.00	1.96 1	1.66 2	-5.89 1	-2.21 2
0.849352	1.44157	22.00	73.00	2.05 1	1.71 2	-5.99 1	-2.26 2
0.802885	1.44578	21.00	65.00	1.33 1	1.38 2	-4.92 1	-1.85 2
0.814176	1.44889	21.00	66.00	1.41 1	1.42 2	-5.00 1	-1.90 2
0.825389	1.45211	21.00	67.00	1.48 1	1.46 2	-5.07 1	-1.95 2
0.836529	1.45543	21.00	68.00	1.57 1	1.51 2	-5.15 1	-2.00 2
0.847603	1.45886	21.00	69.00	1.65 1	1.55 2	-5.24 1	-2.04 2
0.800722	1.46699	20.00	61.00	1.03 1	1.24 2	-4.30 1	-1.66 2
0.812510	1.46988	20.00	62.00	1.09 1	1.28 2	-4.36 1	-1.70 2
0.824193	1.47288	20.00	63.00	1.16 1	1.32 2	-4.43 1	-1.75 2
0.835778	1.47599	20.00	64.00	1.23 1	1.36 2	-4.50 1	-1.80 2
0.847272	1.47922	20.00	65.00	1.31 1	1.40 2	-4.57 1	-1.84 2
0.812074	1.48164	19.50	60.00	9.58 0	1.21 2	-4.07 1	-1.61 2
0.824038	1.48453	19.50	61.00	1.02 1	1.25 2	-4.13 1	-1.65 2
0.835889	1.48753	19.50	62.00	1.09 1	1.29 2	-4.20 1	-1.70 2
0.847634	1.49065	19.50	63.00	1.16 1	1.33 2	-4.26 1	-1.74 2
0.811892	1.49431	19.00	58.00	8.33 0	1.14 2	-3.80 1	-1.52 2
0.824170	1.49709	19.00	59.00	8.94 0	1.18 2	-3.86 1	-1.56 2
0.836319	1.49998	19.00	60.00	9.56 0	1.22 2	-3.91 1	-1.60 2
0.848348	1.50299	19.00	61.00	1.02 1	1.26 2	-3.97 1	-1.65 2
0.811953	1.50797	18.50	56.00	7.18 0	1.08 2	-3.54 1	-1.43 2
0.824582	1.51061	18.50	57.00	7.76 0	1.11 2	-3.59 1	-1.47 2
0.837067	1.51339	18.50	58.00	8.34 0	1.15 2	-3.65 1	-1.51 2
0.849413	1.51629	18.50	59.00	8.93 0	1.19 2	-3.70 1	-1.56 2
0.812243	1.52267	18.00	54.00	6.14 0	1.01 2	-3.29 1	-1.34 2
0.825268	1.52518	18.00	55.00	6.67 0	1.05 2	-3.34 1	-1.38 2
0.838126	1.52783	18.00	56.00	7.22 0	1.09 2	-3.39 1	-1.42 2
0.812748	1.53850	17.50	52.00	5.18 0	9.49 1	-3.06 1	-1.25 2
0.826215	1.54087	17.50	53.00	5.68 0	9.84 1	-3.11 1	-1.29 2
0.839493	1.54338	17.50	54.00	6.19 0	1.02 2	-3.16 1	-1.34 2
0.813449	1.55555	17.00	50.00	4.31 0	8.88 1	-2.84 1	-1.17 2
0.827412	1.55777	17.00	51.00	4.78 0	9.22 1	-2.89 1	-1.21 2
0.841159	1.56014	17.00	52.00	5.26 0	9.57 1	-2.93 1	-1.25 2
0.814324	1.57394	16.50	48.00	3.51 0	8.28 1	-2.64 1	-1.09 2
0.828842	1.57598	16.50	49.00	3.96 0	8.61 1	-2.68 1	-1.13 2
0.843117	1.57819	16.50	50.00	4.41 0	8.96 1	-2.72 1	-1.17 2
0.815342	1.59377	16.00	46.00	2.79 0	7.70 1	-2.44 1	-1.01 2
0.830486	1.59562	16.00	47.00	3.21 0	8.02 1	-2.48 1	-1.05 2
0.845353	1.59765	16.00	48.00	3.63 0	8.36 1	-2.52 1	-1.09 2
0.800277	1.61379	15.50	43.00	1.75 0	6.82 1	-2.22 1	-8.99 1
0.816467	1.61520	15.50	44.00	2.14 0	7.13 1	-2.26 1	-9.35 1
0.832317	1.61683	15.50	45.00	2.53 0	7.45 1	-2.29 1	-9.72 1
0.847852	1.61866	15.50	46.00	2.93 0	7.77 1	-2.33 1	-1.01 2
0.800613	1.63725	15.00	41.00	1.19 0	6.28 1	-2.05 1	-8.27 1
0.817651	1.63838	15.00	42.00	1.55 0	6.58 1	-2.08 1	-8.62 1
0.834302	1.63975	15.00	43.00	1.92 0	6.89 1	-2.11 1	-8.98 1
0.800827	1.66269	14.50	39.00	6.83-1	5.76 1	-1.89 1	-7.57 1
0.818833	1.66350	14.50	40.00	1.03 0	6.05 1	-1.92 1	-7.91 1
0.836393	1.66459	14.50	41.00	1.37 0	6.35 1	-1.95 1	-8.26 1
0.800818	1.69035	14.00	37.00	2.34-1	5.25 1	-1.73 1	-6.90 1
0.819934	1.69079	14.00	38.00	5.57-1	5.53 1	-1.76 1	-7.23 1
0.838534	1.69154	14.00	39.00	8.83-1	5.82 1	-1.79 1	-7.56 1
0.820848	1.72050	13.50	36.00	1.41-1	5.04 1	-1.61 1	-6.57 1
0.800454	1.72052	13.50	35.00	-1.63-1	4.76 1	-1.59 1	-6.25 1
0.840643	1.72086	13.50	37.00	4.47-1	5.31 1	-1.64 1	-6.89 1
0.842617	1.75285	13.00	35.00	6.19-2	4.82 1	-1.50 1	-6.25 1
0.821439	1.75297	13.00	34.00	-2.26-1	4.56 1	-1.47 1	-5.94 1
0.844313	1.78787	12.50	33.00	-2.76-1	4.35 1	-1.36 1	-5.63 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.821523	1.78856	12.50	32.00	-5.45-1	4.09 1	-1.34 1	-5.33 1
0.845539	1.82635	12.00	31.00	-5.68-1	3.90 1	-1.24 1	-5.04 1
0.820851	1.82775	12.00	30.00	-8.21-1	3.65 1	-1.22 1	-4.76 1
0.846032	1.86882	11.50	29.00	-8.19-1	3.46 1	-1.12 1	-4.48 1
0.819087	1.87110	11.50	28.00	-1.06 0	3.23 1	-1.10 1	-4.21 1
0.845427	1.91595	11.00	27.00	-1.03 0	3.05 1	-1.01 1	-3.94 1
0.815766	1.91934	11.00	26.00	-1.25 0	2.83 1	-9.91 0	-3.69 1
0.843211	1.96859	10.50	25.00	-1.20 0	2.66 1	-9.04 0	-3.44 1
0.810234	1.97340	10.50	24.00	-1.41 0	2.45 1	-8.89 0	-3.19 1
0.838653	2.02780	10.00	23.00	-1.34 0	2.28 1	-8.07 0	-2.96 1
0.801557	2.03449	10.00	22.00	-1.54 0	2.09 1	-7.93 0	-2.73 1
0.828334	2.05503	9.80	22.00	-1.43 0	2.10 1	-7.67 0	-2.73 1
0.816471	2.08411	9.60	21.00	-1.50 0	1.93 1	-7.29 0	-2.51 1
0.845170	2.10622	9.40	21.00	-1.40 0	1.94 1	-7.04 0	-2.51 1
0.802795	2.11525	9.40	20.00	-1.58 0	1.76 1	-6.92 0	-2.30 1
0.832484	2.13804	9.20	20.00	-1.46 0	1.77 1	-6.67 0	-2.30 1
0.810134	2.14312	9.20	19.50	-1.55 0	1.68 1	-6.61 0	-2.20 1
0.840935	2.16681	9.00	19.50	-1.44 0	1.70 1	-6.38 0	-2.20 1
0.817717	2.17225	9.00	19.00	-1.53 0	1.61 1	-6.32 0	-2.10 1
0.849703	2.19690	8.80	19.00	-1.42 0	1.62 1	-6.09 0	-2.10 1
0.825553	2.20272	8.80	18.50	-1.50 0	1.54 1	-6.03 0	-2.00 1
0.800472	2.20916	8.80	18.00	-1.58 0	1.45 1	-5.98 0	-1.90 1
0.833650	2.23463	8.60	18.00	-1.47 0	1.46 1	-5.75 0	-1.90 1
0.807495	2.24154	8.60	17.50	-1.55 0	1.38 1	-5.70 0	-1.80 1
0.842017	2.26808	8.40	17.50	-1.44 0	1.39 1	-5.48 0	-1.80 1
0.814702	2.27551	8.40	17.00	-1.52 0	1.31 1	-5.43 0	-1.71 1
0.822094	2.31119	8.20	16.50	-1.49 0	1.25 1	-5.16 0	-1.62 1
0.829666	2.34873	8.00	16.00	-1.45 0	1.18 1	-4.90 0	-1.53 1
0.837413	2.38827	7.80	15.50	-1.42 0	1.11 1	-4.65 0	-1.45 1
0.804487	2.39860	7.80	15.00	-1.49 0	1.04 1	-4.61 0	-1.36 1
0.845326	2.42999	7.60	15.00	-1.38 0	1.05 1	-4.41 0	-1.36 1
0.810642	2.44118	7.60	14.50	-1.45 0	9.81 0	-4.37 0	-1.28 1
0.816780	2.48621	7.40	14.00	-1.41 0	9.21 0	-4.13 0	-1.20 1
0.822858	2.53393	7.20	13.50	-1.37 0	8.62 0	-3.90 0	-1.12 1
0.828823	2.58462	7.00	13.00	-1.33 0	8.05 0	-3.68 0	-1.05 1
0.834608	2.63855	6.80	12.50	-1.28 0	7.49 0	-3.46 0	-9.74 0
0.840127	2.69607	6.60	12.00	-1.24 0	6.95 0	-3.25 0	-9.04 0
0.845273	2.75759	6.40	11.50	-1.20 0	6.43 0	-3.05 0	-8.35 0
0.849908	2.82354	6.20	11.00	-1.15 0	5.92 0	-2.85 0	-7.69 0
0.830521	2.98239	5.80	9.80	-1.08 0	4.75 0	-2.47 0	-6.20 0
0.803272	2.99444	5.80	9.60	-1.10 0	4.55 0	-2.46 0	-5.96 0
0.844457	3.06018	5.60	9.40	-1.02 0	4.41 0	-2.30 0	-5.73 0
0.815196	3.07335	5.60	9.20	-1.04 0	4.21 0	-2.29 0	-5.51 0
0.827405	3.15843	5.40	8.80	-9.85-1	3.88 0	-2.12 0	-5.06 0
0.839842	3.25048	5.20	8.40	-9.28-1	3.56 0	-1.97 0	-4.64 0
0.804347	3.26744	5.20	8.20	-9.46-1	3.38 0	-1.96 0	-4.43 0
0.813758	3.36926	5.00	7.80	-8.90-1	3.08 0	-1.80 0	-4.03 0
0.822688	3.48040	4.80	7.40	-8.34-1	2.79 0	-1.66 0	-3.65 0
0.830836	3.60230	4.60	7.00	-7.79-1	2.51 0	-1.52 0	-3.28 0
0.837787	3.73668	4.40	6.60	-7.25-1	2.24 0	-1.38 0	-2.93 0
0.842955	3.88568	4.20	6.20	-6.71-1	1.99 0	-1.26 0	-2.60 0
0.845506	4.05200	4.00	5.80	-6.19-1	1.74 0	-1.13 0	-2.28 0
0.845443	4.14269	3.90	5.60	-5.94-1	1.63 0	-1.07 0	-2.13 0
0.844237	4.23907	3.80	5.40	-5.68-1	1.51 0	-1.02 0	-1.98 0
0.841650	4.34172	3.70	5.20	-5.43-1	1.41 0	-9.61-1	-1.84 0
0.837387	4.45132	3.60	5.00	-5.19-1	1.30 0	-9.06-1	-1.71 0
0.831090	4.56866	3.50	4.80	-4.94-1	1.20 0	-8.53-1	-1.57 0
0.822314	4.69465	3.40	4.60	-4.71-1	1.10 0	-8.02-1	-1.45 0
0.810506	4.83036	3.30	4.40	-4.47-1	1.00 0	-7.52-1	-1.32 0
0.821269	5.26543	3.00	3.90	-3.74-1	7.86-1	-6.14-1	-1.04 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.848331	5.59985	2.80	3.60	-3.26-1	6.68-1	-5.29-1	-8.81-1
0.816332	5.81647	2.70	3.40	-3.06-1	5.92-1	-4.88-1	-7.83-1
0.833366	6.25113	2.50	3.10	-2.62-1	4.88-1	-4.13-1	-6.46-1
0.843650	6.77579	2.30	2.80	-2.21-1	3.93-1	-3.43-1	-5.21-1
0.840293	7.42310	2.10	2.50	-1.83-1	3.07-1	-2.80-1	-4.09-1
0.809583	8.24414	1.90	2.20	-1.48-1	2.31-1	-2.23-1	-3.09-1
0.824025	8.97489	1.75	2.00	-1.23-1	1.86-1	-1.84-1	-2.50-1
0.825357	9.87872	1.60	1.80	-1.00-1	1.46-1	-1.49-1	-1.96-1
0.838459	20.1938	0.88	0.92	-2.19-2	2.60-2	-3.28-2	-3.72-2
0.840708	27.7505	0.70	0.72	-1.12-2	1.26-2	-1.74-2	-1.89-2
0.85	0.90						
0.850617	1.38972	26.00	87.00	4.25 1	2.32 2	-9.89 1	-3.13 2
0.860840	1.39416	26.00	88.00	4.43 1	2.38 2	-1.01 2	-3.19 2
0.871087	1.39871	26.00	89.00	4.60 1	2.43 2	-1.03 2	-3.25 2
0.853083	1.40148	25.00	84.00	3.64 1	2.18 2	-8.80 1	-2.92 2
0.881362	1.40337	26.00	90.00	4.79 1	2.49 2	-1.05 2	-3.31 2
0.863351	1.40577	25.00	85.00	3.79 1	2.23 2	-8.96 1	-2.98 2
0.873631	1.41017	25.00	86.00	3.94 1	2.28 2	-9.12 1	-3.04 2
0.883927	1.41467	25.00	87.00	4.10 1	2.34 2	-9.29 1	-3.10 2
0.857188	1.41521	24.00	81.00	3.10 1	2.05 2	-7.83 1	-2.72 2
0.894245	1.41927	25.00	88.00	4.26 1	2.39 2	-9.46 1	-3.16 2
0.867540	1.41936	24.00	82.00	3.24 1	2.09 2	-7.97 1	-2.78 2
0.877892	1.42361	24.00	83.00	3.37 1	2.14 2	-8.11 1	-2.84 2
0.852536	1.42708	23.00	77.00	2.53 1	1.87 2	-6.85 1	-2.48 2
0.888249	1.42797	24.00	84.00	3.51 1	2.20 2	-8.25 1	-2.89 2
0.863031	1.43102	23.00	78.00	2.65 1	1.92 2	-6.96 1	-2.54 2
0.898615	1.43243	24.00	85.00	3.65 1	2.25 2	-8.40 1	-2.95 2
0.873509	1.43506	23.00	79.00	2.76 1	1.97 2	-7.08 1	-2.59 2
0.883975	1.43919	23.00	80.00	2.88 1	2.01 2	-7.20 1	-2.65 2
0.894433	1.44342	23.00	81.00	3.00 1	2.06 2	-7.33 1	-2.70 2
0.860064	1.44530	22.00	74.00	2.15 1	1.75 2	-6.09 1	-2.31 2
0.870742	1.44912	22.00	75.00	2.25 1	1.80 2	-6.19 1	-2.36 2
0.881390	1.45305	22.00	76.00	2.35 1	1.84 2	-6.29 1	-2.41 2
0.892012	1.45707	22.00	77.00	2.45 1	1.89 2	-6.40 1	-2.47 2
0.858617	1.46239	21.00	70.00	1.73 1	1.59 2	-5.32 1	-2.09 2
0.869576	1.46601	21.00	71.00	1.82 1	1.64 2	-5.40 1	-2.14 2
0.880485	1.46974	21.00	72.00	1.91 1	1.68 2	-5.49 1	-2.19 2
0.891351	1.47357	21.00	73.00	1.99 1	1.72 2	-5.58 1	-2.24 2
0.858682	1.48255	20.00	66.00	1.38 1	1.44 2	-4.64 1	-1.89 2
0.870014	1.48598	20.00	67.00	1.45 1	1.48 2	-4.71 1	-1.94 2
0.881275	1.48952	20.00	68.00	1.53 1	1.53 2	-4.79 1	-1.98 2
0.892470	1.49316	20.00	69.00	1.61 1	1.57 2	-4.86 1	-2.03 2
0.859283	1.49388	19.50	64.00	1.23 1	1.37 2	-4.33 1	-1.79 2
0.870840	1.49722	19.50	65.00	1.29 1	1.41 2	-4.40 1	-1.84 2
0.882314	1.50066	19.50	66.00	1.37 1	1.45 2	-4.46 1	-1.88 2
0.893710	1.50421	19.50	67.00	1.44 1	1.49 2	-4.54 1	-1.93 2
0.860265	1.50611	19.00	62.00	1.08 1	1.30 2	-4.04 1	-1.69 2
0.872077	1.50935	19.00	63.00	1.15 1	1.34 2	-4.10 1	-1.74 2
0.883791	1.51270	19.00	64.00	1.21 1	1.38 2	-4.16 1	-1.79 2
0.895416	1.51616	19.00	65.00	1.28 1	1.42 2	-4.23 1	-1.83 2
0.861631	1.51931	18.50	60.00	9.53 0	1.23 2	-3.76 1	-1.60 2
0.873729	1.52244	18.50	61.00	1.01 1	1.27 2	-3.82 1	-1.65 2
0.885715	1.52570	18.50	62.00	1.08 1	1.31 2	-3.88 1	-1.69 2
0.897596	1.52906	18.50	63.00	1.14 1	1.35 2	-3.94 1	-1.74 2
0.850828	1.53061	18.00	57.00	7.77 0	1.12 2	-3.45 1	-1.47 2
0.863384	1.53352	18.00	58.00	8.33 0	1.16 2	-3.50 1	-1.51 2
0.875802	1.53656	18.00	59.00	8.90 0	1.20 2	-3.55 1	-1.55 2
0.888093	1.53971	18.00	60.00	9.48 0	1.24 2	-3.61 1	-1.60 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.852593	1.54604	17.50	55.00	6.71 0	1.06 2	-3.20 1	-1.38 2
0.865527	1.54884	17.50	56.00	7.24 0	1.09 2	-3.25 1	-1.42 2
0.878304	1.55176	17.50	57.00	7.77 0	1.13 2	-3.30 1	-1.46 2
0.890936	1.55481	17.50	58.00	8.31 0	1.17 2	-3.35 1	-1.51 2
0.854705	1.56266	17.00	53.00	5.75 0	9.93 1	-2.98 1	-1.29 2
0.868063	1.56533	17.00	54.00	6.24 0	1.03 2	-3.02 1	-1.33 2
0.881242	1.56814	17.00	55.00	6.74 0	1.07 2	-3.07 1	-1.37 2
0.894256	1.57108	17.00	56.00	7.24 0	1.10 2	-3.11 1	-1.42 2
0.857163	1.58057	16.50	51.00	4.86 0	9.30 1	-2.76 1	-1.21 2
0.870994	1.58310	16.50	52.00	5.33 0	9.66 1	-2.80 1	-1.25 2
0.884624	1.58578	16.50	53.00	5.79 0	1.00 2	-2.84 1	-1.29 2
0.898066	1.58861	16.50	54.00	6.27 0	1.04 2	-2.89 1	-1.33 2
0.859960	1.59987	16.00	49.00	4.06 0	8.70 1	-2.55 1	-1.13 2
0.874324	1.60225	16.00	50.00	4.49 0	9.04 1	-2.59 1	-1.17 2
0.888459	1.60480	16.00	51.00	4.93 0	9.39 1	-2.63 1	-1.21 2
0.863090	1.62070	15.50	47.00	3.33 0	8.10 1	-2.36 1	-1.05 2
0.878052	1.62292	15.50	48.00	3.74 0	8.44 1	-2.40 1	-1.09 2
0.892753	1.62532	15.50	49.00	4.15 0	8.78 1	-2.43 1	-1.13 2
0.850591	1.64137	15.00	44.00	2.30 0	7.20 1	-2.15 1	-9.34 1
0.866541	1.64320	15.00	45.00	2.67 0	7.52 1	-2.18 1	-9.71 1
0.882176	1.64524	15.00	46.00	3.05 0	7.85 1	-2.21 1	-1.01 2
0.897515	1.64747	15.00	47.00	3.44 0	8.18 1	-2.25 1	-1.05 2
0.853538	1.66594	14.50	42.00	1.72 0	6.65 1	-1.98 1	-8.61 1
0.870296	1.66754	14.50	43.00	2.08 0	6.96 1	-2.01 1	-8.97 1
0.886692	1.66937	14.50	44.00	2.44 0	7.28 1	-2.04 1	-9.33 1
0.856654	1.69259	14.00	40.00	1.21 0	6.12 1	-1.81 1	-7.90 1
0.874330	1.69392	14.00	41.00	1.54 0	6.42 1	-1.84 1	-8.25 1
0.891590	1.69551	14.00	42.00	1.88 0	6.72 1	-1.87 1	-8.60 1
0.859882	1.72156	13.50	38.00	7.56-1	5.60 1	-1.66 1	-7.22 1
0.878606	1.72258	13.50	39.00	1.07 0	5.89 1	-1.69 1	-7.56 1
0.896851	1.72389	13.50	40.00	1.38 0	6.19 1	-1.72 1	-7.90 1
0.863146	1.75313	13.00	36.00	3.52-1	5.10 1	-1.52 1	-6.57 1
0.883074	1.75378	13.00	37.00	6.44-1	5.38 1	-1.54 1	-6.89 1
0.866339	1.78764	12.50	34.00	-3.83-3	4.61 1	-1.38 1	-5.94 1
0.887663	1.78784	12.50	35.00	2.70-1	4.88 1	-1.41 1	-6.25 1
0.892269	1.82517	12.00	33.00	-5.73-2	4.41 1	-1.28 1	-5.63 1
0.869320	1.82550	12.00	32.00	-3.14-1	4.15 1	-1.26 1	-5.33 1
0.896750	1.86621	11.50	31.00	-3.41-1	3.95 1	-1.16 1	-5.04 1
0.871887	1.86722	11.50	30.00	-5.80-1	3.70 1	-1.14 1	-4.76 1
0.873764	1.91339	11.00	28.00	-8.07-1	3.28 1	-1.03 1	-4.21 1
0.874554	1.96480	10.50	26.00	-9.95-1	2.87 1	-9.20 0	-3.68 1
0.873697	2.02244	10.00	24.00	-1.15 0	2.49 1	-8.21 0	-3.19 1
0.865534	2.04862	9.80	23.00	-1.24 0	2.30 1	-7.81 0	-2.96 1
0.893407	2.07036	9.60	23.00	-1.14 0	2.31 1	-7.55 0	-2.96 1
0.856098	2.07649	9.60	22.00	-1.32 0	2.12 1	-7.42 0	-2.73 1
0.884911	2.09890	9.40	22.00	-1.22 0	2.13 1	-7.17 0	-2.73 1
0.874978	2.12934	9.20	21.00	-1.29 0	1.95 1	-6.80 0	-2.51 1
0.863348	2.16192	9.00	20.00	-1.36 0	1.78 1	-6.44 0	-2.30 1
0.895466	2.18693	8.80	20.00	-1.25 0	1.80 1	-6.20 0	-2.30 1
0.872987	2.19165	8.80	19.50	-1.34 0	1.71 1	-6.14 0	-2.20 1
0.883021	2.22277	8.60	19.00	-1.31 0	1.63 1	-5.86 0	-2.10 1
0.858801	2.22839	8.60	18.50	-1.39 0	1.55 1	-5.81 0	-2.00 1
0.893471	2.25536	8.40	18.50	-1.29 0	1.56 1	-5.58 0	-2.00 1
0.868246	2.26139	8.40	18.00	-1.37 0	1.48 1	-5.53 0	-1.90 1
0.878055	2.29601	8.20	17.50	-1.34 0	1.40 1	-5.26 0	-1.81 1
0.850662	2.30321	8.20	17.00	-1.41 0	1.32 1	-5.21 0	-1.71 1
0.888246	2.33238	8.00	17.00	-1.31 0	1.33 1	-5.00 0	-1.71 1
0.859594	2.34012	8.00	16.50	-1.38 0	1.26 1	-4.95 0	-1.62 1
0.898836	2.37064	7.80	16.50	-1.28 0	1.27 1	-4.74 0	-1.62 1
0.868820	2.37898	7.80	16.00	-1.35 0	1.19 1	-4.70 0	-1.53 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.878345	2.41994	7.60	15.50	-1.31 0	1.12 1	-4.45 0	-1.45 1
0.888175	2.46319	7.40	15.00	-1.28 0	1.06 1	-4.21 0	-1.36 1
0.853392	2.47407	7.40	14.50	-1.34 0	9.89 0	-4.17 0	-1.28 1
0.898311	2.50893	7.20	14.50	-1.24 0	9.98 0	-3.98 0	-1.28 1
0.861593	2.52073	7.20	14.00	-1.30 0	9.29 0	-3.94 0	-1.20 1
0.869904	2.57022	7.00	13.50	-1.26 0	8.70 0	-3.72 0	-1.12 1
0.878293	2.62281	6.80	13.00	-1.22 0	8.13 0	-3.50 0	-1.05 1
0.886715	2.67881	6.60	12.50	-1.18 0	7.57 0	-3.29 0	-9.75 0
0.895112	2.73860	6.40	12.00	-1.14 0	7.03 0	-3.08 0	-9.04 0
0.853855	2.89447	6.00	10.50	-1.11 0	5.43 0	-2.66 0	-7.05 0
0.856887	2.97100	5.80	10.00	-1.06 0	4.96 0	-2.48 0	-6.44 0
0.872720	3.04775	5.60	9.60	-1.00 0	4.61 0	-2.31 0	-5.97 0
0.889341	3.13037	5.40	9.20	-9.48-1	4.26 0	-2.14 0	-5.51 0
0.858938	3.14398	5.40	9.00	-9.66-1	4.07 0	-2.13 0	-5.28 0
0.873958	3.23456	5.20	8.60	-9.11-1	3.74 0	-1.97 0	-4.85 0
0.889493	3.33279	5.00	8.20	-8.56-1	3.42 0	-1.82 0	-4.43 0
0.852420	3.35043	5.00	8.00	-8.73-1	3.25 0	-1.81 0	-4.23 0
0.865014	3.45938	4.80	7.60	-8.17-1	2.95 0	-1.67 0	-3.84 0
0.877441	3.57869	4.60	7.20	-7.63-1	2.66 0	-1.53 0	-3.46 0
0.889436	3.70997	4.40	6.80	-7.10-1	2.39 0	-1.39 0	-3.10 0
0.890114	5.22380	3.00	4.00	-3.69-1	8.33-1	-6.15-1	-1.09 0
0.872344	5.40324	2.90	3.80	-3.47-1	7.49-1	-5.71-1	-9.84-1
0.875258	5.99284	2.60	3.30	-2.81-1	5.59-1	-4.53-1	-7.36-1
0.873724	7.98402	1.95	2.30	-1.55-1	2.56-1	-2.37-1	-3.41-1
0.876907	9.22033	1.70	1.95	-1.15-1	1.76-1	-1.72-1	-2.36-1
0.885535	10.1862	1.55	1.75	-9.29-2	1.37-1	-1.38-1	-1.84-1
0.866947	11.4244	1.40	1.55	-7.31-2	1.02-1	-1.08-1	-1.39-1
0.870793	13.6593	1.20	1.30	-5.00-2	6.58-2	-7.38-2	-9.05-2
0.893634	20.7862	0.86	0.90	-2.05-2	2.45-2	-3.08-2	-3.51-2
0.90	0.95						
0.904587	1.42398	25.00	89.00	4.43 1	2.44 2	-9.64 1	-3.22 2
0.914959	1.42879	25.00	90.00	4.61 1	2.50 2	-9.83 1	-3.28 2
0.908995	1.43699	24.00	86.00	3.80 1	2.30 2	-8.55 1	-3.01 2
0.919392	1.44165	24.00	87.00	3.95 1	2.35 2	-8.71 1	-3.06 2
0.929811	1.44642	24.00	88.00	4.10 1	2.40 2	-8.87 1	-3.12 2
0.904888	1.44775	23.00	82.00	3.12 1	2.11 2	-7.46 1	-2.75 2
0.940256	1.45129	24.00	89.00	4.26 1	2.46 2	-9.04 1	-3.18 2
0.915345	1.45217	23.00	83.00	3.25 1	2.16 2	-7.59 1	-2.81 2
0.925807	1.45670	23.00	84.00	3.38 1	2.21 2	-7.72 1	-2.87 2
0.902615	1.46119	22.00	78.00	2.56 1	1.93 2	-6.50 1	-2.52 2
0.936280	1.46134	23.00	85.00	3.51 1	2.26 2	-7.86 1	-2.92 2
0.913202	1.46541	22.00	79.00	2.67 1	1.98 2	-6.61 1	-2.57 2
0.946767	1.46607	23.00	86.00	3.65 1	2.31 2	-8.00 1	-2.98 2
0.923778	1.46972	22.00	80.00	2.78 1	2.03 2	-6.73 1	-2.62 2
0.934347	1.47414	22.00	81.00	2.89 1	2.08 2	-6.84 1	-2.68 2
0.902177	1.47750	21.00	74.00	2.09 1	1.77 2	-5.67 1	-2.29 2
0.944915	1.47865	22.00	82.00	3.01 1	2.13 2	-6.96 1	-2.73 2
0.912970	1.48152	21.00	75.00	2.18 1	1.81 2	-5.76 1	-2.35 2
0.923734	1.48564	21.00	76.00	2.27 1	1.86 2	-5.86 1	-2.40 2
0.934474	1.48986	21.00	77.00	2.37 1	1.91 2	-5.96 1	-2.45 2
0.945195	1.49418	21.00	78.00	2.47 1	1.95 2	-6.06 1	-2.50 2
0.903605	1.49690	20.00	70.00	1.69 1	1.61 2	-4.94 1	-2.08 2
0.914687	1.50074	20.00	71.00	1.77 1	1.65 2	-5.02 1	-2.13 2
0.925720	1.50468	20.00	72.00	1.85 1	1.70 2	-5.10 1	-2.18 2
0.905036	1.50786	19.50	68.00	1.51 1	1.53 2	-4.61 1	-1.98 2
0.936710	1.50872	20.00	73.00	1.93 1	1.74 2	-5.18 1	-2.23 2
0.916296	1.51162	19.50	69.00	1.59 1	1.58 2	-4.68 1	-2.03 2
0.947662	1.51286	20.00	74.00	2.02 1	1.79 2	-5.27 1	-2.28 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.927497	1.51547	19.50	70.00	1.66 1	1.62 2	-4.75 1	-2.08 2
0.938644	1.51943	19.50	71.00	1.74 1	1.66 2	-4.83 1	-2.12 2
0.906957	1.51972	19.00	66.00	1.35 1	1.46 2	-4.29 1	-1.88 2
0.918421	1.52339	19.00	67.00	1.42 1	1.50 2	-4.36 1	-1.93 2
0.949744	1.52348	19.50	72.00	1.82 1	1.71 2	-4.91 1	-2.17 2
0.929814	1.52716	19.00	68.00	1.49 1	1.54 2	-4.43 1	-1.97 2
0.941143	1.53103	19.00	69.00	1.56 1	1.59 2	-4.50 1	-2.02 2
0.909381	1.53254	18.50	64.00	1.20 1	1.39 2	-4.00 1	-1.78 2
0.921076	1.53612	18.50	65.00	1.27 1	1.43 2	-4.06 1	-1.83 2
0.932688	1.53981	18.50	66.00	1.33 1	1.47 2	-4.12 1	-1.88 2
0.900263	1.54298	18.00	61.00	1.01 1	1.28 2	-3.66 1	-1.64 2
0.944223	1.54360	18.50	67.00	1.40 1	1.51 2	-4.19 1	-1.92 2
0.912322	1.54637	18.00	62.00	1.07 1	1.32 2	-3.72 1	-1.69 2
0.924278	1.54986	18.00	63.00	1.13 1	1.36 2	-3.78 1	-1.73 2
0.936136	1.55347	18.00	64.00	1.19 1	1.40 2	-3.84 1	-1.78 2
0.947905	1.55718	18.00	65.00	1.25 1	1.44 2	-3.90 1	-1.82 2
0.903431	1.55799	17.50	59.00	8.86 0	1.21 2	-3.41 1	-1.55 2
0.915798	1.56128	17.50	60.00	9.42 0	1.25 2	-3.46 1	-1.59 2
0.928045	1.56468	17.50	61.00	9.98 0	1.29 2	-3.51 1	-1.64 2
0.940182	1.56821	17.50	62.00	1.06 1	1.33 2	-3.57 1	-1.68 2
0.907114	1.57415	17.00	57.00	7.76 0	1.14 2	-3.16 1	-1.46 2
0.919826	1.57735	17.00	58.00	8.28 0	1.18 2	-3.21 1	-1.50 2
0.932402	1.58067	17.00	59.00	8.81 0	1.22 2	-3.26 1	-1.55 2
0.944850	1.58411	17.00	60.00	9.34 0	1.26 2	-3.31 1	-1.59 2
0.911330	1.59158	16.50	55.00	6.75 0	1.07 2	-2.93 1	-1.37 2
0.924429	1.59468	16.50	56.00	7.23 0	1.11 2	-2.98 1	-1.42 2
0.937372	1.59790	16.50	57.00	7.73 0	1.15 2	-3.02 1	-1.46 2
0.902379	1.60751	16.00	52.00	5.38 0	9.74 1	-2.67 1	-1.25 2
0.916099	1.61036	16.00	53.00	5.83 0	1.01 2	-2.72 1	-1.29 2
0.929630	1.61335	16.00	54.00	6.28 0	1.05 2	-2.76 1	-1.33 2
0.942984	1.61648	16.00	55.00	6.74 0	1.08 2	-2.80 1	-1.37 2
0.907211	1.62788	15.50	50.00	4.57 0	9.12 1	-2.47 1	-1.16 2
0.921441	1.63061	15.50	51.00	4.99 0	9.47 1	-2.51 1	-1.20 2
0.935456	1.63349	15.50	52.00	5.41 0	9.83 1	-2.55 1	-1.25 2
0.949271	1.63652	15.50	53.00	5.84 0	1.02 2	-2.59 1	-1.29 2
0.912577	1.64989	15.00	48.00	3.83 0	8.52 1	-2.28 1	-1.08 2
0.927380	1.65248	15.00	49.00	4.22 0	8.86 1	-2.32 1	-1.12 2
0.941939	1.65523	15.00	50.00	4.62 0	9.21 1	-2.35 1	-1.16 2
0.902751	1.67142	14.50	45.00	2.80 0	7.60 1	-2.07 1	-9.70 1
0.918493	1.67366	14.50	46.00	3.16 0	7.93 1	-2.10 1	-1.01 2
0.933940	1.67611	14.50	47.00	3.53 0	8.26 1	-2.13 1	-1.05 2
0.949110	1.67873	14.50	48.00	3.90 0	8.60 1	-2.17 1	-1.08 2
0.908463	1.69735	14.00	43.00	2.22 0	7.04 1	-1.90 1	-8.96 1
0.924975	1.69940	14.00	44.00	2.56 0	7.36 1	-1.93 1	-9.33 1
0.941149	1.70167	14.00	45.00	2.91 0	7.68 1	-1.96 1	-9.69 1
0.914650	1.72547	13.50	41.00	1.70 0	6.49 1	-1.74 1	-8.25 1
0.932035	1.72731	13.50	42.00	2.02 0	6.80 1	-1.77 1	-8.60 1
0.949032	1.72938	13.50	43.00	2.34 0	7.11 1	-1.80 1	-8.96 1
0.902448	1.75476	13.00	38.00	9.38-1	5.66 1	-1.57 1	-7.22 1
0.921306	1.75605	13.00	39.00	1.23 0	5.96 1	-1.59 1	-7.55 1
0.939685	1.75764	13.00	40.00	1.53 0	6.26 1	-1.62 1	-7.90 1
0.908337	1.78844	12.50	36.00	5.45-1	5.16 1	-1.43 1	-6.56 1
0.928412	1.78939	12.50	37.00	8.23-1	5.44 1	-1.45 1	-6.89 1
0.947932	1.79067	12.50	38.00	1.10 0	5.73 1	-1.48 1	-7.22 1
0.914455	1.82529	12.00	34.00	2.01-1	4.67 1	-1.30 1	-5.94 1
0.935938	1.82583	12.00	35.00	4.60-1	4.95 1	-1.32 1	-6.25 1
0.920706	1.86576	11.50	32.00	-9.95-2	4.21 1	-1.18 1	-5.33 1
0.943831	1.86580	11.50	33.00	1.43-1	4.47 1	-1.20 1	-5.63 1
0.926950	1.91040	11.00	30.00	-3.57-1	3.76 1	-1.06 1	-4.76 1
0.900901	1.91157	11.00	29.00	-5.83-1	3.51 1	-1.04 1	-4.48 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.932980	1.95987	10.50	28.00	-5.76-1	3.33 1	-9.52 0	-4.21 1
0.904430	1.96193	10.50	27.00	-7.86-1	3.09 1	-9.36 0	-3.94 1
0.938496	2.01501	10.00	26.00	-7.58-1	2.92 1	-8.51 0	-3.69 1
0.906914	2.01822	10.00	25.00	-9.53-1	2.70 1	-8.36 0	-3.44 1
0.934002	2.03955	9.80	25.00	-8.59-1	2.71 1	-8.09 0	-3.44 1
0.900681	2.04352	9.80	24.00	-1.05 0	2.50 1	-7.95 0	-3.19 1
0.928663	2.06552	9.60	24.00	-9.52-1	2.52 1	-7.69 0	-3.19 1
0.922334	2.09306	9.40	23.00	-1.04 0	2.33 1	-7.30 0	-2.96 1
0.914839	2.12234	9.20	22.00	-1.12 0	2.15 1	-6.92 0	-2.73 1
0.945956	2.14687	9.00	22.00	-1.02 0	2.16 1	-6.68 0	-2.73 1
0.905968	2.15355	9.00	21.00	-1.19 0	1.97 1	-6.56 0	-2.51 1
0.938220	2.17892	8.80	21.00	-1.09 0	1.98 1	-6.32 0	-2.51 1
0.928925	2.21318	8.60	20.00	-1.15 0	1.81 1	-5.97 0	-2.30 1
0.906376	2.21771	8.60	19.50	-1.23 0	1.72 1	-5.92 0	-2.20 1
0.941195	2.24509	8.40	19.50	-1.13 0	1.73 1	-5.69 0	-2.20 1
0.917765	2.24994	8.40	19.00	-1.21 0	1.65 1	-5.64 0	-2.10 1
0.929667	2.28373	8.20	18.50	-1.19 0	1.57 1	-5.36 0	-2.00 1
0.904363	2.28954	8.20	18.00	-1.26 0	1.49 1	-5.31 0	-1.90 1
0.942114	2.31919	8.00	18.00	-1.16 0	1.50 1	-5.10 0	-1.90 1
0.915722	2.32542	8.00	17.50	-1.24 0	1.42 1	-5.05 0	-1.81 1
0.927577	2.36315	7.80	17.00	-1.21 0	1.35 1	-4.79 0	-1.71 1
0.939957	2.40287	7.60	16.50	-1.18 0	1.28 1	-4.54 0	-1.62 1
0.909846	2.41094	7.60	16.00	-1.24 0	1.20 1	-4.50 0	-1.53 1
0.921294	2.45346	7.40	15.50	-1.21 0	1.13 1	-4.25 0	-1.45 1
0.933201	2.49838	7.20	15.00	-1.18 0	1.07 1	-4.02 0	-1.36 1
0.945586	2.54594	7.00	14.50	-1.14 0	1.01 1	-3.79 0	-1.28 1
0.908753	2.55738	7.00	14.00	-1.20 0	9.38 0	-3.75 0	-1.20 1
0.919497	2.60881	6.80	13.50	-1.16 0	8.78 0	-3.53 0	-1.12 1
0.930532	2.66351	6.60	13.00	-1.12 0	8.21 0	-3.32 0	-1.05 1
0.941841	2.72182	6.40	12.50	-1.08 0	7.64 0	-3.11 0	-9.75 0
0.903406	2.80258	6.20	11.50	-1.10 0	6.50 0	-2.88 0	-8.36 0
0.911496	2.87123	6.00	11.00	-1.05 0	5.99 0	-2.69 0	-7.69 0
0.919249	2.94513	5.80	10.50	-1.01 0	5.49 0	-2.51 0	-7.06 0
0.926488	3.02493	5.60	10.00	-9.65-1	5.02 0	-2.33 0	-6.44 0
0.900046	3.03601	5.60	9.80	-9.84-1	4.81 0	-2.32 0	-6.20 0
0.947032	3.10545	5.40	9.60	-9.11-1	4.66 0	-2.16 0	-5.97 0
0.918684	3.11755	5.40	9.40	-9.30-1	4.46 0	-2.15 0	-5.74 0
0.938410	3.20552	5.20	9.00	-8.76-1	4.12 0	-1.99 0	-5.29 0
0.906786	3.21959	5.20	8.80	-8.93-1	3.93 0	-1.98 0	-5.07 0
0.925087	3.31627	5.00	8.40	-8.39-1	3.60 0	-1.83 0	-4.64 0
0.944267	3.42142	4.80	8.00	-7.85-1	3.29 0	-1.68 0	-4.23 0
0.905496	3.43976	4.80	7.80	-8.01-1	3.12 0	-1.67 0	-4.03 0
0.921884	3.55672	4.60	7.40	-7.48-1	2.83 0	-1.53 0	-3.65 0
0.938525	3.68522	4.40	7.00	-6.95-1	2.54 0	-1.40 0	-3.28 0
0.900612	3.85524	4.20	6.40	-6.57-1	2.13 0	-1.26 0	-2.76 0
0.910412	4.01698	4.00	6.00	-6.06-1	1.88 0	-1.14 0	-2.44 0
0.914552	4.10499	3.90	5.80	-5.81-1	1.76 0	-1.08 0	-2.28 0
0.918013	4.19836	3.80	5.60	-5.56-1	1.64 0	-1.02 0	-2.13 0
0.920628	4.29764	3.70	5.40	-5.31-1	1.53 0	-9.65-1	-1.98 0
0.922194	4.40343	3.60	5.20	-5.07-1	1.42 0	-9.11-1	-1.84 0
0.922459	4.51645	3.50	5.00	-4.83-1	1.31 0	-8.58-1	-1.71 0
0.921111	4.63750	3.40	4.80	-4.59-1	1.21 0	-8.06-1	-1.57 0
0.917761	4.76754	3.30	4.60	-4.36-1	1.11 0	-7.56-1	-1.45 0
0.911919	4.90768	3.20	4.40	-4.13-1	1.01 0	-7.07-1	-1.32 0
0.902967	5.05925	3.10	4.20	-3.91-1	9.22-1	-6.60-1	-1.20 0
0.944752	5.35956	2.90	3.90	-3.43-1	7.95-1	-5.73-1	-1.04 0
0.928706	5.55068	2.80	3.70	-3.22-1	7.12-1	-5.30-1	-9.32-1
0.906179	5.76070	2.70	3.50	-3.01-1	6.34-1	-4.90-1	-8.31-1
0.941253	6.18330	2.50	3.20	-2.58-1	5.26-1	-4.14-1	-6.91-1
0.900267	6.46197	2.40	3.00	-2.39-1	4.58-1	-3.78-1	-6.03-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.919836	7.03278	2.20	2.70	-2.00-1	3.65-1	-3.11-1	-4.82-1
0.926877	7.74401	2.00	2.40	-1.63-1	2.82-1	-2.51-1	-3.74-1
0.906502	8.65748	1.80	2.10	-1.30-1	2.09-1	-1.97-1	-2.79-1
0.935237	9.48217	1.65	1.90	-1.07-1	1.66-1	-1.61-1	-2.22-1
0.943337	11.8559	1.35	1.50	-6.67-2	9.45-2	-9.90-2	-1.28-1
0.917780	28.9017	0.68	0.70	-1.02-2	1.16-2	-1.60-2	-1.75-2
0.95	1.00						
0.950732	1.45627	24.00	90.00	4.42 1	2.51 2	-9.21 1	-3.24 2
0.957272	1.47091	23.00	87.00	3.79 1	2.36 2	-8.15 1	-3.04 2
0.967801	1.47585	23.00	88.00	3.93 1	2.42 2	-8.30 1	-3.09 2
0.978357	1.48090	23.00	89.00	4.08 1	2.47 2	-8.45 1	-3.15 2
0.955485	1.48327	22.00	83.00	3.13 1	2.18 2	-7.08 1	-2.79 2
0.988945	1.48606	23.00	90.00	4.23 1	2.52 2	-8.61 1	-3.21 2
0.966061	1.48798	22.00	84.00	3.25 1	2.23 2	-7.21 1	-2.84 2
0.976649	1.49280	22.00	85.00	3.37 1	2.28 2	-7.34 1	-2.90 2
0.987252	1.49772	22.00	86.00	3.50 1	2.33 2	-7.47 1	-2.95 2
0.955900	1.49859	21.00	79.00	2.57 1	2.00 2	-6.16 1	-2.55 2
0.997876	1.50275	22.00	87.00	3.63 1	2.38 2	-7.61 1	-3.01 2
0.966596	1.50310	21.00	80.00	2.67 1	2.05 2	-6.27 1	-2.61 2
0.977287	1.50772	21.00	81.00	2.78 1	2.09 2	-6.37 1	-2.66 2
0.987976	1.51243	21.00	82.00	2.89 1	2.14 2	-6.48 1	-2.71 2
0.958581	1.51710	20.00	75.00	2.10 1	1.83 2	-5.35 1	-2.33 2
0.998669	1.51724	21.00	83.00	3.00 1	2.19 2	-6.60 1	-2.77 2
0.969472	1.52143	20.00	76.00	2.19 1	1.88 2	-5.44 1	-2.38 2
0.980340	1.52586	20.00	77.00	2.28 1	1.92 2	-5.53 1	-2.43 2
0.960801	1.52763	19.50	73.00	1.90 1	1.75 2	-4.99 1	-2.22 2
0.991189	1.53039	20.00	78.00	2.37 1	1.97 2	-5.63 1	-2.48 2
0.971820	1.53188	19.50	74.00	1.98 1	1.80 2	-5.07 1	-2.27 2
0.952413	1.53500	19.00	70.00	1.64 1	1.63 2	-4.57 1	-2.07 2
0.982806	1.53622	19.50	75.00	2.06 1	1.84 2	-5.15 1	-2.32 2
0.963629	1.53907	19.00	71.00	1.71 1	1.67 2	-4.65 1	-2.12 2
0.993765	1.54067	19.50	76.00	2.15 1	1.89 2	-5.24 1	-2.37 2
0.974798	1.54324	19.00	72.00	1.79 1	1.72 2	-4.72 1	-2.17 2
0.955688	1.54749	18.50	68.00	1.47 1	1.55 2	-4.26 1	-1.97 2
0.985925	1.54751	19.00	73.00	1.86 1	1.76 2	-4.80 1	-2.22 2
0.967088	1.55148	18.50	69.00	1.54 1	1.60 2	-4.32 1	-2.02 2
0.997015	1.55188	19.00	74.00	1.94 1	1.81 2	-4.88 1	-2.27 2
0.978431	1.55557	18.50	70.00	1.61 1	1.64 2	-4.39 1	-2.07 2
0.989720	1.55976	18.50	71.00	1.68 1	1.68 2	-4.46 1	-2.11 2
0.959592	1.56099	18.00	66.00	1.31 1	1.48 2	-3.96 1	-1.87 2
0.971202	1.56491	18.00	67.00	1.38 1	1.52 2	-4.02 1	-1.92 2
0.982742	1.56893	18.00	68.00	1.44 1	1.56 2	-4.09 1	-1.97 2
0.952215	1.57184	17.50	63.00	1.11 1	1.37 2	-3.62 1	-1.73 2
0.994219	1.57305	18.00	69.00	1.51 1	1.61 2	-4.15 1	-2.01 2
0.964151	1.57558	17.50	64.00	1.17 1	1.41 2	-3.68 1	-1.77 2
0.975999	1.57942	17.50	65.00	1.23 1	1.45 2	-3.74 1	-1.82 2
0.987764	1.58337	17.50	66.00	1.29 1	1.49 2	-3.80 1	-1.87 2
0.999453	1.58742	17.50	67.00	1.36 1	1.53 2	-3.86 1	-1.91 2
0.957179	1.58766	17.00	61.00	9.89 0	1.30 2	-3.36 1	-1.64 2
0.969397	1.59132	17.00	62.00	1.04 1	1.34 2	-3.42 1	-1.68 2
0.981512	1.59509	17.00	63.00	1.10 1	1.38 2	-3.47 1	-1.73 2
0.993531	1.59897	17.00	64.00	1.16 1	1.42 2	-3.52 1	-1.77 2
0.950169	1.60125	16.50	58.00	8.23 0	1.19 2	-3.07 1	-1.50 2
0.962831	1.60472	16.50	59.00	8.74 0	1.23 2	-3.12 1	-1.54 2
0.975365	1.60831	16.50	60.00	9.25 0	1.27 2	-3.17 1	-1.59 2
0.987780	1.61201	16.50	61.00	9.78 0	1.31 2	-3.22 1	-1.63 2
0.956173	1.61974	16.00	56.00	7.21 0	1.12 2	-2.84 1	-1.41 2
0.969206	1.62313	16.00	57.00	7.68 0	1.16 2	-2.89 1	-1.46 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.982095	1.62664	16.00	58.00	8.17 0	1.20 2	-2.93 1	-1.50 2
0.994847	1.63026	16.00	59.00	8.65 0	1.24 2	-2.98 1	-1.54 2
0.962898	1.63968	15.50	54.00	6.28 0	1.06 2	-2.63 1	-1.33 2
0.976348	1.64298	15.50	55.00	6.72 0	1.09 2	-2.67 1	-1.37 2
0.989633	1.64641	15.50	56.00	7.17 0	1.13 2	-2.71 1	-1.41 2
0.956270	1.65815	15.00	51.00	5.03 0	9.56 1	-2.39 1	-1.20 2
0.970387	1.66121	15.00	52.00	5.43 0	9.92 1	-2.43 1	-1.24 2
0.984304	1.66442	15.00	53.00	5.85 0	1.03 2	-2.46 1	-1.28 2
0.998032	1.66777	15.00	54.00	6.27 0	1.07 2	-2.50 1	-1.33 2
0.964021	1.68152	14.50	49.00	4.28 0	8.95 1	-2.20 1	-1.12 2
0.978688	1.68447	14.50	50.00	4.66 0	9.30 1	-2.24 1	-1.16 2
0.993128	1.68758	14.50	51.00	5.05 0	9.65 1	-2.27 1	-1.20 2
0.957007	1.70414	14.00	46.00	3.25 0	8.01 1	-1.99 1	-1.01 2
0.972570	1.70680	14.00	47.00	3.61 0	8.35 1	-2.02 1	-1.04 2
0.987856	1.70963	14.00	48.00	3.96 0	8.69 1	-2.06 1	-1.08 2
0.965669	1.73168	13.50	44.00	2.67 0	7.43 1	-1.83 1	-9.32 1
0.981967	1.73419	13.50	45.00	3.00 0	7.76 1	-1.86 1	-9.69 1
0.997950	1.73689	13.50	46.00	3.33 0	8.09 1	-1.89 1	-1.01 2
0.957619	1.75949	13.00	41.00	1.84 0	6.56 1	-1.65 1	-8.24 1
0.975138	1.76159	13.00	42.00	2.14 0	6.87 1	-1.67 1	-8.60 1
0.992270	1.76392	13.00	43.00	2.45 0	7.19 1	-1.70 1	-8.96 1
0.966936	1.79225	12.50	39.00	1.39 0	6.03 1	-1.50 1	-7.55 1
0.985461	1.79412	12.50	40.00	1.67 0	6.33 1	-1.53 1	-7.90 1
0.956772	1.82675	12.00	36.00	7.22-1	5.22 1	-1.34 1	-6.56 1
0.977006	1.82802	12.00	37.00	9.85-1	5.51 1	-1.36 1	-6.89 1
0.996685	1.82962	12.00	38.00	1.25 0	5.80 1	-1.39 1	-7.22 1
0.966191	1.86629	11.50	34.00	3.87-1	4.73 1	-1.22 1	-5.94 1
0.987849	1.86719	11.50	35.00	6.33-1	5.01 1	-1.24 1	-6.25 1
0.976154	1.90978	11.00	32.00	9.67-2	4.26 1	-1.10 1	-5.33 1
0.952006	1.90982	11.00	31.00	-1.31-1	4.01 1	-1.08 1	-5.04 1
0.999472	1.91023	11.00	33.00	3.26-1	4.53 1	-1.12 1	-5.63 1
0.986595	1.95783	10.50	30.00	-1.53-1	3.81 1	-9.86 0	-4.76 1
0.960332	1.95853	10.50	29.00	-3.65-1	3.56 1	-9.69 0	-4.48 1
0.997401	2.01116	10.00	28.00	-3.64-1	3.38 1	-8.81 0	-4.21 1
0.968611	2.01269	10.00	27.00	-5.61-1	3.14 1	-8.66 0	-3.94 1
0.995907	2.03450	9.80	27.00	-4.77-1	3.16 1	-8.39 0	-3.95 1
0.965688	2.03658	9.80	26.00	-6.68-1	2.93 1	-8.24 0	-3.69 1
0.993888	2.05909	9.60	26.00	-5.82-1	2.95 1	-7.97 0	-3.69 1
0.962093	2.06181	9.60	25.00	-7.67-1	2.73 1	-7.83 0	-3.44 1
0.991249	2.08505	9.40	25.00	-6.79-1	2.75 1	-7.57 0	-3.44 1
0.957705	2.08850	9.40	24.00	-8.59-1	2.54 1	-7.43 0	-3.20 1
0.987874	2.11252	9.20	24.00	-7.68-1	2.55 1	-7.18 0	-3.20 1
0.952383	2.11679	9.20	23.00	-9.43-1	2.35 1	-7.05 0	-2.96 1
0.983627	2.14163	9.00	23.00	-8.51-1	2.36 1	-6.80 0	-2.96 1
0.978342	2.17257	8.80	22.00	-9.26-1	2.18 1	-6.44 0	-2.73 1
0.971821	2.20553	8.60	21.00	-9.95-1	2.00 1	-6.08 0	-2.51 1
0.963820	2.24075	8.40	20.00	-1.06 0	1.82 1	-5.74 0	-2.30 1
0.977550	2.27387	8.20	19.50	-1.04 0	1.75 1	-5.47 0	-2.20 1
0.954041	2.27852	8.20	19.00	-1.11 0	1.66 1	-5.41 0	-2.10 1
0.991960	2.30862	8.00	19.00	-1.02 0	1.67 1	-5.20 0	-2.10 1
0.967502	2.31360	8.00	18.50	-1.09 0	1.58 1	-5.15 0	-2.00 1
0.981623	2.35045	7.80	18.00	-1.07 0	1.51 1	-4.89 0	-1.90 1
0.955142	2.35645	7.80	17.50	-1.14 0	1.43 1	-4.84 0	-1.81 1
0.996454	2.38920	7.60	17.50	-1.04 0	1.44 1	-4.63 0	-1.81 1
0.968793	2.39565	7.60	17.00	-1.11 0	1.36 1	-4.59 0	-1.71 1
0.983109	2.43697	7.40	16.50	-1.08 0	1.29 1	-4.34 0	-1.62 1
0.952896	2.44475	7.40	16.00	-1.15 0	1.21 1	-4.30 0	-1.53 1
0.998139	2.48057	7.20	16.00	-1.05 0	1.22 1	-4.10 0	-1.54 1
0.966429	2.48897	7.20	15.50	-1.11 0	1.14 1	-4.06 0	-1.45 1
0.980592	2.53574	7.00	15.00	-1.08 0	1.08 1	-3.83 0	-1.36 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.995426	2.58529	6.80	14.50	-1.05 0	1.02 1	-3.61 0	-1.28 1
0.958469	2.59636	6.80	14.00	-1.10 0	9.46 0	-3.57 0	-1.20 1
0.971868	2.64994	6.60	13.50	-1.07 0	8.87 0	-3.36 0	-1.12 1
0.985801	2.70698	6.40	13.00	-1.03 0	8.29 0	-3.15 0	-1.05 1
0.953397	2.78411	6.20	12.00	-1.04 0	7.10 0	-2.91 0	-9.04 0
0.965160	2.85085	6.00	11.50	-1.00 0	6.57 0	-2.72 0	-8.36 0
0.977070	2.92253	5.80	11.00	-9.60-1	6.05 0	-2.54 0	-7.70 0
0.989046	2.99977	5.60	10.50	-9.18-1	5.56 0	-2.36 0	-7.06 0
0.974443	3.09404	5.40	9.80	-8.93-1	4.87 0	-2.17 0	-6.21 0
0.998343	3.17982	5.20	9.40	-8.41-1	4.51 0	-2.01 0	-5.74 0
0.968906	3.19229	5.20	9.20	-8.58-1	4.31 0	-2.00 0	-5.51 0
0.992235	3.28623	5.00	8.80	-8.05-1	3.98 0	-1.85 0	-5.07 0
0.959304	3.30077	5.00	8.60	-8.22-1	3.79 0	-1.84 0	-4.85 0
0.981452	3.40427	4.80	8.20	-7.69-1	3.47 0	-1.69 0	-4.44 0
0.964333	3.53626	4.60	7.60	-7.33-1	2.99 0	-1.54 0	-3.84 0
0.985267	3.66226	4.40	7.20	-6.81-1	2.70 0	-1.40 0	-3.46 0
0.955207	3.82715	4.20	6.60	-6.44-1	2.27 0	-1.27 0	-2.93 0
0.971605	3.98483	4.00	6.20	-5.93-1	2.02 0	-1.14 0	-2.60 0
0.979551	4.07047	3.90	6.00	-5.68-1	1.89 0	-1.08 0	-2.44 0
0.987220	4.16121	3.80	5.80	-5.43-1	1.77 0	-1.03 0	-2.28 0
0.994509	4.25754	3.70	5.60	-5.19-1	1.66 0	-9.70-1	-2.13 0
0.991134	5.70886	2.70	3.60	-2.97-1	6.77-1	-4.91-1	-8.81-1
0.970588	5.93381	2.60	3.40	-2.77-1	6.00-1	-4.52-1	-7.83-1
0.976092	6.69140	2.30	2.90	-2.17-1	4.28-1	-3.44-1	-5.62-1
0.973624	8.36726	1.85	2.20	-1.37-1	2.33-1	-2.10-1	-3.09-1
0.999795	9.76216	1.60	1.85	-9.91-2	1.57-1	-1.49-1	-2.09-1
0.952746	10.5169	1.50	1.70	-8.56-2	1.28-1	-1.28-1	-1.72-1
0.967040	14.3091	1.15	1.25	-4.47-2	5.97-2	-6.63-2	-8.22-2
0.954306	21.4163	0.84	0.88	-1.91-2	2.30-2	-2.89-2	-3.30-2
1.00	1.05						
1.00852	1.50787	22.00	88.00	3.77 1	2.43 2	-7.75 1	-3.07 2
1.01920	1.51311	22.00	89.00	3.90 1	2.48 2	-7.89 1	-3.12 2
1.02991	1.51846	22.00	90.00	4.05 1	2.53 2	-8.04 1	-3.18 2
1.00937	1.52215	21.00	84.00	3.11 1	2.24 2	-6.71 1	-2.82 2
1.02008	1.52716	21.00	85.00	3.23 1	2.29 2	-6.83 1	-2.87 2
1.03081	1.53228	21.00	86.00	3.35 1	2.34 2	-6.96 1	-2.93 2
1.00203	1.53501	20.00	79.00	2.47 1	2.02 2	-5.72 1	-2.54 2
1.04156	1.53751	21.00	87.00	3.47 1	2.39 2	-7.08 1	-2.98 2
1.01285	1.53973	20.00	80.00	2.57 1	2.06 2	-5.82 1	-2.59 2
1.02367	1.54456	20.00	81.00	2.66 1	2.11 2	-5.92 1	-2.64 2
1.00470	1.54521	19.50	77.00	2.24 1	1.93 2	-5.33 1	-2.43 2
1.03450	1.54948	20.00	82.00	2.77 1	2.16 2	-6.02 1	-2.69 2
1.01562	1.54984	19.50	78.00	2.33 1	1.98 2	-5.42 1	-2.48 2
1.04532	1.55450	20.00	83.00	2.87 1	2.21 2	-6.13 1	-2.75 2
1.02653	1.55458	19.50	79.00	2.42 1	2.03 2	-5.51 1	-2.53 2
1.00807	1.55634	19.00	75.00	2.02 1	1.85 2	-4.96 1	-2.32 2
1.03742	1.55941	19.50	80.00	2.51 1	2.07 2	-5.60 1	-2.58 2
1.01910	1.56089	19.00	76.00	2.11 1	1.90 2	-5.04 1	-2.37 2
1.00096	1.56405	18.50	72.00	1.75 1	1.73 2	-4.54 1	-2.16 2
1.04832	1.56435	19.50	81.00	2.61 1	2.12 2	-5.70 1	-2.63 2
1.03011	1.56555	19.00	77.00	2.19 1	1.94 2	-5.12 1	-2.42 2
1.01216	1.56844	18.50	73.00	1.83 1	1.77 2	-4.61 1	-2.21 2
1.04110	1.57030	19.00	78.00	2.28 1	1.99 2	-5.21 1	-2.47 2
1.02333	1.57293	18.50	74.00	1.91 1	1.82 2	-4.69 1	-2.26 2
1.00564	1.57727	18.00	70.00	1.58 1	1.65 2	-4.22 1	-2.06 2
1.03446	1.57751	18.50	75.00	1.98 1	1.86 2	-4.76 1	-2.31 2
1.01700	1.58158	18.00	71.00	1.65 1	1.69 2	-4.29 1	-2.11 2
1.04557	1.58218	18.50	76.00	2.06 1	1.91 2	-4.84 1	-2.36 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.02832	1.58600	18.00	72.00	1.72 1	1.74 2	-4.36 1	-2.16 2
1.03960	1.59051	18.00	73.00	1.79 1	1.78 2	-4.43 1	-2.21 2
1.01107	1.59157	17.50	68.00	1.42 1	1.57 2	-3.92 1	-1.96 2
1.02263	1.59582	17.50	69.00	1.48 1	1.62 2	-3.98 1	-2.01 2
1.03413	1.60017	17.50	70.00	1.55 1	1.66 2	-4.04 1	-2.06 2
1.00546	1.60296	17.00	65.00	1.21 1	1.46 2	-3.58 1	-1.82 2
1.04558	1.60461	17.50	71.00	1.62 1	1.70 2	-4.11 1	-2.10 2
1.01731	1.60704	17.00	66.00	1.27 1	1.50 2	-3.64 1	-1.86 2
1.02908	1.61123	17.00	67.00	1.33 1	1.54 2	-3.69 1	-1.91 2
1.04079	1.61552	17.00	68.00	1.39 1	1.58 2	-3.75 1	-1.96 2
1.00009	1.61582	16.50	62.00	1.03 1	1.35 2	-3.27 1	-1.68 2
1.01229	1.61974	16.50	63.00	1.08 1	1.39 2	-3.32 1	-1.72 2
1.02439	1.62376	16.50	64.00	1.14 1	1.43 2	-3.37 1	-1.77 2
1.03641	1.62789	16.50	65.00	1.20 1	1.47 2	-3.42 1	-1.81 2
1.04835	1.63212	16.50	66.00	1.25 1	1.51 2	-3.48 1	-1.86 2
1.00747	1.63401	16.00	60.00	9.15 0	1.28 2	-3.03 1	-1.59 2
1.01998	1.63786	16.00	61.00	9.65 0	1.32 2	-3.07 1	-1.63 2
1.03238	1.64183	16.00	62.00	1.02 1	1.36 2	-3.12 1	-1.68 2
1.04467	1.64590	16.00	63.00	1.07 1	1.40 2	-3.17 1	-1.72 2
1.00276	1.64997	15.50	57.00	7.63 0	1.17 2	-2.75 1	-1.45 2
1.01575	1.65364	15.50	58.00	8.09 0	1.21 2	-2.80 1	-1.50 2
1.02860	1.65744	15.50	59.00	8.56 0	1.25 2	-2.84 1	-1.54 2
1.04132	1.66134	15.50	60.00	9.03 0	1.29 2	-2.89 1	-1.58 2
1.01158	1.67125	15.00	55.00	6.69 0	1.10 2	-2.54 1	-1.37 2
1.02497	1.67486	15.00	56.00	7.12 0	1.14 2	-2.58 1	-1.41 2
1.03820	1.67859	15.00	57.00	7.56 0	1.18 2	-2.62 1	-1.45 2
1.00735	1.69084	14.50	52.00	5.44 0	1.00 2	-2.31 1	-1.24 2
1.02138	1.69424	14.50	53.00	5.84 0	1.04 2	-2.34 1	-1.28 2
1.03522	1.69778	14.50	54.00	6.24 0	1.07 2	-2.38 1	-1.33 2
1.04888	1.70145	14.50	55.00	6.64 0	1.11 2	-2.42 1	-1.37 2
1.00288	1.71264	14.00	49.00	4.32 0	9.03 1	-2.09 1	-1.12 2
1.01767	1.71580	14.00	50.00	4.69 0	9.39 1	-2.12 1	-1.16 2
1.03222	1.71912	14.00	51.00	5.06 0	9.74 1	-2.16 1	-1.20 2
1.04656	1.72258	14.00	52.00	5.43 0	1.01 2	-2.19 1	-1.24 2
1.01364	1.73978	13.50	47.00	3.67 0	8.43 1	-1.92 1	-1.04 2
1.02905	1.74284	13.50	48.00	4.01 0	8.78 1	-1.95 1	-1.08 2
1.04420	1.74606	13.50	49.00	4.35 0	9.12 1	-1.98 1	-1.12 2
1.00904	1.76647	13.00	44.00	2.76 0	7.51 1	-1.73 1	-9.32 1
1.02547	1.76922	13.00	45.00	3.07 0	7.84 1	-1.75 1	-9.69 1
1.04159	1.77217	13.00	46.00	3.39 0	8.18 1	-1.78 1	-1.01 2
1.00354	1.79625	12.50	41.00	1.96 0	6.64 1	-1.55 1	-8.24 1
1.02121	1.79863	12.50	42.00	2.25 0	6.95 1	-1.58 1	-8.60 1
1.03848	1.80123	12.50	43.00	2.54 0	7.27 1	-1.60 1	-8.96 1
1.01585	1.83152	12.00	39.00	1.52 0	6.10 1	-1.41 1	-7.56 1
1.03453	1.83369	12.00	40.00	1.79 0	6.40 1	-1.43 1	-7.90 1
1.00886	1.86846	11.50	36.00	8.81-1	5.29 1	-1.26 1	-6.57 1
1.02927	1.87008	11.50	37.00	1.13 0	5.58 1	-1.28 1	-6.89 1
1.04912	1.87202	11.50	38.00	1.38 0	5.87 1	-1.30 1	-7.22 1
1.02203	1.91111	11.00	34.00	5.57-1	4.80 1	-1.14 1	-5.94 1
1.04388	1.91239	11.00	35.00	7.89-1	5.07 1	-1.15 1	-6.25 1
1.01187	1.95771	10.50	31.00	6.04-2	4.06 1	-1.00 1	-5.04 1
1.03623	1.95811	10.50	32.00	2.75-1	4.32 1	-1.02 1	-5.34 1
1.02499	2.01034	10.00	29.00	-1.66-1	3.62 1	-8.97 0	-4.48 1
1.02480	2.03319	9.80	28.00	-2.85-1	3.40 1	-8.54 0	-4.21 1
1.02422	2.05725	9.60	27.00	-3.95-1	3.18 1	-8.12 0	-3.95 1
1.02316	2.08259	9.40	26.00	-4.98-1	2.97 1	-7.71 0	-3.69 1
1.02154	2.10935	9.20	25.00	-5.93-1	2.77 1	-7.31 0	-3.44 1
1.01925	2.13765	9.00	24.00	-6.81-1	2.57 1	-6.93 0	-3.20 1
1.01615	2.16765	8.80	23.00	-7.62-1	2.38 1	-6.56 0	-2.96 1
1.01208	2.19952	8.60	22.00	-8.36-1	2.19 1	-6.20 0	-2.74 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.04728	2.22782	8.40	22.00	-7.48-1	2.21 1	-5.97 0	-2.74 1
1.00687	2.23347	8.40	21.00	-9.03-1	2.01 1	-5.85 0	-2.51 1
1.04346	2.26284	8.20	21.00	-8.14-1	2.03 1	-5.63 0	-2.52 1
1.00025	2.26974	8.20	20.00	-9.63-1	1.84 1	-5.52 0	-2.30 1
1.03834	2.30025	8.00	20.00	-8.73-1	1.85 1	-5.30 0	-2.30 1
1.01555	2.30418	8.00	19.50	-9.45-1	1.76 1	-5.25 0	-2.20 1
1.03165	2.34034	7.80	19.00	-9.26-1	1.68 1	-4.98 0	-2.10 1
1.00710	2.34510	7.80	18.50	-9.96-1	1.60 1	-4.93 0	-2.00 1
1.04860	2.37835	7.60	18.50	-9.05-1	1.61 1	-4.73 0	-2.00 1
1.02303	2.38345	7.60	18.00	-9.73-1	1.52 1	-4.68 0	-1.90 1
1.03981	2.42384	7.40	17.50	-9.49-1	1.45 1	-4.43 0	-1.81 1
1.01205	2.43002	7.40	17.00	-1.01 0	1.37 1	-4.39 0	-1.72 1
1.02846	2.47308	7.20	16.50	-9.86-1	1.30 1	-4.15 0	-1.62 1
1.04576	2.51857	7.00	16.00	-9.57-1	1.23 1	-3.91 0	-1.54 1
1.01394	2.52665	7.00	15.50	-1.02 0	1.15 1	-3.87 0	-1.45 1
1.03056	2.57545	6.80	15.00	-9.86-1	1.09 1	-3.65 0	-1.37 1
1.04807	2.62721	6.60	14.50	-9.53-1	1.03 1	-3.43 0	-1.28 1
1.01097	2.63789	6.60	14.00	-1.01 0	9.55 0	-3.39 0	-1.20 1
1.02728	2.69384	6.40	13.50	-9.74-1	8.95 0	-3.18 0	-1.13 1
1.04440	2.75348	6.20	13.00	-9.38-1	8.37 0	-2.98 0	-1.05 1
1.00028	2.76784	6.20	12.50	-9.90-1	7.72 0	-2.95 0	-9.76 0
1.01532	2.83294	6.00	12.00	-9.51-1	7.17 0	-2.75 0	-9.05 0
1.03092	2.90276	5.80	11.50	-9.11-1	6.64 0	-2.56 0	-8.37 0
1.04707	2.97786	5.60	11.00	-8.71-1	6.12 0	-2.38 0	-7.70 0
1.00097	3.08327	5.40	10.00	-8.75-1	5.08 0	-2.18 0	-6.45 0
1.02679	3.16808	5.20	9.60	-8.23-1	4.72 0	-2.02 0	-5.97 0
1.02396	3.27256	5.00	9.00	-7.89-1	4.17 0	-1.86 0	-5.29 0
1.01716	3.38822	4.80	8.40	-7.53-1	3.65 0	-1.70 0	-4.65 0
1.04384	3.49938	4.60	8.00	-7.02-1	3.34 0	-1.55 0	-4.24 0
1.00494	3.51719	4.60	7.80	-7.17-1	3.16 0	-1.55 0	-4.04 0
1.02985	3.64091	4.40	7.40	-6.66-1	2.87 0	-1.41 0	-3.65 0
1.00701	3.80119	4.20	6.80	-6.30-1	2.43 0	-1.27 0	-3.11 0
1.02943	3.95526	4.00	6.40	-5.80-1	2.16 0	-1.15 0	-2.76 0
1.04084	4.03881	3.90	6.20	-5.55-1	2.03 0	-1.09 0	-2.60 0
1.00128	4.36001	3.60	5.40	-4.95-1	1.54 0	-9.15-1	-1.99 0
1.00739	4.46929	3.50	5.20	-4.72-1	1.43 0	-8.62-1	-1.84 0
1.01261	4.58609	3.40	5.00	-4.48-1	1.32 0	-8.10-1	-1.71 0
1.01670	4.71128	3.30	4.80	-4.26-1	1.22 0	-7.60-1	-1.57 0
1.01932	4.84585	3.20	4.60	-4.03-1	1.12 0	-7.11-1	-1.45 0
1.02007	4.99097	3.10	4.40	-3.81-1	1.02 0	-6.64-1	-1.32 0
1.01842	5.14802	3.00	4.20	-3.59-1	9.32-1	-6.18-1	-1.21 0
1.01369	5.31863	2.90	4.00	-3.38-1	8.43-1	-5.74-1	-1.09 0
1.00498	5.50478	2.80	3.80	-3.17-1	7.58-1	-5.32-1	-9.84-1
1.04262	6.12070	2.50	3.30	-2.54-1	5.66-1	-4.15-1	-7.37-1
1.01552	6.38969	2.40	3.10	-2.35-1	4.95-1	-3.79-1	-6.47-1
1.00746	7.31506	2.10	2.60	-1.79-1	3.39-1	-2.81-1	-4.45-1
1.02830	8.10063	1.90	2.30	-1.45-1	2.58-1	-2.23-1	-3.41-1
1.02275	9.12369	1.70	2.00	-1.14-1	1.88-1	-1.72-1	-2.50-1
1.02813	10.8736	1.45	1.65	-7.87-2	1.20-1	-1.18-1	-1.61-1
1.03049	12.3263	1.30	1.45	-6.05-2	8.72-2	-9.02-2	-1.18-1
1.02151	18.3974	0.94	1.00	-2.61-2	3.30-2	-3.92-2	-4.64-2
1.02121	22.0879	0.82	0.86	-1.78-2	2.15-2	-2.70-2	-3.10-2
1.00538	30.1524	0.66	0.68	-9.31-3	1.06-2	-1.47-2	-1.61-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.05	1.12						
1.05234	1.54283	21.00	88.00	3.60 1	2.44 2	-7.21 1	-3.04 2
1.06315	1.54827	21.00	89.00	3.73 1	2.49 2	-7.34 1	-3.10 2
1.07399	1.55381	21.00	90.00	3.86 1	2.55 2	-7.48 1	-3.15 2
1.05616	1.55962	20.00	84.00	2.97 1	2.26 2	-6.23 1	-2.80 2
1.06701	1.56484	20.00	85.00	3.08 1	2.31 2	-6.34 1	-2.85 2
1.05921	1.56938	19.50	82.00	2.70 1	2.17 2	-5.80 1	-2.68 2
1.07788	1.57017	20.00	86.00	3.19 1	2.36 2	-6.46 1	-2.91 2
1.07011	1.57451	19.50	83.00	2.80 1	2.22 2	-5.90 1	-2.74 2
1.05208	1.57515	19.00	79.00	2.36 1	2.04 2	-5.30 1	-2.52 2
1.08877	1.57561	20.00	87.00	3.31 1	2.41 2	-6.57 1	-2.96 2
1.08102	1.57974	19.50	84.00	2.90 1	2.27 2	-6.00 1	-2.79 2
1.06305	1.58010	19.00	80.00	2.45 1	2.08 2	-5.39 1	-2.57 2
1.09969	1.58115	20.00	88.00	3.43 1	2.46 2	-6.69 1	-3.02 2
1.09194	1.58508	19.50	85.00	3.01 1	2.32 2	-6.11 1	-2.84 2
1.07402	1.58515	19.00	81.00	2.55 1	2.13 2	-5.48 1	-2.62 2
1.11064	1.58679	20.00	89.00	3.55 1	2.51 2	-6.82 1	-3.07 2
1.05665	1.58695	18.50	77.00	2.14 1	1.95 2	-4.92 1	-2.41 2
1.08499	1.59029	19.00	82.00	2.64 1	2.18 2	-5.57 1	-2.68 2
1.10288	1.59052	19.50	86.00	3.12 1	2.37 2	-6.22 1	-2.90 2
1.06772	1.59183	18.50	78.00	2.23 1	2.00 2	-5.01 1	-2.46 2
1.05084	1.59512	18.00	74.00	1.87 1	1.83 2	-4.50 1	-2.26 2
1.09596	1.59554	19.00	83.00	2.74 1	2.23 2	-5.67 1	-2.73 2
1.11385	1.59606	19.50	87.00	3.23 1	2.42 2	-6.33 1	-2.95 2
1.07877	1.59680	18.50	79.00	2.31 1	2.05 2	-5.09 1	-2.51 2
1.06205	1.59982	18.00	75.00	1.94 1	1.87 2	-4.57 1	-2.31 2
1.10695	1.60089	19.00	84.00	2.83 1	2.28 2	-5.77 1	-2.78 2
1.08982	1.60186	18.50	80.00	2.40 1	2.09 2	-5.18 1	-2.56 2
1.07324	1.60462	18.00	76.00	2.02 1	1.92 2	-4.65 1	-2.36 2
1.11795	1.60634	19.00	85.00	2.94 1	2.33 2	-5.87 1	-2.83 2
1.10087	1.60703	18.50	81.00	2.49 1	2.14 2	-5.27 1	-2.62 2
1.05698	1.60916	17.50	72.00	1.69 1	1.75 2	-4.18 1	-2.15 2
1.08440	1.60952	18.00	77.00	2.10 1	1.96 2	-4.73 1	-2.41 2
1.11191	1.61229	18.50	82.00	2.58 1	2.19 2	-5.36 1	-2.67 2
1.06834	1.61380	17.50	73.00	1.76 1	1.79 2	-4.24 1	-2.20 2
1.09555	1.61451	18.00	78.00	2.18 1	2.01 2	-4.81 1	-2.46 2
1.07966	1.61854	17.50	74.00	1.83 1	1.84 2	-4.31 1	-2.25 2
1.10669	1.61961	18.00	79.00	2.26 1	2.06 2	-4.89 1	-2.51 2
1.05243	1.61991	17.00	69.00	1.46 1	1.63 2	-3.81 1	-2.01 2
1.09095	1.62337	17.50	75.00	1.90 1	1.88 2	-4.39 1	-2.30 2
1.06401	1.62439	17.00	70.00	1.52 1	1.67 2	-3.87 1	-2.05 2
1.11782	1.62480	18.00	80.00	2.34 1	2.10 2	-4.97 1	-2.56 2
1.10222	1.62830	17.50	76.00	1.97 1	1.93 2	-4.46 1	-2.35 2
1.07554	1.62897	17.00	71.00	1.58 1	1.71 2	-3.94 1	-2.10 2
1.11347	1.63333	17.50	77.00	2.05 1	1.97 2	-4.53 1	-2.40 2
1.08703	1.63365	17.00	72.00	1.65 1	1.76 2	-4.00 1	-2.15 2
1.06021	1.63646	16.50	67.00	1.31 1	1.55 2	-3.53 1	-1.91 2
1.09848	1.63843	17.00	73.00	1.72 1	1.80 2	-4.07 1	-2.20 2
1.07200	1.64089	16.50	68.00	1.37 1	1.59 2	-3.59 1	-1.95 2
1.10989	1.64330	17.00	74.00	1.78 1	1.85 2	-4.13 1	-2.25 2
1.08373	1.64542	16.50	69.00	1.43 1	1.64 2	-3.65 1	-2.00 2
1.09541	1.65004	16.50	70.00	1.49 1	1.68 2	-3.71 1	-2.05 2
1.05687	1.65008	16.00	64.00	1.12 1	1.44 2	-3.22 1	-1.77 2
1.06898	1.65436	16.00	65.00	1.17 1	1.48 2	-3.27 1	-1.81 2
1.10703	1.65477	16.50	71.00	1.55 1	1.73 2	-3.77 1	-2.10 2
1.08101	1.65874	16.00	66.00	1.23 1	1.52 2	-3.32 1	-1.86 2
1.11861	1.65959	16.50	72.00	1.61 1	1.77 2	-3.83 1	-2.15 2
1.09297	1.66322	16.00	67.00	1.28 1	1.56 2	-3.38 1	-1.90 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.05392	1.66536	15.50	61.00	9.51 0	1.33 2	-2.93 1	-1.63 2
1.10485	1.66780	16.00	68.00	1.34 1	1.61 2	-3.43 1	-1.95 2
1.06642	1.66949	15.50	62.00	1.00 1	1.37 2	-2.98 1	-1.67 2
1.11668	1.67248	16.00	69.00	1.40 1	1.65 2	-3.49 1	-2.00 2
1.07881	1.67372	15.50	63.00	1.05 1	1.41 2	-3.03 1	-1.72 2
1.09111	1.67806	15.50	64.00	1.10 1	1.45 2	-3.07 1	-1.76 2
1.05129	1.68244	15.00	58.00	8.00 0	1.22 2	-2.66 1	-1.50 2
1.10332	1.68250	15.50	65.00	1.15 1	1.49 2	-3.12 1	-1.81 2
1.06424	1.68640	15.00	59.00	8.45 0	1.26 2	-2.71 1	-1.54 2
1.11545	1.68704	15.50	66.00	1.20 1	1.53 2	-3.17 1	-1.86 2
1.07707	1.69048	15.00	60.00	8.90 0	1.30 2	-2.75 1	-1.58 2
1.08978	1.69467	15.00	61.00	9.37 0	1.34 2	-2.79 1	-1.63 2
1.10238	1.69897	15.00	62.00	9.83 0	1.38 2	-2.84 1	-1.67 2
1.11487	1.70337	15.00	63.00	1.03 1	1.42 2	-2.88 1	-1.72 2
1.06237	1.70524	14.50	56.00	7.06 0	1.15 2	-2.46 1	-1.41 2
1.07572	1.70916	14.50	57.00	7.47 0	1.19 2	-2.49 1	-1.45 2
1.08891	1.71319	14.50	58.00	7.90 0	1.23 2	-2.53 1	-1.50 2
1.10198	1.71734	14.50	59.00	8.33 0	1.27 2	-2.57 1	-1.54 2
1.11491	1.72159	14.50	60.00	8.76 0	1.31 2	-2.62 1	-1.58 2
1.06071	1.72618	14.00	53.00	5.81 0	1.05 2	-2.22 1	-1.28 2
1.07466	1.72992	14.00	54.00	6.19 0	1.08 2	-2.26 1	-1.32 2
1.08844	1.73378	14.00	55.00	6.58 0	1.12 2	-2.29 1	-1.37 2
1.10205	1.73778	14.00	56.00	6.98 0	1.16 2	-2.33 1	-1.41 2
1.11551	1.74188	14.00	57.00	7.37 0	1.20 2	-2.37 1	-1.45 2
1.05911	1.74944	13.50	50.00	4.70 0	9.48 1	-2.01 1	-1.16 2
1.07379	1.75298	13.50	51.00	5.05 0	9.84 1	-2.04 1	-1.20 2
1.08826	1.75666	13.50	52.00	5.41 0	1.02 2	-2.07 1	-1.24 2
1.10252	1.76047	13.50	53.00	5.77 0	1.06 2	-2.11 1	-1.28 2
1.11660	1.76442	13.50	54.00	6.14 0	1.09 2	-2.14 1	-1.32 2
1.05741	1.77530	13.00	47.00	3.71 0	8.52 1	-1.81 1	-1.04 2
1.07296	1.77859	13.00	48.00	4.04 0	8.86 1	-1.84 1	-1.08 2
1.08824	1.78206	13.00	49.00	4.36 0	9.22 1	-1.87 1	-1.12 2
1.10329	1.78567	13.00	50.00	4.70 0	9.57 1	-1.90 1	-1.16 2
1.11810	1.78943	13.00	51.00	5.03 0	9.93 1	-1.93 1	-1.20 2
1.05540	1.80405	12.50	44.00	2.84 0	7.60 1	-1.63 1	-9.32 1
1.07198	1.80707	12.50	45.00	3.13 0	7.93 1	-1.65 1	-9.69 1
1.08824	1.81027	12.50	46.00	3.44 0	8.27 1	-1.68 1	-1.01 2
1.10421	1.81366	12.50	47.00	3.74 0	8.61 1	-1.71 1	-1.04 2
1.11990	1.81721	12.50	48.00	4.05 0	8.96 1	-1.74 1	-1.08 2
1.05277	1.83612	12.00	41.00	2.06 0	6.71 1	-1.46 1	-8.25 1
1.07060	1.83879	12.00	42.00	2.34 0	7.03 1	-1.48 1	-8.60 1
1.08803	1.84168	12.00	43.00	2.62 0	7.35 1	-1.51 1	-8.96 1
1.10511	1.84478	12.00	44.00	2.90 0	7.68 1	-1.53 1	-9.33 1
1.06846	1.87424	11.50	39.00	1.64 0	6.17 1	-1.32 1	-7.56 1
1.08731	1.87674	11.50	40.00	1.89 0	6.48 1	-1.34 1	-7.90 1
1.10573	1.87948	11.50	41.00	2.15 0	6.79 1	-1.37 1	-8.25 1
1.06508	1.91404	11.00	36.00	1.02 0	5.36 1	-1.17 1	-6.57 1
1.08568	1.91602	11.00	37.00	1.26 0	5.65 1	-1.19 1	-6.90 1
1.10572	1.91831	11.00	38.00	1.50 0	5.95 1	-1.21 1	-7.23 1
1.05976	1.95898	10.50	33.00	4.91-1	4.59 1	-1.04 1	-5.64 1
1.08252	1.96028	10.50	34.00	7.08-1	4.86 1	-1.06 1	-5.95 1
1.10459	1.96197	10.50	35.00	9.27-1	5.14 1	-1.07 1	-6.26 1
1.05149	2.01014	10.00	30.00	3.33-2	3.87 1	-9.13 0	-4.76 1
1.07700	2.01051	10.00	31.00	2.34-1	4.12 1	-9.29 0	-5.05 1
1.10160	2.01138	10.00	32.00	4.35-1	4.38 1	-9.46 0	-5.34 1
1.05250	2.03259	9.80	29.00	-9.15-2	3.64 1	-8.69 0	-4.49 1
1.07910	2.03260	9.80	30.00	1.03-1	3.89 1	-8.85 0	-4.77 1
1.10471	2.03317	9.80	31.00	2.98-1	4.14 1	-9.01 0	-5.05 1
1.08102	2.05579	9.60	29.00	-2.00-2	3.66 1	-8.41 0	-4.49 1
1.10773	2.05602	9.60	30.00	1.69-1	3.91 1	-8.57 0	-4.77 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.05322	2.05617	9.60	28.00	-2.08-1	3.42 1	-8.26 0	-4.21 1
1.11063	2.08001	9.40	29.00	4.84-2	3.68 1	-8.14 0	-4.49 1
1.08272	2.08016	9.40	28.00	-1.35-1	3.44 1	-7.99 0	-4.22 1
1.05360	2.08100	9.40	27.00	-3.17-1	3.20 1	-7.85 0	-3.95 1
1.11337	2.10522	9.20	28.00	-6.41-2	3.46 1	-7.73 0	-4.22 1
1.08413	2.10581	9.20	27.00	-2.41-1	3.22 1	-7.59 0	-3.95 1
1.05357	2.10715	9.20	26.00	-4.18-1	2.99 1	-7.45 0	-3.69 1
1.11588	2.13176	9.00	27.00	-1.69-1	3.24 1	-7.33 0	-3.96 1
1.08519	2.13284	9.00	26.00	-3.40-1	3.01 1	-7.19 0	-3.70 1
1.05304	2.13477	9.00	25.00	-5.11-1	2.79 1	-7.06 0	-3.44 1
1.11811	2.15974	8.80	26.00	-2.66-1	3.03 1	-6.94 0	-3.70 1
1.08582	2.16138	8.80	25.00	-4.32-1	2.80 1	-6.81 0	-3.44 1
1.05190	2.16398	8.80	24.00	-5.97-1	2.59 1	-6.68 0	-3.20 1
1.11999	2.18928	8.60	25.00	-3.56-1	2.82 1	-6.57 0	-3.45 1
1.08592	2.19157	8.60	24.00	-5.16-1	2.61 1	-6.44 0	-3.20 1
1.05003	2.19493	8.60	23.00	-6.76-1	2.39 1	-6.32 0	-2.96 1
1.08537	2.22357	8.40	23.00	-5.94-1	2.41 1	-6.08 0	-2.97 1
1.08403	2.25756	8.20	22.00	-6.64-1	2.22 1	-5.74 0	-2.74 1
1.08171	2.29375	8.00	21.00	-7.28-1	2.04 1	-5.41 0	-2.52 1
1.07821	2.33241	7.80	20.00	-7.86-1	1.87 1	-5.08 0	-2.31 1
1.05533	2.33612	7.80	19.50	-8.56-1	1.77 1	-5.03 0	-2.20 1
1.12000	2.36635	7.60	20.00	-7.02-1	1.88 1	-4.87 0	-2.31 1
1.09703	2.36984	7.60	19.50	-7.70-1	1.79 1	-4.82 0	-2.20 1
1.07325	2.37382	7.60	19.00	-8.38-1	1.70 1	-4.77 0	-2.10 1
1.11691	2.40922	7.40	19.00	-7.53-1	1.71 1	-4.57 0	-2.10 1
1.09216	2.41349	7.40	18.50	-8.18-1	1.62 1	-4.52 0	-2.00 1
1.06649	2.41835	7.40	18.00	-8.83-1	1.54 1	-4.48 0	-1.90 1
1.11217	2.45530	7.20	18.00	-7.97-1	1.55 1	-4.28 0	-1.91 1
1.08538	2.46052	7.20	17.50	-8.60-1	1.46 1	-4.23 0	-1.81 1
1.05751	2.46642	7.20	17.00	-9.23-1	1.38 1	-4.19 0	-1.72 1
1.10537	2.50504	7.00	17.00	-8.36-1	1.39 1	-4.00 0	-1.72 1
1.07620	2.51139	7.00	16.50	-8.96-1	1.31 1	-3.95 0	-1.63 1
1.09598	2.55896	6.80	16.00	-8.69-1	1.24 1	-3.73 0	-1.54 1
1.06403	2.56671	6.80	15.50	-9.28-1	1.16 1	-3.69 0	-1.45 1
1.11694	2.60936	6.60	15.50	-8.40-1	1.18 1	-3.50 0	-1.45 1
1.08333	2.61774	6.60	15.00	-8.97-1	1.10 1	-3.47 0	-1.37 1
1.10377	2.67194	6.40	14.50	-8.65-1	1.04 1	-3.25 0	-1.28 1
1.06653	2.68222	6.40	14.00	-9.20-1	9.64 0	-3.22 0	-1.20 1
1.08604	2.74081	6.20	13.50	-8.85-1	9.04 0	-3.01 0	-1.13 1
1.10666	2.80334	6.00	13.00	-8.50-1	8.45 0	-2.81 0	-1.05 1
1.06237	2.81720	6.00	12.50	-9.00-1	7.80 0	-2.78 0	-9.77 0
1.08126	2.88544	5.80	12.00	-8.63-1	7.25 0	-2.59 0	-9.06 0
1.10112	2.95874	5.60	11.50	-8.24-1	6.71 0	-2.41 0	-8.38 0
1.06375	3.05887	5.40	10.50	-8.30-1	5.62 0	-2.21 0	-7.07 0
1.08092	3.14657	5.20	10.00	-7.89-1	5.14 0	-2.04 0	-6.45 0
1.05429	3.15701	5.20	9.80	-8.06-1	4.92 0	-2.03 0	-6.21 0
1.11266	3.23626	5.00	9.60	-7.40-1	4.77 0	-1.88 0	-5.98 0
1.08411	3.24763	5.00	9.40	-7.56-1	4.57 0	-1.87 0	-5.75 0
1.05456	3.25972	5.00	9.20	-7.72-1	4.37 0	-1.86 0	-5.52 0
1.11639	3.34583	4.80	9.00	-7.06-1	4.22 0	-1.72 0	-5.30 0
1.08454	3.35907	4.80	8.80	-7.22-1	4.03 0	-1.71 0	-5.08 0
1.05149	3.37317	4.80	8.60	-7.38-1	3.84 0	-1.71 0	-4.86 0
1.11699	3.46718	4.60	8.40	-6.72-1	3.70 0	-1.57 0	-4.65 0
1.08115	3.48274	4.60	8.20	-6.87-1	3.52 0	-1.56 0	-4.44 0
1.11319	3.60257	4.40	7.80	-6.38-1	3.21 0	-1.42 0	-4.04 0
1.07244	3.62106	4.40	7.60	-6.52-1	3.03 0	-1.42 0	-3.84 0
1.10316	3.75489	4.20	7.20	-6.03-1	2.74 0	-1.29 0	-3.47 0
1.05625	3.77716	4.20	7.00	-6.16-1	2.58 0	-1.28 0	-3.28 0
1.08421	3.92801	4.00	6.60	-5.67-1	2.31 0	-1.16 0	-2.93 0
1.09877	4.00970	3.90	6.40	-5.43-1	2.18 0	-1.10 0	-2.77 0

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.11372	4.09605	3.80	6.20	-5.19-1	2.05 0	-1.04 0	-2.60 0
1.05232	4.12722	3.80	6.00	-5.31-1	1.91 0	-1.03 0	-2.44 0
1.06383	4.22096	3.70	5.80	-5.07-1	1.79 0	-9.75-1	-2.28 0
1.07528	4.32054	3.60	5.60	-4.84-1	1.67 0	-9.20-1	-2.13 0
1.08660	4.42656	3.50	5.40	-4.60-1	1.56 0	-8.66-1	-1.99 0
1.09767	4.53969	3.40	5.20	-4.38-1	1.44 0	-8.14-1	-1.84 0
1.10834	4.66071	3.30	5.00	-4.15-1	1.34 0	-7.64-1	-1.71 0
1.11841	4.79053	3.20	4.80	-3.93-1	1.23 0	-7.15-1	-1.58 0
1.07749	5.46186	2.80	3.90	-3.13-1	8.05-1	-5.33-1	-1.04 0
1.07162	5.66057	2.70	3.70	-2.93-1	7.21-1	-4.92-1	-9.33-1
1.06055	5.87906	2.60	3.50	-2.73-1	6.42-1	-4.53-1	-8.32-1
1.09955	6.61422	2.30	3.00	-2.14-1	4.64-1	-3.45-1	-6.04-1
1.06254	6.94211	2.20	2.80	-1.96-1	3.99-1	-3.12-1	-5.22-1
1.10897	7.62672	2.00	2.50	-1.60-1	3.13-1	-2.51-1	-4.09-1
1.07281	7.85460	1.95	2.40	-1.52-1	2.85-1	-2.37-1	-3.74-1
1.09255	8.79764	1.75	2.10	-1.20-1	2.11-1	-1.85-1	-2.79-1
1.08978	9.38000	1.65	1.95	-1.06-1	1.78-1	-1.61-1	-2.36-1
1.07151	10.0623	1.55	1.80	-9.17-2	1.47-1	-1.39-1	-1.97-1
1.11307	11.2594	1.40	1.60	-7.20-2	1.11-1	-1.08-1	-1.50-1
1.08026	15.0317	1.10	1.20	-3.96-2	5.39-2	-5.91-2	-7.42-2
1.05319	17.4097	0.98	1.05	-2.92-2	3.77-2	-4.37-2	-5.28-2
1.08217	18.8827	0.92	0.98	-2.46-2	3.12-2	-3.70-2	-4.40-2
1.09519	22.8048	0.80	0.84	-1.65-2	2.01-2	-2.52-2	-2.91-2
1.10542	31.5153	0.64	0.66	-8.44-3	9.70-3	-1.34-2	-1.48-2
1.12	1.19						
1.12162	1.59255	20.00	90.00	3.67 1	2.56 2	-6.94 1	-3.13 2
1.12484	1.60172	19.50	88.00	3.34 1	2.47 2	-6.44 1	-3.01 2
1.13587	1.60747	19.50	89.00	3.45 1	2.52 2	-6.56 1	-3.06 2
1.12897	1.61189	19.00	86.00	3.04 1	2.37 2	-5.98 1	-2.89 2
1.14693	1.61335	19.50	90.00	3.57 1	2.57 2	-6.68 1	-3.12 2
1.14001	1.61755	19.00	87.00	3.14 1	2.42 2	-6.08 1	-2.94 2
1.12297	1.61766	18.50	83.00	2.67 1	2.24 2	-5.45 1	-2.72 2
1.13403	1.62313	18.50	84.00	2.76 1	2.29 2	-5.54 1	-2.77 2
1.15108	1.62332	19.00	88.00	3.25 1	2.48 2	-6.20 1	-3.00 2
1.14511	1.62870	18.50	85.00	2.86 1	2.33 2	-5.64 1	-2.83 2
1.16219	1.62920	19.00	89.00	3.36 1	2.53 2	-6.31 1	-3.05 2
1.12894	1.63009	18.00	81.00	2.43 1	2.15 2	-5.05 1	-2.61 2
1.15621	1.63437	18.50	86.00	2.96 1	2.38 2	-5.74 1	-2.88 2
1.17333	1.63518	19.00	90.00	3.48 1	2.58 2	-6.43 1	-3.11 2
1.14007	1.63548	18.00	82.00	2.51 1	2.20 2	-5.14 1	-2.66 2
1.12470	1.63845	17.50	78.00	2.12 1	2.02 2	-4.61 1	-2.45 2
1.16734	1.64015	18.50	87.00	3.06 1	2.43 2	-5.85 1	-2.93 2
1.15121	1.64096	18.00	83.00	2.60 1	2.25 2	-5.23 1	-2.71 2
1.13592	1.64367	17.50	79.00	2.20 1	2.07 2	-4.69 1	-2.50 2
1.17849	1.64604	18.50	88.00	3.17 1	2.48 2	-5.95 1	-2.99 2
1.16236	1.64655	18.00	84.00	2.69 1	2.30 2	-5.32 1	-2.77 2
1.12127	1.64827	17.00	75.00	1.85 1	1.89 2	-4.20 1	-2.30 2
1.14714	1.64899	17.50	80.00	2.28 1	2.11 2	-4.77 1	-2.55 2
1.18968	1.65204	18.50	89.00	3.27 1	2.53 2	-6.06 1	-3.04 2
1.17352	1.65225	18.00	85.00	2.79 1	2.34 2	-5.42 1	-2.82 2
1.13262	1.65333	17.00	76.00	1.92 1	1.94 2	-4.27 1	-2.35 2
1.15835	1.65441	17.50	81.00	2.36 1	2.16 2	-4.85 1	-2.60 2
1.18471	1.65805	18.00	86.00	2.88 1	2.39 2	-5.51 1	-2.87 2
1.14396	1.65849	17.00	77.00	2.00 1	1.98 2	-4.34 1	-2.40 2
1.16957	1.65993	17.50	82.00	2.45 1	2.21 2	-4.93 1	-2.65 2
1.15528	1.66375	17.00	78.00	2.07 1	2.03 2	-4.42 1	-2.45 2
1.13014	1.66450	16.50	73.00	1.68 1	1.81 2	-3.89 1	-2.19 2
1.18079	1.66554	17.50	83.00	2.53 1	2.26 2	-5.02 1	-2.71 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.16659	1.66911	17.00	79.00	2.15 1	2.08 2	-4.49 1	-2.50 2
1.14165	1.66952	16.50	74.00	1.74 1	1.86 2	-3.96 1	-2.24 2
1.17790	1.67456	17.00	80.00	2.22 1	2.12 2	-4.57 1	-2.55 2
1.15312	1.67462	16.50	75.00	1.81 1	1.90 2	-4.02 1	-2.29 2
1.12845	1.67726	16.00	70.00	1.46 1	1.69 2	-3.54 1	-2.05 2
1.16457	1.67983	16.50	76.00	1.88 1	1.95 2	-4.09 1	-2.34 2
1.18920	1.68011	17.00	81.00	2.30 1	2.17 2	-4.64 1	-2.60 2
1.14016	1.68213	16.00	71.00	1.51 1	1.74 2	-3.60 1	-2.09 2
1.17600	1.68513	16.50	77.00	1.95 1	2.00 2	-4.16 1	-2.39 2
1.15184	1.68710	16.00	72.00	1.58 1	1.78 2	-3.66 1	-2.14 2
1.18741	1.69052	16.50	78.00	2.02 1	2.04 2	-4.23 1	-2.44 2
1.12750	1.69168	15.50	67.00	1.26 1	1.57 2	-3.22 1	-1.90 2
1.16347	1.69216	16.00	73.00	1.64 1	1.82 2	-3.72 1	-2.19 2
1.13949	1.69641	15.50	68.00	1.31 1	1.62 2	-3.27 1	-1.95 2
1.17507	1.69732	16.00	74.00	1.70 1	1.87 2	-3.78 1	-2.24 2
1.15141	1.70125	15.50	69.00	1.37 1	1.66 2	-3.33 1	-2.00 2
1.18664	1.70257	16.00	75.00	1.76 1	1.92 2	-3.84 1	-2.29 2
1.16328	1.70618	15.50	70.00	1.42 1	1.70 2	-3.38 1	-2.04 2
1.12728	1.70787	15.00	64.00	1.08 1	1.46 2	-2.93 1	-1.76 2
1.17510	1.71120	15.50	71.00	1.48 1	1.75 2	-3.44 1	-2.09 2
1.13959	1.71248	15.00	65.00	1.13 1	1.50 2	-2.98 1	-1.81 2
1.18688	1.71633	15.50	72.00	1.54 1	1.79 2	-3.49 1	-2.14 2
1.15183	1.71718	15.00	66.00	1.18 1	1.54 2	-3.02 1	-1.85 2
1.16399	1.72198	15.00	67.00	1.23 1	1.59 2	-3.07 1	-1.90 2
1.12773	1.72596	14.50	61.00	9.20 0	1.35 2	-2.66 1	-1.63 2
1.17608	1.72688	15.00	68.00	1.28 1	1.63 2	-3.12 1	-1.95 2
1.14044	1.73044	14.50	62.00	9.65 0	1.39 2	-2.70 1	-1.67 2
1.18811	1.73188	15.00	69.00	1.33 1	1.67 2	-3.17 1	-1.99 2
1.15305	1.73501	14.50	63.00	1.01 1	1.43 2	-2.74 1	-1.72 2
1.16556	1.73969	14.50	64.00	1.06 1	1.47 2	-2.79 1	-1.76 2
1.17799	1.74447	14.50	65.00	1.10 1	1.51 2	-2.83 1	-1.81 2
1.12883	1.74611	14.00	58.00	7.78 0	1.24 2	-2.41 1	-1.49 2
1.14201	1.75045	14.00	59.00	8.19 0	1.28 2	-2.44 1	-1.54 2
1.15506	1.75489	14.00	60.00	8.60 0	1.32 2	-2.48 1	-1.58 2
1.16800	1.75945	14.00	61.00	9.03 0	1.36 2	-2.52 1	-1.63 2
1.18083	1.76411	14.00	62.00	9.46 0	1.40 2	-2.56 1	-1.67 2
1.13051	1.76849	13.50	55.00	6.51 0	1.13 2	-2.17 1	-1.37 2
1.14425	1.77269	13.50	56.00	6.88 0	1.17 2	-2.21 1	-1.41 2
1.15783	1.77700	13.50	57.00	7.26 0	1.21 2	-2.25 1	-1.45 2
1.17127	1.78143	13.50	58.00	7.65 0	1.25 2	-2.28 1	-1.49 2
1.18458	1.78597	13.50	59.00	8.04 0	1.29 2	-2.32 1	-1.54 2
1.13271	1.79334	13.00	52.00	5.37 0	1.03 2	-1.96 1	-1.24 2
1.14711	1.79738	13.00	53.00	5.72 0	1.07 2	-1.99 1	-1.28 2
1.16132	1.80154	13.00	54.00	6.06 0	1.10 2	-2.02 1	-1.32 2
1.17536	1.80584	13.00	55.00	6.42 0	1.14 2	-2.06 1	-1.37 2
1.18923	1.81025	13.00	56.00	6.77 0	1.18 2	-2.09 1	-1.41 2
1.13533	1.82092	12.50	49.00	4.36 0	9.31 1	-1.76 1	-1.12 2
1.15052	1.82478	12.50	50.00	4.68 0	9.67 1	-1.79 1	-1.16 2
1.16548	1.82878	12.50	51.00	5.00 0	1.00 2	-1.82 1	-1.20 2
1.18023	1.83292	12.50	52.00	5.32 0	1.04 2	-1.85 1	-1.24 2
1.12184	1.84808	12.00	45.00	3.18 0	8.02 1	-1.56 1	-9.70 1
1.13826	1.85155	12.00	46.00	3.47 0	8.36 1	-1.58 1	-1.01 2
1.15439	1.85521	12.00	47.00	3.76 0	8.70 1	-1.61 1	-1.05 2
1.17024	1.85903	12.00	48.00	4.05 0	9.05 1	-1.63 1	-1.08 2
1.18583	1.86300	12.00	49.00	4.34 0	9.41 1	-1.66 1	-1.12 2
1.12372	1.88246	11.50	42.00	2.41 0	7.11 1	-1.39 1	-8.61 1
1.14133	1.88566	11.50	43.00	2.67 0	7.44 1	-1.41 1	-8.97 1
1.15858	1.88906	11.50	44.00	2.94 0	7.77 1	-1.44 1	-9.33 1
1.17549	1.89265	11.50	45.00	3.21 0	8.11 1	-1.46 1	-9.71 1
1.12525	1.92089	11.00	39.00	1.74 0	6.25 1	-1.24 1	-7.57 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.14429	1.92373	11.00	40.00	1.98 0	6.56 1	-1.26 1	-7.91 1
1.16290	1.92681	11.00	41.00	2.22 0	6.88 1	-1.28 1	-8.26 1
1.18108	1.93012	11.00	42.00	2.47 0	7.20 1	-1.30 1	-8.62 1
1.12600	1.96402	10.50	36.00	1.15 0	5.43 1	-1.09 1	-6.58 1
1.14681	1.96640	10.50	37.00	1.37 0	5.72 1	-1.11 1	-6.91 1
1.16706	1.96907	10.50	38.00	1.59 0	6.02 1	-1.13 1	-7.24 1
1.18680	1.97202	10.50	39.00	1.82 0	6.33 1	-1.15 1	-7.58 1
1.12537	2.01272	10.00	33.00	6.38-1	4.65 1	-9.63 0	-5.65 1
1.14837	2.01447	10.00	34.00	8.42-1	4.93 1	-9.80 0	-5.95 1
1.17067	2.01660	10.00	35.00	1.05 0	5.21 1	-9.97 0	-6.27 1
1.12941	2.03425	9.80	32.00	4.94-1	4.41 1	-9.17 0	-5.35 1
1.15328	2.03578	9.80	33.00	6.92-1	4.68 1	-9.33 0	-5.65 1
1.17638	2.03772	9.80	34.00	8.91-1	4.96 1	-9.50 0	-5.94 1
1.13345	2.05680	9.60	31.00	3.59-1	4.17 1	-8.72 0	-5.06 1
1.15826	2.05808	9.60	32.00	5.50-1	4.43 1	-8.88 0	-5.35 1
1.18224	2.05981	9.60	33.00	7.43-1	4.71 1	-9.04 0	-5.65 1
1.13746	2.08046	9.40	30.00	2.32-1	3.93 1	-8.29 0	-4.77 1
1.16329	2.08146	9.40	31.00	4.18-1	4.19 1	-8.44 0	-5.06 1
1.18821	2.08296	9.40	32.00	6.04-1	4.46 1	-8.60 0	-5.36 1
1.14140	2.10531	9.20	29.00	1.14-1	3.71 1	-7.87 0	-4.49 1
1.16834	2.10600	9.20	30.00	2.93-1	3.96 1	-8.02 0	-4.78 1
1.14524	2.13143	9.00	28.00	3.39-3	3.48 1	-7.47 0	-4.22 1
1.17340	2.13176	9.00	29.00	1.76-1	3.73 1	-7.60 0	-4.50 1
1.17843	2.15886	8.80	28.00	6.79-2	3.50 1	-7.21 0	-4.23 1
1.14893	2.15893	8.80	27.00	-9.95-2	3.26 1	-7.07 0	-3.94 1
1.18338	2.18740	8.60	27.00	-3.31-2	3.28 1	-6.82 0	-3.96 1
1.15242	2.18793	8.60	26.00	-1.95-1	3.05 1	-6.69 0	-3.70 1
1.18821	2.21751	8.40	26.00	-1.27-1	3.07 1	-6.45 0	-3.70 1
1.15563	2.21856	8.40	25.00	-2.83-1	2.84 1	-6.32 0	-3.45 1
1.12142	2.22054	8.40	24.00	-4.39-1	2.62 1	-6.20 0	-3.20 1
1.15848	2.25097	8.20	24.00	-3.64-1	2.64 1	-5.97 0	-3.21 1
1.12228	2.25366	8.20	23.00	-5.14-1	2.43 1	-5.85 0	-2.97 1
1.16088	2.28532	8.00	23.00	-4.38-1	2.45 1	-5.62 0	-2.97 1
1.12245	2.28885	8.00	22.00	-5.83-1	2.24 1	-5.51 0	-2.74 1
1.16268	2.32182	7.80	22.00	-5.06-1	2.26 1	-5.29 0	-2.74 1
1.12176	2.32633	7.80	21.00	-6.46-1	2.06 1	-5.19 0	-2.52 1
1.16374	2.36070	7.60	21.00	-5.67-1	2.07 1	-4.97 0	-2.52 1
1.16386	2.40222	7.40	20.00	-6.22-1	1.90 1	-4.66 0	-2.31 1
1.14079	2.40547	7.40	19.50	-6.87-1	1.80 1	-4.62 0	-2.21 1
1.18679	2.44319	7.20	19.50	-6.08-1	1.82 1	-4.41 0	-2.21 1
1.16281	2.44669	7.20	19.00	-6.71-1	1.72 1	-4.37 0	-2.11 1
1.13795	2.45071	7.20	18.50	-7.34-1	1.64 1	-4.32 0	-2.00 1
1.18616	2.49017	7.00	18.50	-6.53-1	1.65 1	-4.12 0	-2.01 1
1.16026	2.49449	7.00	18.00	-7.14-1	1.56 1	-4.08 0	-1.91 1
1.13335	2.49942	7.00	17.50	-7.75-1	1.47 1	-4.04 0	-1.81 1
1.18395	2.54075	6.80	17.50	-6.93-1	1.49 1	-3.85 0	-1.81 1
1.15583	2.54606	6.80	17.00	-7.52-1	1.40 1	-3.81 0	-1.72 1
1.12654	2.55211	6.80	16.50	-8.10-1	1.32 1	-3.77 0	-1.63 1
1.17973	2.59545	6.60	16.50	-7.28-1	1.33 1	-3.58 0	-1.63 1
1.14903	2.60196	6.60	16.00	-7.84-1	1.25 1	-3.54 0	-1.54 1
1.17294	2.65487	6.40	15.50	-7.57-1	1.19 1	-3.33 0	-1.45 1
1.13918	2.66287	6.40	15.00	-8.11-1	1.11 1	-3.29 0	-1.37 1
1.16284	2.71978	6.20	14.50	-7.81-1	1.05 1	-3.08 0	-1.29 1
1.12545	2.72963	6.20	14.00	-8.33-1	9.74 0	-3.05 0	-1.20 1
1.18805	2.78044	6.00	14.00	-7.50-1	9.83 0	-2.88 0	-1.21 1
1.14847	2.79116	6.00	13.50	-8.00-1	9.13 0	-2.85 0	-1.13 1
1.17298	2.85693	5.80	13.00	-7.66-1	8.54 0	-2.65 0	-1.05 1
1.12850	2.87025	5.80	12.50	-8.14-1	7.88 0	-2.62 0	-9.78 0
1.15166	2.94203	5.60	12.00	-7.78-1	7.32 0	-2.44 0	-9.07 0
1.17626	3.01924	5.40	11.50	-7.41-1	6.78 0	-2.26 0	-8.39 0

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.12199	3.03768	5.40	11.00	-7.85-1	6.19 0	-2.23 0	-7.71 0
1.14394	3.12298	5.20	10.50	-7.46-1	5.69 0	-2.06 0	-7.08 0
1.16700	3.21548	5.00	10.00	-7.07-1	5.20 0	-1.90 0	-6.46 0
1.14027	3.22556	5.00	9.80	-7.23-1	4.98 0	-1.89 0	-6.22 0
1.17677	3.32173	4.80	9.40	-6.75-1	4.63 0	-1.74 0	-5.75 0
1.14711	3.33340	4.80	9.20	-6.91-1	4.42 0	-1.73 0	-5.52 0
1.18464	3.43899	4.60	8.80	-6.43-1	4.08 0	-1.59 0	-5.08 0
1.15145	3.45262	4.60	8.60	-6.58-1	3.89 0	-1.58 0	-4.86 0
1.18970	3.56924	4.40	8.20	-6.10-1	3.47 0	-1.44 0	-4.45 0
1.15224	3.58533	4.40	8.00	-6.24-1	3.38 0	-1.43 0	-4.24 0
1.14790	3.73422	4.20	7.40	-5.89-1	2.91 0	-1.29 0	-3.66 0
1.18562	3.87960	4.00	7.00	-5.42-1	2.62 0	-1.17 0	-3.29 0
1.13619	3.90286	4.00	6.80	-5.54-1	2.46 0	-1.16 0	-3.11 0
1.15364	3.98289	3.90	6.60	-5.30-1	2.33 0	-1.10 0	-2.94 0
1.17176	4.06742	3.80	6.40	-5.07-1	2.20 0	-1.04 0	-2.77 0
1.12904	4.18751	3.70	6.00	-4.95-1	1.93 0	-9.80-1	-2.44 0
1.14472	4.28455	3.60	5.80	-4.72-1	1.80 0	-9.25-1	-2.29 0
1.16073	4.38773	3.50	5.60	-4.49-1	1.69 0	-8.71-1	-2.13 0
1.17703	4.49768	3.40	5.40	-4.27-1	1.57 0	-8.19-1	-1.99 0
1.12764	4.93019	3.10	4.60	-3.71-1	1.13 0	-6.67-1	-1.45 0
1.13571	5.08092	3.00	4.40	-3.50-1	1.04 0	-6.22-1	-1.32 0
1.14220	5.24417	2.90	4.20	-3.29-1	9.42-1	-5.77-1	-1.21 0
1.14654	5.42168	2.80	4.00	-3.09-1	8.53-1	-5.35-1	-1.09 0
1.14802	5.61551	2.70	3.80	-2.89-1	7.67-1	-4.93-1	-9.85-1
1.14564	5.82819	2.60	3.60	-2.69-1	6.85-1	-4.54-1	-8.82-1
1.13809	6.06280	2.50	3.40	-2.50-1	6.07-1	-4.16-1	-7.84-1
1.12356	6.32319	2.40	3.20	-2.32-1	5.34-1	-3.80-1	-6.91-1
1.16174	7.21739	2.10	2.70	-1.76-1	3.71-1	-2.81-1	-4.83-1
1.14821	8.49950	1.80	2.30	-1.27-1	2.35-1	-1.97-1	-3.09-1
1.16387	9.65396	1.60	1.90	-9.79-2	1.68-1	-1.49-1	-2.23-1
1.15147	10.3849	1.50	1.75	-8.45-2	1.38-1	-1.28-1	-1.84-1
1.13053	12.8413	1.25	1.40	-5.47-2	8.02-2	-8.18-2	-1.09-1
1.14831	19.3962	0.90	0.96	-2.31-2	2.95-2	-3.48-2	-4.17-2
1.17726	23.5719	0.78	0.82	-1.53-2	1.88-2	-2.35-2	-2.77-2
1.19	1.26						
1.20091	1.65814	18.50	90.00	3.38 1	2.59 2	-6.17 1	-3.09 2
1.19592	1.66395	18.00	87.00	2.98 1	2.44 2	-5.61 1	-2.92 2
1.20716	1.66997	18.00	88.00	3.08 1	2.49 2	-5.71 1	-2.98 2
1.19203	1.67126	17.50	84.00	2.62 1	2.31 2	-5.10 1	-2.76 2
1.21844	1.67609	18.00	89.00	3.18 1	2.54 2	-5.82 1	-3.03 2
1.20328	1.67708	17.50	85.00	2.71 1	2.35 2	-5.19 1	-2.81 2
1.22975	1.68232	18.00	90.00	3.29 1	2.59 2	-5.92 1	-3.08 2
1.21456	1.68301	17.50	86.00	2.80 1	2.40 2	-5.29 1	-2.85 2
1.20051	1.68576	17.00	82.00	2.38 1	2.22 2	-4.72 1	-2.65 2
1.22586	1.68905	17.50	87.00	2.90 1	2.45 2	-5.38 1	-2.92 2
1.21183	1.69151	17.00	83.00	2.46 1	2.27 2	-4.81 1	-2.70 2
1.23719	1.69519	17.50	88.00	2.99 1	2.50 2	-5.48 1	-2.97 2
1.19882	1.69602	16.50	79.00	2.09 1	2.09 2	-4.30 1	-2.49 2
1.22316	1.69737	17.00	84.00	2.55 1	2.32 2	-4.89 1	-2.75 2
1.24856	1.70144	17.50	89.00	3.09 1	2.55 2	-5.58 1	-3.02 2
1.21022	1.70161	16.50	80.00	2.16 1	2.13 2	-4.37 1	-2.54 2
1.23450	1.70332	17.00	85.00	2.63 1	2.36 2	-4.98 1	-2.80 2
1.22162	1.70730	16.50	81.00	2.24 1	2.18 2	-4.46 1	-2.59 2
1.25997	1.70781	17.50	90.00	3.19 1	2.60 2	-5.68 1	-3.09 2
1.19819	1.70792	16.00	76.00	1.83 1	1.96 2	-3.91 1	-2.34 2
1.24587	1.70939	17.00	86.00	2.72 1	2.41 2	-5.07 1	-2.86 2
1.23302	1.71309	16.50	82.00	2.32 1	2.23 2	-4.52 1	-2.64 2
1.20972	1.71337	16.00	77.00	1.89 1	2.01 2	-3.97 1	-2.39 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.25727	1.71556	17.00	87.00	2.81 1	2.46 2	-5.16 1	-2.91 2
1.22123	1.71891	16.00	78.00	1.96 1	2.05 2	-4.04 1	-2.44 2
1.24444	1.71898	16.50	83.00	2.39 1	2.28 2	-4.60 1	-2.69 2
1.19861	1.72154	15.50	73.00	1.60 1	1.84 2	-3.55 1	-2.19 2
1.23273	1.72455	16.00	79.00	2.03 1	2.10 2	-4.11 1	-2.49 2
1.25586	1.72498	16.50	84.00	2.47 1	2.33 2	-4.68 1	-2.75 2
1.21032	1.72686	15.50	74.00	1.66 1	1.88 2	-3.61 1	-2.24 2
1.24424	1.73029	16.00	80.00	2.10 1	2.15 2	-4.18 1	-2.54 2
1.22199	1.73226	15.50	75.00	1.72 1	1.93 2	-3.67 1	-2.29 2
1.25574	1.73613	16.00	81.00	2.17 1	2.19 2	-4.25 1	-2.59 2
1.20009	1.73698	15.00	70.00	1.39 1	1.72 2	-3.22 1	-2.04 2
1.23364	1.73777	15.50	76.00	1.78 1	1.97 2	-3.73 1	-2.33 2
1.21201	1.74216	15.00	71.00	1.44 1	1.76 2	-3.28 1	-2.09 2
1.24527	1.74336	15.50	77.00	1.84 1	2.02 2	-3.79 1	-2.38 2
1.22390	1.74745	15.00	72.00	1.50 1	1.80 2	-3.33 1	-2.14 2
1.25689	1.74906	15.50	78.00	1.91 1	2.06 2	-3.86 1	-2.43 2
1.19034	1.74935	14.50	66.00	1.15 1	1.55 2	-2.89 1	-1.85 2
1.23574	1.75282	15.00	73.00	1.55 1	1.85 2	-3.38 1	-2.19 2
1.20261	1.75433	14.50	67.00	1.20 1	1.60 2	-2.92 1	-1.90 2
1.24755	1.75830	15.00	74.00	1.61 1	1.89 2	-3.44 1	-2.23 2
1.21482	1.75940	14.50	68.00	1.25 1	1.64 2	-2.97 1	-1.95 2
1.25933	1.76387	15.00	75.00	1.67 1	1.94 2	-3.50 1	-2.28 2
1.22696	1.76457	14.50	69.00	1.30 1	1.68 2	-3.02 1	-1.99 2
1.19355	1.76887	14.00	63.00	9.89 0	1.44 2	-2.61 1	-1.72 2
1.23905	1.76983	14.50	70.00	1.35 1	1.73 2	-3.07 1	-2.04 2
1.20619	1.77373	14.00	64.00	1.03 1	1.48 2	-2.65 1	-1.76 2
1.25109	1.77519	14.50	71.00	1.40 1	1.77 2	-3.12 1	-2.09 2
1.21873	1.77870	14.00	65.00	1.08 1	1.52 2	-2.69 1	-1.81 2
1.23120	1.78176	14.00	66.00	1.12 1	1.57 2	-2.74 1	-1.85 2
1.24359	1.78892	14.00	67.00	1.17 1	1.61 2	-2.78 1	-1.90 2
1.19776	1.79061	13.50	60.00	8.44 0	1.33 2	-2.35 1	-1.58 2
1.25592	1.79417	14.00	68.00	1.22 1	1.65 2	-2.82 1	-1.95 2
1.21082	1.79536	13.50	61.00	8.84 0	1.37 2	-2.39 1	-1.63 2
1.22378	1.80022	13.50	62.00	9.25 0	1.41 2	-2.43 1	-1.67 2
1.23663	1.80518	13.50	63.00	9.66 0	1.45 2	-2.47 1	-1.72 2
1.24939	1.81024	13.50	64.00	1.01 1	1.49 2	-2.51 1	-1.76 2
1.20295	1.81478	13.00	57.00	7.14 0	1.22 2	-2.12 1	-1.45 2
1.21653	1.81942	13.00	58.00	7.50 0	1.26 2	-2.16 1	-1.49 2
1.22997	1.82417	13.00	59.00	7.88 0	1.30 2	-2.19 1	-1.54 2
1.24329	1.82903	13.00	60.00	8.25 0	1.34 2	-2.23 1	-1.58 2
1.25649	1.83399	13.00	61.00	8.64 0	1.38 2	-2.26 1	-1.63 2
1.19478	1.83720	12.50	53.00	5.65 0	1.08 2	-1.88 1	-1.28 2
1.20913	1.84160	12.50	54.00	5.98 0	1.12 2	-1.91 1	-1.33 2
1.22332	1.84613	12.50	55.00	6.31 0	1.15 2	-1.94 1	-1.37 2
1.23734	1.85077	12.50	56.00	6.65 0	1.19 2	-1.97 1	-1.41 2
1.25120	1.85553	12.50	57.00	7.00 0	1.23 2	-2.01 1	-1.45 2
1.20117	1.86712	12.00	50.00	4.64 0	9.77 1	-1.69 1	-1.16 2
1.21629	1.87138	12.00	51.00	4.95 0	1.01 2	-1.71 1	-1.20 2
1.23119	1.87578	12.00	52.00	5.25 0	1.05 2	-1.74 1	-1.24 2
1.24590	1.88031	12.00	53.00	5.56 0	1.09 2	-1.77 1	-1.28 2
1.19208	1.89642	11.50	46.00	3.48 0	8.45 1	-1.48 1	-1.01 2
1.20838	1.90037	11.50	47.00	3.75 0	8.80 1	-1.51 1	-1.05 2
1.22440	1.90447	11.50	48.00	4.03 0	9.15 1	-1.53 1	-1.09 2
1.24016	1.90872	11.50	49.00	4.31 0	9.51 1	-1.56 1	-1.12 2
1.25567	1.91311	11.50	50.00	4.60 0	9.87 1	-1.58 1	-1.16 2
1.19888	1.93365	11.00	43.00	2.72 0	7.53 1	-1.32 1	-8.98 1
1.21631	1.93737	11.00	44.00	2.97 0	7.86 1	-1.34 1	-9.35 1
1.23341	1.94128	11.00	45.00	3.22 0	8.20 1	-1.37 1	-9.72 1
1.25019	1.94536	11.00	46.00	3.48 0	8.54 1	-1.39 1	-1.01 2
1.20606	1.97523	10.50	40.00	2.05 0	6.64 1	-1.17 1	-7.92 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.22487	1.97867	10.50	41.00	2.28 0	6.96 1	-1.19 1	-8.27 1
1.24326	1.98234	10.50	42.00	2.51 0	7.28 1	-1.21 1	-8.63 1
1.19231	2.01907	10.00	36.00	1.26 0	5.50 1	-1.01 1	-6.59 1
1.21336	2.02187	10.00	37.00	1.46 0	5.80 1	-1.03 1	-6.92 1
1.23384	2.02495	10.00	38.00	1.68 0	6.10 1	-1.05 1	-7.25 1
1.25381	2.02831	10.00	39.00	1.89 0	6.41 1	-1.07 1	-7.59 1
1.19878	2.04003	9.80	35.00	1.09 0	5.24 1	-9.67 0	-6.27 1
1.22053	2.04269	9.80	36.00	1.29 0	5.53 1	-9.84 0	-6.59 1
1.24167	2.04566	9.80	37.00	1.50 0	5.83 1	-1.00 1	-6.92 1
1.20544	2.06195	9.60	34.00	9.37-1	4.98 1	-9.20 0	-5.96 1
1.22795	2.06445	9.60	35.00	1.13 0	5.27 1	-9.37 0	-6.28 1
1.24980	2.06730	9.60	36.00	1.33 0	5.56 1	-9.54 0	-6.60 1
1.21230	2.08489	9.40	33.00	7.91-1	4.73 1	-8.75 0	-5.66 1
1.23561	2.08723	9.40	34.00	9.80-1	5.01 1	-8.91 0	-5.97 1
1.25823	2.08993	9.40	35.00	1.17 0	5.30 1	-9.07 0	-6.28 1
1.19429	2.10722	9.20	31.00	4.73-1	4.22 1	-8.16 0	-5.06 1
1.21933	2.10893	9.20	32.00	6.54-1	4.49 1	-8.31 0	-5.36 1
1.24353	2.11108	9.20	33.00	8.37-1	4.76 1	-8.47 0	-5.66 1
1.20047	2.13269	9.00	30.00	3.51-1	3.98 1	-7.75 0	-4.78 1
1.22654	2.13415	9.00	31.00	5.26-1	4.24 1	-7.89 0	-5.07 1
1.25170	2.13608	9.00	32.00	7.02-1	4.51 1	-8.04 0	-5.37 1
1.20672	2.15945	8.80	29.00	2.36-1	3.75 1	-7.34 0	-4.50 1
1.23391	2.16062	8.80	30.00	4.05-1	4.01 1	-7.48 0	-4.78 1
1.21301	2.18761	8.60	28.00	1.29-1	3.53 1	-6.95 0	-4.23 1
1.24144	2.18846	8.60	29.00	2.93-1	3.78 1	-7.08 0	-4.51 1
1.21931	2.21727	8.40	27.00	3.01-2	3.31 1	-6.57 0	-3.97 1
1.24909	2.21776	8.40	28.00	1.88-1	3.55 1	-6.70 0	-4.24 1
1.22559	2.24858	8.20	26.00	-6.17-2	3.09 1	-6.21 0	-3.71 1
1.25685	2.24864	8.20	27.00	9.03-2	3.33 1	-6.33 0	-3.97 1
1.19285	2.24931	8.20	25.00	-2.13-1	2.86 1	-6.09 0	-3.45 1
1.23178	2.28166	8.00	25.00	-1.47-1	2.88 1	-5.85 0	-3.46 1
1.19724	2.28298	8.00	24.00	-2.93-1	2.66 1	-5.74 0	-3.21 1
1.23782	2.31669	7.80	24.00	-2.24-1	2.68 1	-5.51 0	-3.21 1
1.20128	2.31867	7.80	23.00	-3.65-1	2.46 1	-5.40 0	-2.98 1
1.24363	2.35385	7.60	23.00	-2.96-1	2.48 1	-5.18 0	-2.98 1
1.20485	2.35661	7.60	22.00	-4.31-1	2.27 1	-5.07 0	-2.75 1
1.24912	2.39335	7.40	22.00	-3.60-1	2.29 1	-4.86 0	-2.75 1
1.20781	2.39702	7.40	21.00	-4.91-1	2.09 1	-4.76 0	-2.53 1
1.25414	2.43545	7.20	21.00	-4.19-1	2.10 1	-4.55 0	-2.53 1
1.20998	2.44018	7.20	20.00	-5.45-1	1.91 1	-4.46 0	-2.31 1
1.25854	2.48042	7.00	20.00	-4.71-1	1.93 1	-4.26 0	-2.32 1
1.23524	2.48318	7.00	19.50	-5.32-1	1.83 1	-4.21 0	-2.21 1
1.21113	2.48641	7.00	19.00	-5.93-1	1.74 1	-4.17 0	-2.11 1
1.23700	2.53208	6.80	18.50	-5.76-1	1.66 1	-3.93 0	-2.01 1
1.21098	2.53611	6.80	18.00	-6.35-1	1.57 1	-3.89 0	-1.91 1
1.23740	2.58474	6.60	17.50	-6.15-1	1.50 1	-3.66 0	-1.82 1
1.20915	2.58973	6.60	17.00	-6.71-1	1.42 1	-3.62 0	-1.72 1
1.23602	2.64167	6.40	16.50	-6.48-1	1.35 1	-3.40 0	-1.63 1
1.20517	2.64783	6.40	16.00	-7.02-1	1.26 1	-3.36 0	-1.54 1
1.23233	2.70351	6.20	15.50	-6.77-1	1.20 1	-3.15 0	-1.46 1
1.19842	2.71112	6.20	15.00	-7.28-1	1.12 1	-3.12 0	-1.37 1
1.22562	2.77104	6.00	14.50	-7.00-1	1.06 1	-2.91 0	-1.29 1
1.25475	2.83503	5.80	14.00	-6.70-1	9.93 0	-2.72 0	-1.21 1
1.21498	2.84525	5.80	13.50	-7.18-1	9.22 0	-2.69 0	-1.13 1
1.24379	2.91467	5.60	13.00	-6.86-1	8.63 0	-2.50 0	-1.05 1
1.19911	2.92743	5.60	12.50	-7.32-1	7.96 0	-2.47 0	-9.79 0
1.22704	3.00318	5.40	12.00	-6.97-1	7.40 0	-2.29 0	-9.08 0
1.25695	3.08483	5.20	11.50	-6.62-1	6.86 0	-2.12 0	-8.40 0
1.20243	3.10255	5.20	11.00	-7.04-1	6.26 0	-2.09 0	-7.72 0
1.23030	3.19274	5.00	10.50	-6.67-1	5.75 0	-1.93 0	-7.09 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.23318	3.30044	4.80	9.80	-6.45-1	5.05 0	-1.76 0	-6.23 0
1.20544	3.31076	4.80	9.60	-6.60-1	4.83 0	-1.75 0	-5.99 0
1.24747	3.41423	4.60	9.20	-6.13-1	4.48 0	-1.60 0	-5.53 0
1.21662	3.42621	4.60	9.00	-6.28-1	4.28 0	-1.59 0	-5.31 0
1.22569	3.55422	4.40	8.40	-5.96-1	3.75 0	-1.45 0	-4.66 0
1.23158	3.69715	4.20	7.80	-5.62-1	3.25 0	-1.31 0	-4.05 0
1.19066	3.71501	4.20	7.60	-5.76-1	3.08 0	-1.30 0	-3.85 0
1.23271	3.85808	4.00	7.20	-5.29-1	2.78 0	-1.17 0	-3.47 0
1.25527	3.93532	3.90	7.00	-5.06-1	2.64 0	-1.11 0	-3.29 0
1.20573	3.95816	3.90	6.80	-5.18-1	2.48 0	-1.11 0	-3.11 0
1.22674	4.04108	3.80	6.60	-4.95-1	2.35 0	-1.05 0	-2.94 0
1.24871	4.12874	3.70	6.40	-4.72-1	2.21 0	-9.91-1	-2.77 0
1.19055	4.15687	3.70	6.20	-4.84-1	2.07 0	-9.86-1	-2.60 0
1.21006	4.25168	3.60	6.00	-4.61-1	1.94 0	-9.30-1	-2.44 0
1.23031	4.35237	3.50	5.80	-4.38-1	1.82 0	-8.76-1	-2.29 0
1.25130	4.45954	3.40	5.60	-4.16-1	1.70 0	-8.24-1	-2.14 0
1.19355	4.61510	3.30	5.20	-4.05-1	1.46 0	-7.68-1	-1.85 0
1.21022	4.74084	3.20	5.00	-3.83-1	1.35 0	-7.19-1	-1.71 0
1.22691	4.87584	3.10	4.80	-3.62-1	1.25 0	-6.71-1	-1.58 0
1.24348	5.02123	3.00	4.60	-3.41-1	1.14 0	-6.25-1	-1.45 0
1.25970	5.17831	2.90	4.40	-3.20-1	1.05 0	-5.81-1	-1.33 0
1.22065	5.57341	2.70	3.90	-2.84-1	8.14-1	-4.95-1	-1.04 0
1.22626	5.78083	2.60	3.70	-2.65-1	7.30-1	-4.55-1	-9.34-1
1.22820	6.00913	2.50	3.50	-2.46-1	6.50-1	-4.17-1	-8.33-1
1.22509	6.26186	2.40	3.30	-2.28-1	5.74-1	-3.81-1	-7.38-1
1.21498	6.54344	2.30	3.10	-2.10-1	5.02-1	-3.46-1	-6.47-1
1.19517	6.85951	2.20	2.90	-1.93-1	4.35-1	-3.13-1	-5.62-1
1.25504	7.73875	1.95	2.50	-1.49-1	3.15-1	-2.38-1	-4.10-1
1.22753	7.97283	1.90	2.40	-1.42-1	2.88-1	-2.24-1	-3.75-1
1.19248	8.22557	1.85	2.30	-1.35-1	2.61-1	-2.10-1	-3.41-1
1.23571	9.28476	1.65	2.00	-1.04-1	1.90-1	-1.61-1	-2.50-1
1.24605	9.94752	1.55	1.85	-9.05-2	1.59-1	-1.39-1	-2.10-1
1.24101	10.7326	1.45	1.70	-7.76-2	1.30-1	-1.18-1	-1.72-1
1.20924	11.6783	1.35	1.55	-6.57-2	1.04-1	-9.91-2	-1.39-1
1.24608	13.4076	1.20	1.35	-4.91-2	7.35-2	-7.38-2	-9.95-2
1.21464	15.8400	1.05	1.15	-3.49-2	4.84-2	-5.24-2	-6.67-2
1.22059	19.9404	0.88	0.94	-2.16-2	2.79-2	-3.28-2	-3.95-2
1.22023	33.0051	0.62	0.64	-7.62-3	8.81-3	-1.22-2	-1.35-2
1.26	1.33						
1.26870	1.72183	17.00	88.00	2.90 1	2.51 2	-5.25 1	-2.96 2
1.28016	1.72822	17.00	89.00	3.00 1	2.56 2	-5.34 1	-3.01 2
1.26731	1.73108	16.50	85.00	2.56 1	2.37 2	-4.76 1	-2.80 2
1.29167	1.73472	17.00	90.00	3.10 1	2.61 2	-5.44 1	-3.07 2
1.27878	1.73728	16.50	86.00	2.64 1	2.42 2	-4.85 1	-2.85 2
1.26724	1.74206	16.00	82.00	2.25 1	2.24 2	-4.32 1	-2.64 2
1.29028	1.74359	16.50	87.00	2.73 1	2.47 2	-4.93 1	-2.90 2
1.27876	1.74810	16.00	83.00	2.32 1	2.29 2	-4.40 1	-2.69 2
1.30180	1.75001	16.50	88.00	2.82 1	2.52 2	-5.02 1	-2.95 2
1.29029	1.75424	16.00	84.00	2.40 1	2.34 2	-4.47 1	-2.74 2
1.26850	1.75485	15.50	79.00	1.97 1	2.11 2	-3.92 1	-2.48 2
1.31337	1.75654	16.50	89.00	2.91 1	2.57 2	-5.11 1	-3.01 2
1.30184	1.76048	16.00	85.00	2.48 1	2.39 2	-4.55 1	-2.79 2
1.28011	1.76074	15.50	80.00	2.04 1	2.16 2	-3.99 1	-2.53 2
1.32498	1.76318	16.50	90.00	3.00 1	2.62 2	-5.21 1	-3.06 2
1.29172	1.76673	15.50	81.00	2.11 1	2.21 2	-4.06 1	-2.58 2
1.31342	1.76683	16.00	86.00	2.56 1	2.43 2	-4.63 1	-2.84 2
1.27110	1.76953	15.00	76.00	1.73 1	1.98 2	-3.56 1	-2.33 2
1.30333	1.77282	15.50	82.00	2.18 1	2.25 2	-4.13 1	-2.63 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.32502	1.77329	16.00	87.00	2.64 1	2.48 2	-4.72 1	-2.90 2
1.28284	1.77529	15.00	77.00	1.79 1	2.03 2	-3.62 1	-2.38 2
1.31496	1.77901	15.50	83.00	2.25 1	2.30 2	-4.20 1	-2.68 2
1.26309	1.78064	14.50	72.00	1.46 1	1.82 2	-3.17 1	-2.14 2
1.29457	1.78114	15.00	78.00	1.85 1	2.08 2	-3.68 1	-2.43 2
1.32660	1.78530	15.50	84.00	2.33 1	2.35 2	-4.27 1	-2.74 2
1.27505	1.78619	14.50	73.00	1.51 1	1.86 2	-3.22 1	-2.18 2
1.30629	1.78710	15.00	79.00	1.91 1	2.12 2	-3.74 1	-2.48 2
1.28698	1.79183	14.50	74.00	1.56 1	1.91 2	-3.28 1	-2.23 2
1.31801	1.79314	15.00	80.00	1.98 1	2.17 2	-3.80 1	-2.53 2
1.29888	1.79757	14.50	75.00	1.62 1	1.95 2	-3.33 1	-2.28 2
1.32973	1.79930	15.00	81.00	2.05 1	2.22 2	-3.87 1	-2.58 2
1.26818	1.79952	14.00	69.00	1.26 1	1.70 2	-2.87 1	-1.99 2
1.31075	1.80340	14.50	76.00	1.68 1	2.00 2	-3.39 1	-2.33 2
1.28040	1.80496	14.00	70.00	1.31 1	1.74 2	-2.92 1	-2.04 2
1.32261	1.80932	14.50	77.00	1.74 1	2.04 2	-3.44 1	-2.38 2
1.29256	1.81050	14.00	71.00	1.36 1	1.78 2	-2.96 1	-2.09 2
1.26207	1.81539	13.50	65.00	1.05 1	1.54 2	-2.55 1	-1.81 2
1.30468	1.81613	14.00	72.00	1.41 1	1.83 2	-3.01 1	-2.13 2
1.27466	1.82064	13.50	66.00	1.09 1	1.58 2	-2.59 1	-1.85 2
1.31676	1.82185	14.00	73.00	1.47 1	1.87 2	-3.06 1	-2.18 2
1.28718	1.82599	13.50	67.00	1.14 1	1.62 2	-2.64 1	-1.90 2
1.32881	1.82767	14.00	74.00	1.52 1	1.92 2	-3.11 1	-2.23 2
1.29964	1.83143	13.50	68.00	1.18 1	1.66 2	-2.68 1	-1.95 2
1.31203	1.83697	13.50	69.00	1.23 1	1.71 2	-2.72 1	-1.99 2
1.26958	1.83905	13.00	62.00	9.03 0	1.42 2	-2.30 1	-1.67 2
1.32437	1.84261	13.50	70.00	1.28 1	1.75 2	-2.77 1	-2.04 2
1.28257	1.84422	13.00	63.00	9.42 0	1.46 2	-2.34 1	-1.72 2
1.29547	1.84948	13.00	64.00	9.82 0	1.51 2	-2.38 1	-1.76 2
1.30828	1.85484	13.00	65.00	1.02 1	1.55 2	-2.42 1	-1.81 2
1.32101	1.86029	13.00	66.00	1.06 1	1.59 2	-2.46 1	-1.85 2
1.26493	1.86039	12.50	58.00	7.35 0	1.27 2	-2.04 1	-1.50 2
1.27851	1.86537	12.50	59.00	7.70 0	1.31 2	-2.07 1	-1.54 2
1.29198	1.87045	12.50	60.00	8.06 0	1.35 2	-2.11 1	-1.58 2
1.30532	1.87563	12.50	61.00	8.42 0	1.39 2	-2.14 1	-1.63 2
1.31855	1.88091	12.50	62.00	8.79 0	1.43 2	-2.17 1	-1.67 2
1.26041	1.88496	12.00	54.00	5.88 0	1.13 2	-1.80 1	-1.33 2
1.27476	1.88973	12.00	55.00	6.20 0	1.16 2	-1.83 1	-1.37 2
1.28893	1.89461	12.00	56.00	6.52 0	1.20 2	-1.86 1	-1.41 2
1.30295	1.89961	12.00	57.00	6.85 0	1.24 2	-1.89 1	-1.45 2
1.31683	1.90472	12.00	58.00	7.18 0	1.28 2	-1.92 1	-1.50 2
1.27096	1.91765	11.50	51.00	4.88 0	1.02 2	-1.61 1	-1.20 2
1.28603	1.92232	11.50	52.00	5.17 0	1.06 2	-1.64 1	-1.25 2
1.30091	1.92711	11.50	53.00	5.47 0	1.10 2	-1.66 1	-1.29 2
1.31560	1.93203	11.50	54.00	5.76 0	1.14 2	-1.69 1	-1.33 2
1.26667	1.94961	11.00	47.00	3.74 0	8.89 1	-1.41 1	-1.05 2
1.28288	1.95401	11.00	48.00	4.00 0	9.25 1	-1.44 1	-1.09 2
1.29883	1.95856	11.00	49.00	4.27 0	9.61 1	-1.46 1	-1.13 2
1.31453	1.96325	11.00	50.00	4.53 0	9.98 1	-1.48 1	-1.17 2
1.26126	1.98621	10.50	43.00	2.75 0	7.62 1	-1.23 1	-8.99 1
1.27890	1.99027	10.50	44.00	2.98 0	7.95 1	-1.25 1	-9.36 1
1.29621	1.99452	10.50	45.00	3.22 0	8.29 1	-1.27 1	-9.73 1
1.31319	1.99893	10.50	46.00	3.46 0	8.64 1	-1.30 1	-1.01 2
1.32988	2.00351	10.50	47.00	3.71 0	9.00 1	-1.32 1	-1.05 2
1.27330	2.03191	10.00	40.00	2.10 0	6.73 1	-1.09 1	-7.94 1
1.29233	2.03574	10.00	41.00	2.32 0	7.05 1	-1.11 1	-8.29 1
1.31096	2.03979	10.00	42.00	2.54 0	7.38 1	-1.13 1	-8.65 1
1.32919	2.04403	10.00	43.00	2.76 0	7.71 1	-1.15 1	-9.01 1
1.26226	2.04892	9.80	38.00	1.70 0	6.13 1	-1.02 1	-7.26 1
1.28232	2.05244	9.80	39.00	1.91 0	6.44 1	-1.04 1	-7.60 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.30191	2.05621	9.80	40.00	2.12 0	6.76 1	-1.06 1	-7.94 1
1.32105	2.06020	9.80	41.00	2.33 0	7.08 1	-1.07 1	-8.30 1
1.27105	2.07045	9.60	37.00	1.53 0	5.86 1	-9.71 0	-6.93 1
1.29173	2.07389	9.60	38.00	1.73 0	6.17 1	-9.88 0	-7.26 1
1.31190	2.07758	9.60	39.00	1.93 0	6.48 1	-1.01 1	-7.61 1
1.28019	2.09296	9.40	36.00	1.36 0	5.59 1	-9.24 0	-6.61 1
1.30154	2.09630	9.40	37.00	1.55 0	5.89 1	-9.40 0	-6.94 1
1.32234	2.09993	9.40	38.00	1.75 0	6.20 1	-9.57 0	-7.27 1
1.26697	2.11362	9.20	34.00	1.02 0	5.04 1	-8.62 0	-5.97 1
1.28970	2.11653	9.20	35.00	1.21 0	5.33 1	-8.78 0	-6.29 1
1.31177	2.11976	9.20	36.00	1.39 0	5.62 1	-8.94 0	-6.61 1
1.27602	2.13845	9.00	33.00	8.79-1	4.79 1	-8.19 0	-5.67 1
1.29958	2.14121	9.00	34.00	1.06 0	5.07 1	-8.34 0	-5.98 1
1.32243	2.14432	9.00	35.00	1.24 0	5.36 1	-8.49 0	-6.30 1
1.26011	2.16232	8.80	31.00	5.75-1	4.27 1	-7.62 0	-5.07 1
1.28540	2.16449	8.80	32.00	7.46-1	4.54 1	-7.76 0	-5.37 1
1.30985	2.16709	8.80	33.00	9.19-1	4.82 1	-7.91 0	-5.68 1
1.26877	2.18989	8.60	30.00	4.57-1	4.03 1	-7.22 0	-4.79 1
1.29511	2.19183	8.60	31.00	6.22-1	4.30 1	-7.36 0	-5.08 1
1.32053	2.19425	8.60	32.00	7.88-1	4.57 1	-7.49 0	-5.38 1
1.27766	2.21888	8.40	29.00	3.46-1	3.80 1	-6.83 0	-4.51 1
1.30514	2.22058	8.40	30.00	5.05-1	4.06 1	-6.96 0	-4.80 1
1.28678	2.24942	8.20	28.00	2.43-1	3.57 1	-6.45 0	-4.24 1
1.31550	2.25083	8.20	29.00	3.97-1	3.82 1	-6.58 0	-4.52 1
1.26467	2.28125	8.00	26.00	1.41-4	3.11 1	-5.97 0	-3.71 1
1.29610	2.28163	8.00	27.00	1.47-1	3.35 1	-6.09 0	-3.98 1
1.32619	2.28271	8.00	28.00	2.95-1	3.60 1	-6.21 0	-4.25 1
1.30560	2.31565	7.80	26.00	5.89-2	3.13 1	-5.73 0	-3.72 1
1.27253	2.31573	7.80	25.00	-8.30-2	2.90 1	-5.62 0	-3.46 1
1.31526	2.35165	7.60	25.00	-2.27-2	2.92 1	-5.39 0	-3.47 1
1.28036	2.35225	7.60	24.00	-1.59-1	2.70 1	-5.29 0	-3.22 1
1.32503	2.38980	7.40	24.00	-9.76-2	2.72 1	-5.07 0	-3.22 1
1.28810	2.39101	7.40	23.00	-2.29-1	2.50 1	-4.96 0	-2.98 1
1.29566	2.43223	7.20	22.00	-2.93-1	2.31 1	-4.65 0	-2.75 1
1.30293	2.47617	7.00	21.00	-3.50-1	2.12 1	-4.35 0	-2.53 1
1.30975	2.52314	6.80	20.00	-4.01-1	1.94 1	-4.06 0	-2.32 1
1.28633	2.52564	6.80	19.50	-4.60-1	1.85 1	-4.02 0	-2.21 1
1.26210	2.52860	6.80	19.00	-5.18-1	1.75 1	-3.97 0	-2.11 1
1.31595	2.57349	6.60	19.00	-4.47-1	1.77 1	-3.78 0	-2.11 1
1.29073	2.57667	6.60	18.50	-5.03-1	1.68 1	-3.74 0	-2.01 1
1.26457	2.58040	6.60	18.00	-5.59-1	1.59 1	-3.70 0	-1.91 1
1.32129	2.62763	6.40	18.00	-4.87-1	1.60 1	-3.52 0	-1.92 1
1.29398	2.63164	6.40	17.50	-5.40-1	1.51 1	-3.48 0	-1.82 1
1.26559	2.63630	6.40	17.00	-5.94-1	1.43 1	-3.44 0	-1.72 1
1.32545	2.68605	6.20	17.00	-5.21-1	1.44 1	-3.26 0	-1.73 1
1.29572	2.69107	6.20	16.50	-5.73-1	1.36 1	-3.22 0	-1.63 1
1.26472	2.69686	6.20	16.00	-6.25-1	1.28 1	-3.19 0	-1.54 1
1.32801	2.74937	6.00	16.00	-5.50-1	1.29 1	-3.02 0	-1.55 1
1.29545	2.75562	6.00	15.50	-6.00-1	1.21 1	-2.98 0	-1.46 1
1.26137	2.76281	6.00	15.00	-6.50-1	1.13 1	-2.95 0	-1.37 1
1.32843	2.81832	5.80	15.00	-5.75-1	1.14 1	-2.78 0	-1.37 1
1.29250	2.82610	5.80	14.50	-6.22-1	1.07 1	-2.75 0	-1.29 1
1.32597	2.89382	5.60	14.00	-5.94-1	1.00 1	-2.56 0	-1.21 1
1.28600	2.90353	5.60	13.50	-6.40-1	9.32 0	-2.53 0	-1.13 1
1.31961	2.97703	5.40	13.00	-6.09-1	8.72 0	-2.35 0	-1.06 1
1.27471	2.98920	5.40	12.50	-6.53-1	8.05 0	-2.32 0	-9.81 0
1.30797	3.06946	5.20	12.00	-6.20-1	7.49 0	-2.14 0	-9.10 0
1.28906	3.17312	5.00	11.00	-6.27-1	6.33 0	-1.95 0	-7.74 0
1.32363	3.26890	4.80	10.50	-5.91-1	5.82 0	-1.79 0	-7.10 0
1.26003	3.29073	4.80	10.00	-6.29-1	5.26 0	-1.77 0	-6.47 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.30608	3.39244	4.60	9.60	-5.84-1	4.90 0	-1.62 0	-6.00 0
1.27727	3.40299	4.60	9.40	-5.99-1	4.69 0	-1.61 0	-5.76 0
1.32577	3.51475	4.40	9.00	-5.54-1	4.34 0	-1.47 0	-5.31 0
1.29363	3.52704	4.40	8.80	-5.68-1	4.14 0	-1.46 0	-5.09 0
1.26030	3.54017	4.40	8.60	-5.82-1	3.94 0	-1.46 0	-4.87 0
1.30843	3.66502	4.20	8.20	-5.36-1	3.62 0	-1.32 0	-4.46 0
1.27079	3.68051	4.20	8.00	-5.49-1	3.43 0	-1.31 0	-4.25 0
1.32060	3.81962	4.00	7.60	-5.04-1	3.12 0	-1.19 0	-3.86 0
1.27765	3.83813	4.00	7.40	-5.16-1	2.95 0	-1.18 0	-3.66 0
1.30246	3.91419	3.90	7.20	-4.94-1	2.81 0	-1.12 0	-3.48 0
1.32859	3.99438	3.80	7.00	-4.71-1	2.66 0	-1.06 0	-3.30 0
1.27894	4.01679	3.80	6.80	-4.83-1	2.50 0	-1.05 0	-3.11 0
1.30382	4.10287	3.70	6.60	-4.61-1	2.37 0	-9.97-1	-2.94 0
1.32999	4.19398	3.60	6.40	-4.39-1	2.23 0	-9.41-1	-2.77 0
1.27170	4.22158	3.60	6.20	-4.50-1	2.09 0	-9.35-1	-2.61 0
1.29579	4.32009	3.50	6.00	-4.28-1	1.96 0	-8.81-1	-2.45 0
1.32103	4.42483	3.40	5.80	-4.06-1	1.84 0	-8.28-1	-2.29 0
1.27307	4.57385	3.30	5.40	-3.95-1	1.59 0	-7.73-1	-1.99 0
1.29561	4.69607	3.20	5.20	-3.73-1	1.47 0	-7.23-1	-1.85 0
1.31891	4.82708	3.10	5.00	-3.52-1	1.36 0	-6.75-1	-1.71 0
1.27528	5.34862	2.80	4.20	-3.00-1	9.53-1	-5.38-1	-1.21 0
1.28983	5.53401	2.70	4.00	-2.80-1	8.63-1	-4.96-1	-1.09 0
1.30279	5.73667	2.60	3.80	-2.61-1	7.76-1	-4.57-1	-9.86-1
1.31344	5.95930	2.50	3.60	-2.42-1	6.94-1	-4.18-1	-8.83-1
1.32072	6.20517	2.40	3.40	-2.24-1	6.16-1	-3.82-1	-7.85-1
1.32321	6.47837	2.30	3.20	-2.07-1	5.41-1	-3.47-1	-6.92-1
1.31883	6.78404	2.20	3.00	-1.90-1	4.71-1	-3.14-1	-6.05-1
1.30466	7.12878	2.10	2.80	-1.73-1	4.06-1	-2.82-1	-5.23-1
1.27638	7.52120	2.00	2.60	-1.57-1	3.44-1	-2.52-1	-4.46-1
1.29145	8.94892	1.70	2.10	-1.11-1	2.13-1	-1.73-1	-2.79-1
1.31852	9.55333	1.60	1.95	-9.67-2	1.80-1	-1.50-1	-2.36-1
1.31872	12.1346	1.30	1.50	-5.96-2	9.60-2	-9.03-2	-1.28-1
1.29978	20.5179	0.86	0.92	-2.02-2	2.63-2	-3.08-2	-3.73-2
1.26859	24.3941	0.76	0.80	-1.42-2	1.75-2	-2.19-2	-2.55-2
1.33	1.40						
1.33665	1.77986	16.00	88.00	2.73 1	2.53 2	-4.80 1	-2.95 2
1.34833	1.78653	16.00	89.00	2.81 1	2.58 2	-4.89 1	-3.00 2
1.33826	1.79170	15.50	85.00	2.40 1	2.40 2	-4.35 1	-2.79 2
1.36004	1.79333	16.00	90.00	2.90 1	2.63 2	-4.98 1	-3.05 2
1.34994	1.79821	15.50	86.00	2.48 1	2.45 2	-4.42 1	-2.84 2
1.36166	1.80482	15.50	87.00	2.56 1	2.49 2	-4.50 1	-2.89 2
1.34146	1.80554	15.00	82.00	2.11 1	2.26 2	-3.93 1	-2.63 2
1.37341	1.81154	15.50	88.00	2.64 1	2.54 2	-4.58 1	-2.94 2
1.35320	1.81189	15.00	83.00	2.18 1	2.31 2	-4.00 1	-2.68 2
1.33446	1.81535	14.50	78.00	1.79 1	2.09 2	-3.50 1	-2.43 2
1.36496	1.81835	15.00	84.00	2.25 1	2.36 2	-4.07 1	-2.73 2
1.38519	1.81837	15.50	89.00	2.72 1	2.59 2	-4.67 1	-2.99 2
1.34630	1.82147	14.50	79.00	1.85 1	2.14 2	-3.56 1	-2.48 2
1.37673	1.82491	15.00	85.00	2.32 1	2.41 2	-4.14 1	-2.78 2
1.39702	1.82532	15.50	90.00	2.81 1	2.64 2	-4.75 1	-3.05 2
1.35814	1.82768	14.50	80.00	1.92 1	2.18 2	-3.62 1	-2.53 2
1.38854	1.83157	15.00	86.00	2.40 1	2.46 2	-4.22 1	-2.83 2
1.34083	1.83358	14.00	75.00	1.57 1	1.96 2	-3.17 1	-2.28 2
1.36999	1.83400	14.50	81.00	1.98 1	2.23 2	-3.68 1	-2.58 2
1.35284	1.83959	14.00	76.00	1.63 1	2.01 2	-3.22 1	-2.33 2
1.38184	1.84042	14.50	82.00	2.04 1	2.28 2	-3.75 1	-2.63 2
1.36482	1.84569	14.00	77.00	1.68 1	2.06 2	-3.27 1	-2.38 2
1.39370	1.84694	14.50	83.00	2.11 1	2.32 2	-3.81 1	-2.68 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.33667	1.84833	13.50	71.00	1.32 1	1.80 2	-2.81 1	-2.09 2
1.37680	1.85189	14.00	78.00	1.74 1	2.10 2	-3.33 1	-2.43 2
1.34892	1.85415	13.50	72.00	1.37 1	1.84 2	-2.86 1	-2.13 2
1.38877	1.85819	14.00	79.00	1.79 1	2.15 2	-3.38 1	-2.48 2
1.36113	1.86006	13.50	73.00	1.42 1	1.89 2	-2.91 1	-2.18 2
1.33367	1.86584	13.00	67.00	1.11 1	1.63 2	-2.50 1	-1.90 2
1.37331	1.86607	13.50	74.00	1.47 1	1.93 2	-2.95 1	-2.23 2
1.34626	1.87149	13.00	68.00	1.15 1	1.68 2	-2.54 1	-1.95 2
1.38547	1.87217	13.50	75.00	1.52 1	1.98 2	-3.00 1	-2.28 2
1.35879	1.87723	13.00	69.00	1.19 1	1.72 2	-2.58 1	-1.99 2
1.39760	1.87836	13.50	76.00	1.57 1	2.02 2	-3.05 1	-2.33 2
1.37127	1.88306	13.00	70.00	1.24 1	1.77 2	-2.62 1	-2.04 2
1.33169	1.88630	12.50	63.00	9.17 0	1.48 2	-2.21 1	-1.72 2
1.38371	1.88898	13.00	71.00	1.28 1	1.81 2	-2.66 1	-2.09 2
1.34474	1.89177	12.50	64.00	9.55 0	1.52 2	-2.25 1	-1.76 2
1.39610	1.89500	13.00	72.00	1.33 1	1.85 2	-2.71 1	-2.13 2
1.35770	1.89735	12.50	65.00	9.94 0	1.56 2	-2.28 1	-1.81 2
1.37057	1.90302	12.50	66.00	1.03 1	1.60 2	-2.32 1	-1.85 2
1.38338	1.90878	12.50	67.00	1.07 1	1.65 2	-2.36 1	-1.90 2
1.33058	1.90993	12.00	59.00	7.51 0	1.32 2	-1.95 1	-1.54 2
1.39612	1.91464	12.50	68.00	1.11 1	1.69 2	-2.40 1	-1.95 2
1.34420	1.91525	12.00	60.00	7.85 0	1.36 2	-1.98 1	-1.58 2
1.35770	1.92066	12.00	61.00	8.20 0	1.41 2	-2.02 1	-1.63 2
1.37110	1.92618	12.00	62.00	8.55 0	1.45 2	-2.05 1	-1.67 2
1.38439	1.93179	12.00	63.00	8.90 0	1.49 2	-2.08 1	-1.72 2
1.33011	1.93706	11.50	55.00	6.07 0	1.18 2	-1.72 1	-1.37 2
1.39759	1.93750	12.00	64.00	9.27 0	1.53 2	-2.12 1	-1.76 2
1.34445	1.94221	11.50	56.00	6.37 0	1.22 2	-1.75 1	-1.41 2
1.35865	1.94746	11.50	57.00	6.68 0	1.26 2	-1.78 1	-1.46 2
1.37270	1.95282	11.50	58.00	6.99 0	1.30 2	-1.81 1	-1.50 2
1.38661	1.95829	11.50	59.00	7.31 0	1.34 2	-1.84 1	-1.54 2
1.33000	1.96808	11.00	51.00	4.80 0	1.03 2	-1.51 1	-1.21 2
1.34526	1.97303	11.00	52.00	5.08 0	1.07 2	-1.53 1	-1.25 2
1.36032	1.97811	11.00	53.00	5.36 0	1.11 2	-1.56 1	-1.29 2
1.37519	1.98331	11.00	54.00	5.64 0	1.15 2	-1.59 1	-1.33 2
1.38989	1.98862	11.00	55.00	5.92 0	1.19 2	-1.61 1	-1.37 2
1.34629	2.00824	10.50	48.00	3.95 0	9.35 1	-1.34 1	-1.09 2
1.36244	2.01311	10.50	49.00	4.20 0	9.72 1	-1.36 1	-1.13 2
1.37834	2.01812	10.50	50.00	4.46 0	1.01 2	-1.39 1	-1.17 2
1.39402	2.02325	10.50	51.00	4.71 0	1.05 2	-1.41 1	-1.21 2
1.34705	2.04846	10.00	44.00	2.98 0	8.05 1	-1.17 1	-9.38 1
1.36458	2.05307	10.00	45.00	3.20 0	8.39 1	-1.19 1	-9.76 1
1.38179	2.05785	10.00	46.00	3.43 0	8.75 1	-1.21 1	-1.01 2
1.39870	2.06277	10.00	47.00	3.66 0	9.10 1	-1.23 1	-1.05 2
1.33976	2.06441	9.80	42.00	2.54 0	7.41 1	-1.09 1	-8.66 1
1.35809	2.06881	9.80	43.00	2.76 0	7.75 1	-1.11 1	-9.02 1
1.37606	2.07340	9.80	44.00	2.97 0	8.09 1	-1.13 1	-9.39 1
1.39368	2.07816	9.80	45.00	3.19 0	8.44 1	-1.15 1	-9.77 1
1.33159	2.08152	9.60	40.00	2.13 0	6.80 1	-1.02 1	-7.95 1
1.35083	2.08569	9.60	41.00	2.34 0	7.12 1	-1.04 1	-8.31 1
1.36965	2.09006	9.60	42.00	2.54 0	7.45 1	-1.06 1	-8.66 1
1.38808	2.09462	9.60	43.00	2.75 0	7.79 1	-1.08 1	-9.03 1
1.34262	2.10380	9.40	39.00	1.95 0	6.51 1	-9.74 0	-7.61 1
1.36242	2.10792	9.40	40.00	2.14 0	6.83 1	-9.92 0	-7.96 1
1.38176	2.11226	9.40	41.00	2.34 0	7.16 1	-1.01 1	-8.31 1
1.33324	2.12330	9.20	37.00	1.58 0	5.93 1	-9.10 0	-6.94 1
1.35415	2.12711	9.20	38.00	1.77 0	6.23 1	-9.27 0	-7.28 1
1.37454	2.13117	9.20	39.00	1.96 0	6.55 1	-9.43 0	-7.62 1
1.39445	2.13547	9.20	40.00	2.15 0	6.87 1	-9.60 0	-7.97 1
1.34462	2.14776	9.00	36.00	1.42 0	5.66 1	-8.65 0	-6.62 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.36621	2.15150	9.00	37.00	1.60 0	5.96 1	-8.80 0	-6.95 1
1.38724	2.15550	9.00	38.00	1.79 0	6.27 1	-8.96 0	-7.29 1
1.33354	2.17007	8.80	34.00	1.09 0	5.10 1	-8.06 0	-5.99 1
1.35651	2.17340	8.80	35.00	1.27 0	5.39 1	-8.21 0	-6.31 1
1.37883	2.17705	8.80	36.00	1.44 0	5.69 1	-8.36 0	-6.63 1
1.34512	2.19708	8.60	33.00	9.55-1	4.85 1	-7.64 0	-5.68 1
1.36893	2.20029	8.60	34.00	1.12 0	5.13 1	-7.78 0	-5.99 1
1.39204	2.20384	8.60	35.00	1.29 0	5.42 1	-7.92 0	-6.31 1
1.33162	2.22278	8.40	31.00	6.66-1	4.32 1	-7.09 0	-5.09 1
1.35718	2.22544	8.40	32.00	8.27-1	4.59 1	-7.23 0	-5.39 1
1.38191	2.22852	8.40	33.00	9.89-1	4.87 1	-7.37 0	-5.69 1
1.34313	2.25280	8.20	30.00	5.51-1	4.08 1	-6.70 0	-4.80 1
1.36976	2.25527	8.20	31.00	7.07-1	4.35 1	-6.83 0	-5.09 1
1.39547	2.25819	8.20	32.00	8.63-1	4.62 1	-6.97 0	-5.39 1
1.35507	2.28441	8.00	29.00	4.44-1	3.85 1	-6.33 0	-4.52 1
1.38286	2.28666	8.00	30.00	5.94-1	4.11 1	-6.45 0	-4.81 1
1.33720	2.31636	7.80	27.00	2.01-1	3.37 1	-5.85 0	-3.98 1
1.36746	2.31775	7.80	28.00	3.45-1	3.62 1	-5.97 0	-4.25 1
1.39651	2.31976	7.80	29.00	4.89-1	3.87 1	-6.08 0	-4.53 1
1.34851	2.35192	7.60	26.00	1.15-1	3.16 1	-5.50 0	-3.72 1
1.38029	2.35297	7.60	27.00	2.52-1	3.40 1	-5.62 0	-3.99 1
1.36012	2.38957	7.40	25.00	3.45-2	2.94 1	-5.17 0	-3.47 1
1.39357	2.39021	7.40	26.00	1.67-1	3.18 1	-5.28 0	-3.73 1
1.37200	2.42951	7.20	24.00	-3.90-2	2.74 1	-4.85 0	-3.23 1
1.33486	2.43031	7.20	23.00	-1.66-1	2.52 1	-4.75 0	-2.99 1
1.38410	2.47195	7.00	23.00	-1.06-1	2.54 1	-4.54 0	-2.99 1
1.34468	2.47342	7.00	22.00	-2.28-1	2.33 1	-4.44 0	-2.76 1
1.39638	2.51714	6.80	22.00	-1.67-1	2.34 1	-4.24 0	-2.76 1
1.35439	2.51941	6.80	21.00	-2.84-1	2.14 1	-4.15 0	-2.54 1
1.36387	2.56859	6.60	20.00	-3.34-1	1.96 1	-3.87 0	-2.32 1
1.34032	2.57081	6.60	19.50	-3.90-1	1.86 1	-3.83 0	-2.22 1
1.39747	2.61894	6.40	19.50	-3.25-1	1.88 1	-3.64 0	-2.22 1
1.37297	2.62133	6.40	19.00	-3.79-1	1.78 1	-3.60 0	-2.12 1
1.34760	2.62421	6.40	18.50	-4.33-1	1.69 1	-3.56 0	-2.02 1
1.38147	2.67807	6.20	18.00	-4.18-1	1.62 1	-3.34 0	-1.92 1
1.35400	2.68174	6.20	17.50	-4.69-1	1.53 1	-3.30 0	-1.82 1
1.38909	2.73933	6.00	17.00	-4.51-1	1.45 1	-3.09 0	-1.73 1
1.35919	2.74397	6.00	16.50	-5.01-1	1.37 1	-3.05 0	-1.64 1
1.39545	2.80575	5.80	16.00	-4.80-1	1.30 1	-2.85 0	-1.55 1
1.36270	2.81157	5.80	15.50	-5.27-1	1.22 1	-2.82 0	-1.46 1
1.36393	2.88539	5.60	14.50	-5.49-1	1.08 1	-2.59 0	-1.29 1
1.36204	2.96646	5.40	13.50	-5.66-1	9.41 0	-2.37 0	-1.13 1
1.35589	3.05614	5.20	12.50	-5.78-1	8.14 0	-2.17 0	-9.82 0
1.39515	3.14153	5.00	12.00	-5.47-1	7.57 0	-2.00 0	-9.12 0
1.34386	3.15617	5.00	11.50	-5.87-1	6.94 0	-1.97 0	-8.41 0
1.38270	3.25014	4.80	11.00	-5.53-1	6.41 0	-1.81 0	-7.75 0
1.36094	3.37323	4.60	10.00	-5.55-1	5.33 0	-1.64 0	-6.48 0
1.33395	3.38253	4.60	9.80	-5.70-1	5.11 0	-1.63 0	-6.24 0
1.38673	3.49247	4.40	9.40	-5.27-1	4.75 0	-1.49 0	-5.78 0
1.35677	3.50325	4.40	9.20	-5.40-1	4.54 0	-1.48 0	-5.54 0
1.37937	3.63708	4.20	8.60	-5.10-1	4.00 0	-1.34 0	-4.88 0
1.34459	3.65056	4.20	8.40	-5.23-1	3.80 0	-1.33 0	-4.67 0
1.36171	3.80243	4.00	7.80	-4.92-1	3.30 0	-1.19 0	-4.05 0
1.39057	3.87649	3.90	7.60	-4.70-1	3.15 0	-1.13 0	-3.86 0
1.34751	3.89463	3.90	7.40	-4.82-1	2.97 0	-1.13 0	-3.67 0
1.37590	3.97367	3.80	7.20	-4.60-1	2.83 0	-1.07 0	-3.48 0
1.35614	4.07905	3.70	6.80	-4.49-1	2.52 0	-1.00 0	-3.12 0
1.38523	4.16861	3.60	6.60	-4.28-1	2.39 0	-9.46-1	-2.94 0
1.35757	4.29057	3.50	6.20	-4.17-1	2.10 0	-8.86-1	-2.61 0
1.38666	4.39318	3.40	6.00	-3.96-1	1.98 0	-8.33-1	-2.45 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.34751	4.53643	3.30	5.60	-3.84-1	1.72 0	-7.77-1	-2.14 0
1.37530	4.65560	3.20	5.40	-3.63-1	1.60 0	-7.28-1	-1.99 0
1.34295	4.96792	3.00	4.80	-3.31-1	1.26 0	-6.29-1	-1.58 0
1.36768	5.11978	2.90	4.60	-3.11-1	1.16 0	-5.84-1	-1.45 0
1.39302	5.28407	2.80	4.40	-2.91-1	1.06 0	-5.41-1	-1.33 0
1.37557	5.69544	2.60	3.90	-2.57-1	8.24-1	-4.58-1	-1.04 0
1.39422	5.91294	2.50	3.70	-2.39-1	7.39-1	-4.20-1	-9.35-1
1.39187	8.09946	1.85	2.40	-1.32-1	2.90-1	-2.11-1	-3.75-1
1.36724	8.35972	1.80	2.30	-1.25-1	2.63-1	-1.98-1	-3.42-1
1.33443	8.64183	1.75	2.20	-1.18-1	2.38-1	-1.85-1	-3.10-1
1.33757	10.2629	1.50	1.80	-8.34-2	1.49-1	-1.28-1	-1.97-1
1.34171	11.1085	1.40	1.65	-7.10-2	1.21-1	-1.08-1	-1.61-1
1.38051	14.0331	1.15	1.30	-4.38-2	6.71-2	-6.63-2	-9.07-2
1.37567	16.7501	1.00	1.10	-3.05-2	4.32-2	-4.61-2	-5.96-2
1.39325	17.6540	0.96	1.05	-2.73-2	3.81-2	-4.14-2	-5.28-2
1.38676	21.1319	0.84	0.90	-1.89-2	2.48-2	-2.89-2	-3.51-2
1.37056	25.2776	0.74	0.78	-1.31-2	1.63-2	-2.03-2	-2.37-2
1.35269	34.6389	0.60	0.62	-6.85-3	7.98-3	-1.11-2	-1.23-2
1.40	1.48						
1.40037	1.83834	15.00	87.00	2.47 1	2.51 2	-4.29 1	-2.89 2
1.41224	1.84522	15.00	88.00	2.55 1	2.56 2	-4.37 1	-2.94 2
1.42415	1.85222	15.00	89.00	2.63 1	2.60 2	-4.45 1	-2.99 2
1.40558	1.85356	14.50	84.00	2.18 1	2.37 2	-3.88 1	-2.73 2
1.43610	1.85933	15.00	90.00	2.71 1	2.65 2	-4.53 1	-3.04 2
1.41748	1.86029	14.50	85.00	2.25 1	2.42 2	-3.95 1	-2.78 2
1.40073	1.86459	14.00	80.00	1.85 1	2.20 2	-3.44 1	-2.53 2
1.42941	1.86712	14.50	86.00	2.32 1	2.47 2	-4.02 1	-2.83 2
1.41270	1.87108	14.00	81.00	1.91 1	2.24 2	-3.50 1	-2.58 2
1.44136	1.87406	14.50	87.00	2.39 1	2.52 2	-4.09 1	-2.88 2
1.42468	1.87768	14.00	82.00	1.97 1	2.29 2	-3.56 1	-2.63 2
1.45336	1.88111	14.50	88.00	2.46 1	2.57 2	-4.16 1	-2.93 2
1.43667	1.88437	14.00	83.00	2.04 1	2.34 2	-3.62 1	-2.68 2
1.40972	1.88465	13.50	77.00	1.62 1	2.07 2	-3.11 1	-2.38 2
1.46539	1.88828	14.50	89.00	2.54 1	2.62 2	-4.24 1	-2.98 2
1.42183	1.89104	13.50	78.00	1.68 1	2.12 2	-3.16 1	-2.43 2
1.44868	1.89117	14.00	84.00	2.10 1	2.39 2	-3.69 1	-2.73 2
1.47748	1.89556	14.50	90.00	2.61 1	2.67 2	-4.31 1	-3.04 2
1.43394	1.89752	13.50	79.00	1.73 1	2.16 2	-3.21 1	-2.47 2
1.46072	1.89807	14.00	85.00	2.17 1	2.43 2	-3.75 1	-2.78 2
1.40845	1.90111	13.00	73.00	1.37 1	1.90 2	-2.75 1	-2.18 2
1.44604	1.90410	13.50	80.00	1.79 1	2.21 2	-3.27 1	-2.52 2
1.47278	1.90509	14.00	86.00	2.23 1	2.48 2	-3.82 1	-2.83 2
1.42077	1.90731	13.00	74.00	1.42 1	1.94 2	-2.80 1	-2.23 2
1.45815	1.91078	13.50	81.00	1.85 1	2.26 2	-3.32 1	-2.57 2
1.43307	1.91361	13.00	75.00	1.47 1	1.99 2	-2.85 1	-2.28 2
1.47026	1.91756	13.50	82.00	1.90 1	2.30 2	-3.38 1	-2.62 2
1.44535	1.92000	13.00	76.00	1.52 1	2.04 2	-2.89 1	-2.33 2
1.40880	1.92059	12.50	69.00	1.15 1	1.73 2	-2.44 1	-1.99 2
1.45761	1.92649	13.00	77.00	1.57 1	2.08 2	-2.94 1	-2.38 2
1.42143	1.92663	12.50	70.00	1.20 1	1.78 2	-2.48 1	-2.04 2
1.43401	1.93277	12.50	71.00	1.24 1	1.82 2	-2.52 1	-2.09 2
1.46986	1.93307	13.00	78.00	1.62 1	2.13 2	-2.99 1	-2.43 2
1.44656	1.93900	12.50	72.00	1.28 1	1.87 2	-2.56 1	-2.14 2
1.41071	1.94331	12.00	65.00	9.63 0	1.57 2	-2.15 1	-1.81 2
1.45906	1.94532	12.50	73.00	1.33 1	1.91 2	-2.60 1	-2.18 2
1.42374	1.94920	12.00	66.00	1.00 1	1.62 2	-2.19 1	-1.86 2
1.47153	1.95173	12.50	74.00	1.37 1	1.96 2	-2.65 1	-2.23 2
1.43671	1.95520	12.00	67.00	1.04 1	1.66 2	-2.22 1	-1.90 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.44961	1.96128	12.00	68.00	1.08 1	1.70 2	-2.26 1	-1.95 2
1.40040	1.96386	11.50	60.00	7.63 0	1.38 2	-1.87 1	-1.59 2
1.46245	1.96746	12.00	69.00	1.12 1	1.75 2	-2.30 1	-1.99 2
1.41407	1.96952	11.50	61.00	7.96 0	1.42 2	-1.90 1	-1.63 2
1.47524	1.97372	12.00	70.00	1.16 1	1.79 2	-2.34 1	-2.04 2
1.42764	1.97529	11.50	62.00	8.29 0	1.46 2	-1.93 1	-1.68 2
1.44110	1.98115	11.50	63.00	8.63 0	1.50 2	-1.96 1	-1.72 2
1.45448	1.98710	11.50	64.00	8.97 0	1.55 2	-1.99 1	-1.77 2
1.46776	1.99315	11.50	65.00	9.32 0	1.59 2	-2.03 1	-1.81 2
1.40442	1.99405	11.00	56.00	6.21 0	1.23 2	-1.64 1	-1.41 2
1.41880	1.99958	11.00	57.00	6.50 0	1.27 2	-1.67 1	-1.46 2
1.43303	2.00521	11.00	58.00	6.80 0	1.31 2	-1.69 1	-1.50 2
1.44713	2.01095	11.00	59.00	7.10 0	1.35 2	-1.72 1	-1.54 2
1.46110	2.01678	11.00	60.00	7.40 0	1.39 2	-1.75 1	-1.59 2
1.47496	2.02271	11.00	61.00	7.71 0	1.43 2	-1.78 1	-1.63 2
1.40948	2.02852	10.50	52.00	4.97 0	1.08 2	-1.43 1	-1.25 2
1.42474	2.03390	10.50	53.00	5.23 0	1.12 2	-1.46 1	-1.29 2
1.43982	2.03940	10.50	54.00	5.50 0	1.16 2	-1.48 1	-1.33 2
1.45471	2.04502	10.50	55.00	5.76 0	1.20 2	-1.51 1	-1.37 2
1.46945	2.05074	10.50	56.00	6.03 0	1.24 2	-1.53 1	-1.42 2
1.41534	2.06785	10.00	48.00	3.89 0	9.46 1	-1.25 1	-1.09 2
1.43171	2.07306	10.00	49.00	4.13 0	9.83 1	-1.27 1	-1.13 2
1.44784	2.07841	10.00	50.00	4.36 0	1.02 2	-1.29 1	-1.17 2
1.41099	2.08308	9.80	46.00	3.41 0	8.79 1	-1.17 1	-1.01 2
1.46374	2.08388	10.00	51.00	4.60 0	1.06 2	-1.31 1	-1.21 2
1.42800	2.08816	9.80	47.00	3.64 0	9.15 1	-1.19 1	-1.05 2
1.47942	2.08948	10.00	52.00	4.85 0	1.10 2	-1.34 1	-1.25 2
1.44473	2.09328	9.80	48.00	3.86 0	9.51 1	-1.21 1	-1.09 2
1.46119	2.09874	9.80	49.00	4.09 0	9.88 1	-1.23 1	-1.13 2
1.40615	2.09937	9.60	44.00	2.97 0	8.13 1	-1.10 1	-9.40 1
1.47742	2.10423	9.80	50.00	4.32 0	1.03 2	-1.25 1	-1.17 2
1.42387	2.10429	9.60	45.00	3.18 0	8.48 1	-1.12 1	-9.78 1
1.44128	2.10937	9.60	46.00	3.39 0	8.83 1	-1.14 1	-1.02 2
1.45839	2.11460	9.60	47.00	3.61 0	9.19 1	-1.16 1	-1.05 2
1.40069	2.11680	9.40	42.00	2.55 0	7.49 1	-1.03 1	-8.67 1
1.47522	2.11997	9.60	48.00	3.83 0	9.55 1	-1.18 1	-1.09 2
1.41922	2.12153	9.40	43.00	2.75 0	7.83 1	-1.05 1	-9.04 1
1.43740	2.12645	9.40	44.00	2.95 0	8.17 1	-1.06 1	-9.41 1
1.45523	2.13153	9.40	45.00	3.16 0	8.52 1	-1.08 1	-9.79 1
1.47274	2.13677	9.40	46.00	3.37 0	8.87 1	-1.10 1	-1.02 2
1.41391	2.13999	9.20	41.00	2.35 0	7.20 1	-9.77 0	-8.32 1
1.43294	2.14471	9.20	42.00	2.54 0	7.53 1	-9.95 0	-8.69 1
1.45159	2.14961	9.20	43.00	2.74 0	7.87 1	-1.01 1	-9.05 1
1.46987	2.15470	9.20	44.00	2.94 0	8.21 1	-1.03 1	-9.42 1
1.40775	2.15976	9.00	39.00	1.97 0	6.58 1	-9.13 0	-7.63 1
1.42777	2.16425	9.00	40.00	2.16 0	6.91 1	-9.29 0	-7.98 1
1.44735	2.16895	9.00	41.00	2.35 0	7.23 1	-9.46 0	-8.34 1
1.46650	2.17385	9.00	42.00	2.54 0	7.57 1	-9.63 0	-8.70 1
1.40055	2.18099	8.80	37.00	1.62 0	5.99 1	-8.51 0	-6.96 1
1.42170	2.18520	8.80	38.00	1.80 0	6.30 1	-8.67 0	-7.30 1
1.44233	2.18966	8.80	39.00	1.98 0	6.62 1	-8.83 0	-7.64 1
1.46247	2.19434	8.80	40.00	2.16 0	6.94 1	-8.99 0	-7.99 1
1.41449	2.20771	8.60	36.00	1.46 0	5.72 1	-8.07 0	-6.64 1
1.43633	2.21187	8.60	37.00	1.64 0	6.03 1	-8.22 0	-6.97 1
1.45761	2.21629	8.60	38.00	1.81 0	6.34 1	-8.37 0	-7.31 1
1.47837	2.22095	8.60	39.00	1.99 0	6.66 1	-8.53 0	-7.65 1
1.40586	2.23197	8.40	34.00	1.15 0	5.16 1	-7.51 0	-6.00 1
1.42911	2.23575	8.40	35.00	1.32 0	5.45 1	-7.65 0	-6.32 1
1.45170	2.23985	8.40	36.00	1.48 0	5.76 1	-7.79 0	-6.65 1
1.47368	2.24423	8.40	37.00	1.65 0	6.06 1	-7.94 0	-6.98 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.42034	2.26152	8.20	33.00	1.02 0	4.90 1	-7.10 0	-5.70 1
1.44445	2.26521	8.20	34.00	1.18 0	5.19 1	-7.24 0	-6.01 1
1.46784	2.26924	8.20	35.00	1.34 0	5.49 1	-7.37 0	-6.33 1
1.40965	2.28941	8.00	31.00	7.44-1	4.38 1	-6.58 0	-5.10 1
1.43552	2.29260	8.00	32.00	8.96-1	4.65 1	-6.71 0	-5.40 1
1.46054	2.29619	8.00	33.00	1.05 0	4.94 1	-6.84 0	-5.71 1
1.42447	2.32231	7.80	30.00	6.34-1	4.14 1	-6.21 0	-4.82 1
1.45142	2.32534	7.80	31.00	7.79-1	4.41 1	-6.33 0	-5.11 1
1.47745	2.32882	7.80	32.00	9.26-1	4.68 1	-6.45 0	-5.41 1
1.41073	2.35469	7.60	28.00	3.91-1	3.64 1	-5.73 0	-4.26 1
1.43996	2.35701	7.60	29.00	5.30-1	3.90 1	-5.84 0	-4.54 1
1.46809	2.35987	7.60	30.00	6.70-1	4.16 1	-5.96 0	-4.82 1
1.42554	2.39161	7.40	27.00	3.00-1	3.42 1	-5.39 0	-3.99 1
1.45617	2.39367	7.40	28.00	4.34-1	3.67 1	-5.50 0	-4.27 1
1.40729	2.42968	7.20	25.00	8.85-2	2.97 1	-4.95 0	-3.48 1
1.44095	2.43070	7.20	26.00	2.16-1	3.20 1	-5.05 0	-3.74 1
1.47312	2.43247	7.20	27.00	3.45-1	3.44 1	-5.16 0	-4.00 1
1.42146	2.47158	7.00	24.00	1.64-2	2.76 1	-4.64 0	-3.23 1
1.45698	2.47216	7.00	25.00	1.39-1	2.99 1	-4.74 0	-3.48 1
1.43604	2.51614	6.80	23.00	-4.93-2	2.56 1	-4.33 0	-3.00 1
1.47364	2.51621	6.80	24.00	6.86-2	2.78 1	-4.43 0	-3.24 1
1.45102	2.56363	6.60	22.00	-1.09-1	2.36 1	-4.04 0	-2.77 1
1.40877	2.56539	6.60	21.00	-2.22-1	2.16 1	-3.95 0	-2.54 1
1.46635	2.61437	6.40	21.00	-1.63-1	2.17 1	-3.76 0	-2.55 1
1.42117	2.61701	6.40	20.00	-2.71-1	1.97 1	-3.68 0	-2.33 1
1.45811	2.67035	6.20	19.50	-2.63-1	1.89 1	-3.45 0	-2.23 1
1.43345	2.67242	6.20	19.00	-3.14-1	1.80 1	-3.42 0	-2.12 1
1.40793	2.67498	6.20	18.50	-3.66-1	1.71 1	-3.38 0	-2.02 1
1.47206	2.72933	6.00	18.50	-3.03-1	1.72 1	-3.20 0	-2.02 1
1.44544	2.73207	6.00	18.00	-3.52-1	1.63 1	-3.16 0	-1.92 1
1.41781	2.73539	6.00	17.50	-4.02-1	1.54 1	-3.12 0	-1.83 1
1.45689	2.79652	5.80	17.00	-3.85-1	1.47 1	-2.92 0	-1.73 1
1.42681	2.80076	5.80	16.50	-4.32-1	1.38 1	-2.88 0	-1.64 1
1.46749	2.86642	5.60	16.00	-4.13-1	1.31 1	-2.69 0	-1.55 1
1.43454	2.87180	5.60	15.50	-4.58-1	1.23 1	-2.65 0	-1.46 1
1.40007	2.87809	5.60	15.00	-5.04-1	1.15 1	-2.62 0	-1.38 1
1.47679	2.94260	5.40	15.00	-4.36-1	1.16 1	-2.47 0	-1.38 1
1.44043	2.94939	5.40	14.50	-4.79-1	1.09 1	-2.43 0	-1.29 1
1.40224	2.95730	5.40	14.00	-5.23-1	1.01 1	-2.40 0	-1.21 1
1.44372	3.03463	5.20	13.50	-4.96-1	9.51 0	-2.23 0	-1.14 1
1.40104	3.04460	5.20	13.00	-5.37-1	8.81 0	-2.20 0	-1.06 1
1.44335	3.12890	5.00	12.50	-5.08-1	8.23 0	-2.03 0	-9.85 0
1.43780	3.23401	4.80	11.50	-5.16-1	7.02 0	-1.84 0	-8.43 0
1.42488	3.35237	4.60	10.50	-5.20-1	5.89 0	-1.66 0	-7.11 0
1.47086	3.46404	4.40	10.00	-4.86-1	5.40 0	-1.51 0	-6.50 0
1.44371	3.47291	4.40	9.80	-4.99-1	5.18 0	-1.50 0	-6.25 0
1.41569	3.48237	4.40	9.60	-5.13-1	4.96 0	-1.50 0	-6.01 0
1.47637	3.60173	4.20	9.20	-4.71-1	4.60 0	-1.36 0	-5.56 0
1.44518	3.61272	4.20	9.00	-4.84-1	4.39 0	-1.35 0	-5.33 0
1.41288	3.62448	4.20	8.80	-4.97-1	4.19 0	-1.34 0	-5.10 0
1.47531	3.75776	4.00	8.40	-4.55-1	3.86 0	-1.22 0	-4.68 0
1.43895	3.77159	4.00	8.20	-4.67-1	3.67 0	-1.21 0	-4.47 0
1.40112	3.78646	4.00	8.00	-4.79-1	3.48 0	-1.20 0	-4.26 0
1.47131	3.84403	3.90	8.00	-4.46-1	3.51 0	-1.15 0	-4.26 0
1.43179	3.85966	3.90	7.80	-4.58-1	3.33 0	-1.14 0	-4.06 0
1.46424	3.93675	3.80	7.60	-4.37-1	3.17 0	-1.08 0	-3.87 0
1.42106	3.95450	3.80	7.40	-4.48-1	3.00 0	-1.07 0	-3.67 0
1.45335	4.03680	3.70	7.20	-4.27-1	2.85 0	-1.01 0	-3.49 0
1.40591	4.05709	3.70	7.00	-4.38-1	2.68 0	-1.01 0	-3.30 0
1.43768	4.14528	3.60	6.80	-4.17-1	2.54 0	-9.52-1	-3.12 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.47138	4.23867	3.50	6.60	-3.96-1	2.41 0	-8.97-1	-2.95 0
1.41600	4.26351	3.50	6.40	-4.06-1	2.25 0	-8.92-1	-2.78 0
1.44859	4.36425	3.40	6.20	-3.85-1	2.12 0	-8.38-1	-2.61 0
1.41739	4.50240	3.30	5.80	-3.74-1	1.85 0	-7.82-1	-2.29 0
1.44991	4.61894	3.20	5.60	-3.54-1	1.73 0	-7.32-1	-2.14 0
1.40449	4.78319	3.10	5.20	-3.43-1	1.49 0	-6.79-1	-1.85 0
1.43515	4.92014	3.00	5.00	-3.22-1	1.38 0	-6.33-1	-1.71 0
1.46738	5.06757	2.90	4.80	-3.03-1	1.27 0	-5.88-1	-1.58 0
1.41883	5.46244	2.70	4.20	-2.72-1	9.64-1	-5.00-1	-1.21 0
1.44490	5.65687	2.60	4.00	-2.53-1	8.73-1	-4.60-1	-1.10 0
1.47092	5.86975	2.50	3.80	-2.35-1	7.86-1	-4.21-1	-9.88-1
1.41101	6.15267	2.40	3.50	-2.21-1	6.59-1	-3.83-1	-8.34-1
1.42493	6.41840	2.30	3.30	-2.03-1	5.82-1	-3.48-1	-7.39-1
1.43448	6.71488	2.20	3.10	-1.86-1	5.10-1	-3.15-1	-6.48-1
1.43753	7.04812	2.10	2.90	-1.70-1	4.42-1	-2.83-1	-5.63-1
1.43092	7.42590	2.00	2.70	-1.54-1	3.78-1	-2.53-1	-4.84-1
1.42259	7.63458	1.95	2.60	-1.47-1	3.47-1	-2.39-1	-4.46-1
1.40991	7.85848	1.90	2.50	-1.39-1	3.18-1	-2.25-1	-4.10-1
1.46457	9.45956	1.60	2.00	-9.56-2	1.92-1	-1.50-1	-2.51-1
1.41025	9.84104	1.55	1.90	-8.94-2	1.70-1	-1.39-1	-2.23-1
1.43988	10.6027	1.45	1.75	-7.66-2	1.40-1	-1.18-1	-1.85-1
1.45552	11.5163	1.35	1.60	-6.47-2	1.13-1	-9.92-2	-1.50-1
1.44407	12.6336	1.25	1.45	-5.38-2	8.86-2	-8.19-2	-1.18-1
1.40368	18.6701	0.92	1.00	-2.43-2	3.33-2	-3.69-2	-4.65-2
1.48	1.56						
1.48487	1.91221	14.00	87.00	2.30 1	2.53 2	-3.89 1	-2.88 2
1.49700	1.91944	14.00	88.00	2.37 1	2.58 2	-3.96 1	-2.93 2
1.48239	1.92444	13.50	83.00	1.96 1	2.35 2	-3.44 1	-2.67 2
1.50917	1.92678	14.00	89.00	2.44 1	2.63 2	-4.03 1	-2.98 2
1.49454	1.93143	13.50	84.00	2.03 1	2.40 2	-3.50 1	-2.72 2
1.52139	1.93424	14.00	90.00	2.52 1	2.68 2	-4.10 1	-3.03 2
1.50671	1.93852	13.50	85.00	2.09 1	2.45 2	-3.56 1	-2.77 2
1.48211	1.93975	13.00	79.00	1.67 1	2.18 2	-3.04 1	-2.47 2
1.51891	1.94572	13.50	86.00	2.15 1	2.50 2	-3.62 1	-2.82 2
1.49436	1.94653	13.00	80.00	1.73 1	2.22 2	-3.10 1	-2.52 2
1.53115	1.95303	13.50	87.00	2.22 1	2.54 2	-3.69 1	-2.88 2
1.50661	1.95340	13.00	81.00	1.78 1	2.27 2	-3.15 1	-2.57 2
1.48398	1.95824	12.50	75.00	1.42 1	2.00 2	-2.69 1	-2.28 2
1.51888	1.96038	13.00	82.00	1.83 1	2.32 2	-3.20 1	-2.62 2
1.54342	1.96045	13.50	88.00	2.28 1	2.59 2	-3.75 1	-2.93 2
1.49641	1.96484	12.50	76.00	1.46 1	2.05 2	-2.74 1	-2.33 2
1.53115	1.96746	13.00	83.00	1.89 1	2.37 2	-3.26 1	-2.67 2
1.55574	1.96798	13.50	89.00	2.35 1	2.64 2	-3.82 1	-2.98 2
1.50883	1.97153	12.50	77.00	1.51 1	2.10 2	-2.78 1	-2.38 2
1.54345	1.97464	13.00	84.00	1.95 1	2.41 2	-3.32 1	-2.72 2
1.52124	1.97832	12.50	78.00	1.56 1	2.14 2	-2.83 1	-2.43 2
1.48798	1.98008	12.00	71.00	1.20 1	1.84 2	-2.38 1	-2.09 2
1.55577	1.98193	13.00	85.00	2.01 1	2.46 2	-3.37 1	-2.77 2
1.53364	1.98521	12.50	79.00	1.61 1	2.19 2	-2.88 1	-2.47 2
1.50069	1.98653	12.00	72.00	1.24 1	1.88 2	-2.41 1	-2.14 2
1.54604	1.99219	12.50	80.00	1.66 1	2.24 2	-2.93 1	-2.52 2
1.51335	1.99307	12.00	73.00	1.28 1	1.93 2	-2.46 1	-2.18 2
1.55845	1.99928	12.50	81.00	1.71 1	2.28 2	-2.98 1	-2.57 2
1.48097	1.99929	11.50	66.00	9.67 0	1.63 2	-2.06 1	-1.86 2
1.52599	1.99971	12.00	74.00	1.32 1	1.97 2	-2.50 1	-2.23 2
1.49411	2.00552	11.50	67.00	1.00 1	1.68 2	-2.09 1	-1.90 2
1.53860	2.00644	12.00	75.00	1.36 1	2.02 2	-2.54 1	-2.28 2
1.50718	2.01184	11.50	68.00	1.04 1	1.72 2	-2.13 1	-1.95 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.55120	2.01326	12.00	76.00	1.41 1	2.07 2	-2.58 1	-2.33 2
1.52020	2.01826	11.50	69.00	1.08 1	1.76 2	-2.16 1	-2.00 2
1.53316	2.02477	11.50	70.00	1.11 1	1.81 2	-2.20 1	-2.04 2
1.48871	2.02874	11.00	62.00	8.02 0	1.47 2	-1.81 1	-1.68 2
1.54607	2.03136	11.50	71.00	1.15 1	1.85 2	-2.24 1	-2.09 2
1.50236	2.03487	11.00	63.00	8.34 0	1.52 2	-1.84 1	-1.72 2
1.55895	2.03805	11.50	72.00	1.19 1	1.90 2	-2.27 1	-2.14 2
1.51592	2.04108	11.00	64.00	8.66 0	1.56 2	-1.87 1	-1.77 2
1.52939	2.04739	11.00	65.00	8.99 0	1.60 2	-1.90 1	-1.81 2
1.54279	2.05379	11.00	66.00	9.32 0	1.65 2	-1.93 1	-1.86 2
1.48403	2.05656	10.50	57.00	6.31 0	1.28 2	-1.56 1	-1.46 2
1.55611	2.06028	11.00	67.00	9.66 0	1.69 2	-1.96 1	-1.91 2
1.49846	2.06248	10.50	58.00	6.59 0	1.32 2	-1.58 1	-1.50 2
1.51276	2.06851	10.50	59.00	6.87 0	1.36 2	-1.61 1	-1.55 2
1.52694	2.07463	10.50	60.00	7.16 0	1.40 2	-1.64 1	-1.59 2
1.54099	2.08085	10.50	61.00	7.45 0	1.45 2	-1.66 1	-1.64 2
1.55495	2.08716	10.50	62.00	7.74 0	1.49 2	-1.69 1	-1.68 2
1.49490	2.09519	10.00	53.00	5.09 0	1.14 2	-1.36 1	-1.29 2
1.51020	2.10102	10.00	54.00	5.34 0	1.17 2	-1.38 1	-1.34 2
1.52532	2.10695	10.00	55.00	5.59 0	1.21 2	-1.40 1	-1.38 2
1.49341	2.10985	9.80	51.00	4.56 0	1.06 2	-1.27 1	-1.21 2
1.54027	2.11299	10.00	56.00	5.85 0	1.25 2	-1.43 1	-1.42 2
1.50919	2.11558	9.80	52.00	4.79 0	1.10 2	-1.30 1	-1.25 2
1.55507	2.11913	10.00	57.00	6.10 0	1.29 2	-1.45 1	-1.44 2
1.52477	2.12143	9.80	53.00	5.03 0	1.14 2	-1.32 1	-1.30 2
1.49179	2.12548	9.60	49.00	4.05 0	9.92 1	-1.20 1	-1.13 2
1.54016	2.12739	9.80	54.00	5.27 0	1.18 2	-1.34 1	-1.34 2
1.50811	2.13112	9.60	50.00	4.28 0	1.03 2	-1.22 1	-1.17 2
1.55537	2.13346	9.80	55.00	5.52 0	1.22 2	-1.36 1	-1.38 2
1.52420	2.13688	9.60	51.00	4.51 0	1.07 2	-1.24 1	-1.21 2
1.48995	2.14216	9.40	47.00	3.58 0	9.24 1	-1.12 1	-1.06 2
1.54008	2.14276	9.60	52.00	4.74 0	1.11 2	-1.26 1	-1.26 2
1.50688	2.14768	9.40	48.00	3.80 0	9.60 1	-1.14 1	-1.10 2
1.55575	2.14875	9.60	53.00	4.97 0	1.15 2	-1.28 1	-1.30 2
1.52355	2.15335	9.40	49.00	4.01 0	9.97 1	-1.16 1	-1.13 2
1.53998	2.15914	9.40	50.00	4.23 0	1.03 2	-1.18 1	-1.18 2
1.48781	2.15995	9.20	45.00	3.14 0	8.56 1	-1.05 1	-9.80 1
1.55617	2.16505	9.40	51.00	4.46 0	1.07 2	-1.20 1	-1.22 2
1.50543	2.16535	9.20	46.00	3.35 0	8.92 1	-1.07 1	-1.02 2
1.52275	2.17090	9.20	47.00	3.55 0	9.28 1	-1.09 1	-1.06 2
1.53979	2.17659	9.20	48.00	3.76 0	9.65 1	-1.10 1	-1.10 2
1.48526	2.17894	9.00	43.00	2.73 0	7.91 1	-9.80 0	-9.06 1
1.55657	2.18242	9.20	49.00	3.97 0	1.00 2	-1.12 1	-1.14 2
1.50366	2.18420	9.00	44.00	2.93 0	8.26 1	-9.98 0	-9.44 1
1.52171	2.18962	9.00	45.00	3.12 0	8.61 1	-1.02 1	-9.81 1
1.53944	2.19520	9.00	46.00	3.32 0	8.97 1	-1.03 1	-1.02 2
1.48217	2.19923	8.80	41.00	2.35 0	7.27 1	-9.15 0	-8.35 1
1.55688	2.20092	9.00	47.00	3.52 0	9.33 1	-1.05 1	-1.06 2
1.50144	2.20432	8.80	42.00	2.53 0	7.61 1	-9.31 0	-8.71 1
1.52033	2.20960	8.80	43.00	2.72 0	7.95 1	-9.48 0	-9.08 1
1.53884	2.21504	8.80	44.00	2.91 0	8.30 1	-9.65 0	-9.45 1
1.55701	2.22064	8.80	45.00	3.10 0	8.65 1	-9.82 0	-9.83 1
1.49865	2.22584	8.60	40.00	2.16 0	6.98 1	-8.68 0	-8.00 1
1.51847	2.23093	8.60	41.00	2.34 0	7.31 1	-8.84 0	-8.36 1
1.53787	2.23621	8.60	42.00	2.52 0	7.65 1	-9.00 0	-8.72 1
1.55688	2.24168	8.60	43.00	2.70 0	7.99 1	-9.17 0	-9.09 1
1.49509	2.24887	8.40	38.00	1.82 0	6.38 1	-8.08 0	-7.32 1
1.51599	2.25374	8.40	39.00	1.99 0	6.70 1	-8.23 0	-7.66 1
1.53640	2.25884	8.40	40.00	2.16 0	7.02 1	-8.39 0	-8.02 1
1.55635	2.26414	8.40	41.00	2.33 0	7.35 1	-8.54 0	-8.37 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.49057	2.27357	8.20	36.00	1.50 0	5.79 1	-7.51 0	-6.66 1
1.51269	2.27818	8.20	37.00	1.66 0	6.10 1	-7.65 0	-6.99 1
1.53425	2.28305	8.20	38.00	1.83 0	6.41 1	-7.80 0	-7.33 1
1.55529	2.28815	8.20	39.00	1.99 0	6.73 1	-7.94 0	-7.68 1
1.48480	2.30015	8.00	34.00	1.20 0	5.22 1	-6.97 0	-6.02 1
1.50834	2.30443	8.00	35.00	1.36 0	5.52 1	-7.10 0	-6.34 1
1.53123	2.30900	8.00	36.00	1.51 0	5.82 1	-7.24 0	-6.67 1
1.55350	2.31385	8.00	37.00	1.67 0	6.13 1	-7.38 0	-7.00 1
1.50265	2.33268	7.80	33.00	1.07 0	4.97 1	-6.58 0	-5.72 1
1.52706	2.33690	7.80	34.00	1.22 0	5.26 1	-6.71 0	-6.09 1
1.55077	2.34144	7.80	35.00	1.37 0	5.56 1	-6.84 0	-6.35 1
1.49522	2.36320	7.60	31.00	8.11-1	4.43 1	-6.08 0	-5.12 1
1.52143	2.36697	7.60	32.00	9.53-1	4.71 1	-6.20 0	-5.42 1
1.54679	2.37112	7.60	33.00	1.10 0	5.00 1	-6.32 0	-5.73 1
1.48559	2.39633	7.40	29.00	5.69-1	3.93 1	-5.61 0	-4.55 1
1.51391	2.39951	7.40	30.00	7.04-1	4.19 1	-5.72 0	-4.83 1
1.54122	2.40315	7.40	31.00	8.41-1	4.46 1	-5.84 0	-5.13 1
1.50395	2.43489	7.20	28.00	4.74-1	3.70 1	-5.27 0	-4.27 1
1.53358	2.43789	7.20	29.00	6.04-1	3.95 1	-5.38 0	-4.55 1
1.49085	2.47358	7.00	26.00	2.63-1	3.22 1	-4.84 0	-3.74 1
1.52324	2.47573	7.00	27.00	3.87-1	3.47 1	-4.94 0	-4.01 1
1.55429	2.47852	7.00	28.00	5.11-1	3.72 1	-5.04 0	-4.28 1
1.50940	2.51723	6.80	25.00	1.87-1	3.01 1	-4.52 0	-3.49 1
1.54350	2.51906	6.80	26.00	3.06-1	3.25 1	-4.62 0	-3.75 1
1.49094	2.56311	6.60	23.00	4.09-3	2.58 1	-4.13 0	-3.00 1
1.52879	2.56366	6.60	24.00	1.18-1	2.80 1	-4.22 0	-3.25 1
1.54907	2.61314	6.40	23.00	5.42-2	2.60 1	-3.93 0	-3.01 1
1.50888	2.61315	6.40	22.00	-5.44-2	2.38 1	-3.85 0	-2.77 1
1.52744	2.66667	6.20	21.00	-1.07-1	2.19 1	-3.57 0	-2.55 1
1.48196	2.66872	6.20	20.00	-2.11-1	1.99 1	-3.49 0	-2.33 1
1.54659	2.72405	6.00	20.00	-1.54-1	2.01 1	-3.31 0	-2.34 1
1.52258	2.72536	6.00	19.50	-2.04-1	1.91 1	-3.27 0	-2.23 1
1.49776	2.72710	6.00	19.00	-2.53-1	1.81 1	-3.24 0	-2.13 1
1.54042	2.78763	5.80	18.50	-2.43-1	1.74 1	-3.03 0	-2.03 1
1.51361	2.79001	5.80	18.00	-2.90-1	1.64 1	-2.99 0	-1.93 1
1.48580	2.79296	5.80	17.50	-3.38-1	1.55 1	-2.95 0	-1.83 1
1.55843	2.85489	5.60	17.50	-2.77-1	1.57 1	-2.79 0	-1.83 1
1.52933	2.85804	5.60	17.00	-3.23-1	1.48 1	-2.75 0	-1.74 1
1.49905	2.86186	5.60	16.50	-3.68-1	1.40 1	-2.72 0	-1.64 1
1.54465	2.93190	5.40	16.00	-3.50-1	1.33 1	-2.53 0	-1.56 1
1.51148	2.93680	5.40	15.50	-3.93-1	1.24 1	-2.50 0	-1.47 1
1.55920	3.01244	5.20	15.00	-3.72-1	1.18 1	-2.31 0	-1.38 1
1.52260	3.01870	5.20	14.50	-4.13-1	1.10 1	-2.28 0	-1.30 1
1.48417	3.02605	5.20	14.00	-4.54-1	1.02 1	-2.25 0	-1.22 1
1.53173	3.10870	5.00	13.50	-4.29-1	9.62 0	-2.08 0	-1.14 1
1.48878	3.11802	5.00	13.00	-4.68-1	8.91 0	-2.05 0	-1.06 1
1.53790	3.20826	4.80	12.50	-4.41-1	8.32 0	-1.89 0	-9.87 0
1.48940	3.22014	4.80	12.00	-4.78-1	7.66 0	-1.86 0	-9.14 0
1.53973	3.31926	4.60	11.50	-4.48-1	7.10 0	-1.71 0	-8.45 0
1.48429	3.33453	4.60	11.00	-4.84-1	6.49 0	-1.68 0	-7.77 0
1.53518	3.44422	4.40	10.50	-4.52-1	5.97 0	-1.53 0	-7.13 0
1.53563	3.58184	4.20	9.60	-4.46-1	5.02 0	-1.38 0	-6.03 0
1.50649	3.59145	4.20	9.40	-4.59-1	4.81 0	-1.37 0	-5.79 0
1.54400	3.73286	4.00	8.80	-4.31-1	4.25 0	-1.23 0	-5.12 0
1.51030	3.74487	4.00	8.60	-4.43-1	4.05 0	-1.22 0	-4.89 0
1.54571	3.81599	3.90	8.40	-4.22-1	3.89 0	-1.16 0	-4.68 0
1.50924	3.82950	3.90	8.20	-4.34-1	3.69 0	-1.15 0	-4.47 0
1.54521	3.90502	3.80	8.00	-4.14-1	3.53 0	-1.09 0	-4.27 0
1.50557	3.92029	3.80	7.80	-4.25-1	3.35 0	-1.09 0	-4.07 0
1.54193	4.00070	3.70	7.60	-4.05-1	3.20 0	-1.03 0	-3.87 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.49863	4.01805	3.70	7.40	-4.16-1	3.02 0	-1.02 0	-3.68 0
1.53516	4.10394	3.60	7.20	-3.95-1	2.87 0	-9.64-1	-3.49 0
1.48759	4.12378	3.60	7.00	-4.06-1	2.71 0	-9.58-1	-3.30 0
1.52398	4.21584	3.50	6.80	-3.85-1	2.57 0	-9.03-1	-3.13 0
1.50718	4.33776	3.40	6.40	-3.75-1	2.27 0	-8.44-1	-2.78 0
1.54530	4.44310	3.30	6.20	-3.55-1	2.14 0	-7.92-1	-2.62 0
1.48319	4.47140	3.30	6.00	-3.65-1	1.99 0	-7.87-1	-2.45 0
1.51999	4.58563	3.20	5.80	-3.44-1	1.87 0	-7.37-1	-2.30 0
1.55919	4.70769	3.10	5.60	-3.24-1	1.75 0	-6.88-1	-2.15 0
1.48437	4.74356	3.10	5.40	-3.33-1	1.62 0	-6.84-1	-2.00 0
1.52095	4.87717	3.00	5.20	-3.13-1	1.50 0	-6.37-1	-1.85 0
1.55982	5.02082	2.90	5.00	-2.94-1	1.39 0	-5.92-1	-1.72 0
1.50126	5.22677	2.80	4.60	-2.83-1	1.17 0	-5.45-1	-1.45 0
1.53685	5.39927	2.70	4.40	-2.64-1	1.07 0	-5.03-1	-1.33 0
1.54387	5.82943	2.50	3.90	-2.31-1	8.34-1	-4.23-1	-1.04 0
1.49644	6.10395	2.40	3.60	-2.17-1	7.03-1	-3.84-1	-8.85-1
1.52077	6.36301	2.30	3.40	-2.00-1	6.24-1	-3.49-1	-7.87-1
1.54293	6.65135	2.20	3.20	-1.83-1	5.49-1	-3.16-1	-6.94-1
1.55366	8.50406	1.75	2.30	-1.15-1	2.66-1	-1.86-1	-3.42-1
1.53354	8.79539	1.70	2.20	-1.08-1	2.40-1	-1.73-1	-3.10-1
1.50463	9.11260	1.65	2.10	-1.02-1	2.16-1	-1.61-1	-2.80-1
1.51226	10.1500	1.50	1.85	-8.23-2	1.61-1	-1.28-1	-2.10-1
1.55476	10.9700	1.40	1.70	-7.00-2	1.32-1	-1.09-1	-1.73-1
1.53812	14.7279	1.10	1.25	-3.88-2	6.09-2	-5.91-2	-8.24-2
1.48836	19.1721	0.90	0.98	-2.28-2	3.16-2	-3.48-2	-4.41-2
1.48254	21.7859	0.82	0.88	-1.76-2	2.33-2	-2.70-2	-3.31-2
1.48483	26.2291	0.72	0.76	-1.20-2	1.51-2	-1.88-2	-2.21-2
1.50638	36.4372	0.58	0.60	-6.12-3	7.19-3	-1.01-2	-1.12-2
1.56	1.64						
1.56810	1.97563	13.50	90.00	2.42 1	2.69 2	-3.89 1	-3.03 2
1.56812	1.98933	13.00	86.00	2.07 1	2.51 2	-3.43 1	-2.82 2
1.58051	1.99684	13.00	87.00	2.13 1	2.56 2	-3.49 1	-2.87 2
1.59294	2.00446	13.00	88.00	2.19 1	2.61 2	-3.56 1	-2.93 2
1.57087	2.00647	12.50	82.00	1.76 1	2.33 2	-3.03 1	-2.62 2
1.60541	2.01219	13.00	89.00	2.26 1	2.66 2	-3.62 1	-2.98 2
1.58331	2.01375	12.50	83.00	1.82 1	2.38 2	-3.08 1	-2.67 2
1.61793	2.02004	13.00	90.00	2.32 1	2.71 2	-3.69 1	-3.03 2
1.56378	2.02017	12.00	77.00	1.45 1	2.11 2	-2.63 1	-2.38 2
1.59576	2.02115	12.50	84.00	1.87 1	2.43 2	-3.14 1	-2.72 2
1.57635	2.02718	12.00	78.00	1.50 1	2.16 2	-2.67 1	-2.43 2
1.60825	2.02864	12.50	85.00	1.93 1	2.48 2	-3.19 1	-2.77 2
1.58892	2.03429	12.00	79.00	1.55 1	2.21 2	-2.72 1	-2.48 2
1.62076	2.03625	12.50	86.00	1.99 1	2.52 2	-3.25 1	-2.82 2
1.60149	2.04150	12.00	80.00	1.59 1	2.25 2	-2.76 1	-2.53 2
1.63331	2.04397	12.50	87.00	2.04 1	2.57 2	-3.30 1	-2.87 2
1.57179	2.04483	11.50	73.00	1.23 1	1.94 2	-2.31 1	-2.19 2
1.61406	2.04881	12.00	81.00	1.64 1	2.30 2	-2.81 1	-2.58 2
1.58460	2.05170	11.50	74.00	1.27 1	1.99 2	-2.35 1	-2.24 2
1.62665	2.05622	12.00	82.00	1.69 1	2.35 2	-2.86 1	-2.62 2
1.59739	2.05867	11.50	75.00	1.31 1	2.04 2	-2.39 1	-2.28 2
1.63926	2.06373	12.00	83.00	1.74 1	2.40 2	-2.91 1	-2.67 2
1.61016	2.06572	11.50	76.00	1.35 1	2.08 2	-2.43 1	-2.33 2
1.56937	2.06686	11.00	68.00	1.00 1	1.73 2	-2.00 1	-1.95 2
1.62292	2.07287	11.50	77.00	1.40 1	2.13 2	-2.47 1	-2.38 2
1.58257	2.07353	11.00	69.00	1.04 1	1.78 2	-2.03 1	-2.00 2
1.63567	2.08012	11.50	78.00	1.44 1	2.18 2	-2.51 1	-2.43 2
1.59572	2.08029	11.00	70.00	1.07 1	1.82 2	-2.06 1	-2.05 2
1.60883	2.08714	11.00	71.00	1.11 1	1.87 2	-2.10 1	-2.10 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.56880	2.09357	10.50	63.00	8.04 0	1.53 2	-1.72 1	-1.73 2
1.62189	2.09408	11.00	72.00	1.14 1	1.91 2	-2.13 1	-2.14 2
1.58256	2.10007	10.50	64.00	8.34 0	1.57 2	-1.75 1	-1.77 2
1.63492	2.10112	11.00	73.00	1.18 1	1.96 2	-2.17 1	-2.19 2
1.59623	2.10665	10.50	65.00	8.65 0	1.62 2	-1.78 1	-1.82 2
1.60983	2.11333	10.50	66.00	8.96 0	1.66 2	-1.81 1	-1.86 2
1.62335	2.12010	10.50	67.00	9.28 0	1.71 2	-1.84 1	-1.91 2
1.56972	2.12537	10.00	58.00	6.37 0	1.34 2	-1.48 1	-1.51 2
1.63681	2.12695	10.50	68.00	9.60 0	1.75 2	-1.87 1	-1.96 2
1.58424	2.13171	10.00	59.00	6.63 0	1.38 2	-1.50 1	-1.55 2
1.59864	2.13814	10.00	60.00	6.90 0	1.42 2	-1.53 1	-1.60 2
1.57042	2.13964	9.80	56.00	5.77 0	1.26 2	-1.39 1	-1.42 2
1.61292	2.14466	10.00	61.00	7.17 0	1.46 2	-1.55 1	-1.64 2
1.58531	2.14591	9.80	57.00	6.02 0	1.30 2	-1.41 1	-1.47 2
1.62709	2.15128	10.00	62.00	7.45 0	1.50 2	-1.58 1	-1.69 2
1.60006	2.15228	9.80	58.00	6.27 0	1.34 2	-1.43 1	-1.51 2
1.57124	2.15486	9.60	54.00	5.21 0	1.18 2	-1.30 1	-1.34 2
1.61467	2.15875	9.80	59.00	6.53 0	1.38 2	-1.46 1	-1.55 2
1.58655	2.16106	9.60	55.00	5.45 0	1.22 2	-1.32 1	-1.38 2
1.62916	2.16531	9.80	60.00	6.79 0	1.42 2	-1.48 1	-1.60 2
1.60170	2.16738	9.60	56.00	5.69 0	1.27 2	-1.35 1	-1.42 2
1.57215	2.17108	9.40	52.00	4.68 0	1.11 2	-1.22 1	-1.26 2
1.61669	2.17379	9.60	57.00	5.93 0	1.31 2	-1.37 1	-1.47 2
1.58793	2.17722	9.40	53.00	4.91 0	1.15 2	-1.24 1	-1.30 2
1.63153	2.18030	9.60	58.00	6.18 0	1.35 2	-1.39 1	-1.51 2
1.60352	2.18347	9.40	54.00	5.14 0	1.19 2	-1.26 1	-1.34 2
1.57310	2.18836	9.20	50.00	4.19 0	1.04 2	-1.14 1	-1.18 2
1.61893	2.18982	9.40	55.00	5.37 0	1.23 2	-1.28 1	-1.38 2
1.58941	2.19443	9.20	51.00	4.40 0	1.08 2	-1.16 1	-1.22 2
1.63418	2.19628	9.40	56.00	5.60 0	1.27 2	-1.31 1	-1.43 2
1.60549	2.20061	9.20	52.00	4.62 0	1.12 2	-1.18 1	-1.26 2
1.57403	2.20678	9.00	48.00	3.72 0	9.70 1	-1.07 1	-1.10 2
1.62138	2.20691	9.20	53.00	4.84 0	1.16 2	-1.20 1	-1.30 2
1.59092	2.21276	9.00	49.00	3.93 0	1.01 2	-1.09 1	-1.14 2
1.63707	2.21330	9.20	54.00	5.06 0	1.20 2	-1.22 1	-1.34 2
1.60757	2.21887	9.00	50.00	4.14 0	1.05 2	-1.11 1	-1.18 2
1.62398	2.22510	9.00	51.00	4.35 0	1.08 2	-1.13 1	-1.22 2
1.57487	2.22640	8.80	46.00	3.29 0	9.01 1	-1.00 1	-1.02 2
1.59242	2.23229	8.80	47.00	3.49 0	9.38 1	-1.02 1	-1.06 2
1.60969	2.23832	8.80	48.00	3.68 0	9.75 1	-1.04 1	-1.10 2
1.62670	2.24448	8.80	49.00	3.88 0	1.01 2	-1.05 1	-1.14 2
1.57552	2.24731	8.60	44.00	2.89 0	8.34 1	-9.33 0	-9.46 1
1.59382	2.25310	8.60	45.00	3.07 0	8.70 1	-9.50 0	-9.84 1
1.61179	2.25904	8.60	46.00	3.26 0	9.06 1	-9.67 0	-1.02 2
1.62947	2.26512	8.60	47.00	3.45 0	9.43 1	-9.84 0	-1.06 2
1.57589	2.26963	8.40	42.00	2.51 0	7.69 1	-8.70 0	-8.74 1
1.59502	2.27529	8.40	43.00	2.69 0	8.04 1	-8.85 0	-9.11 1
1.61380	2.28112	8.40	44.00	2.86 0	8.39 1	-9.01 0	-9.48 1
1.63222	2.28710	8.40	45.00	3.04 0	8.75 1	-9.18 0	-9.86 1
1.57584	2.29346	8.20	40.00	2.16 0	7.06 1	-8.09 0	-8.03 1
1.59593	2.29897	8.20	41.00	2.32 0	7.40 1	-8.24 0	-8.39 1
1.61560	2.30467	8.20	42.00	2.49 0	7.74 1	-8.39 0	-8.75 1
1.63488	2.31054	8.20	43.00	2.67 0	8.08 1	-8.55 0	-9.12 1
1.57521	2.31895	8.00	38.00	1.83 0	6.45 1	-7.52 0	-7.34 1
1.59639	2.32428	8.00	39.00	1.99 0	6.77 1	-7.66 0	-7.69 1
1.61709	2.32982	8.00	40.00	2.15 0	7.10 1	-7.80 0	-8.04 1
1.63733	2.33555	8.00	41.00	2.31 0	7.44 1	-7.95 0	-8.40 1
1.57381	2.34627	7.80	36.00	1.52 0	5.86 1	-6.97 0	-6.68 1
1.59624	2.35137	7.80	37.00	1.68 0	6.17 1	-7.10 0	-7.02 1
1.61811	2.35671	7.80	38.00	1.83 0	6.49 1	-7.24 0	-7.36 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.63945	2.36228	7.80	39.00	1.98 0	6.81 1	-7.37 0	-7.71 1
1.57138	2.37561	7.60	34.00	1.24 0	5.29 1	-6.45 0	-6.04 1
1.59526	2.38042	7.60	35.00	1.39 0	5.59 1	-6.57 0	-6.37 1
1.61847	2.38552	7.60	36.00	1.53 0	5.90 1	-6.70 0	-6.70 1
1.56761	2.40722	7.40	32.00	9.78-1	4.74 1	-5.95 0	-5.43 1
1.59316	2.41167	7.40	33.00	1.12 0	5.03 1	-6.07 0	-5.74 1
1.61793	2.41645	7.40	34.00	1.25 0	5.33 1	-6.19 0	-6.06 1
1.56209	2.44140	7.20	30.00	7.35-1	4.22 1	-5.49 0	-4.84 1
1.58960	2.44537	7.20	31.00	8.67-1	4.49 1	-5.60 0	-5.14 1
1.61619	2.44975	7.20	32.00	9.99-1	4.78 1	-5.71 0	-5.44 1
1.58412	2.48188	7.00	29.00	6.37-1	3.98 1	-5.15 0	-4.56 1
1.61285	2.48574	7.00	30.00	7.63-1	4.25 1	-5.25 0	-4.85 1
1.57612	2.52161	6.80	27.00	4.25-1	3.49 1	-4.72 0	-4.02 1
1.60740	2.52479	6.80	28.00	5.45-1	3.75 1	-4.82 0	-4.29 1
1.63745	2.52852	6.80	29.00	6.66-1	4.01 1	-4.92 0	-4.57 1
1.56480	2.56512	6.60	25.00	2.31-1	3.03 1	-4.32 0	-3.50 1
1.59915	2.56739	6.60	26.00	3.46-1	3.27 1	-4.41 0	-3.76 1
1.63201	2.57036	6.60	27.00	4.61-1	3.52 1	-4.51 0	-4.03 1
1.58720	2.61418	6.40	24.00	1.63-1	2.82 1	-4.02 0	-3.25 1
1.62347	2.61612	6.40	25.00	2.73-1	3.06 1	-4.11 0	-3.51 1
1.57027	2.66601	6.20	22.00	-3.13-3	2.40 1	-3.66 0	-2.78 1
1.61075	2.66654	6.20	23.00	1.01-1	2.62 1	-3.74 0	-3.02 1
1.63554	2.72255	6.00	22.00	4.48-2	2.42 1	-3.47 0	-2.79 1
1.59240	2.72262	6.00	21.00	-5.48-2	2.21 1	-3.39 0	-2.56 1
1.61548	2.78340	5.80	20.00	-1.01-1	2.03 1	-3.14 0	-2.34 1
1.59129	2.78437	5.80	19.50	-1.48-1	1.93 1	-3.10 0	-2.24 1
1.56629	2.78577	5.80	19.00	-1.96-1	1.83 1	-3.06 0	-2.13 1
1.63951	2.84886	5.60	19.00	-1.42-1	1.85 1	-2.89 0	-2.14 1
1.61344	2.85035	5.60	18.50	-1.87-1	1.75 1	-2.86 0	-2.03 1
1.58644	2.85234	5.60	18.00	-2.32-1	1.66 1	-2.82 0	-1.93 1
1.63624	2.92170	5.40	17.50	-2.20-1	1.58 1	-2.62 0	-1.84 1
1.60692	2.92442	5.40	17.00	-2.64-1	1.50 1	-2.59 0	-1.74 1
1.57643	2.92780	5.40	16.50	-3.07-1	1.41 1	-2.56 0	-1.65 1
1.62754	3.00276	5.20	16.00	-2.90-1	1.34 1	-2.37 0	-1.56 1
1.59413	3.00716	5.20	15.50	-3.31-1	1.26 1	-2.34 0	-1.47 1
1.61114	3.09397	5.00	14.50	-3.51-1	1.11 1	-2.14 0	-1.30 1
1.57244	3.10073	5.00	14.00	-3.90-1	1.03 1	-2.11 0	-1.22 1
1.62688	3.18945	4.80	13.50	-3.66-1	9.72 0	-1.94 0	-1.14 1
1.58363	3.19810	4.80	13.00	-4.04-1	9.01 0	-1.91 0	-1.06 1
1.59168	3.30623	4.60	12.00	-4.13-1	7.75 0	-1.73 0	-9.16 0
1.59498	3.42736	4.40	11.00	-4.19-1	6.57 0	-1.56 0	-7.79 0
1.59115	3.56445	4.20	10.00	-4.20-1	5.47 0	-1.39 0	-6.52 0
1.56383	3.57286	4.20	9.80	-4.33-1	5.24 0	-1.38 0	-6.27 0
1.63821	3.70149	4.00	9.40	-3.95-1	4.88 0	-1.25 0	-5.81 0
1.60788	3.71123	4.00	9.20	-4.07-1	4.66 0	-1.24 0	-5.57 0
1.57650	3.72167	4.00	9.00	-4.19-1	4.46 0	-1.24 0	-5.34 0
1.61462	3.79172	3.90	8.80	-3.99-1	4.28 0	-1.17 0	-5.12 0
1.58081	3.80342	3.90	8.60	-4.11-1	4.08 0	-1.17 0	-4.90 0
1.61985	3.87768	3.80	8.40	-3.91-1	3.91 0	-1.11 0	-4.69 0
1.58327	3.89085	3.80	8.20	-4.02-1	3.72 0	-1.10 0	-4.48 0
1.62316	3.96975	3.70	8.00	-3.83-1	3.56 0	-1.04 0	-4.28 0
1.58340	3.98464	3.70	7.80	-3.94-1	3.38 0	-1.03 0	-4.07 0
1.62402	4.06870	3.60	7.60	-3.74-1	3.22 0	-9.76-1	-3.88 0
1.58059	4.08563	3.60	7.40	-3.84-1	3.05 0	-9.70-1	-3.69 0
1.62175	4.17547	3.50	7.20	-3.65-1	2.90 0	-9.14-1	-3.50 0
1.57403	4.19483	3.50	7.00	-3.75-1	2.73 0	-9.08-1	-3.31 0
1.61548	4.29118	3.40	6.80	-3.55-1	2.59 0	-8.54-1	-3.13 0
1.56272	4.31348	3.40	6.60	-3.65-1	2.43 0	-8.49-1	-2.95 0
1.60406	4.41722	3.30	6.40	-3.45-1	2.29 0	-7.97-1	-2.78 0
1.58597	4.55532	3.20	6.00	-3.35-1	2.01 0	-7.41-1	-2.46 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.62946	4.67514	3.10	5.80	-3.15-1	1.89 0	-6.99-1	-2.30 0
1.60105	4.83842	3.00	5.40	-3.05-1	1.63 0	-6.41-1	-2.00 0
1.60122	5.17571	2.80	4.80	-2.75-1	1.29 0	-5.48-1	-1.58 0
1.57421	5.58688	2.60	4.20	-2.46-1	9.75-1	-4.63-1	-1.21 0
1.61337	5.79176	2.50	4.00	-2.28-1	8.84-1	-4.24-1	-1.10 0
1.57741	6.05866	2.40	3.70	-2.14-1	7.49-1	-3.86-1	-9.37-1
1.61127	6.31176	2.30	3.50	-1.96-1	6.68-1	-3.50-1	-8.36-1
1.56145	6.97449	2.10	3.00	-1.67-1	4.79-1	-2.84-1	-6.06-1
1.57413	7.33953	2.00	2.80	-1.51-1	4.12-1	-2.54-1	-5.24-1
1.57730	7.54054	1.95	2.70	-1.44-1	3.81-1	-2.39-1	-4.85-1
1.57763	7.75572	1.90	2.60	-1.36-1	3.50-1	-2.25-1	-4.47-1
1.57444	7.98669	1.85	2.50	-1.29-1	3.21-1	-2.12-1	-4.11-1
1.56682	8.23538	1.80	2.40	-1.22-1	2.93-1	-1.98-1	-3.76-1
1.56503	9.74204	1.55	1.95	-8.83-2	1.82-1	-1.39-1	-2.37-1
1.62613	10.4829	1.45	1.80	-7.55-2	1.51-1	-1.18-1	-1.97-1
1.58482	11.9604	1.30	1.55	-5.86-2	1.05-1	-9.04-2	-1.39-1
1.58850	13.1819	1.20	1.40	-4.82-2	8.16-2	-7.39-2	-1.09-1
1.58081	19.7040	0.88	0.96	-2.14-2	2.99-2	-3.28-2	-4.18-2
1.58833	22.4837	0.80	0.86	-1.63-2	2.18-2	-2.52-2	-3.11-2
1.61337	27.2562	0.70	0.74	-1.10-2	1.40-2	-1.73-2	-2.05-2
1.64	1.72						
1.64590	2.05180	12.50	88.00	2.10 1	2.62 2	-3.36 1	-2.92 2
1.65853	2.05974	12.50	89.00	2.17 1	2.67 2	-3.42 1	-2.98 2
1.67122	2.06781	12.50	90.00	2.23 1	2.72 2	-3.49 1	-3.03 2
1.65189	2.07134	12.00	84.00	1.80 1	2.44 2	-2.96 1	-2.72 2
1.66454	2.07906	12.00	85.00	1.85 1	2.49 2	-3.01 1	-2.77 2
1.67723	2.08689	12.00	86.00	1.90 1	2.54 2	-3.06 1	-2.82 2
1.64842	2.08747	11.50	79.00	1.48 1	2.22 2	-2.56 1	-2.48 2
1.68995	2.09483	12.00	87.00	1.96 1	2.59 2	-3.12 1	-2.87 2
1.66117	2.09491	11.50	80.00	1.53 1	2.27 2	-2.60 1	-2.53 2
1.67393	2.10245	11.50	81.00	1.57 1	2.32 2	-2.65 1	-2.58 2
1.70272	2.10289	12.00	88.00	2.01 1	2.64 2	-3.18 1	-2.93 2
1.64792	2.10824	11.00	74.00	1.22 1	2.01 2	-2.21 1	-2.24 2
1.68670	2.11010	11.50	82.00	1.62 1	2.36 2	-2.69 1	-2.63 2
1.71553	2.11106	12.00	89.00	2.07 1	2.69 2	-3.23 1	-2.98 2
1.66090	2.11546	11.00	75.00	1.26 1	2.05 2	-2.24 1	-2.29 2
1.69949	2.11784	11.50	83.00	1.67 1	2.41 2	-2.74 1	-2.68 2
1.67386	2.12277	11.00	76.00	1.30 1	2.10 2	-2.28 1	-2.34 2
1.71230	2.12569	11.50	84.00	1.72 1	2.46 2	-2.79 1	-2.73 2
1.68681	2.13017	11.00	77.00	1.34 1	2.14 2	-2.32 1	-2.38 2
1.65022	2.13390	10.50	69.00	9.93 0	1.79 2	-1.90 1	-2.00 2
1.69975	2.13767	11.00	78.00	1.38 1	2.19 2	-2.36 1	-2.43 2
1.66357	2.14093	10.50	70.00	1.03 1	1.84 2	-1.93 1	-2.05 2
1.71269	2.14527	11.00	79.00	1.42 1	2.24 2	-2.40 1	-2.48 2
1.67688	2.14805	10.50	71.00	1.06 1	1.89 2	-1.97 1	-2.10 2
1.69015	2.15527	10.50	72.00	1.09 1	1.93 2	-2.00 1	-2.15 2
1.64116	2.15799	10.00	63.00	7.73 0	1.55 2	-1.61 1	-1.73 2
1.70338	2.16257	10.50	73.00	1.13 1	1.98 2	-2.03 1	-2.19 2
1.65514	2.16479	10.00	64.00	8.02 0	1.59 2	-1.63 1	-1.78 2
1.71659	2.16997	10.50	74.00	1.17 1	2.02 2	-2.07 1	-2.24 2
1.66903	2.17167	10.00	65.00	8.30 0	1.63 2	-1.66 1	-1.82 2
1.64353	2.17197	9.80	61.00	7.06 0	1.47 2	-1.51 1	-1.64 2
1.68285	2.17865	10.00	66.00	8.60 0	1.68 2	-1.69 1	-1.87 2
1.65780	2.17871	9.80	62.00	7.33 0	1.51 2	-1.53 1	-1.69 2
1.67196	2.18555	9.80	63.00	7.60 0	1.55 2	-1.56 1	-1.73 2
1.69660	2.18571	10.00	67.00	8.90 0	1.72 2	-1.72 1	-1.92 2
1.64624	2.18690	9.60	59.00	6.43 0	1.39 2	-1.42 1	-1.56 2
1.68603	2.19247	9.80	64.00	7.88 0	1.60 2	-1.59 1	-1.78 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.71028	2.19286	10.00	68.00	9.20 0	1.77 2	-1.75 1	-1.96 2
1.66083	2.19360	9.60	60.00	6.69 0	1.43 2	-1.44 1	-1.60 2
1.70002	2.19949	9.80	65.00	8.16 0	1.64 2	-1.61 1	-1.82 2
1.67530	2.20038	9.60	61.00	6.95 0	1.47 2	-1.47 1	-1.64 2
1.64927	2.20283	9.40	57.00	5.84 0	1.31 2	-1.33 1	-1.47 2
1.71393	2.20659	9.80	66.00	8.45 0	1.68 2	-1.64 1	-1.87 2
1.68966	2.20726	9.60	62.00	7.21 0	1.52 2	-1.49 1	-1.69 2
1.66422	2.20948	9.40	58.00	6.08 0	1.35 2	-1.35 1	-1.51 2
1.70392	2.21423	9.60	63.00	7.47 0	1.56 2	-1.52 1	-1.74 2
1.67903	2.21622	9.40	59.00	6.33 0	1.40 2	-1.37 1	-1.56 2
1.65259	2.21981	9.20	55.00	5.29 0	1.24 2	-1.25 1	-1.39 2
1.71809	2.22129	9.60	64.00	7.74 0	1.60 2	-1.54 1	-1.78 2
1.69372	2.22306	9.40	60.00	6.58 0	1.44 2	-1.40 1	-1.60 2
1.66794	2.22641	9.20	56.00	5.52 0	1.28 2	-1.27 1	-1.43 2
1.70829	2.22998	9.40	61.00	6.83 0	1.48 2	-1.42 1	-1.65 2
1.64018	2.23144	9.00	52.00	4.56 0	1.12 2	-1.15 1	-1.26 2
1.68314	2.23311	9.20	57.00	5.75 0	1.32 2	-1.29 1	-1.47 2
1.65617	2.23789	9.00	53.00	4.77 0	1.16 2	-1.17 1	-1.30 2
1.69819	2.23990	9.20	58.00	5.99 0	1.36 2	-1.31 1	-1.52 2
1.67198	2.24445	9.00	54.00	4.99 0	1.20 2	-1.19 1	-1.34 2
1.71311	2.24679	9.20	59.00	6.22 0	1.40 2	-1.33 1	-1.56 2
1.64346	2.25076	8.80	50.00	4.08 0	1.05 2	-1.07 1	-1.18 2
1.68761	2.25110	9.00	55.00	5.21 0	1.24 2	-1.21 1	-1.39 2
1.65999	2.25715	8.80	51.00	4.29 0	1.09 2	-1.09 1	-1.22 2
1.70307	2.25786	9.00	56.00	5.43 0	1.28 2	-1.23 1	-1.43 2
1.67630	2.26366	8.80	52.00	4.49 0	1.13 2	-1.11 1	-1.26 2
1.71838	2.26471	9.00	57.00	5.66 0	1.32 2	-1.25 1	-1.47 2
1.69241	2.27027	8.80	53.00	4.70 0	1.17 2	-1.13 1	-1.30 2
1.64686	2.27132	8.60	48.00	3.64 0	9.80 1	-1.00 1	-1.10 2
1.70833	2.27699	8.80	54.00	4.91 0	1.21 2	-1.15 1	-1.35 2
1.66399	2.27766	8.60	49.00	3.83 0	1.02 2	-1.02 1	-1.14 2
1.68087	2.28411	8.60	50.00	4.03 0	1.06 2	-1.04 1	-1.18 2
1.69752	2.29068	8.60	51.00	4.23 0	1.09 2	-1.06 1	-1.22 2
1.65033	2.29323	8.40	46.00	3.23 0	9.11 1	-9.34 0	-1.02 2
1.71396	2.29735	8.60	52.00	4.43 0	1.13 2	-1.07 1	-1.26 2
1.66813	2.29949	8.40	47.00	3.41 0	9.48 1	-9.51 0	-1.06 2
1.68565	2.30589	8.40	48.00	3.59 0	9.85 1	-9.68 0	-1.10 2
1.70291	2.31240	8.40	49.00	3.78 0	1.02 2	-9.85 0	-1.14 2
1.65379	2.31657	8.20	44.00	2.84 0	8.44 1	-8.70 0	-9.50 1
1.71992	2.31904	8.40	50.00	3.97 0	1.06 2	-1.00 1	-1.18 2
1.67235	2.32276	8.20	45.00	3.01 0	8.79 1	-8.86 0	-9.88 1
1.69059	2.32908	8.20	46.00	3.19 0	9.16 1	-9.02 0	-1.03 2
1.70853	2.33554	8.20	47.00	3.37 0	9.53 1	-9.18 0	-1.07 2
1.65715	2.34147	8.00	42.00	2.48 0	7.78 1	-8.09 0	-8.77 1
1.67657	2.34755	8.00	43.00	2.64 0	8.13 1	-8.24 0	-9.14 1
1.69562	2.35380	8.00	44.00	2.81 0	8.48 1	-8.39 0	-9.52 1
1.71433	2.36019	8.00	45.00	2.98 0	8.84 1	-8.55 0	-9.90 1
1.66030	2.36805	7.80	40.00	2.14 0	7.15 1	-7.51 0	-8.06 1
1.68069	2.37402	7.80	41.00	2.30 0	7.48 1	-7.65 0	-8.42 1
1.70066	2.38016	7.80	42.00	2.46 0	7.83 1	-7.80 0	-8.79 1
1.64107	2.39088	7.60	37.00	1.68 0	6.21 1	-6.83 0	-7.03 1
1.66310	2.39647	7.60	38.00	1.83 0	6.53 1	-6.96 0	-7.37 1
1.68460	2.40229	7.60	39.00	1.98 0	6.86 1	-7.10 0	-7.72 1
1.70561	2.40831	7.60	40.00	2.13 0	7.19 1	-7.23 0	-8.08 1
1.64198	2.42154	7.40	35.00	1.39 0	5.63 1	-6.32 0	-6.39 1
1.66537	2.42691	7.40	36.00	1.54 0	5.93 1	-6.44 0	-6.71 1
1.68814	2.43254	7.40	37.00	1.68 0	6.25 1	-6.56 0	-7.05 1
1.71035	2.43840	7.40	38.00	1.82 0	6.57 1	-6.69 0	-7.39 1
1.64192	2.45451	7.20	33.00	1.13 0	5.06 1	-5.83 0	-5.75 1
1.66688	2.45959	7.20	34.00	1.27 0	5.36 1	-5.94 0	-6.07 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.69112	2.46498	7.20	35.00	1.40 0	5.66 1	-6.06 0	-6.39 1
1.71470	2.47064	7.20	36.00	1.54 0	5.97 1	-6.18 0	-6.72 1
1.64056	2.49005	7.00	31.00	8.90-1	4.53 1	-5.36 0	-5.15 1
1.66735	2.49477	7.00	32.00	1.02 0	4.81 1	-5.47 0	-5.45 1
1.69329	2.49984	7.00	33.00	1.15 0	5.10 1	-5.58 0	-5.77 1
1.71845	2.50524	7.00	34.00	1.28 0	5.40 1	-5.70 0	-6.08 1
1.66640	2.53275	6.80	30.00	7.88-1	4.28 1	-5.03 0	-4.86 1
1.69434	2.53742	6.80	31.00	9.10-1	4.56 1	-5.13 0	-5.16 1
1.66353	2.57394	6.60	28.00	5.76-1	3.78 1	-4.60 0	-4.30 1
1.69383	2.57807	6.60	29.00	6.93-1	4.04 1	-4.70 0	-4.59 1
1.65808	2.61884	6.40	26.00	3.83-1	3.30 1	-4.20 0	-3.77 1
1.69121	2.62225	6.40	27.00	4.93-1	3.55 1	-4.30 0	-4.04 1
1.64917	2.66809	6.20	24.00	2.06-1	2.85 1	-3.83 0	-3.26 1
1.68573	2.67052	6.20	25.00	3.11-1	3.08 1	-3.91 0	-3.52 1
1.67635	2.72364	6.00	23.00	1.45-1	2.64 1	-3.55 0	-3.02 1
1.71507	2.72573	6.00	24.00	2.45-1	2.87 1	-3.63 0	-3.27 1
1.66163	2.78261	5.80	21.00	-5.88-3	2.23 1	-3.21 0	-2.56 1
1.70512	2.78316	5.80	22.00	8.94-2	2.44 1	-3.29 0	-2.79 1
1.68908	2.84721	5.60	20.00	-5.11-2	2.04 1	-2.96 0	-2.35 1
1.66470	2.84782	5.60	19.50	-9.64-2	1.94 1	-2.93 0	-2.24 1
1.71795	2.91689	5.40	19.00	-9.12-2	1.86 1	-2.72 0	-2.14 1
1.69167	2.91798	5.40	18.50	-1.34-1	1.77 1	-2.69 0	-2.04 1
1.66446	2.91957	5.40	18.00	-1.77-1	1.68 1	-2.66 0	-1.94 1
1.71984	2.99397	5.20	17.50	-1.67-1	1.60 1	-2.47 0	-1.84 1
1.69029	2.99623	5.20	17.00	-2.08-1	1.51 1	-2.43 0	-1.75 1
1.65956	2.99914	5.20	16.50	-2.49-1	1.42 1	-2.40 0	-1.65 1
1.71688	3.07968	5.00	16.00	-2.34-1	1.35 1	-2.22 0	-1.56 1
1.68320	3.08355	5.00	15.50	-2.73-1	1.27 1	-2.19 0	-1.47 1
1.64801	3.08828	5.00	15.00	-3.12-1	1.19 1	-2.16 0	-1.39 1
1.70689	3.17601	4.80	14.50	-2.92-1	1.12 1	-1.99 0	-1.31 1
1.66789	3.18214	4.80	14.00	-3.29-1	1.05 1	-1.97 0	-1.22 1
1.68658	3.28573	4.60	13.00	-3.43-1	9.11 0	-1.78 0	-1.07 1
1.64051	3.29514	4.60	12.50	-3.78-1	8.42 0	-1.75 0	-9.90 0
1.70312	3.40089	4.40	12.00	-3.52-1	7.84 0	-1.60 0	-9.19 0
1.65080	3.41303	4.40	11.50	-3.85-1	7.19 0	-1.58 0	-8.48 0
1.71613	3.52994	4.20	11.00	-3.57-1	6.65 0	-1.43 0	-7.82 0
1.65590	3.54575	4.20	10.50	-3.89-1	6.04 0	-1.41 0	-7.15 0
1.69594	3.68393	4.00	9.80	-3.71-1	5.31 0	-1.27 0	-6.29 0
1.66754	3.69241	4.00	9.60	-3.83-1	5.09 0	-1.26 0	-6.05 0
1.70916	3.76123	3.90	9.40	-3.64-1	4.91 0	-1.20 0	-5.82 0
1.67872	3.77069	3.90	9.20	-3.76-1	4.70 0	-1.19 0	-5.58 0
1.64723	3.78083	3.90	9.00	-3.87-1	4.49 0	-1.18 0	-5.35 0
1.68900	3.85407	3.80	8.80	-3.69-1	4.31 0	-1.12 0	-5.13 0
1.65507	3.86544	3.80	8.60	-3.80-1	4.11 0	-1.11 0	-4.91 0
1.69806	3.94313	3.70	8.40	-3.61-1	3.94 0	-1.05 0	-4.70 0
1.66135	3.95594	3.70	8.20	-3.72-1	3.75 0	-1.05 0	-4.49 0
1.70552	4.03854	3.60	8.00	-3.53-1	3.59 0	-9.88-1	-4.28 0
1.66562	4.05304	3.60	7.80	-3.63-1	3.40 0	-9.82-1	-4.08 0
1.71091	4.14112	3.50	7.60	-3.44-1	3.25 0	-9.26-1	-3.88 0
1.66732	4.15761	3.50	7.40	-3.54-1	3.07 0	-9.20-1	-3.69 0
1.71357	4.25181	3.40	7.20	-3.35-1	2.92 0	-8.66-1	-3.50 0
1.66569	4.27068	3.40	7.00	-3.45-1	2.75 0	-8.60-1	-3.31 0
1.71270	4.37177	3.30	6.80	-3.26-1	2.61 0	-8.07-1	-3.14 0
1.65977	4.39351	3.30	6.60	-3.35-1	2.45 0	-8.02-1	-2.96 0
1.70721	4.50243	3.20	6.40	-3.16-1	2.31 0	-7.51-1	-2.79 0
1.64826	4.52768	3.20	6.20	-3.25-1	2.16 0	-7.46-1	-2.62 0
1.69565	4.64555	3.10	6.00	-3.06-1	2.03 0	-6.97-1	-2.46 0
1.67609	4.80338	3.00	5.60	-2.96-1	1.77 0	-6.46-1	-2.15 0
1.64586	4.97882	2.90	5.20	-2.86-1	1.52 0	-5.96-1	-1.86 0
1.69393	5.13005	2.80	5.00	-2.67-1	1.41 0	-5.52-1	-1.72 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.64538	5.34328	2.70	4.60	-2.56-1	1.18 0	-5.06-1	-1.46 0
1.69255	5.52520	2.60	4.40	-2.38-1	1.08 0	-4.66-1	-1.33 0
1.65430	6.01649	2.40	3.80	-2.10-1	7.96-1	-3.87-1	-9.90-1
1.69691	6.26423	2.30	3.60	-1.93-1	7.13-1	-3.52-1	-8.87-1
1.64489	6.59285	2.20	3.30	-1.80-1	5.91-1	-3.17-1	-7.40-1
1.67737	6.90708	2.10	3.10	-1.64-1	5.18-1	-2.85-1	-6.50-1
1.70731	7.26099	2.00	2.90	-1.48-1	4.49-1	-2.55-1	-5.65-1
1.71124	9.64984	1.55	2.00	-8.72-2	1.95-1	-1.39-1	-2.51-1
1.67661	10.0454	1.50	1.90	-8.13-2	1.72-1	-1.29-1	-2.23-1
1.68436	11.3683	1.35	1.65	-6.37-2	1.23-1	-9.93-2	-1.61-1
1.69729	16.9842	0.98	1.10	-2.85-2	4.36-2	-4.37-2	-5.97-2
1.68199	20.2682	0.86	0.94	-2.00-2	2.82-2	-3.08-2	-3.95-2
1.70552	23.2298	0.78	0.84	-1.51-2	2.04-2	-2.35-2	-2.92-2
1.68579	38.4237	0.56	0.58	-5.45-3	6.46-3	-9.06-3	-1.02-2
1.72	1.80						
1.72839	2.11935	12.00	90.00	2.13 1	2.74 2	-3.29 1	-3.03 2
1.72514	2.13365	11.50	85.00	1.77 1	2.51 2	-2.84 1	-2.78 2
1.73801	2.14172	11.50	86.00	1.82 1	2.56 2	-2.89 1	-2.83 2
1.75092	2.14990	11.50	87.00	1.87 1	2.61 2	-2.94 1	-2.88 2
1.72564	2.15296	11.00	80.00	1.46 1	2.29 2	-2.44 1	-2.53 2
1.76387	2.15819	11.50	88.00	1.92 1	2.65 2	-2.99 1	-2.93 2
1.73859	2.16076	11.00	81.00	1.50 1	2.33 2	-2.49 1	-2.58 2
1.77687	2.16660	11.50	89.00	1.98 1	2.70 2	-3.04 1	-2.98 2
1.75156	2.16865	11.00	82.00	1.55 1	2.38 2	-2.53 1	-2.63 2
1.78993	2.17513	11.50	90.00	2.03 1	2.75 2	-3.10 1	-3.03 2
1.76454	2.17665	11.00	83.00	1.59 1	2.43 2	-2.57 1	-2.68 2
1.72978	2.17745	10.50	75.00	1.20 1	2.07 2	-2.10 1	-2.29 2
1.77755	2.18475	11.00	84.00	1.64 1	2.48 2	-2.62 1	-2.73 2
1.74294	2.18503	10.50	76.00	1.24 1	2.12 2	-2.14 1	-2.34 2
1.75610	2.19271	10.50	77.00	1.28 1	2.16 2	-2.17 1	-2.39 2
1.79059	2.19297	11.00	85.00	1.69 1	2.53 2	-2.66 1	-2.78 2
1.72390	2.20010	10.00	69.00	9.51 0	1.81 2	-1.77 1	-2.01 2
1.76925	2.20048	10.50	78.00	1.32 1	2.21 2	-2.21 1	-2.44 2
1.73748	2.20743	10.00	70.00	9.82 0	1.86 2	-1.80 1	-2.04 2
1.78240	2.20834	10.50	79.00	1.35 1	2.26 2	-2.25 1	-2.49 2
1.72777	2.21378	9.80	67.00	8.74 0	1.73 2	-1.67 1	-1.92 2
1.75101	2.21485	10.00	71.00	1.01 1	1.90 2	-1.84 1	-2.10 2
1.79556	2.21631	10.50	80.00	1.39 1	2.30 2	-2.29 1	-2.54 2
1.74155	2.22105	9.80	68.00	9.03 0	1.77 2	-1.70 1	-1.96 2
1.76450	2.22235	10.00	72.00	1.05 1	1.95 2	-1.87 1	-2.15 2
1.75527	2.22842	9.80	69.00	9.33 0	1.82 2	-1.72 1	-2.01 2
1.73218	2.22843	9.60	65.00	8.02 0	1.65 2	-1.57 1	-1.83 2
1.77796	2.22995	10.00	73.00	1.08 1	1.99 2	-1.90 1	-2.20 2
1.74619	2.23566	9.60	66.00	8.30 0	1.69 2	-1.59 1	-1.87 2
1.76894	2.23587	9.80	70.00	9.64 0	1.86 2	-1.75 1	-2.06 2
1.72275	2.23700	9.40	62.00	7.08 0	1.52 2	-1.45 1	-1.69 2
1.79139	2.23764	10.00	74.00	1.11 1	2.04 2	-1.93 1	-2.25 2
1.76012	2.24298	9.60	67.00	8.58 0	1.74 2	-1.62 1	-1.92 2
1.78256	2.24341	9.80	71.00	9.95 0	1.91 2	-1.78 1	-2.11 2
1.73711	2.24410	9.40	63.00	7.34 0	1.57 2	-1.47 1	-1.74 2
1.77400	2.25039	9.60	68.00	8.87 0	1.78 2	-1.65 1	-1.97 2
1.79615	2.25104	9.80	72.00	1.03 1	1.96 2	-1.81 1	-2.15 2
1.75138	2.25129	9.40	64.00	7.61 0	1.61 2	-1.50 1	-1.79 2
1.72790	2.25377	9.20	60.00	6.47 0	1.44 2	-1.36 1	-1.60 2
1.78782	2.25788	9.60	69.00	9.16 0	1.83 2	-1.68 1	-2.01 2
1.76557	2.25857	9.40	65.00	7.87 0	1.65 2	-1.52 1	-1.83 2
1.74258	2.26084	9.20	61.00	6.71 0	1.49 2	-1.38 1	-1.65 2
1.77968	2.26594	9.40	66.00	8.14 0	1.70 2	-1.55 1	-1.88 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.75715	2.26800	9.20	62.00	6.96 0	1.53 2	-1.40 1	-1.69 2
1.73354	2.27166	9.00	58.00	5.89 0	1.37 2	-1.27 1	-1.52 2
1.79372	2.27339	9.40	67.00	8.42 0	1.74 2	-1.57 1	-1.92 2
1.77161	2.27524	9.20	63.00	7.21 0	1.57 2	-1.43 1	-1.74 2
1.74857	2.27870	9.00	59.00	6.12 0	1.41 2	-1.29 1	-1.56 2
1.78599	2.28257	9.20	64.00	7.47 0	1.62 2	-1.45 1	-1.79 2
1.72408	2.28380	8.80	55.00	5.13 0	1.25 2	-1.17 1	-1.39 2
1.76347	2.28582	9.00	60.00	6.35 0	1.45 2	-1.31 1	-1.61 2
1.73965	2.29072	8.80	56.00	5.34 0	1.29 2	-1.19 1	-1.43 2
1.77825	2.29304	9.00	61.00	6.59 0	1.49 2	-1.34 1	-1.65 2
1.75507	2.29773	8.80	57.00	5.56 0	1.33 2	-1.21 1	-1.48 2
1.79293	2.30034	9.00	62.00	6.83 0	1.54 2	-1.36 1	-1.70 2
1.73019	2.30414	8.60	53.00	4.63 0	1.17 2	-1.09 1	-1.31 2
1.77035	2.30483	8.80	58.00	5.78 0	1.37 2	-1.23 1	-1.52 2
1.74623	2.31102	8.60	54.00	4.83 0	1.21 2	-1.11 1	-1.35 2
1.78549	2.31202	8.80	59.00	6.01 0	1.41 2	-1.25 1	-1.56 2
1.76210	2.31800	8.60	55.00	5.04 0	1.25 2	-1.13 1	-1.39 2
1.77779	2.32508	8.60	56.00	5.25 0	1.30 2	-1.15 1	-1.44 2
1.73670	2.32578	8.40	51.00	4.16 0	1.10 2	-1.02 1	-1.23 2
1.79333	2.33225	8.60	57.00	5.46 0	1.34 2	-1.17 1	-1.48 2
1.75326	2.33264	8.40	52.00	4.36 0	1.14 2	-1.04 1	-1.27 2
1.76962	2.33959	8.40	53.00	4.55 0	1.18 2	-1.06 1	-1.31 2
1.72619	2.34212	8.20	48.00	3.55 0	9.90 1	-9.35 0	-1.11 2
1.78579	2.34665	8.40	54.00	4.75 0	1.22 2	-1.08 1	-1.35 2
1.74358	2.34883	8.20	49.00	3.73 0	1.03 2	-9.52 0	-1.15 2
1.76072	2.35565	8.20	50.00	3.91 0	1.07 2	-9.69 0	-1.19 2
1.77763	2.36258	8.20	51.00	4.10 0	1.11 2	-9.86 0	-1.23 2
1.73271	2.36672	8.00	46.00	3.15 0	9.21 1	-8.70 0	-1.03 2
1.79433	2.36962	8.20	52.00	4.29 0	1.15 2	-1.00 1	-1.27 2
1.75079	2.37338	8.00	47.00	3.32 0	9.58 1	-8.86 0	-1.07 2
1.76859	2.38017	8.00	48.00	3.50 0	9.96 1	-9.02 0	-1.11 2
1.72024	2.38647	7.80	43.00	2.62 0	8.18 1	-7.94 0	-9.16 1
1.78612	2.38707	8.00	49.00	3.67 0	1.03 2	-9.18 0	-1.15 2
1.73944	2.39293	7.80	44.00	2.78 0	8.53 1	-8.09 0	-9.54 1
1.75829	2.39954	7.80	45.00	2.94 0	8.89 1	-8.24 0	-9.92 1
1.77683	2.40628	7.80	46.00	3.11 0	9.26 1	-8.39 0	-1.03 2
1.79506	2.41316	7.80	47.00	3.28 0	9.63 1	-8.54 0	-1.07 2
1.72617	2.41451	7.60	41.00	2.28 0	7.53 1	-7.37 0	-8.44 1
1.74630	2.42089	7.60	42.00	2.43 0	7.87 1	-7.51 0	-8.81 1
1.76603	2.42743	7.60	43.00	2.59 0	8.22 1	-7.65 0	-9.18 1
1.78539	2.43412	7.60	44.00	2.75 0	8.58 1	-7.79 0	-9.56 1
1.73202	2.44448	7.40	39.00	1.97 0	6.90 1	-6.82 0	-7.74 1
1.75321	2.45075	7.40	40.00	2.11 0	7.23 1	-6.95 0	-8.10 1
1.77393	2.45721	7.40	41.00	2.26 0	7.57 1	-7.08 0	-8.46 1
1.79423	2.46383	7.40	42.00	2.41 0	7.92 1	-7.22 0	-8.83 1
1.73765	2.47655	7.20	37.00	1.68 0	6.29 1	-6.30 0	-7.06 1
1.76004	2.48269	7.20	38.00	1.81 0	6.61 1	-6.43 0	-7.41 1
1.78190	2.48903	7.20	39.00	1.95 0	6.94 1	-6.55 0	-7.76 1
1.74289	2.51093	7.00	35.00	1.41 0	5.70 1	-5.81 0	-6.41 1
1.76666	2.51690	7.00	36.00	1.54 0	6.01 1	-5.93 0	-6.74 1
1.78982	2.52310	7.00	37.00	1.67 0	6.33 1	-6.04 0	-7.08 1
1.72134	2.54248	6.80	32.00	1.03 0	4.84 1	-5.24 0	-5.47 1
1.74750	2.54789	6.80	33.00	1.16 0	5.13 1	-5.34 0	-5.78 1
1.77287	2.55362	6.80	34.00	1.28 0	5.43 1	-5.45 0	-6.10 1
1.79752	2.55964	6.80	35.00	1.41 0	5.74 1	-5.56 0	-6.43 1
1.72301	2.58268	6.60	30.00	8.10-1	4.31 1	-4.80 0	-4.88 1
1.75118	2.58772	6.60	31.00	9.27-1	4.59 1	-4.90 0	-5.18 1
1.77842	2.59315	6.60	32.00	1.05 0	4.88 1	-5.00 0	-5.48 1
1.72298	2.62626	6.40	28.00	6.04-1	3.80 1	-4.39 0	-4.31 1
1.75353	2.63080	6.40	29.00	7.16-1	4.07 1	-4.48 0	-4.60 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.78297	2.63582	6.40	30.00	8.28-1	4.34 1	-4.58 0	-4.89 1
1.72062	2.67372	6.20	26.00	4.16-1	3.32 1	-4.00 0	-3.78 1
1.75402	2.67760	6.20	27.00	5.22-1	3.57 1	-4.09 0	-4.05 1
1.78607	2.68206	6.20	28.00	6.29-1	3.83 1	-4.18 0	-4.33 1
1.75193	2.72869	6.00	25.00	3.46-1	3.11 1	-3.72 0	-3.53 1
1.78713	2.73240	6.00	26.00	4.47-1	3.35 1	-3.80 0	-3.79 1
1.74626	2.78486	5.80	23.00	1.85-1	2.66 1	-3.36 0	-3.03 1
1.78532	2.78752	5.80	24.00	2.81-1	2.89 1	-3.44 0	-3.29 1
1.73561	2.84711	5.60	21.00	3.96-2	2.25 1	-3.03 0	-2.57 1
1.77947	2.84832	5.60	22.00	1.31-1	2.46 1	-3.11 0	-2.80 1
1.76793	2.91600	5.40	20.00	-4.82-3	2.06 1	-2.79 0	-2.36 1
1.74335	2.91624	5.40	19.50	-4.80-2	1.96 1	-2.76 0	-2.25 1
1.77573	2.99113	5.20	18.50	-8.52-2	1.79 1	-2.53 0	-2.05 1
1.74829	2.99229	5.20	18.00	-1.26-1	1.69 1	-2.50 0	-1.94 1
1.78014	3.07418	5.00	17.00	-1.56-1	1.53 1	-2.28 0	-1.75 1
1.74915	3.07658	5.00	16.50	-1.95-1	1.44 1	-2.25 0	-1.66 1
1.77954	3.16679	4.80	15.50	-2.19-1	1.28 1	-2.05 0	-1.48 1
1.74405	3.17093	4.80	15.00	-2.56-1	1.20 1	-2.02 0	-1.39 1
1.77150	3.27120	4.60	14.00	-2.73-1	1.06 1	-1.83 0	-1.23 1
1.73016	3.27782	4.60	13.50	-3.08-1	9.83 0	-1.80 0	-1.14 1
1.79877	3.38206	4.40	13.00	-2.86-1	9.22 0	-1.65 0	-1.07 1
1.75234	3.39064	4.40	12.50	-3.19-1	8.52 0	-1.62 0	-9.93 0
1.77238	3.51662	4.20	11.50	-3.26-1	7.28 0	-1.45 0	-8.51 0
1.78870	3.65853	4.00	10.50	-3.29-1	6.12 0	-1.29 0	-7.18 0
1.72345	3.67603	4.00	10.00	-3.59-1	5.54 0	-1.27 0	-6.54 0
1.79473	3.73659	3.90	10.00	-3.30-1	5.58 0	-1.22 0	-6.55 0
1.76711	3.74423	3.90	9.80	-3.41-1	5.35 0	-1.21 0	-6.30 0
1.73860	3.75243	3.90	9.60	-3.53-1	5.13 0	-1.20 0	-6.06 0
1.78389	3.82449	3.80	9.40	-3.35-1	4.95 0	-1.14 0	-5.83 0
1.75334	3.83365	3.80	9.20	-3.46-1	4.73 0	-1.13 0	-5.59 0
1.72173	3.84349	3.80	9.00	-3.57-1	4.52 0	-1.13 0	-5.36 0
1.76746	3.92020	3.70	8.80	-3.39-1	4.35 0	-1.07 0	-5.14 0
1.73340	3.93124	3.70	8.60	-3.50-1	4.14 0	-1.06 0	-4.92 0
1.78069	4.01268	3.60	8.40	-3.32-1	3.97 0	-1.00 0	-4.71 0
1.74384	4.02512	3.60	8.20	-3.42-1	3.78 0	-9.95-1	-4.49 0
1.79271	4.11180	3.50	8.00	-3.24-1	3.62 0	-9.38-1	-4.29 0
1.75266	4.12589	3.50	7.80	-3.34-1	3.43 0	-9.32-1	-4.09 0
1.75930	4.23442	3.40	7.40	-3.25-1	3.09 0	-8.71-1	-3.69 0
1.76309	4.35180	3.30	7.00	-3.16-1	2.77 0	-8.13-1	-3.32 0
1.76311	4.47933	3.20	6.60	-3.07-1	2.47 0	-7.56-1	-2.96 0
1.75815	4.61860	3.10	6.20	-2.97-1	2.18 0	-7.02-1	-2.63 0
1.74659	4.77164	3.00	5.80	-2.87-1	1.91 0	-6.50-1	-2.30 0
1.72621	4.94100	2.90	5.40	-2.77-1	1.65 0	-6.00-1	-2.00 0
1.78023	5.08910	2.80	5.20	-2.59-1	1.53 0	-5.56-1	-1.86 0
1.74564	5.29345	2.70	4.80	-2.49-1	1.30 0	-5.10-1	-1.59 0
1.74304	5.72346	2.50	4.20	-2.20-1	9.87-1	-4.27-1	-1.21 0
1.79715	5.94044	2.40	4.00	-2.03-1	8.95-1	-3.90-1	-1.10 0
1.72745	5.97716	2.40	3.90	-2.07-1	8.45-1	-3.88-1	-1.04 0
1.77811	6.22009	2.30	3.70	-1.90-1	7.59-1	-3.53-1	-9.39-1
1.74098	6.53887	2.20	3.40	-1.77-1	6.33-1	-3.18-1	-7.88-1
1.78610	6.84522	2.10	3.20	-1.61-1	5.58-1	-2.86-1	-6.95-1
1.72068	7.45537	1.95	2.80	-1.41-1	4.16-1	-2.40-1	-5.24-1
1.73252	7.66301	1.90	2.70	-1.34-1	3.84-1	-2.26-1	-4.85-1
1.74236	7.88541	1.85	2.60	-1.27-1	3.54-1	-2.12-1	-4.47-1
1.74959	8.12427	1.80	2.50	-1.20-1	3.24-1	-1.99-1	-4.11-1
1.75347	8.38159	1.75	2.40	-1.13-1	2.96-1	-1.86-1	-3.76-1
1.75301	8.65973	1.70	2.30	-1.06-1	2.69-1	-1.74-1	-3.43-1
1.74698	8.96148	1.65	2.20	-9.96-2	2.43-1	-1.62-1	-3.11-1
1.73376	9.29018	1.60	2.10	-9.33-2	2.18-1	-1.50-1	-2.80-1
1.75381	10.8426	1.40	1.75	-6.90-2	1.42-1	-1.09-1	-1.85-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.73253	12.4459	1.25	1.50	-5.29-2	9.75-2	-8.20-2	-1.29-1
1.75606	13.7872	1.15	1.35	-4.30-2	7.48-2	-6.63-2	-9.98-2
1.72447	15.5040	1.05	1.20	-3.42-2	5.51-2	-5.24-2	-7.45-2
1.75354	17.9149	0.94	1.05	-2.55-2	3.85-2	-3.91-2	-5.29-2
1.79299	20.8678	0.84	0.92	-1.86-2	2.56-2	-2.88-2	-3.74-2
1.75856	28.3680	0.68	0.72	-1.00-2	1.29-2	-1.59-2	-1.90-2
1.80	1.88						
1.80367	2.20129	11.00	86.00	1.74 1	2.57 2	-2.71 1	-2.83 2
1.81678	2.20972	11.00	87.00	1.78 1	2.62 2	-2.76 1	-2.88 2
1.82994	2.21827	11.00	88.00	1.83 1	2.67 2	-2.81 1	-2.93 2
1.80872	2.22437	10.50	81.00	1.43 1	2.35 2	-2.33 1	-2.59 2
1.84314	2.22694	11.00	89.00	1.89 1	2.72 2	-2.86 1	-2.98 2
1.82190	2.23254	10.50	82.00	1.48 1	2.40 2	-2.37 1	-2.63 2
1.85641	2.23572	11.00	90.00	1.94 1	2.77 2	-2.91 1	-3.03 2
1.83510	2.24080	10.50	83.00	1.52 1	2.45 2	-2.41 1	-2.68 2
1.80480	2.24541	10.00	75.00	1.15 1	2.09 2	-1.96 1	-2.30 2
1.84833	2.24918	10.50	84.00	1.56 1	2.50 2	-2.45 1	-2.73 2
1.81819	2.25328	10.00	76.00	1.18 1	2.13 2	-2.00 1	-2.35 2
1.86158	2.25766	10.50	85.00	1.61 1	2.54 2	-2.50 1	-2.78 2
1.80970	2.25876	9.80	73.00	1.06 1	2.00 2	-1.85 1	-2.20 2
1.83158	2.26125	10.00	77.00	1.22 1	2.18 2	-2.03 1	-2.39 2
1.80158	2.26546	9.60	70.00	9.45 0	1.87 2	-1.70 1	-2.06 2
1.87487	2.26626	10.50	86.00	1.65 1	2.59 2	-2.54 1	-2.83 2
1.82323	2.26657	9.80	74.00	1.09 1	2.05 2	-1.88 1	-2.25 2
1.84495	2.26931	10.00	78.00	1.25 1	2.23 2	-2.07 1	-2.44 2
1.81531	2.27313	9.60	71.00	9.75 0	1.92 2	-1.73 1	-2.11 2
1.83673	2.27447	9.80	75.00	1.12 1	2.10 2	-1.91 1	-2.30 2
1.85833	2.27746	10.00	79.00	1.29 1	2.28 2	-2.10 1	-2.49 2
1.82899	2.28088	9.60	72.00	1.01 1	1.96 2	-1.76 1	-2.16 2
1.80770	2.28093	9.40	68.00	8.70 0	1.79 2	-1.60 1	-1.97 2
1.85022	2.28246	9.80	76.00	1.16 1	2.14 2	-1.94 1	-2.35 2
1.87172	2.28572	10.00	80.00	1.33 1	2.32 2	-2.14 1	-2.54 2
1.82161	2.28856	9.40	69.00	8.98 0	1.83 2	-1.63 1	-2.02 2
1.84264	2.28873	9.60	73.00	1.04 1	2.01 2	-1.79 1	-2.21 2
1.80028	2.28999	9.20	65.00	7.73 0	1.66 2	-1.48 1	-1.83 2
1.86370	2.29055	9.80	77.00	1.19 1	2.19 2	-1.97 1	-2.40 2
1.83548	2.29627	9.40	70.00	9.27 0	1.88 2	-1.65 1	-2.06 2
1.85627	2.29667	9.60	74.00	1.07 1	2.06 2	-1.82 1	-2.25 2
1.81450	2.29750	9.20	66.00	7.99 0	1.71 2	-1.50 1	-1.88 2
1.87718	2.29873	9.80	78.00	1.23 1	2.24 2	-2.01 1	-2.45 2
1.84931	2.30407	9.40	71.00	9.56 0	1.92 2	-1.68 1	-2.11 2
1.86987	2.30469	9.60	75.00	1.10 1	2.10 2	-1.85 1	-2.30 2
1.82864	2.30509	9.20	67.00	8.26 0	1.75 2	-1.53 1	-1.93 2
1.80751	2.30773	9.00	63.00	7.08 0	1.58 2	-1.38 1	-1.74 2
1.86309	2.31195	9.40	72.00	9.86 0	1.97 2	-1.71 1	-2.16 2
1.84272	2.31276	9.20	68.00	8.53 0	1.80 2	-1.55 1	-1.97 2
1.82199	2.31521	9.00	64.00	7.32 0	1.62 2	-1.41 1	-1.79 2
1.80051	2.31930	8.80	60.00	6.24 0	1.46 2	-1.27 1	-1.61 2
1.87685	2.31993	9.40	73.00	1.02 1	2.02 2	-1.74 1	-2.21 2
1.85675	2.32053	9.20	69.00	8.80 0	1.84 2	-1.58 1	-2.02 2
1.83639	2.32277	9.00	65.00	7.58 0	1.67 2	-1.43 1	-1.84 2
1.81541	2.32667	8.80	61.00	6.47 0	1.50 2	-1.30 1	-1.65 2
1.87072	2.32838	9.20	70.00	9.08 0	1.89 2	-1.61 1	-2.07 2
1.85072	2.33042	9.00	66.00	7.83 0	1.71 2	-1.46 1	-1.88 2
1.83020	2.33413	8.80	62.00	6.70 0	1.54 2	-1.32 1	-1.70 2
1.86497	2.33815	9.00	67.00	8.09 0	1.76 2	-1.48 1	-1.93 2
1.80873	2.33951	8.60	58.00	5.68 0	1.38 2	-1.19 1	-1.52 2
1.84489	2.34167	8.80	63.00	6.94 0	1.59 2	-1.34 1	-1.75 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.87916	2.34597	9.00	68.00	8.36 0	1.80 2	-1.51 1	-1.98 2
1.82399	2.34687	8.60	59.00	5.90 0	1.42 2	-1.21 1	-1.57 2
1.85949	2.34929	8.80	64.00	7.18 0	1.63 2	-1.36 1	-1.79 2
1.80177	2.35381	8.40	55.00	4.95 0	1.26 2	-1.09 1	-1.39 2
1.83913	2.35431	8.60	60.00	6.12 0	1.46 2	-1.23 1	-1.61 2
1.87401	2.35701	8.80	65.00	7.43 0	1.68 2	-1.39 1	-1.84 2
1.81760	2.36105	8.40	56.00	5.16 0	1.30 2	-1.11 1	-1.44 2
1.85414	2.36183	8.60	61.00	6.34 0	1.51 2	-1.25 1	-1.66 2
1.83326	2.36839	8.40	57.00	5.36 0	1.34 2	-1.13 1	-1.48 2
1.86905	2.36945	8.60	62.00	6.57 0	1.55 2	-1.28 1	-1.70 2
1.84878	2.37582	8.40	58.00	5.57 0	1.39 2	-1.15 1	-1.53 2
1.81082	2.37676	8.20	53.00	4.48 0	1.19 2	-1.02 1	-1.31 2
1.86417	2.38334	8.40	59.00	5.79 0	1.43 2	-1.17 1	-1.57 2
1.82711	2.38400	8.20	54.00	4.67 0	1.23 2	-1.04 1	-1.35 2
1.87943	2.39095	8.40	60.00	6.00 0	1.47 2	-1.19 1	-1.62 2
1.84323	2.39133	8.20	55.00	4.87 0	1.27 2	-1.06 1	-1.40 2
1.80340	2.39409	8.00	50.00	3.85 0	1.07 2	-9.35 0	-1.19 2
1.85919	2.39876	8.20	56.00	5.06 0	1.31 2	-1.08 1	-1.44 2
1.82045	2.40121	8.00	51.00	4.03 0	1.11 2	-9.51 0	-1.23 2
1.87498	2.40627	8.20	57.00	5.26 0	1.35 2	-1.09 1	-1.48 2
1.83729	2.40844	8.00	52.00	4.21 0	1.15 2	-9.68 0	-1.27 2
1.85391	2.41577	8.00	53.00	4.40 0	1.19 2	-9.86 0	-1.31 2
1.81300	2.42015	7.80	48.00	3.44 0	1.00 2	-8.70 0	-1.11 2
1.87035	2.42319	8.00	54.00	4.58 0	1.23 2	-1.00 1	-1.36 2
1.83068	2.42726	7.80	49.00	3.61 0	1.04 2	-8.85 0	-1.15 2
1.84811	2.43448	7.80	50.00	3.79 0	1.08 2	-9.01 0	-1.19 2
1.80441	2.44096	7.60	45.00	2.90 0	8.95 1	-7.93 0	-9.94 1
1.86530	2.44180	7.80	51.00	3.96 0	1.12 2	-9.18 0	-1.23 2
1.82310	2.44792	7.60	46.00	3.06 0	9.31 1	-8.08 0	-1.03 2
1.84148	2.45502	7.60	47.00	3.23 0	9.69 1	-8.23 0	-1.07 2
1.85958	2.46223	7.60	48.00	3.39 0	1.01 2	-8.38 0	-1.11 2
1.87741	2.46955	7.60	49.00	3.55 0	1.05 2	-8.53 0	-1.15 2
1.81413	2.47062	7.40	43.00	2.56 0	8.27 1	-7.35 0	-9.20 1
1.83366	2.47755	7.40	44.00	2.71 0	8.63 1	-7.49 0	-9.58 1
1.85284	2.48462	7.40	45.00	2.86 0	9.00 1	-7.63 0	-9.97 1
1.87169	2.49181	7.40	46.00	3.02 0	9.37 1	-7.77 0	-1.04 2
1.80327	2.49557	7.20	40.00	2.10 0	7.28 1	-6.68 0	-8.11 1
1.82417	2.50229	7.20	41.00	2.24 0	7.62 1	-6.80 0	-8.48 1
1.84465	2.50917	7.20	42.00	2.38 0	7.97 1	-6.93 0	-8.85 1
1.86473	2.51621	7.20	43.00	2.53 0	8.33 1	-7.07 0	-9.22 1
1.81240	2.52953	7.00	38.00	1.80 0	6.66 1	-6.16 0	-7.43 1
1.83445	2.53616	7.00	39.00	1.94 0	6.99 1	-6.28 0	-7.78 1
1.85601	2.54297	7.00	40.00	2.07 0	7.33 1	-6.41 0	-8.14 1
1.87710	2.54996	7.00	41.00	2.21 0	7.67 1	-6.53 0	-8.50 1
1.82150	2.56591	6.80	36.00	1.53 0	6.05 1	-5.68 0	-6.76 1
1.84486	2.57242	6.80	37.00	1.66 0	6.37 1	-5.79 0	-7.10 1
1.86765	2.57915	6.80	38.00	1.79 0	6.70 1	-5.90 0	-7.44 1
1.80480	2.59891	6.60	33.00	1.17 0	5.17 1	-5.11 0	-5.79 1
1.83040	2.60499	6.60	34.00	1.29 0	5.47 1	-5.21 0	-6.12 1
1.85527	2.61134	6.60	35.00	1.41 0	5.78 1	-5.32 0	-6.44 1
1.87948	2.61795	6.60	36.00	1.53 0	6.09 1	-5.43 0	-6.78 1
1.81138	2.64125	6.40	31.00	9.42-1	4.62 1	-4.68 0	-5.19 1
1.83887	2.64705	6.40	32.00	1.06 0	4.91 1	-4.78 0	-5.50 1
1.86549	2.65319	6.40	33.00	1.17 0	5.21 1	-4.88 0	-5.81 1
1.81689	2.68703	6.20	29.00	7.36-1	4.10 1	-4.27 0	-4.61 1
1.84660	2.69247	6.20	30.00	8.44-1	4.38 1	-4.36 0	-4.90 1
1.87528	2.69831	6.20	31.00	9.53-1	4.66 1	-4.46 0	-5.20 1
1.82083	2.73676	6.00	27.00	5.49-1	3.60 1	-3.89 0	-4.06 1
1.85317	2.74169	6.00	28.00	6.51-1	3.86 1	-3.97 0	-4.34 1
1.82251	2.79103	5.80	25.00	3.77-1	3.13 1	-3.52 0	-3.54 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.85803	2.79527	5.80	26.00	4.74-1	3.38 1	-3.60 0	-3.80 1
1.82097	2.85064	5.60	23.00	2.22-1	2.69 1	-3.18 0	-3.04 1
1.86039	2.85391	5.60	24.00	3.14-1	2.92 1	-3.26 0	-3.29 1
1.81487	2.91663	5.40	21.00	8.17-2	2.27 1	-2.86 0	-2.58 1
1.85913	2.91853	5.40	22.00	1.69-1	2.49 1	-2.93 0	-2.81 1
1.82786	2.99022	5.20	19.50	-3.08-3	1.98 1	-2.59 0	-2.26 1
1.85267	2.99038	5.20	20.00	3.80-2	2.08 1	-2.63 0	-2.36 1
1.80224	2.99046	5.20	19.00	-4.41-2	1.88 1	-2.56 0	-2.15 1
1.86635	3.07049	5.00	18.50	-3.96-2	1.80 1	-2.37 0	-2.05 1
1.83865	3.07119	5.00	18.00	-7.85-2	1.71 1	-2.34 0	-1.95 1
1.80995	3.07240	5.00	17.50	-1.17-1	1.62 1	-2.31 0	-1.85 1
1.87733	3.15906	4.80	17.00	-1.08-1	1.54 1	-2.13 0	-1.76 1
1.84606	3.16094	4.80	16.50	-1.45-1	1.45 1	-2.10 0	-1.66 1
1.81350	3.16348	4.80	16.00	-1.82-1	1.37 1	-2.08 0	-1.57 1
1.84830	3.26132	4.60	15.00	-2.03-1	1.21 1	-1.88 0	-1.40 1
1.81082	3.26575	4.60	14.50	-2.38-1	1.14 1	-1.85 0	-1.31 1
1.84272	3.37492	4.40	13.50	-2.53-1	9.95 0	-1.67 0	-1.15 1
1.87476	3.49611	4.20	12.50	-2.64-1	8.62 0	-1.50 0	-9.97 0
1.82513	3.50543	4.20	12.00	-2.95-1	7.94 0	-1.48 0	-9.22 0
1.84942	3.64387	4.00	11.00	-3.00-1	6.74 0	-1.31 0	-7.84 0
1.86025	3.71973	3.90	10.50	-3.01-1	6.17 0	-1.24 0	-7.19 0
1.86981	3.80071	3.80	10.00	-3.02-1	5.62 0	-1.16 0	-6.56 0
1.84207	3.80807	3.80	9.80	-3.13-1	5.39 0	-1.16 0	-6.31 0
1.81344	3.81598	3.80	9.60	-3.24-1	5.17 0	-1.15 0	-6.07 0
1.86272	3.89159	3.70	9.40	-3.07-1	4.98 0	-1.09 0	-5.84 0
1.83205	3.90042	3.70	9.20	-3.18-1	4.76 0	-1.08 0	-5.60 0
1.80031	3.90994	3.70	9.00	-3.28-1	4.55 0	-1.07 0	-5.37 0
1.85036	3.99046	3.60	8.80	-3.11-1	4.38 0	-1.01 0	-5.15 0
1.81617	4.00115	3.60	8.60	-3.21-1	4.17 0	-1.01 0	-4.93 0
1.86817	4.08673	3.50	8.40	-3.04-1	4.00 0	-9.51-1	-4.72 0
1.83117	4.09878	3.50	8.20	-3.14-1	3.81 0	-9.44-1	-4.50 0
1.84496	4.20361	3.40	7.80	-3.06-1	3.46 0	-8.83-1	-4.09 0
1.80305	4.21840	3.40	7.60	-3.15-1	3.27 0	-8.77-1	-3.89 0
1.85705	4.31657	3.30	7.40	-2.97-1	3.12 0	-8.24-1	-3.70 0
1.81114	4.33345	3.30	7.20	-3.07-1	2.95 0	-8.18-1	-3.51 0
1.86681	4.43877	3.20	7.00	-2.89-1	2.80 0	-7.67-1	-3.33 0
1.81623	4.45817	3.20	6.80	-2.98-1	2.63 0	-7.62-1	-3.14 0
1.87341	4.57156	3.10	6.60	-2.80-1	2.49 0	-7.12-1	-2.97 0
1.81730	4.59402	3.10	6.40	-2.88-1	2.33 0	-7.07-1	-2.79 0
1.87573	4.71660	3.00	6.20	-2.70-1	2.20 0	-6.59-1	-2.63 0
1.81300	4.74281	3.00	6.00	-2.79-1	2.05 0	-6.55-1	-2.47 0
1.87224	4.87595	2.90	5.80	-2.61-1	1.92 0	-6.09-1	-2.31 0
1.80150	4.90685	2.90	5.60	-2.69-1	1.78 0	-6.04-1	-2.15 0
1.86086	5.05226	2.80	5.40	-2.51-1	1.66 0	-5.60-1	-2.01 0
1.83864	5.24895	2.70	5.00	-2.41-1	1.42 0	-5.14-1	-1.72 0
1.80141	5.47059	2.60	4.60	-2.31-1	1.20 0	-4.69-1	-1.46 0
1.86175	5.66335	2.50	4.40	-2.13-1	1.10 0	-4.30-1	-1.34 0
1.85523	6.17902	2.30	3.80	-1.87-1	8.07-1	-3.54-1	-9.92-1
1.83174	6.48896	2.20	3.50	-1.74-1	6.77-1	-3.19-1	-8.38-1
1.83154	7.18936	2.00	3.00	-1.46-1	4.86-1	-2.56-1	-6.07-1
1.85404	7.37796	1.95	2.90	-1.38-1	4.52-1	-2.41-1	-5.66-1
1.87610	7.57909	1.90	2.80	-1.31-1	4.19-1	-2.27-1	-5.25-1
1.83156	9.94814	1.50	1.95	-8.02-2	1.84-1	-1.29-1	-2.37-1
1.80100	10.3721	1.45	1.85	-7.45-2	1.63-1	-1.18-1	-2.10-1
1.83132	11.8018	1.30	1.60	-5.77-2	1.15-1	-9.05-2	-1.50-1
1.80996	18.9624	0.90	1.00	-2.26-2	3.37-2	-3.48-2	-4.66-2
1.83573	24.0291	0.76	0.82	-1.40-2	1.91-2	-2.18-2	-2.73-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.88	1.96						
1.88821	2.27497	10.50	87.00	1.70 1	2.64 2	-2.59 1	-2.88 2
1.90158	2.28379	10.50	88.00	1.74 1	2.69 2	-2.63 1	-2.93 2
1.91501	2.29273	10.50	89.00	1.79 1	2.74 2	-2.68 1	-2.98 2
1.88511	2.29408	10.00	81.00	1.36 1	2.37 2	-2.18 1	-2.59 2
1.92850	2.30179	10.50	90.00	1.84 1	2.79 2	-2.73 1	-3.03 2
1.89852	2.30253	10.00	82.00	1.40 1	2.42 2	-2.21 1	-2.64 2
1.89066	2.30701	9.80	79.00	1.26 1	2.28 2	-2.04 1	-2.50 2
1.91196	2.31109	10.00	83.00	1.44 1	2.47 2	-2.25 1	-2.69 2
1.88346	2.31281	9.60	76.00	1.13 1	2.15 2	-1.89 1	-2.35 2
1.90414	2.31539	9.80	80.00	1.30 1	2.33 2	-2.08 1	-2.54 2
1.92542	2.31976	10.00	84.00	1.48 1	2.52 2	-2.29 1	-2.74 2
1.89704	2.32102	9.60	77.00	1.17 1	2.20 2	-1.92 1	-2.40 2
1.91763	2.32386	9.80	81.00	1.34 1	2.38 2	-2.12 1	-2.59 2
1.89058	2.32800	9.40	74.00	1.05 1	2.06 2	-1.77 1	-2.26 2
1.93891	2.32853	10.00	85.00	1.52 1	2.56 2	-2.33 1	-2.79 2
1.91062	2.32933	9.60	78.00	1.20 1	2.24 2	-1.95 1	-2.45 2
1.93114	2.33244	9.80	82.00	1.37 1	2.43 2	-2.15 1	-2.64 2
1.90428	2.33616	9.40	75.00	1.08 1	2.11 2	-1.80 1	-2.31 2
1.88465	2.33631	9.20	71.00	9.37 0	1.93 2	-1.63 1	-2.12 2
1.95243	2.33742	10.00	86.00	1.57 1	2.61 2	-2.37 1	-2.84 2
1.92419	2.33774	9.60	79.00	1.24 1	2.29 2	-1.99 1	-2.50 2
1.94467	2.34113	9.80	83.00	1.41 1	2.48 2	-2.19 1	-2.69 2
1.89854	2.34433	9.20	72.00	9.66 0	1.98 2	-1.66 1	-2.16 2
1.91798	2.34441	9.40	76.00	1.11 1	2.16 2	-1.83 1	-2.35 2
1.93777	2.34624	9.60	80.00	1.27 1	2.34 2	-2.02 1	-2.55 2
1.95823	2.34992	9.80	84.00	1.45 1	2.52 2	-2.23 1	-2.74 2
1.91240	2.35245	9.20	73.00	9.95 0	2.03 2	-1.69 1	-2.21 2
1.93166	2.35275	9.40	77.00	1.14 1	2.21 2	-1.86 1	-2.40 2
1.89330	2.35388	9.00	69.00	8.62 0	1.85 2	-1.53 1	-2.02 2
1.95137	2.35485	9.60	81.00	1.31 1	2.39 2	-2.06 1	-2.60 2
1.92624	2.36065	9.20	74.00	1.03 1	2.07 2	-1.72 1	-2.26 2
1.94534	2.36119	9.40	78.00	1.18 1	2.25 2	-1.90 1	-2.45 2
1.90738	2.36187	9.00	70.00	8.90 0	1.89 2	-1.56 1	-2.07 2
1.88844	2.36480	8.80	66.00	7.67 0	1.72 2	-1.41 1	-1.89 2
1.94005	2.36894	9.20	75.00	1.06 1	2.12 2	-1.75 1	-2.31 2
1.95902	2.36973	9.40	79.00	1.21 1	2.30 2	-1.93 1	-2.50 2
1.92142	2.36994	9.00	71.00	9.17 0	1.94 2	-1.58 1	-2.12 2
1.90281	2.37268	8.80	67.00	7.93 0	1.77 2	-1.43 1	-1.93 2
1.88386	2.37714	8.60	63.00	6.80 0	1.59 2	-1.30 1	-1.75 2
1.95385	2.37733	9.20	76.00	1.09 1	2.17 2	-1.78 1	-2.36 2
1.93543	2.37811	9.00	72.00	9.45 0	1.99 2	-1.61 1	-2.17 2
1.91712	2.38065	8.80	68.00	8.18 0	1.81 2	-1.46 1	-1.98 2
1.89858	2.38493	8.60	64.00	7.04 0	1.64 2	-1.32 1	-1.80 2
1.94940	2.38636	9.00	73.00	9.74 0	2.03 2	-1.64 1	-2.22 2
1.93136	2.38870	8.80	69.00	8.44 0	1.86 2	-1.48 1	-2.03 2
1.91322	2.39279	8.60	65.00	7.27 0	1.68 2	-1.34 1	-1.84 2
1.94556	2.39684	8.80	70.00	8.71 0	1.90 2	-1.51 1	-2.07 2
1.89457	2.39864	8.40	61.00	6.22 0	1.51 2	-1.21 1	-1.66 2
1.92777	2.40074	8.60	66.00	7.51 0	1.73 2	-1.37 1	-1.89 2
1.95972	2.40506	8.80	71.00	8.98 0	1.95 2	-1.53 1	-2.12 2
1.90960	2.40641	8.40	62.00	6.44 0	1.56 2	-1.23 1	-1.71 2
1.94226	2.40878	8.60	67.00	7.76 0	1.77 2	-1.39 1	-1.94 2
1.89063	2.41388	8.20	58.00	5.47 0	1.39 2	-1.11 1	-1.53 2
1.92454	2.41428	8.40	63.00	6.66 0	1.60 2	-1.26 1	-1.75 2
1.95668	2.41690	8.60	68.00	8.01 0	1.82 2	-1.41 1	-1.98 2
1.90615	2.42157	8.20	59.00	5.67 0	1.43 2	-1.13 1	-1.57 2
1.93938	2.42222	8.40	64.00	6.89 0	1.65 2	-1.28 1	-1.80 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.92154	2.42934	8.20	60.00	5.88 0	1.48 2	-1.15 1	-1.62 2
1.95414	2.43024	8.40	65.00	7.12 0	1.69 2	-1.30 1	-1.85 2
1.88661	2.43071	8.00	55.00	4.77 0	1.27 2	-1.02 1	-1.40 2
1.93681	2.43720	8.20	61.00	6.09 0	1.52 2	-1.17 1	-1.66 2
1.90269	2.43832	8.00	56.00	4.97 0	1.31 2	-1.04 1	-1.44 2
1.95197	2.44515	8.20	62.00	6.30 0	1.57 2	-1.19 1	-1.71 2
1.91863	2.44602	8.00	57.00	5.16 0	1.36 2	-1.06 1	-1.49 2
1.88228	2.44923	7.80	52.00	4.14 0	1.16 2	-9.34 0	-1.28 2
1.93441	2.45380	8.00	58.00	5.36 0	1.40 2	-1.08 1	-1.53 2
1.89905	2.45675	7.80	53.00	4.32 0	1.20 2	-9.51 0	-1.32 2
1.95007	2.46167	8.00	59.00	5.55 0	1.44 2	-1.09 1	-1.58 2
1.91563	2.46437	7.80	54.00	4.50 0	1.24 2	-9.68 0	-1.36 2
1.93203	2.47208	7.80	55.00	4.68 0	1.28 2	-9.85 0	-1.40 2
1.89500	2.47698	7.60	50.00	3.72 0	1.08 2	-8.68 0	-1.19 2
1.94827	2.47988	7.80	56.00	4.87 0	1.32 2	-1.00 1	-1.45 2
1.91235	2.48451	7.60	51.00	3.89 0	1.12 2	-8.84 0	-1.24 2
1.92947	2.49215	7.60	52.00	4.06 0	1.16 2	-9.00 0	-1.28 2
1.89024	2.49913	7.40	47.00	3.17 0	9.75 1	-7.92 0	-1.08 2
1.94640	2.49987	7.60	53.00	4.23 0	1.20 2	-9.16 0	-1.32 2
1.90850	2.50657	7.40	48.00	3.33 0	1.01 2	-8.06 0	-1.12 2
1.92650	2.51411	7.40	49.00	3.49 0	1.05 2	-8.21 0	-1.16 2
1.94424	2.52176	7.40	50.00	3.65 0	1.09 2	-8.36 0	-1.20 2
1.88443	2.52339	7.20	44.00	2.67 0	8.69 1	-7.20 0	-9.60 1
1.90378	2.53070	7.20	45.00	2.82 0	9.05 1	-7.33 0	-9.99 1
1.92281	2.53814	7.20	46.00	2.97 0	9.43 1	-7.47 0	-1.04 2
1.94153	2.54570	7.20	47.00	3.12 0	9.80 1	-7.61 0	-1.08 2
1.95997	2.55337	7.20	48.00	3.27 0	1.02 2	-7.75 0	-1.12 2
1.89777	2.55711	7.00	42.00	2.35 0	8.02 1	-6.65 0	-8.87 1
1.91803	2.56441	7.00	43.00	2.49 0	8.38 1	-6.78 0	-9.25 1
1.93792	2.57185	7.00	44.00	2.63 0	8.74 1	-6.91 0	-9.63 1
1.95746	2.57942	7.00	45.00	2.77 0	9.11 1	-7.04 0	-1.00 2
1.88990	2.58608	6.80	39.00	1.92 0	7.03 1	-6.02 0	-7.80 1
1.91166	2.59319	6.80	40.00	2.05 0	7.37 1	-6.14 0	-8.16 1
1.93296	2.60046	6.80	41.00	2.18 0	7.72 1	-6.26 0	-8.52 1
1.95382	2.60790	6.80	42.00	2.32 0	8.07 1	-6.38 0	-8.90 1
1.90306	2.62478	6.60	37.00	1.65 0	6.42 1	-5.54 0	-7.12 1
1.92606	2.63183	6.60	38.00	1.78 0	6.75 1	-5.65 0	-7.47 1
1.94853	2.63906	6.60	39.00	1.90 0	7.08 1	-5.76 0	-7.82 1
1.89133	2.65962	6.40	34.00	1.29 0	5.51 1	-4.98 0	-6.13 1
1.91644	2.66633	6.40	35.00	1.40 0	5.82 1	-5.08 0	-6.46 1
1.94088	2.67328	6.40	36.00	1.52 0	6.14 1	-5.19 0	-6.80 1
1.90302	2.70451	6.20	32.00	1.06 0	4.95 1	-4.55 0	-5.51 1
1.92991	2.71104	6.20	33.00	1.17 0	5.25 1	-4.65 0	-5.83 1
1.95600	2.71786	6.20	34.00	1.28 0	5.55 1	-4.75 0	-6.15 1
1.88428	2.74712	6.00	29.00	7.54-1	4.13 1	-4.06 0	-4.62 1
1.91427	2.75300	6.00	30.00	8.57-1	4.41 1	-4.15 0	-4.92 1
1.94323	2.75928	6.00	31.00	9.61-1	4.69 1	-4.24 0	-5.22 1
1.89205	2.80014	5.80	27.00	5.72-1	3.63 1	-3.69 0	-4.07 1
1.92471	2.80557	5.80	28.00	6.69-1	3.90 1	-3.77 0	-4.35 1
1.95613	2.81149	5.80	29.00	7.68-1	4.17 1	-3.86 0	-4.64 1
1.89793	2.85800	5.60	25.00	4.06-1	3.16 1	-3.34 0	-3.55 1
1.93380	2.86280	5.60	26.00	4.98-1	3.41 1	-3.41 0	-3.81 1
1.90103	2.92152	5.40	23.00	2.56-1	2.71 1	-3.00 0	-3.05 1
1.94083	2.92543	5.40	24.00	3.43-1	2.94 1	-3.08 0	-3.30 1
1.90005	2.99178	5.20	21.00	1.20-1	2.29 1	-2.69 0	-2.59 1
1.94474	2.99442	5.20	22.00	2.03-1	2.51 1	-2.76 0	-2.82 1
1.89309	3.07026	5.00	19.00	-6.46-4	1.90 1	-2.40 0	-2.16 1
1.91896	3.07046	5.00	19.50	3.84-2	2.00 1	-2.43 0	-2.26 1
1.94402	3.07106	5.00	20.00	7.74-2	2.10 1	-2.47 0	-2.37 1
1.93639	3.15710	4.80	18.00	-3.45-2	1.73 1	-2.19 0	-1.96 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.90741	3.15780	4.80	17.50	-7.14-2	1.63 1	-2.16 0	-1.86 1
1.95126	3.25315	4.60	16.50	-9.85-2	1.47 1	-1.96 0	-1.67 1
1.91839	3.25511	4.60	16.00	-1.33-1	1.38 1	-1.93 0	-1.58 1
1.88411	3.25781	4.60	15.50	-1.68-1	1.30 1	-1.91 0	-1.48 1
1.92411	3.36433	4.40	14.50	-1.87-1	1.15 1	-1.72 0	-1.31 1
1.88443	3.36906	4.40	14.00	-2.20-1	1.07 1	-1.70 0	-1.23 1
1.92161	3.48839	4.20	13.00	-2.33-1	9.33 0	-1.52 0	-1.07 1
1.95937	3.62148	4.00	12.00	-2.42-1	8.04 0	-1.36 0	-9.26 0
1.90615	3.63163	4.00	11.50	-2.71-1	7.37 0	-1.33 0	-8.54 0
1.92123	3.70568	3.90	11.00	-2.73-1	6.78 0	-1.26 0	-7.86 0
1.93561	3.78451	3.80	10.50	-2.74-1	6.21 0	-1.18 0	-7.21 0
1.94902	3.86869	3.70	10.00	-2.75-1	5.66 0	-1.11 0	-6.58 0
1.92115	3.87576	3.70	9.80	-2.86-1	5.43 0	-1.10 0	-6.33 0
1.89241	3.88337	3.70	9.60	-2.96-1	5.20 0	-1.09 0	-6.08 0
1.94603	3.96285	3.60	9.40	-2.80-1	5.02 0	-1.03 0	-5.85 0
1.91522	3.97137	3.60	9.20	-2.90-1	4.80 0	-1.03 0	-5.61 0
1.88336	3.98055	3.60	9.00	-3.00-1	4.59 0	-1.02 0	-5.38 0
1.93813	4.06526	3.50	8.80	-2.84-1	4.41 0	-9.63-1	-5.16 0
1.90379	4.07558	3.50	8.60	-2.94-1	4.21 0	-9.57-1	-4.94 0
1.92379	4.17736	3.40	8.20	-2.86-1	3.84 0	-8.95-1	-4.51 0
1.88517	4.18996	3.40	8.00	-2.96-1	3.65 0	-8.89-1	-4.30 0
1.94305	4.28671	3.30	7.80	-2.79-1	3.49 0	-8.35-1	-4.10 0
1.90097	4.30103	3.30	7.60	-2.88-1	3.30 0	-8.30-1	-3.90 0
1.91505	4.42096	3.20	7.20	-2.80-1	2.97 0	-7.72-1	-3.52 0
1.92674	4.55102	3.10	6.80	-2.71-1	2.66 0	-7.17-1	-3.15 0
1.93511	4.69272	3.00	6.40	-2.62-1	2.35 0	-6.64-1	-2.80 0
1.93891	4.84794	2.90	6.00	-2.53-1	2.07 0	-6.13-1	-2.47 0
1.93642	5.01905	2.80	5.60	-2.43-1	1.80 0	-5.64-1	-2.16 0
1.92525	5.20910	2.70	5.20	-2.33-1	1.55 0	-5.17-1	-1.86 0
1.90200	5.42207	2.60	4.80	-2.23-1	1.31 0	-4.73-1	-1.59 0
1.92724	5.87395	2.40	4.20	-1.97-1	9.99-1	-3.93-1	-1.22 0
1.92861	6.14076	2.30	3.90	-1.84-1	8.56-1	-3.56-1	-1.05 0
1.91764	6.44272	2.20	3.60	-1.71-1	7.23-1	-3.20-1	-8.89-1
1.88835	6.78831	2.10	3.30	-1.58-1	5.99-1	-2.87-1	-7.42-1
1.94779	7.12386	2.00	3.10	-1.43-1	5.26-1	-2.57-1	-6.52-1
1.89745	7.79410	1.85	2.70	-1.24-1	3.88-1	-2.13-1	-4.86-1
1.91774	8.02454	1.80	2.60	-1.17-1	3.57-1	-2.00-1	-4.48-1
1.93648	8.27222	1.75	2.50	-1.10-1	3.27-1	-1.87-1	-4.12-1
1.95307	8.53924	1.70	2.40	-1.04-1	2.99-1	-1.74-1	-3.77-1
1.94027	10.7250	1.40	1.80	-6.81-2	1.53-1	-1.09-1	-1.98-1
1.89762	11.2325	1.35	1.70	-6.28-2	1.33-1	-9.94-2	-1.73-1
1.90232	12.9789	1.20	1.45	-4.74-2	9.01-2	-7.40-2	-1.19-1
1.95190	14.4588	1.10	1.30	-3.81-2	6.83-2	-5.92-2	-9.10-2
1.94689	16.3766	1.00	1.15	-2.98-2	4.95-2	-4.61-2	-6.69-2
1.92095	19.4832	0.88	0.98	-2.11-2	3.19-2	-3.27-2	-4.42-2
1.91509	21.5061	0.82	0.90	-1.73-2	2.51-2	-2.70-2	-3.52-2
1.92323	29.5747	0.66	0.70	-9.13-3	1.18-2	-1.46-2	-1.75-2
1.89658	40.6271	0.54	0.56	-4.82-3	5.77-3	-8.14-3	-9.18-3
1.96	2.04						
1.96600	2.34642	10.00	87.00	1.61 1	2.66 2	-2.42 1	-2.89 2
1.97962	2.35554	10.00	88.00	1.65 1	2.71 2	-2.46 1	-2.94 2
1.97182	2.35881	9.80	85.00	1.49 1	2.57 2	-2.27 1	-2.79 2
1.96498	2.36355	9.60	82.00	1.34 1	2.44 2	-2.09 1	-2.65 2
1.99329	2.36477	10.00	89.00	1.70 1	2.76 2	-2.50 1	-2.99 2
1.98545	2.36783	9.80	86.00	1.53 1	2.62 2	-2.31 1	-2.84 2
1.97861	2.37236	9.60	83.00	1.38 1	2.48 2	-2.13 1	-2.70 2
2.00702	2.37413	10.00	90.00	1.75 1	2.81 2	-2.55 1	-3.04 2
1.99912	2.37695	9.80	87.00	1.58 1	2.67 2	-2.35 1	-2.89 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.97271	2.37836	9.40	80.00	1.24 1	2.35 2	-1.96 1	-2.55 2
1.99228	2.38128	9.60	84.00	1.42 1	2.53 2	-2.17 1	-2.75 2
1.96764	2.38581	9.20	77.00	1.12 1	2.21 2	-1.81 1	-2.41 2
2.01284	2.38619	9.80	88.00	1.62 1	2.72 2	-2.39 1	-2.94 2
1.98641	2.38710	9.40	81.00	1.28 1	2.40 2	-2.00 1	-2.60 2
2.00597	2.39031	9.60	85.00	1.46 1	2.58 2	-2.20 1	-2.80 2
1.98143	2.39438	9.20	78.00	1.15 1	2.26 2	-1.84 1	-2.46 2
1.96334	2.39470	9.00	74.00	1.00 1	2.08 2	-1.67 1	-2.26 2
2.02661	2.39555	9.80	89.00	1.66 1	2.77 2	-2.43 1	-2.99 2
2.00012	2.39593	9.40	82.00	1.32 1	2.44 2	-2.03 1	-2.65 2
2.01970	2.39944	9.60	86.00	1.50 1	2.63 2	-2.24 1	-2.85 2
1.99522	2.40305	9.20	79.00	1.18 1	2.31 2	-1.87 1	-2.51 2
1.97727	2.40314	9.00	75.00	1.03 1	2.13 2	-1.70 1	-2.31 2
2.01386	2.40487	9.40	83.00	1.35 1	2.49 2	-2.07 1	-2.70 2
2.03348	2.40870	9.60	87.00	1.54 1	2.68 2	-2.28 1	-2.90 2
1.99118	2.41166	9.00	76.00	1.06 1	2.17 2	-1.72 1	-2.36 2
2.00902	2.41182	9.20	80.00	1.22 1	2.36 2	-1.90 1	-2.55 2
1.97384	2.41337	8.80	72.00	9.25 0	2.00 2	-1.56 1	-2.17 2
2.02763	2.41392	9.40	84.00	1.39 1	2.54 2	-2.10 1	-2.75 2
2.00508	2.42028	9.00	77.00	1.09 1	2.22 2	-1.75 1	-2.41 2
2.02283	2.42069	9.20	81.00	1.25 1	2.40 2	-1.94 1	-2.60 2
1.98792	2.42177	8.80	73.00	9.53 0	2.04 2	-1.59 1	-2.22 2
1.97105	2.42510	8.60	69.00	8.26 0	1.86 2	-1.44 1	-2.03 2
2.01898	2.42899	9.00	78.00	1.13 1	2.27 2	-1.78 1	-2.46 2
2.03665	2.42966	9.20	82.00	1.29 1	2.45 2	-1.97 1	-2.65 2
2.00198	2.43026	8.80	74.00	9.81 0	2.09 2	-1.62 1	-2.27 2
1.98537	2.43339	8.60	70.00	8.52 0	1.91 2	-1.46 1	-2.08 2
2.03288	2.43780	9.00	79.00	1.16 1	2.32 2	-1.82 1	-2.51 2
1.96882	2.43835	8.40	66.00	7.35 0	1.74 2	-1.32 1	-1.89 2
2.01602	2.43883	8.80	75.00	1.01 1	2.14 2	-1.64 1	-2.32 2
1.99964	2.44176	8.60	71.00	8.78 0	1.96 2	-1.49 1	-2.13 2
1.98343	2.44655	8.40	67.00	7.59 0	1.78 2	-1.34 1	-1.94 2
2.03005	2.44750	8.80	76.00	1.04 1	2.18 2	-1.67 1	-2.37 2
2.01388	2.45022	8.60	72.00	9.04 0	2.00 2	-1.51 1	-2.17 2
1.96704	2.45318	8.20	63.00	6.52 0	1.61 2	-1.21 1	-1.76 2
1.99798	2.45482	8.40	68.00	7.83 0	1.83 2	-1.37 1	-1.99 2
2.02809	2.45877	8.60	73.00	9.31 0	2.05 2	-1.54 1	-2.22 2
1.98201	2.46129	8.20	64.00	6.74 0	1.65 2	-1.23 1	-1.80 2
2.01247	2.46319	8.40	69.00	8.08 0	1.87 2	-1.39 1	-2.03 2
1.99690	2.46948	8.20	65.00	6.96 0	1.70 2	-1.26 1	-1.85 2
1.96559	2.46963	8.00	60.00	5.76 0	1.49 2	-1.11 1	-1.62 2
2.02691	2.47163	8.40	70.00	8.33 0	1.92 2	-1.41 1	-2.08 2
1.98100	2.47766	8.00	61.00	5.96 0	1.53 2	-1.13 1	-1.67 2
2.01171	2.47776	8.20	66.00	7.19 0	1.74 2	-1.28 1	-1.90 2
1.99630	2.48578	8.00	62.00	6.17 0	1.57 2	-1.15 1	-1.71 2
2.02645	2.48612	8.20	67.00	7.42 0	1.79 2	-1.30 1	-1.94 2
1.96434	2.48777	7.80	57.00	5.05 0	1.36 2	-1.02 1	-1.49 2
2.01150	2.49399	8.00	63.00	6.38 0	1.62 2	-1.17 1	-1.76 2
1.98027	2.49574	7.80	58.00	5.24 0	1.41 2	-1.04 1	-1.54 2
2.02660	2.50227	8.00	64.00	6.59 0	1.66 2	-1.19 1	-1.81 2
1.99607	2.50380	7.80	59.00	5.44 0	1.45 2	-1.06 1	-1.58 2
1.96313	2.50770	7.60	54.00	4.41 0	1.25 2	-9.32 0	-1.36 2
2.01173	2.51194	7.80	60.00	5.63 0	1.49 2	-1.07 1	-1.63 2
1.97968	2.51561	7.60	55.00	4.59 0	1.29 2	-9.49 0	-1.41 2
2.02728	2.52016	7.80	61.00	5.83 0	1.64 2	-1.09 1	-1.67 2
1.99606	2.52361	7.60	56.00	4.76 0	1.33 2	-9.66 0	-1.45 2
1.96175	2.52952	7.40	51.00	3.82 0	1.13 2	-8.51 0	-1.24 2
2.01229	2.53169	7.60	57.00	4.95 0	1.37 2	-9.83 0	-1.49 2
1.97904	2.53736	7.40	52.00	3.98 0	1.17 2	-8.66 0	-1.28 2
2.02837	2.53986	7.60	58.00	5.13 0	1.41 2	-1.00 1	-1.54 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.99613	2.54531	7.40	53.00	4.15 0	1.21 2	-8.82 0	-1.32 2
2.01302	2.55334	7.40	54.00	4.32 0	1.25 2	-8.98 0	-1.37 2
1.97813	2.56115	7.20	49.00	3.43 0	1.06 2	-7.89 0	-1.16 2
2.02973	2.56146	7.40	55.00	4.49 0	1.29 2	-9.14 0	-1.41 2
1.99605	2.56903	7.20	50.00	3.58 0	1.10 2	-8.04 0	-1.20 2
2.01372	2.57701	7.20	51.00	3.74 0	1.14 2	-8.18 0	-1.24 2
2.03118	2.58508	7.20	52.00	3.90 0	1.18 2	-8.33 0	-1.28 2
1.97667	2.58711	7.00	46.00	2.92 0	9.48 1	-7.17 0	-1.04 2
1.99557	2.59492	7.00	47.00	3.06 0	9.86 1	-7.31 0	-1.08 2
2.01418	2.60284	7.00	48.00	3.21 0	1.02 2	-7.44 0	-1.12 2
2.03253	2.61086	7.00	49.00	3.36 0	1.06 2	-7.58 0	-1.16 2
1.97428	2.61547	6.80	43.00	2.45 0	8.43 1	-6.50 0	-9.27 1
1.99437	2.62318	6.80	44.00	2.59 0	8.80 1	-6.63 0	-9.66 1
2.01410	2.63102	6.80	45.00	2.73 0	9.17 1	-6.75 0	-1.00 2
2.03350	2.63898	6.80	46.00	2.86 0	9.54 1	-6.88 0	-1.04 2
1.97050	2.64648	6.60	40.00	2.03 0	7.42 1	-5.88 0	-8.18 1
1.99201	2.65405	6.60	41.00	2.15 0	7.77 1	-5.99 0	-8.55 1
2.01308	2.66178	6.60	42.00	2.28 0	8.13 1	-6.11 0	-8.92 1
2.03375	2.66964	6.60	43.00	2.41 0	8.49 1	-6.23 0	-9.30 1
1.96469	2.68046	6.40	37.00	1.64 0	6.46 1	-5.29 0	-7.14 1
1.98793	2.68783	6.40	38.00	1.76 0	6.79 1	-5.40 0	-7.49 1
2.01063	2.69540	6.40	39.00	1.88 0	7.13 1	-5.51 0	-7.84 1
2.03282	2.70313	6.40	40.00	2.00 0	7.47 1	-5.62 0	-8.21 1
1.98136	2.72493	6.20	35.00	1.40 0	5.86 1	-4.85 0	-6.48 1
2.00605	2.73225	6.20	36.00	1.51 0	6.18 1	-4.95 0	-6.82 1
2.03011	2.73978	6.20	37.00	1.62 0	6.51 1	-5.05 0	-7.16 1
1.97126	2.76590	6.00	32.00	1.07 0	4.99 1	-4.33 0	-5.53 1
1.99842	2.77284	6.00	33.00	1.17 0	5.29 1	-4.43 0	-5.85 1
2.02478	2.78006	6.00	34.00	1.28 0	5.59 1	-4.52 0	-6.17 1
1.98642	2.81784	5.80	30.00	8.67-1	4.45 1	-3.94 0	-4.94 1
2.01568	2.82456	5.80	31.00	9.67-1	4.73 1	-4.03 0	-5.24 1
1.96816	2.86822	5.60	27.00	5.91-1	3.66 1	-3.49 0	-4.09 1
2.00116	2.87417	5.60	28.00	6.85-1	3.93 1	-3.57 0	-4.37 1
2.03291	2.88060	5.60	29.00	7.79-1	4.20 1	-3.65 0	-4.66 1
1.97875	2.93014	5.40	25.00	4.31-1	3.19 1	-3.15 0	-3.56 1
2.01500	2.93554	5.40	26.00	5.19-1	3.44 1	-3.23 0	-3.83 1
1.98706	2.99812	5.20	23.00	2.86-1	2.73 1	-2.83 0	-3.06 1
2.02728	3.00271	5.20	24.00	3.69-1	2.97 1	-2.90 0	-3.31 1
1.99187	3.07328	5.00	21.00	1.56-1	2.31 1	-2.53 0	-2.60 1
2.03703	3.07670	5.00	22.00	2.34-1	2.53 1	-2.59 0	-2.83 1
1.96436	3.15689	4.80	18.50	2.39-3	1.82 1	-2.22 0	-2.06 1
1.99138	3.15714	4.80	19.00	3.93-2	1.92 1	-2.25 0	-2.17 1
2.01751	3.15781	4.80	19.50	7.63-2	2.02 1	-2.28 0	-2.27 1
2.01323	3.25115	4.60	17.50	-2.89-2	1.65 1	-2.01 0	-1.86 1
1.98284	3.25185	4.60	17.00	-6.37-2	1.56 1	-1.99 0	-1.77 1
2.03274	3.35572	4.40	16.00	-8.85-2	1.40 1	-1.80 0	-1.58 1
1.99811	3.35776	4.40	15.50	-1.21-1	1.31 1	-1.77 0	-1.49 1
1.96195	3.36060	4.40	15.00	-1.54-1	1.23 1	-1.74 0	-1.40 1
2.00809	3.47705	4.20	14.00	-1.71-1	1.08 1	-1.57 0	-1.24 1
1.96597	3.48210	4.20	13.50	-2.02-1	1.01 1	-1.54 0	-1.15 1
2.00948	3.61314	4.00	12.50	-2.13-1	8.73 0	-1.38 0	-1.00 1
2.03171	3.68442	3.90	12.00	-2.17-1	8.09 0	-1.30 0	-9.28 0
1.97823	3.69402	3.90	11.50	-2.45-1	7.42 0	-1.28 0	-8.56 0
1.99688	3.77109	3.80	11.00	-2.47-1	6.83 0	-1.20 0	-7.88 0
2.01513	3.85319	3.70	10.50	-2.48-1	6.25 0	-1.13 0	-7.22 0
2.03273	3.94089	3.60	10.00	-2.49-1	5.70 0	-1.06 0	-6.59 0
2.00473	3.94765	3.60	9.80	-2.59-1	5.47 0	-1.05 0	-6.34 0
1.97585	3.95496	3.60	9.60	-2.70-1	5.24 0	-1.04 0	-6.09 0
2.03424	4.03870	3.50	9.40	-2.54-1	5.06 0	-9.83-1	-5.86 0
2.00328	4.04687	3.50	9.20	-2.64-1	4.84 0	-9.77-1	-5.63 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.97127	4.05571	3.50	9.00	-2.74-1	4.62 0	-9.70-1	-5.39 0
2.03122	4.14503	3.40	8.80	-2.57-1	4.45 0	-9.14-1	-5.17 0
1.99673	4.15496	3.40	8.60	-2.67-1	4.24 0	-9.07-1	-4.95 0
1.96095	4.16572	3.40	8.40	-2.77-1	4.04 0	-9.01-1	-4.73 0
2.02223	4.26135	3.30	8.20	-2.60-1	3.87 0	-8.47-1	-4.52 0
1.98343	4.27351	3.30	8.00	-2.69-1	3.68 0	-8.41-1	-4.31 0
2.00525	4.38957	3.20	7.60	-2.62-1	3.33 0	-7.83-1	-3.91 0
1.96115	4.40461	3.20	7.40	-2.70-1	3.15 0	-7.78-1	-3.71 0
2.02598	4.51498	3.10	7.20	-2.53-1	3.00 0	-7.27-1	-3.52 0
1.97753	4.53221	3.10	7.00	-2.62-1	2.82 0	-7.22-1	-3.33 0
1.99145	4.67093	3.00	6.60	-2.53-1	2.51 0	-6.69-1	-2.98 0
2.00188	4.82249	2.90	6.20	-2.44-1	2.22 0	-6.18-1	-2.64 0
2.00744	4.98905	2.80	5.80	-2.35-1	1.94 0	-5.68-1	-2.32 0
2.00618	5.17331	2.70	5.40	-2.26-1	1.68 0	-5.21-1	-2.01 0
1.99535	5.37882	2.60	5.00	-2.16-1	1.44 0	-4.76-1	-1.73 0
1.97098	5.61023	2.50	4.60	-2.06-1	1.21 0	-4.34-1	-1.46 0
1.99855	6.10506	2.30	4.00	-1.80-1	9.07-1	-3.57-1	-1.10 0
1.99910	6.39982	2.20	3.70	-1.68-1	7.70-1	-3.22-1	-9.41-1
1.98474	6.73585	2.10	3.40	-1.55-1	6.43-1	-2.88-1	-7.91-1
1.97846	7.30740	1.95	3.00	-1.36-1	4.90-1	-2.42-1	-6.08-1
2.00966	7.50286	1.90	2.90	-1.28-1	4.56-1	-2.28-1	-5.67-1
1.96673	8.82806	1.65	2.30	-9.73-2	2.72-1	-1.62-1	-3.43-1
1.97641	9.14161	1.60	2.20	-9.11-2	2.45-1	-1.51-1	-3.11-1
1.98075	9.48339	1.55	2.10	-8.50-2	2.21-1	-1.40-1	-2.81-1
1.97794	9.85760	1.50	2.00	-7.92-2	1.97-1	-1.29-1	-2.51-1
1.96554	10.2694	1.45	1.90	-7.35-2	1.74-1	-1.19-1	-2.24-1
1.99889	12.2755	1.25	1.55	-5.20-2	1.07-1	-8.21-2	-1.39-1
2.03753	17.2339	0.96	1.10	-2.67-2	4.40-2	-4.14-2	-5.98-2
1.98091	24.8873	0.74	0.80	-1.29-2	1.78-2	-2.03-2	-2.55-2
2.04	2.12						
2.04044	2.40504	9.80	90.00	1.71 1	2.82 2	-2.48 1	-3.04 2
2.04730	2.41807	9.60	88.00	1.58 1	2.73 2	-2.32 1	-2.95 2
2.04143	2.42308	9.40	85.00	1.43 1	2.59 2	-2.14 1	-2.80 2
2.06118	2.42755	9.60	89.00	1.62 1	2.78 2	-2.37 1	-3.00 2
2.05527	2.43235	9.40	86.00	1.47 1	2.64 2	-2.18 1	-2.85 2
2.07512	2.43717	9.60	90.00	1.67 1	2.83 2	-2.41 1	-3.05 2
2.05050	2.43874	9.20	83.00	1.32 1	2.50 2	-2.01 1	-2.70 2
2.06916	2.44173	9.40	87.00	1.51 1	2.69 2	-2.22 1	-2.90 2
2.04679	2.44671	9.00	80.00	1.19 1	2.37 2	-1.85 1	-2.56 2
2.06438	2.44792	9.20	84.00	1.36 1	2.55 2	-2.04 1	-2.75 2
2.08309	2.45124	9.40	88.00	1.55 1	2.74 2	-2.26 1	-2.95 2
2.06071	2.45572	9.00	81.00	1.22 1	2.41 2	-1.88 1	-2.61 2
2.04407	2.45627	8.80	77.00	1.07 1	2.23 2	-1.70 1	-2.41 2
2.07830	2.45722	9.20	85.00	1.39 1	2.60 2	-2.08 1	-2.80 2
2.09708	2.46086	9.40	89.00	1.59 1	2.79 2	-2.30 1	-3.00 2
2.07466	2.46484	9.00	82.00	1.26 1	2.46 2	-1.91 1	-2.66 2
2.05809	2.46513	8.80	78.00	1.10 1	2.28 2	-1.73 1	-2.46 2
2.09225	2.46662	9.20	86.00	1.43 1	2.65 2	-2.11 1	-2.85 2
2.04227	2.46741	8.60	74.00	9.59 0	2.10 2	-1.56 1	-2.27 2
2.11113	2.47060	9.40	90.00	1.63 1	2.83 2	-2.34 1	-3.05 2
2.08862	2.47405	9.00	83.00	1.29 1	2.51 2	-1.95 1	-2.71 2
2.07211	2.47408	8.80	79.00	1.13 1	2.33 2	-1.76 1	-2.51 2
2.05643	2.47614	8.60	75.00	9.87 0	2.14 2	-1.59 1	-2.32 2
2.10625	2.47615	9.20	87.00	1.47 1	2.70 2	-2.15 1	-2.90 2
2.04131	2.48016	8.40	71.00	8.58 0	1.97 2	-1.44 1	-2.13 2
2.08613	2.48313	8.80	80.00	1.16 1	2.37 2	-1.79 1	-2.56 2
2.10262	2.48338	9.00	84.00	1.33 1	2.56 2	-1.98 1	-2.76 2
2.07058	2.48496	8.60	76.00	1.02 1	2.19 2	-1.62 1	-2.37 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.05567	2.48878	8.40	72.00	8.84 0	2.01 2	-1.46 1	-2.18 2
2.10017	2.49229	8.80	81.00	1.19 1	2.42 2	-1.82 1	-2.61 2
2.11664	2.49281	9.00	85.00	1.36 1	2.61 2	-2.02 1	-2.81 2
2.08472	2.49387	8.60	77.00	1.04 1	2.24 2	-1.65 1	-2.42 2
2.04112	2.49456	8.20	68.00	7.66 0	1.84 2	-1.32 1	-1.99 2
2.07000	2.49749	8.40	73.00	9.10 0	2.06 2	-1.49 1	-2.23 2
2.11423	2.50155	8.80	82.00	1.23 1	2.47 2	-1.85 1	-2.66 2
2.09885	2.50288	8.60	78.00	1.07 1	2.29 2	-1.68 1	-2.47 2
2.05574	2.50308	8.20	69.00	7.89 0	1.88 2	-1.34 1	-2.04 2
2.08431	2.50628	8.40	74.00	9.36 0	2.11 2	-1.51 1	-2.28 2
2.04162	2.51064	8.00	65.00	6.81 0	1.71 2	-1.21 1	-1.85 2
2.07032	2.51169	8.20	70.00	8.13 0	1.93 2	-1.37 1	-2.09 2
2.11300	2.51198	8.60	79.00	1.10 1	2.34 2	-1.71 1	-2.52 2
2.09860	2.51516	8.40	75.00	9.64 0	2.15 2	-1.54 1	-2.32 2
2.05657	2.51909	8.00	66.00	7.03 0	1.75 2	-1.23 1	-1.90 2
2.08484	2.52038	8.20	71.00	8.38 0	1.97 2	-1.39 1	-2.13 2
2.11287	2.52414	8.40	76.00	9.91 0	2.20 2	-1.57 1	-2.37 2
2.07144	2.52762	8.00	67.00	7.25 0	1.80 2	-1.26 1	-1.95 2
2.04272	2.52846	7.80	62.00	6.03 0	1.58 2	-1.11 1	-1.72 2
2.09934	2.52916	8.20	72.00	8.63 0	2.02 2	-1.42 1	-2.18 2
2.08626	2.53623	8.00	68.00	7.48 0	1.84 2	-1.28 1	-1.99 2
2.05806	2.53685	7.80	63.00	6.23 0	1.63 2	-1.13 1	-1.76 2
2.11380	2.53803	8.20	73.00	8.88 0	2.07 2	-1.44 1	-2.23 2
2.10101	2.54492	8.00	69.00	7.71 0	1.89 2	-1.30 1	-2.04 2
2.07331	2.54531	7.80	64.00	6.44 0	1.67 2	-1.15 1	-1.81 2
2.04431	2.54811	7.60	59.00	5.32 0	1.46 2	-1.02 1	-1.58 2
2.11572	2.55370	8.00	70.00	7.94 0	1.94 2	-1.32 1	-2.09 2
2.08847	2.55386	7.80	65.00	6.65 0	1.72 2	-1.17 1	-1.86 2
2.06013	2.55644	7.60	60.00	5.51 0	1.50 2	-1.04 1	-1.63 2
2.10356	2.56249	7.80	66.00	6.86 0	1.76 2	-1.19 1	-1.90 2
2.07583	2.56486	7.60	61.00	5.70 0	1.54 2	-1.05 1	-1.68 2
2.04627	2.56967	7.40	56.00	4.66 0	1.34 2	-9.30 0	-1.45 2
2.11858	2.57120	7.80	67.00	7.08 0	1.81 2	-1.21 1	-1.95 2
2.09141	2.57335	7.60	62.00	5.89 0	1.59 2	-1.07 1	-1.72 2
2.06265	2.57796	7.40	57.00	4.84 0	1.38 2	-9.47 0	-1.50 2
2.10690	2.58193	7.60	63.00	6.09 0	1.63 2	-1.09 1	-1.77 2
2.07889	2.58633	7.40	58.00	5.01 0	1.42 2	-9.64 0	-1.54 2
2.04843	2.59324	7.20	53.00	4.06 0	1.22 2	-8.48 0	-1.33 2
2.09498	2.59478	7.40	59.00	5.19 0	1.47 2	-9.81 0	-1.59 2
2.06549	2.60150	7.20	54.00	4.22 0	1.26 2	-8.64 0	-1.37 2
2.11096	2.60332	7.40	60.00	5.38 0	1.51 2	-9.98 0	-1.63 2
2.08237	2.60984	7.20	55.00	4.39 0	1.30 2	-8.79 0	-1.41 2
2.09907	2.61826	7.20	56.00	4.56 0	1.34 2	-8.95 0	-1.46 2
2.05062	2.61898	7.00	50.00	3.51 0	1.10 2	-7.72 0	-1.20 2
2.11562	2.62677	7.20	57.00	4.73 0	1.39 2	-9.11 0	-1.50 2
2.06848	2.62720	7.00	51.00	3.66 0	1.14 2	-7.86 0	-1.25 2
2.08611	2.63551	7.00	52.00	3.82 0	1.18 2	-8.01 0	-1.29 2
2.10354	2.64390	7.00	53.00	3.97 0	1.23 2	-8.15 0	-1.33 2
2.05260	2.64705	6.80	47.00	3.01 0	9.93 1	-7.01 0	-1.08 2
2.07140	2.65522	6.80	48.00	3.15 0	1.03 2	-7.14 0	-1.12 2
2.08994	2.66350	6.80	49.00	3.29 0	1.07 2	-7.27 0	-1.17 2
2.10822	2.67187	6.80	50.00	3.43 0	1.11 2	-7.41 0	-1.21 2
2.05404	2.67764	6.60	44.00	2.54 0	8.85 1	-6.35 0	-9.69 1
2.07398	2.68576	6.60	45.00	2.68 0	9.23 1	-6.47 0	-1.01 2
2.09359	2.69399	6.60	46.00	2.81 0	9.61 1	-6.59 0	-1.05 2
2.11288	2.70233	6.60	47.00	2.94 0	9.99 1	-6.72 0	-1.09 2
2.05455	2.71102	6.40	41.00	2.12 0	7.82 1	-5.73 0	-8.58 1
2.07585	2.71905	6.40	42.00	2.24 0	8.18 1	-5.84 0	-8.95 1
2.09674	2.72722	6.40	43.00	2.37 0	8.54 1	-5.95 0	-9.33 1
2.11725	2.73552	6.40	44.00	2.50 0	8.91 1	-6.07 0	-9.72 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.05359	2.74751	6.20	38.00	1.74 0	6.84 1	-5.15 0	-7.51 1
2.07653	2.75541	6.20	39.00	1.85 0	7.18 1	-5.26 0	-7.87 1
2.09897	2.76348	6.20	40.00	1.97 0	7.53 1	-5.36 0	-8.23 1
2.05042	2.78753	6.00	35.00	1.39 0	5.91 1	-4.62 0	-6.50 1
2.07537	2.79523	6.00	36.00	1.49 0	6.23 1	-4.71 0	-6.84 1
2.09969	2.80313	6.00	37.00	1.60 0	6.56 1	-4.81 0	-7.19 1
2.04401	2.83163	5.80	32.00	1.07 0	5.03 1	-4.12 0	-5.55 1
2.07146	2.83900	5.80	33.00	1.17 0	5.33 1	-4.21 0	-5.87 1
2.09812	2.84655	5.80	34.00	1.27 0	5.64 1	-4.30 0	-6.19 1
2.06353	2.88744	5.60	30.00	8.74-1	4.48 1	-3.74 0	-4.95 1
2.09312	2.89466	5.60	31.00	9.69-1	4.77 1	-3.82 0	-5.26 1
2.04973	2.94153	5.40	27.00	6.08-1	3.69 1	-3.30 0	-4.10 1
2.08308	2.94804	5.40	28.00	6.97-1	3.96 1	-3.38 0	-4.38 1
2.11519	2.95501	5.40	29.00	7.87-1	4.24 1	-3.46 0	-4.67 1
2.06562	3.00807	5.20	25.00	4.53-1	3.21 1	-2.97 0	-3.57 1
2.10227	3.01410	5.20	26.00	5.37-1	3.47 1	-3.04 0	-3.84 1
2.07982	3.08115	5.00	23.00	3.13-1	2.76 1	-2.66 0	-3.08 1
2.04283	3.15885	4.80	20.00	1.13-1	2.12 1	-2.31 0	-2.38 1
2.09121	3.16195	4.80	21.00	1.87-1	2.34 1	-2.37 0	-2.61 1
2.04251	3.25098	4.60	18.00	5.95-3	1.74 1	-2.04 0	-1.97 1
2.07078	3.25130	4.60	18.50	4.08-2	1.84 1	-2.07 0	-2.07 1
2.09809	3.25206	4.60	19.00	7.57-2	1.94 1	-2.10 0	-2.17 1
2.09788	3.35370	4.40	17.00	-2.29-2	1.58 1	-1.85 0	-1.77 1
2.06595	3.35439	4.40	16.50	-5.57-2	1.48 1	-1.82 0	-1.68 1
2.08641	3.47012	4.20	15.00	-1.09-1	1.24 1	-1.61 0	-1.41 1
2.04817	3.47309	4.20	14.50	-1.40-1	1.16 1	-1.59 0	-1.32 1
2.10161	3.60099	4.00	13.50	-1.55-1	1.02 1	-1.42 0	-1.16 1
2.05679	3.60638	4.00	13.00	-1.84-1	9.45 0	-1.40 0	-1.08 1
2.08207	3.67660	3.90	12.50	-1.89-1	8.79 0	-1.32 0	-1.00 1
2.10792	3.75101	3.80	12.00	-1.93-1	8.14 0	-1.24 0	-9.30 0
2.05416	3.76003	3.80	11.50	-2.20-1	7.47 0	-1.22 0	-8.58 0
2.07670	3.84043	3.70	11.00	-2.22-1	6.87 0	-1.15 0	-7.90 0
2.09917	3.92612	3.60	10.50	-2.24-1	6.30 0	-1.07 0	-7.24 0
2.09322	4.02416	3.50	9.80	-2.34-1	5.51 0	-9.97-1	-6.35 0
2.06420	4.03114	3.50	9.60	-2.44-1	5.28 0	-9.90-1	-6.11 0
2.09669	4.12739	3.40	9.20	-2.38-1	4.87 0	-9.26-1	-5.64 0
2.06452	4.13586	3.40	9.00	-2.48-1	4.66 0	-9.20-1	-5.40 0
2.09551	4.23980	3.30	8.60	-2.41-1	4.27 0	-8.59-1	-4.96 0
2.05955	4.25014	3.30	8.40	-2.51-1	4.07 0	-8.53-1	-4.74 0
2.08809	4.36303	3.20	8.00	-2.44-1	3.71 0	-7.95-1	-4.32 0
2.04752	4.37575	3.20	7.80	-2.53-1	3.51 0	-7.89-1	-4.11 0
2.11659	4.48468	3.10	7.60	-2.36-1	3.36 0	-7.38-1	-3.92 0
2.07228	4.49918	3.10	7.40	-2.45-1	3.17 0	-7.33-1	-3.72 0
2.09602	4.63286	3.00	7.00	-2.37-1	2.85 0	-6.79-1	-3.34 0
2.04500	4.65104	3.00	6.80	-2.45-1	2.68 0	-6.74-1	-3.16 0
2.11810	4.77829	2.90	6.60	-2.28-1	2.54 0	-6.27-1	-2.98 0
2.06151	4.79936	2.90	6.40	-2.36-1	2.38 0	-6.22-1	-2.81 0
2.07438	4.96189	2.80	6.00	-2.28-1	2.09 0	-5.73-1	-2.48 0
2.08205	5.14110	2.70	5.60	-2.18-1	1.82 0	-5.25-1	-2.16 0
2.08229	5.34014	2.60	5.20	-2.09-1	1.57 0	-4.80-1	-1.87 0
2.07195	5.56311	2.50	4.80	-2.00-1	1.33 0	-4.37-1	-1.59 0
2.04637	5.81554	2.40	4.40	-1.90-1	1.11 0	-3.96-1	-1.34 0
2.07649	6.35994	2.20	3.80	-1.65-1	8.18-1	-3.23-1	-9.95-1
2.07579	6.68740	2.10	3.50	-1.52-1	6.87-1	-2.89-1	-8.40-1
2.05686	7.06382	2.00	3.20	-1.40-1	5.66-1	-2.58-1	-6.97-1
2.09490	7.24292	1.95	3.10	-1.33-1	5.30-1	-2.43-1	-6.53-1
2.04125	7.71149	1.85	2.80	-1.21-1	4.23-1	-2.14-1	-5.26-1
2.07307	7.93469	1.80	2.70	-1.15-1	3.91-1	-2.01-1	-4.87-1
2.10488	8.17413	1.75	2.60	-1.08-1	3.60-1	-1.88-1	-4.49-1
2.11536	10.6164	1.40	1.85	-6.71-2	1.65-1	-1.09-1	-2.11-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.09691	11.1076	1.35	1.75	-6.19-2	1.44-1	-9.96-2	-1.85-1
2.06041	11.6568	1.30	1.65	-5.68-2	1.25-1	-9.06-2	-1.62-1
2.09881	13.5670	1.15	1.40	-4.22-2	8.30-2	-6.64-2	-1.09-1
2.04230	20.0354	0.86	0.96	-1.98-2	3.02-2	-3.07-2	-4.19-2
2.04977	22.1869	0.80	0.88	-1.61-2	2.36-2	-2.52-2	-3.32-2
2.11088	30.8883	0.64	0.68	-8.27-3	1.08-2	-1.34-2	-1.62-2
2.12	2.20						
2.12029	2.48578	9.20	88.00	1.51 1	2.75 2	-2.19 1	-2.95 2
2.13440	2.49554	9.20	89.00	1.55 1	2.79 2	-2.23 1	-3.00 2
2.13071	2.50236	9.00	86.00	1.40 1	2.66 2	-2.05 1	-2.86 2
2.14856	2.50543	9.20	90.00	1.59 1	2.84 2	-2.27 1	-3.05 2
2.12832	2.51091	8.80	83.00	1.26 1	2.52 2	-1.89 1	-2.71 2
2.14483	2.51202	9.00	87.00	1.44 1	2.71 2	-2.09 1	-2.91 2
2.14243	2.52038	8.80	84.00	1.29 1	2.57 2	-1.92 1	-2.76 2
2.12714	2.52119	8.60	80.00	1.13 1	2.38 2	-1.73 1	-2.57 2
2.15899	2.52180	9.00	88.00	1.47 1	2.76 2	-2.13 1	-2.96 2
2.15658	2.52996	8.80	85.00	1.33 1	2.62 2	-1.95 1	-2.81 2
2.14131	2.53049	8.60	81.00	1.17 1	2.43 2	-1.77 1	-2.62 2
2.17322	2.53170	9.00	89.00	1.51 1	2.80 2	-2.16 1	-3.01 2
2.12714	2.53321	8.40	77.00	1.02 1	2.25 2	-1.59 1	-2.42 2
2.17077	2.53965	8.80	86.00	1.36 1	2.67 2	-1.99 1	-2.86 2
2.15549	2.53990	8.60	82.00	1.20 1	2.48 2	-1.80 1	-2.67 2
2.18750	2.54173	9.00	90.00	1.55 1	2.85 2	-2.20 1	-3.06 2
2.14140	2.54237	8.40	78.00	1.05 1	2.30 2	-1.62 1	-2.47 2
2.12824	2.54699	8.20	74.00	9.14 0	2.12 2	-1.46 1	-2.28 2
2.16970	2.54941	8.60	83.00	1.23 1	2.53 2	-1.83 1	-2.72 2
2.18501	2.54946	8.80	87.00	1.40 1	2.72 2	-2.02 1	-2.91 2
2.15567	2.55163	8.40	79.00	1.08 1	2.35 2	-1.65 1	-2.52 2
2.14265	2.55603	8.20	75.00	9.40 0	2.16 2	-1.49 1	-2.33 2
2.18394	2.55903	8.60	84.00	1.26 1	2.58 2	-1.86 1	-2.77 2
2.19930	2.55939	8.80	88.00	1.44 1	2.76 2	-2.06 1	-2.96 2
2.16995	2.56099	8.40	80.00	1.11 1	2.39 2	-1.68 1	-2.57 2
2.13039	2.56256	8.00	71.00	8.18 0	1.98 2	-1.34 1	-2.14 2
2.15706	2.56517	8.20	76.00	9.67 0	2.21 2	-1.52 1	-2.38 2
2.19821	2.56876	8.60	85.00	1.30 1	2.63 2	-1.89 1	-2.82 2
2.18424	2.57045	8.40	81.00	1.14 1	2.44 2	-1.71 1	-2.62 2
2.14501	2.57151	8.00	72.00	8.42 0	2.03 2	-1.37 1	-2.19 2
2.17146	2.57440	8.20	77.00	9.94 0	2.26 2	-1.54 1	-2.43 2
2.13353	2.57999	7.80	68.00	7.30 0	1.85 2	-1.23 1	-2.00 2
2.19855	2.58001	8.40	82.00	1.17 1	2.49 2	-1.74 1	-2.67 2
2.15961	2.58055	8.00	73.00	8.66 0	2.08 2	-1.39 1	-2.24 2
2.18585	2.58373	8.20	78.00	1.02 1	2.31 2	-1.57 1	-2.48 2
2.14843	2.58886	7.80	69.00	7.52 0	1.90 2	-1.25 1	-2.05 2
2.17419	2.58968	8.00	74.00	8.91 0	2.13 2	-1.42 1	-2.29 2
2.12230	2.59058	7.60	64.00	6.29 0	1.68 2	-1.11 1	-1.81 2
2.16328	2.59781	7.80	70.00	7.75 0	1.95 2	-1.28 1	-2.10 2
2.18874	2.59889	8.00	75.00	9.17 0	2.17 2	-1.44 1	-2.33 2
2.13761	2.59931	7.60	65.00	6.49 0	1.72 2	-1.13 1	-1.86 2
2.17809	2.60685	7.80	71.00	7.97 0	1.99 2	-1.30 1	-2.14 2
2.15285	2.60813	7.60	66.00	6.69 0	1.77 2	-1.15 1	-1.91 2
2.12681	2.61193	7.40	61.00	5.56 0	1.55 2	-1.02 1	-1.68 2
2.19286	2.61598	7.80	72.00	8.21 0	2.04 2	-1.32 1	-2.19 2
2.16801	2.61702	7.60	67.00	6.90 0	1.82 2	-1.17 1	-1.96 2
2.14256	2.62062	7.40	62.00	5.75 0	1.60 2	-1.03 1	-1.73 2
2.18311	2.62600	7.60	68.00	7.12 0	1.86 2	-1.19 1	-2.00 2
2.15820	2.62940	7.40	63.00	5.94 0	1.64 2	-1.05 1	-1.77 2
2.19816	2.63505	7.60	69.00	7.33 0	1.91 2	-1.21 1	-2.05 2
2.13202	2.63535	7.20	58.00	4.90 0	1.43 2	-9.27 0	-1.55 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.17375	2.63825	7.40	64.00	6.13 0	1.69 2	-1.07 1	-1.82 2
2.14829	2.64402	7.20	59.00	5.07 0	1.47 2	-9.44 0	-1.59 2
2.18922	2.64718	7.40	65.00	6.33 0	1.73 2	-1.09 1	-1.87 2
2.12077	2.65239	7.00	54.00	4.13 0	1.27 2	-8.30 0	-1.37 2
2.16442	2.65276	7.20	60.00	5.25 0	1.52 2	-9.60 0	-1.64 2
2.13783	2.66096	7.00	55.00	4.29 0	1.31 2	-8.45 0	-1.42 2
2.18044	2.66158	7.20	61.00	5.43 0	1.56 2	-9.77 0	-1.68 2
2.15471	2.66961	7.00	56.00	4.45 0	1.35 2	-8.60 0	-1.46 2
2.19635	2.67048	7.20	62.00	5.61 0	1.61 2	-9.95 0	-1.73 2
2.17143	2.67833	7.00	57.00	4.61 0	1.39 2	-8.76 0	-1.51 2
2.12626	2.68033	6.80	51.00	3.58 0	1.15 2	-7.55 0	-1.25 2
2.18800	2.68714	7.00	58.00	4.78 0	1.44 2	-8.91 0	-1.55 2
2.14408	2.68889	6.80	52.00	3.73 0	1.19 2	-7.68 0	-1.29 2
2.16170	2.69753	6.80	53.00	3.88 0	1.23 2	-7.82 0	-1.34 2
2.17912	2.70626	6.80	54.00	4.03 0	1.27 2	-7.97 0	-1.38 2
2.13189	2.71078	6.60	48.00	3.08 0	1.04 2	-6.84 0	-1.13 2
2.19635	2.71506	6.80	55.00	4.18 0	1.32 2	-8.11 0	-1.42 2
2.15063	2.71932	6.60	49.00	3.22 0	1.08 2	-6.97 0	-1.17 2
2.16911	2.72796	6.60	50.00	3.36 0	1.12 2	-7.10 0	-1.21 2
2.18735	2.73668	6.60	51.00	3.50 0	1.16 2	-7.23 0	-1.25 2
2.13741	2.74394	6.40	45.00	2.62 0	9.29 1	-6.19 0	-1.01 2
2.15723	2.75246	6.40	46.00	2.75 0	9.67 1	-6.31 0	-1.05 2
2.17674	2.76109	6.40	47.00	2.88 0	1.01 2	-6.43 0	-1.09 2
2.19596	2.76982	6.40	48.00	3.01 0	1.04 2	-6.55 0	-1.13 2
2.12094	2.77170	6.20	41.00	2.09 0	7.88 1	-5.47 0	-8.60 1
2.14247	2.78006	6.20	42.00	2.20 0	8.24 1	-5.58 0	-8.98 1
2.16360	2.78855	6.20	43.00	2.32 0	8.60 1	-5.69 0	-9.36 1
2.18434	2.79716	6.20	44.00	2.44 0	8.97 1	-5.80 0	-9.75 1
2.12344	2.81123	6.00	38.00	1.71 0	6.89 1	-4.91 0	-7.54 1
2.14663	2.81949	6.00	39.00	1.82 0	7.23 1	-5.01 0	-7.90 1
2.16933	2.82792	6.00	40.00	1.93 0	7.58 1	-5.11 0	-8.26 1
2.19155	2.83649	6.00	41.00	2.05 0	7.94 1	-5.21 0	-8.63 1
2.12404	2.85453	5.80	35.00	1.37 0	5.95 1	-4.39 0	-6.53 1
2.14927	2.86263	5.80	36.00	1.48 0	6.28 1	-4.48 0	-6.87 1
2.17388	2.87094	5.80	37.00	1.58 0	6.61 1	-4.58 0	-7.21 1
2.19790	2.87942	5.80	38.00	1.69 0	6.94 1	-4.67 0	-7.57 1
2.12176	2.90220	5.60	32.00	1.07 0	5.07 1	-3.91 0	-5.57 1
2.14953	2.91002	5.60	33.00	1.16 0	5.37 1	-3.99 0	-5.89 1
2.17650	2.91811	5.60	34.00	1.26 0	5.68 1	-4.08 0	-6.22 1
2.14617	2.96238	5.40	30.00	8.77-1	4.52 1	-3.54 0	-4.97 1
2.17610	2.97010	5.40	31.00	9.68-1	4.81 1	-3.62 0	-5.28 1
2.13739	3.02070	5.20	27.00	6.22-1	3.73 1	-3.12 0	-4.12 1
2.17114	3.02781	5.20	28.00	7.07-1	4.00 1	-3.19 0	-4.40 1
2.12049	3.08647	5.00	24.00	3.92-1	3.00 1	-2.73 0	-3.33 1
2.15927	3.09253	5.00	25.00	4.72-1	3.24 1	-2.79 0	-3.59 1
2.19636	3.09923	5.00	26.00	5.52-1	3.50 1	-2.86 0	-3.86 1
2.13688	3.16622	4.80	22.00	2.62-1	2.56 1	-2.43 0	-2.84 1
2.18017	3.17147	4.80	23.00	3.37-1	2.79 1	-2.49 0	-3.09 1
2.12452	3.25323	4.60	19.50	1.11-1	2.04 1	-2.13 0	-2.28 1
2.15013	3.25476	4.60	20.00	1.46-1	2.14 1	-2.16 0	-2.39 1
2.19908	3.25880	4.60	21.00	2.16-1	2.36 1	-2.21 0	-2.62 1
2.12860	3.35359	4.40	17.50	9.92-3	1.67 1	-1.87 0	-1.87 1
2.15822	3.35400	4.40	18.00	4.28-2	1.76 1	-1.90 0	-1.97 1
2.18681	3.35489	4.40	18.50	7.57-2	1.86 1	-1.93 0	-2.08 1
2.19157	3.46602	4.20	16.50	-1.66-2	1.50 1	-1.69 0	-1.68 1
2.15797	3.46667	4.20	16.00	-4.75-2	1.41 1	-1.66 0	-1.59 1
2.12296	3.46800	4.20	15.50	-7.83-2	1.33 1	-1.64 0	-1.50 1
2.18471	3.59371	4.00	14.50	-9.68-2	1.18 1	-1.46 0	-1.33 1
2.14418	3.59681	4.00	14.00	-1.26-1	1.10 1	-1.44 0	-1.24 1
2.17471	3.66544	3.90	13.50	-1.33-1	1.03 1	-1.36 0	-1.16 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.12964	3.67034	3.90	13.00	-1.61-1	9.51 0	-1.34 0	-1.08 1
2.15855	3.74374	3.80	12.50	-1.66-1	8.84 0	-1.26 0	-1.01 1
2.18833	3.82157	3.70	12.00	-1.70-1	8.20 0	-1.18 0	-9.32 0
2.13428	3.83000	3.70	11.50	-1.96-1	7.52 0	-1.16 0	-8.60 0
2.16106	3.91405	3.60	11.00	-1.98-1	6.92 0	-1.09 0	-7.91 0
2.18815	4.00371	3.50	10.50	-2.00-1	6.34 0	-1.02 0	-7.26 0
2.12136	4.01771	3.50	10.00	-2.24-1	5.74 0	-1.00 0	-6.61 0
2.18709	4.10572	3.40	9.80	-2.10-1	5.55 0	-9.46-1	-6.37 0
2.15791	4.11236	3.40	9.60	-2.19-1	5.32 0	-9.39-1	-6.12 0
2.12780	4.11957	3.40	9.40	-2.29-1	5.09 0	-9.33-1	-5.88 0
2.19598	4.21342	3.30	9.20	-2.14-1	4.91 0	-8.78-1	-5.65 0
2.16364	4.22150	3.30	9.00	-2.23-1	4.69 0	-8.71-1	-5.42 0
2.13017	4.23028	3.30	8.80	-2.32-1	4.48 0	-8.65-1	-5.19 0
2.16459	4.34058	3.20	8.40	-2.26-1	4.10 0	-8.06-1	-4.75 0
2.12708	4.35134	3.20	8.20	-2.35-1	3.90 0	-8.00-1	-4.53 0
2.19984	4.45917	3.10	8.00	-2.19-1	3.74 0	-7.49-1	-4.33 0
2.15907	4.47138	3.10	7.80	-2.28-1	3.54 0	-7.44-1	-4.12 0
2.19122	4.60102	3.00	7.40	-2.20-1	3.20 0	-6.89-1	-3.73 0
2.14469	4.61623	3.00	7.20	-2.29-1	3.02 0	-6.84-1	-3.53 0
2.17191	4.75909	2.90	6.80	-2.21-1	2.70 0	-6.32-1	-3.17 0
2.19754	4.91492	2.80	6.40	-2.12-1	2.40 0	-5.82-1	-2.82 0
2.13764	4.93727	2.80	6.20	-2.20-1	2.24 0	-5.77-1	-2.64 0
2.15338	5.11204	2.70	5.80	-2.11-1	1.96 0	-5.29-1	-2.32 0
2.16357	5.30546	2.60	5.40	-2.02-1	1.70 0	-4.84-1	-2.02 0
2.16568	5.52117	2.50	5.00	-1.93-1	1.45 0	-4.40-1	-1.73 0
2.15603	5.76401	2.40	4.60	-1.84-1	1.22 0	-3.99-1	-1.47 0
2.12911	6.04052	2.30	4.20	-1.74-1	1.01 0	-3.60-1	-1.22 0
2.15014	6.32283	2.20	3.90	-1.62-1	8.68-1	-3.24-1	-1.05 0
2.16200	6.64256	2.10	3.60	-1.49-	7.33-1	-2.91-1	-8.92-1
2.15946	7.00864	2.00	3.30	-1.37-1	6.09-1	-2.59-1	-7.45-1
2.13429	7.43343	1.90	3.00	-1.26-1	4.95-1	-2.29-1	-6.09-1
2.17503	7.63650	1.85	2.90	-1.19-1	4.60-1	-2.15-1	-5.68-1
2.13636	8.43171	1.70	2.50	-1.01-1	3.30-1	-1.75-1	-4.13-1
2.16709	8.70964	1.65	2.40	-9.51-2	3.02-1	-1.63-1	-3.78-1
2.19648	9.01055	1.60	2.30	-8.89-2	2.74-1	-1.51-1	-3.44-1
2.12070	10.1740	1.45	1.95	-7.25-2	1.87-1	-1.19-1	-2.38-1
2.19109	12.7955	1.20	1.50	-4.66-2	9.91-2	-7.41-2	-1.29-1
2.18270	15.2084	1.05	1.25	-3.35-2	6.21-2	-5.24-2	-8.27-2
2.13593	18.1941	0.92	1.05	-2.37-2	3.89-2	-3.69-2	-5.30-2
2.17530	20.6221	0.84	0.94	-1.84-2	2.86-2	-2.88-2	-3.96-2
2.19877	22.9144	0.78	0.86	-1.49-2	2.21-2	-2.35-2	-3.12-2
2.14333	25.8109	0.72	0.78	-1.18-2	1.65-2	-1.87-2	-2.38-2
2.14596	43.0811	0.52	0.54	-4.23-3	5.13-3	-7.27-3	-8.25-3

2.20	2.30						
2.21364	2.56943	8.80	89.00	1.48 1	2.81 2	-2.10 1	-3.01 2
2.21253	2.57861	8.60	86.00	1.33 1	2.68 2	-1.93 1	-2.87 2
2.22805	2.57961	8.80	90.00	1.51 1	2.86 2	-2.14 1	-3.06 2
2.22689	2.58857	8.60	87.00	1.37 1	2.73 2	-1.96 1	-2.92 2
2.21289	2.58968	8.40	83.00	1.20 1	2.54 2	-1.77 1	-2.72 2
2.20025	2.59315	8.20	79.00	1.05 1	2.36 2	-1.60 1	-2.53 2
2.24131	2.59865	8.60	88.00	1.40 1	2.77 2	-2.00 1	-2.97 2
2.22726	2.59946	8.40	84.00	1.23 1	2.59 2	-1.80 1	-2.77 2
2.21466	2.60267	8.20	80.00	1.08 1	2.40 2	-1.62 1	-2.58 2
2.20328	2.60819	8.00	76.00	9.43 0	2.22 2	-1.47 1	-2.38 2
2.25578	2.60885	8.60	89.00	1.44 1	2.82 2	-2.03 1	-3.02 2
2.24166	2.60935	8.40	85.00	1.26 1	2.64 2	-1.83 1	-2.82 2
2.22909	2.61229	8.20	81.00	1.11 1	2.45 2	-1.65 1	-2.63 2
2.21782	2.61759	8.00	77.00	9.69 0	2.27 2	-1.49 1	-2.43 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.27032	2.61918	8.60	90.00	1.48 1	2.87 2	-2.07 1	-3.07 2
2.25611	2.61935	8.40	86.00	1.30 1	2.69 2	-1.87 1	-2.87 2
2.24353	2.62201	8.20	82.00	1.14 1	2.50 2	-1.68 1	-2.68 2
2.20760	2.62519	7.80	73.00	8.45 0	2.09 2	-1.34 1	-2.24 2
2.23235	2.62708	8.00	78.00	9.96 0	2.32 2	-1.52 1	-2.48 2
2.27060	2.62947	8.40	87.00	1.33 1	2.74 2	-1.90 1	-2.92 2
2.25801	2.63184	8.20	83.00	1.17 1	2.55 2	-1.71 1	-2.73 2
2.22231	2.63449	7.80	74.00	8.69 0	2.14 2	-1.37 1	-2.29 2
2.24689	2.63667	8.00	79.00	1.02 1	2.37 2	-1.54 1	-2.53 2
2.28515	2.63970	8.40	88.00	1.37 1	2.79 2	-1.93 1	-2.97 2
2.27251	2.64178	8.20	84.00	1.20 1	2.60 2	-1.74 1	-2.78 2
2.23701	2.64388	7.80	75.00	8.93 0	2.18 2	-1.39 1	-2.34 2
2.21316	2.64419	7.60	70.00	7.55 0	1.96 2	-1.23 1	-2.10 2
2.26144	2.64636	8.00	80.00	1.05 1	2.41 2	-1.57 1	-2.58 2
2.29976	2.65006	8.40	89.00	1.40 1	2.83 2	-1.97 1	-3.02 2
2.28705	2.65183	8.20	85.00	1.23 1	2.65 2	-1.77 1	-2.83 2
2.25170	2.65336	7.80	76.00	9.18 0	2.23 2	-1.42 1	-2.39 2
2.22811	2.65342	7.60	71.00	7.77 0	2.00 2	-1.25 1	-2.15 2
2.27600	2.65615	8.00	81.00	1.08 1	2.46 2	-1.60 1	-2.63 2
2.20461	2.65618	7.40	66.00	6.53 0	1.78 2	-1.11 1	-1.91 2
2.24303	2.66272	7.60	72.00	8.00 0	2.05 2	-1.27 1	-2.20 2
2.26637	2.66293	7.80	77.00	9.44 0	2.28 2	-1.44 1	-2.44 2
2.21993	2.66527	7.40	67.00	6.73 0	1.83 2	-1.13 1	-1.96 2
2.29059	2.56604	8.00	82.00	1.11 1	2.51 2	-1.63 1	-2.68 2
2.25792	2.67212	7.60	73.00	8.23 0	2.10 2	-1.30 1	-2.25 2
2.28105	2.67260	7.80	78.00	9.70 0	2.33 2	-1.47 1	-2.49 2
2.23519	2.67444	7.40	68.00	6.93 0	1.87 2	-1.15 1	-2.01 2
2.21216	2.67946	7.20	63.00	5.79 0	1.65 2	-1.01 1	-1.78 2
2.27279	2.68160	7.60	74.00	8.46 0	2.15 2	-1.32 1	-2.30 2
2.29574	2.68236	7.80	79.00	9.96 0	2.38 2	-1.49 1	-2.54 2
2.25039	2.68369	7.40	69.00	7.14 0	1.92 2	-1.17 1	-2.06 2
2.22787	2.68852	7.20	64.00	5.98 0	1.70 2	-1.03 1	-1.82 2
2.28763	2.69117	7.60	75.00	8.70 0	2.19 2	-1.34 1	-2.35 2
2.26554	2.69302	7.40	70.00	7.35 0	1.97 2	-1.19 1	-2.11 2
2.20444	2.69603	7.00	59.00	4.95 0	1.48 2	-9.07 0	-1.60 2
2.24350	2.69765	7.20	65.00	6.16 0	1.74 2	-1.05 1	-1.87 2
2.28066	2.70244	7.40	71.00	7.57 0	2.01 2	-1.21 1	-2.15 2
2.22075	2.70499	7.00	60.00	5.12 0	1.53 2	-9.23 0	-1.64 2
2.25906	2.70686	7.20	66.00	6.36 0	1.79 2	-1.07 1	-1.92 2
2.29573	2.71194	7.40	72.00	7.78 0	2.06 2	-1.23 1	-2.20 2
2.23694	2.71403	7.00	61.00	5.29 0	1.57 2	-9.40 0	-1.69 2
2.27454	2.71615	7.20	67.00	6.55 0	1.83 2	-1.08 1	-1.97 2
2.25302	2.72315	7.00	62.00	5.46 0	1.62 2	-9.56 0	-1.74 2
2.21342	2.72395	6.80	56.00	4.34 0	1.36 2	-8.26 0	-1.47 2
2.28996	2.72552	7.20	68.00	6.75 0	1.88 2	-1.10 1	-2.02 2
2.26900	2.73235	7.00	63.00	5.64 0	1.66 2	-9.73 0	-1.78 2
2.23032	2.73291	6.80	57.00	4.50 0	1.40 2	-8.41 0	-1.51 2
2.28489	2.74162	7.00	64.00	5.82 0	1.71 2	-9.90 0	-1.83 2
2.24708	2.74196	6.80	58.00	4.66 0	1.45 2	-8.56 0	-1.56 2
2.20537	2.74550	6.60	52.00	3.64 0	1.20 2	-7.37 0	-1.30 2
2.26370	2.75107	6.80	59.00	4.82 0	1.49 2	-8.71 0	-1.60 2
2.22318	2.75439	6.60	53.00	3.79 0	1.24 2	-7.50 0	-1.34 2
2.28019	2.76027	6.80	60.00	4.98 0	1.53 2	-8.87 0	-1.65 2
2.24080	2.76337	6.60	54.00	3.93 0	1.28 2	-7.64 0	-1.38 2
2.29657	2.76954	6.80	61.00	5.15 0	1.58 2	-9.02 0	-1.69 2
2.25823	2.77243	6.60	55.00	4.08 0	1.33 2	-7.78 0	-1.43 2
2.21491	2.77864	6.40	49.00	3.14 0	1.08 2	-6.67 0	-1.17 2
2.27549	2.78157	6.60	56.00	4.23 0	1.37 2	-7.92 0	-1.47 2
2.23360	2.78755	6.40	50.00	3.28 0	1.12 2	-6.80 0	-1.22 2
2.29259	2.79078	6.60	57.00	4.38 0	1.41 2	-8.06 0	-1.52 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.25206	2.79655	6.40	51.00	3.41 0	1.17 2	-6.92 0	-1.26 2
2.27029	2.80564	6.40	52.00	3.55 0	1.21 2	-7.05 0	-1.30 2
2.20473	2.80589	6.20	45.00	2.57 0	9.35 1	-5.91 0	-1.01 2
2.22478	2.81472	6.20	46.00	2.69 0	9.73 1	-6.02 0	-1.05 2
2.28830	2.81480	6.40	53.00	3.69 0	1.25 2	-7.18 0	-1.34 2
2.24452	2.82365	6.20	47.00	2.81 0	1.01 2	-6.14 0	-1.09 2
2.26397	2.83268	6.20	48.00	2.94 0	1.05 2	-6.26 0	-1.14 2
2.28314	2.84180	6.20	49.00	3.07 0	1.09 2	-6.38 0	-1.18 2
2.21334	2.84519	6.00	42.00	2.16 0	8.30 1	-5.32 0	-9.01 1
2.23471	2.85402	6.00	43.00	2.28 0	8.66 1	-5.42 0	-9.40 1
2.25570	2.86296	6.00	44.00	2.39 0	9.04 1	-5.53 0	-9.79 1
2.27633	2.87201	6.00	45.00	2.51 0	9.42 1	-5.64 0	-1.02 2
2.29663	2.88117	6.00	46.00	2.63 0	9.80 1	-5.75 0	-1.06 2
2.22138	2.88807	5.80	39.00	1.79 0	7.29 1	-4.77 0	-7.93 1
2.24434	2.89687	5.80	40.00	1.90 0	7.64 1	-4.86 0	-8.29 1
2.26684	2.90580	5.80	41.00	2.01 0	8.00 1	-4.96 0	-8.67 1
2.28889	2.91487	5.80	42.00	2.12 0	8.36 1	-5.06 0	-9.05 1
2.20272	2.92643	5.60	35.00	1.36 0	6.00 1	-4.17 0	-6.55 1
2.22827	2.93497	5.60	36.00	1.46 0	6.33 1	-4.25 0	-6.89 1
2.25317	2.94369	5.60	37.00	1.56 0	6.66 1	-4.34 0	-7.24 1
2.27749	2.95258	5.60	38.00	1.66 0	7.00 1	-4.44 0	-7.60 1
2.20509	2.97814	5.40	32.00	1.06 0	5.11 1	-3.70 0	-5.59 1
2.23320	2.98645	5.40	33.00	1.15 0	5.41 1	-3.78 0	-5.91 1
2.26050	2.99502	5.40	34.00	1.25 0	5.73 1	-3.86 0	-6.24 1
2.28706	3.00380	5.40	35.00	1.34 0	6.05 1	-3.95 0	-6.58 1
2.20364	3.03535	5.20	29.00	7.92-1	4.27 1	-3.26 0	-4.69 1
2.23499	3.04328	5.20	30.00	8.78-1	4.56 1	-3.34 0	-4.99 1
2.26530	3.05155	5.20	31.00	9.65-1	4.85 1	-3.42 0	-5.30 1
2.29465	3.06011	5.20	32.00	1.05 0	5.15 1	-3.49 0	-5.62 1
2.23191	3.10649	5.00	27.00	6.32-1	3.76 1	-2.93 0	-4.13 1
2.26608	3.11422	5.00	28.00	7.13-1	4.03 1	-3.00 0	-4.42 1
2.29900	3.12238	5.00	29.00	7.94-1	4.31 1	-3.07 0	-4.71 1
2.22133	3.17756	4.80	24.00	4.12-1	3.03 1	-2.56 0	-3.34 1
2.26060	3.18436	4.80	25.00	4.87-1	3.27 1	-2.62 0	-3.60 1
2.29816	3.19178	4.80	26.00	5.63-1	3.53 1	-2.69 0	-3.87 1
2.24531	3.26396	4.60	22.00	2.86-1	2.58 1	-2.27 0	-2.86 1
2.28915	3.27007	4.60	23.00	3.57-1	2.82 1	-2.33 0	-3.10 1
2.21445	3.35620	4.40	19.00	1.09-1	1.96 1	-1.95 0	-2.18 1
2.24121	3.35790	4.40	19.50	1.42-1	2.06 1	-1.98 0	-2.29 1
2.26713	3.35995	4.40	20.00	1.75-1	2.17 1	-2.01 0	-2.40 1
2.22386	3.46600	4.20	17.00	1.42-2	1.59 1	-1.71 0	-1.78 1
2.25496	3.46653	4.20	17.50	4.51-2	1.69 1	-1.73 0	-1.88 1
2.28495	3.46756	4.20	18.00	7.60-2	1.78 1	-1.76 0	-1.98 1
2.29581	3.58964	4.00	16.00	-1.01-2	1.43 1	-1.53 0	-1.60 1
2.26037	3.59022	4.00	15.50	-3.90-2	1.34 1	-1.51 0	-1.50 1
2.22339	3.59154	4.00	15.00	-6.79-2	1.26 1	-1.49 0	-1.41 1
2.29722	3.65734	3.90	15.00	-4.87-2	1.27 1	-1.42 0	-1.42 1
2.25830	3.65907	3.90	14.50	-7.67-2	1.18 1	-1.40 0	-1.33 1
2.21753	3.66173	3.90	14.00	-1.05-1	1.10 1	-1.38 0	-1.24 1
2.29480	3.73039	3.80	14.00	-8.45-2	1.11 1	-1.32 0	-1.25 1
2.25173	3.73361	3.80	13.50	-1.11-1	1.03 1	-1.30 0	-1.16 1
2.20639	3.73801	3.80	13.00	-1.38-1	9.57 0	-1.28 0	-1.08 1
2.28738	3.80970	3.70	13.00	-1.17-1	9.63 0	-1.22 0	-1.09 1
2.23926	3.81488	3.70	12.50	-1.43-1	8.90 0	-1.20 0	-1.01 1
2.27333	3.89648	3.60	12.00	-1.48-1	8.26 0	-1.13 0	-9.35 0
2.21896	3.90428	3.60	11.50	-1.73-1	7.58 0	-1.11 0	-8.62 0
2.25039	3.99236	3.50	11.00	-1.75-1	6.97 0	-1.04 0	-7.94 0
2.28255	4.08641	3.40	10.50	-1.77-1	6.39 0	-9.69-1	-7.28 0
2.21538	4.09961	3.40	10.00	-2.00-1	5.78 0	-9.53-1	-6.62 0
2.28688	4.19285	3.30	9.80	-1.87-1	5.59 0	-8.97-1	-6.39 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.25753	4.19913	3.30	9.60	-1.96-1	5.36 0	-8.90-1	-6.14 0
2.22725	4.20598	3.30	9.40	-2.05-1	5.13 0	-8.84-1	-5.89 0
2.26923	4.31322	3.20	9.00	-2.00-1	4.73 0	-8.24-1	-5.43 0
2.23558	4.32158	3.20	8.80	-2.08-1	4.52 0	-8.18-1	-5.20 0
2.20073	4.33068	3.20	8.60	-2.17-1	4.31 0	-8.12-1	-4.97 0
2.27674	4.43767	3.10	8.40	-2.02-1	4.14 0	-7.60-1	-4.76 0
2.23903	4.44796	3.10	8.20	-2.11-1	3.93 0	-7.55-1	-4.55 0
2.27845	4.57434	3.00	7.80	-2.04-1	3.58 0	-7.00-1	-4.13 0
2.23575	4.58709	3.00	7.60	-2.12-1	3.39 0	-6.94-1	-3.93 0
2.27209	4.72559	2.90	7.20	-2.05-1	3.05 0	-6.41-1	-3.54 0
2.22317	4.74157	2.90	7.00	-2.13-1	2.88 0	-6.37-1	-3.35 0
2.25440	4.89461	2.80	6.60	-2.05-1	2.56 0	-5.86-1	-2.99 0
2.28419	5.06205	2.70	6.20	-1.97-1	2.27 0	-5.38-1	-2.65 0
2.22063	5.08580	2.70	6.00	-2.04-1	2.11 0	-5.34-1	-2.48 0
2.23978	5.27431	2.60	5.60	-1.95-1	1.84 0	-4.88-1	-2.17 0
2.25301	5.48375	2.50	5.20	-1.86-1	1.58 0	-4.44-1	-1.88 0
2.25743	5.71838	2.40	4.80	-1.77-1	1.34 0	-4.03-1	-1.60 0
2.24873	5.98393	2.30	4.40	-1.68-1	1.12 0	-3.63-1	-1.34 0
2.22035	6.28824	2.20	4.00	-1.59-1	9.19-1	-3.26-1	-1.11 0
2.24377	6.60100	2.10	3.70	-1.47-1	7.81-1	-2.92-1	-9.44-1
2.25620	6.95784	2.00	3.40	-1.35-1	6.52-1	-2.60-1	-7.93-1
2.20417	7.18385	1.95	3.20	-1.30-1	5.71-1	-2.44-1	-6.99-1
2.25094	7.37002	1.90	3.10	-1.23-1	5.34-1	-2.30-1	-6.54-1
2.29989	7.56825	1.85	3.00	-1.16-1	4.99-1	-2.16-1	-6.11-1
2.21710	7.85346	1.80	2.80	-1.12-1	4.27-1	-2.01-1	-5.27-1
2.26047	8.08582	1.75	2.70	-1.06-1	3.95-1	-1.88-1	-4.88-1
2.22375	9.33753	1.55	2.20	-8.30-2	2.48-1	-1.40-1	-3.12-1
2.24784	9.69427	1.50	2.10	-7.72-2	2.23-1	-1.29-1	-2.81-1
2.26729	10.0852	1.45	2.00	-7.16-2	1.99-1	-1.19-1	-2.52-1
2.28013	10.5158	1.40	1.90	-6.62-2	1.77-1	-1.09-1	-2.24-1
2.28362	10.9926	1.35	1.80	-6.10-2	1.55-1	-9.98-2	-1.98-1
2.27395	11.5240	1.30	1.70	-5.60-2	1.35-1	-9.08-2	-1.74-1
2.24569	12.1204	1.25	1.60	-5.12-2	1.17-1	-8.22-2	-1.51-1
2.26871	16.6155	0.98	1.15	-2.79-2	5.00-2	-4.37-2	-6.71-2
2.24265	19.2766	0.88	1.00	-2.09-2	3.41-2	-3.27-2	-4.67-2
2.30	2.40						
2.31443	2.66055	8.40	90.00	1.44 1	2.88 2	-2.00 1	-3.07 2
2.30164	2.66200	8.20	86.00	1.26 1	2.70 2	-1.81 1	-2.88 2
2.31627	2.67228	8.20	87.00	1.30 1	2.75 2	-1.84 1	-2.93 2
2.30520	2.67604	8.00	83.00	1.14 1	2.56 2	-1.66 1	-2.73 2
2.33096	2.68268	8.20	88.00	1.33 1	2.80 2	-1.87 1	-2.98 2
2.31985	2.68615	8.00	84.00	1.17 1	2.61 2	-1.68 1	-2.78 2
2.31043	2.69222	7.80	80.00	1.02 1	2.43 2	-1.52 1	-2.5[illegible] 2
2.34570	2.69320	8.20	89.00	1.36 1	2.85 2	-1.90 1	-3.03 2
2.33453	2.69637	8.00	85.00	1.20 1	2.66 2	-1.71 1	-2.83 2
2.30247	2.70083	7.60	76.00	8.94 0	2.24 2	-1.37 1	-2.39 2
2.32514	2.70219	7.80	81.00	1.05 1	2.47 2	-1.54 1	-2.64 2
2.36051	2.70386	8.20	90.00	1.40 1	2.90 2	-1.94 1	-3.08 2
2.34926	2.70670	8.00	86.00	1.23 1	2.71 2	-1.75 1	-2.88 2
2.31730	2.71059	7.60	77.00	9.18 0	2.29 2	-1.39 1	-2.44 2
2.33987	2.71226	7.80	82.00	1.08 1	2.52 2	-1.57 1	-2.69 2
2.36404	2.71715	8.00	87.00	1.26 1	2.76 2	-1.78 1	-2.93 2
2.33213	2.72044	7.60	78.00	9.44 0	2.34 2	-1.41 1	-2.49 2
2.31078	2.72152	7.40	73.00	8.01 0	2.11 2	-1.25 1	-2.25 2
2.35463	2.72243	7.80	83.00	1.11 1	2.57 2	-1.60 1	-2.74 2
2.37887	2.72772	8.00	88.00	1.29 1	2.81 2	-1.81 1	-2.98 2
2.34696	2.73038	7.60	79.00	9.69 0	2.39 2	-1.44 1	-2.54 2
2.32580	2.73119	7.40	74.00	8.23 0	2.16 2	-1.27 1	-2.30 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.36943	2.73271	7.80	84.00	1.14 1	2.62 2	-1.63 1	-2.79 2
2.30533	2.73497	7.20	69.00	6.95 0	1.93 2	-1.12 1	-2.06 2
2.39376	2.73842	8.00	89.00	1.33 1	2.86 2	-1.84 1	-3.03 2
2.36181	2.74043	7.60	80.00	9.95 0	2.44 2	-1.46 1	-2.59 2
2.34080	2.74095	7.40	75.00	8.46 0	2.20 2	-1.29 1	-2.35 2
2.38426	2.74311	7.80	85.00	1.17 1	2.67 2	-1.66 1	-2.84 2
2.32064	2.74451	7.20	70.00	7.15 0	1.98 2	-1.14 1	-2.11 2
2.37667	2.75057	7.60	81.00	1.02 1	2.49 2	-1.49 1	-2.64 2
2.35579	2.75080	7.40	76.00	8.69 0	2.25 2	-1.32 1	-2.40 2
2.30069	2.75096	7.00	65.00	6.00 0	1.75 2	-1.01 1	-1.88 2
2.39914	2.75362	7.80	86.00	1.20 1	2.72 2	-1.69 1	-2.89 2
2.33592	2.75412	7.20	71.00	7.36 0	2.02 2	-1.16 1	-2.16 2
2.31642	2.76039	7.00	66.00	6.19 0	1.80 2	-1.03 1	-1.92 2
2.37078	2.76075	7.40	77.00	8.93 0	2.30 2	-1.34 1	-2.44 2
2.39156	2.76082	7.60	82.00	1.05 1	2.53 2	-1.52 1	-2.69 2
2.35116	2.76382	7.20	72.00	7.57 0	2.07 2	-1.18 1	-2.21 2
2.33207	2.76989	7.00	67.00	6.37 0	1.84 2	-1.04 1	-1.97 2
2.38577	2.77079	7.40	78.00	9.17 0	2.35 2	-1.36 1	-2.50 2
2.36637	2.77360	7.20	73.00	7.78 0	2.12 2	-1.20 1	-2.26 2
2.31283	2.77888	6.80	62.00	5.32 0	1.62 2	-9.18 0	-1.74 2
2.34767	2.77947	7.00	68.00	6.56 0	1.89 2	-1.06 1	-2.02 2
2.38155	2.78347	7.20	74.00	8.00 0	2.17 2	-1.22 1	-2.31 2
2.32899	2.78830	6.80	63.00	5.49 0	1.67 2	-9.35 0	-1.79 2
2.36320	2.78913	7.00	69.00	6.76 0	1.94 2	-1.08 1	-2.07 2
2.39672	2.79343	7.20	75.00	8.22 0	2.22 2	-1.25 1	-2.36 2
2.34506	2.79780	6.80	64.00	5.66 0	1.72 2	-9.51 0	-1.84 2
2.37869	2.79887	7.00	70.00	6.95 0	1.99 2	-1.10 1	-2.12 2
2.30954	2.80006	6.60	58.00	4.53 0	1.46 2	-8.21 0	-1.56 2
2.36104	2.80737	6.80	65.00	5.83 0	1.76 2	-9.68 0	-1.88 2
2.39414	2.80870	7.00	71.00	7.15 0	2.03 2	-1.12 1	-2.17 2
2.32635	2.80942	6.60	59.00	4.69 0	1.50 2	-8.36 0	-1.61 2
2.37695	2.81701	6.80	66.00	6.01 0	1.81 2	-9.85 0	-1.93 2
2.34303	2.81886	6.60	60.00	4.85 0	1.54 2	-8.50 0	-1.65 2
2.30613	2.82405	6.40	54.00	3.83 0	1.29 2	-7.31 0	-1.39 2
2.39278	2.82674	6.80	67.00	6.19 0	1.86 2	-1.00 1	-1.98 2
2.35960	2.82837	6.60	61.00	5.01 0	1.59 2	-8.66 0	-1.70 2
2.32376	2.83337	6.40	55.00	3.97 0	1.33 2	-7.45 0	-1.43 2
2.37605	2.83795	6.60	62.00	5.17 0	1.63 2	-8.81 0	-1.75 2
2.34123	2.84276	6.40	56.00	4.12 0	1.38 2	-7.58 0	-1.48 2
2.39241	2.84761	6.60	63.00	5.33 0	1.68 2	-8.97 0	-1.79 2
2.30206	2.85100	6.20	50.00	3.20 0	1.13 2	-6.50 0	-1.22 2
2.35853	2.85224	6.40	57.00	4.26 0	1.42 2	-7.72 0	-1.52 2
2.32073	2.86029	6.20	51.00	3.33 0	1.17 2	-6.62 0	-1.26 2
2.37569	2.86178	6.40	58.00	4.41 0	1.46 2	-7.86 0	-1.57 2
2.33918	2.86966	6.20	52.00	3.46 0	1.21 2	-6.74 0	-1.31 2
2.39271	2.87140	6.40	59.00	4.56 0	1.51 2	-8.00 0	-1.61 2
2.35742	2.87911	6.20	53.00	3.59 0	1.26 2	-6.87 0	-1.35 2
2.37546	2.88863	6.20	54.00	3.73 0	1.30 2	-6.99 0	-1.39 2
2.31661	2.89042	6.00	47.00	2.75 0	1.02 2	-5.86 0	-1.10 2
2.39332	2.89823	6.20	55.00	3.86 0	1.34 2	-7.12 0	-1.44 2
2.33630	2.89976	6.00	48.00	2.87 0	1.06 2	-5.97 0	-1.14 2
2.35572	2.90919	6.00	49.00	2.99 0	1.10 2	-6.09 0	-1.18 2
2.37487	2.91870	6.00	50.00	3.11 0	1.14 2	-6.20 0	-1.22 2
2.31053	2.92405	5.80	43.00	2.23 0	8.73 1	-5.16 0	-9.43 1
2.39378	2.92829	6.00	51.00	3.24 0	1.18 2	-6.32 0	-1.27 2
2.33178	2.93335	5.80	44.00	2.34 0	9.10 1	-5.27 0	-9.82 1
2.35268	2.94275	5.80	45.00	2.45 0	9.49 1	-5.37 0	-1.02 2
2.37324	2.95224	5.80	46.00	2.56 0	9.87 1	-5.48 0	-1.06 2
2.30126	2.96163	5.60	39.00	1.76 0	7.34 1	-4.53 0	-7.96 1
2.39348	2.96183	5.80	47.00	2.68 0	1.03 2	-5.58 0	-1.10 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.32452	2.97083	5.60	40.00	1.86 0	7.70 1	-4.62 0	-8.33 1
2.34730	2.98016	5.60	41.00	1.96 0	8.06 1	-4.72 0	-8.70 1
2.36964	2.98960	5.60	42.00	2.07 0	8.42 1	-4.81 0	-9.08 1
2.39157	2.99916	5.60	43.00	2.17 0	8.79 1	-4.91 0	-9.47 1
2.31292	3.01279	5.40	36.00	1.43 0	6.38 1	-4.03 0	-6.92 1
2.33815	3.02196	5.40	37.00	1.53 0	6.71 1	-4.12 0	-7.27 1
2.36279	3.03129	5.40	38.00	1.62 0	7.05 1	-4.21 0	-7.63 1
2.38688	3.04076	5.40	39.00	1.72 0	7.40 1	-4.29 0	-7.99 1
2.32313	3.06895	5.20	33.00	1.14 0	5.46 1	-3.57 0	-5.94 1
2.35079	3.07801	5.20	34.00	1.23 0	5.78 1	-3.65 0	-6.27 1
2.37770	3.08729	5.20	35.00	1.32 0	6.10 1	-3.73 0	-6.61 1
2.33076	3.13090	5.00	30.00	8.76-1	4.60 1	-3.15 0	-5.02 1
2.36148	3.13975	5.00	31.00	9.58-1	4.89 1	-3.22 0	-5.33 1
2.39123	3.14888	5.00	32.00	1.04 0	5.20 1	-3.29 0	-5.64 1
2.33418	3.19974	4.80	27.00	6.39-1	3.80 1	-2.75 0	-4.15 1
2.36881	3.20815	4.80	28.00	7.16-1	4.07 1	-2.82 0	-4.44 1
2.33085	3.27699	4.60	24.00	4.28-1	3.06 1	-2.39 0	-3.36 1
2.37064	3.28460	4.60	25.00	4.99-1	3.31 1	-2.45 0	-3.62 1
2.31670	3.36500	4.40	21.00	2.41-1	2.38 1	-2.06 0	-2.63 1
2.36355	3.37113	4.40	22.00	3.07-1	2.61 1	-2.12 0	-2.87 1
2.31391	3.46906	4.20	18.50	1.07-1	1.88 1	-1.79 0	-2.09 1
2.34190	3.47096	4.20	19.00	1.38-1	1.98 1	-1.81 0	-2.20 1
2.36901	3.47324	4.20	19.50	1.69-1	2.09 1	-1.84 0	-2.30 1
2.39529	3.47586	4.20	20.00	2.00-1	2.19 1	-1.86 0	-2.42 1
2.32984	3.58973	4.00	16.50	1.87-2	1.52 1	-1.55 0	-1.69 1
2.36255	3.59042	4.00	17.00	4.77-2	1.61 1	-1.58 0	-1.79 1
2.39406	3.59165	4.00	17.50	7.66-2	1.71 1	-1.60 0	-1.89 1
2.37011	3.65626	3.90	16.00	7.10-3	1.44 1	-1.47 0	-1.60 1
2.33444	3.65643	3.90	15.50	-2.08-2	1.35 1	-1.45 0	-1.51 1
2.37500	3.72692	3.80	15.00	-3.05-2	1.27 1	-1.36 0	-1.42 1
2.33583	3.72819	3.80	14.50	-5.75-2	1.19 1	-1.34 0	-1.33 1
2.37635	3.80311	3.70	14.00	-6.53-2	1.12 1	-1.26 0	-1.25 1
2.33300	3.80583	3.70	13.50	-9.13-2	1.04 1	-1.24 0	-1.17 1
2.37300	3.88578	3.60	13.00	-9.73-2	9.70 0	-1.17 0	-1.09 1
2.32456	3.89039	3.60	12.50	-1.22-1	8.96 0	-1.15 0	-1.01 1
2.36334	3.97614	3.50	12.00	-1.27-1	8.32 0	-1.07 0	-9.38 0
2.30863	3.98328	3.50	11.50	-1.51-1	7.63 0	-1.06 0	-8.64 0
2.34516	4.07582	3.40	11.00	-1.53-1	7.02 0	-9.86-1	-7.96 0
2.38291	4.17473	3.30	10.50	-1.55-1	6.44 0	-9.19-1	-7.30 0
2.31533	4.18709	3.30	10.00	-1.78-1	5.83 0	-9.03-1	-6.64 0
2.39318	4.28613	3.20	9.80	-1.65-1	5.64 0	-8.48-1	-6.41 0
2.36366	4.29204	3.20	9.60	-1.73-1	5.40 0	-8.42-1	-6.16 0
2.33320	4.29849	3.20	9.40	-1.82-1	5.17 0	-8.36-1	-5.91 0
2.30174	4.30554	3.20	9.20	-1.91-1	4.95 0	-8.30-1	-5.67 0
2.38197	4.41167	3.10	9.00	-1.77-1	4.77 0	-7.78-1	-5.45 0
2.34813	4.41959	3.10	8.80	-1.85-1	4.55 0	-7.72-1	-5.22 0
2.31308	4.42824	3.10	8.60	-1.94-1	4.34 0	-7.66-1	-4.99 0
2.39679	4.54219	3.00	8.40	-1.80-1	4.17 0	-7.16-1	-4.78 0
2.35885	4.55197	3.00	8.20	-1.88-1	3.97 0	-7.10-1	-4.56 0
2.31945	4.56266	3.00	8.00	-1.96-1	3.77 0	-7.05-1	-4.34 0
2.36364	4.69766	2.90	7.60	-1.89-1	3.42 0	-6.52-1	-3.94 0
2.31886	4.71099	2.90	7.40	-1.97-1	3.23 0	-6.46-1	-3.74 0
2.36002	4.85933	2.80	7.00	-1.90-1	2.90 0	-5.96-1	-3.36 0
2.30849	4.87614	2.80	6.80	-1.97-1	2.73 0	-5.91-1	-3.18 0
2.34440	5.04054	2.70	6.40	-1.89-1	2.42 0	-5.42-1	-2.82 0
2.37904	5.22099	2.60	6.00	-1.81-1	2.13 0	-4.96-1	-2.49 0
2.31145	5.24627	2.60	5.80	-1.88-1	1.98 0	-4.92-1	-2.33 0
2.33467	5.45027	2.50	5.40	-1.79-1	1.72 0	-4.48-1	-2.02 0
2.35159	5.67787	2.40	5.00	-1.71-1	1.47 0	-4.06-1	-1.74 0
2.35888	5.93411	2.30	4.60	-1.62-1	1.24 0	-3.66-1	-1.47 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.35147	6.22579	2.20	4.20	-1.53-1	1.03 0	-3.29-1	-1.22 0
2.39545	6.52654	2.10	3.90	-1.41-1	8.80-1	-2.94-1	-1.05 0
2.32148	6.56241	2.10	3.80	-1.44-1	8.30-1	-2.93-1	-9.99-1
2.34762	6.91097	2.00	3.50	-1.32-1	6.97-1	-2.61-1	-8.43-1
2.30697	7.12960	1.95	3.30	-1.28-1	6.13-1	-2.45-1	-7.46-1
2.36043	7.31196	1.90	3.20	-1.21-1	5.76-1	-2.31-1	-7.00-1
2.35113	7.77978	1.80	2.90	-1.10-1	4.64-1	-2.02-1	-5.69-1
2.30505	8.33534	1.70	2.60	-9.91-2	3.64-1	-1.76-1	-4.50-1
2.35069	8.60406	1.65	2.50	-9.29-2	3.34-1	-1.64-1	-4.13-1
2.39718	8.89434	1.60	2.40	-8.68-2	3.05-1	-1.52-1	-3.78-1
2.32784	14.2192	1.10	1.35	-3.74-2	7.62-2	-5.92-2	-1.00-1
2.39806	17.5004	0.94	1.10	-2.48-2	4.45-2	-3.91-2	-5.99-2
2.38256	19.8180	0.86	0.98	-1.95-2	3.23-2	-3.07-2	-4.43-2
2.32143	21.2464	0.82	0.92	-1.71-2	2.70-2	-2.70-2	-3.75-2
2.36411	23.6935	0.76	0.84	-1.38-2	2.07-2	-2.18-2	-2.93-2
2.32572	26.8074	0.70	0.76	-1.08-2	1.54-2	-1.73-2	-2.22-2
2.32573	32.3227	0.62	0.66	-7.45-3	9.91-3	-1.22-2	-1.49-2
2.40	2.50						
2.40872	2.74924	8.00	90.00	1.36 1	2.91 2	-1.88 1	-3.08 2
2.41406	2.76425	7.80	87.00	1.23 1	2.77 2	-1.72 1	-2.94 2
2.40647	2.77118	7.60	83.00	1.08 1	2.58 2	-1.54 1	-2.74 2
2.42904	2.77499	7.80	88.00	1.26 1	2.82 2	-1.75 1	-2.99 2
2.40076	2.78092	7.40	79.00	9.42 0	2.40 2	-1.39 1	-2.55 2
2.42142	2.78164	7.60	84.00	1.10 1	2.63 2	-1.57 1	-2.79 2
2.44409	2.78587	7.80	89.00	1.29 1	2.87 2	-1.78 1	-3.04 2
2.41577	2.79116	7.40	80.00	9.67 0	2.45 2	-1.41 1	-2.60 2
2.43641	2.79222	7.60	85.00	1.13 1	2.68 2	-1.60 1	-2.84 2
2.45920	2.79687	7.80	90.00	1.32 1	2.92 2	-1.81 1	-3.09 2
2.43079	2.80149	7.40	81.00	9.93 0	2.50 2	-1.44 1	-2.65 2
2.45144	2.80292	7.60	86.00	1.16 1	2.73 2	-1.63 1	-2.90 2
2.41188	2.80348	7.20	76.00	8.45 0	2.26 2	-1.27 1	-2.41 2
2.44584	2.81193	7.40	82.00	1.02 1	2.55 2	-1.46 1	-2.70 2
2.42703	2.81362	7.20	77.00	8.68 0	2.31 2	-1.29 1	-2.46 2
2.46652	2.81373	7.60	87.00	1.19 1	2.78 2	-1.66 1	-2.95 2
2.40955	2.81860	7.00	72.00	7.36 0	2.08 2	-1.14 1	-2.22 2
2.46091	2.82248	7.40	83.00	1.05 1	2.60 2	-1.49 1	-2.75 2
2.44219	2.82386	7.20	78.00	8.91 0	2.36 2	-1.31 1	-2.51 2
2.48166	2.82466	7.60	88.00	1.22 1	2.83 2	-1.69 1	-3.00 2
2.42493	2.82860	7.00	73.00	7.56 0	2.13 2	-1.16 1	-2.27 2
2.47602	2.83314	7.40	84.00	1.07 1	2.64 2	-1.51 1	-2.80 2
2.45735	2.83419	7.20	79.00	9.15 0	2.41 2	-1.34 1	-2.56 2
2.49686	2.83572	7.60	89.00	1.25 1	2.88 2	-1.72 1	-3.05 2
2.40856	2.83654	6.80	68.00	6.38 0	1.90 2	-1.02 1	-2.03 2
2.44029	2.83867	7.00	74.00	7.77 0	2.18 2	-1.18 1	-2.32 2
2.49117	2.84390	7.40	85.00	1.10 1	2.69 2	-1.54 1	-2.85 2
2.47252	2.84463	7.20	80.00	9.39 0	2.46 2	-1.36 1	-2.61 2
2.42428	2.84642	6.80	69.00	6.56 0	1.95 2	-1.04 1	-2.08 2
2.45563	2.84884	7.00	75.00	7.98 0	2.23 2	-1.20 1	-2.36 2
2.48771	2.85516	7.20	81.00	9.64 0	2.51 2	-1.38 1	-2.66 2
2.43994	2.85638	6.80	70.00	6.75 0	2.00 2	-1.06 1	-2.12 2
2.40866	2.85734	6.60	64.00	5.50 0	1.73 2	-9.13 0	-1.84 2
2.47096	2.85910	7.00	76.00	8.20 0	2.28 2	-1.22 1	-2.41 2
2.45557	2.86642	6.80	71.00	6.94 0	2.05 2	-1.07 1	-2.17 2
2.42484	2.86714	6.60	65.00	5.67 0	1.77 2	-9.29 0	-1.89 2
2.48629	2.86945	7.00	77.00	8.42 0	2.32 2	-1.24 1	-2.46 2
2.47116	2.87655	6.80	72.00	7.14 0	2.09 2	-1.09 1	-2.22 2
2.44094	2.87702	6.60	66.00	5.84 0	1.82 2	-9.45 0	-1.94 2
2.40959	2.88108	6.40	60.00	4.71 0	1.55 2	-8.15 0	-1.66 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.48673	2.88676	6.80	73.00	7.34 0	2.14 2	-1.11 1	-2.27 2
2.45696	2.88698	6.60	67.00	6.01 0	1.87 2	-9.62 0	-1.99 2
2.42636	2.89084	6.40	61.00	4.86 0	1.60 2	-8.29 0	-1.71 2
2.47293	2.89701	6.60	68.00	6.19 0	1.91 2	-9.79 0	-2.03 2
2.44302	2.90068	6.40	62.00	5.02 0	1.64 2	-8.44 0	-1.75 2
2.48883	2.90713	6.60	69.00	6.37 0	1.96 2	-9.96 0	-2.08 2
2.41100	2.90790	6.20	56.00	4.00 0	1.39 2	-7.25 0	-1.48 2
2.45957	2.91058	6.40	63.00	5.18 0	1.69 2	-8.59 0	-1.80 2
2.42853	2.91764	6.20	57.00	4.14 0	1.43 2	-7.39 0	-1.53 2
2.47603	2.92056	6.40	64.00	5.34 0	1.74 2	-8.75 0	-1.85 2
2.44590	2.92746	6.20	58.00	4.28 0	1.47 2	-7.52 0	-1.57 2
2.49241	2.93061	6.40	65.00	5.50 0	1.78 2	-8.90 0	-1.90 2
2.46313	2.93734	6.20	59.00	4.43 0	1.52 2	-7.66 0	-1.62 2
2.41247	2.93796	6.00	52.00	3.36 0	1.22 2	-6.44 0	-1.31 2
2.48023	2.94730	6.20	60.00	4.57 0	1.56 2	-7.80 0	-1.67 2
2.43094	2.94771	6.00	53.00	3.49 0	1.27 2	-6.56 0	-1.35 2
2.49721	2.95732	6.20	61.00	4.72 0	1.61 2	-7.94 0	-1.71 2
2.44921	2.95752	6.00	54.00	3.62 0	1.31 2	-6.68 0	-1.40 2
2.46730	2.96741	6.00	55.00	3.75 0	1.35 2	-6.80 0	-1.44 2
2.41342	2.97150	5.80	48.00	2.79 0	1.07 2	-5.69 0	-1.14 2
2.48522	2.97738	6.00	56.00	3.88 0	1.39 2	-6.93 0	-1.49 2
2.43309	2.98126	5.80	49.00	2.91 0	1.11 2	-5.80 0	-1.19 2
2.45250	2.99109	5.80	50.00	3.03 0	1.15 2	-5.91 0	-1.23 2
2.47166	3.00101	5.80	51.00	3.15 0	1.19 2	-6.02 0	-1.27 2
2.41310	3.00883	5.60	44.00	2.28 0	9.17 1	-5.01 0	-9.87 1
2.49060	3.01099	5.80	52.00	3.27 0	1.23 2	-6.14 0	-1.32 2
2.43428	3.01859	5.60	45.00	2.39 0	9.56 1	-5.11 0	-1.03 2
2.45511	3.02845	5.60	46.00	2.49 0	9.95 1	-5.21 0	-1.07 2
2.47563	3.03839	5.60	47.00	2.60 0	1.03 2	-5.31 0	-1.11 2
2.49585	3.04842	5.60	48.00	2.71 0	1.07 2	-5.41 0	-1.15 2
2.41045	3.05038	5.40	40.00	1.82 0	7.76 1	-4.38 0	-8.36 1
2.43354	3.06012	5.40	41.00	1.92 0	8.12 1	-4.47 0	-8.74 1
2.45619	3.06997	5.40	42.00	2.02 0	8.49 1	-4.57 0	-9.12 1
2.47841	3.07993	5.40	43.00	2.12 0	8.86 1	-4.66 0	-9.51 1
2.40392	3.09676	5.20	36.00	1.41 0	6.43 1	-3.81 0	-6.95 1
2.42949	3.10640	5.20	37.00	1.50 0	6.77 1	-3.90 0	-7.31 1
2.45447	3.11619	5.20	38.00	1.59 0	7.11 1	-3.98 0	-7.67 1
2.47890	3.12613	5.20	39.00	1.68 0	7.46 1	-4.06 0	-8.03 1
2.42009	3.15826	5.00	33.00	1.12 0	5.51 1	-3.37 0	-5.97 1
2.44814	3.16786	5.00	34.00	1.21 0	5.83 1	-3.45 0	-6.30 1
2.47544	3.17767	5.00	35.00	1.29 0	6.15 1	-3.52 0	-6.64 1
2.40217	3.21696	4.80	29.00	7.93-1	4.35 1	-2.89 0	-4.74 1
2.43438	3.22612	4.80	30.00	8.71-1	4.64 1	-2.96 0	-5.04 1
2.46553	3.23558	4.80	31.00	9.49-1	4.94 1	-3.03 0	-5.35 1
2.49572	3.24531	4.80	32.00	1.03 0	5.24 1	-3.10 0	-5.67 1
2.40872	3.29279	4.60	26.00	5.71-1	3.57 1	-2.52 0	-3.89 1
2.44525	3.30149	4.60	27.00	6.43-1	3.83 1	-2.58 0	-4.17 1
2.48038	3.31062	4.60	28.00	7.16-1	4.11 1	-2.64 0	-4.46 1
2.40798	3.37817	4.40	23.00	3.74-1	2.84 1	-2.18 0	-3.12 1
2.45027	3.38598	4.40	24.00	4.41-1	3.09 1	-2.23 0	-3.38 1
2.49064	3.39444	4.40	25.00	5.08-1	3.34 1	-2.29 0	-3.64 1
2.44555	3.48199	4.20	21.00	2.62-1	2.41 1	-1.91 0	-2.65 1
2.49307	3.48917	4.20	22.00	3.25-1	2.64 1	-1.97 0	-2.89 1
2.42446	3.59337	4.00	18.00	1.06-1	1.80 1	-1.63 0	-1.99 1
2.45382	3.59552	4.00	18.50	1.35-1	1.90 1	-1.65 0	-2.10 1
2.48221	3.59806	4.00	19.00	1.64-1	2.01 1	-1.67 0	-2.21 1
2.40437	3.65675	3.90	16.50	3.50-2	1.53 1	-1.49 0	-1.70 1
2.43731	3.65782	3.90	17.00	6.30-2	1.62 1	-1.51 0	-1.80 1
2.46904	3.65942	3.90	17.50	9.09-2	1.72 1	-1.54 0	-1.90 1
2.49966	3.66149	3.90	18.00	1.19-1	1.81 1	-1.56 0	-2.00 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.41248	3.72645	3.80	15.50	-3.57-3	1.36 1	-1.38 0	-1.51 1
2.44840	3.72670	3.80	16.00	2.34-2	1.45 1	-1.41 0	-1.61 1
2.48290	3.72759	3.80	16.50	5.04-2	1.54 1	-1.43 0	-1.70 1
2.49484	3.80059	3.70	15.50	1.27-2	1.37 1	-1.32 0	-1.52 1
2.45710	3.80060	3.70	15.00	-1.33-2	1.28 1	-1.30 0	-1.43 1
2.41766	3.80141	3.70	14.50	-3.93-2	1.20 1	-1.28 0	-1.34 1
2.46256	3.88028	3.60	14.00	-4.71-2	1.12 1	-1.20 0	-1.25 1
2.41891	3.88247	3.60	13.50	-7.22-2	1.05 1	-1.19 0	-1.17 1
2.46366	3.96667	3.50	13.00	-7.83-2	9.77 0	-1.11 0	-1.09 1
2.41490	3.97068	3.50	12.50	-1.02-1	9.03 0	-1.09 0	-1.01 1
2.45883	4.06101	3.40	12.00	-1.07-1	8.38 0	-1.02 0	-9.40 0
2.40377	4.06746	3.40	11.50	-1.30-1	7.69 0	-1.00 0	-8.67 0
2.44592	4.16494	3.30	11.00	-1.33-1	7.08 0	-9.36-1	-7.98 0
2.48983	4.26927	3.20	10.50	-1.34-1	6.49 0	-8.70-1	-7.32 0
2.42181	4.28074	3.20	10.00	-1.56-1	5.87 0	-8.54-1	-6.66 0
2.47699	4.39174	3.10	9.60	-1.52-1	5.45 0	-7.95-1	-6.18 0
2.44634	4.39779	3.10	9.40	-1.60-1	5.22 0	-7.89-1	-5.93 0
2.41469	4.40442	3.10	9.20	-1.69-1	4.99 0	-7.83-1	-5.69 0
2.46861	4.52507	3.00	8.80	-1.64-1	4.59 0	-7.27-1	-5.23 0
2.43334	4.53324	3.00	8.60	-1.72-1	4.38 0	-7.21-1	-5.00 0
2.48747	4.66423	2.90	8.20	-1.66-1	4.00 0	-6.67-1	-4.57 0
2.44782	4.67438	2.90	8.00	-1.74-1	3.80 0	-6.62-1	-4.36 0
2.40659	4.68549	2.90	7.80	-1.81-1	3.61 0	-6.57-1	-4.15 0
2.45626	4.83008	2.80	7.40	-1.75-1	3.26 0	-6.05-1	-3.75 0
2.40922	4.84402	2.80	7.20	-1.82-1	3.08 0	-6.00-1	-3.55 0
2.45595	5.00334	2.70	6.80	-1.75-1	2.76 0	-5.51-1	-3.19 0
2.40156	5.02104	2.70	6.60	-1.82-1	2.59 0	-5.47-1	-3.00 0
2.44294	5.19818	2.60	6.20	-1.74-1	2.29 0	-5.00-1	-2.66 0
2.48332	5.39330	2.50	5.80	-1.66-1	2.01 0	-4.56-1	-2.34 0
2.41126	5.42025	2.50	5.60	-1.73-1	1.86 0	-4.52-1	-2.18 0
2.43935	5.64178	2.40	5.20	-1.64-1	1.60 0	-4.09-1	-1.88 0
2.46077	5.89010	2.30	4.80	-1.56-1	1.36 0	-3.69-1	-1.61 0
2.47164	6.17116	2.20	4.40	-1.47-1	1.14 0	-3.32-1	-1.35 0
2.46598	6.49315	2.10	4.00	-1.38-1	9.32-1	-2.96-1	-1.11 0
2.43419	6.86765	2.00	3.60	-1.30-1	7.44-1	-2.62-1	-8.95-1
2.49554	7.03366	1.95	3.50	-1.23-1	7.03-1	-2.47-1	-8.45-1
2.40391	7.07968	1.95	3.40	-1.25-1	6.57-1	-2.46-1	-7.95-1
2.46345	7.25868	1.90	3.30	-1.18-1	6.18-1	-2.32-1	-7.47-1
2.41678	7.50595	1.85	3.10	-1.14-1	5.39-1	-2.17-1	-6.55-1
2.47625	7.71277	1.80	3.00	-1.07-1	5.03-1	-2.03-1	-6.12-1
2.40478	8.00604	1.75	2.80	-1.03-1	4.31-1	-1.89-1	-5.28-1
2.46094	8.24865	1.70	2.70	-9.69-2	3.98-1	-1.77-1	-4.89-1
2.44420	9.20898	1.55	2.30	-8.09-2	2.77-1	-1.41-1	-3.45-1
2.49125	9.55129	1.50	2.20	-7.52-2	2.51-1	-1.30-1	-3.13-1
2.43553	10.4223	1.40	1.95	-6.53-2	1.89-1	-1.09-1	-2.38-1
2.45898	10.8863	1.35	1.85	-6.01-2	1.67-1	-1.00-1	-2.11-1
2.47353	11.4019	1.30	1.75	-5.51-2	1.46-1	-9.09-2	-1.86-1
2.47510	11.9788	1.25	1.65	-5.04-2	1.27-1	-8.23-2	-1.62-1
2.45780	12.6292	1.20	1.55	-4.58-2	1.09-1	-7.42-2	-1.40-1
2.41300	13.3690	1.15	1.45	-4.15-2	9.17-2	-6.65-2	-1.19-1
2.45720	16.0506	1.00	1.20	-2.91-2	5.63-2	-4.61-2	-7.48-2
2.48244	21.9120	0.80	0.90	-1.59-2	2.54-2	-2.52-2	-3.53-2
2.44318	45.8266	0.50	0.52	-3.70-3	4.53-3	-6.47-3	-7.39-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.50	2.60						
2.51213	2.84691	7.60	90.00	1.29 1	2.93 2	-1.75 1	-3.10 2
2.50637	2.85479	7.40	86.00	1.13 1	2.74 2	-1.57 1	-2.90 2
2.52161	2.86579	7.40	87.00	1.16 1	2.79 2	-1.60 1	-2.95 2
2.50292	2.86580	7.20	82.00	9.89 0	2.56 2	-1.41 1	-2.71 2
2.51817	2.87654	7.20	83.00	1.01 1	2.61 2	-1.43 1	-2.76 2
2.53692	2.87692	7.40	88.00	1.19 1	2.84 2	-1.63 1	-3.00 2
2.50162	2.87989	7.00	78.00	8.65 0	2.37 2	-1.26 1	-2.51 2
2.53345	2.88740	7.20	84.00	1.04 1	2.66 2	-1.46 1	-2.81 2
2.55229	2.88817	7.40	89.00	1.22 1	2.89 2	-1.66 1	-3.05 2
2.51695	2.89043	7.00	79.00	8.88 0	2.42 2	-1.29 1	-2.56 2
2.50227	2.89706	6.80	74.00	7.54 0	2.19 2	-1.13 1	-2.32 2
2.54877	2.89837	7.20	85.00	1.07 1	2.71 2	-1.48 1	-2.86 2
2.56772	2.89955	7.40	90.00	1.25 1	2.94 2	-1.69 1	-3.10 2
2.53230	2.90107	7.00	80.00	9.11 0	2.47 2	-1.31 1	-2.62 2
2.51779	2.90744	6.80	75.00	7.74 0	2.24 2	-1.15 1	-2.37 2
2.56413	2.90945	7.20	86.00	1.09 1	2.76 2	-1.51 1	-2.91 2
2.54766	2.91181	7.00	81.00	9.35 0	2.52 2	-1.33 1	-2.67 2
2.50469	2.91732	6.60	70.00	6.55 0	2.01 2	-1.01 1	-2.13 2
2.53330	2.91791	6.80	76.00	7.95 0	2.29 2	-1.17 1	-2.42 2
2.57955	2.92066	7.20	87.00	1.12 1	2.81 2	-1.54 1	-2.96 2
2.56306	2.92266	7.00	82.00	9.59 0	2.57 2	-1.36 1	-2.72 2
2.52051	2.92759	6.60	71.00	6.73 0	2.06 2	-1.03 1	-2.18 2
2.54881	2.92848	6.80	77.00	8.17 0	2.34 2	-1.19 1	-2.47 2
2.59503	2.93198	7.20	88.00	1.15 1	2.86 2	-1.57 1	-3.01 2
2.57848	2.93361	7.00	83.00	9.84 0	2.62 2	-1.38 1	-2.77 2
2.53630	2.93794	6.60	72.00	6.92 0	2.10 2	-1.05 1	-2.23 2
2.56432	2.93914	6.80	78.00	8.38 0	2.39 2	-1.21 1	-2.52 2
2.50871	2.94074	6.40	66.00	5.66 0	1.83 2	-9.06 0	-1.94 2
2.59393	2.94467	7.00	84.00	1.01 1	2.67 2	-1.40 1	-2.82 2
2.55205	2.94838	6.60	73.00	7.11 0	2.15 2	-1.07 1	-2.28 2
2.57984	2.94990	6.80	79.00	8.60 0	2.44 2	-1.24 1	-2.57 2
2.52493	2.95094	6.40	67.00	5.83 0	1.88 2	-9.22 0	-1.99 2
2.56778	2.95891	6.60	74.00	7.31 0	2.20 2	-1.09 1	-2.33 2
2.59537	2.96075	6.80	80.00	8.83 0	2.48 2	-1.26 1	-2.62 2
2.54110	2.96121	6.40	68.00	6.00 0	1.92 2	-9.38 0	-2.04 2
2.51409	2.96742	6.20	62.00	4.87 0	1.65 2	-8.08 0	-1.76 2
2.58350	2.96952	6.60	75.00	7.50 0	2.25 2	-1.11 1	-2.38 2
2.55721	2.97157	6.40	69.00	6.17 0	1.97 2	-9.55 0	-2.09 2
2.53085	2.97759	6.20	63.00	5.02 0	1.70 2	-8.22 0	-1.81 2
2.59920	2.98022	6.60	76.00	7.71 0	2.30 2	-1.13 1	-2.43 2
2.57327	2.98200	6.40	70.00	6.35 0	2.02 2	-9.72 0	-2.14 2
2.50297	2.98741	6.00	57.00	4.02 0	1.44 2	-7.06 0	-1.53 2
2.54753	2.98782	6.20	64.00	5.17 0	1.75 2	-8.37 0	-1.85 2
2.58929	2.99251	6.40	71.00	6.52 0	2.07 2	-9.89 0	-2.19 2
2.52057	2.99750	6.00	58.00	4.15 0	1.48 2	-7.19 0	-1.58 2
2.56412	2.99814	6.20	65.00	5.33 0	1.79 2	-8.52 0	-1.90 2
2.53803	3.00767	6.00	59.00	4.29 0	1.53 2	-7.32 0	-1.63 2
2.58063	3.00852	6.20	66.00	5.49 0	1.84 2	-8.67 0	-1.95 2
2.55536	3.01791	6.00	60.00	4.43 0	1.57 2	-7.45 0	-1.67 2
2.59707	3.01898	6.20	67.00	5.65 0	1.89 2	-8.83 0	-2.00 2
2.50932	3.02105	5.80	53.00	3.39 0	1.27 2	-6.25 0	-1.36 2
2.57257	3.02821	6.00	61.00	4.57 0	1.62 2	-7.58 0	-1.72 2
2.52784	3.03118	5.80	54.00	3.51 0	1.32 2	-6.37 0	-1.40 2
2.58967	3.03859	6.00	62.00	4.71 0	1.67 2	-7.72 0	-1.77 2
2.54618	3.04138	5.80	55.00	3.64 0	1.36 2	-6.49 0	-1.45 2
2.56434	3.05165	5.80	56.00	3.77 0	1.40 2	-6.61 0	-1.49 2
2.51579	3.05852	5.60	49.00	2.83 0	1.12 2	-5.52 0	-1.19 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.58233	3.06198	5.80	57.00	3.89 0	1.45 2	-6.73 0	-1.54 2
2.53546	3.06870	5.60	50.00	2.94 0	1.16 2	-5.62 0	-1.23 2
2.55490	3.07895	5.60	51.00	3.05 0	1.20 2	-5.73 0	-1.28 2
2.57410	3.08928	5.60	52.00	3.17 0	1.24 2	-5.84 0	-1.32 2
2.50025	3.08999	5.40	44.00	2.22 0	9.24 1	-4.75 0	-9.91 1
2.59309	3.09967	5.60	53.00	3.29 0	1.28 2	-5.95 0	-1.37 2
2.52173	3.10015	5.40	45.00	2.32 0	9.63 1	-4.85 0	-1.03 2
2.54286	3.11038	5.40	46.00	2.42 0	1.00 2	-4.94 0	-1.07 2
2.56367	3.12071	5.40	47.00	2.53 0	1.04 2	-5.04 0	-1.11 2
2.58418	3.13110	5.40	48.00	2.63 0	1.08 2	-5.14 0	-1.15 2
2.50281	3.13619	5.20	40.00	1.78 0	7.82 1	-4.15 0	-8.40 1
2.52623	3.14637	5.20	41.00	1.87 0	8.19 1	-4.24 0	-8.78 1
2.54921	3.15665	5.20	42.00	1.96 0	8.56 1	-4.32 0	-9.17 1
2.57176	3.16704	5.20	43.00	2.06 0	8.94 1	-4.41 0	-9.56 1
2.59392	3.17752	5.20	44.00	2.16 0	9.32 1	-4.50 0	-9.96 1
2.50203	3.18765	5.00	36.00	1.38 0	6.49 1	-3.60 0	-6.99 1
2.52798	3.19779	5.00	37.00	1.47 0	6.83 1	-3.68 0	-7.34 1
2.55333	3.20808	5.00	38.00	1.55 0	7.17 1	-3.76 0	-7.70 1
2.57812	3.21850	5.00	39.00	1.64 0	7.53 1	-3.84 0	-8.07 1
2.52501	3.25528	4.80	33.00	1.11 0	5.56 1	-3.17 0	-6.00 1
2.55348	3.26546	4.80	34.00	1.19 0	5.88 1	-3.24 0	-6.33 1
2.58119	3.27583	4.80	35.00	1.27 0	6.21 1	-3.32 0	-6.67 1
2.51423	3.32013	4.60	29.00	7.89-1	4.39 1	-2.71 0	-4.76 1
2.54692	3.32997	4.60	30.00	8.62-1	4.69 1	-2.77 0	-5.07 1
2.57855	3.34010	4.60	31.00	9.36-1	4.99 1	-2.84 0	-5.38 1
2.52928	3.40347	4.40	26.00	5.76-1	3.60 1	-2.35 0	-3.91 1
2.56637	3.41297	4.40	27.00	6.44-1	3.87 1	-2.41 0	-4.20 1
2.53816	3.49721	4.20	23.00	3.87-1	2.88 1	-2.02 0	-3.14 1
2.58109	3.50598	4.20	24.00	4.51-1	3.12 1	-2.08 0	-3.39 1
2.50971	3.60097	4.00	19.50	1.93-1	2.11 1	-1.70 0	-2.32 1
2.53638	3.60420	4.00	20.00	2.22-1	2.22 1	-1.72 0	-2.43 1
2.58740	3.61151	4.00	21.00	2.80-1	2.44 1	-1.77 0	-2.66 1
2.52924	3.66399	3.90	18.50	1.47-1	1.91 1	-1.58 0	-2.11 1
2.55785	3.66688	3.90	19.00	1.75-1	2.02 1	-1.61 0	-2.21 1
2.58556	3.67012	3.90	19.50	2.03-1	2.12 1	-1.63 0	-2.32 1
2.51608	3.72906	3.80	17.00	7.74-2	1.63 1	-1.45 0	-1.80 1
2.54805	3.73105	3.80	17.50	1.04-1	1.73 1	-1.47 0	-1.90 1
2.57890	3.73350	3.80	18.00	1.31-1	1.83 1	-1.49 0	-2.01 1
2.53102	3.80129	3.70	16.00	3.87-2	1.46 1	-1.35 0	-1.61 1
2.56577	3.80261	3.70	16.50	6.48-2	1.55 1	-1.37 0	-1.71 1
2.59921	3.80450	3.70	17.00	9.08-2	1.64 1	-1.39 0	-1.81 1
2.54388	3.87878	3.60	15.00	2.99-3	1.29 1	-1.24 0	-1.43 1
2.50416	3.87909	3.60	14.50	-2.21-2	1.21 1	-1.22 0	-1.34 1
2.58190	3.87925	3.60	15.50	2.81-2	1.38 1	-1.26 0	-1.52 1
2.59576	3.96166	3.50	14.50	-5.83-3	1.21 1	-1.17 0	-1.35 1
2.55386	3.96231	3.50	14.00	-3.00-2	1.13 1	-1.15 0	-1.26 1
2.50990	3.96394	3.50	13.50	-5.41-2	1.05 1	-1.13 0	-1.17 1
2.55985	4.05284	3.40	13.00	-6.02-2	9.84 0	-1.06 0	-1.10 1
2.51075	4.05621	3.40	12.50	-8.34-2	9.09 0	-1.04 0	-1.02 1
2.56036	4.15162	3.30	12.00	-8.78-2	8.44 0	-9.69-1	-9.43 0
2.50491	4.15735	3.30	11.50	-1.10-1	7.74 0	-9.52-1	-8.69 0
2.55326	4.26032	3.20	11.00	-1.13-1	7.13 0	-8.86-1	-8.01 0
2.53553	4.38123	3.10	10.00	-1.35-1	5.92 0	-8.07-1	-6.68 0
2.50670	4.38624	3.10	9.80	-1.44-1	5.68 0	-8.01-1	-6.43 0
2.59832	4.49901	3.00	9.60	-1.32-1	5.49 0	-7.49-1	-6.20 0
2.56746	4.50463	3.00	9.40	-1.40-1	5.26 0	-7.44-1	-5.95 0
2.53559	4.51081	3.00	9.20	-1.48-1	5.03 0	-7.38-1	-5.71 0
2.50267	4.51761	3.00	9.00	-1.56-1	4.81 0	-7.32-1	-5.47 0
2.59793	4.63889	2.90	8.80	-1.43-1	4.63 0	-6.83-1	-5.25 0
2.56243	4.64654	2.90	8.60	-1.51-1	4.42 0	-6.78-1	-5.02 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.52564	4.65499	2.90	8.40	-1.58-1	4.21 0	-6.72-1	-4.79 0
2.58601	4.79532	2.80	8.00	-1.53-1	3.84 0	-6.20-1	-4.37 0
2.54451	4.80584	2.80	7.80	-1.60-1	3.64 0	-6.15-1	-4.16 0
2.50131	4.81739	2.80	7.60	-1.67-1	3.45 0	-6.10-1	-3.95 0
2.55728	4.97270	2.70	7.20	-1.61-1	3.11 0	-5.60-1	-3.57 0
2.50778	4.98728	2.70	7.00	-1.68-1	2.93 0	-5.56-1	-3.37 0
2.56100	5.15892	2.60	6.60	-1.61-1	2.61 0	-5.09-1	-3.01 0
2.50349	5.17756	2.60	6.40	-1.68-1	2.45 0	-5.04-1	-2.83 0
2.55129	5.36906	2.50	6.00	-1.60-1	2.16 0	-4.59-1	-2.50 0
2.59847	5.58078	2.40	5.60	-1.52-1	1.88 0	-4.17-1	-2.19 0
2.52144	5.60959	2.40	5.40	-1.58-1	1.74 0	-4.13-1	-2.03 0
2.55542	5.85110	2.30	5.00	-1.50-1	1.49 0	-3.73-1	-1.74 0
2.58235	6.12319	2.20	4.60	-1.41-1	1.26 0	-3.35-1	-1.48 0
2.59773	6.43298	2.10	4.20	-1.33-1	1.04 0	-2.99-1	-1.23 0
2.59441	6.79037	2.00	3.80	-1.24-1	8.42-1	-2.65-1	-1.00 0
2.51633	6.82755	2.00	3.70	-1.27-1	7.92-1	-2.63-1	-9.48-1
2.58232	6.99115	1.95	3.60	-1.20-1	7.50-1	-2.48-1	-8.97-1
2.56061	7.20969	1.90	3.40	-1.16-1	6.63-1	-2.33-1	-7.96-1
2.52650	7.44896	1.85	3.20	-1.12-1	5.80-1	-2.18-1	-7.01-1
2.59340	7.65165	1.80	3.10	-1.05-1	5.43-1	-2.04-1	-6.57-1
2.53909	7.93374	1.75	2.90	-1.01-1	4.68-1	-1.90-1	-5.70-1
2.51970	8.50952	1.65	2.60	-9.08-2	3.67-1	-1.65-1	-4.51-1
2.58114	8.79081	1.60	2.50	-8.48-2	3.37-1	-1.53-1	-4.14-1
2.53764	9.92521	1.45	2.10	-6.97-2	2.26-1	-1.20-1	-2.82-1
2.58238	10.3355	1.40	2.00	-6.44-2	2.02-1	-1.10-1	-2.53-1
2.59696	14.9469	1.05	1.30	-3.28-2	6.97-2	-3.25-2	-9.14-2
2.54246	18.4933	0.90	1.05	-2.20-2	3.93-2	-2.48-2	-5.32-2
2.53574	20.3931	0.84	0.96	-1.82-2	3.06-2	-2.88-2	-4.20-2
2.54819	24.5295	0.74	0.82	-1.27-2	1.94-2	-2.02-2	-2.74-2
2.53135	27.8852	0.68	0.74	-9.86-3	1.42-2	-1.59-2	-2.06-2
2.57300	33.8943	0.60	0.64	-6.69-3	9.02-3	-1.11-2	-1.36-2
2.60	2.70						
2.61057	2.94344	7.20	89.00	1.18 1	2.91 2	-1.60 1	-3.06 2
2.62618	2.95502	7.20	90.00	1.21 1	2.96 2	-1.62 1	-3.11 2
2.60943	2.95585	7.00	85.00	1.03 1	2.72 2	-1.43 1	-2.87 2
2.62498	2.96715	7.00	86.00	1.06 1	2.77 2	-1.45 1	-2.92 2
2.61093	2.97171	6.80	81.00	9.06 0	2.53 2	-1.28 1	-2.67 2
2.64058	2.97856	7.00	87.00	1.09 1	2.82 2	-1.48 1	-2.97 2
2.62650	2.98278	6.80	82.00	9.29 0	2.58 2	-1.30 1	-2.72 2
2.65674	2.99010	7.00	88.00	1.11 1	2.87 2	-1.51 1	-3.02 2
2.61490	2.99101	6.60	77.00	7.91 0	2.35 2	-1.15 1	-2.48 2
2.64211	2.99395	6.80	83.00	9.53 0	2.63 2	-1.33 1	-2.77 2
2.67196	3.00176	7.00	89.00	1.14 1	2.92 2	-1.54 1	-3.07 2
2.63061	3.00190	6.60	78.00	8.12 0	2.40 2	-1.17 1	-2.53 2
2.60527	3.00311	6.40	72.00	6.70 0	2.12 2	-1.01 1	-2.24 2
2.65775	3.00523	6.80	84.00	9.77 0	2.68 2	-1.35 1	-2.83 2
2.64632	3.01288	6.60	79.00	8.33 0	2.45 2	-1.19 1	-2.58 2
2.68776	3.01356	7.00	90.00	1.17 1	2.97 2	-1.56 1	-3.12 2
2.62123	3.01379	6.40	73.00	6.89 0	2.17 2	-1.02 1	-2.29 2
2.67344	3.01662	6.80	85.00	1.00 1	2.73 2	-1.37 1	-2.88 2
2.66205	3.02397	6.60	80.00	8.55 0	2.50 2	-1.21 1	-2.63 2
2.63716	3.02455	6.40	74.00	7.07 0	2.21 2	-1.04 1	-2.34 2
2.68918	3.02814	6.80	86.00	1.03 1	2.78 2	-1.40 1	-2.93 2
2.61345	3.02951	6.20	68.00	5.81 0	1.94 2	-8.98 0	-2.05 2
2.67779	3.03516	6.60	81.00	8.77 0	2.55 2	-1.23 1	-2.68 2
2.65308	3.03540	6.40	75.00	7.26 0	2.26 2	-1.06 1	-2.39 2
2.62977	3.04012	6.20	69.00	5.97 0	1.98 2	-9.14 0	-2.10 2
2.66899	3.04634	6.40	76.00	7.46 0	2.31 2	-1.08 1	-2.44 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.69356	3.04645	6.60	82.00	8.99 0	2.60 2	-1.25 1	-2.73 2
2.60667	3.04903	6.00	63.00	4.86 0	1.71 2	-7.86 0	-1.81 2
2.64604	3.05081	6.20	70.00	6.14 0	2.03 2	-9.31 0	-2.15 2
2.68490	3.05738	6.40	77.00	7.65 0	2.36 2	-1.10 1	-2.49 2
2.62357	3.05954	6.00	64.00	5.01 0	1.76 2	-8.00 0	-1.86 2
2.66228	3.06157	6.20	71.00	6.31 0	2.08 2	-9.47 0	-2.20 2
2.64038	3.07013	6.00	65.00	5.16 0	1.81 2	-8.14 0	-1.91 2
2.60018	3.07238	5.80	58.00	4.02 0	1.49 2	-6.85 0	-1.59 2
2.67847	3.07242	6.20	72.00	6.49 0	2.13 2	-9.64 0	-2.25 2
2.65712	3.08078	6.00	66.00	5.31 0	1.85 2	-8.29 0	-1.96 2
2.61798	3.08285	5.80	59.00	4.16 0	1.54 2	-6.98 0	-1.63 2
2.69464	3.08335	6.20	73.00	6.66 0	2.18 2	-9.81 0	-2.30 2
2.67379	3.09151	6.00	67.00	5.46 0	1.90 2	-8.44 0	-2.01 2
2.63546	3.09338	5.80	60.00	4.29 0	1.58 2	-7.11 0	-1.68 2
2.69039	3.10231	6.00	68.00	5.62 0	1.95 2	-8.59 0	-2.06 2
2.65291	3.10398	5.80	61.00	4.42 0	1.63 2	-7.24 0	-1.73 2
2.61187	3.11013	5.60	54.00	3.40 0	1.33 2	-6.06 0	-1.41 2
2.67025	3.11465	5.80	62.00	4.56 0	1.68 2	-7.37 0	-1.77 2
2.63047	3.12065	5.60	55.00	3.52 0	1.37 2	-6.18 0	-1.46 2
2.68749	3.12538	5.80	63.00	4.70 0	1.72 2	-7.50 0	-1.82 2
2.64889	3.13124	5.60	56.00	3.64 0	1.41 2	-6.29 0	-1.50 2
2.60441	3.14158	5.40	49.00	2.74 0	1.12 2	-5.24 0	-1.20 2
2.66715	3.14190	5.60	57.00	3.77 0	1.46 2	-6.41 0	-1.55 2
2.62438	3.15212	5.40	50.00	2.85 0	1.17 2	-5.34 0	-1.24 2
2.68526	3.15262	5.60	58.00	3.89 0	1.50 2	-6.53 0	-1.59 2
2.64410	3.16273	5.40	51.00	2.96 0	1.21 2	-5.45 0	-1.28 2
2.66358	3.17341	5.40	52.00	3.07 0	1.25 2	-5.55 0	-1.33 2
2.68286	3.18416	5.40	53.00	3.18 0	1.29 2	-5.66 0	-1.37 2
2.61572	3.18808	5.20	45.00	2.25 0	9.71 1	-4.59 0	-1.04 2
2.63717	3.19873	5.20	46.00	2.35 0	1.01 2	-4.69 0	-1.08 2
2.65829	3.20945	5.20	47.00	2.45 0	1.05 2	-4.78 0	-1.12 2
2.67912	3.22025	5.20	48.00	2.55 0	1.09 2	-4.87 0	-1.16 2
2.60239	3.22904	5.00	40.00	1.73 0	7.89 1	-3.92 0	-8.45 1
2.69966	3.23111	5.20	49.00	2.65 0	1.13 2	-4.97 0	-1.20 2
2.62618	3.23968	5.00	41.00	1.82 0	8.26 1	-4.00 0	-8.83 1
2.64951	3.25043	5.00	42.00	1.91 0	8.63 1	-4.09 0	-9.21 1
2.67241	3.26127	5.00	43.00	2.00 0	9.01 1	-4.17 0	-9.61 1
2.69492	3.27219	5.00	44.00	2.09 0	9.40 1	-4.26 0	-1.00 2
2.60819	3.28636	4.80	36.00	1.35 0	6.54 1	-3.39 0	-7.02 1
2.63455	3.29705	4.80	37.00	1.43 0	6.89 1	-3.46 0	-7.38 1
2.66030	3.30786	4.80	38.00	1.51 0	7.24 1	-3.54 0	-7.74 1
2.68548	3.31880	4.80	39.00	1.60 0	7.59 1	-3.62 0	-8.11 1
2.60920	3.35048	4.60	32.00	1.01 0	5.29 1	-2.91 0	-5.70 1
2.63895	3.36108	4.60	33.00	1.09 0	5.61 1	-2.98 0	-6.03 1
2.66788	3.37188	4.60	34.00	1.16 0	5.93 1	-3.04 0	-6.37 1
2.69604	3.38285	4.60	35.00	1.24 0	6.27 1	-3.11 0	-6.71 1
2.60204	3.42288	4.40	28.00	7.13-1	4.15 1	-2.47 0	-4.49 1
2.63643	3.43314	4.40	29.00	7.82-1	4.44 1	-2.53 0	-4.79 1
2.66965	3.44372	4.40	30.00	8.51-1	4.73 1	-2.59 0	-5.10 1
2.62209	3.51537	4.20	25.00	5.14-1	3.38 1	-2.13 0	-3.66 1
2.66136	3.52529	4.20	26.00	5.78-1	3.64 1	-2.19 0	-3.94 1
2.69905	3.53565	4.20	27.00	6.42-1	3.91 1	-2.24 0	-4.22 1
2.63566	3.61982	4.00	22.00	3.39-1	2.67 1	-1.82 0	-2.90 1
2.68148	3.62894	4.00	23.00	3.98-1	2.91 1	-1.87 0	-3.16 1
2.61243	3.67367	3.90	20.00	2.31-1	2.23 1	-1.65 0	-2.44 1
2.66387	3.68162	3.90	21.00	2.88-1	2.45 1	-1.70 0	-2.67 1
2.60871	3.73637	3.80	18.50	1.59-1	1.93 1	-1.52 0	-2.11 1
2.63754	3.73961	3.80	19.00	1.86-1	2.03 1	-1.54 0	-2.22 1
2.66548	3.74320	3.80	19.50	2.13-1	2.14 1	-1.56 0	-2.33 1
2.69257	3.74709	3.80	20.00	2.40-1	2.24 1	-1.59 0	-2.45 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.63143	3.80689	3.70	17.50	1.17-1	1.74 1	-1.41 0	-1.91 1
2.66253	3.80973	3.70	18.00	1.43-1	1.84 1	-1.43 0	-2.01 1
2.69258	3.81298	3.70	18.50	1.69-1	1.94 1	-1.45 0	-2.12 1
2.61837	3.88040	3.60	16.00	5.31-2	1.47 1	-1.29 0	-1.62 1
2.65339	3.88218	3.60	16.50	7.82-2	1.56 1	-1.31 0	-1.71 1
2.68710	3.88450	3.60	17.00	1.03-1	1.65 1	-1.33 0	-1.81 1
2.63579	3.96186	3.50	15.00	1.83-2	1.30 1	-1.19 0	-1.43 1
2.67412	3.96283	3.50	15.50	4.24-2	1.39 1	-1.21 0	-1.53 1
2.69297	4.04958	3.40	14.50	9.43-3	1.22 1	-1.11 0	-1.35 1
2.65073	4.04967	3.40	14.00	-1.38-2	1.14 1	-1.09 0	-1.26 1
2.60643	4.05071	3.40	13.50	-3.70-2	1.06 1	-1.08 0	-1.18 1
2.66213	4.14481	3.30	13.00	-4.32-2	9.91 0	-1.00 0	-1.10 1
2.61266	4.14752	3.30	12.50	-6.55-2	9.16 0	-9.87-1	-1.02 1
2.66854	4.24857	3.20	12.00	-6.99-2	8.50 0	-9.19-1	-9.47 0
2.61268	4.25353	3.20	11.50	-9.14-2	7.80 0	-9.02-1	-8.72 0
2.66791	4.36264	3.10	11.00	-9.42-2	7.19 0	-8.38-1	-8.04 0
2.60401	4.37070	3.10	10.50	-1.15-1	6.54 0	-8.22-1	-7.35 0
2.65727	4.48933	3.00	10.00	-1.16-1	5.97 0	-7.61-1	-6.71 0
2.62824	4.49392	3.00	9.80	-1.24-1	5.73 0	-7.55-1	-6.45 0
2.69747	4.61989	2.90	9.40	-1.20-1	5.31 0	-6.99-1	-5.97 0
2.66538	4.62561	2.90	9.20	-1.28-1	5.08 0	-6.94-1	-5.73 0
2.63222	4.63192	2.90	9.00	-1.35-1	4.85 0	-6.88-1	-5.49 0
2.66435	4.77708	2.80	8.40	-1.38-1	4.25 0	-6.30-1	-4.81 0
2.62592	4.78576	2.80	8.20	-1.45-1	4.04 0	-6.25-1	-4.59 0
2.69346	4.93655	2.70	7.80	-1.40-1	3.68 0	-5.75-1	-4.18 0
2.64906	4.94745	2.70	7.60	-1.47-1	3.48 0	-5.70-1	-3.97 0
2.60461	4.95946	2.70	7.40	-1.54-1	3.29 0	-5.65-1	-3.77 0
2.66788	5.12679	2.60	7.00	-1.47-1	2.96 0	-5.17-1	-3.39 0
2.61571	5.14205	2.60	6.80	-1.54-1	2.78 0	-5.13-1	-3.20 0
2.67649	5.32758	2.50	6.40	-1.47-1	2.48 0	-4.68-1	-2.85 0
2.61557	5.34724	2.50	6.20	-1.53-1	2.31 0	-4.63-1	-2.67 0
2.67095	5.55499	2.40	5.80	-1.46-1	2.03 0	-4.20-1	-2.35 0
2.64367	5.81647	2.30	5.20	-1.44-1	1.62 0	-3.76-1	-1.89 0
2.68480	6.08092	2.20	4.80	-1.36-1	1.38 0	-3.38-1	-1.61 0
2.66875	6.75585	2.00	3.90	-1.22-1	8.93-1	-2.66-1	-1.06 0
2.66466	6.95183	1.95	3.70	-1.18-1	7.98-1	-2.50-1	-9.50-1
2.65246	7.16455	1.90	3.50	-1.13-1	7.08-1	-2.34-1	-8.47-1
2.62976	7.39670	1.85	3.30	-1.09-1	6.23-1	-2.19-1	-7.49-1
2.66449	7.86802	1.75	3.00	-9.88-2	5.08-1	-1.91-1	-6.13-1
2.60555	8.17040	1.70	2.80	-9.48-2	4.35-1	-1.78-1	-5.29-1
2.67593	8.42454	1.65	2.70	-8.87-2	4.02-1	-1.65-1	-4.90-1
2.64529	9.09511	1.55	2.40	-7.89-2	3.08-1	-1.42-1	-3.79-1
2.62403	10.7879	1.35	1.90	-5.92-2	1.79-1	-1.00-1	-2.25-1
2.66055	11.2895	1.30	1.80	-5.43-2	1.57-1	-9.11-2	-1.99-1
2.68897	11.8491	1.25	1.70	-4.96-2	1.37-1	-8.25-2	-1.74-1
2.67103	14.0050	1.10	1.40	-3.66-2	8.45-2	-5.93-2	-1.10-1
2.60920	16.8700	0.96	1.15	-2.60-2	5.04-2	-4.14-2	-6.72-2
2.66035	22.6231	0.78	0.88	-1.47-2	2.39-2	-2.35-2	-3.33-2
2.70	2.80						
2.70497	3.03977	6.80	87.00	1.05 1	2.83 2	-1.42 1	-2.98 2
2.72082	3.05153	6.80	88.00	1.08 1	2.88 2	-1.45 1	-3.03 2
2.70937	3.05784	6.60	83.00	9.22 0	2.65 2	-1.27 1	-2.78 2
2.73673	3.06341	6.80	89.00	1.11 1	2.93 2	-1.48 1	-3.08 2
2.70080	3.06850	6.40	78.00	7.85 0	2.41 2	-1.12 1	-2.54 2
2.72521	3.06935	6.60	84.00	9.45 0	2.70 2	-1.30 1	-2.83 2
2.75272	3.07543	6.80	90.00	1.13 1	2.98 2	-1.50 1	-3.13 2
2.71672	3.07973	6.40	79.00	8.06 0	2.46 2	-1.14 1	-2.59 2
2.74110	3.08098	6.60	85.00	9.69 0	2.75 2	-1.32 1	-2.89 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.73265	3.09105	6.40	80.00	8.26 0	2.51 2	-1.16 1	-2.64 2
2.75703	3.09272	6.60	86.00	9.93 0	2.80 2	-1.34 1	-2.94 2
2.71079	3.09437	6.20	74.00	6.84 0	2.23 2	-9.98 0	-2.35 2
2.74860	3.10248	6.40	81.00	8.48 0	2.56 2	-1.18 1	-2.69 2
2.77302	3.10459	6.60	87.00	1.02 1	2.85 2	-1.37 1	-2.99 2
2.72692	3.10547	6.20	75.00	7.02 0	2.28 2	-1.02 1	-2.40 2
2.70694	3.11319	6.00	69.00	5.78 0	2.00 2	-8.74 0	-2.11 2
2.76458	3.11401	6.40	82.00	8.69 0	2.61 2	-1.20 1	-2.74 2
2.78907	3.11657	6.60	88.00	1.04 1	2.90 2	-1.39 1	-3.04 2
2.74305	3.11666	6.20	76.00	7.21 0	2.33 2	-1.03 1	-2.45 2
2.72344	3.12415	6.00	70.00	5.94 0	2.05 2	-8.90 0	-2.16 2
2.78059	3.12564	6.40	83.00	8.91 0	2.66 2	-1.22 1	-2.79 2
2.75917	3.12795	6.20	77.00	7.40 0	2.38 2	-1.05 1	-2.50 2
2.73990	3.13518	6.00	71.00	6.10 0	2.09 2	-9.05 0	-2.21 2
2.70463	3.13619	5.80	64.00	4.84 0	1.77 2	-7.64 0	-1.87 2
2.79664	3.13739	6.40	84.00	9.13 0	2.71 2	-1.24 1	-2.84 2
2.77529	3.13932	6.20	78.00	7.59 0	2.43 2	-1.07 1	-2.55 2
2.75632	3.14630	6.00	72.00	6.27 0	2.14 2	-9.22 0	-2.26 2
2.72168	3.14706	5.80	65.00	4.98 0	1.82 2	-7.77 0	-1.92 2
2.79142	3.15080	6.20	79.00	7.78 0	2.48 2	-1.09 1	-2.60 2
2.77272	3.15749	6.00	73.00	6.43 0	2.19 2	-9.38 0	-2.31 2
2.73866	3.15800	5.80	66.00	5.13 0	1.87 2	-7.91 0	-1.97 2
2.70322	3.16340	5.60	59.00	4.02 0	1.55 2	-6.65 0	-1.64 2
2.78909	3.16878	6.00	74.00	6.61 0	2.24 2	-9.55 0	-2.36 2
2.75557	3.16902	5.80	67.00	5.27 0	1.91 2	-8.05 0	-2.02 2
2.72105	3.17425	5.60	60.00	4.14 0	1.60 2	-6.77 0	-1.69 2
2.77241	3.18010	5.80	68.00	5.42 0	1.96 2	-8.20 0	-2.07 2
2.73876	3.18516	5.60	61.00	4.27 0	1.64 2	-6.89 0	-1.73 2
2.78920	3.19127	5.80	69.00	5.58 0	2.01 2	-8.34 0	-2.12 2
2.70192	3.19497	5.40	54.00	3.29 0	1.34 2	-5.76 0	-1.42 2
2.75636	3.19614	5.60	62.00	4.40 0	1.69 2	-7.02 0	-1.78 2
2.72080	3.20584	5.40	55.00	3.41 0	1.38 2	-5.87 0	-1.46 2
2.77385	3.20718	5.60	63.00	4.54 0	1.74 2	-7.15 0	-1.83 2
2.73951	3.21677	5.40	56.00	3.52 0	1.43 2	-5.98 0	-1.51 2
2.79125	3.21829	5.60	64.00	4.67 0	1.78 2	-7.28 0	-1.88 2
2.75805	3.22777	5.40	57.00	3.64 0	1.47 2	-6.09 0	-1.55 2
2.77643	3.23882	5.40	58.00	3.76 0	1.52 2	-6.21 0	-1.60 2
2.71994	3.24204	5.20	50.00	2.76 0	1.17 2	-5.07 0	-1.25 2
2.79467	3.24994	5.40	59.00	3.88 0	1.56 2	-6.32 0	-1.65 2
2.73996	3.25304	5.20	51.00	2.86 0	1.22 2	-5.16 0	-1.29 2
2.75976	3.26409	5.20	52.00	2.97 0	1.26 2	-5.26 0	-1.33 2
2.77933	3.27522	5.20	53.00	3.07 0	1.30 2	-5.36 0	-1.38 2
2.71706	3.28320	5.00	45.00	2.18 0	9.79 1	-4.34 0	-1.04 2
2.79871	3.28640	5.20	54.00	3.18 0	1.35 2	-5.47 0	-1.42 2
2.73885	3.29428	5.00	46.00	2.28 0	1.02 2	-4.43 0	-1.08 2
2.76032	3.30543	5.00	47.00	2.37 0	1.06 2	-4.52 0	-1.12 2
2.78148	3.31665	5.00	48.00	2.47 0	1.10 2	-4.61 0	-1.17 2
2.71014	3.32985	4.80	40.00	1.68 0	7.96 1	-3.70 0	-8.49 1
2.73431	3.34099	4.80	41.00	1.76 0	8.33 1	-3.77 0	-8.87 1
2.75802	3.35223	4.80	42.00	1.85 0	8.71 1	-3.85 0	-9.26 1
2.78131	3.36355	4.80	43.00	1.94 0	9.09 1	-3.93 0	-9.66 1
2.72349	3.39397	4.60	36.00	1.31 0	6.60 1	-3.18 0	-7.06 1
2.75028	3.40523	4.60	37.00	1.39 0	6.95 1	-3.26 0	-7.42 1
2.77646	3.41661	4.60	38.00	1.47 0	7.30 1	-3.33 0	-7.79 1
2.70180	3.45456	4.40	31.00	9.21-1	5.04 1	-2.66 0	-5.41 1
2.73296	3.46564	4.40	32.00	9.91-1	5.35 1	-2.72 0	-5.73 1
2.76321	3.47692	4.40	33.00	1.06 0	5.67 1	-2.79 0	-6.07 1
2.79263	3.48838	4.40	34.00	1.13 0	5.99 1	-2.85 0	-6.41 1
2.73532	3.54641	4.20	28.00	7.06-1	4.19 1	-2.30 0	-4.52 1
2.77030	3.55749	4.20	29.00	7.71-1	4.48 1	-2.36 0	-4.82 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.72513	3.63876	4.00	24.00	4.57-1	3.16 1	-1.92 0	-3.42 1
2.76683	3.64915	4.00	25.00	5.16-1	3.41 1	-1.98 0	-3.68 1
2.71253	3.69052	3.90	22.00	3.45-1	2.68 1	-1.75 0	-2.91 1
2.75875	3.70023	3.90	23.00	4.02-1	2.92 1	-1.80 0	-3.17 1
2.74444	3.75570	3.80	21.00	2.95-1	2.47 1	-1.63 0	-2.68 1
2.79354	3.76523	3.80	22.00	3.49-1	2.70 1	-1.68 0	-2.92 1
2.72166	3.81660	3.70	19.00	1.95-1	2.04 1	-1.48 0	-2.23 1
2.74983	3.82055	3.70	19.50	2.22-1	2.15 1	-1.50 0	-2.34 1
2.77716	3.82480	3.70	20.00	2.48-1	2.26 1	-1.52 0	-2.45 1
2.71959	3.88731	3.60	17.50	1.29-1	1.75 1	-1.35 0	-1.91 1
2.75094	3.89057	3.60	18.00	1.54-1	1.85 1	-1.37 0	-2.02 1
2.78125	3.89422	3.60	18.50	1.79-1	1.95 1	-1.39 0	-2.13 1
2.71087	3.96448	3.50	16.00	6.66-2	1.48 1	-1.23 0	-1.62 1
2.74619	3.96672	3.50	16.50	9.08-2	1.57 1	-1.25 0	-1.72 1
2.78018	3.96950	3.50	17.00	1.15-1	1.66 1	-1.27 0	-1.82 1
2.73332	4.05033	3.40	15.00	3.26-2	1.31 1	-1.13 0	-1.44 1
2.77196	4.05183	3.40	15.50	5.59-2	1.40 1	-1.15 0	-1.53 1
2.75373	4.14289	3.30	14.00	1.43-3	1.15 1	-1.04 0	-1.27 1
2.70907	4.14332	3.30	13.50	-2.09-2	1.07 1	-1.02 0	-1.18 1
2.79632	4.14340	3.30	14.50	2.37-2	1.23 1	-1.06 0	-1.35 1
2.77113	4.24319	3.20	13.00	-2.71-2	9.98 0	-9.52-1	-1.10 1
2.72124	4.24520	3.20	12.50	-4.85-2	9.23 0	-9.35-1	-1.02 1
2.78408	4.35254	3.10	12.00	-5.31-2	8.57 0	-8.69-1	-9.50 0
2.72778	4.35669	3.10	11.50	-7.36-2	7.86 0	-8.53-1	-8.75 0
2.79065	4.47267	3.00	11.00	-7.65-2	7.25 0	-7.91-1	-8.07 0
2.72626	4.47979	3.00	10.50	-9.62-2	6.59 0	-7.76-1	-7.37 0
2.78796	4.60593	2.90	10.00	-9.76-2	6.02 0	-7.16-1	-6.73 0
2.75871	4.61009	2.90	9.80	-1.05-1	5.78 0	-7.10-1	-6.47 0
2.72856	4.61473	2.90	9.60	-1.13-1	5.54 0	-7.05-1	-6.22 0
2.77170	4.75563	2.80	9.00	-1.16-1	4.90 0	-6.46-1	-5.51 0
2.73716	4.76207	2.80	8.80	-1.24-1	4.68 0	-6.40-1	-5.27 0
2.70140	4.76920	2.80	8.60	-1.31-1	4.46 0	-6.35-1	-5.04 0
2.77544	4.91773	2.70	8.20	-1.26-1	4.08 0	-5.84-1	-4.61 0
2.73525	4.92667	2.70	8.00	-1.33-1	3.87 0	-5.79-1	-4.39 0
2.76537	5.10049	2.60	7.40	-1.34-1	3.33 0	-5.26-1	-3.78 0
2.71770	5.11298	2.60	7.20	-1.41-1	3.14 0	-5.22-1	-3.58 0
2.78946	5.29388	2.50	6.80	-1.34-1	2.81 0	-4.76-1	-3.21 0
2.73437	5.30985	2.50	6.60	-1.41-1	2.64 0	-4.72-1	-3.03 0
2.73935	5.53187	2.40	6.00	-1.40-1	2.18 0	-4.24-1	-2.51 0
2.72625	5.78564	2.30	5.40	-1.38-1	1.76 0	-3.80-1	-2.04 0
2.78001	6.04358	2.20	5.00	-1.30-1	1.51 0	-3.41-1	-1.75 0
2.71855	6.38048	2.10	4.40	-1.28-1	1.15 0	-3.01-1	-1.35 0
2.73965	6.72377	2.00	4.00	-1.19-1	9.45-1	-2.67-1	-1.12 0
2.74295	6.91541	1.95	3.80	-1.15-1	8.48-1	-2.51-1	-1.00 0
2.73946	7.12290	1.90	3.60	-1.11-1	7.56-1	-2.35-1	-8.99-1
2.72717	7.34868	1.85	3.40	-1.07-1	6.68-1	-2.20-1	-7.98-1
2.70339	7.59577	1.80	3.20	-1.03-1	5.85-1	-2.05-1	-7.03-1
2.78193	7.80814	1.75	3.10	-9.66-2	5.48-1	-1.92-1	-6.58-1
2.74017	8.09955	1.70	2.90	-9.26-2	4.73-1	-1.78-1	-5.71-1
2.75052	8.69820	1.60	2.60	-8.27-2	3.71-1	-1.54-1	-4.52-1
2.71212	9.42541	1.50	2.30	-7.33-2	2.80-1	-1.31-1	-3.46-1
2.78153	9.78530	1.45	2.20	-6.79-2	2.54-1	-1.20-1	-3.14-1
2.77972	10.6966	1.35	1.95	-5.84-2	1.91-1	-1.00-1	-2.39-1
2.70497	12.4780	1.20	1.60	-4.50-2	1.18-1	-7.43-2	-1.51-1
2.70217	13.1904	1.15	1.50	-4.07-2	1.01-1	-6.66-2	-1.30-1
2.77927	16.2937	0.98	1.20	-2.72-2	5.68-2	-4.38-2	-7.49-2
2.78072	17.7855	0.92	1.10	-2.31-2	4.49-2	-3.69-2	-6.00-2
2.70439	19.6147	0.86	1.00	-1.93-2	3.45-2	-3.07-2	-4.68-2
2.70388	21.0049	0.82	0.94	-1.69-2	2.89-2	-2.70-2	-3.98-2
2.75383	25.4289	0.72	0.80	-1.16-2	1.81-2	-1.87-2	-2.56-2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.76415	29.0543	0.66	0.72	-8.96-3	1.31-2	-1.46-2	-1.91-2
2.80	2.95						
2.80519	3.12869	6.60	89.00	1.07 1	2.95 2	-1.42 1	-3.09 2
2.82138	3.14094	6.60	90.00	1.10 1	3.00 2	-1.44 1	-3.14 2
2.81274	3.14926	6.40	85.00	9.36 0	2.76 2	-1.27 1	-2.90 2
2.82888	3.16124	6.40	86.00	9.59 0	2.81 2	-1.29 1	-2.95 2
2.80757	3.16237	6.20	80.00	7.98 0	2.53 2	-1.11 1	-2.65 2
2.84508	3.17335	6.40	87.00	9.83 0	2.86 2	-1.31 1	-3.00 2
2.82374	3.17405	6.20	81.00	8.18 0	2.58 2	-1.13 1	-2.70 2
2.80545	3.18014	6.00	75.00	6.78 0	2.29 2	-9.72 0	-2.41 2
2.86134	3.18558	6.40	88.00	1.01 1	2.91 2	-1.34 1	-3.05 2
2.83993	3.18583	6.20	82.00	8.39 0	2.63 2	-1.15 1	-2.75 2
2.82180	3.19160	6.00	76.00	6.96 0	2.34 2	-9.89 0	-2.46 2
2.85616	3.19772	6.20	83.00	8.60 0	2.68 2	-1.17 1	-2.80 2
2.87768	3.19794	6.40	89.00	1.03 1	2.96 2	-1.36 1	-3.10 2
2.80594	3.20250	5.80	70.00	5.73 0	2.06 2	-8.49 0	-2.17 2
2.83815	3.20315	6.00	77.00	7.14 0	2.39 2	-1.01 1	-2.51 2
2.87243	3.20973	6.20	84.00	8.82 0	2.73 2	-1.19 1	-2.85 2
2.89408	3.21043	6.40	90.00	1.06 1	3.01 2	-1.38 1	-3.15 2
2.82264	3.21382	5.80	71.00	5.89 0	2.11 2	-8.64 0	-2.22 2
2.85450	3.21479	6.00	78.00	7.32 0	2.44 2	-1.02 1	-2.56 2
2.88875	3.22185	6.20	85.00	9.03 0	2.78 2	-1.21 1	-2.91 2
2.83930	3.22522	5.80	72.00	6.04 0	2.16 2	-8.80 0	-2.27 2
2.87086	3.22653	6.00	79.00	7.51 0	2.49 2	-1.04 1	-2.61 2
2.80856	3.22947	5.60	65.00	4.81 0	1.83 2	-7.41 0	-1.93 2
2.90511	3.23408	6.20	86.00	9.26 0	2.83 2	-1.23 1	-2.96 2
2.85593	3.23670	5.80	73.00	6.21 0	2.21 2	-8.96 0	-2.32 2
2.88724	3.23837	6.00	80.00	7.70 0	2.54 2	-1.06 1	-2.66 2
2.82580	3.24072	5.60	66.00	4.95 0	1.88 2	-7.54 0	-1.98 2
2.92154	3.24644	6.20	87.00	9.49 0	2.88 2	-1.26 1	-3.01 2
2.87255	3.24826	5.80	74.00	6.37 0	2.26 2	-9.11 0	-2.37 2
2.90363	3.25032	6.00	81.00	7.89 0	2.59 2	-1.08 1	-2.71 2
2.84296	3.25203	5.60	67.00	5.09 0	1.93 2	-7.68 0	-2.03 2
2.93803	3.25893	6.20	88.00	9.72 0	2.93 2	-1.28 1	-3.06 2
2.88915	3.25991	5.80	75.00	6.54 0	2.31 2	-9.28 0	-2.42 2
2.81278	3.26112	5.40	60.00	4.00 0	1.61 2	-6.44 0	-1.69 2
2.92006	3.26236	6.00	82.00	8.09 0	2.64 2	-1.10 1	-2.76 2
2.86006	3.26342	5.60	68.00	5.23 0	1.97 2	-7.81 0	-2.08 2
2.90574	3.27164	5.80	76.00	6.71 0	2.36 2	-9.44 0	-2.47 2
2.83076	3.27237	5.40	61.00	4.12 0	1.65 2	-6.56 0	-1.74 2
2.93652	3.27452	6.00	83.00	8.29 0	2.69 2	-1.12 1	-2.81 2
2.87710	3.27489	5.60	69.00	5.37 0	2.02 2	-7.95 0	-2.12 2
2.92233	3.28347	5.80	77.00	6.88 0	2.41 2	-9.61 0	-2.52 2
2.84863	3.28367	5.40	62.00	4.25 0	1.70 2	-6.67 0	-1.79 2
2.89409	3.28642	5.60	70.00	5.52 0	2.07 2	-8.10 0	-2.17 2
2.86640	3.29504	5.40	63.00	4.37 0	1.75 2	-6.80 0	-1.84 2
2.93892	3.29540	5.80	78.00	7.06 0	2.46 2	-9.78 0	-2.57 2
2.81789	3.29764	5.20	55.00	3.29 0	1.39 2	-5.57 0	-1.47 2
2.91105	3.29804	5.60	71.00	5.67 0	2.12 2	-8.24 0	-2.23 2
2.88407	3.30648	5.40	64.00	4.50 0	1.80 2	-6.92 0	-1.89 2
2.83689	3.30894	5.20	56.00	3.40 0	1.44 2	-5.67 0	-1.52 2
2.92797	3.30973	5.60	72.00	5.82 0	2.17 2	-8.39 0	-2.28 2
2.90166	3.31798	5.40	65.00	4.63 0	1.84 2	-7.05 0	-1.94 2
2.85573	3.32029	5.20	57.00	3.51 0	1.48 2	-5.78 0	-1.56 2
2.94486	3.32151	5.60	73.00	5.98 0	2.22 2	-8.54 0	-2.33 2
2.80236	3.32793	5.00	49.00	2.36 0	1.14 2	-4.70 0	-1.21 2
2.91916	3.32955	5.40	66.00	4.76 0	1.89 2	-7.17 0	-1.99 2
2.87441	3.33171	5.20	58.00	3.62 0	1.53 2	-5.89 0	-1.61 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.82297	3.33927	5.00	50.00	2.66 0	1.18 2	-4.79 0	-1.25 2
2.93660	3.34119	5.40	67.00	4.90 0	1.94 2	-7.30 0	-2.04 2
2.89295	3.34319	5.20	59.00	3.74 0	1.57 2	-6.00 0	-1.66 2
2.84333	3.35068	5.00	51.00	2.76 0	1.23 2	-4.89 0	-1.30 2
2.91135	3.35472	5.20	60.00	3.85 0	1.62 2	-6.11 0	-1.70 2
2.86345	3.36214	5.00	52.00	2.85 0	1.27 2	-4.98 0	-1.34 2
2.92963	3.36632	5.20	61.00	3.97 0	1.67 2	-6.22 0	-1.75 2
2.88335	3.37366	5.00	53.00	2.96 0	1.31 2	-5.08 0	-1.39 2
2.80419	3.37496	4.80	44.00	2.02 0	9.48 1	-4.01 0	-1.01 2
2.94779	3.37797	5.20	62.00	4.09 0	1.71 2	-6.34 0	-1.80 2
2.90305	3.38524	5.00	54.00	3.06 0	1.36 2	-5.17 0	-1.43 2
2.82671	3.38643	4.80	45.00	2.11 0	9.87 1	-4.10 0	-1.05 2
2.92255	3.39687	5.00	55.00	3.17 0	1.40 2	-5.27 0	-1.48 2
2.84887	3.39797	4.80	46.00	2.20 0	1.03 2	-4.18 0	-1.09 2
2.94188	3.40856	5.00	56.00	3.27 0	1.45 2	-5.37 0	-1.52 2
2.87070	3.40958	4.80	47.00	2.29 0	1.07 2	-4.27 0	-1.13 2
2.89223	3.42125	4.80	48.00	2.38 0	1.11 2	-4.35 0	-1.17 2
2.80207	3.42811	4.60	39.00	1.55 0	7.66 1	-3.40 0	-8.16 1
2.91346	3.43298	4.80	49.00	2.47 0	1.15 2	-4.44 0	-1.22 2
2.82716	3.43970	4.60	40.00	1.63 0	8.03 1	-3.47 0	-8.54 1
2.93443	3.44477	4.80	50.00	2.57 0	1.19 2	-4.53 0	-1.26 2
2.85174	3.45138	4.60	41.00	1.71 0	8.40 1	-3.55 0	-8.93 1
2.87587	3.46315	4.60	42.00	1.79 0	8.78 1	-3.62 0	-9.32 1
2.89957	3.47499	4.60	43.00	1.87 0	9.17 1	-3.70 0	-9.72 1
2.92286	3.48691	4.60	44.00	1.95 0	9.56 1	-3.78 0	-1.01 2
2.94577	3.49889	4.60	45.00	2.04 0	9.96 1	-3.86 0	-1.05 2
2.82128	3.49999	4.40	35.00	1.21 0	6.33 1	-2.92 0	-6.75 1
2.84921	3.51175	4.40	36.00	1.28 0	6.67 1	-2.98 0	-7.11 1
2.87648	3.52363	4.40	37.00	1.35 0	7.02 1	-3.05 0	-7.47 1
2.90314	3.53562	4.40	38.00	1.43 0	7.37 1	-3.12 0	-7.84 1
2.92921	3.54772	4.40	39.00	1.50 0	7.74 1	-3.19 0	-8.21 1
2.80409	3.56885	4.20	30.00	8.37-1	4.78 1	-2.42 0	-5.13 1
2.83681	3.58047	4.20	31.00	9.02-1	5.09 1	-2.48 0	-5.44 1
2.86853	3.59229	4.20	32.00	9.69-1	5.40 1	-2.54 0	-5.77 1
2.89934	3.60431	4.20	33.00	1.04 0	5.72 1	-2.60 0	-6.10 1
2.92930	3.61648	4.20	34.00	1.10 0	6.05 1	-2.66 0	-6.45 1
2.80677	3.66004	4.00	26.00	5.76-1	3.68 1	-2.03 0	-3.98 1
2.84514	3.67135	4.00	27.00	6.36-1	3.96 1	-2.08 0	-4.25 1
2.88206	3.68301	4.00	28.00	6.97-1	4.24 1	-2.14 0	-4.55 1
2.91769	3.69498	4.00	29.00	7.58-1	4.53 1	-2.19 0	-4.85 1
2.80278	3.71060	3.90	24.00	4.59-1	3.17 1	-1.85 0	-3.43 1
2.84485	3.72153	3.90	25.00	5.16-1	3.43 1	-1.90 0	-3.70 1
2.88516	3.73294	3.90	26.00	5.74-1	3.70 1	-1.95 0	-3.98 1
2.92389	3.74474	3.90	27.00	6.32-1	3.98 1	-2.00 0	-4.26 1
2.84016	3.77554	3.80	23.00	4.05-1	2.94 1	-1.73 0	-3.18 1
2.88460	3.78649	3.80	24.00	4.60-1	3.19 1	-1.78 0	-3.44 1
2.92707	3.79798	3.80	25.00	5.16-1	3.45 1	-1.83 0	-3.71 1
2.82949	3.83409	3.70	21.00	3.01-1	2.48 1	-1.57 0	-2.69 1
2.87903	3.84428	3.70	22.00	3.53-1	2.72 1	-1.61 0	-2.93 1
2.92609	3.85522	3.70	23.00	4.07-1	2.96 1	-1.66 0	-3.19 1
2.81059	3.89823	3.60	19.00	2.04-1	2.06 1	-1.41 0	-2.24 1
2.83901	3.90256	3.60	19.50	2.29-1	2.16 1	-1.43 0	-2.35 1
2.86659	3.90719	3.60	20.00	2.55-1	2.27 1	-1.45 0	-2.46 1
2.91940	3.91720	3.60	21.00	3.06-1	2.50 1	-1.50 0	-2.70 1
2.81295	3.97276	3.50	17.50	1.39-1	1.76 1	-1.29 0	-1.92 1
2.84459	3.97645	3.50	18.00	1.63-1	1.86 1	-1.31 0	-2.03 1
2.87517	3.98052	3.50	18.50	1.88-1	1.96 1	-1.33 0	-2.13 1
2.90477	3.98494	3.50	19.00	2.12-1	2.07 1	-1.35 0	-2.24 1
2.93346	3.98967	3.50	19.50	2.36-1	2.18 1	-1.37 0	-2.36 1
2.80903	4.05398	3.40	16.00	7.91-2	1.49 1	-1.17 0	-1.63 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.84466	4.05672	3.40	16.50	1.02-1	1.58 1	-1.19 0	-1.73 1
2.87895	4.05998	3.40	17.00	1.26-1	1.68 1	-1.21 0	-1.83 1
2.91202	4.06371	3.40	17.50	1.49-1	1.77 1	-1.23 0	-1.93 1
2.94395	4.06785	3.40	18.00	1.72-1	1.87 1	-1.25 0	-2.03 1
2.83702	4.14473	3.30	15.00	4.60-2	1.32 1	-1.08 0	-1.45 1
2.87600	4.14678	3.30	15.50	6.83-2	1.41 1	-1.09 0	-1.54 1
2.91341	4.14947	3.30	16.00	9.06-2	1.50 1	-1.11 0	-1.63 1
2.94936	4.15273	3.30	16.50	1.13-1	1.59 1	-1.13 0	-1.73 1
2.81845	4.24238	3.20	13.50	-5.73-3	1.08 1	-9.69-1	-1.19 1
2.86349	4.24260	3.20	14.00	1.56-2	1.16 1	-9.86-1	-1.27 1
2.90645	4.24373	3.20	14.50	3.70-2	1.24 1	-1.00 0	-1.36 1
2.94752	4.24566	3.20	15.00	5.84-2	1.33 1	-1.02 0	-1.45 1
2.93527	4.34857	3.10	13.50	8.39-3	1.08 1	-9.18-1	-1.19 1
2.88752	4.34868	3.10	13.00	-1.21-2	1.01 1	-9.02-1	-1.11 1
2.83722	4.34994	3.10	12.50	-3.26-2	9.30 0	-8.85-1	-1.03 1
2.90779	4.46432	3.00	12.00	-3.73-2	8.64 0	-8.21-1	-9.54 0
2.85101	4.46762	3.00	11.50	-5.69-2	7.93 0	-8.06-1	-8.79 0
2.92243	4.59132	2.90	11.00	-6.00-2	7.31 0	-7.45-1	-8.10 0
2.85750	4.59744	2.90	10.50	-7.87-2	6.65 0	-7.30-1	-7.40 0
2.92867	4.73206	2.80	10.00	-8.03-2	6.07 0	-6.72-1	-6.76 0
2.89918	4.73575	2.80	9.80	-8.75-2	5.83 0	-6.67-1	-6.50 0
2.86879	4.73992	2.80	9.60	-9.47-2	5.59 0	-6.62-1	-6.24 0
2.83745	4.74460	2.80	9.40	-1.02-1	5.35 0	-6.56-1	-5.99 0
2.80511	4.74982	2.80	9.20	-1.09-1	5.12 0	-6.51-1	-5.75 0
2.92234	4.88991	2.70	9.00	-9.83-2	4.94 0	-6.04-1	-5.53 0
2.88752	4.89580	2.70	8.80	-1.05-1	4.72 0	-5.99-1	-5.29 0
2.85149	4.90236	2.70	8.60	-1.12-1	4.50 0	-5.94-1	-5.06 0
2.81416	4.90965	2.70	8.40	-1.19-1	4.29 0	-5.89-1	-4.83 0
2.93747	5.06153	2.60	8.20	-1.08-1	4.12 0	-5.45-1	-4.63 0
2.89696	5.06981	2.60	8.00	-1.14-1	3.91 0	-5.40-1	-4.41 0
2.85485	5.07901	2.60	7.80	-1.21-1	3.71 0	-5.35-1	-4.19 0
2.81103	5.08920	2.60	7.60	-1.27-1	3.52 0	-5.31-1	-3.98 0
2.94020	5.25480	2.50	7.40	-1.15-1	3.36 0	-4.89-1	-3.80 0
2.89218	5.26649	2.50	7.20	-1.22-1	3.17 0	-4.84-1	-3.60 0
2.84199	5.27947	2.50	7.00	-1.28-1	2.99 0	-4.80-1	-3.40 0
2.92369	5.47575	2.40	6.60	-1.22-1	2.67 0	-4.36-1	-3.04 0
2.86540	5.49248	2.40	6.40	-1.28-1	2.50 0	-4.32-1	-2.86 0
2.80405	5.51112	2.40	6.20	-1.34-1	2.34 0	-4.28-1	-2.68 0
2.94560	5.71169	2.30	6.00	-1.21-1	2.21 0	-3.90-1	-2.52 0
2.87673	5.73362	2.30	5.80	-1.27-1	2.05 0	-3.87-1	-2.36 0
2.80376	5.75816	2.30	5.60	-1.32-1	1.90 0	-3.83-1	-2.19 0
2.86882	6.01050	2.20	5.20	-1.25-1	1.64 0	-3.44-1	-1.90 0
2.93300	6.29414	2.10	4.80	-1.17-1	1.40 0	-3.07-1	-1.62 0
2.82990	6.33451	2.10	4.60	-1.22-1	1.27 0	-3.04-1	-1.48 0
2.87215	6.66608	2.00	4.20	-1.14-1	1.05 0	-2.70-1	-1.24 0
2.88861	6.85023	1.95	4.00	-1.10-1	9.52-1	-2.53-1	-1.12 0
2.81750	6.88161	1.95	3.90	-1.13-1	8.99-1	-2.52-1	-1.06 0
2.90055	7.04876	1.90	3.80	-1.06-1	8.55-1	-2.38-1	-1.01 0
2.82204	7.08440	1.90	3.70	-1.09-1	8.04-1	-2.36-1	-9.52-1
2.90652	7.26372	1.85	3.60	-1.02-1	7.62-1	-2.22-1	-9.01-1
2.81927	7.30448	1.85	3.50	-1.05-1	7.14-1	-2.21-1	-8.49-1
2.90459	7.49759	1.80	3.40	-9.84-2	6.74-1	-2.07-1	-8.00-1
2.80691	7.54458	1.80	3.30	-1.01-1	6.29-1	-2.06-1	-7.51-1
2.89220	7.75345	1.75	3.20	-9.44-2	5.90-1	-1.93-1	-7.05-1
2.86589	8.03521	1.70	3.00	-9.05-2	5.12-1	-1.79-1	-6.15-1
2.82088	8.34791	1.65	2.80	-8.66-2	4.39-1	-1.66-1	-5.31-1
2.90712	8.61504	1.60	2.70	-8.08-2	4.06-1	-1.54-1	-4.91-1
2.82965	8.99376	1.55	2.50	-7.70-2	3.41-1	-1.42-1	-4.16-1
2.91367	9.31402	1.50	2.40	-7.14-2	3.12-1	-1.31-1	-3.81-1
2.85325	10.1790	1.40	2.10	-6.26-2	2.29-1	-1.10-1	-2.83-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.92686	10.6118	1.35	2.00	-5.75-2	2.04-1	-1.01-1	-2.54-1
2.83623	11.1857	1.30	1.85	-5.35-2	1.69-1	-9.13-2	-2.12-1
2.88892	11.7301	1.25	1.75	-4.88-2	1.48-1	-8.27-2	-1.87-1
2.93478	12.3400	1.20	1.65	-4.43-2	1.29-1	-7.45-2	-1.63-1
2.91601	15.7641	1.00	1.25	-2.85-2	6.35-2	-4.62-2	-8.31-2
2.87614	20.1793	0.84	0.98	-1.80-2	3.27-2	-2.88-2	-4.45-2
2.88894	21.6570	0.80	0.92	-1.57-2	2.73-2	-2.52-2	-3.76-2
2.85752	23.3843	0.76	0.86	-1.36-2	2.24-2	-2.18-2	-3.13-2
2.85914	35.6220	0.58	0.62	-5.97-3	8.18-3	-1.00-2	-1.24-2
2.80026	48.9127	0.48	0.50	-3.20-3	3.98-3	-5.72-3	-6.58-3
2.95	3.10						
2.95458	3.27154	6.20	89.00	9.96 0	2.98 2	-1.30 1	-3.11 2
2.97122	3.28430	6.20	90.00	1.02 1	3.03 2	-1.33 1	-3.16 2
2.95302	3.28679	6.00	84.00	8.50 0	2.74 2	-1.14 1	-2.87 2
2.96957	3.29917	6.00	85.00	8.71 0	2.79 2	-1.16 1	-2.92 2
2.95552	3.30742	5.80	79.00	7.23 0	2.51 2	-9.96 0	-2.62 2
2.98617	3.31168	6.00	86.00	8.92 0	2.84 2	-1.18 1	-2.97 2
2.97214	3.31954	5.80	80.00	7.42 0	2.56 2	-1.01 1	-2.67 2
3.00283	3.32431	6.00	87.00	9.14 0	2.90 2	-1.20 1	-3.02 2
2.98879	3.33176	5.80	81.00	7.60 0	2.61 2	-1.03 1	-2.72 2
2.96173	3.33337	5.60	74.00	6.13 0	2.27 2	-8.69 0	-2.38 2
3.01956	3.33706	6.00	88.00	9.36 0	2.95 2	-1.22 1	-3.07 2
3.00546	3.34409	5.80	82.00	7.79 0	2.66 2	-1.05 1	-2.78 2
2.97858	3.34532	5.60	75.00	6.29 0	2.32 2	-8.84 0	-2.43 2
3.03635	3.34995	6.00	89.00	9.59 0	3.00 2	-1.25 1	-3.12 2
2.95397	3.35290	5.40	68.00	5.03 0	1.99 2	-7.43 0	-2.09 2
3.02217	3.35652	5.80	83.00	7.98 0	2.71 2	-1.07 1	-2.83 2
2.99543	3.35735	5.60	76.00	6.46 0	2.37 2	-9.00 0	-2.48 2
3.05323	3.36297	6.00	90.00	9.82 0	3.05 2	-1.27 1	-3.17 2
2.97128	3.36468	5.40	69.00	5.17 0	2.04 2	-7.57 0	-2.14 2
3.03892	3.36907	5.80	84.00	8.18 0	2.76 2	-1.09 1	-2.88 2
3.01227	3.36947	5.60	77.00	6.62 0	2.42 2	-9.16 0	-2.53 2
2.98855	3.37654	5.40	70.00	5.31 0	2.09 2	-7.70 0	-2.19 2
3.02912	3.38169	5.60	78.00	6.79 0	2.47 2	-9.33 0	-2.58 2
3.05571	3.38174	5.80	85.00	8.38 0	2.81 2	-1.11 1	-2.93 2
3.00577	3.38847	5.40	71.00	5.46 0	2.14 2	-7.84 0	-2.24 2
2.96585	3.38969	5.20	63.00	4.21 0	1.76 2	-6.45 0	-1.85 2
3.04599	3.39401	5.60	79.00	6.96 0	2.52 2	-9.49 0	-2.63 2
3.07256	3.39453	5.80	86.00	8.58 0	2.86 2	-1.13 1	-2.98 2
3.02296	3.40048	5.40	72.00	5.60 0	2.19 2	-7.98 0	-2.29 2
2.98382	3.40147	5.20	64.00	4.33 0	1.81 2	-6.57 0	-1.90 2
3.06287	3.40643	5.60	80.00	7.13 0	2.57 2	-9.66 0	-2.68 2
3.08947	3.40744	5.80	87.00	8.79 0	2.91 2	-1.15 1	-3.03 2
3.04013	3.41257	5.40	73.00	5.75 0	2.24 2	-8.12 0	-2.34 2
3.00169	3.41332	5.20	65.00	4.46 0	1.86 2	-6.69 0	-1.95 2
3.07977	3.41895	5.60	81.00	7.31 0	2.62 2	-9.84 0	-2.74 2
2.96103	3.42030	5.00	57.00	3.38 0	1.49 2	-5.47 0	-1.57 2
3.05727	3.42475	5.40	74.00	5.90 0	2.29 2	-8.27 0	-2.39 2
3.01949	3.42523	5.20	66.00	4.58 0	1.91 2	-6.81 0	-2.00 2
3.09670	3.43157	5.60	82.00	7.49 0	2.68 2	-1.00 1	-2.79 2
2.98004	3.43210	5.00	58.00	3.49 0	1.54 2	-5.58 0	-1.62 2
3.07440	3.43701	5.40	75.00	6.05 0	2.34 2	-8.42 0	-2.44 2
3.03722	3.43721	5.20	67.00	4.71 0	1.95 2	-6.93 0	-2.05 2
2.99889	3.44396	5.00	59.00	3.59 0	1.59 2	-5.68 0	-1.66 2
3.05488	3.44926	5.20	68.00	4.84 0	2.00 2	-7.06 0	-2.10 2
3.09152	3.44936	5.40	76.00	6.20 0	2.39 2	-8.57 0	-2.49 2
3.01761	3.45587	5.00	60.00	3.70 0	1.63 2	-5.79 0	-1.71 2
2.95515	3.45661	4.80	51.00	2.66 0	1.24 2	-4.61 0	-1.30 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.07248	3.46138	5.20	69.00	4.97 0	2.05 2	-7.19 0	-2.15 2
3.03621	3.46784	5.00	61.00	3.82 0	1.68 2	-5.89 0	-1.76 2
2.97562	3.46850	4.80	52.00	2.75 0	1.28 2	-4.70 0	-1.35 2
3.09004	3.47358	5.20	70.00	5.10 0	2.10 2	-7.32 0	-2.20 2
3.05469	3.47987	5.00	62.00	3.93 0	1.73 2	-6.00 0	-1.81 2
2.99588	3.48045	4.80	53.00	2.85 0	1.32 2	-4.80 0	-1.39 2
3.07306	3.49196	5.00	63.00	4.04 0	1.77 2	-6.11 0	-1.84 2
3.01592	3.49245	4.80	54.00	2.95 0	1.37 2	-4.89 0	-1.44 2
3.09134	3.50412	5.00	64.00	4.16 0	1.82 2	-6.23 0	-1.91 2
3.03578	3.50451	4.80	55.00	3.05 0	1.41 2	-4.98 0	-1.49 2
2.96834	3.51093	4.60	46.00	2.12 0	1.04 2	-3.94 0	-1.10 2
3.05545	3.51661	4.80	56.00	3.14 0	1.46 2	-5.08 0	-1.53 2
2.99057	3.52303	4.60	47.00	2.21 0	1.08 2	-4.02 0	-1.14 2
3.07495	3.52877	4.80	57.00	3.24 0	1.51 2	-5.17 0	-1.58 2
3.01248	3.53518	4.60	48.00	2.29 0	1.12 2	-4.10 0	-1.18 2
3.09430	3.54098	4.80	58.00	3.35 0	1.55 2	-5.27 0	-1.63 2
3.03411	3.54739	4.60	49.00	2.38 0	1.16 2	-4.18 0	-1.22 2
3.05547	3.55965	4.60	50.00	2.47 0	1.20 2	-4.26 0	-1.27 2
2.95476	3.55990	4.40	40.00	1.57 0	8.11 1	-3.26 0	-8.59 1
3.07657	3.57196	4.60	51.00	2.56 0	1.25 2	-4.35 0	-1.31 2
2.97980	3.57216	4.40	41.00	1.65 0	8.48 1	-3.33 0	-8.98 1
3.09743	3.58432	4.60	52.00	2.65 0	1.29 2	-4.43 0	-1.36 2
3.00438	3.58449	4.40	42.00	1.73 0	8.87 1	-3.40 0	-9.38 1
3.02852	3.59690	4.40	43.00	1.80 0	9.26 1	-3.47 0	-9.78 1
3.05225	3.60936	4.40	44.00	1.88 0	9.66 1	-3.55 0	-1.02 2
3.07561	3.62189	4.40	45.00	1.96 0	1.01 2	-3.62 0	-1.06 2
2.95848	3.62880	4.20	35.00	1.17 0	6.39 1	-2.72 0	-6.80 1
3.09860	3.63446	4.40	46.00	2.04 0	1.05 2	-3.69 0	-1.10 2
2.98694	3.64125	4.20	36.00	1.24 0	6.74 1	-2.79 0	-7.15 1
3.01473	3.65380	4.20	37.00	1.31 0	7.09 1	-2.85 0	-7.52 1
3.04190	3.66645	4.20	38.00	1.38 0	7.45 1	-2.91 0	-7.89 1
3.06848	3.67919	4.20	39.00	1.45 0	7.82 1	-2.98 0	-8.27 1
3.09453	3.69200	4.20	40.00	1.52 0	8.19 1	-3.05 0	-8.65 1
2.95212	3.70720	4.00	30.00	8.19-1	4.83 1	-2.25 0	-5.16 1
2.98546	3.71965	4.00	31.00	8.81-1	5.14 1	-2.30 0	-5.48 1
3.01779	3.73229	4.00	32.00	9.43-1	5.46 1	-2.36 0	-5.81 1
3.04920	3.74510	4.00	33.00	1.01 0	5.79 1	-2.42 0	-6.15 1
2.96117	3.75689	3.90	28.00	6.91-1	4.26 1	-2.06 0	-4.56 1
3.07976	3.75806	4.00	34.00	1.07 0	6.12 1	-2.48 0	-6.49 1
2.99714	3.76933	3.90	29.00	7.50-1	4.56 1	-2.11 0	-4.87 1
3.03191	3.78201	3.90	30.00	8.09-1	4.86 1	-2.16 0	-5.18 1
3.06559	3.79490	3.90	31.00	8.69-1	5.17 1	-2.22 0	-5.50 1
3.09825	3.80798	3.90	32.00	9.29-1	5.49 1	-2.27 0	-5.83 1
2.96777	3.80993	3.80	26.00	5.71-1	3.72 1	-1.88 0	-3.99 1
3.00687	3.82226	3.80	27.00	6.28-1	4.00 1	-1.93 0	-4.28 1
3.04453	3.83491	3.80	28.00	6.84-1	4.29 1	-1.98 0	-4.58 1
3.08087	3.84784	3.80	29.00	7.41-1	4.58 1	-2.03 0	-4.88 1
2.97095	3.86678	3.70	24.00	4.60-1	3.21 1	-1.70 0	-3.45 1
3.01384	3.87886	3.70	25.00	5.14-1	3.47 1	-1.75 0	-3.72 1
3.05495	3.89137	3.70	26.00	5.68-1	3.75 1	-1.80 0	-4.01 1
3.09446	3.90425	3.70	27.00	6.22-1	4.03 1	-1.85 0	-4.30 1
2.96941	3.92808	3.60	22.00	3.57-1	2.73 1	-1.54 0	-2.94 1
3.01694	3.93968	3.60	23.00	4.08-1	2.98 1	-1.59 0	-3.20 1
3.06226	3.95187	3.60	24.00	4.60-1	3.23 1	-1.63 0	-3.46 1
2.96130	3.99469	3.50	20.00	2.61-1	2.29 1	-1.39 0	-2.47 1
3.01463	4.00545	3.50	21.00	3.10-1	2.51 1	-1.43 0	-2.71 1
3.06515	4.01706	3.50	22.00	3.59-1	2.75 1	-1.48 0	-2.96 1
2.97483	4.07237	3.40	18.50	1.96-1	1.98 1	-1.27 0	-2.14 1
3.00472	4.07722	3.40	19.00	2.19-1	2.08 1	-1.29 0	-2.25 1
3.03369	4.08237	3.40	19.50	2.42-1	2.19 1	-1.31 0	-2.37 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.06181	4.08780	3.40	20.00	2.66-1	2.30 1	-1.33 0	-2.48 1
2.98398	4.15650	3.30	17.00	1.35-1	1.69 1	-1.15 0	-1.83 1
3.01737	4.16071	3.30	17.50	1.58-1	1.79 1	-1.17 0	-1.94 1
3.04962	4.16533	3.30	18.00	1.80-1	1.89 1	-1.19 0	-2.04 1
3.08080	4.17031	3.30	18.50	2.03-1	1.99 1	-1.21 0	-2.15 1
2.98687	4.24830	3.20	15.50	7.98-2	1.42 1	-1.04 0	-1.54 1
3.02463	4.25156	3.20	16.00	1.01-1	1.51 1	-1.06 0	-1.64 1
3.06094	4.25537	3.20	16.50	1.23-1	1.60 1	-1.07 0	-1.74 1
3.09591	4.25967	3.20	17.00	1.44-1	1.70 1	-1.09 0	-1.84 1
2.98072	4.34948	3.10	14.00	2.89-2	1.17 1	-9.35-1	-1.28 1
3.02409	4.35128	3.10	14.50	4.93-2	1.25 1	-9.51-1	-1.37 1
3.06556	4.35385	3.10	15.00	6.98-2	1.34 1	-9.68-1	-1.46 1
3.01216	4.46206	3.00	13.00	1.93-3	1.01 1	-8.52-1	-1.11 1
2.96140	4.46254	3.00	12.50	-1.77-2	9.37 0	-8.37-1	-1.03 1
3.06036	4.46271	3.00	13.50	2.15-2	1.09 1	-8.68-1	-1.20 1
3.09472	4.58390	2.90	12.50	-3.77-3	9.45 0	-7.89-1	-1.04 1
3.04061	4.58482	2.90	12.00	-2.25-2	8.71 0	-7.74-1	-9.58 0
2.98332	4.58721	2.90	11.50	-4.12-2	7.99 0	-7.59-1	-8.82 0
3.06433	4.71962	2.80	11.00	-4.44-2	7.37 0	-7.00-1	-8.13 0
2.99881	4.72468	2.80	10.50	-6.23-2	6.71 0	-6.86-1	-7.43 0
3.08066	4.86893	2.70	10.00	-6.40-2	6.13 0	-6.30-1	-6.79 0
3.05090	4.87213	2.70	9.80	-7.09-2	5.88 0	-6.25-1	-6.53 0
3.02024	4.87579	2.70	9.60	-7.77-2	5.64 0	-6.19-1	-6.27 0
2.98864	4.87995	2.70	9.40	-8.46-2	5.40 0	-6.14-1	-6.02 0
2.95603	4.88464	2.70	9.20	-9.14-2	5.17 0	-6.09-1	-5.77 0
3.08560	5.03618	2.60	9.00	-8.14-2	4.99 0	-5.64-1	-5.56 0
3.05047	5.04148	2.60	8.80	-8.79-2	4.76 0	-5.59-1	-5.32 0
3.01413	5.04743	2.60	8.60	-9.44-2	4.54 0	-5.54-1	-5.08 0
2.97650	5.05409	2.60	8.40	-1.01-1	4.33 0	-5.50-1	-4.85 0
3.07285	5.22637	2.50	8.00	-9.65-2	3.95 0	-5.02-1	-4.43 0
3.03040	5.23484	2.50	7.80	-1.03-1	3.75 0	-4.98-1	-4.21 0
2.98623	5.24428	2.50	7.60	-1.09-1	3.55 0	-4.93-1	-4.00 0
3.08271	5.43514	2.40	7.20	-1.04-1	3.21 0	-4.48-1	-3.61 0
3.03213	5.44723	2.40	7.00	-1.10-1	3.02 0	-4.44-1	-3.42 0
2.97919	5.46072	2.40	6.80	-1.16-1	2.84 0	-4.40-1	-3.22 0
3.07259	5.67457	2.30	6.40	-1.09-1	2.53 0	-3.98-1	-2.87 0
3.01077	5.69209	2.30	6.20	-1.15-1	2.37 0	-3.94-1	-2.69 0
3.03001	5.95510	2.20	5.60	-1.14-1	1.93 0	-3.51-1	-2.21 0
2.95195	5.98116	2.20	5.40	-1.19-1	1.78 0	-3.48-1	-2.05 0
3.02884	6.25858	2.10	5.00	-1.12-1	1.53 0	-3.10-1	-1.76 0
2.99372	6.61591	2.00	4.40	-1.09-1	1.17 0	-2.73-1	-1.36 0
3.02153	6.79387	1.95	4.20	-1.06-1	1.06 0	-2.56-1	-1.24 0
3.04666	6.98507	1.90	4.00	-1.02-1	9.59-1	-2.40-1	-1.12 0
2.97532	7.01573	1.90	3.90	-1.04-1	9.06-1	-2.39-1	-1.06 0
3.06809	7.19127	1.85	3.80	-9.78-2	8.61-1	-2.25-1	-1.01 0
2.98933	7.22608	1.85	3.70	-1.00-1	8.11-1	-2.23-1	-9.55-1
3.08447	7.41455	1.80	3.60	-9.40-2	7.68-1	-2.10-1	-9.04-1
2.99695	7.45437	1.80	3.50	-9.62-2	7.20-1	-2.08-1	-8.51-1
3.09399	7.65747	1.75	3.40	-9.01-2	6.79-1	-1.95-1	-8.03-1
2.99602	7.70338	1.75	3.30	-9.23-2	6.34-1	-1.94-1	-7.53-1
3.09424	7.92319	1.70	3.20	-8.63-2	5.96-1	-1.81-1	-7.07-1
2.98364	7.97664	1.70	3.10	-8.84-2	5.53-1	-1.80-1	-6.60-1
3.08191	8.21570	1.65	3.00	-8.25-2	5.17-1	-1.68-1	-6.17-1
2.95585	8.27859	1.65	2.90	-8.46-2	4.77-1	-1.67-1	-5.73-1
3.05245	8.54012	1.60	2.80	-7.88-2	4.43-1	-1.55-1	-5.32-1
2.99945	8.90320	1.55	2.60	-7.51-2	3.75-1	-1.43-1	-4.53-1
3.09849	9.21500	1.50	2.50	-6.96-2	3.44-1	-1.32-1	-4.17-1
3.00290	9.66227	1.45	2.30	-6.61-2	2.84-1	-1.21-1	-3.47-1
3.09770	10.0424	1.40	2.20	-6.09-2	2.57-1	-1.11-1	-3.15-1
3.00162	11.0897	1.30	1.90	-5.27-2	1.81-1	-9.16-2	-2.26-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.07631	11.6205	1.25	1.80	-4.80-2	1.60-1	-8.29-2	-2.00-1
2.96932	13.0286	1.15	1.55	-4.00-2	1.10-1	-6.67-2	-1.40-1
2.98571	13.8126	1.10	1.45	-3.60-2	9.33-2	-5.94-2	-1.20-1
2.97343	14.7144	1.05	1.33	-3.21-2	7.77-2	-5.26-2	-1.01-1
2.97002	17.1417	0.94	1.15	-2.42-2	5.09-2	-3.91-2	-6.74-2
2.97548	18.8147	0.88	1.05	-2.03-2	3.97-2	-3.27-2	-5.33-2
3.06449	20.7799	0.82	0.96	-1.67-2	3.10-2	-2.70-2	-4.21-2
3.09319	22.3534	0.78	0.90	-1.45-2	2.58-2	-2.34-2	-3.55-2
3.07675	24.2009	0.74	0.84	-1.25-2	2.10-2	-2.02-2	-2.94-2
2.98438	26.3987	0.70	0.78	-1.06-2	1.68-2	-1.73-2	-2.39-2
3.02888	30.3260	0.64	0.70	-8.10-3	1.21-2	-1.33-2	-1.76-2
3.10	3.25						
3.10645	3.42048	5.80	88.00	9.01 0	2.96 2	-1.17 1	-3.08 2
3.12349	3.43365	5.80	89.00	9.22 0	3.01 2	-1.19 1	-3.14 2
3.11367	3.44431	5.60	83.00	7.67 0	2.73 2	-1.02 1	-2.84 2
3.14062	3.44696	5.80	90.00	9.45 0	3.07 2	-1.21 1	-3.19 2
3.13068	3.45715	5.60	84.00	7.86 0	2.78 2	-1.04 1	-2.89 2
3.10864	3.46180	5.40	77.00	6.36 0	2.44 2	-8.72 0	-2.54 2
3.14774	3.47012	5.60	85.00	8.05 0	2.83 2	-1.06 1	-2.94 2
3.12576	3.47433	5.40	78.00	6.52 0	2.49 2	-8.88 0	-2.59 2
3.16485	3.48320	5.60	86.00	8.25 0	2.88 2	-1.08 1	-2.99 2
3.10756	3.48585	5.20	71.00	5.24 0	2.15 2	-7.45 0	-2.25 2
3.14290	3.48696	5.40	79.00	6.68 0	2.54 2	-9.04 0	-2.65 2
3.18203	3.49642	5.60	87.00	8.45 0	2.93 2	-1.10 1	-3.05 2
3.12504	3.49820	5.20	72.00	5.38 0	2.20 2	-7.58 0	-2.30 2
3.16005	3.49969	5.40	80.00	6.85 0	2.59 2	-9.20 0	-2.70 2
3.19927	3.50975	5.60	88.00	8.65 0	2.98 2	-1.12 1	-3.10 2
3.14249	3.51062	5.20	73.00	5.52 0	2.25 2	-7.72 0	-2.35 2
3.17723	3.51253	5.40	81.00	7.02 0	2.64 2	-9.36 0	-2.75 2
3.10953	3.51633	5.00	65.00	4.28 0	1.87 2	-6.34 0	-1.96 2
3.15992	3.52314	5.20	74.00	5.66 0	2.30 2	-7.86 0	-2.40 2
3.21659	3.52323	5.60	89.00	8.86 0	3.03 2	-1.14 1	-3.15 2
3.19444	3.52547	5.40	82.00	7.19 0	2.69 2	-9.53 0	-2.80 2
3.12764	3.52861	5.00	66.00	4.40 0	1.92 2	-6.45 0	-2.01 2
3.17734	3.53573	5.20	75.00	5.80 0	2.35 2	-8.00 0	-2.45 2
3.23398	3.53684	5.60	90.00	9.07 0	3.08 2	-1.16 1	-3.20 2
3.21169	3.53851	5.40	83.00	7.37 0	2.74 2	-9.70 0	-2.85 2
3.14568	3.54095	5.00	67.00	4.52 0	1.97 2	-6.57 0	-2.06 2
3.19476	3.54841	5.20	76.00	5.95 0	2.40 2	-8.14 0	-2.50 2
3.22898	3.55168	5.40	84.00	7.55 0	2.80 2	-9.88 0	-2.90 2
3.11349	3.55324	4.80	59.00	3.45 0	1.60 2	-5.37 0	-1.67 2
3.16365	3.55337	5.00	68.00	4.64 0	2.02 2	-6.69 0	-2.11 2
3.21217	3.56119	5.20	77.00	6.10 0	2.46 2	-8.29 0	-2.56 2
3.24632	3.56496	5.40	85.00	7.73 0	2.85 2	-1.01 1	-2.96 2
3.13256	3.56556	4.80	60.00	3.55 0	1.65 2	-5.47 0	-1.72 2
3.18157	3.56585	5.00	69.00	4.77 0	2.07 2	-6.81 0	-2.16 2
3.22959	3.57406	5.20	78.00	6.25 0	2.51 2	-8.44 0	-2.61 2
3.15149	3.57793	4.80	61.00	3.66 0	1.69 2	-5.57 0	-1.77 2
3.19944	3.57840	5.00	70.00	4.89 0	2.12 2	-6.94 0	-2.21 2
3.24702	3.58702	5.20	79.00	6.41 0	2.56 2	-8.59 0	-2.66 2
3.17031	3.59036	4.80	62.00	3.77 0	1.74 2	-5.67 0	-1.82 2
3.21726	3.59103	5.00	71.00	5.02 0	2.17 2	-7.06 0	-2.26 2
3.11806	3.59673	4.60	53.00	2.74 0	1.34 2	-4.52 0	-1.40 2
3.18902	3.60285	4.80	63.00	3.88 0	1.79 2	-5.78 0	-1.87 2
3.23506	3.60374	5.00	72.00	5.15 0	2.22 2	-7.19 0	-2.31 2
3.13849	3.60918	4.60	54.00	2.83 0	1.38 2	-4.61 0	-1.45 2
3.20764	3.61540	4.80	64.00	3.99 0	1.84 2	-5.89 0	-1.92 2
3.15872	3.62169	4.60	55.00	2.92 0	1.43 2	-4.69 0	-1.49 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.22616	3.62800	4.80	65.00	4.10 0	1.89 2	-5.99 0	-1.97 2
3.17876	3.63424	4.60	56.00	3.01 0	1.47 2	-4.78 0	-1.54 2
3.24461	3.64067	4.80	66.00	4.21 0	1.94 2	-6.10 0	-2.02 2
3.19864	3.64684	4.60	57.00	3.11 0	1.52 2	-4.88 0	-1.59 2
3.12126	3.64709	4.40	47.00	2.12 0	1.09 2	-3.77 0	-1.14 2
3.21835	3.65949	4.60	58.00	3.21 0	1.57 2	-4.97 0	-1.64 2
3.14361	3.65977	4.40	48.00	2.20 0	1.13 2	-3.85 0	-1.19 2
3.23792	3.67219	4.60	59.00	3.30 0	1.61 2	-5.06 0	-1.68 2
3.16566	3.67249	4.40	49.00	2.28 0	1.17 2	-3.92 0	-1.23 2
3.18744	3.68526	4.40	50.00	2.37 0	1.22 2	-4.00 0	-1.28 2
3.20895	3.69808	4.40	51.00	2.45 0	1.26 2	-4.08 0	-1.32 2
3.12007	3.70489	4.20	41.00	1.59 0	8.57 1	-3.11 0	-9.04 1
3.23023	3.71093	4.40	52.00	2.53 0	1.30 2	-4.16 0	-1.37 2
3.14514	3.71784	4.20	42.00	1.66 0	8.96 1	-3.18 0	-9.44 1
3.16977	3.73085	4.20	43.00	1.73 0	9.35 1	-3.25 0	-9.85 1
3.19398	3.74391	4.20	44.00	1.81 0	9.75 1	-3.32 0	-1.03 2
3.21781	3.75702	4.20	45.00	1.88 0	1.02 2	-3.39 0	-1.07 2
3.24128	3.77017	4.20	46.00	1.96 0	1.06 2	-3.46 0	-1.11 2
3.10953	3.77113	4.00	35.00	1.13 0	6.46 1	-2.53 0	-6.84 1
3.13857	3.78432	4.00	36.00	1.20 0	6.81 1	-2.59 0	-7.20 1
3.16693	3.79760	4.00	37.00	1.26 0	7.16 1	-2.65 0	-7.57 1
3.19466	3.81097	4.00	38.00	1.33 0	7.53 1	-2.72 0	-7.94 1
3.12999	3.82122	3.90	33.00	9.90-1	5.82 1	-2.33 0	-6.17 1
3.22180	3.82441	4.00	39.00	1.39 0	7.90 1	-2.78 0	-8.32 1
3.16087	3.83458	3.90	34.00	1.05 0	6.15 1	-2.39 0	-6.51 1
3.24840	3.83792	4.00	40.00	1.46 0	8.28 1	-2.84 0	-8.71 1
3.19095	3.84807	3.90	35.00	1.11 0	6.50 1	-2.44 0	-6.87 1
3.11600	3.86100	3.80	30.00	7.99-1	4.89 1	-2.08 0	-5.20 1
3.22030	3.86165	3.90	36.00	1.17 0	6.85 1	-2.50 0	-7.23 1
3.15002	3.87436	3.80	31.00	8.57-1	5.20 1	-2.13 0	-5.52 1
3.24897	3.87532	3.90	37.00	1.24 0	7.20 1	-2.56 0	-7.60 1
3.18304	3.88789	3.80	32.00	9.15-1	5.52 1	-2.19 0	-5.85 1
3.21511	3.90157	3.80	33.00	9.73-1	5.85 1	-2.24 0	-6.19 1
3.24633	3.91537	3.80	34.00	1.03 0	6.19 1	-2.30 0	-6.54 1
3.13251	3.91743	3.70	28.00	6.77-1	4.31 1	-1.90 0	-4.60 1
3.16923	3.93088	3.70	29.00	7.32-1	4.61 1	-1.95 0	-4.90 1
3.20474	3.94454	3.70	30.00	7.87-1	4.92 1	-2.00 0	-5.22 1
3.23914	3.95839	3.70	31.00	8.43-1	5.23 1	-2.05 0	-5.54 1
3.10558	3.96456	3.60	25.00	5.11-1	3.50 1	-1.68 0	-3.74 1
3.14713	3.97767	3.60	26.00	5.64-1	3.77 1	-1.73 0	-4.02 1
3.18706	3.99112	3.60	27.00	6.16-1	4.05 1	-1.77 0	-4.31 1
3.22552	4.00486	3.60	28.00	6.69-1	4.34 1	-1.82 0	-4.61 1
3.11316	4.02935	3.50	23.00	4.08-1	3.00 1	-1.52 0	-3.21 1
3.15896	4.04222	3.50	24.00	4.58-1	3.25 1	-1.56 0	-3.48 1
3.20275	4.05555	3.50	25.00	5.08-1	3.52 1	-1.61 0	-3.75 1
3.24475	4.06928	3.50	26.00	5.58-1	3.79 1	-1.65 0	-4.04 1
3.11569	4.09936	3.40	21.00	3.13-1	2.53 1	-1.37 0	-2.72 1
3.16673	4.11172	3.40	22.00	3.60-1	2.77 1	-1.41 0	-2.97 1
3.21527	4.12475	3.40	23.00	4.08-1	3.02 1	-1.45 0	-3.23 1
3.11100	4.17562	3.30	19.00	2.25-1	2.10 1	-1.23 0	-2.26 1
3.14027	4.18122	3.30	19.50	2.48-1	2.21 1	-1.25 0	-2.38 1
3.16868	4.18707	3.30	20.00	2.70-1	2.32 1	-1.27 0	-2.49 1
3.22314	4.19947	3.30	21.00	3.16-1	2.55 1	-1.31 0	-2.73 1
3.12964	4.26440	3.20	17.50	1.66-1	1.80 1	-1.11 0	-1.94 1
3.16222	4.26953	3.20	18.00	1.87-1	1.90 1	-1.13 0	-2.05 1
3.19373	4.27500	3.20	18.50	2.09-1	2.01 1	-1.15 0	-2.16 1
3.22425	4.28078	3.20	19.00	2.30-1	2.11 1	-1.17 0	-2.27 1
3.10529	4.35710	3.10	15.50	9.03-2	1.43 1	-9.85-1	-1.55 1
3.14344	4.36095	3.10	16.00	1.11-1	1.52 1	-1.00 0	-1.65 1
3.18012	4.36534	3.10	16.50	1.31-1	1.61 1	-1.02 0	-1.75 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.21546	4.37021	3.10	17.00	1.52-1	1.71 1	-1.04 0	-1.85 1
3.24955	4.37549	3.10	17.50	1.73-1	1.81 1	-1.06 0	-1.95 1
3.10625	4.46434	3.00	14.00	4.11-2	1.18 1	-8.84-1	-1.28 1
3.15005	4.46684	3.00	14.50	6.07-2	1.26 1	-9.00-1	-1.37 1
3.19195	4.47008	3.00	15.00	8.03-2	1.35 1	-9.17-1	-1.46 1
3.23210	4.47399	3.00	15.50	9.99-2	1.44 1	-9.33-1	-1.56 1
3.14598	4.58426	2.90	13.00	1.49-2	1.02 1	-8.04-1	-1.12 1
3.19467	4.58571	2.90	13.50	3.36-2	1.10 1	-8.19-1	-1.20 1
3.24104	4.58811	2.90	14.00	5.23-2	1.18 1	-8.35-1	-1.29 1
3.18364	4.71510	2.80	12.00	-8.74-3	8.78 0	-7.28-1	-9.62 0
3.23829	4.71510	2.80	12.50	9.09-3	9.53 0	-7.42-1	-1.04 1
3.12578	4.71652	2.80	11.50	-2.66-2	8.06 0	-7.14-1	-8.86 0
3.21759	4.85881	2.70	11.00	-3.00-2	7.44 0	-6.56-1	-8.17 0
3.15144	4.86274	2.70	10.50	-4.70-2	6.77 0	-6.43-1	-7.47 0
3.24538	5.01796	2.60	10.00	-4.89-2	6.19 0	-5.89-1	-6.82 0
3.21533	5.02064	2.60	9.80	-5.54-2	5.94 0	-5.84-1	-6.56 0
3.18439	5.02376	2.60	9.60	-6.19-2	5.69 0	-5.79-1	-6.30 0
3.15249	5.02737	2.60	9.40	-6.84-2	5.45 0	-5.74-1	-6.05 0
3.11958	5.03149	2.60	9.20	-7.49-2	5.22 0	-5.69-1	-5.80 0
3.22773	5.20075	2.50	8.80	-7.17-2	4.81 0	-5.20-1	-5.34 0
3.19105	5.20605	2.50	8.60	-7.79-2	4.59 0	-5.16-1	-5.11 0
3.15308	5.21205	2.50	8.40	-8.41-2	4.37 0	-5.11-1	-4.87 0
3.11371	5.21880	2.50	8.20	-9.03-2	4.16 0	-5.07-1	-4.65 0
3.22212	5.40599	2.40	7.80	-8.60-2	3.79 0	-4.61-1	-4.23 0
3.17755	5.41463	2.40	7.60	-9.18-2	3.59 0	-4.57-1	-4.02 0
3.13114	5.42431	2.40	7.40	-9.78-2	3.40 0	-4.52-1	-3.81 0
3.24069	5.63240	2.30	7.00	-9.26-2	3.06 0	-4.10-1	-3.43 0
3.18730	5.64490	2.30	6.80	-9.82-2	2.88 0	-4.06-1	-3.24 0
3.13134	5.65890	2.30	6.60	-1.04-1	2.70 0	-4.02-1	-3.05 0
3.23863	5.89294	2.20	6.20	-9.78-2	2.39 0	-3.61-1	-2.71 0
3.17292	5.91129	2.20	6.00	-1.03-1	2.23 0	-3.58-1	-2.53 0
3.10351	5.93192	2.20	5.80	-1.08-1	2.08 0	-3.54-1	-2.37 0
3.20204	6.19948	2.10	5.40	-1.02-1	1.80 0	-3.17-1	-2.06 0
3.11829	6.22721	2.10	5.20	-1.07-1	1.66 0	-3.14-1	-1.91 0
3.20964	6.53381	2.00	4.80	-9.97-2	1.42 0	-2.78-1	-1.63 0
3.10581	6.57212	2.00	4.60	-1.05-1	1.29 0	-2.75-1	-1.49 0
3.14351	6.74494	1.95	4.40	-1.01-1	1.18 0	-2.59-1	-1.36 0
3.18003	6.93011	1.90	4.20	-9.71-2	1.07 0	-2.43-1	-1.24 0
3.21470	7.12915	1.85	4.00	-9.34-2	9.67-1	-2.27-1	-1.12 0
3.14312	7.15903	1.85	3.90	-9.56-2	9.13-1	-2.26-1	-1.07 0
3.24658	7.34387	1.80	3.80	-8.97-2	8.68-1	-2.12-1	-1.01 0
3.16755	7.37781	1.80	3.70	-9.18-2	8.17-1	-2.11-1	-9.58-1
3.18664	7.61528	1.75	3.50	-8.80-2	7.26-1	-1.96-1	-8.54-1
3.19838	7.87431	1.70	3.30	-8.43-2	6.40-1	-1.82-1	-7.55-1
3.20002	8.15851	1.65	3.10	-8.06-2	5.58-1	-1.69-1	-6.62-1
3.18780	8.47242	1.60	2.90	-7.69-2	4.82-1	-1.56-1	-5.75-1
3.15647	8.82197	1.55	2.70	-7.32-2	4.11-1	-1.44-1	-4.93-1
3.20496	9.55353	1.45	2.40	-6.43-2	3.15-1	-1.22-1	-3.82-1
3.19836	10.4591	1.35	2.10	-5.59-2	2.31-1	-1.01-1	-2.84-1
3.15765	11.0007	1.30	1.95	-5.19-2	1.94-1	-9.18-2	-2.40-1
3.14908	12.2138	1.20	1.70	-4.36-2	1.39-1	-7.47-2	-1.75-1
3.21697	12.8815	1.15	1.60	-3.93-2	1.20-1	-6.69-2	-1.52-1
3.23838	16.0111	0.98	1.25	-2.66-2	6.40-2	-4.38-2	-8.33-2
3.12005	16.5527	0.96	1.20	-2.54-2	5.73-2	-4.14-2	-7.51-2
3.18759	18.0910	0.90	1.10	-2.14-2	4.54-2	-3.48-2	-6.02-2
3.19813	19.9795	0.84	1.00	-1.78-2	3.49-2	-2.88-2	-4.70-2
3.24388	27.4472	0.68	0.76	-9.69-3	1.56-2	-1.59-2	-2.23-2
3.19223	37.5286	0.56	0.60	-5.30-3	7.39-3	-9.03-3	-1.13-2
3.23294	52.3989	0.46	0.48	-2.75-3	3.47-3	-5.04-3	-5.84-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.25	3.40						
3.26371	3.57836	5.40	86.00	7.91 0	2.90 2	-1.02 1	-3.01 2
3.28117	3.59189	5.40	87.00	8.10 0	2.95 2	-1.04 1	-3.06 2
3.26446	3.60008	5.20	80.00	6.57 0	2.61 2	-8.74 0	-2.71 2
3.29870	3.60555	5.40	88.00	8.30 0	3.00 2	-1.06 1	-3.11 2
3.28194	3.61325	5.20	81.00	6.73 0	2.66 2	-8.90 0	-2.76 2
3.25282	3.61653	5.00	73.00	5.29 0	2.27 2	-7.32 0	-2.36 2
3.31630	3.61934	5.40	89.00	8.50 0	3.05 2	-1.08 1	-3.16 2
3.29944	3.62653	5.20	82.00	6.89 0	2.71 2	-9.06 0	-2.82 2
3.27057	3.62940	5.00	74.00	5.42 0	2.32 2	-7.45 0	-2.41 2
3.33398	3.63327	5.40	90.00	8.70 0	3.10 2	-1.10 1	-3.22 2
3.31699	3.63991	5.20	83.00	7.06 0	2.76 2	-9.22 0	-2.87 2
3.28830	3.64235	5.00	75.00	5.56 0	2.37 2	-7.58 0	-2.47 2
3.26298	3.65341	4.80	67.00	4.33 0	1.99 2	-6.22 0	-2.07 2
3.33458	3.65341	5.20	84.00	7.23 0	2.82 2	-9.39 0	-2.92 2
3.30602	3.65539	5.00	76.00	5.70 0	2.42 2	-7.72 0	-2.52 2
3.28129	3.66621	4.80	68.00	4.44 0	2.04 2	-6.33 0	-2.12 2
3.35221	3.66703	5.20	85.00	7.40 0	2.87 2	-9.56 0	-2.97 2
3.32375	3.66852	5.00	77.00	5.84 0	2.47 2	-7.86 0	-2.57 2
3.29955	3.67908	4.80	69.00	4.56 0	2.09 2	-6.44 0	-2.17 2
3.36991	3.68077	5.20	86.00	7.58 0	2.92 2	-9.73 0	-3.02 2
3.34148	3.68174	5.00	78.00	5.99 0	2.53 2	-8.00 0	-2.62 2
3.25735	3.68494	4.60	60.00	3.40 0	1.66 2	-5.16 0	-1.73 2
3.31775	3.69202	4.80	70.00	4.68 0	2.14 2	-6.56 0	-2.22 2
3.38767	3.69464	5.20	87.00	7.76 0	2.97 2	-9.91 0	-3.08 2
3.35922	3.69506	5.00	79.00	6.13 0	2.58 2	-8.14 0	-2.67 2
3.27665	3.69774	4.60	61.00	3.50 0	1.71 2	-5.25 0	-1.78 2
3.33591	3.70503	4.80	71.00	4.80 0	2.19 2	-6.68 0	-2.27 2
3.37699	3.70848	5.00	80.00	6.28 0	2.63 2	-8.29 0	-2.73 2
3.29584	3.71060	4.60	62.00	3.60 0	1.76 2	-5.35 0	-1.83 2
3.35404	3.71812	4.80	72.00	4.93 0	2.24 2	-6.80 0	-2.32 2
3.39478	3.72201	5.00	81.00	6.44 0	2.68 2	-8.44 0	-2.78 2
3.31492	3.72351	4.60	63.00	3.71 0	1.80 2	-5.45 0	-1.88 2
3.25128	3.72384	4.40	53.00	2.62 0	1.35 2	-4.25 0	-1.41 2
3.37214	3.73129	4.80	73.00	5.05 0	2.29 2	-6.92 0	-2.38 2
3.33390	3.73648	4.60	64.00	3.81 0	1.85 2	-5.55 0	-1.93 2
3.27211	3.73678	4.40	54.00	2.71 0	1.39 2	-4.33 0	-1.46 2
3.39022	3.74454	4.80	74.00	5.18 0	2.34 2	-7.05 0	-2.43 2
3.35279	3.74951	4.60	65.00	3.92 0	1.90 2	-5.65 0	-1.98 2
3.29275	3.74977	4.40	55.00	2.79 0	1.44 2	-4.41 0	-1.50 2
3.37160	3.76260	4.60	66.00	4.02 0	1.95 2	-5.76 0	-2.03 2
3.31320	3.76281	4.40	56.00	2.88 0	1.49 2	-4.50 0	-1.55 2
3.39033	3.77576	4.60	67.00	4.13 0	2.00 2	-5.86 0	-2.08 2
3.33348	3.77588	4.40	57.00	2.97 0	1.53 2	-4.58 0	-1.60 2
3.26441	3.78338	4.20	47.00	2.03 0	1.10 2	-3.53 0	-1.15 2
3.35360	3.78901	4.40	58.00	3.06 0	1.58 2	-4.67 0	-1.65 2
3.28722	3.79662	4.20	48.00	2.11 0	1.14 2	-3.60 0	-1.20 2
3.37357	3.80218	4.40	59.00	3.16 0	1.63 2	-4.76 0	-1.70 2
3.30973	3.80990	4.20	49.00	2.19 0	1.18 2	-3.68 0	-1.24 2
3.39340	3.81539	4.40	60.00	3.25 0	1.68 2	-4.85 0	-1.74 2
3.33197	3.82322	4.20	50.00	2.26 0	1.23 2	-3.75 0	-1.28 2
3.35394	3.83658	4.20	51.00	2.34 0	1.27 2	-3.83 0	-1.33 2
3.37567	3.84998	4.20	52.00	2.42 0	1.32 2	-3.90 0	-1.38 2
3.27448	3.85148	4.00	41.00	1.53 0	8.66 1	-2.90 0	-9.11 1
3.39717	3.86341	4.20	53.00	2.50 0	1.36 2	-3.98 0	-1.42 2
3.30009	3.86510	4.00	42.00	1.59 0	9.05 1	-2.97 0	-9.51 1
3.32525	3.87876	4.00	43.00	1.66 0	9.45 1	-3.03 0	-9.92 1
3.27700	3.88907	3.90	38.00	1.30 0	7.57 1	-2.62 0	-7.97 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.34999	3.89247	4.00	44.00	1.73 0	9.85 1	-3.09 0	-1.03 2
3.30444	3.90288	3.90	39.00	1.36 0	7.94 1	-2.68 0	-8.36 1
3.37435	3.90621	4.00	45.00	1.80 0	1.03 2	-3.16 0	-1.08 2
3.33134	3.91676	3.90	40.00	1.43 0	8.32 1	-2.74 0	-8.75 1
3.39833	3.92000	4.00	46.00	1.87 0	1.07 2	-3.23 0	-1.12 2
3.27675	3.92928	3.80	35.00	1.09 0	6.53 1	-2.35 0	-6.90 1
3.35771	3.93068	3.90	41.00	1.49 0	8.71 1	-2.80 0	-9.14 1
3.30642	3.94328	3.80	36.00	1.15 0	6.88 1	-2.41 0	-7.24 1
3.38361	3.94465	3.90	42.00	1.56 0	9.10 1	-2.86 0	-9.55 1
3.33541	3.95735	3.80	37.00	1.21 0	7.24 1	-2.46 0	-7.63 1
3.36376	3.97150	3.80	38.00	1.27 0	7.61 1	-2.52 0	-8.01 1
3.27252	3.97240	3.70	32.00	9.00-1	5.55 1	-2.10 0	-5.88 1
3.39152	3.98570	3.80	39.00	1.34 0	7.99 1	-2.58 0	-8.39 1
3.30496	3.98654	3.70	33.00	9.56-1	5.89 1	-2.15 0	-6.22 1
3.33653	4.00079	3.70	34.00	1.01 0	6.22 1	-2.21 0	-6.57 1
3.36729	4.01514	3.70	35.00	1.07 0	6.57 1	-2.26 0	-6.92 1
3.26265	4.01885	3.60	29.00	7.22-1	4.64 1	-1.87 0	-4.92 1
3.39731	4.02957	3.70	36.00	1.13 0	6.92 1	-2.31 0	-7.29 1
3.29856	4.03303	3.60	30.00	7.75-1	4.95 1	-1.92 0	-5.24 1
3.33335	4.04739	3.60	31.00	8.29-1	5.26 1	-1.97 0	-5.57 1
3.36712	4.06190	3.60	32.00	8.84-1	5.59 1	-2.02 0	-5.90 1
3.39993	4.07653	3.60	33.00	9.38-1	5.92 1	-2.07 0	-6.24 1
3.28513	4.08333	3.50	27.00	6.09-1	4.08 1	-1.70 0	-4.33 1
3.32403	4.09766	3.50	28.00	6.60-1	4.37 1	-1.75 0	-4.62 1
3.36159	4.11221	3.50	29.00	7.11-1	4.67 1	-1.79 0	-4.94 1
3.39793	4.12695	3.50	30.00	7.63-1	4.98 1	-1.84 0	-5.26 1
3.26157	4.13831	3.40	24.00	4.56-1	3.27 1	-1.49 0	-3.49 1
3.30586	4.15232	3.40	25.00	5.04-1	3.54 1	-1.54 0	-3.77 1
3.34835	4.16671	3.40	26.00	5.52-1	3.82 1	-1.58 0	-4.05 1
3.38920	4.18139	3.40	27.00	6.01-1	4.10 1	-1.63 0	-4.35 1
3.27476	4.21264	3.30	22.00	3.61-1	2.79 1	-1.35 0	-2.98 1
3.32385	4.22643	3.30	23.00	4.07-1	3.04 1	-1.39 0	-3.24 1
3.37068	4.24074	3.30	24.00	4.53-1	3.30 1	-1.43 0	-3.51 1
3.25385	4.28685	3.20	19.50	2.52-1	2.22 1	-1.19 0	-2.39 1
3.28258	4.29316	3.20	20.00	2.74-1	2.33 1	-1.20 0	-2.50 1
3.33766	4.30644	3.20	21.00	3.17-1	2.57 1	-1.24 0	-2.74 1
3.38987	4.32045	3.20	22.00	3.61-1	2.81 1	-1.28 0	-2.99 1
3.28249	4.38115	3.10	18.00	1.93-1	1.91 1	-1.07 0	-2.06 1
3.31436	4.38714	3.10	18.50	2.14-1	2.02 1	-1.09 0	-2.17 1
3.34523	4.39343	3.10	19.00	2.35-1	2.13 1	-1.11 0	-2.28 1
3.37517	4.39999	3.10	19.50	2.55-1	2.24 1	-1.13 0	-2.40 1
3.27066	4.47848	3.00	16.00	1.20-1	1.53 1	-9.50-1	-1.65 1
3.30774	4.48348	3.00	16.50	1.39-1	1.63 1	-9.66-1	-1.75 1
3.34348	4.48894	3.00	17.00	1.59-1	1.72 1	-9.83-1	-1.86 1
3.37796	4.49481	3.00	17.50	1.79-1	1.83 1	-1.00 0	-1.96 1
3.28530	4.59135	2.90	14.50	7.10-2	1.27 1	-8.50-1	-1.38 1
3.32765	4.59531	2.90	15.00	8.97-2	1.36 1	-8.66-1	-1.47 1
3.36826	4.59991	2.90	15.50	1.08-1	1.45 1	-8.82-1	-1.56 1
3.29008	4.71634	2.80	13.00	2.69-2	1.03 1	-7.57-1	-1.12 1
3.33929	4.71864	2.80	13.50	4.47-2	1.11 1	-7.72-1	-1.21 1
3.38618	4.72186	2.80	14.00	6.25-2	1.19 1	-7.86-1	-1.29 1
3.33813	4.85638	2.70	12.00	3.96-3	8.86 0	-6.83-1	-9.67 0
3.27966	4.85679	2.70	11.50	-1.30-2	8.13 0	-6.70-1	-8.91 0
3.39337	4.85737	2.70	12.50	2.09-2	9.62 0	-6.97-1	-1.05 1
3.38371	5.01031	2.60	11.00	-1.66-2	7.51 0	-6.14-1	-8.21 0
3.31687	5.01304	2.60	10.50	-3.27-2	6.83 0	-6.01-1	-7.50 0
3.39421	5.18295	2.50	9.80	-4.10-2	6.00 0	-5.44-1	-6.59 0
3.36295	5.18549	2.50	9.60	-4.71-2	5.75 0	-5.39-1	-6.33 0
3.33073	5.18851	2.50	9.40	-5.33-2	5.51 0	-5.34-1	-6.08 0
3.29750	5.19203	2.50	9.20	-5.94-2	5.27 0	-5.30-1	-5.83 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.26319	5.19609	2.50	9.00	-6.56-2	5.04 0	-5.25-1	-5.58 0
3.38429	5.38021	2.40	8.60	-6.25-2	4.64 0	-4.78-1	-5.13 0
3.34594	5.38548	2.40	8.40	-6.84-2	4.42 0	-4.74-1	-4.90 0
3.30620	5.39149	2.40	8.20	-7.42-2	4.20 0	-4.69-1	-4.67 0
3.26496	5.39831	2.40	8.00	-8.01-2	3.99 0	-4.65-1	-4.45 0
3.38745	5.60257	2.30	7.60	-7.59-2	3.63 0	-4.21-1	-4.04 0
3.34059	5.61136	2.30	7.40	-8.14-2	3.43 0	-4.17-1	-3.83 0
3.29173	5.62126	2.30	7.20	-8.70-2	3.24 0	-4.13-1	-3.63 0
3.36024	5.86209	2.20	6.60	-8.72-2	2.73 0	-3.69-1	-3.07 0
3.30096	5.87661	2.20	6.40	-9.25-2	2.56 0	-3.65-1	-2.89 0
3.35483	6.15325	2.10	5.80	-9.17-2	2.10 0	-3.23-1	-2.38 0
3.28071	6.17496	2.10	5.60	-9.67-2	1.95 0	-3.20-1	-2.22 0
3.39638	6.47068	2.00	5.20	-9.02-2	1.69 0	-2.84-1	-1.92 0
3.30621	6.50020	2.00	5.00	-9.49-2	1.55 0	-2.81-1	-1.77 0
3.36025	6.66511	1.95	4.80	-9.15-2	1.43 0	-2.64-1	-1.63 0
3.25601	6.70232	1.95	4.60	-9.61-2	1.30 0	-2.61-1	-1.50 0
3.30246	6.88248	1.90	4.40	-9.26-2	1.19 0	-2.45-1	-1.37 0
3.34856	7.07564	1.85	4.20	-8.90-2	1.08 0	-2.29-1	-1.25 0
3.39372	7.28340	1.80	4.00	-8.54-2	9.74-1	-2.14-1	-1.13 0
3.32187	7.31248	1.80	3.90	-8.75-2	9.21-1	-2.13-1	-1.07 0
3.35783	7.54067	1.75	3.70	-8.39-2	8.24-1	-1.98-1	-9.60-1
3.27445	7.57645	1.75	3.60	-8.59-2	7.74-1	-1.97-1	-9.06-1
3.38964	7.78843	1.70	3.50	-8.03-2	7.32-1	-1.84-1	-8.56-1
3.29667	7.82953	1.70	3.40	-8.23-2	6.85-1	-1.83-1	-8.05-1
3.31097	8.10637	1.65	3.20	-7.86-2	6.01-1	-1.70-1	-7.09-1
3.31426	8.41107	1.60	3.00	-7.50-2	5.22-1	-1.57-1	-6.19-1
3.30223	8.74887	1.55	2.80	-7.14-2	4.48-1	-1.45-1	-5.34-1
3.26875	9.12661	1.50	2.60	-6.78-2	3.79-1	-1.33-1	-4.55-1
3.39030	9.45699	1.45	2.50	-6.26-2	3.48-1	-1.22-1	-4.18-1
3.31965	9.92243	1.40	2.30	-5.92-2	2.87-1	-1.11-1	-3.48-1
3.30515	10.9180	1.30	2.00	-5.11-2	2.07-1	-9.20-2	-2.55-1
3.25238	11.5194	1.25	1.85	-4.73-2	1.72-1	-8.31-2	-2.13-1
3.34946	12.0980	1.20	1.75	-4.28-2	1.51-1	-7.49-2	-1.87-1
3.27542	13.6391	1.10	1.50	-3.53-2	1.03-1	-5.96-2	-1.30-1
3.31722	14.5067	1.05	1.40	-3.15-2	8.62-2	-5.27-2	-1.10-1
3.33092	15.5110	1.00	1.30	-2.79-2	7.12-2	-4.63-2	-9.19-2
3.35302	17.4322	0.92	1.15	-2.25-2	5.14-2	-3.70-2	-6.75-2
3.27157	21.4199	0.80	0.94	-1.55-2	2.93-2	-2.52-2	-3.99-2
3.31929	23.0988	0.76	0.88	-1.34-2	2.42-2	-2.18-2	-3.34-2
3.32130	25.0790	0.72	0.82	-1.14-2	1.97-2	-1.87-2	-2.75-2
3.33134	31.7136	0.62	0.68	-7.30-3	1.11-2	-1.22-2	-1.63-2
3.40	3.60						
3.40550	3.70863	5.20	88.00	7.94 0	3.02 2	-1.01 1	-3.13 2
3.42341	3.72277	5.20	89.00	8.13 0	3.07 2	-1.03 1	-3.18 2
3.41260	3.73564	5.00	82.00	6.59 0	2.73 2	-8.59 0	-2.83 2
3.44140	3.73704	5.20	90.00	8.32 0	3.13 2	-1.05 1	-3.23 2
3.43046	3.74938	5.00	83.00	6.75 0	2.78 2	-8.75 0	-2.88 2
3.40829	3.75788	4.80	75.00	5.31 0	2.39 2	-7.17 0	-2.48 2
3.44837	3.76324	5.00	84.00	6.91 0	2.84 2	-8.91 0	-2.94 2
3.42635	3.77130	4.80	76.00	5.45 0	2.44 2	-7.30 0	-2.52 2
3.46633	3.77722	5.00	85.00	7.08 0	2.89 2	-9.07 0	-2.99 2
3.44441	3.78481	4.80	77.00	5.58 0	2.49 2	-7.44 0	-2.58 2
3.40900	3.78897	4.60	68.00	4.24 0	2.05 2	-5.97 0	-2.13 2
3.48435	3.79132	5.00	86.00	7.24 0	2.94 2	-9.23 0	-3.04 2
3.46248	3.79842	4.80	78.00	5.72 0	2.55 2	-7.57 0	-2.64 2
3.42762	3.80226	4.60	69.00	4.36 0	2.10 2	-6.08 0	-2.18 2
3.50243	3.80554	5.00	87.00	7.42 0	2.99 2	-9.40 0	-3.09 2
3.48056	3.81212	4.80	79.00	5.86 0	2.60 2	-7.71 0	-2.69 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.44618	3.81561	4.60	70.00	4.47 0	2.15 2	-6.19 0	-2.24 2
3.52058	3.81990	5.00	88.00	7.59 0	3.04 2	-9.57 0	-3.15 2
3.49866	3.82592	4.80	80.00	6.00 0	2.65 2	-7.85 0	-2.74 2
3.41310	3.82866	4.40	61.00	3.34 0	1.72 2	-4.94 0	-1.79 2
3.46471	3.82904	4.60	71.00	4.59 0	2.20 2	-6.30 0	-2.29 2
3.53882	3.83440	5.00	89.00	7.77 0	3.10 2	-9.75 0	-3.20 2
3.51679	3.83983	4.80	81.00	6.14 0	2.70 2	-7.99 0	-2.79 2
3.43268	3.84198	4.40	62.00	3.44 0	1.77 2	-5.03 0	-1.84 2
3.48319	3.84254	4.60	72.00	4.70 0	2.26 2	-6.42 0	-2.34 2
3.55713	3.84903	5.00	90.00	7.95 0	3.15 2	-9.93 0	-3.25 2
3.53496	3.85384	4.80	82.00	6.29 0	2.75 2	-8.13 0	-2.85 2
3.45215	3.85535	4.40	63.00	3.54 0	1.82 2	-5.13 0	-1.89 2
3.50166	3.85612	4.60	73.00	4.82 0	2.31 2	-6.53 0	-2.39 2
3.55316	3.86796	4.80	83.00	6.44 0	2.81 2	-8.28 0	-2.90 2
3.47153	3.86878	4.40	64.00	3.64 0	1.87 2	-5.22 0	-1.94 2
3.52010	3.86978	4.60	74.00	4.94 0	2.36 2	-6.65 0	-2.44 2
3.41845	3.87689	4.20	54.00	2.58 0	1.41 2	-4.06 0	-1.47 2
3.57141	3.88220	4.80	84.00	6.60 0	2.86 2	-8.43 0	-2.95 2
3.49081	3.88226	4.40	65.00	3.74 0	1.92 2	-5.32 0	-1.99 2
3.53853	3.88353	4.60	75.00	5.07 0	2.41 2	-6.77 0	-2.50 2
3.43953	3.89040	4.20	55.00	2.67 0	1.45 2	-4.14 0	-1.52 2
3.51001	3.89580	4.40	66.00	3.84 0	1.97 2	-5.42 0	-2.05 2
3.58971	3.89656	4.80	85.00	6.75 0	2.91 2	-8.58 0	-3.01 2
3.55695	3.89736	4.60	76.00	5.19 0	2.46 2	-6.89 0	-2.55 2
3.46042	3.90396	4.20	56.00	2.75 0	1.50 2	-4.22 0	-1.56 2
3.52914	3.90941	4.40	67.00	3.94 0	2.02 2	-5.52 0	-2.10 2
3.57537	3.91128	4.60	77.00	5.32 0	2.51 2	-7.02 0	-2.60 2
3.48114	3.91755	4.20	57.00	2.84 0	1.55 2	-4.30 0	-1.61 2
3.54820	3.92307	4.40	68.00	4.04 0	2.07 2	-5.62 0	-2.15 2
3.59381	3.92529	4.60	78.00	5.45 0	2.57 2	-7.15 0	-2.65 2
3.50170	3.93118	4.20	58.00	2.92 0	1.60 2	-4.38 0	-1.66 2
3.42197	3.93382	4.00	47.00	1.94 0	1.11 2	-3.29 0	-1.16 2
3.56721	3.93680	4.40	69.00	4.15 0	2.12 2	-5.72 0	-2.20 2
3.52210	3.94486	4.20	59.00	3.01 0	1.64 2	-4.46 0	-1.71 2
3.44530	3.94767	4.00	48.00	2.01 0	1.15 2	-3.36 0	-1.21 2
3.58616	3.95060	4.40	70.00	4.26 0	2.17 2	-5.83 0	-2.25 2
3.54236	3.95859	4.20	60.00	3.10 0	1.69 2	-4.55 0	-1.76 2
3.40906	3.95867	3.90	43.00	1.62 0	9.50 1	-2.92 0	-9.96 1
3.46831	3.96156	4.00	49.00	2.09 0	1.20 2	-3.43 0	-1.25 2
3.56250	3.97235	4.20	61.00	3.18 0	1.74 2	-4.63 0	-1.81 2
3.43408	3.97272	3.90	44.00	1.69 0	9.91 1	-2.98 0	-1.04 2
3.49105	3.97548	4.00	50.00	2.16 0	1.24 2	-3.50 0	-1.29 2
3.58251	3.98617	4.20	62.00	3.27 0	1.79 2	-4.72 0	-1.86 2
3.45872	3.98681	3.90	45.00	1.76 0	1.03 2	-3.05 0	-1.08 2
3.51352	3.98943	4.00	51.00	2.23 0	1.29 2	-3.57 0	-1.34 2
3.41872	3.99996	3.80	40.00	1.40 0	8.37 1	-2.64 0	-8.78 1
3.48298	4.00092	3.90	46.00	1.83 0	1.07 2	-3.11 0	-1.12 2
3.53574	4.00342	4.00	52.00	2.31 0	1.33 2	-3.64 0	-1.39 2
3.44541	4.01426	3.80	41.00	1.46 0	8.76 1	-2.69 0	-9.18 1
3.50690	4.01508	3.90	47.00	1.90 0	1.12 2	-3.18 0	-1.17 2
3.55773	4.01743	4.00	53.00	2.38 0	1.38 2	-3.72 0	-1.43 2
3.47161	4.02861	3.80	42.00	1.52 0	9.15 1	-2.75 0	-9.59 1
3.53049	4.02926	3.90	48.00	1.96 0	1.16 2	-3.24 0	-1.21 2
3.57950	4.03148	4.00	54.00	2.46 0	1.42 2	-3.79 0	-1.48 2
3.49735	4.04299	3.80	43.00	1.59 0	9.55 1	-2.81 0	-1.00 2
3.55378	4.04347	3.90	49.00	2.04 0	1.20 2	-3.31 0	-1.25 2
3.42664	4.04408	3.70	37.00	1.19 0	7.29 1	-2.37 0	-7.66 1
3.52268	4.05740	3.80	44.00	1.65 0	9.96 1	-2.88 0	-1.04 2
3.57678	4.05770	3.90	50.00	2.11 0	1.25 2	-3.38 0	-1.30 2
3.45533	4.05864	3.70	38.00	1.25 0	7.66 1	-2.42 0	-8.04 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.54761	4.07184	3.80	45.00	1.72 0	1.04 2	-2.94 0	-1.08 2
3.59952	4.07197	3.90	51.00	2.18 0	1.29 2	-3.45 0	-1.35 2
3.48342	4.07325	3.70	39.00	1.31 0	8.03 1	-2.48 0	-8.42 1
3.57216	4.08631	3.80	46.00	1.78 0	1.08 2	-3.00 0	-1.13 2
3.51095	4.08791	3.70	40.00	1.37 0	8.47 1	-2.54 0	-8.82 1
3.43188	4.09126	3.60	34.00	9.93-1	6.76 1	-2.12 0	-6.59 1
3.59637	4.10081	3.80	47.00	1.85 0	1.12 2	-3.06 0	-1.17 2
3.53795	4.10261	3.70	41.00	1.43 0	8.81 1	-2.59 0	-9.22 1
3.46301	4.10607	3.60	35.00	1.05 0	6.61 1	-2.17 0	-6.95 1
3.56447	4.11734	3.70	42.00	1.49 0	9.20 1	-2.65 0	-9.63 1
3.49340	4.12096	3.60	36.00	1.10 0	6.97 1	-2.22 0	-7.32 1
3.59054	4.13210	3.70	43.00	1.55 0	9.61 1	-2.71 0	-1.00 2
3.52308	4.13591	3.60	37.00	1.16 0	7.33 1	-2.28 0	-7.69 1
3.43313	4.14185	3.50	31.00	8.14-1	5.30 1	-1.89 0	-5.59 1
3.55212	4.15091	3.60	38.00	1.22 0	7.70 1	-2.33 0	-8.07 1
3.46731	4.15687	3.50	32.00	8.67-1	5.62 1	-1.94 0	-5.93 1
3.58056	4.16595	3.60	39.00	1.28 0	8.08 1	-2.38 0	-8.46 1
3.50052	4.17201	3.50	33.00	9.19-1	5.96 1	-1.98 0	-6.27 1
3.53286	4.18724	3.50	34.00	9.73-1	6.30 1	-2.03 0	-6.62 1
3.42857	4.19633	3.40	28.00	6.50-1	4.40 1	-1.67 0	-4.65 1
3.56439	4.20254	3.50	35.00	1.03 0	6.65 1	-2.08 0	-6.98 1
3.46659	4.21148	3.40	29.00	6.99-1	4.70 1	-1.72 0	-4.97 1
3.59515	4.21791	3.50	36.00	1.08 0	7.01 1	-2.13 0	-7.35 1
3.50336	4.22680	3.40	30.00	7.49-1	5.01 1	-1.76 0	-5.29 1
3.53901	4.24226	3.40	31.00	7.99-1	5.33 1	-1.81 0	-5.62 1
3.41550	4.25546	3.30	25.00	4.99-1	3.57 1	-1.47 0	-3.79 1
3.57361	4.25784	3.40	32.00	8.49-1	5.66 1	-1.85 0	-5.95 1
3.45850	4.27053	3.30	26.00	5.46-1	3.84 1	-1.51 0	-4.07 1
3.49986	4.28589	3.30	27.00	5.92-1	4.13 1	-1.55 0	-4.37 1
3.53972	4.30147	3.30	28.00	6.39-1	4.43 1	-1.60 0	-4.67 1
3.57822	4.31725	3.30	29.00	6.87-1	4.73 1	-1.64 0	-4.99 1
3.43955	4.33505	3.20	23.00	4.05-1	3.06 1	-1.32 0	-3.25 1
3.48696	4.35014	3.20	24.00	4.49-1	3.32 1	-1.36 0	-3.52 1
3.53234	4.36562	3.20	25.00	4.93-1	3.59 1	-1.40 0	-3.80 1
3.57589	4.38142	3.20	26.00	5.38-1	3.87 1	-1.44 0	-4.09 1
3.40423	4.40679	3.10	20.00	2.76-1	2.35 1	-1.15 0	-2.51 1
3.45997	4.42100	3.10	21.00	3.18-1	2.58 1	-1.18 0	-2.76 1
3.51283	4.43590	3.10	22.00	3.60-1	2.83 1	-1.22 0	-3.01 1
3.56314	4.45136	3.10	23.00	4.02-1	3.08 1	-1.26 0	-3.27 1
3.41129	4.50103	3.00	18.00	1.98-1	1.93 1	-1.02 0	-2.07 1
3.44353	4.50757	3.00	18.50	2.18-1	2.04 1	-1.03 0	-2.18 1
3.47477	4.51440	3.00	19.00	2.38-1	2.14 1	-1.05 0	-2.29 1
3.50508	4.52148	3.00	19.50	2.58-1	2.26 1	-1.07 0	-2.41 1
3.53451	4.52878	3.00	20.00	2.78-1	2.37 1	-1.09 0	-2.53 1
3.59096	4.54398	3.00	21.00	3.18-1	2.60 1	-1.12 0	-2.77 1
3.40725	4.60507	2.90	16.00	1.27-1	1.54 1	-8.98-1	-1.66 1
3.44478	4.61073	2.90	16.50	1.46-1	1.64 1	-9.14-1	-1.76 1
3.48094	4.61682	2.90	17.00	1.65-1	1.74 1	-9.30-1	-1.87 1
3.51584	4.62330	2.90	17.50	1.84-1	1.84 1	-9.46-1	-1.97 1
3.54958	4.63012	2.90	18.00	2.02-1	1.94 1	-9.63-1	-2.08 1
3.58223	4.63725	2.90	18.50	2.21-1	2.05 1	-9.79-1	-2.19 1
3.43095	4.72589	2.80	14.50	8.04-2	1.28 1	-8.01-1	-1.39 1
3.47379	4.73061	2.80	15.00	9.82-2	1.37 1	-8.16-1	-1.48 1
3.51488	4.73595	2.80	15.50	1.16-1	1.46 1	-8.32-1	-1.57 1
3.55435	4.74183	2.80	16.00	1.34-1	1.56 1	-8.47-1	-1.67 1
3.59234	4.74818	2.80	16.50	1.52-1	1.65 1	-8.62-1	-1.77 1
3.44574	4.85955	2.70	13.00	3.79-2	1.04 1	-7.11-1	-1.13 1
3.49552	4.86276	2.70	13.50	5.48-2	1.12 1	-7.25-1	-1.21 1
3.54296	4.86685	2.70	14.00	7.18-2	1.21 1	-7.39-1	-1.30 1
3.58828	4.87172	2.70	14.50	8.87-2	1.29 1	-7.54-1	-1.39 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.44646	5.00944	2.60	11.50	-4.81-4	8.21 0	-6.27-1	-8.95 0
3.50558	5.01014	2.60	12.00	1.56-2	8.94 0	-6.40-1	-9.72 0
3.56147	5.01217	2.60	12.50	3.17-2	9.70 0	-6.53-1	-1.05 1
3.56444	5.17584	2.50	11.00	-4.28-3	7.58 0	-5.73-1	-8.26 0
3.49684	5.17728	2.50	10.50	-1.95-2	6.90 0	-5.61-1	-7.54 0
3.42457	5.18084	2.50	10.00	-3.48-2	6.25 0	-5.48-1	-6.86 0
3.58961	5.36106	2.40	9.80	-2.77-2	6.06 0	-5.05-1	-6.63 0
3.55799	5.36298	2.40	9.60	-3.35-2	5.81 0	-5.01-1	-6.37 0
3.52542	5.36536	2.40	9.40	-3.93-2	5.56 0	-4.96-1	-6.11 0
3.49183	5.36823	2.40	9.20	-4.51-2	5.32 0	-4.92-1	-5.86 0
3.45716	5.37163	2.40	9.00	-5.09-2	5.09 0	-4.87-1	-5.61 0
3.42134	5.37561	2.40	8.80	-5.67-2	4.86 0	-4.83-1	-5.37 0
3.59630	5.57227	2.30	8.60	-4.83-2	4.69 0	-4.42-1	-5.16 0
3.55754	5.57676	2.30	8.40	-5.38-2	4.46 0	-4.38-1	-4.93 0
3.51737	5.58198	2.30	8.20	-5.93-2	4.25 0	-4.34-1	-4.70 0
3.47571	5.58797	2.30	8.00	-6.48-2	4.04 0	-4.30-1	-4.47 0
3.43244	5.59481	2.30	7.80	-7.03-2	3.83 0	-4.26-1	-4.26 0
3.57150	5.81877	2.20	7.40	-6.62-2	3.47 0	-3.84-1	-3.86 0
3.52214	5.82767	2.20	7.20	-7.15-2	3.28 0	-3.80-1	-3.65 0
3.47061	5.83777	2.20	7.00	-7.67-2	3.09 0	-3.76-1	-3.45 0
3.41671	5.84920	2.20	6.80	-8.19-2	2.91 0	-3.72-1	-3.26 0
3.55408	6.10200	2.10	6.40	-7.67-2	2.59 0	-3.34-1	-2.90 0
3.49115	6.11703	2.10	6.20	-8.17-2	2.42 0	-3.30-1	-2.72 0
3.42485	6.13403	2.10	6.00	-8.67-2	2.26 0	-3.27-1	-2.55 0
3.56022	6.42188	2.00	5.60	-8.08-2	1.98 0	-2.90-1	-2.23 0
3.48084	6.44472	2.00	5.40	-8.55-2	1.83 0	-2.87-1	-2.07 0
3.54779	6.60402	1.95	5.20	-8.23-2	1.70 0	-2.70-1	-1.92 0
3.45723	6.63255	1.95	5.00	-8.69-2	1.56 0	-2.67-1	-1.77 0
3.52009	6.80504	1.90	4.80	-8.36-2	1.44 0	-2.51-1	-1.64 0
3.41541	6.84109	1.90	4.60	-8.81-2	1.31 0	-2.48-1	-1.50 0
3.58490	6.98929	1.85	4.60	-8.03-2	1.32 0	-2.35-1	-1.50 0
3.47147	7.02939	1.85	4.40	-8.46-2	1.20 0	-2.32-1	-1.37 0
3.52811	7.23143	1.80	4.20	-8.12-2	1.09 0	-2.17-1	-1.25 0
3.58487	7.44891	1.75	4.00	-7.77-2	9.82-1	-2.02-1	-1.13 0
3.51273	7.47713	1.75	3.90	-7.98-2	9.28-1	-2.01-1	-1.07 0
3.43715	7.50765	1.75	3.80	-8.18-2	8.75-1	-2.00-1	-1.02 0
3.56147	7.71588	1.70	3.70	-7.63-2	8.31-1	-1.87-1	-9.64-1
3.47777	7.75065	1.70	3.60	-7.83-2	7.81-1	-1.85-1	-9.09-1
3.51410	8.01518	1.65	3.40	-7.47-2	6.92-1	-1.72-1	-8.08-1
3.41546	8.05876	1.65	3.30	-7.67-2	6.46-1	-1.71-1	-7.58-1
3.54409	8.30461	1.60	3.20	-7.12-2	6.07-1	-1.59-1	-7.12-1
3.43275	8.35534	1.60	3.10	-7.31-2	5.64-1	-1.58-1	-6.64-1
3.56489	8.62317	1.55	3.00	-6.77-2	5.27-1	-1.46-1	-6.21-1
3.43801	8.68289	1.55	2.90	-6.95-2	4.87-1	-1.45-1	-5.77-1
3.57248	8.97627	1.50	2.80	-6.43-2	4.52-1	-1.34-1	-5.36-1
3.42624	9.04743	1.50	2.70	-6.60-2	4.15-1	-1.34-1	-4.95-1
3.56109	9.37093	1.45	2.60	-6.09-2	3.83-1	-1.23-1	-4.57-1
3.52229	9.81653	1.40	2.40	-5.76-2	3.19-1	-1.12-1	-3.83-1
3.44345	10.3260	1.35	2.20	-5.43-2	2.60-1	-1.02-1	-3.16-1
3.57737	10.7695	1.30	2.10	-4.96-2	2.34-1	-9.26-2	-2.85-1
3.57460	11.3395	1.25	1.95	-4.58-2	1.97-1	-8.36-2	-2.41-1
3.41816	11.4260	1.25	1.90	-4.65-2	1.84-1	-8.33-2	-2.27-1
3.53731	11.9915	1.20	1.80	-4.21-2	1.62-1	-7.51-2	-2.00-1
3.44728	12.7475	1.15	1.65	-3.86-2	1.31-1	-6.71-2	-1.64-1
3.54313	13.4822	1.10	1.55	-3.46-2	1.12-1	-5.97-2	-1.41-1
3.57949	16.2743	0.96	1.25	-2.48-2	6.46-2	-4.15-2	-8.35-2
3.48121	16.8291	0.94	1.20	-2.37-2	5.78-2	-3.92-2	-7.53-2
3.43760	19.1605	0.86	1.05	-1.88-2	4.02-2	-3.07-2	-5.35-2
3.40506	20.5700	0.82	0.98	-1.65-2	3.31-2	-2.70-2	-4.46-2
3.49989	22.1034	0.78	0.92	-1.43-2	2.77-2	-2.34-2	-3.77-2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.57037	23.8982	0.74	0.86	-1.23-2	2.28-2	-2.02-2	-3.14-2
3.59510	26.0255	0.70	0.80	-1.05-2	1.84-2	-1.73-2	-2.58-2
3.53714	28.5839	0.66	0.74	-8.79-3	1.45-2	-1.46-2	-2.07-2
3.58240	39.6409	0.54	0.58	-4.68-3	6.65-3	-8.10-3	-1.02-2
3.60	3.80						
3.60807	3.91105	4.80	86.00	6.91 0	2.96 2	-8.74 0	-3.06 2
3.62650	3.92566	4.80	87.00	7.07 0	3.01 2	-8.90 0	-3.11 2
3.61225	3.93940	4.60	79.00	5.58 0	2.62 2	-7.27 0	-2.71 2
3.64501	3.94041	4.80	88.00	7.24 0	3.07 2	-9.06 0	-3.16 2
3.63072	3.95361	4.60	80.00	5.72 0	2.67 2	-7.41 0	-2.76 2
3.66359	3.95529	4.80	89.00	7.41 0	3.12 2	-9.23 0	-3.22 2
3.60508	3.96448	4.40	71.00	4.37 0	2.22 2	-5.93 0	-2.30 2
3.64921	3.96793	4.60	81.00	5.85 0	2.72 2	-7.54 0	-2.81 2
3.68226	3.97031	4.80	90.00	7.58 0	3.17 2	-9.40 0	-3.27 2
3.62396	3.97842	4.40	72.00	4.48 0	2.28 2	-6.04 0	-2.36 2
3.66774	3.98235	4.60	82.00	5.99 0	2.78 2	-7.68 0	-2.87 2
3.64281	3.99244	4.40	73.00	4.59 0	2.33 2	-6.15 0	-2.41 2
3.68631	3.99688	4.60	83.00	6.13 0	2.83 2	-7.82 0	-2.92 2
3.60241	4.00004	4.20	63.00	3.37 0	1.84 2	-4.81 0	-1.91 2
3.66164	4.00654	4.40	74.00	4.70 0	2.38 2	-6.26 0	-2.46 2
3.70493	4.01153	4.60	84.00	6.28 0	2.88 2	-7.96 0	-2.97 2
3.62222	4.01396	4.20	64.00	3.46 0	1.89 2	-4.90 0	-1.96 2
3.68046	4.02073	4.40	75.00	4.82 0	2.43 2	-6.38 0	-2.51 2
3.72360	4.02631	4.60	85.00	6.43 0	2.93 2	-8.10 0	-3.02 2
3.64193	4.02793	4.20	65.00	3.55 0	1.94 2	-4.99 0	-2.01 2
3.69928	4.03500	4.40	76.00	4.94 0	2.48 2	-6.49 0	-2.57 2
3.74234	4.04120	4.60	86.00	6.58 0	2.99 2	-8.25 0	-3.08 2
3.66156	4.04196	4.20	66.00	3.65 0	1.99 2	-5.08 0	-2.06 2
3.60107	4.04556	4.00	55.00	2.54 0	1.47 2	-3.86 0	-1.53 2
3.71809	4.04936	4.40	77.00	5.06 0	2.54 2	-6.61 0	-2.62 2
3.68111	4.05605	4.20	67.00	3.75 0	2.04 2	-5.18 0	-2.11 2
3.76114	4.05623	4.60	87.00	6.73 0	3.04 2	-8.40 0	-3.13 2
3.62244	4.05968	4.00	56.00	2.62 0	1.52 2	-3.94 0	-1.58 2
3.73692	4.06381	4.40	78.00	5.18 0	2.59 2	-6.73 0	-2.67 2
3.70060	4.07020	4.20	68.00	3.84 0	2.09 2	-5.27 0	-2.16 2
3.78002	4.07139	4.60	88.00	6.89 0	3.09 2	-8.56 0	-3.18 2
3.64364	4.07383	4.00	57.00	2.70 0	1.56 2	-4.02 0	-1.62 2
3.75576	4.07836	4.40	79.00	5.31 0	2.64 2	-6.85 0	-2.73 2
3.72003	4.08442	4.20	69.00	3.94 0	2.14 2	-5.37 0	-2.22 2
3.62201	4.08627	3.90	52.00	2.25 0	1.34 2	-3.52 0	-1.39 2
3.79898	4.08668	4.60	89.00	7.05 0	3.14 2	-8.71 0	-3.24 2
3.66468	4.08802	4.00	58.00	2.78 0	1.61 2	-4.09 0	-1.67 2
3.77462	4.09301	4.40	80.00	5.43 0	2.69 2	-6.97 0	-2.78 2
3.73941	4.09870	4.20	70.00	4.04 0	2.19 2	-5.47 0	-2.27 2
3.64426	4.10059	3.90	53.00	2.32 0	1.38 2	-3.59 0	-1.44 2
3.68556	4.10225	4.00	59.00	2.86 0	1.66 2	-4.17 0	-1.72 2
3.79351	4.10777	4.40	81.00	5.56 0	2.75 2	-7.10 0	-2.83 2
3.75875	4.11305	4.20	71.00	4.15 0	2.25 2	-5.57 0	-2.32 2
3.66629	4.11495	3.90	54.00	2.40 0	1.43 2	-3.66 0	-1.49 2
3.62025	4.11533	3.80	48.00	1.92 0	1.17 2	-3.13 0	-1.22 2
3.70629	4.11652	4.00	60.00	2.94 0	1.71 2	-4.25 0	-1.77 2
3.77805	4.12747	4.20	72.00	4.25 0	2.30 2	-5.67 0	-2.37 2
3.68812	4.12933	3.90	55.00	2.47 0	1.48 2	-3.73 0	-1.53 2
3.64382	4.12988	3.80	49.00	1.98 0	1.21 2	-3.19 0	-1.26 2
3.72690	4.13084	4.00	61.00	3.02 0	1.76 2	-4.33 0	-1.82 2
3.79733	4.14197	4.20	73.00	4.36 0	2.35 2	-5.77 0	-2.43 2
3.70975	4.14375	3.90	56.00	2.55 0	1.52 2	-3.80 0	-1.58 2
3.66711	4.14445	3.80	50.00	2.05 0	1.25 2	-3.26 0	-1.31 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.74738	4.14520	4.00	62.00	3.11 0	1.81 2	-4.41 0	-1.87 2
3.61617	4.14689	3.70	44.00	1.61 0	1.00 2	-2.77 0	-1.05 2
3.73121	4.15820	3.90	57.00	2.63 0	1.57 2	-3.88 0	-1.63 2
3.69012	4.15904	3.80	51.00	2.12 0	1.30 2	-3.32 0	-1.35 2
3.76775	4.15960	4.00	63.00	3.19 0	1.86 2	-4.50 0	-1.92 2
3.64141	4.16171	3.70	45.00	1.67 0	1.04 2	-2.83 0	-1.09 2
3.75250	4.17269	3.90	58.00	2.70 0	1.62 2	-3.95 0	-1.68 2
3.71289	4.17367	3.80	52.00	2.19 0	1.34 2	-3.39 0	-1.40 2
3.78803	4.17405	4.00	64.00	3.28 0	1.91 2	-4.58 0	-1.97 2
3.66627	4.17654	3.70	46.00	1.74 0	1.09 2	-2.89 0	-1.13 2
3.60843	4.18103	3.60	40.00	1.33 0	8.47 1	-2.44 0	-8.86 1
3.77363	4.18721	3.90	59.00	2.78 0	1.67 2	-4.03 0	-1.73 2
3.73542	4.18832	3.80	53.00	2.26 0	1.39 2	-3.46 0	-1.44 2
3.69078	4.19140	3.70	47.00	1.80 0	1.13 2	-2.95 0	-1.18 2
3.63578	4.19614	3.60	41.00	1.39 0	8.86 1	-2.49 0	-9.26 1
3.79462	4.20178	3.90	60.00	2.86 0	1.72 2	-4.11 0	-1.78 2
3.75772	4.20299	3.80	54.00	2.33 0	1.44 2	-3.53 0	-1.49 2
3.71496	4.20628	3.70	48.00	1.87 0	1.17 2	-3.01 0	-1.22 2
3.66264	4.21128	3.60	42.00	1.45 0	9.26 1	-2.55 0	-9.67 1
3.77982	4.21769	3.80	55.00	2.41 0	1.48 2	-3.60 0	-1.54 2
3.73883	4.22118	3.70	49.00	1.93 0	1.22 2	-3.07 0	-1.27 2
3.68903	4.22645	3.60	43.00	1.51 0	9.67 1	-2.61 0	-1.01 2
3.62522	4.23333	3.50	37.00	1.13 0	7.38 1	-2.18 0	-7.73 1
3.76242	4.23610	3.70	50.00	2.00 0	1.26 2	-3.14 0	-1.31 2
3.71500	4.24163	3.60	44.00	1.57 0	1.01 2	-2.66 0	-1.05 2
3.65463	4.24878	3.50	38.00	1.19 0	7.75 1	-2.24 0	-8.11 1
3.78573	4.25104	3.70	51.00	2.07 0	1.31 2	-3.20 0	-1.36 2
3.74056	4.25684	3.60	45.00	1.63 0	1.05 2	-2.72 0	-1.09 2
3.68344	4.26428	3.50	39.00	1.24 0	8.13 1	-2.29 0	-8.50 1
3.76575	4.27206	3.60	46.00	1.69 0	1.09 2	-2.78 0	-1.14 2
3.60726	4.27352	3.40	33.00	9.00-1	6.00 1	-1.90 0	-6.30 1
3.71167	4.27980	3.50	40.00	1.30 0	8.52 1	-2.34 0	-8.90 1
3.79058	4.28729	3.60	47.00	1.75 0	1.14 2	-2.84 0	-1.18 2
3.64001	4.28927	3.40	34.00	9.51-1	6.34 1	-1.95 0	-6.65 1
3.73938	4.29535	3.50	41.00	1.36 0	8.91 1	-2.39 0	-9.30 1
3.67195	4.30508	3.40	35.00	1.00 0	6.69 1	-2.00 0	-7.02 1
3.76659	4.31092	3.50	42.00	1.41 0	9.32 1	-2.45 0	-9.71 1
3.70312	4.32095	3.40	36.00	1.05 0	7.05 1	-2.04 0	-7.39 1
3.79334	4.32650	3.50	43.00	1.47 0	9.73 1	-2.50 0	-1.01 2
3.61547	4.33318	3.30	30.00	7.35-1	5.04 1	-1.68 0	-5.31 1
3.73359	4.33686	3.40	37.00	1.11 0	7.42 1	-2.09 0	-7.76 1
3.65159	4.34924	3.30	31.00	7.83-1	5.37 1	-1.73 0	-5.64 1
3.76339	4.35280	3.40	38.00	1.16 0	7.80 1	-2.14 0	-8.15 1
3.68665	4.36539	3.30	32.00	8.31-1	5.70 1	-1.77 0	-5.98 1
3.79259	4.36877	3.40	39.00	1.21 0	8.18 1	-2.19 0	-8.54 1
3.72074	4.38163	3.30	33.00	8.80-1	6.04 1	-1.82 0	-6.33 1
3.61778	4.39749	3.20	27.00	5.83-1	4.16 1	-1.48 0	-4.39 1
3.75394	4.39794	3.30	34.00	9.29-1	6.38 1	-1.86 0	-6.69 1
3.65816	4.41374	3.20	28.00	6.28-1	4.46 1	-1.52 0	-4.70 1
3.78631	4.41430	3.30	35.00	9.79-1	6.74 1	-1.91 0	-7.05 1
3.69718	4.43018	3.20	29.00	6.74-1	4.76 1	-1.57 0	-5.01 1
3.73494	4.44676	3.20	30.00	7.20-1	5.08 1	-1.61 0	-5.34 1
3.77154	4.46344	3.20	31.00	7.66-1	5.40 1	-1.65 0	-5.67 1
3.61116	4.46727	3.10	24.00	4.44-1	3.34 1	-1.29 0	-3.54 1
3.65714	4.48355	3.10	25.00	4.87-1	3.62 1	-1.33 0	-3.82 1
3.70127	4.50011	3.10	26.00	5.30-1	3.90 1	-1.37 0	-4.11 1
3.74373	4.51692	3.10	27.00	5.73-1	4.19 1	-1.41 0	-4.41 1
3.78467	4.53390	3.10	28.00	6.16-1	4.49 1	-1.45 0	-4.72 1
3.64450	4.55983	3.00	22.00	3.58-1	2.85 1	-1.16 0	-3.02 1
3.69548	4.57620	3.00	23.00	3.98-1	3.10 1	-1.19 0	-3.29 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.74415	4.59299	3.00	24.00	4.39-1	3.37 1	-1.23 0	-3.56 1
3.79076	4.61010	3.00	25.00	4.79-1	3.64 1	-1.27 0	-3.84 1
3.61387	4.64464	2.90	19.00	2.40-1	2.16 1	-9.96-1	-2.30 1
3.64457	4.65228	2.90	19.50	2.59-1	2.27 1	-1.01 0	-2.42 1
3.67439	4.66013	2.90	20.00	2.78-1	2.39 1	-1.03 0	-2.54 1
3.73159	4.67637	2.90	21.00	3.16-1	2.62 1	-1.06 0	-2.78 1
3.78588	4.69323	2.90	22.00	3.55-1	2.87 1	-1.10 0	-3.04 1
3.62896	4.75494	2.80	17.00	1.70-1	1.75 1	-8.78-1	-1.88 1
3.66432	4.76209	2.80	17.50	1.88-1	1.86 1	-8.93-1	-1.98 1
3.69850	4.76954	2.80	18.00	2.06-1	1.96 1	-9.09-1	-2.09 1
3.73158	4.77728	2.80	18.50	2.24-1	2.07 1	-9.25-1	-2.20 1
3.76366	4.78528	2.80	19.00	2.42-1	2.18 1	-9.41-1	-2.32 1
3.79478	4.79351	2.80	19.50	2.60-1	2.29 1	-9.57-1	-2.43 1
3.63166	4.87726	2.70	15.00	1.06-1	1.38 1	-7.68-1	-1.48 1
3.67327	4.88338	2.70	15.50	1.23-1	1.47 1	-7.83-1	-1.58 1
3.71325	4.89002	2.70	16.00	1.40-1	1.57 1	-7.97-1	-1.68 1
3.75175	4.89711	2.70	16.50	1.57-1	1.67 1	-8.12-1	-1.78 1
3.78887	4.90460	2.70	17.00	1.74-1	1.77 1	-8.27-1	-1.89 1
3.61447	5.01536	2.60	13.00	4.78-2	1.05 1	-6.66-1	-1.13 1
3.66486	5.01953	2.60	13.50	6.39-2	1.13 1	-6.80-1	-1.22 1
3.71291	5.02456	2.60	14.00	8.00-2	1.22 1	-6.93-1	-1.31 1
3.75881	5.03033	2.60	14.50	9.61-2	1.30 1	-7.07-1	-1.40 1
3.62792	5.17620	2.50	11.50	1.10-2	8.29 0	-5.85-1	-9.00 0
3.68776	5.17807	2.50	12.00	2.62-2	9.03 0	-5.98-1	-9.77 0
3.74435	5.18123	2.50	12.50	4.15-2	9.80 0	-6.10-1	-1.06 1
3.79804	5.18550	2.50	13.00	5.67-2	1.06 1	-6.23-1	-1.14 1
3.76185	5.35742	2.40	11.00	6.97-3	7.65 0	-5.33-1	-8.30 0
3.69343	5.35746	2.40	10.50	-7.45-3	6.97 0	-5.21-1	-7.59 0
3.62032	5.35956	2.40	10.00	-2.19-2	6.31 0	-5.10-1	-6.90 0
3.77200	5.55864	2.30	9.60	-2.09-2	5.87 0	-4.63-1	-6.41 0
3.73903	5.56034	2.30	9.40	-2.64-2	5.62 0	-4.59-1	-6.15 0
3.70505	5.56250	2.30	9.20	-3.19-2	5.38 0	-4.55-1	-5.89 0
3.66998	5.56519	2.30	9.00	-3.73-2	5.14 0	-4.51-1	-5.64 0
3.63375	5.56842	2.30	8.80	-4.28-2	4.91 0	-4.46-1	-5.40 0
3.79082	5.78876	2.20	8.40	-4.03-2	4.52 0	-4.03-1	-4.96 0
3.75020	5.79310	2.20	8.20	-4.55-2	4.30 0	-3.99-1	-4.73 0
3.70807	5.79821	2.20	8.00	-5.07-2	4.08 0	-3.95-1	-4.50 0
3.66432	5.80413	2.20	7.80	-5.58-2	3.87 0	-3.91-1	-4.28 0
3.61884	5.81096	2.20	7.60	-6.10-2	3.67 0	-3.88-1	-4.07 0
3.77754	6.05782	2.10	7.20	-5.71-2	3.32 0	-3.48-1	-3.67 0
3.72544	6.06679	2.10	7.00	-6.20-2	3.13 0	-3.44-1	-3.47 0
3.67098	6.07705	2.10	6.80	-6.69-2	2.95 0	-3.41-1	-3.28 0
3.61393	6.08873	2.10	6.60	-7.18-2	2.77 0	-3.37-1	-3.09 0
3.77272	6.36857	2.00	6.20	-6.68-2	2.46 0	-3.00-1	-2.74 0
3.70574	6.38410	2.00	6.00	-7.15-2	2.29 0	-2.97-1	-2.56 0
3.63504	6.40177	2.00	5.80	-7.61-2	2.13 0	-2.94-1	-2.39 0
3.78762	6.53782	1.95	5.80	-6.88-2	2.15 0	-2.79-1	-2.40 0
3.71242	6.55706	1.95	5.60	-7.33-2	1.99 0	-2.76-1	-2.24 0
3.63265	6.57900	1.95	5.40	-7.78-2	1.84 0	-2.73-1	-2.08 0
3.79378	6.72206	1.90	5.40	-7.04-2	1.85 0	-2.59-1	-2.08 0
3.70849	6.74609	1.90	5.20	-7.48-2	1.71 0	-2.56-1	-1.93 0
3.61750	6.77358	1.90	5.00	-7.92-2	1.57 0	-2.54-1	-1.78 0
3.78793	6.92414	1.85	5.00	-7.18-2	1.58 0	-2.40-1	-1.79 0
3.69005	6.95445	1.85	4.80	-7.60-2	1.45 0	-2.37-1	-1.64 0
3.76549	7.14787	1.80	4.60	-7.29-2	1.33 0	-2.22-1	-1.51 0
3.65155	7.18662	1.80	4.40	-7.70-2	1.20 0	-2.19-1	-1.38 0
3.71984	7.39856	1.75	4.20	-7.37-2	1.10 0	-2.04-1	-1.25 0
3.78946	7.62691	1.70	4.00	-7.04-2	9.91-1	-1.90-1	-1.14 0
3.71701	7.65424	1.70	3.90	-7.24-2	9.36-1	-1.89-1	-1.08 0
3.64111	7.68382	1.70	3.80	-7.43-2	8.83-1	-1.88-1	-1.02 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.77996	7.90484	1.65	3.70	-6.90-2	8.39-1	-1.75-1	-9.67-1
3.69591	7.93856	1.65	3.60	-7.09-2	7.88-1	-1.74-1	-9.12-1
3.60743	7.97523	1.65	3.50	-7.28-2	7.39-1	-1.73-1	-8.59-1
3.74800	8.21602	1.60	3.40	-6.75-2	6.98-1	-1.61-1	-8.11-1
3.64897	8.25832	1.60	3.30	-6.94-2	6.52-1	-1.60-1	-7.60-1
3.79559	8.51974	1.55	3.20	-6.42-2	6.13-1	-1.48-1	-7.14-1
3.68382	8.56900	1.55	3.10	-6.59-2	5.69-1	-1.47-1	-6.67-1
3.70874	8.91212	1.50	2.90	-6.26-2	4.92-1	-1.35-1	-5.79-1
3.71912	9.29394	1.45	2.70	-5.92-2	4.19-1	-1.24-1	-4.97-1
3.70822	9.72264	1.40	2.50	-5.59-2	3.52-1	-1.13-1	-4.20-1
3.66606	10.2093	1.35	2.30	-5.27-2	2.91-1	-1.02-1	-3.50-1
3.72252	11.2592	1.25	2.00	-4.51-2	2.10-1	-8.38-2	-2.56-1
3.71383	11.8934	1.20	1.85	-4.14-2	1.74-1	-7.53-2	-2.14-1
3.66209	12.6250	1.15	1.70	-3.80-2	1.42-1	-6.73-2	-1.76-1
3.79137	13.3397	1.10	1.60	-3.40-2	1.22-1	-5.99-2	-1.53-1
3.63254	14.3204	1.05	1.45	-3.09-2	9.51-2	-5.28-2	-1.20-1
3.70812	15.2863	1.00	1.35	-2.73-2	7.93-2	-4.64-2	-1.01-1
3.65361	15.7617	0.98	1.30	-2.61-2	7.18-2	-4.39-2	-9.21-2
3.76029	17.7433	0.90	1.15	-2.09-2	5.19-2	-3.49-2	-6.77-2
3.62101	18.4189	0.88	1.10	-1.98-2	4.59-2	-3.28-2	-6.04-2
3.72725	20.3738	0.82	1.00	-1.63-2	3.53-2	-2.70-2	-4.71-2
3.63237	21.1992	0.80	0.96	-1.53-2	3.14-2	-2.52-2	-4.23-2
3.75235	22.8347	0.76	0.90	-1.32-2	2.61-2	-2.18-2	-3.56-2
3.67866	33.2329	0.60	0.66	-6.54-3	1.01-2	-1.10-2	-1.49-2
3.76204	56.3577	0.44	0.46	-2.34-3	3.01-3	-4.41-3	-5.15-3
3.80	4.00						
3.81803	4.10213	4.60	90.00	7.21 0	3.20 2	-8.88 0	-3.29 2
3.81243	4.12263	4.40	82.00	5.69 0	2.80 2	-7.23 0	-2.89 2
3.83140	4.13761	4.40	83.00	5.83 0	2.85 2	-7.36 0	-2.94 2
3.85042	4.15270	4.40	84.00	5.96 0	2.91 2	-7.50 0	-2.99 2
3.81659	4.15655	4.20	74.00	4.46 0	2.40 2	-5.88 0	-2.48 2
3.86949	4.16791	4.40	85.00	6.10 0	2.96 2	-7.63 0	-3.05 2
3.83583	4.17121	4.20	75.00	4.57 0	2.45 2	-5.99 0	-2.53 2
3.88863	4.18325	4.40	86.00	6.25 0	3.01 2	-7.77 0	-3.10 2
3.85507	4.18596	4.20	76.00	4.69 0	2.51 2	-6.09 0	-2.58 2
3.80820	4.18856	4.00	65.00	3.37 0	1.96 2	-4.67 0	-2.02 2
3.90783	4.19872	4.40	87.00	6.39 0	3.06 2	-7.91 0	-3.15 2
3.87431	4.20079	4.20	77.00	4.80 0	2.56 2	-6.21 0	-2.64 2
3.82830	4.20312	4.00	66.00	3.46 0	2.01 2	-4.76 0	-2.08 2
3.92711	4.21433	4.40	88.00	6.54 0	3.12 2	-8.06 0	-3.21 2
3.89356	4.21572	4.20	78.00	4.91 0	2.61 2	-6.32 0	-2.69 2
3.81548	4.21638	3.90	61.00	2.94 0	1.77 2	-4.18 0	-1.83 2
3.84832	4.21774	4.00	67.00	3.55 0	2.06 2	-4.84 0	-2.13 2
3.94648	4.23007	4.40	89.00	6.69 0	3.17 2	-8.21 0	-3.26 2
3.91283	4.23075	4.20	79.00	5.03 0	2.67 2	-6.43 0	-2.75 2
3.83622	4.23102	3.90	62.00	3.02 0	1.82 2	-4.26 0	-1.88 2
3.86827	4.23241	4.00	68.00	3.64 0	2.11 2	-4.93 0	-2.18 2
3.80173	4.23243	3.80	56.00	2.48 0	1.53 2	-3.67 0	-1.59 2
3.85684	4.24572	3.90	63.00	3.11 0	1.87 2	-4.34 0	-1.93 2
3.93212	4.24587	4.20	80.00	5.15 0	2.72 2	-6.55 0	-2.80 2
3.96594	4.24596	4.40	90.00	6.84 0	3.22 2	-8.36 0	-3.31 2
3.88816	4.24715	4.00	69.00	3.73 0	2.16 2	-5.02 0	-2.23 2
3.82345	4.24719	3.80	57.00	2.55 0	1.58 2	-3.74 0	-1.64 2
3.87736	4.26046	3.90	64.00	3.19 0	1.92 2	-4.43 0	-1.98 2
3.95143	4.26110	4.20	81.00	5.27 0	2.77 2	-6.67 0	-2.85 2
3.90800	4.26195	4.00	70.00	3.83 0	2.22 2	-5.12 0	-2.29 2
3.84501	4.26199	3.80	58.00	2.63 0	1.63 2	-3.81 0	-1.69 2
3.80878	4.26601	3.70	52.00	2.13 0	1.35 2	-3.27 0	-1.40 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.89779	4.27524	3.90	65.00	3.28 0	1.97 2	-4.51 0	-2.03 2
3.97079	4.27644	4.20	82.00	5.40 0	2.83 2	-6.79 0	-2.91 2
3.86641	4.27682	3.80	59.00	2.71 0	1.68 2	-3.89 0	-1.74 2
3.92781	4.27682	4.00	71.00	3.93 0	2.27 2	-5.21 0	-2.34 2
3.83160	4.28099	3.70	53.00	2.20 0	1.40 2	-3.33 0	-1.45 2
3.91813	4.29009	3.90	66.00	3.36 0	2.02 2	-4.59 0	-2.08 2
3.88767	4.29168	3.80	60.00	2.78 0	1.73 2	-3.96 0	-1.79 2
3.94757	4.29177	4.00	72.00	4.02 0	2.32 2	-5.31 0	-2.39 2
3.99019	4.29189	4.20	83.00	5.52 0	2.88 2	-6.91 0	-2.96 2
3.85420	4.29600	3.70	54.00	2.27 0	1.45 2	-3.40 0	-1.50 2
3.81507	4.30255	3.60	48.00	1.82 0	1.18 2	-2.90 0	-1.23 2
3.93840	4.30498	3.90	67.00	3.45 0	2.07 2	-4.68 0	-2.14 2
3.90880	4.30659	3.80	61.00	2.86 0	1.78 2	-4.04 0	-1.84 2
3.96731	4.30679	4.00	73.00	4.12 0	2.37 2	-5.40 0	-2.44 2
3.87658	4.31104	3.70	55.00	2.34 0	1.49 2	-3.47 0	-1.55 2
3.83926	4.31782	3.60	49.00	1.88 0	1.22 2	-2.96 0	-1.27 2
3.95860	4.31994	3.90	68.00	3.54 0	2.12 2	-4.77 0	-2.19 2
3.92980	4.32154	3.80	62.00	2.94 0	1.83 2	-4.11 0	-1.89 2
3.98703	4.32188	4.00	74.00	4.22 0	2.43 2	-5.50 0	-2.50 2
3.89877	4.32610	3.70	56.00	2.41 0	1.54 2	-3.54 0	-1.60 2
3.86315	4.33310	3.60	50.00	1.94 0	1.27 2	-3.02 0	-1.32 2
3.97874	4.33496	3.90	69.00	3.63 0	2.17 2	-4.85 0	-2.24 2
3.95068	4.33653	3.80	63.00	3.02 0	1.88 2	-4.19 0	-1.94 2
3.92078	4.34119	3.70	57.00	2.48 0	1.59 2	-3.60 0	-1.64 2
3.81965	4.34210	3.50	44.00	1.53 0	1.01 2	-2.56 0	-1.06 2
3.88678	4.34841	3.60	51.00	2.01 0	1.31 2	-3.08 0	-1.36 2
3.99883	4.35004	3.90	70.00	3.72 0	2.23 2	-4.94 0	-2.29 2
3.97147	4.35156	3.80	64.00	3.10 0	1.93 2	-4.27 0	-1.99 2
3.94262	4.35631	3.70	58.00	2.56 0	1.64 2	-3.67 0	-1.69 2
3.84555	4.35771	3.50	45.00	1.59 0	1.06 2	-2.61 0	-1.10 2
3.91014	4.36373	3.60	52.00	2.07 0	1.36 2	-3.14 0	-1.41 2
3.99216	4.36665	3.80	65.00	3.18 0	1.98 2	-4.35 0	-2.04 2
3.96431	4.37146	3.70	59.00	2.63 0	1.69 2	-3.75 0	-1.74 2
3.87108	4.37334	3.50	46.00	1.65 0	1.10 2	-2.67 0	-1.14 2
3.93326	4.37907	3.60	53.00	2.14 0	1.41 2	-3.21 0	-1.46 2
3.82121	4.38476	3.40	40.00	1.27 0	8.57 1	-2.24 0	-8.94 1
3.98584	4.38665	3.70	60.00	2.70 0	1.74 2	-3.82 0	-1.79 2
3.89625	4.38897	3.50	47.00	1.71 0	1.14 2	-2.73 0	-1.19 2
3.95616	4.39443	3.60	54.00	2.21 0	1.45 2	-3.27 0	-1.51 2
3.84929	4.40076	3.40	41.00	1.32 0	8.97 1	-2.30 0	-9.35 1
3.92108	4.40462	3.50	48.00	1.77 0	1.19 2	-2.78 0	-1.23 2
3.97885	4.40981	3.60	55.00	2.27 0	1.50 2	-3.34 0	-1.55 2
3.87688	4.41678	3.40	42.00	1.38 0	9.38 1	-2.35 0	-9.76 1
3.94560	4.42028	3.50	49.00	1.83 0	1.23 2	-2.84 0	-1.28 2
3.81791	4.43069	3.30	36.00	1.03 0	7.10 1	-1.96 0	-7.42 1
3.90399	4.43281	3.40	43.00	1.43 0	9.79 1	-2.40 0	-1.02 2
3.96982	4.43595	3.50	50.00	1.89 0	1.28 2	-2.90 0	-1.32 2
3.84880	4.44712	3.30	37.00	1.08 0	7.47 1	-2.00 0	-7.80 1
3.93067	4.44884	3.40	44.00	1.49 0	1.02 2	-2.45 0	-1.06 2
3.99377	4.45163	3.50	51.00	1.95 0	1.32 2	-2.96 0	-1.37 2
3.87902	4.46357	3.30	38.00	1.13 0	7.85 1	-2.05 0	-8.19 1
3.95694	4.46489	3.40	45.00	1.54 0	1.06 2	-2.51 0	-1.10 2
3.90863	4.48004	3.30	39.00	1.18 0	8.24 1	-2.10 0	-8.58 1
3.80709	4.48021	3.20	32.00	8.12-1	5.74 1	-1.69 0	-6.01 1
3.98283	4.48094	3.40	46.00	1.60 0	1.11 2	-2.56 0	-1.15 2
3.93765	4.49652	3.30	40.00	1.23 0	8.63 1	-2.15 0	-8.98 1
3.84166	4.49705	3.20	33.00	8.59-1	6.08 1	-1.74 0	-6.36 1
3.96614	4.51300	3.30	41.00	1.28 0	9.03 1	-2.20 0	-9.39 1
3.87533	4.51394	3.20	34.00	9.06-1	6.43 1	-1.78 0	-6.72 1
3.99412	4.52949	3.30	42.00	1.34 0	9.44 1	-2.25 0	-9.81 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.90816	4.53086	3.20	35.00	9.54-1	6.78 1	-1.83 0	-7.09 1
3.94022	4.54782	3.20	36.00	1.00 0	7.15 1	-1.87 0	-7.46 1
3.82423	4.55104	3.10	29.00	6.60-1	4.80 1	-1.49 0	-5.04 1
3.97155	4.56479	3.20	37.00	1.05 0	7.52 1	-1.92 0	-7.84 1
3.86253	4.56830	3.10	30.00	7.04-1	5.12 1	-1.53 0	-5.36 1
3.89966	4.58565	3.10	31.00	7.48-1	5.44 1	-1.57 0	-5.70 1
3.93572	4.60306	3.10	32.00	7.93-1	5.78 1	-1.62 0	-6.04 1
3.97080	4.62053	3.10	33.00	8.38-1	6.12 1	-1.66 0	-6.40 1
3.83552	4.62748	3.00	26.00	5.20-1	3.93 1	-1.31 0	-4.13 1
3.87859	4.64507	3.00	27.00	5.62-1	4.22 1	-1.34 0	-4.44 1
3.92013	4.66283	3.00	28.00	6.03-1	4.52 1	-1.38 0	-4.75 1
3.96027	4.68071	3.00	29.00	6.45-1	4.83 1	-1.42 0	-5.07 1
3.99914	4.69869	3.00	30.00	6.87-1	5.15 1	-1.46 0	-5.39 1
3.83757	4.71056	2.90	23.00	3.93-1	3.13 1	-1.13 0	-3.30 1
3.88694	4.72827	2.90	24.00	4.32-1	3.40 1	-1.17 0	-3.58 1
3.93424	4.74628	2.90	25.00	4.71-1	3.67 1	-1.20 0	-3.86 1
3.97966	4.76453	2.90	26.00	5.10-1	3.96 1	-1.24 0	-4.16 1
3.82501	4.80194	2.80	20.00	2.78-1	2.41 1	-9.73-1	-2.55 1
3.88303	4.81930	2.80	21.00	3.14-1	2.65 1	-1.01 0	-2.80 1
3.93811	4.83722	2.80	22.00	3.51-1	2.89 1	-1.04 0	-3.06 1
3.99057	4.85558	2.80	23.00	3.88-1	3.15 1	-1.07 0	-3.32 1
3.82471	4.91243	2.70	17.50	1.91-1	1.87 1	-8.42-1	-1.99 1
3.85937	4.92057	2.70	18.00	2.08-1	1.98 1	-8.57-1	-2.10 1
3.89293	4.92898	2.70	18.50	2.25-1	2.09 1	-8.72-1	-2.22 1
3.92546	4.93762	2.70	19.00	2.42-1	2.20 1	-8.87-1	-2.33 1
3.95704	4.94648	2.70	19.50	2.60-1	2.31 1	-9.03-1	-2.45 1
3.98772	4.95552	2.70	20.00	2.77-1	2.43 1	-9.18-1	-2.57 1
3.80277	5.03674	2.60	15.00	1.12-1	1.39 1	-7.21-1	-1.49 1
3.84495	5.04371	2.60	15.50	1.28-1	1.49 1	-7.35-1	-1.59 1
3.88549	5.05116	2.60	16.00	1.45-1	1.58 1	-7.49-1	-1.69 1
3.92454	5.05904	2.60	16.50	1.61-1	1.68 1	-7.63-1	-1.79 1
3.96219	5.06730	2.60	17.00	1.77-1	1.78 1	-7.77-1	-1.90 1
3.99856	5.07587	2.60	17.50	1.93-1	1.89 1	-7.92-1	-2.01 1
3.84910	5.19071	2.50	13.50	7.20-2	1.14 1	-6.36-1	-1.23 1
3.89780	5.19674	2.50	14.00	8.72-2	1.23 1	-6.49-1	-1.32 1
3.94435	5.20348	2.50	14.50	1.02-1	1.32 1	-6.62-1	-1.41 1
3.98894	5.21082	2.50	15.00	1.18-1	1.41 1	-6.75-1	-1.50 1
3.82614	5.35910	2.40	11.50	2.14-2	8.37 0	-5.45-1	-9.05 0
3.88677	5.36223	2.40	12.00	3.58-2	9.12 0	-5.57-1	-9.83 0
3.94413	5.36661	2.40	12.50	5.02-2	9.89 0	-5.69-1	-1.06 1
3.99857	5.37204	2.40	13.00	6.46-2	1.07 1	-5.81-1	-1.15 1
3.90913	5.55602	2.30	10.50	3.56-3	7.04 0	-4.83-1	-7.63 0
3.83508	5.55654	2.30	10.00	-1.00-2	6.38 0	-4.72-1	-6.94 0
3.80400	5.55739	2.30	9.80	-1.55-2	6.12 0	-4.68-1	-6.67 0
3.97847	5.55748	2.30	11.00	1.72-2	7.73 0	-4.94-1	-8.36 0
3.97456	5.77633	2.20	9.40	-1.46-2	5.69 0	-4.23-1	-6.19 0
3.94014	5.77774	2.20	9.20	-1.98-2	5.44 0	-4.19-1	-5.93 0
3.90462	5.77964	2.20	9.00	-2.49-2	5.20 0	-4.15-1	-5.68 0
3.86795	5.78208	2.20	8.80	-3.00-2	4.97 0	-4.11-1	-5.43 0
3.83005	5.78510	2.20	8.60	-3.52-2	4.74 0	-4.07-1	-5.19 0
3.96563	6.03252	2.10	8.00	-3.77-2	4.13 0	-3.62-1	-4.53 0
3.92136	6.03745	2.10	7.80	-4.25-2	3.92 0	-3.59-1	-4.31 0
3.87534	6.04325	2.10	7.60	-4.74-2	3.72 0	-3.55-1	-4.09 0
3.82745	6.05001	2.10	7.40	-5.22-2	3.52 0	-3.51-1	-3.88 0
3.95452	6.33270	2.00	6.80	-5.31-2	2.98 0	-3.10-1	-3.30 0
3.89683	6.34307	2.00	6.60	-5.77-2	2.80 0	-3.07-1	-3.11 0
3.83631	6.35497	2.00	6.40	-6.22-2	2.63 0	-3.03-1	-2.92 0
3.99001	6.49339	1.95	6.40	-5.54-2	2.64 0	-2.89-1	-2.93 0
3.92605	6.50624	1.95	6.20	-5.99-2	2.47 0	-2.86-1	-2.75 0
3.85870	6.52097	1.95	6.00	-6.43-2	2.31 0	-2.82-1	-2.57 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.94957	6.68272	1.90	5.80	-6.18-2	2.16 0	-2.65-1	-2.41 0
3.87396	6.70106	1.90	5.60	-6.61-2	2.00 0	-2.62-1	-2.24 0
3.96512	6.87475	1.85	5.40	-6.34-2	1.87 0	-2.46-1	-2.09 0
3.87938	6.89774	1.85	5.20	-6.76-2	1.72 0	-2.43-1	-1.94 0
3.96954	7.08521	1.80	5.00	-6.47-2	1.59 0	-2.27-1	-1.79 0
3.87115	7.11431	1.80	4.80	-6.88-2	1.46 0	-2.24-1	-1.65 0
3.95835	7.31795	1.75	4.60	-6.58-2	1.34 0	-2.09-1	-1.52 0
3.84384	7.35526	1.75	4.40	-6.97-2	1.21 0	-2.07-1	-1.38 0
3.92505	7.57828	1.70	4.20	-6.66-2	1.10 0	-1.92-1	-1.26 0
3.93619	7.84522	1.65	3.90	-6.53-2	9.44-1	-1.77-1	-1.08 0
3.85994	7.87381	1.65	3.80	-6.72-2	8.91-1	-1.76-1	-1.02 0
3.93058	8.14179	1.60	3.60	-6.39-2	7.95-1	-1.63-1	-9.16-1
3.84172	8.17729	1.60	3.50	-6.57-2	7.46-1	-1.62-1	-8.63-1
3.90090	8.47487	1.55	3.30	-6.24-2	6.58-1	-1.49-1	-7.63-1
3.95551	8.80163	1.50	3.10	-5.92-2	5.75-1	-1.37-1	-6.69-1
3.83611	8.85415	1.50	3.00	-6.09-2	5.33-1	-1.36-1	-6.23-1
3.86589	9.22484	1.45	2.80	-5.76-2	4.57-1	-1.24-1	-5.38-1
3.87961	9.63906	1.40	2.60	-5.44-2	3.87-1	-1.13-1	-4.59-1
3.86937	10.1065	1.35	2.40	-5.12-2	3.23-1	-1.03-1	-3.85-1
3.82320	10.6402	1.30	2.20	-4.81-2	2.64-1	-9.32-2	-3.17-1
3.99559	11.1152	1.25	2.10	-4.36-2	2.38-1	-8.44-2	-2.86-1
3.88009	11.8028	1.20	1.90	-4.07-2	1.87-1	-7.55-2	-2.28-1
3.86300	12.5127	1.15	1.75	-3.73-2	1.53-1	-6.75-2	-1.88-1
3.92292	14.1527	1.05	1.50	-3.02-2	1.04-1	-5.30-2	-1.31-1
3.99509	16.0286	0.96	1.30	-2.43-2	7.24-2	-4.16-2	-9.24-2
3.94103	16.5550	0.94	1.25	-2.31-2	6.52-2	-3.93-2	-8.37-2
3.86460	17.1245	0.92	1.20	-2.20-2	5.84-2	-3.70-2	-7.55-2
3.93181	19.5333	0.84	1.05	-1.73-2	4.06-2	-2.88-2	-5.36-2
3.97316	20.9933	0.80	0.98	-1.51-2	3.35-2	-2.52-2	-4.48-2
3.88273	21.8710	0.78	0.94	-1.41-2	2.97-2	-2.34-2	-4.00-2
3.85009	24.7577	0.72	0.84	-1.13-2	2.14-2	-1.87-2	-2.95-2
3.90278	27.0486	0.68	0.78	-9.52-3	1.71-2	-1.59-2	-2.40-2
3.87001	29.8198	0.64	0.72	-7.94-3	1.34-2	-1.33-2	-1.92-2
4.00	4.20						
4.00964	4.30746	4.20	84.00	5.65 0	2.93 2	-7.04 0	-3.01 2
4.02914	4.32315	4.20	85.00	5.78 0	2.99 2	-7.17 0	-3.07 2
4.00674	4.33706	4.00	75.00	4.33 0	2.48 2	-5.60 0	-2.55 2
4.04871	4.33897	4.20	86.00	5.91 0	3.04 2	-7.30 0	-3.12 2
4.02644	4.35232	4.00	76.00	4.43 0	2.53 2	-5.70 0	-2.61 2
4.06836	4.35492	4.20	87.00	6.05 0	3.09 2	-7.43 0	-3.18 2
4.01888	4.36519	3.90	71.00	3.82 0	2.28 2	-5.03 0	-2.35 2
4.04615	4.36767	4.00	77.00	4.54 0	2.58 2	-5.81 0	-2.66 2
4.08808	4.37101	4.20	88.00	6.19 0	3.15 2	-7.57 0	-3.23 2
4.03890	4.38041	3.90	72.00	3.91 0	2.33 2	-5.13 0	-2.40 2
4.01276	4.38179	3.80	66.00	3.27 0	2.03 2	-4.43 0	-2.09 2
4.06586	4.38312	4.00	78.00	4.65 0	2.64 2	-5.91 0	-2.71 2
4.10789	4.38723	4.20	89.00	6.33 0	3.20 2	-7.71 0	-3.28 2
4.05888	4.39570	3.90	73.00	4.01 0	2.38 2	-5.22 0	-2.45 2
4.03329	4.39698	3.80	67.00	3.35 0	2.08 2	-4.51 0	-2.15 2
4.08559	4.39866	4.00	79.00	4.76 0	2.69 2	-6.02 0	-2.77 2
4.00725	4.40187	3.70	61.00	2.78 0	1.79 2	-3.89 0	-1.84 2
4.12779	4.40361	4.20	90.00	6.48 0	3.25 2	-7.85 0	-3.34 2
4.07885	4.41107	3.90	74.00	4.10 0	2.44 2	-5.32 0	-2.51 2
4.05375	4.41223	3.80	68.00	3.44 0	2.13 2	-4.60 0	-2.20 2
4.10535	4.41430	4.00	80.00	4.87 0	2.75 2	-6.13 0	-2.82 2
4.02852	4.41714	3.70	62.00	2.86 0	1.84 2	-3.97 0	-1.90 2
4.00134	4.42522	3.60	56.00	2.34 0	1.55 2	-3.40 0	-1.60 2
4.09880	4.42652	3.90	75.00	4.20 0	2.49 2	-5.41 0	-2.56 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.07415	4.42754	3.80	69.00	3.53 0	2.19 2	-4.68 0	-2.25 2
4.12513	4.43004	4.00	81.00	4.98 0	2.80 2	-6.24 0	-2.88 2
4.04969	4.43244	3.70	63.00	2.93 0	1.89 2	-4.04 0	-1.95 2
4.02365	4.44065	3.60	57.00	2.41 0	1.60 2	-3.47 0	-1.65 2
4.11876	4.44206	3.90	76.00	4.30 0	2.54 2	-5.51 0	-2.62 2
4.09450	4.44291	3.80	70.00	3.62 0	2.24 2	-4.77 0	-2.31 2
4.14495	4.44590	4.00	82.00	5.10 0	2.85 2	-6.36 0	-2.93 2
4.07075	4.44779	3.70	64.00	3.01 0	1.94 2	-4.12 0	-2.00 2
4.04578	4.45611	3.60	58.00	2.48 0	1.65 2	-3.54 0	-1.70 2
4.13871	4.45769	3.90	77.00	4.41 0	2.60 2	-5.61 0	-2.67 2
4.11481	4.45835	3.80	71.00	3.71 0	2.29 2	-4.86 0	-2.36 2
4.16482	4.46187	4.00	83.00	5.22 0	2.91 2	-6.47 0	-2.98 2
4.09171	4.46318	3.70	65.00	3.09 0	1.99 2	-4.19 0	-2.05 2
4.01745	4.46733	3.50	52.00	2.01 0	1.37 2	-3.02 0	-1.42 2
4.06776	4.47160	3.60	59.00	2.55 0	1.70 2	-3.61 0	-1.75 2
4.15867	4.47341	3.90	78.00	4.51 0	2.65 2	-5.71 0	-2.72 2
4.13508	4.47386	3.80	72.00	3.80 0	2.34 2	-4.95 0	-2.41 2
4.18474	4.47795	4.00	84.00	5.34 0	2.96 2	-6.59 0	-3.04 2
4.11259	4.47863	3.70	66.00	3.17 0	2.04 2	-4.27 0	-2.10 2
4.04090	4.48304	3.50	53.00	2.08 0	1.42 2	-3.08 0	-1.46 2
4.08959	4.48712	3.60	60.00	2.62 0	1.75 2	-3.68 0	-1.80 2
4.17865	4.48922	3.90	79.00	4.62 0	2.71 2	-5.82 0	-2.78 2
4.15533	4.48944	3.80	73.00	3.89 0	2.40 2	-5.04 0	-2.47 2
4.13339	4.49413	3.70	67.00	3.25 0	2.09 2	-4.35 0	-2.16 2
4.00835	4.49699	3.40	47.00	1.66 0	1.15 2	-2.62 0	-1.19 2
4.06412	4.49877	3.50	54.00	2.14 0	1.46 2	-3.15 0	-1.51 2
4.11129	4.50268	3.60	61.00	2.70 0	1.80 2	-3.75 0	-1.85 2
4.17555	4.50510	3.80	74.00	3.98 0	2.45 2	-5.13 0	-2.52 2
4.19865	4.50514	3.90	80.00	4.73 0	2.76 2	-5.92 0	-2.83 2
4.15412	4.50968	3.70	68.00	3.34 0	2.15 2	-4.43 0	-2.21 2
4.03354	4.51305	3.40	48.00	1.72 0	1.19 2	-2.67 0	-1.24 2
4.08712	4.51452	3.50	55.00	2.21 0	1.51 2	-3.21 0	-1.56 2
4.13286	4.51827	3.60	62.00	2.77 0	1.85 2	-3.82 0	-1.90 2
4.19577	4.52084	3.80	75.00	4.08 0	2.50 2	-5.23 0	-2.57 2
4.17480	4.52530	3.70	69.00	3.42 0	2.20 2	-4.52 0	-2.26 2
4.05840	4.52912	3.40	49.00	1.77 0	1.24 2	-2.73 0	-1.28 2
4.10993	4.53029	3.50	56.00	2.27 0	1.56 2	-3.27 0	-1.61 2
4.15431	4.53391	3.60	63.00	2.85 0	1.90 2	-3.89 0	-1.96 2
4.19542	4.54097	3.70	70.00	3.51 0	2.25 2	-4.60 0	-2.32 2
4.08297	4.54519	3.40	50.00	1.83 0	1.28 2	-2.79 0	-1.33 2
4.02163	4.54599	3.30	43.00	1.39 0	9.85 1	-2.30 0	-1.02 2
4.13255	4.54608	3.50	57.00	2.34 0	1.61 2	-3.34 0	-1.66 2
4.17566	4.54958	3.60	64.00	2.92 0	1.95 2	-3.96 0	-2.01 2
4.10726	4.56128	3.40	51.00	1.89 0	1.33 2	-2.84 0	-1.38 2
4.15500	4.56190	3.50	58.00	2.41 0	1.66 2	-3.40 0	-1.71 2
4.04870	4.56248	3.30	44.00	1.44 0	1.03 2	-2.35 0	-1.07 2
4.19691	4.56530	3.60	65.00	3.00 0	2.00 2	-4.04 0	-2.06 2
4.13129	4.57737	3.40	52.00	1.95 0	1.38 2	-2.90 0	-1.42 2
4.17729	4.57774	3.50	59.00	2.48 0	1.71 2	-3.47 0	-1.76 2
4.07535	4.57898	3.30	45.00	1.50 0	1.07 2	-2.40 0	-1.11 2
4.00222	4.58178	3.20	38.00	1.10 0	7.90 1	-1.96 0	-8.23 1
4.15508	4.59347	3.40	53.00	2.02 0	1.42 2	-2.96 0	-1.47 2
4.19943	4.59361	3.50	60.00	2.55 0	1.76 2	-3.54 0	-1.81 2
4.10162	4.59548	3.30	46.00	1.55 0	1.11 2	-2.46 0	-1.15 2
4.03226	4.59877	3.20	39.00	1.15 0	8.29 1	-2.01 0	-8.63 1
4.17863	4.60959	3.40	54.00	2.08 0	1.47 2	-3.02 0	-1.52 2
4.12752	4.61197	3.30	47.00	1.61 0	1.16 2	-2.51 0	-1.20 2
4.06172	4.61577	3.20	40.00	1.20 0	8.69 1	-2.06 0	-9.03 1
4.15308	4.62847	3.30	48.00	1.66 0	1.20 2	-2.56 0	-1.24 2
4.09063	4.63276	3.20	41.00	1.25 0	9.09 1	-2.10 0	-9.44 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.00497	4.63804	3.10	34.00	8.83-1	6.47 1	-1.70 0	-6.76 1
4.17831	4.64497	3.30	49.00	1.72 0	1.25 2	-2.62 0	-1.29 2
4.11903	4.64976	3.20	42.00	1.30 0	9.50 1	-2.15 0	-9.86 1
4.03829	4.65557	3.10	35.00	9.29-1	6.83 1	-1.74 0	-7.12 1
4.14696	4.66674	3.20	43.00	1.35 0	9.92 1	-2.20 0	-1.03 2
4.07084	4.67311	3.10	36.00	9.75-1	7.20 1	-1.79 0	-7.50 1
4.17444	4.68372	3.20	44.00	1.40 0	1.03 2	-2.25 0	-1.07 2
4.10265	4.69066	3.10	37.00	1.02 0	7.58 1	-1.83 0	-7.88 1
4.13379	4.70822	3.10	38.00	1.07 0	7.96 1	-1.87 0	-8.28 1
4.03683	4.71674	3.00	31.00	7.30-1	5.48 1	-1.50 0	-5.73 1
4.16429	4.72577	3.10	39.00	1.12 0	8.35 1	-1.92 0	-8.67 1
4.07345	4.73484	3.00	32.00	7.72-1	5.82 1	-1.54 0	-6.08 1
4.19421	4.74331	3.10	40.00	1.16 0	8.75 1	-1.96 0	-9.08 1
4.10907	4.75297	3.00	33.00	8.15-1	6.17 1	-1.58 0	-6.43 1
4.14377	4.77113	3.00	34.00	8.59-1	6.52 1	-1.62 0	-6.79 1
4.02338	4.78296	2.90	27.00	5.50-1	4.25 1	-1.28 0	-4.46 1
4.17762	4.78930	3.00	35.00	9.02-1	6.88 1	-1.66 0	-7.16 1
4.06555	4.80152	2.90	28.00	5.90-1	4.56 1	-1.31 0	-4.77 1
4.10632	4.82019	2.90	29.00	6.30-1	4.87 1	-1.35 0	-5.10 1
4.14580	4.83894	2.90	30.00	6.70-1	5.19 1	-1.39 0	-5.43 1
4.18409	4.85773	2.90	31.00	7.10-1	5.52 1	-1.42 0	-5.76 1
4.04069	4.87428	2.80	24.00	4.25-1	3.42 1	-1.11 0	-3.60 1
4.08872	4.89324	2.80	25.00	4.62-1	3.70 1	-1.14 0	-3.89 1
4.13486	4.91241	2.80	26.00	5.00-1	3.99 1	-1.17 0	-4.18 1
4.17928	4.93173	2.80	27.00	5.37-1	4.29 1	-1.21 0	-4.49 1
4.04662	4.97407	2.70	21.00	3.12-1	2.67 1	-9.49-1	-2.82 1
4.10255	4.99313	2.70	22.00	3.47-1	2.92 1	-9.81-1	-3.08 1
4.15584	5.01259	2.70	23.00	3.82-1	3.18 1	-1.01 0	-3.34 1
4.03373	5.08474	2.60	18.00	2.10-1	1.99 1	-8.06-1	-2.12 1
4.06780	5.09386	2.60	18.50	2.26-1	2.10 1	-8.20-1	-2.23 1
4.10084	5.10320	2.60	19.00	2.42-1	2.22 1	-8.35-1	-2.34 1
4.13291	5.11273	2.60	19.50	2.59-1	2.33 1	-8.50-1	-2.46 1
4.16408	5.12243	2.60	20.00	2.75-1	2.45 1	-8.64-1	-2.58 1
4.03174	5.21869	2.50	15.50	1.33-1	1.50 1	-6.88-1	-1.60 1
4.07289	5.22702	2.50	16.00	1.48-1	1.60 1	-7.02-1	-1.70 1
4.11252	5.23575	2.50	16.50	1.64-1	1.70 1	-7.15-1	-1.80 1
4.15076	5.24483	2.50	17.00	1.79-1	1.80 1	-7.29-1	-1.91 1
4.18770	5.25421	2.50	17.50	1.95-1	1.91 1	-7.42-1	-2.02 1
4.05037	5.37837	2.40	13.50	7.90-2	1.15 1	-5.93-1	-1.23 1
4.09978	5.38548	2.40	14.00	9.34-2	1.24 1	-6.05-1	-1.32 1
4.14703	5.39325	2.40	14.50	1.08-1	1.33 1	-6.18-1	-1.42 1
4.19231	5.40159	2.40	15.00	1.22-1	1.42 1	-6.30-1	-1.51 1
4.04364	5.56059	2.30	11.50	3.07-2	8.46 0	-5.05-1	-9.11 0
4.10513	5.56510	2.30	12.00	4.43-2	9.21 0	-5.17-1	-9.90 0
4.16334	5.57078	2.30	12.50	5.79-2	1.00 1	-5.28-1	-1.07 1
4.07189	5.77472	2.20	10.00	7.13-4	6.45 0	-4.36-1	-6.98 0
4.04038	5.77485	2.20	9.80	-4.40-3	6.19 0	-4.32-1	-6.71 0
4.00795	5.77538	2.20	9.60	-9.52-3	5.94 0	-4.27-1	-6.45 0
4.14698	5.77591	2.20	10.50	1.35-2	7.12 0	-4.46-1	-7.68 0
4.16475	6.01853	2.10	9.00	-1.36-2	5.26 0	-3.81-1	-5.72 0
4.12758	6.02010	2.10	8.80	-1.84-2	5.03 0	-3.77-1	-5.47 0
4.08917	6.02223	2.10	8.60	-2.32-2	4.80 0	-3.74-1	-5.23 0
4.04944	6.02498	2.10	8.40	-2.80-2	4.57 0	-3.70-1	-4.99 0
4.00829	6.02838	2.10	8.20	-3.29-2	4.35 0	-3.66-1	-4.76 0
4.16139	6.30375	2.00	7.60	-3.49-2	3.76 0	-3.24-1	-4.12 0
4.11289	6.30935	2.00	7.40	-3.94-2	3.56 0	-3.20-1	-3.91 0
4.06235	6.31597	2.00	7.20	-4.40-2	3.36 0	-3.17-1	-3.70 0
4.00963	6.32372	2.00	7.00	-4.85-2	3.17 0	-3.13-1	-3.50 0
4.16439	6.46426	1.95	7.00	-4.22-2	3.19 0	-2.99-1	-3.51 0
4.10894	6.47257	1.95	6.80	-4.66-2	3.00 0	-2.95-1	-3.31 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.05089	6.48222	1.95	6.60	-5.10-2	2.82 0	-2.92-1	-3.12 0
4.15315	6.64079	1.90	6.40	-4.89-2	2.66 0	-2.74-1	-2.94 0
4.08880	6.65284	1.90	6.20	-5.32-2	2.49 0	-2.71-1	-2.76 0
4.02105	6.66674	1.90	6.00	-5.75-2	2.32 0	-2.68-1	-2.58 0
4.19371	6.82228	1.85	6.00	-5.10-2	2.34 0	-2.55-1	-2.59 0
4.12180	6.83736	1.85	5.80	-5.51-2	2.18 0	-2.52-1	-2.42 0
4.04575	6.85475	1.85	5.60	-5.92-2	2.02 0	-2.49-1	-2.25 0
4.14771	7.03807	1.80	5.40	-5.67-2	1.88 0	-2.33-1	-2.10 0
4.06148	7.05997	1.80	5.20	-6.07-2	1.73 0	-2.30-1	-1.94 0
4.16348	7.25791	1.75	5.00	-5.80-2	1.61 0	-2.14-1	-1.80 0
4.06456	7.28574	1.75	4.80	-6.19-2	1.47 0	-2.12-1	-1.65 0
4.16478	7.50078	1.70	4.60	-5.90-2	1.35 0	-1.97-1	-1.52 0
4.04967	7.53658	1.70	4.40	-6.28-2	1.22 0	-1.95-1	-1.39 0
4.14525	7.77201	1.65	4.20	-5.98-2	1.11 0	-1.81-1	-1.26 0
4.00898	7.81884	1.65	4.00	-6.35-2	9.99-1	-1.78-1	-1.14 0
4.17200	8.05170	1.60	3.90	-5.86-2	9.53-1	-1.66-1	-1.09 0
4.09538	8.07925	1.60	3.80	-6.04-2	8.99-1	-1.65-1	-1.03 0
4.01501	8.10920	1.60	3.70	-6.21-2	8.46-1	-1.64-1	-9.71-1
4.18379	8.36224	1.55	3.60	-5.73-2	8.03-1	-1.52-1	-9.20-1
4.09450	8.39649	1.55	3.50	-5.90-2	7.53-1	-1.51-1	-8.66-1
4.00036	8.43392	1.55	3.40	-6.07-2	7.05-1	-1.50-1	-8.14-1
4.17354	8.71058	1.50	3.30	-5.58-2	6.65-1	-1.39-1	-7.67-1
4.06776	8.75395	1.50	3.20	-5.75-2	6.19-1	-1.38-1	-7.17-1
4.13059	9.10653	1.45	3.00	-5.44-2	5.38-1	-1.26-1	-6.26-1
4.00269	9.16265	1.45	2.90	-5.60-2	4.97-1	-1.25-1	-5.81-1
4.18561	9.49753	1.40	2.80	-5.12-2	4.63-1	-1.15-1	-5.40-1
4.03824	9.56441	1.40	2.70	-5.28-2	4.24-1	-1.14-1	-4.99-1
4.05598	10.0154	1.35	2.50	-4.97-2	3.57-1	-1.04-1	-4.22-1
4.04657	10.5270	1.30	2.30	-4.66-2	2.94-1	-9.38-2	-3.51-1
4.18542	11.6412	1.20	2.00	-3.94-2	2.13-1	-7.60-2	-2.57-1
4.03702	11.7189	1.20	1.95	-4.01-2	2.00-1	-7.58-2	-2.42-1
4.05139	12.4096	1.15	1.80	-3.66-2	1.65-1	-6.77-2	-2.02-1
4.02228	13.2100	1.10	1.65	-3.34-2	1.33-1	-6.01-2	-1.64-1
4.19133	14.0011	1.05	1.55	-2.97-2	1.14-1	-5.31-2	-1.42-1
4.05267	15.0859	1.00	1.40	-2.67-2	8.79-2	-4.65-2	-1.11-1
4.03115	15.5403	0.98	1.35	-2.55-2	8.00-2	-4.40-2	-1.01-1
4.19416	18.0772	0.88	1.15	-1.93-2	5.25-2	-3.28-2	-6.79-2
4.08359	18.7716	0.86	1.10	-1.83-2	4.64-2	-3.08-2	-6.06-2
4.15928	22.5898	0.76	0.92	-1.30-2	2.81-2	-2.18-2	-3.79-2
4.03237	23.6189	0.74	0.88	-1.21-2	2.46-2	-2.02-2	-3.35-2
4.16283	25.6840	0.70	0.82	-1.03-2	2.00-2	-1.72-2	-2.77-2
4.07960	34.9020	0.58	0.64	-5.83-3	9.24-3	-9.99-3	-1.37-2
4.04250	41.9909	0.52	0.56	-4.10-3	5.95-3	-7.23-3	-9.26-3
4.20	4.40						
4.20472	4.49416	4.00	85.00	5.46 0	3.01 2	-6.71 0	-3.09 2
4.22477	4.51050	4.00	86.00	5.58 0	3.07 2	-6.84 0	-3.15 2
4.21869	4.52116	3.90	81.00	4.84 0	2.81 2	-6.03 0	-2.89 2
4.24488	4.52697	4.00	87.00	5.71 0	3.12 2	-6.96 0	-3.20 2
4.21598	4.53666	3.80	76.00	4.18 0	2.56 2	-5.32 0	-2.63 2
4.23876	4.53729	3.90	82.00	4.95 0	2.87 2	-6.14 0	-2.94 2
4.26508	4.54358	4.00	88.00	5.84 0	3.18 2	-7.09 0	-3.25 2
4.23619	4.55257	3.80	77.00	4.28 0	2.61 2	-5.42 0	-2.68 2
4.25888	4.55353	3.90	83.00	5.06 0	2.92 2	-6.26 0	-3.00 2
4.21600	4.55672	3.70	71.00	3.59 0	2.30 2	-4.68 0	-2.37 2
4.28537	4.56033	4.00	89.00	5.97 0	3.23 2	-7.22 0	-3.31 2
4.25641	4.56858	3.80	78.00	4.38 0	2.67 2	-5.52 0	-2.74 2
4.27905	4.56989	3.90	84.00	5.18 0	2.98 2	-6.37 0	-3.05 2
4.23655	4.57253	3.70	72.00	3.68 0	2.36 2	-4.77 0	-2.42 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.30575	4.57723	4.00	90.00	6.11 0	3.28 2	-7.35 0	-3.36 2
4.21808	4.58107	3.60	66.00	3.08 0	2.05 2	-4.12 0	-2.11 2
4.27665	4.58468	3.80	79.00	4.48 0	2.72 2	-5.62 0	-2.79 2
4.29928	4.58638	3.90	85.00	5.30 0	3.03 2	-6.49 0	-3.11 2
4.25706	4.58841	3.70	73.00	3.77 0	2.41 2	-4.86 0	-2.48 2
4.23917	4.59689	3.60	67.00	3.16 0	2.11 2	-4.19 0	-2.17 2
4.29692	4.60088	3.80	80.00	4.58 0	2.77 2	-5.72 0	-2.85 2
4.31958	4.60299	3.90	86.00	5.42 0	3.08 2	-6.61 0	-3.16 2
4.27756	4.60437	3.70	74.00	3.86 0	2.46 2	-4.95 0	-2.53 2
4.22143	4.60952	3.50	61.00	2.62 0	1.81 2	-3.60 0	-1.86 2
4.26019	4.61277	3.60	68.00	3.24 0	2.16 2	-4.27 0	-2.22 2
4.31721	4.61719	3.80	81.00	4.69 0	2.83 2	-5.82 0	-2.90 2
4.33995	4.61974	3.90	87.00	5.54 0	3.14 2	-6.73 0	-3.21 2
4.29805	4.62042	3.70	75.00	3.96 0	2.52 2	-5.04 0	-2.59 2
4.24331	4.62546	3.50	62.00	2.69 0	1.86 2	-3.67 0	-1.91 2
4.20197	4.62572	3.40	55.00	2.14 0	1.52 2	-3.08 0	-1.57 2
4.28115	4.62870	3.60	69.00	3.32 0	2.21 2	-4.35 0	-2.27 2
4.33755	4.63361	3.80	82.00	4.80 0	2.88 2	-5.93 0	-2.95 2
4.31853	4.63654	3.70	76.00	4.05 0	2.57 2	-5.13 0	-2.64 2
4.36041	4.63662	3.90	88.00	5.67 0	3.19 2	-6.85 0	-3.27 2
4.26507	4.64144	3.50	63.00	2.76 0	1.91 2	-3.74 0	-1.97 2
4.22511	4.64187	3.40	56.00	2.20 0	1.57 2	-3.14 0	-1.62 2
4.30206	4.64470	3.60	70.00	3.40 0	2.26 2	-4.43 0	-2.33 2
4.35793	4.65014	3.80	83.00	4.91 0	2.94 2	-6.04 0	-3.01 2
4.33901	4.65275	3.70	77.00	4.15 0	2.63 2	-5.23 0	-2.69 2
4.38095	4.65365	3.90	89.00	5.80 0	3.25 2	-6.98 0	-3.32 2
4.28672	4.65746	3.50	64.00	2.83 0	1.96 2	-3.81 0	-2.02 2
4.24807	4.65804	3.40	57.00	2.27 0	1.62 2	-3.20 0	-1.67 2
4.32292	4.66076	3.60	71.00	3.48 0	2.32 2	-4.51 0	-2.38 2
4.20325	4.66147	3.30	50.00	1.78 0	1.29 2	-2.67 0	-1.34 2
4.37836	4.66679	3.80	84.00	5.02 0	2.99 2	-6.15 0	-3.06 2
4.35951	4.66906	3.70	78.00	4.24 0	2.68 2	-5.32 0	-2.75 2
4.30828	4.67352	3.50	65.00	2.91 0	2.01 2	-3.89 0	-2.07 2
4.27084	4.67423	3.40	58.00	2.33 0	1.67 2	-3.27 0	-1.72 2
4.34376	4.67689	3.60	72.00	3.57 0	2.37 2	-4.60 0	-2.43 2
4.22791	4.67797	3.30	51.00	1.84 0	1.34 2	-2.73 0	-1.38 2
4.39886	4.68356	3.80	85.00	5.14 0	3.05 2	-6.26 0	-3.12 2
4.38002	4.68546	3.70	79.00	4.34 0	2.73 2	-5.42 0	-2.80 2
4.32975	4.68963	3.50	66.00	2.98 0	2.07 2	-3.96 0	-2.12 2
4.29346	4.69045	3.40	59.00	2.40 0	1.72 2	-3.33 0	-1.77 2
4.36456	4.69309	3.60	73.00	3.66 0	2.42 2	-4.68 0	-2.49 2
4.25230	4.69448	3.30	52.00	1.89 0	1.39 2	-2.78 0	-1.43 2
4.20150	4.70070	3.20	45.00	1.45 0	1.08 2	-2.30 0	-1.12 2
4.35114	4.70579	3.50	67.00	3.06 0	2.12 2	-4.03 0	-2.18 2
4.31593	4.70669	3.40	60.00	2.47 0	1.77 2	-3.40 0	-1.82 2
4.38534	4.70937	3.60	74.00	3.74 0	2.48 2	-4.77 0	-2.54 2
4.27644	4.71099	3.30	53.00	1.95 0	1.43 2	-2.84 0	-1.48 2
4.22817	4.71766	3.20	46.00	1.51 0	1.12 2	-2.35 0	-1.16 2
4.37246	4.72200	3.50	68.00	3.13 0	2.17 2	-4.11 0	-2.23 2
4.33826	4.72296	3.40	61.00	2.53 0	1.82 2	-3.46 0	-1.87 2
4.30035	4.72752	3.30	54.00	2.01 0	1.48 2	-2.90 0	-1.53 2
4.25447	4.73463	3.20	47.00	1.56 0	1.17 2	-2.40 0	-1.21 2
4.39373	4.73827	3.50	69.00	3.21 0	2.22 2	-4.19 0	-2.28 2
4.36046	4.73927	3.40	62.00	2.60 0	1.87 2	-3.53 0	-1.92 2
4.32405	4.74406	3.30	55.00	2.07 0	1.53 2	-2.96 0	-1.58 2
4.28042	4.75158	3.20	48.00	1.61 0	1.21 2	-2.45 0	-1.25 2
4.38254	4.75561	3.40	63.00	2.67 0	1.92 2	-3.60 0	-1.98 2
4.34754	4.76061	3.30	56.00	2.13 0	1.58 2	-3.01 0	-1.63 2
4.22357	4.76084	3.10	41.00	1.21 0	9.15 1	-2.01 0	-9.50 1
4.30605	4.76853	3.20	49.00	1.67 0	1.26 2	-2.50 0	-1.30 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.37084	4.77717	3.30	57.00	2.20 0	1.63 2	-3.07 0	-1.68 2
4.25242	4.77837	3.10	42.00	1.26 0	9.57 1	-2.06 0	-9.92 1
4.33138	4.78548	3.20	50.00	1.72 0	1.30 2	-2.56 0	-1.34 2
4.39397	4.79376	3.30	58.00	2.26 0	1.68 2	-3.14 0	-1.73 2
4.28079	4.79587	3.10	43.00	1.31 0	9.99 1	-2.10 0	-1.03 2
4.35642	4.80243	3.20	51.00	1.78 0	1.35 2	-2.61 0	-1.39 2
4.21067	4.80747	3.00	36.00	9.47-1	7.25 1	-1.70 0	-7.54 1
4.30870	4.81337	3.10	44.00	1.36 0	1.04 2	-2.15 0	-1.08 2
4.38119	4.81938	3.20	52.00	1.83 0	1.40 2	-2.67 0	-1.44 2
4.24300	4.82564	3.00	37.00	9.91-1	7.63 1	-1.74 0	-7.93 1
4.33620	4.83085	3.10	45.00	1.41 0	1.08 2	-2.20 0	-1.12 2
4.27463	4.84379	3.00	38.00	1.04 0	8.02 1	-1.79 0	-8.32 1
4.36329	4.84831	3.10	46.00	1.46 0	1.13 2	-2.25 0	-1.17 2
4.30563	4.86193	3.00	39.00	1.08 0	8.41 1	-1.83 0	-8.73 1
4.39001	4.86577	3.10	47.00	1.51 0	1.17 2	-2.30 0	-1.21 2
4.22130	4.87656	2.90	32.00	7.51-1	5.86 1	-1.46 0	-6.11 1
4.33604	4.88006	3.00	40.00	1.13 0	8.81 1	-1.87 0	-9.13 1
4.25750	4.89541	2.90	33.00	7.92-1	6.21 1	-1.50 0	-6.47 1
4.36588	4.89816	3.00	41.00	1.17 0	9.22 1	-1.92 0	-9.55 1
4.29277	4.91426	2.90	34.00	8.34-1	6.57 1	-1.54 0	-6.83 1
4.39521	4.91624	3.00	42.00	1.22 0	9.64 1	-1.96 0	-9.97 1
4.32718	4.93311	2.90	35.00	8.76-1	6.94 1	-1.58 0	-7.21 1
4.22214	4.95115	2.80	28.00	5.75-1	4.59 1	-1.24 0	-4.80 1
4.36078	4.95194	2.90	36.00	9.18-1	7.31 1	-1.62 0	-7.59 1
4.26357	4.97066	2.80	29.00	6.13-1	4.91 1	-1.28 0	-5.13 1
4.39365	4.97076	2.90	37.00	9.60-1	7.69 1	-1.66 0	-7.98 1
4.30371	4.99022	2.80	30.00	6.52-1	5.23 1	-1.32 0	-5.46 1
4.34264	5.00981	2.80	31.00	6.90-1	5.57 1	-1.35 0	-5.80 1
4.38048	5.02942	2.80	32.00	7.30-1	5.91 1	-1.39 0	-6.15 1
4.20677	5.03234	2.70	24.00	4.17-1	3.45 1	-1.04 0	-3.62 1
4.25559	5.05232	2.70	25.00	4.52-1	3.73 1	-1.08 0	-3.91 1
4.30249	5.07247	2.70	26.00	4.88-1	4.02 1	-1.11 0	-4.21 1
4.34766	5.09274	2.70	27.00	5.24-1	4.32 1	-1.14 0	-4.52 1
4.39125	5.11309	2.70	28.00	5.60-1	4.63 1	-1.18 0	-4.83 1
4.22392	5.14225	2.60	21.00	3.08-1	2.69 1	-8.94-1	-2.83 1
4.28077	5.16253	2.60	22.00	3.41-1	2.94 1	-9.24-1	-3.09 1
4.33496	5.18316	2.60	23.00	3.74-1	3.21 1	-9.55-1	-3.37 1
4.38677	5.20404	2.60	24.00	4.08-1	3.48 1	-9.86-1	-3.65 1
4.22344	5.26385	2.50	18.00	2.10-1	2.01 1	-7.56-1	-2.13 1
4.25806	5.27373	2.50	18.50	2.25-1	2.12 1	-7.70-1	-2.24 1
4.29164	5.28381	2.50	19.00	2.41-1	2.24 1	-7.84-1	-2.36 1
4.32424	5.29406	2.50	19.50	2.57-1	2.35 1	-7.98-1	-2.48 1
4.35594	5.30447	2.50	20.00	2.72-1	2.47 1	-8.12-1	-2.60 1
4.23578	5.41044	2.40	15.50	1.37-1	1.52 1	-6.43-1	-1.61 1
4.27759	5.41971	2.40	16.00	1.51-1	1.61 1	-6.56-1	-1.71 1
4.31787	5.42935	2.40	16.50	1.66-1	1.71 1	-6.69-1	-1.82 1
4.35674	5.43932	2.40	17.00	1.80-1	1.82 1	-6.81-1	-1.92 1
4.39431	5.44956	2.40	17.50	1.95-1	1.92 1	-6.94-1	-2.03 1
4.21860	5.57746	2.30	13.00	7.15-2	1.08 1	-5.40-1	-1.16 1
4.27120	5.58500	2.30	13.50	8.51-2	1.17 1	-5.51-1	-1.24 1
4.32141	5.59327	2.30	14.00	9.87-2	1.25 1	-5.63-1	-1.33 1
4.36943	5.60217	2.30	14.50	1.12-1	1.34 1	-5.75-1	-1.42 1
4.21731	5.77899	2.20	11.00	2.63-2	7.82 0	-4.57-1	-8.41 0
4.28347	5.78365	2.20	11.50	3.90-2	8.55 0	-4.67-1	-9.18 0
4.34591	5.78964	2.20	12.00	5.18-2	9.31 0	-4.78-1	-9.97 0
4.26954	6.01676	2.10	9.60	7.88-4	6.00 0	-3.93-1	-6.49 0
4.23566	6.01690	2.10	9.40	-4.01-3	5.75 0	-3.89-1	-6.23 0
4.30244	6.01702	2.10	9.80	5.58-3	6.26 0	-3.97-1	-6.76 0
4.20075	6.01748	2.10	9.20	-8.80-3	5.51 0	-3.85-1	-5.97 0
4.33442	6.01766	2.10	10.00	1.04-2	6.52 0	-4.01-1	-7.03 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.37816	6.28803	2.00	8.60	-1.24-2	4.86 0	-3.41-1	-5.27 0
4.33785	6.28977	2.00	8.40	-1.69-2	4.63 0	-3.38-1	-5.03 0
4.29613	6.29215	2.00	8.20	-2.14-2	4.40 0	-3.34-1	-4.79 0
4.25288	6.29523	2.00	8.00	-2.59-2	4.18 0	-3.31-1	-4.56 0
4.20801	6.29907	2.00	7.80	-3.04-2	3.97 0	-3.27-1	-4.34 0
4.36413	6.44213	1.95	7.80	-2.48-2	4.00 0	-3.12-1	-4.36 0
4.31718	6.44621	1.95	7.60	-2.91-2	3.79 0	-3.09-1	-4.14 0
4.26834	6.45120	1.95	7.40	-3.35-2	3.58 0	-3.05-1	-3.92 0
4.21747	6.45718	1.95	7.20	-3.79-2	3.38 0	-3.02-1	-3.71 0
4.38212	6.60750	1.90	7.20	-3.20-2	3.41 0	-2.87-1	-3.73 0
4.32868	6.61389	1.90	7.00	-3.62-2	3.21 0	-2.84-1	-3.52 0
4.27284	6.62148	1.90	6.80	-4.05-2	3.02 0	-2.81-1	-3.32 0
4.21441	6.63039	1.90	6.60	-4.47-2	2.84 0	-2.78-1	-3.13 0
4.38833	6.78846	1.85	6.60	-3.87-2	2.86 0	-2.64-1	-3.14 0
4.32666	6.79805	1.85	6.40	-4.28-2	2.68 0	-2.61-1	-2.95 0
4.26189	6.80926	1.85	6.20	-4.69-2	2.51 0	-2.58-1	-2.77 0
4.37771	6.98861	1.80	6.00	-4.48-2	2.36 0	-2.41-1	-2.60 0
4.30534	7.00273	1.80	5.80	-4.87-2	2.19 0	-2.38-1	-2.43 0
4.22882	7.01911	1.80	5.60	-5.27-2	2.03 0	-2.35-1	-2.26 0
4.34271	7.21314	1.75	5.40	-5.03-2	1.90 0	-2.20-1	-2.11 0
4.25596	7.23388	1.75	5.20	-5.41-2	1.75 0	-2.17-1	-1.95 0
4.37109	7.44352	1.70	5.00	-5.16-2	1.62 0	-2.02-1	-1.81 0
4.27159	7.46999	1.70	4.80	-5.53-2	1.48 0	-2.00-1	-1.66 0
4.38630	7.69781	1.65	4.60	-5.26-2	1.36 0	-1.85-1	-1.53 0
4.27054	7.73202	1.65	4.40	-5.62-2	1.23 0	-1.83-1	-1.39 0
4.38218	7.98143	1.60	4.20	-5.33-2	1.12 0	-1.69-1	-1.27 0
4.24517	8.02634	1.60	4.00	-5.68-2	1.01 0	-1.67-1	-1.15 0
4.34942	8.30205	1.55	3.80	-5.39-2	9.07-1	-1.54-1	-1.03 0
4.26864	8.33084	1.55	3.70	-5.56-2	8.54-1	-1.53-1	-9.75-1
4.36808	8.63503	1.50	3.50	-5.26-2	7.60-1	-1.41-1	-8.70-1
4.27347	8.67107	1.50	3.40	-5.42-2	7.12-1	-1.40-1	-8.17-1
4.36330	9.00978	1.45	3.20	-5.12-2	6.25-1	-1.28-1	-7.20-1
4.25052	9.05577	1.45	3.10	-5.28-2	5.81-1	-1.27-1	-6.72-1
4.32300	9.43743	1.40	2.90	-4.97-2	5.03-1	-1.16-1	-5.84-1
4.38734	9.86237	1.35	2.70	-4.67-2	4.29-1	-1.05-1	-5.01-1
4.22804	9.93451	1.35	2.60	-4.82-2	3.92-1	-1.04-1	-4.61-1
4.25064	10.4275	1.30	2.40	-4.52-2	3.27-1	-9.44-2	-3.87-1
4.24228	10.9900	1.25	2.20	-4.23-2	2.67-1	-8.49-2	-3.19-1
4.39529	12.2272	1.15	1.90	-3.54-2	1.90-1	-6.81-2	-2.29-1
4.22847	12.3147	1.15	1.85	-3.60-2	1.77-1	-6.79-2	-2.15-1
4.23772	13.0916	1.10	1.70	-3.27-2	1.44-1	-6.03-2	-1.77-1
4.36880	14.9063	1.00	1.45	-2.62-2	9.70-2	-4.66-2	-1.21-1
4.37608	15.3430	0.98	1.40	-2.49-2	8.87-2	-4.41-2	-1.11-1
4.37302	15.8108	0.96	1.35	-2.37-2	8.07-2	-4.17-2	-1.02-1
4.35703	16.3133	0.94	1.30	-2.26-2	7.31-2	-3.94-2	-9.26-2
4.32484	16.8549	0.92	1.25	-2.15-2	6.58-2	-3.71-2	-8.40-2
4.27231	17.4408	0.90	1.20	-2.04-2	5.90-2	-3.49-2	-7.57-2
4.29557	20.8010	0.80	1.00	-1.49-2	3.57-2	-2.52-2	-4.73-2
4.24376	21.6548	0.78	0.96	-1.40-2	3.18-2	-2.35-2	-4.24-2
4.34397	24.4620	0.72	0.86	-1.11-2	2.31-2	-1.87-2	-3.16-2
4.24993	28.1574	0.66	0.76	-8.63-3	1.59-2	-1.46-2	-2.24-2
4.24958	31.1678	0.62	0.70	-7.15-3	1.23-2	-1.21-2	-1.77-2

Part 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.40	4.60						
4.40159	4.67083	3.90	90.00	5.93 0	3.30 2	-7.11 0	-3.38 2
4.41942	4.70047	3.80	86.00	5.25 0	3.10 2	-6.38 0	-3.17 2
4.40056	4.70196	3.70	80.00	4.44 0	2.79 2	-5.52 0	-2.86 2
4.44006	4.71750	3.80	87.00	5.37 0	3.15 2	-6.50 0	-3.23 2
4.42113	4.71857	3.70	81.00	4.55 0	2.84 2	-5.62 0	-2.91 2
4.40611	4.72572	3.60	75.00	3.83 0	2.53 2	-4.85 0	-2.60 2
4.46078	4.73468	3.80	88.00	5.50 0	3.21 2	-6.62 0	-3.28 2
4.44174	4.73529	3.70	82.00	4.65 0	2.90 2	-5.72 0	-2.97 2
4.42688	4.74216	3.60	76.00	3.92 0	2.59 2	-4.94 0	-2.65 2
4.48159	4.75200	3.80	89.00	5.62 0	3.26 2	-6.74 0	-3.34 2
4.46240	4.75212	3.70	83.00	4.76 0	2.95 2	-5.83 0	-3.02 2
4.41494	4.75460	3.50	70.00	3.29 0	2.28 2	-4.26 0	-2.34 2
4.44765	4.75869	3.60	77.00	4.02 0	2.64 2	-5.03 0	-2.71 2
4.48311	4.76907	3.70	84.00	4.87 0	3.01 2	-5.93 0	-3.08 2
4.50250	4.76947	3.80	90.00	5.75 0	3.32 2	-6.86 0	-3.39 2
4.43610	4.77099	3.50	71.00	3.37 0	2.33 2	-4.34 0	-2.39 2
4.40451	4.77199	3.40	64.00	2.74 0	1.97 2	-3.66 0	-2.03 2
4.46843	4.77531	3.60	78.00	4.11 0	2.70 2	-5.13 0	-2.76 2
4.50388	4.78615	3.70	85.00	4.98 0	3.06 2	-6.04 0	-3.13 2
4.45723	4.78745	3.50	72.00	3.46 0	2.38 2	-4.42 0	-2.45 2
4.42639	4.78841	3.40	65.00	2.81 0	2.03 2	-3.73 0	-2.08 2
4.48923	4.79203	3.60	79.00	4.21 0	2.75 2	-5.22 0	-2.82 2
4.52472	4.80335	3.70	86.00	5.09 0	3.12 2	-6.15 0	-3.19 2
4.47834	4.80399	3.50	73.00	3.54 0	2.44 2	-4.50 0	-2.50 2
4.44818	4.80487	3.40	66.00	2.88 0	2.08 2	-3.80 0	-2.13 2
4.51006	4.80884	3.60	80.00	4.30 0	2.80 2	-5.32 0	-2.87 2
4.41693	4.81037	3.30	59.00	2.32 0	1.73 2	-3.20 0	-1.78 2
4.49942	4.82060	3.50	74.00	3.62 0	2.49 2	-4.59 0	-2.56 2
4.54564	4.82069	3.70	87.00	5.21 0	3.17 2	-6.27 0	-3.24 2
4.46989	4.82139	3.40	67.00	2.96 0	2.13 2	-3.88 0	-2.19 2
4.53091	4.82577	3.60	81.00	4.40 0	2.86 2	-5.41 0	-2.93 2
4.43974	4.82700	3.30	60.00	2.39 0	1.78 2	-3.26 0	-1.83 2
4.40571	4.83633	3.20	53.00	1.89 0	1.44 2	-2.72 0	-1.49 2
4.52049	4.83728	3.50	75.00	3.71 0	2.55 2	-4.67 0	-2.61 2
4.49153	4.83796	3.40	68.00	3.03 0	2.18 2	-3.95 0	-2.24 2
4.56664	4.83817	3.70	88.00	5.32 0	3.23 2	-6.38 0	-3.30 2
4.55181	4.84280	3.60	82.00	4.50 0	2.91 2	-5.51 0	-2.98 2
4.46241	4.84366	3.30	61.00	2.45 0	1.83 2	-3.32 0	-1.88 2
4.43000	4.85329	3.20	54.00	1.95 0	1.49 2	-2.78 0	-1.54 2
4.54156	4.85405	3.50	76.00	3.80 0	2.60 2	-4.76 0	-2.67 2
4.51311	4.85458	3.40	69.00	3.11 0	2.24 2	-4.02 0	-2.30 2
4.58773	4.85580	3.70	89.00	5.44 0	3.28 2	-6.50 0	-3.35 2
4.57276	4.85995	3.60	83.00	4.61 0	2.97 2	-5.61 0	-3.04 2
4.48495	4.86034	3.30	62.00	2.52 0	1.88 2	-3.39 0	-1.93 2
4.45407	4.87025	3.20	55.00	2.00 0	1.54 2	-2.83 0	-1.59 2
4.56263	4.87091	3.50	77.00	3.89 0	2.66 2	-4.85 0	-2.72 2
4.53464	4.87126	3.40	70.00	3.18 0	2.29 2	-4.10 0	-2.35 2
4.50738	4.87707	3.30	63.00	2.58 0	1.93 2	-3.45 0	-1.99 2
4.59376	4.87721	3.60	84.00	4.71 0	3.02 2	-5.72 0	-3.09 2
4.41639	4.88321	3.10	48.00	1.56 0	1.22 2	-2.35 0	-1.26 2
4.47793	4.88722	3.20	56.00	2.06 0	1.59 2	-2.89 0	-1.64 2
4.58372	4.88786	3.50	78.00	3.98 0	2.71 2	-4.93 0	-2.78 2
4.55612	4.88800	3.40	71.00	3.26 0	2.35 2	-4.17 0	-2.40 2
4.52969	4.89383	3.30	64.00	2.65 0	1.99 2	-3.52 0	-2.04 2
4.44243	4.90064	3.10	49.00	1.61 0	1.26 2	-2.40 0	-1.30 2
4.50161	4.90421	3.20	57.00	2.12 0	1.64 2	-2.95 0	-1.69 2
4.57757	4.90482	3.40	72.00	3.34 0	2.40 2	-4.25 0	-2.46 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.55191	4.91062	3.30	65.00	2.72 0	2.04 2	-3.58 0	-2.09 2
4.46817	4.91806	3.10	50.00	1.66 0	1.31 2	-2.45 0	-1.35 2
4.52510	4.92121	3.20	58.00	2.18 0	1.69 2	-3.00 0	-1.74 2
4.59899	4.92170	3.40	73.00	3.42 0	2.45 2	-4.33 0	-2.51 2
4.57404	4.92747	3.30	66.00	2.79 0	2.09 2	-3.65 0	-2.15 2
4.42404	4.93430	3.00	43.00	1.27 0	1.01 2	-2.01 0	-1.04 2
4.49362	4.93548	3.10	51.00	1.72 0	1.36 2	-2.50 0	-1.40 2
4.54843	4.93823	3.20	59.00	2.24 0	1.74 2	-3.06 0	-1.79 2
4.59608	4.94436	3.30	67.00	2.86 0	2.14 2	-3.72 0	-2.20 2
4.45242	4.95234	3.00	44.00	1.31 0	1.05 2	-2.05 0	-1.08 2
4.51880	4.95289	3.10	52.00	1.77 0	1.41 2	-2.55 0	-1.45 2
4.57161	4.95527	3.20	60.00	2.31 0	1.79 2	-3.12 0	-1.84 2
4.54373	4.97030	3.10	53.00	1.83 0	1.45 2	-2.60 0	-1.50 2
4.48038	4.97035	3.00	45.00	1.36 0	1.09 2	-2.10 0	-1.13 2
4.59464	4.97234	3.20	61.00	2.37 0	1.84 2	-3.18 0	-1.89 2
4.56842	4.98771	3.10	54.00	1.88 0	1.50 2	-2.65 0	-1.55 2
4.50793	4.98834	3.00	46.00	1.41 0	1.14 2	-2.14 0	-1.17 2
4.42582	4.98955	2.90	38.00	1.00 0	8.08 1	-1.70 0	-8.37 1
4.59288	5.00513	3.10	55.00	1.94 0	1.55 2	-2.71 0	-1.60 2
4.53510	5.00632	3.00	47.00	1.46 0	1.18 2	-2.19 0	-1.22 2
4.45735	5.00832	2.90	39.00	1.05 0	8.48 1	-1.74 0	-8.78 1
4.56192	5.02428	3.00	48.00	1.51 0	1.23 2	-2.24 0	-1.27 2
4.48827	5.02706	2.90	40.00	1.09 0	8.88 1	-1.78 0	-9.19 1
4.58841	5.04222	3.00	49.00	1.56 0	1.27 2	-2.29 0	-1.31 2
4.51863	5.04576	2.90	41.00	1.13 0	9.29 1	-1.83 0	-9.61 1
4.41730	5.04902	2.80	33.00	7.69-1	6.26 1	-1.43 0	-6.51 1
4.54846	5.06444	2.90	42.00	1.18 0	9.71 1	-1.87 0	-1.00 2
4.45318	5.06861	2.80	34.00	8.08-1	6.62 1	-1.46 0	-6.88 1
4.57780	5.08308	2.90	43.00	1.22 0	1.01 2	-1.91 0	-1.05 2
4.48818	5.08818	2.80	35.00	8.48-1	6.99 1	-1.50 0	-7.25 1
4.52238	5.10772	2.80	36.00	8.89-1	7.37 1	-1.54 0	-7.64 1
4.55583	5.12723	2.80	37.00	9.29-1	7.75 1	-1.58 0	-8.03 1
4.43341	5.13349	2.70	29.00	5.96-1	4.95 1	-1.21 0	-5.16 1
4.58857	5.14670	2.80	38.00	9.70-1	8.14 1	-1.62 0	-8.43 1
4.47425	5.15392	2.70	30.00	6.33-1	5.28 1	-1.25 0	-5.49 1
4.51387	5.17436	2.70	31.00	6.70-1	5.62 1	-1.28 0	-5.84 1
4.55239	5.19479	2.70	32.00	7.07-1	5.96 1	-1.32 0	-6.19 1
4.58987	5.21520	2.70	33.00	7.45-1	6.32 1	-1.35 0	-6.55 1
4.43643	5.22510	2.60	25.00	4.42-1	3.76 1	-1.02 0	-3.94 1
4.48416	5.24630	2.60	26.00	4.76-1	4.06 1	-1.05 0	-4.24 1
4.53014	5.26759	2.60	27.00	5.10-1	4.36 1	-1.08 0	-4.55 1
4.57453	5.28893	2.60	28.00	5.44-1	4.67 1	-1.11 0	-4.87 1
4.41681	5.32566	2.50	21.00	3.03-1	2.72 1	-8.40-1	-2.85 1
4.47466	5.34725	2.50	22.00	3.35-1	2.97 1	-8.69-1	-3.12 1
4.52982	5.36913	2.50	23.00	3.66-1	3.24 1	-8.98-1	-3.39 1
4.58256	5.39122	2.50	24.00	3.98-1	3.51 1	-9.27-1	-3.67 1
4.43066	5.46005	2.40	18.00	2.10-1	2.03 1	-7.08-1	-2.14 1
4.46588	5.47074	2.40	18.50	2.24-1	2.14 1	-7.21-1	-2.26 1
4.50005	5.48162	2.40	19.00	2.39-1	2.26 1	-7.34-1	-2.38 1
4.53324	5.49265	2.40	19.50	2.54-1	2.38 1	-7.47-1	-2.50 1
4.56550	5.50382	2.40	20.00	2.68-1	2.50 1	-7.61-1	-2.62 1
4.41545	5.61160	2.30	15.00	1.26-1	1.44 1	-5.87-1	-1.52 1
4.45966	5.62149	2.30	15.50	1.40-1	1.53 1	-5.99-1	-1.62 1
4.50219	5.63178	2.30	16.00	1.53-1	1.63 1	-6.11-1	-1.72 1
4.54318	5.64241	2.30	16.50	1.67-1	1.73 1	-6.23-1	-1.83 1
4.58275	5.65333	2.30	17.00	1.81-1	1.84 1	-6.35-1	-1.94 1
4.40505	5.79674	2.20	12.50	6.45-2	1.01 1	-4.89-1	-1.08 1
4.46122	5.80479	2.20	13.00	7.73-2	1.09 1	-5.00-1	-1.16 1
4.51471	5.81363	2.20	13.50	9.01-2	1.18 1	-5.11-1	-1.25 1
4.56577	5.82317	2.20	14.00	1.03-1	1.27 1	-5.22-1	-1.34 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.41065	6.02072	2.10	10.50	2.23-2	7.20 0	-4.11-1	-7.74 0
4.48211	6.02557	2.10	11.00	3.43-2	7.91 0	-4.21-1	-8.48 0
4.54935	6.03192	2.10	11.50	4.62-2	8.65 0	-4.31-1	-9.25 0
4.49142	6.28613	2.00	9.20	1.04-3	5.57 0	-3.52-1	-6.02 0
4.45486	6.28625	2.00	9.00	-3.44-3	5.33 0	-3.49-1	-5.76 0
4.52687	6.28645	2.00	9.40	5.51-3	5.82 0	-3.56-1	-6.28 0
4.41713	6.28687	2.00	8.80	-7.92-3	5.09 0	-3.45-1	-5.51 0
4.56128	6.28720	2.00	9.60	9.99-3	6.08 0	-3.60-1	-6.54 0
4.59471	6.28833	2.00	9.80	1.45-2	6.34 0	-3.63-1	-6.81 0
4.57484	6.43270	1.95	8.80	-3.10-3	5.12 0	-3.29-1	-5.53 0
4.53556	6.43333	1.95	8.60	-7.42-3	4.89 0	-3.26-1	-5.29 0
4.49494	6.43453	1.95	8.40	-1.18-2	4.66 0	-3.22-1	-5.05 0
4.45290	6.43636	1.95	8.20	-1.61-2	4.43 0	-3.19-1	-4.81 0
4.40933	6.43887	1.95	8.00	-2.04-2	4.21 0	-3.15-1	-4.58 0
4.57540	6.59175	1.90	8.00	-1.52-2	4.24 0	-3.00-1	-4.60 0
4.52985	6.59440	1.90	7.80	-1.94-2	4.02 0	-2.97-1	-4.37 0
4.48255	6.59785	1.90	7.60	-2.36-2	3.81 0	-2.94-1	-4.15 0
4.43335	6.60219	1.90	7.40	-2.78-2	3.61 0	-2.90-1	-3.94 0
4.55723	6.76783	1.85	7.20	-2.65-2	3.43 0	-2.73-1	-3.74 0
4.50340	6.77349	1.85	7.00	-3.05-2	3.24 0	-2.70-1	-3.54 0
4.44717	6.78032	1.85	6.80	-3.46-2	3.05 0	-2.67-1	-3.34 0
4.57368	6.95744	1.80	6.60	-3.30-2	2.88 0	-2.50-1	-3.16 0
4.51156	6.96617	1.80	6.40	-3.69-2	2.70 0	-2.47-1	-2.97 0
4.44634	6.97650	1.80	6.20	-4.08-2	2.53 0	-2.44-1	-2.78 0
4.57423	7.16684	1.75	6.00	-3.89-2	2.37 0	-2.28-1	-2.61 0
4.50136	7.17995	1.75	5.80	-4.26-2	2.21 0	-2.25-1	-2.44 0
4.42433	7.19529	1.75	5.60	-4.65-2	2.05 0	-2.23-1	-2.27 0
4.55146	7.40125	1.70	5.40	-4.42-2	1.91 0	-2.07-1	-2.12 0
4.46415	7.42076	1.70	5.20	-4.79-2	1.76 0	-2.05-1	-1.96 0
4.59390	7.64348	1.65	5.00	-4.55-2	1.63 0	-1.90-1	-1.82 0
4.49376	7.66853	1.65	4.80	-4.90-2	1.49 0	-1.88-1	-1.67 0
4.50819	7.94323	1.60	4.40	-4.99-2	1.25 0	-1.72-1	-1.40 0
4.50003	8.25132	1.55	4.00	-5.05-2	1.02 0	-1.56-1	-1.15 0
4.42645	8.27561	1.55	3.90	-5.22-2	9.62-1	-1.55-1	-1.09 0
4.54315	8.57198	1.50	3.70	-4.94-2	8.63-1	-1.43-1	-9.80-1
4.45784	8.60210	1.50	3.60	-5.10-2	8.11-1	-1.42-1	-9.24-1
4.57006	8.93005	1.45	3.40	-4.81-2	7.19-1	-1.30-1	-8.21-1
4.46961	8.96802	1.45	3.30	-4.96-2	6.71-1	-1.29-1	-7.70-1
4.57203	9.33443	1.40	3.10	-4.67-2	5.87-1	-1.17-1	-6.76-1
4.45150	9.38330	1.40	3.00	-4.82-2	5.44-1	-1.17-1	-6.29-1
4.53539	9.79786	1.35	2.80	-4.53-2	4.68-1	-1.06-1	-5.43-1
4.43802	10.3395	1.30	2.50	-4.38-2	3.61-1	-9.51-2	-4.24-1
4.46651	10.8806	1.25	2.30	-4.09-2	2.98-1	-8.55-2	-3.53-1
4.45947	11.5020	1.20	2.10	-3.81-2	2.41-1	-7.66-2	-2.88-1
4.55278	12.1463	1.15	1.95	-3.47-2	2.03-1	-6.84-2	-2.44-1
4.43927	12.9833	1.10	1.75	-3.21-2	1.56-1	-6.05-2	-1.89-1
4.44030	13.8637	1.05	1.60	-2.91-2	1.25-1	-5.33-2	-1.53-1
4.57833	19.1516	0.84	1.10	-1.68-2	4.69-2	-2.89-2	-6.08-2
4.46147	19.9361	0.82	1.05	-1.58-2	4.11-2	-2.70-2	-5.38-2
4.58481	21.4532	0.78	0.98	-1.38-2	3.39-2	-2.35-2	-4.49-2
4.54239	22.3625	0.76	0.94	-1.28-2	3.01-2	-2.18-2	-4.02-2
4.46569	23.3607	0.74	0.90	-1.20-2	2.65-2	-2.02-2	-3.57-2
4.51377	26.6850	0.68	0.80	-9.36-3	1.87-2	-1.59-2	-2.59-2
4.54513	36.7427	0.56	0.62	-5.17-3	8.39-3	-9.00-3	-1.25-2
4.58899	44.6172	0.50	0.54	-3.57-3	5.30-3	-6.43-3	-8.33-3
4.41545	60.8778	0.42	0.44	-1.98-3	2.59-3	-3.84-3	-4.53-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.60	4.80						
4.60892	4.87358	3.70	90.00	5.56 0	3.33 2	-6.62 0	-3.41 2
4.61482	4.89460	3.60	85.00	4.82 0	3.08 2	-5.82 0	-3.15 2
4.60482	4.90491	3.50	79.00	4.07 0	2.77 2	-5.02 0	-2.83 2
4.63595	4.91213	3.60	86.00	4.93 0	3.13 2	-5.93 0	-3.20 2
4.62594	4.92206	3.50	80.00	4.16 0	2.82 2	-5.12 0	-2.89 2
4.65716	4.92978	3.60	87.00	5.04 0	3.19 2	-6.04 0	-3.26 2
4.62039	4.93866	3.40	74.00	3.50 0	2.51 2	-4.41 0	-2.57 2
4.64710	4.93931	3.50	81.00	4.26 0	2.88 2	-5.21 0	-2.94 2
4.67846	4.94758	3.60	88.00	5.15 0	3.24 2	-6.15 0	-3.31 2
4.64178	4.95569	3.40	75.00	3.59 0	2.56 2	-4.49 0	-2.62 2
4.66830	4.95667	3.50	82.00	4.36 0	2.93 2	-5.31 0	-3.00 2
4 61806	4.96130	3.30	68.00	2.93 0	2.20 2	-3.79 0	-2.25 2
4.69985	4.96553	3.60	89.00	5.27 0	3.30 2	-6.26 0	-3.37 2
4.66317	4.97281	3.40	76.00	3.67 0	2.62 2	-4.57 0	-2.68 2
4.68955	4.97415	3.50	83.00	4.45 0	2.99 2	-5.40 0	-3.05 2
4.63998	4.97829	3.30	69.00	3.00 0	2.25 2	-3.86 0	-2.31 2
4.72134	4.98362	3.60	90.00	5.38 0	3.35 2	-6.38 0	-3.42 2
4.61755	4.98943	3.20	62.00	2.43 0	1.89 2	-3.25 0	-1.95 2
4.68456	4.99001	3.40	77.00	3.76 0	2.67 2	-4.66 0	-2.74 2
4.71086	4.99175	3.50	84.00	4.55 0	3.04 2	-5.50 0	-3.11 2
4.66184	4.99534	3.30	70.00	3.08 0	2.31 2	-3.93 0	-2.36 2
4.64033	5.00656	3.20	63.00	2.49 0	1.95 2	-3.31 0	-2.00 2
4.70595	5.00731	3.40	78.00	3.84 0	2.73 2	-4.74 0	-2.79 2
4.73223	5.00947	3.50	85.00	4.66 0	3.10 2	-5.60 0	-3.16 2
4.68366	5.01246	3.30	71.00	3.15 0	2.36 2	-4.01 0	-2.42 2
4.61714	5.02255	3.10	56.00	1.99 0	1.60 2	-2.76 0	-1.65 2
4.66300	5.02372	3.20	64.00	2.56 0	2.00 2	-3.37 0	-2.05 2
4.72737	5.02471	3.40	79.00	3.93 0	2.78 2	-4.83 0	-2.85 2
4.75367	5.02732	3.50	86.00	4.76 0	3.15 2	-5.71 0	-3.22 2
4.70544	5.02964	3.30	72.00	3.23 0	2.41 2	-4.08 0	-2.47 2
4.64121	5.03998	3.10	57.00	2.05 0	1.65 2	-2.82 0	-1.70 2
4.68558	5.04091	3.20	65.00	2.63 0	2.05 2	-3.44 0	-2.10 2
4.74882	5.04220	3.40	80.00	4.02 0	2.84 2	-4.92 0	-2.90 2
4.77518	5.04532	3.50	87.00	4.87 0	3.21 2	-5.81 0	-3.27 2
4.72719	5.04689	3.30	73.00	3.30 0	2.47 2	-4.16 0	-2.53 2
4.66509	5.05742	3.10	58.00	2.11 0	1.70 2	-2.87 0	-1.75 2
4.70806	5.05815	3.20	66.00	2.69 0	2.11 2	-3.50 0	-2.16 2
4.77030	5.05980	3.40	81.00	4.11 0	2.89 2	-5.01 0	-2.96 2
4.61459	5.06014	3.00	50.00	1.61 0	1.32 2	-2.34 0	-1.36 2
4.79679	5.06345	3.50	88.00	4.98 0	3.26 2	-5.92 0	-3.33 2
4.74893	5.06421	3.30	74.00	3.38 0	2.52 2	-4.23 0	-2.58 2
4.68881	5.07488	3.10	59.00	2.17 0	1.75 2	-2.93 0	-1.80 2
4.73047	5.07544	3.20	67.00	2.76 0	2.16 2	-3.57 0	-2.21 2
4.79182	5.07751	3.40	82.00	4.21 0	2.95 2	-5.10 0	-3.01 2
4.64047	5.07806	3.00	51.00	1.66 0	1.37 2	-2.38 0	-1.41 2
4.77065	5.08161	3.30	75.00	3.46 0	2.58 2	-4.31 0	-2.64 2
4.71238	5.09235	3.10	60.00	2.22 0	1.80 2	-2.99 0	-1.85 2
4.75280	5.09277	3.20	68.00	2.83 0	2.21 2	-3.63 0	-2.27 2
4.66608	5.09596	3.00	52.00	1.71 0	1.42 2	-2.43 0	-1.46 2
4.79237	5.09910	3.30	76.00	3.54 0	2.63 2	-4.39 0	-2.69 2
4.60668	5.10170	2.90	44.00	1.27 0	1.06 2	-1.95 0	-1.09 2
4.73580	5.10985	3.10	61.00	2.28 0	1.86 2	-3.05 0	-1.90 2
4.77507	5.11016	3.20	69.00	2.90 0	2.27 2	-3.70 0	-2.32 2
4.69144	5.11386	3.00	53.00	1.76 0	1.46 2	-2.48 0	-1.51 2
4.63512	5.12028	2.90	45.00	1.31 0	1.10 2	-2.00 0	-1.14 2
4.75908	5.12737	3.10	62.00	2.35 0	1.91 2	-3.11 0	-1.96 2
4.79729	5.12760	3.20	70.00	2.97 0	2.32 2	-3.77 0	-2.38 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.71655	5.13175	3.00	54.00	1.81 0	1.51 2	-2.54 0	-1.56 2
4.66316	5.13884	2.90	46.00	1.36 0	1.15 2	-2.04 0	-1.18 2
4.78225	5.14492	3.10	63.00	2.41 0	1.96 2	-3.17 0	-2.01 2
4.74144	5.14964	3.00	55.00	1.87 0	1.56 2	-2.59 0	-1.61 2
4.69081	5.15736	2.90	47.00	1.41 0	1.19 2	-2.09 0	-1.23 2
4.62066	5.16613	2.80	39.00	1.01 0	8.54 1	-1.66 0	-8.83 1
4.76612	5.16754	3.00	56.00	1.92 0	1.61 2	-2.64 0	-1.66 2
4.71810	5.17587	2.90	48.00	1.45 0	1.24 2	-2.13 0	-1.27 2
4.79060	5.18544	3.00	57.00	1.98 0	1.66 2	-2.69 0	-1.71 2
4.65214	5.18553	2.80	40.00	1.05 0	8.95 1	-1.70 0	-9.25 1
4.74506	5.19435	2.90	49.00	1.50 0	1.28 2	-2.18 0	-1.32 2
4.68305	5.20488	2.80	41.00	1.10 0	9.37 1	-1.74 0	-9.67 1
4.77171	5.21281	2.90	50.00	1.55 0	1.33 2	-2.23 0	-1.37 2
4.71342	5.22419	2.80	42.00	1.14 0	9.79 1	-1.78 0	-1.01 2
4.79806	5.23125	2.90	51.00	1.60 0	1.38 2	-2.27 0	-1.42 2
4.62640	5.23558	2.70	34.00	7.82-1	6.68 1	-1.39 0	-6.92 1
4.74330	5.24345	2.80	43.00	1.18 0	1.02 2	-1.82 0	-1.05 2
4.66205	5.25591	2.70	35.00	8.20-1	7.05 1	-1.42 0	-7.30 1
4.77270	5.26268	2.80	44.00	1.22 0	1.07 2	-1.86 0	-1.10 2
4.69688	5.27621	2.70	36.00	8.59-1	7.43 1	-1.46 0	-7.69 1
4.73095	5.29646	2.70	37.00	8.97-1	7.82 1	-1.50 0	-8.08 1
4.61746	5.31029	2.60	29.00	5.79-1	4.99 1	-1.14 0	-5.19 1
4.76431	5.31666	2.70	38.00	9.36-1	8.21 1	-1.53 0	-8.48 1
4.65905	5.33165	2.60	30.00	6.14-1	5.32 1	-1.18 0	-5.53 1
4.79700	5.33680	2.70	39.00	9.76-1	8.62 1	-1.57 0	-8.89 1
4.69942	5.35299	2.60	31.00	6.49-1	5.66 1	-1.21 0	-5.88 1
4.73867	5.37431	2.60	32.00	6.84-1	6.01 1	-1.24 0	-6.23 1
4.77687	5.39558	2.60	33.00	7.20-1	6.37 1	-1.28 0	-6.60 1
4.63315	5.41346	2.50	25.00	4.30-1	3.80 1	-9.57-1	-3.96 1
4.68178	5.43578	2.50	26.00	4.62-1	4.10 1	-9.87-1	-4.27 1
4.72863	5.45816	2.50	27.00	4.95-1	4.40 1	-1.02 0	-4.58 1
4.77387	5.48056	2.50	28.00	5.27-1	4.72 1	-1.05 0	-4.90 1
4.62750	5.52648	2.40	21.00	2.98-1	2.74 1	-7.88-1	-2.87 1
4.68643	5.54948	2.40	22.00	3.28-1	3.00 1	-8.15-1	-3.14 1
4.74264	5.57272	2.40	23.00	3.58-1	3.27 1	-8.42-1	-3.41 1
4.79641	5.59611	2.40	24.00	3.88-1	3.55 1	-8.70-1	-3.70 1
4.62099	5.66451	2.30	17.50	1.94-1	1.94 1	-6.48-1	-2.05 1
4.65801	5.67591	2.30	18.00	2.08-1	2.05 1	-6.60-1	-2.16 1
4.69389	5.68749	2.30	18.50	2.22-1	2.17 1	-6.73-1	-2.28 1
4.72871	5.69923	2.30	19.00	2.36-1	2.28 1	-6.85-1	-2.39 1
4.76253	5.71110	2.30	19.50	2.50-1	2.40 1	-6.98-1	-2.52 1
4.79542	5.72309	2.30	20.00	2.64-1	2.52 1	-7.11-1	-2.64 1
4.61464	5.83328	2.20	14.50	1.16-1	1.36 1	-5.33-1	-1.44 1
4.66150	5.84388	2.20	15.00	1.29-1	1.45 1	-5.45-1	-1.53 1
4.70651	5.85492	2.20	15.50	1.41-1	1.55 1	-5.56-1	-1.63 1
4.74984	5.86631	2.20	16.00	1.54-1	1.65 1	-5.68-1	-1.74 1
4.79160	5.87801	2.20	16.50	1.67-1	1.75 1	-5.79-1	-1.84 1
4.61285	6.03952	2.10	12.00	5.82-2	9.42 0	-4.41-1	-1.00 1
4.67301	6.04816	2.10	12.50	7.01-2	1.02 1	-4.51-1	-1.09 1
4.73018	6.05769	2.10	13.00	8.21-2	1.11 1	-4.62-1	-1.17 1
4.78465	6.06797	2.10	13.50	9.41-2	1.19 1	-4.72-1	-1.26 1
4.62722	6.28981	2.00	10.00	1.89-2	6.60 0	-3.67-1	-7.09 0
4.70473	6.29490	2.00	10.50	3.01-2	7.29 0	-3.76-1	-7.80 0
4.77743	6.30170	2.00	11.00	4.12-2	8.01 0	-3.86-1	-8.55 0
4.61287	6.43259	1.95	9.00	1.22-3	5.36 0	-3.33-1	-5.79 0
4.64973	6.43296	1.95	9.20	5.54-3	5.61 0	-3.36-1	-6.04 0
4.68548	6.43377	1.95	9.40	9.85-3	5.86 0	-3.40-1	-6.30 0
4.72018	6.43499	1.95	9.60	1.42-2	6.12 0	-3.43-1	-6.57 0
4.75390	6.43658	1.95	9.80	1.85-2	6.38 0	-3.47-1	-6.84 0
4.78669	6.43852	1.95	10.00	2.28-2	6.65 0	-3.51-1	-7.12 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.74225	6.58787	1.90	8.80	1.44-3	5.16 0	-3.14-1	-5.56 0
4.70264	6.58795	1.90	8.60	-2.73-3	4.92 0	-3.10-1	-5.31 0
4.78061	6.58829	1.90	9.00	5.60-3	5.40 0	-3.17-1	-5.81 0
4.66169	6.58859	1.90	8.40	-6.90-3	4.69 0	-3.07-1	-5.07 0
4.61931	6.58984	1.90	8.20	-1.11-2	4.46 0	-3.04-1	-4.83 0
4.79630	6.75349	1.85	8.20	-6.34-3	4.49 0	-2.89-1	-4.85 0
4.75203	6.75478	1.85	8.00	-1.04-2	4.27 0	-2.86-1	-4.62 0
4.70611	6.75678	1.85	7.80	-1.44-2	4.05 0	-2.82-1	-4.39 0
4.65843	6.75957	1.85	7.60	-1.84-2	3.84 0	-2.79-1	-4.17 0
4.60885	6.76322	1.85	7.40	-2.25-2	3.63 0	-2.76-1	-3.95 0
4.79589	6.93533	1.80	7.40	-1.74-2	3.66 0	-2.62-1	-3.97 0
4.74386	6.93919	1.80	7.20	-2.13-2	3.46 0	-2.59-1	-3.76 0
4.68960	6.94409	1.80	7.00	-2.52-2	3.26 0	-2.56-1	-3.55 0
4.63295	6.95013	1.80	6.80	-2.91-2	3.07 0	-2.53-1	-3.35 0
4.77164	7.13848	1.75	6.60	-2.75-2	2.90 0	-2.37-1	-3.17 0
4.70905	7.14631	1.75	6.40	-3.13-2	2.72 0	-2.34-1	-2.98 0
4.64335	7.15571	1.75	6.20	-3.51-2	2.54 0	-2.31-1	-2.79 0
4.78462	7.35829	1.70	6.00	-3.33-2	2.39 0	-2.15-1	-2.63 0
4.71121	7.37033	1.70	5.80	-3.69-2	2.23 0	-2.13-1	-2.45 0
4.63364	7.38455	1.70	5.60	-4.05-2	2.07 0	-2.10-1	-2.29 0
4.77550	7.60386	1.65	5.40	-3.84-2	1.93 0	-1.95-1	-2.13 0
4.68758	7.62209	1.65	5.20	-4.19-2	1.78 0	-1.93-1	-1.97 0
4.73283	7.88304	1.60	4.80	-4.31-2	1.51 0	-1.76-1	-1.68 0
4.62468	7.91072	1.60	4.60	-4.65-2	1.37 0	-1.74-1	-1.53 0
4.76466	8.17216	1.55	4.40	-4.39-2	1.26 0	-1.61-1	-1.41 0
4.63785	8.20845	1.55	4.20	-4.72-2	1.13 0	-1.58-1	-1.27 0
4.77591	8.49601	1.50	4.00	-4.46-2	1.03 0	-1.46-1	-1.16 0
4.70188	8.51916	1.50	3.90	-4.62-2	9.71-1	-1.45-1	-1.10 0
4.62439	8.54441	1.50	3.80	-4.78-2	9.16-1	-1.44-1	-1.04 0
4.75546	8.86396	1.45	3.60	-4.50-2	8.19-1	-1.32-1	-9.29-1
4.66519	8.89548	1.45	3.50	-4.65-2	7.68-1	-1.31-1	-8.74-1
4.79229	9.25020	1.40	3.30	-4.37-2	6.79-1	-1.19-1	-7.74-1
4.68540	9.29024	1.40	3.20	-4.52-2	6.32-1	-1.18-1	-7.24-1
4.67346	9.74001	1.35	2.90	-4.38-2	5.08-1	-1.07-1	-5.87-1
4.77091	10.1920	1.30	2.70	-4.10-2	4.34-1	-9.65-2	-5.04-1
4.61085	10.2614	1.30	2.60	-4.24-2	3.97-1	-9.58-2	-4.63-1
4.67146	10.7845	1.25	2.40	-3.96-2	3.31-1	-8.62-2	-3.89-1
4.70716	11.3812	1.20	2.20	-3.68-2	2.71-1	-7.71-2	-3.21-1
4.70175	12.0713	1.15	2.00	-3.41-2	2.16-1	-6.86-2	-2.59-1
4.62831	12.8839	1.10	1.80	-3.15-2	1.68-1	-6.07-2	-2.03-1
4.67196	13.7388	1.05	1.65	-2.85-2	1.35-1	-5.35-2	-1.65-1
4.66003	14.7449	1.00	1.50	-2.56-2	1.07-1	-4.68-2	-1.32-1
4.69259	15.1664	0.98	1.45	-2.44-2	9.78-2	-4.43-2	-1.21-1
4.71835	15.6167	0.96	1.40	-2.32-2	8.94-2	-4.19-2	-1.12-1
4.73539	16.0991	0.94	1.35	-2.21-2	8.14-2	-3.95-2	-1.02-1
4.74129	16.6173	0.92	1.30	-2.09-2	7.38-2	-3.72-2	-9.29-2
4.73302	17.1759	0.90	1.25	-1.99-2	6.65-2	-3.50-2	-8.42-2
4.70667	17.7800	0.88	1.20	-1.88-2	5.96-2	-3.29-2	-7.60-2
4.65726	18.4361	0.86	1.15	-1.78-2	5.30-2	-3.09-2	-6.82-2
4.69191	25.3706	0.70	0.84	-1.01-2	2.17-2	-1.72-2	-2.97-2
4.64329	29.3627	0.64	0.74	-7.79-3	1.48-2	-1.33-2	-2.08-2
4.68451	32.6431	0.60	0.68	-6.40-3	1.13-2	-1.10-2	-1.64-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.80	5.00						
4.81849	5.08173	3.50	89.00	5.09 0	3.32 2	-6.03 0	-3.39 2
4.81339	5.09533	3.40	83.00	4.30 0	3.00 2	-5.20 0	-3.07 2
4.84029	5.10016	3.50	90.00	5.20 0	3.37 2	-6.14 0	-3.44 2
4.83501	5.11328	3.40	84.00	4.40 0	3.06 2	-5.29 0	-3.12 2
4.81409	5.11667	3.30	77.00	3.63 0	2.69 2	-4.47 0	-2.75 2
4.85670	5.13135	3.40	85.00	4.50 0	3.12 2	-5.39 0	-3.18 2
4.83583	5.13433	3.30	78.00	3.71 0	2.75 2	-4.55 0	-2.81 2
4.81946	5.14510	3.20	71.00	3.04 0	2.38 2	-3.84 0	-2.43 2
4.87846	5.14955	3.40	86.00	4.60 0	3.17 2	-5.49 0	-3.24 2
4.85758	5.15209	3.30	79.00	3.80 0	2.80 2	-4.64 0	-2.86 2
4.80530	5.16250	3.10	64.00	2.47 0	2.01 2	-3.23 0	-2.06 2
4.84160	5.16267	3.20	72.00	3.11 0	2.43 2	-3.91 0	-2.49 2
4.90031	5.16790	3.40	87.00	4.70 0	3.23 2	-5.59 0	-3.29 2
4.87936	5.16995	3.30	80.00	3.88 0	2.86 2	-4.72 0	-2.92 2
4.82826	5.18012	3.10	65.00	2.53 0	2.07 2	-3.29 0	-2.12 2
4.86370	5.18031	3.20	73.00	3.19 0	2.49 2	-3.99 0	-2.54 2
4.92224	5.18638	3.40	88.00	4.81 0	3.28 2	-5.69 0	-3.35 2
4.90118	5.18791	3.30	81.00	3.97 0	2.91 2	-4.81 0	-2.97 2
4.85112	5.19778	3.10	66.00	2.60 0	2.12 2	-3.35 0	-2.17 2
4.88579	5.19802	3.20	74.00	3.26 0	2.54 2	-4.06 0	-2.60 2
4.81490	5.20334	3.00	58.00	2.03 0	1.71 2	-2.75 0	-1.76 2
4.94426	5.20501	3.40	89.00	4.91 0	3.34 2	-5.80 0	-3.40 2
4.92303	5.20599	3.30	82.00	4.06 0	2.97 2	-4.90 0	-3.03 2
4.87390	5.21548	3.10	67.00	2.66 0	2.17 2	-3.41 0	-2.23 2
4.90787	5.21581	3.20	75.00	3.34 0	2.60 2	-4.13 0	-2.65 2
4.83904	5.22126	3.00	59.00	2.09 0	1.77 2	-2.80 0	-1.81 2
4.96639	5.22380	3.40	90.00	5.02 0	3.39 2	-5.91 0	-3.46 2
4.94494	5.22418	3.30	83.00	4.15 0	3.02 2	-4.99 0	-3.09 2
4.89661	5.23323	3.10	68.00	2.73 0	2.23 2	-3.48 0	-2.28 2
4.92994	5.23368	3.20	76.00	3.42 0	2.65 2	-4.21 0	-2.71 2
4.86301	5.23920	3.00	60.00	2.14 0	1.82 2	-2.86 0	-1.86 2
4.96690	5.24249	3.30	84.00	4.24 0	3.08 2	-5.08 0	-3.14 2
4.82413	5.24967	2.90	52.00	1.65 0	1.43 2	-2.32 0	-1.47 2
4.91926	5.25103	3.10	69.00	2.79 0	2.28 2	-3.54 0	-2.34 2
4.95202	5.25163	3.20	77.00	3.50 0	2.71 2	-4.29 0	-2.77 2
4.88684	5.25715	3.00	61.00	2.20 0	1.87 2	-2.91 0	-1.92 2
4.98893	5.26093	3.30	85.00	4.34 0	3.14 2	-5.17 0	-3.20 2
4.84994	5.26809	2.90	53.00	1.70 0	1.48 2	-2.37 0	-1.52 2
4.94185	5.26889	3.10	70.00	2.86 0	2.34 2	-3.61 0	-2.39 2
4.97410	5.26968	3.20	78.00	3.58 0	2.76 2	-4.37 0	-2.82 2
4.91053	5.27513	3.00	62.00	2.26 0	1.92 2	-2.97 0	-1.97 2
4.80167	5.28187	2.80	45.00	1.27 0	1.11 2	-1.90 0	-1.14 2
4.87551	5.28649	2.90	54.00	1.75 0	1.52 2	-2.42 0	-1.57 2
4.96440	5.28680	3.10	71.00	2.93 0	2.39 2	-3.68 0	-2.45 2
4.99621	5.28782	3.20	79.00	3.66 0	2.82 2	-4.45 0	-2.88 2
4.93411	5.29313	3.00	63.00	2.32 0	1.97 2	-3.03 0	-2.02 2
4.83023	5.30102	2.80	46.00	1.31 0	1.15 2	-1.94 0	-1.19 2
4.98691	5.30478	3.10	72.00	3.00 0	2.45 2	-3.75 0	-2.50 2
4.90085	5.30489	2.90	55.00	1.80 0	1.57 2	-2.47 0	-1.62 2
4.95757	5.31116	3.00	64.00	2.38 0	2.03 2	-3.08 0	-2.08 2
4.85839	5.32014	2.80	47.00	1.36 0	1.20 2	-1.99 0	-1.24 2
4.92597	5.32329	2.90	56.00	1.85 0	1.62 2	-2.52 0	-1.67 2
4.98092	5.32922	3.00	65.00	2.44 0	2.08 2	-3.14 0	-2.13 2
4.88620	5.33922	2.80	48.00	1.40 0	1.25 2	-2.03 0	-1.28 2
4.95090	5.34169	2.90	57.00	1.90 0	1.68 2	-2.57 0	-1.72 2
4.82908	5.35689	2.70	40.00	1.02 0	9.03 1	-1.61 0	-9.31 1
4.91366	5.35828	2.80	49.00	1.45 0	1.29 2	-2.07 0	-1.33 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.97565	5.36009	2.90	58.00	1.96 0	1.73 2	-2.62 0	-1.77 2
4.86058	5.37693	2.70	41.00	1.06 0	9.44 1	-1.65 0	-9.74 1
4.94080	5.37730	2.80	50.00	1.49 0	1.34 2	-2.12 0	-1.38 2
4.96765	5.39631	2.80	51.00	1.54 0	1.39 2	-2.16 0	-1.43 2
4.89154	5.39691	2.70	42.00	1.10 0	9.87 1	-1.69 0	-1.02 2
4.99421	5.41529	2.80	52.00	1.59 0	1.44 2	-2.21 0	-1.48 2
4.81410	5.41680	2.60	34.00	7.56-1	6.74 1	-1.31 0	-6.97 1
4.92198	5.41685	2.70	43.00	1.14 0	1.03 2	-1.72 0	-1.06 2
4.95196	5.43673	2.70	44.00	1.18 0	1.07 2	-1.76 0	-1.11 2
4.85044	5.43796	2.60	35.00	7.92-1	7.11 1	-1.35 0	-7.35 1
4.98149	5.45656	2.70	45.00	1.22 0	1.12 2	-1.80 0	-1.15 2
4.88596	5.45907	2.60	36.00	8.28-1	7.49 1	-1.38 0	-7.74 1
4.92069	5.48010	2.60	37.00	8.65-1	7.88 1	-1.42 0	-8.14 1
4.95471	5.50108	2.60	38.00	9.02-1	8.28 1	-1.45 0	-8.55 1
4.81764	5.50295	2.50	29.00	5.60-1	5.04 1	-1.08 0	-5.23 1
4.98806	5.52198	2.60	39.00	9.40-1	8.69 1	-1.49 0	-8.96 1
4.86006	5.52531	2.50	30.00	5.93-1	5.37 1	-1.11 0	-5.57 1
4.90123	5.54763	2.50	31.00	6.27-1	5.72 1	-1.14 0	-5.92 1
4.94126	5.56989	2.50	32.00	6.60-1	6.07 1	-1.17 0	-6.28 1
4.98023	5.59209	2.50	33.00	6.94-1	6.43 1	-1.20 0	-6.65 1
4.84799	5.61960	2.40	25.00	4.18-1	3.84 1	-8.98-1	-3.99 1
4.89759	5.64315	2.40	26.00	4.48-1	4.13 1	-9.27-1	-4.30 1
4.94540	5.66670	2.40	27.00	4.79-1	4.44 1	-9.55-1	-4.61 1
4.99157	5.69024	2.40	28.00	5.10-1	4.76 1	-9.84-1	-4.94 1
4.85864	5.74734	2.30	21.00	2.92-1	2.77 1	-7.36-1	-2.90 1
4.91875	5.77187	2.30	22.00	3.20-1	3.03 1	-7.62-1	-3.16 1
4.97611	5.79656	2.30	23.00	3.48-1	3.30 1	-7.88-1	-3.44 1
4.83193	5.88998	2.20	17.00	1.80-1	1.86 1	-5.91-1	-1.95 1
4.87093	5.90217	2.20	17.50	1.93-1	1.96 1	-6.02-1	-2.06 1
4.90868	5.91455	2.20	18.00	2.06-1	2.08 1	-6.14-1	-2.18 1
4.94528	5.92708	2.20	18.50	2.19-1	2.19 1	-6.26-1	-2.29 1
4.98081	5.93976	2.20	19.00	2.32-1	2.31 1	-6.38-1	-2.41 1
4.83668	6.07887	2.10	14.00	1.06-1	1.28 1	-4.82-1	-1.35 1
4.88648	6.09031	2.10	14.50	1.18-1	1.37 1	-4.93-1	-1.45 1
4.93425	6.10220	2.10	15.00	1.30-1	1.47 1	-5.04-1	-1.55 1
4.98016	6.11447	2.10	15.50	1.42-1	1.57 1	-5.15-1	-1.65 1
4.84588	6.30989	2.00	11.50	5.24-2	8.76 0	-3.95-1	-9.32 0
4.91056	6.31925	2.00	12.00	6.36-2	9.54 0	-4.05-1	-1.01 1
4.97187	6.32959	2.00	12.50	7.47-2	1.03 1	-4.15-1	-1.10 1
4.86490	6.44471	1.95	10.50	3.36-2	7.34 0	-3.60-1	-7.84 0
4.93828	6.45254	1.95	11.00	4.43-2	8.06 0	-3.69-1	-8.58 0
4.81778	6.58919	1.90	9.20	9.76-3	5.65 0	-3.21-1	-6.07 0
4.85384	6.59051	1.90	9.40	1.39-2	5.90 0	-3.24-1	-6.33 0
4.88886	6.59223	1.90	9.60	1.81-2	6.16 0	-3.28-1	-6.60 0
4.92289	6.59431	1.90	9.80	2.22-2	6.42 0	-3.31-1	-6.87 0
4.95598	6.59672	1.90	10.00	2.64-2	6.69 0	-3.34-1	-7.15 0
4.88034	6.75280	1.85	8.60	1.68-3	4.95 0	-2.95-1	-5.33 0
4.83904	6.75285	1.85	8.40	-2.33-3	4.72 0	-2.92-1	-5.09 0
4.92030	6.75330	1.85	8.80	5.69-3	5.19 0	-2.99-1	-5.58 0
4.95900	6.75429	1.85	9.00	9.69-3	5.44 0	-3.02-1	-5.84 0
4.99651	6.75573	1.85	9.20	1.37-2	5.69 0	-3.05-1	-6.10 0
4.98493	6.92835	1.80	8.20	-1.91-3	4.52 0	-2.74-1	-4.87 0
4.94027	6.92898	1.80	8.00	-5.77-3	4.30 0	-2.71-1	-4.64 0
4.89396	6.93031	1.80	7.80	-9.63-3	4.08 0	-2.68-1	-4.41 0
4.84588	6.93239	1.80	7.60	-1.35-2	3.87 0	-2.65-1	-4.19 0
4.99567	7.11966	1.75	7.40	-1.26-2	3.69 0	-2.48-1	-3.99 0
4.94319	7.12274	1.75	7.20	-1.63-2	3.48 0	-2.45-1	-3.78 0
4.88849	7.12683	1.75	7.00	-2.01-2	3.28 0	-2.42-1	-3.57 0
4.83137	7.13203	1.75	6.80	-2.38-2	3.09 0	-2.39-1	-3.37 0
4.98358	7.33289	1.70	6.60	-2.24-2	2.93 0	-2.24-1	-3.18 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.92048	7.33977	1.70	6.40	-2.60-2	2.74 0	-2.21-1	-2.99 0
4.85427	7.34818	1.70	6.20	-2.96-2	2.57 0	-2.18-1	-2.81 0
4.93644	7.57536	1.65	5.80	-3.14-2	2.25 0	-2.00-1	-2.46 0
4.85828	7.58840	1.65	5.60	-3.49-2	2.08 0	-1.98-1	-2.29 0
4.92801	7.83955	1.60	5.20	-3.63-2	1.79 0	-1.81-1	-1.98 0
4.83366	7.85950	1.60	5.00	-3.97-2	1.65 0	-1.79-1	-1.82 0
4.99083	8.11546	1.55	4.80	-3.74-2	1.52 0	-1.65-1	-1.68 0
4.88192	8.14144	1.55	4.60	-4.07-2	1.39 0	-1.63-1	-1.54 0
4.91461	8.45531	1.50	4.20	-4.14-2	1.15 0	-1.48-1	-1.28 0
4.92302	8.80895	1.45	3.80	-4.20-2	9.25-1	-1.34-1	-1.04 0
4.84128	8.83521	1.45	3.70	-4.35-2	8.71-1	-1.33-1	-9.85-1
4.98903	9.18089	1.40	3.50	-4.08-2	7.77-1	-1.21-1	-8.79-1
4.89332	9.21388	1.40	3.40	-4.23-2	7.27-1	-1.20-1	-8.26-1
4.92381	9.64118	1.35	3.10	-4.10-2	5.94-1	-1.08-1	-6.79-1
4.80262	9.68801	1.35	3.00	-4.24-2	5.50-1	-1.08-1	-6.32-1
4.91972	10.1301	1.30	2.80	-3.96-2	4.74-1	-9.72-2	-5.46-1
4.85971	10.6999	1.25	2.50	-3.82-2	3.66-1	-8.68-2	-4.26-1
4.93240	11.2760	1.20	2.30	-3.55-2	3.03-1	-7.77-2	-3.55-1
4.97696	11.9374	1.15	2.10	-3.29-2	2.45-1	-6.91-2	-2.90-1
4.97353	12.7083	1.10	1.90	-3.04-2	1.93-1	-6.11-2	-2.31-1
4.80605	12.7925	1.10	1.85	-3.10-2	1.80-1	-6.09-2	-2.16-1
4.88815	13.6249	1.05	1.70	-2.79-2	1.47-1	-5.37-2	-1.78-1
4.92932	14.5993	1.00	1.55	-2.51-2	1.17-1	-4.70-2	-1.43-1
4.98421	15.0077	0.98	1.50	-2.39-2	1.07-1	-4.44-2	-1.32-1
4.90749	21.2650	0.78	1.00	-1.36-2	3.62-2	-2.35-2	-4.75-2
4.90370	22.1510	0.76	0.96	-1.27-2	3.22-2	-2.18-2	-4.26-2
4.87292	23.1215	0.74	0.92	-1.18-2	2.85-2	-2.02-2	-3.80-2
4.80627	24.1893	0.72	0.88	-1.09-2	2.50-2	-1.87-2	-3.37-2
4.90914	27.7697	0.66	0.78	-8.48-3	1.74-2	-1.45-2	-2.42-2
5.00	5.20						
5.01104	5.27950	3.30	86.00	4.44 0	3.19 2	-5.27 0	-3.25 2
5.03322	5.29821	3.30	87.00	4.54 0	3.25 2	-5.37 0	-3.31 2
5.01835	5.30607	3.20	80.00	3.74 0	2.88 2	-4.53 0	-2.93 2
5.05549	5.31706	3.30	88.00	4.64 0	3.30 2	-5.47 0	-3.37 2
5.00939	5.32283	3.10	73.00	3.07 0	2.50 2	-3.82 0	-2.56 2
5.04051	5.32442	3.20	81.00	3.83 0	2.93 2	-4.61 0	-2.99 2
5.07786	5.33606	3.30	89.00	4.74 0	3.36 2	-5.57 0	-3.42 2
5.03185	5.34095	3.10	74.00	3.14 0	2.56 2	-3.89 0	-2.61 2
5.06273	5.34288	3.20	82.00	3.91 0	2.99 2	-4.70 0	-3.05 2
5.00419	5.34733	3.00	66.00	2.50 0	2.14 2	-3.20 0	-2.18 2
5.10034	5.35522	3.30	90.00	4.84 0	3.41 2	-5.67 0	-3.48 2
5.05430	5.35915	3.10	75.00	3.22 0	2.61 2	-3.96 0	-2.67 2
5.08499	5.36145	3.20	83.00	4.00 0	3.04 2	-4.79 0	-3.10 2
5.02737	5.36547	3.00	67.00	2.56 0	2.19 2	-3.26 0	-2.24 2
5.07675	5.37742	3.10	76.00	3.29 0	2.67 2	-4.03 0	-2.73 2
5.00022	5.37850	2.90	59.00	2.01 0	1.78 2	-2.67 0	-1.82 2
5.10731	5.38015	3.20	84.00	4.09 0	3.10 2	-4.87 0	-3.16 2
5.05048	5.38366	3.00	68.00	2.62 0	2.24 2	-3.33 0	-2.29 2
5.09920	5.39578	3.10	77.00	3.37 0	2.73 2	-4.11 0	-2.78 2
5.02463	5.39692	2.90	60.00	2.06 0	1.83 2	-2.72 0	-1.88 2
5.12970	5.39898	3.20	85.00	4.18 0	3.16 2	-4.96 0	-3.22 2
5.07352	5.40190	3.00	69.00	2.69 0	2.30 2	-3.39 0	-2.35 2
5.12166	5.41424	3.10	78.00	3.44 0	2.78 2	-4.18 0	-2.84 2
5.04889	5.41536	2.90	61.00	2.12 0	1.88 2	-2.78 0	-1.93 2
5.15216	5.41794	3.20	86.00	4.27 0	3.21 2	-5.06 0	-3.27 2
5.09652	5.42019	3.00	70.00	2.75 0	2.35 2	-3.45 0	-2.41 2
5.14414	5.43279	3.10	79.00	3.52 0	2.84 2	-4.26 0	-2.90 2
5.07302	5.43382	2.90	62.00	2.17 0	1.94 2	-2.83 0	-1.98 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.02051	5.43425	2.80	53.00	1.63 0	1.49 2	-2.25 0	-1.53 2
5.17471	5.43703	3.20	87.00	4.37 0	3.27 2	-5.15 0	-3.33 2
5.11946	5.43854	3.00	71.00	2.82 0	2.41 2	-3.52 0	-2.46 2
5.16665	5.45144	3.10	80.00	3.60 0	2.90 2	-4.34 0	-2.95 2
5.09703	5.45230	2.90	63.00	2.23 0	1.99 2	-2.89 0	-2.04 2
5.04656	5.45320	2.80	54.00	1.68 0	1.54 2	-2.30 0	-1.58 2
5.19734	5.45627	3.20	88.00	4.47 0	3.32 2	-5.24 0	-3.39 2
5.14237	5.45696	3.00	72.00	2.89 0	2.47 2	-3.58 0	-2.52 2
5.18920	5.47020	3.10	81.00	3.68 0	2.95 2	-4.42 0	-3.01 2
5.12092	5.47080	2.90	64.00	2.29 0	2.04 2	-2.94 0	-2.09 2
5.07238	5.47214	2.80	55.00	1.73 0	1.59 2	-2.35 0	-1.63 2
5.16525	5.47544	3.00	73.00	2.95 0	2.52 2	-3.65 0	-2.57 2
5.01060	5.47635	2.70	46.00	1.26 0	1.16 2	-1.85 0	-1.20 2
5.14470	5.48934	2.90	65.00	2.34 0	2.10 2	-3.00 0	-2.14 2
5.09799	5.49108	2.80	56.00	1.78 0	1.64 2	-2.40 0	-1.68 2
5.18811	5.49399	3.00	74.00	3.02 0	2.58 2	-3.72 0	-2.63 2
5.03931	5.49610	2.70	47.00	1.30 0	1.21 2	-1.89 0	-1.24 2
5.16839	5.50791	2.90	66.00	2.40 0	2.15 2	-3.06 0	-2.20 2
5.12339	5.51000	2.80	57.00	1.83 0	1.69 2	-2.44 0	-1.73 2
5.06766	5.51580	2.70	48.00	1.35 0	1.26 2	-1.93 0	-1.29 2
5.19200	5.52653	2.90	67.00	2.46 0	2.21 2	-3.11 0	-2.25 2
5.14860	5.52893	2.80	58.00	1.88 0	1.74 2	-2.49 0	-1.78 2
5.09567	5.53547	2.70	49.00	1.39 0	1.30 2	-1.97 0	-1.34 2
5.02078	5.54282	2.60	40.00	9.77-1	9.10 1	-1.52 0	-9.38 1
5.17364	5.54786	2.80	59.00	1.93 0	1.79 2	-2.54 0	-1.83 2
5.12334	5.55510	2.70	50.00	1.43 0	1.35 2	-2.01 0	-1.39 2
5.05291	5.56359	2.60	41.00	1.02 0	9.53 1	-1.56 0	-9.81 1
5.19852	5.56680	2.80	60.00	1.98 0	1.85 2	-2.59 0	-1.89 2
5.15072	5.57470	2.70	51.00	1.48 0	1.40 2	-2.05 0	-1.44 2
5.08449	5.58430	2.60	42.00	1.05 0	9.96 1	-1.60 0	-1.02 2
5.17781	5.59428	2.70	52.00	1.52 0	1.45 2	-2.10 0	-1.49 2
5.11556	5.60495	2.60	43.00	1.09 0	1.04 2	-1.63 0	-1.07 2
5.01823	5.61421	2.50	34.00	7.28-1	6.80 1	-1.24 0	-7.02 1
5.14614	5.62553	2.60	44.00	1.13 0	1.08 2	-1.67 0	-1.11 2
5.05532	5.63626	2.50	35.00	7.62-1	7.18 1	-1.27 0	-7.41 1
5.17627	5.64605	2.60	45.00	1.17 0	1.13 2	-1.71 0	-1.16 2
5.09156	5.65823	2.50	36.00	7.97-1	7.56 1	-1.30 0	-7.80 1
5.12702	5.68012	2.50	37.00	8.32-1	7.96 1	-1.34 0	-8.20 1
5.16175	5.70192	2.50	38.00	8.67-1	8.36 1	-1.37 0	-8.61 1
5.03624	5.71373	2.40	29.00	5.41-1	5.09 1	-1.01 0	-5.27 1
5.19580	5.72364	2.50	39.00	9.03-1	8.77 1	-1.40 0	-9.03 1
5.07955	5.73717	2.40	30.00	5.72-1	5.43 1	-1.04 0	-5.62 1
5.12159	5.76053	2.40	31.00	6.04-1	5.77 1	-1.07 0	-5.97 1
5.16248	5.78382	2.40	32.00	6.36-1	6.13 1	-1.10 0	-6.33 1
5.03100	5.82137	2.30	24.00	3.76-1	3.58 1	-8.14-1	-3.73 1
5.08367	5.84622	2.30	25.00	4.05-1	3.88 1	-8.41-1	-4.03 1
5.13433	5.87107	2.30	26.00	4.34-1	4.18 1	-8.68-1	-4.33 1
5.18317	5.89589	2.30	27.00	4.63-1	4.49 1	-8.95-1	-4.65 1
5.01533	5.95255	2.20	19.50	2.45-1	2.43 1	-6.50-1	-2.54 1
5.04890	5.96543	2.20	20.00	2.58-1	2.55 1	-6.62-1	-2.66 1
5.11345	5.99141	2.20	21.00	2.84-1	2.80 1	-6.86-1	-2.92 1
5.17486	6.01758	2.20	22.00	3.11-1	3.06 1	-7.10-1	-3.19 1
5.02436	6.12707	2.10	16.00	1.54-1	1.67 1	-5.25-1	-1.75 1
5.06698	6.13994	2.10	16.50	1.66-1	1.77 1	-5.36-1	-1.86 1
5.10815	6.15304	2.10	17.00	1.78-1	1.88 1	-5.47-1	-1.97 1
5.14797	6.16633	2.10	17.50	1.91-1	1.99 1	-5.58-1	-2.08 1
5.18653	6.17978	2.10	18.00	2.03-1	2.10 1	-5.69-1	-2.20 1
5.03015	6.34075	2.00	13.00	8.59-2	1.12 1	-4.24-1	-1.18 1
5.08571	6.35258	2.00	13.50	9.71-2	1.21 1	-4.34-1	-1.27 1
5.13880	6.36499	2.00	14.00	1.08-1	1.30 1	-4.44-1	-1.37 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.18964	6.37788	2.00	14.50	1.20-1	1.39 1	-4.54-1	-1.46 1
5.00739	6.46173	1.95	11.50	5.51-2	8.81 0	-3.78-1	-9.36 0
5.07271	6.47204	1.95	12.00	6.59-2	9.60 0	-3.87-1	-1.02 1
5.13464	6.48328	1.95	12.50	7.66-2	1.04 1	-3.97-1	-1.10 1
5.19353	6.49531	1.95	13.00	8.74-2	1.13 1	-4.06-1	-1.19 1
5.03493	6.60406	1.90	10.50	3.67-2	7.39 0	-3.43-1	-7.87 0
5.10902	6.61298	1.90	11.00	4.71-2	8.11 0	-3.52-1	-8.62 0
5.17883	6.62321	1.90	11.50	5.75-2	8.87 0	-3.61-1	-9.41 0
5.03291	6.75759	1.85	9.40	1.77-2	5.94 0	-3.09-1	-6.36 0
5.06826	6.75983	1.85	9.60	2.17-2	6.20 0	-3.12-1	-6.63 0
5.10261	6.76242	1.85	9.80	2.57-2	6.47 0	-3.15-1	-6.91 0
5.13602	6.76534	1.85	10.00	2.97-2	6.74 0	-3.19-1	-7.19 0
5.02805	6.92835	1.80	8.40	1.95-3	4.75 0	-2.78-1	-5.11 0
5.06973	6.92893	1.80	8.60	5.80-3	4.99 0	-2.81-1	-5.36 0
5.11006	6.93003	1.80	8.80	9.66-3	5.23 0	-2.84-1	-5.61 0
5.14913	6.93161	1.80	9.00	1.35-2	5.48 0	-2.87-1	-5.86 0
5.18700	6.93363	1.80	9.20	1.74-2	5.73 0	-2.90-1	-6.13 0
5.14133	7.11553	1.75	8.00	-1.46-3	4.33 0	-2.57-1	-4.66 0
5.18640	7.11559	1.75	8.20	2.24-3	4.56 0	-2.60-1	-4.90 0
5.09460	7.11613	1.75	7.80	-5.17-3	4.11 0	-2.54-1	-4.43 0
5.04609	7.11749	1.75	7.60	-8.89-3	3.90 0	-2.51-1	-4.21 0
5.15660	7.31981	1.70	7.20	-1.17-2	3.51 0	-2.32-1	-3.80 0
5.10141	7.32304	1.70	7.00	-1.53-2	3.31 0	-2.29-1	-3.59 0
5.04381	7.32735	1.70	6.80	-1.89-2	3.11 0	-2.26-1	-3.38 0
5.14741	7.54806	1.65	6.40	-2.11-2	2.77 0	-2.08-1	-3.01 0
5.08063	7.55542	1.65	6.20	-2.45-2	2.59 0	-2.06-1	-2.82 0
5.01042	7.56445	1.65	6.00	-2.80-2	2.41 0	-2.03-1	-2.64 0
5.17881	7.79675	1.60	5.80	-2.63-2	2.26 0	-1.88-1	-2.47 0
5.10002	7.80854	1.60	5.60	-2.96-2	2.10 0	-1.86-1	-2.30 0
5.01659	7.82269	1.60	5.40	-3.30-2	1.94 0	-1.83-1	-2.14 0
5.18749	8.07512	1.55	5.20	-3.10-2	1.81 0	-1.70-1	-1.99 0
5.09241	8.09354	1.55	5.00	-3.42-2	1.66 0	-1.67-1	-1.83 0
5.16039	8.39226	1.50	4.60	-3.52-2	1.40 0	-1.52-1	-1.55 0
5.04228	8.42106	1.50	4.40	-3.83-2	1.27 0	-1.50-1	-1.41 0
5.07553	8.76303	1.45	4.00	-3.90-2	1.04 0	-1.35-1	-1.16 0
5.00101	8.78496	1.45	3.90	-4.05-2	9.81-1	-1.34-1	-1.10 0
5.16625	9.12359	1.40	3.70	-3.79-2	8.81-1	-1.23-1	-9.90-1
5.07986	9.15089	1.40	3.60	-3.94-2	8.28-1	-1.22-1	-9.34-1
5.14538	9.56073	1.35	3.30	-3.82-2	6.86-1	-1.10-1	-7.78-1
5.03784	9.59892	1.35	3.20	-3.96-2	6.39-1	-1.09-1	-7.28-1
5.18846	10.0249	1.30	3.00	-3.70-2	5.57-1	-9.88-2	-6.36-1
5.05854	10.0746	1.30	2.90	-3.83-2	5.15-1	-9.80-2	-5.90-1
5.19434	10.5584	1.25	2.70	-3.57-2	4.40-1	-8.82-2	-5.07-1
5.03341	10.6249	1.25	2.60	-3.69-2	4.02-1	-8.75-2	-4.66-1
5.13835	11.1838	1.20	2.40	-3.43-2	3.36-1	-7.83-2	-3.91-1
5.13169	12.6305	1.10	1.95	-2.98-2	2.06-1	-6.14-2	-2.45-1
5.09047	13.5208	1.05	1.75	-2.74-2	1.58-1	-5.39-2	-1.91-1
5.17917	14.4675	1.00	1.60	-2.46-2	1.27-1	-4.71-2	-1.55-1
5.03528	15.4431	0.96	1.45	-2.27-2	9.86-2	-4.20-2	-1.22-1
5.08116	15.9085	0.94	1.40	-2.16-2	9.02-2	-3.96-2	-1.12-1
5.12013	16.4070	0.92	1.35	-2.05-2	8.22-2	-3.73-2	-1.02-1
5.14998	16.9427	0.90	1.30	-1.94-2	7.45-2	-3.51-2	-9.32-2
5.16792	17.5201	0.88	1.25	-1.83-2	6.71-2	-3.30-2	-8.46-2
5.17034	18.1446	0.86	1.20	-1.73-2	6.02-2	-3.09-2	-7.63-2
5.15259	18.8227	0.84	1.15	-1.63-2	5.36-2	-2.90-2	-6.84-2
5.10860	19.5621	0.82	1.10	-1.54-2	4.74-2	-2.71-2	-6.10-2
5.03042	20.3723	0.80	1.05	-1.45-2	4.16-2	-2.52-2	-5.40-2
5.18611	25.0824	0.70	0.86	-9.98-3	2.35-2	-1.72-2	-3.17-2
5.08182	26.3524	0.68	0.82	-9.21-3	2.03-2	-1.59-2	-2.78-2
5.09101	30.6771	0.62	0.72	-7.00-3	1.37-2	-1.21-2	-1.93-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.18550	34.2633	0.58	0.66	-5.69-3	1.04-2	-9.97-3	-1.51-2
5.08892	38.7807	0.54	0.60	-4.55-3	7.60-3	-8.07-3	-1.14-2
5.20	5.40						
5.22008	5.47567	3.20	89.00	4.56 0	3.38 2	-5.34 0	-3.44 2
5.21179	5.48906	3.10	82.00	3.77 0	3.01 2	-4.50 0	-3.07 2
5.24291	5.49522	3.20	90.00	4.67 0	3.44 2	-5.44 0	-3.50 2
5.23443	5.50805	3.10	83.00	3.85 0	3.06 2	-4.58 0	-3.12 2
5.21095	5.51262	3.00	75.00	3.09 0	2.63 2	-3.79 0	-2.69 2
5.25713	5.52715	3.10	84.00	3.94 0	3.12 2	-4.67 0	-3.18 2
5.23379	5.53132	3.00	76.00	3.16 0	2.69 2	-3.86 0	-2.74 2
5.21554	5.54518	2.90	68.00	2.52 0	2.26 2	-3.17 0	-2.31 2
5.27990	5.54639	3.10	85.00	4.02 0	3.18 2	-4.75 0	-3.24 2
5.25664	5.55012	3.00	77.00	3.24 0	2.75 2	-3.93 0	-2.80 2
5.23901	5.56389	2.90	69.00	2.58 0	2.32 2	-3.23 0	-2.37 2
5.30274	5.56575	3.10	86.00	4.11 0	3.23 2	-4.84 0	-3.29 2
5.27950	5.56900	3.00	78.00	3.31 0	2.80 2	-4.00 0	-2.86 2
5.26242	5.58264	2.90	70.00	2.65 0	2.37 2	-3.29 0	-2.42 2
5.32566	5.58526	3.10	87.00	4.20 0	3.29 2	-4.93 0	-3.35 2
5.22325	5.58576	2.80	61.00	2.03 0	1.90 2	-2.65 0	-1.94 2
5.30238	5.58798	3.00	79.00	3.39 0	2.86 2	-4.07 0	-2.91 2
5.28579	5.60146	2.90	71.00	2.71 0	2.43 2	-3.36 0	-2.48 2
5.24784	5.60473	2.80	62.00	2.09 0	1.95 2	-2.70 0	-2.00 2
5.34868	5.60491	3.10	88.00	4.30 0	3.35 2	-5.02 0	-3.41 2
5.32529	5.60706	3.00	80.00	3.46 0	2.92 2	-4.15 0	-2.97 2
5.20463	5.61383	2.70	53.00	1.57 0	1.50 2	-2.14 0	-1.54 2
5.30912	5.62033	2.90	72.00	2.77 0	2.48 2	-3.42 0	-2.53 2
5.27231	5.62371	2.80	63.00	2.14 0	2.01 2	-2.75 0	-2.05 2
5.37180	5.62472	3.10	89.00	4.39 0	3.40 2	-5.12 0	-3.46 2
5.34823	5.62625	3.00	81.00	3.54 0	2.97 2	-4.23 0	-3.03 2
5.23120	5.63336	2.70	54.00	1.61 0	1.55 2	-2.19 0	-1.59 2
5.33242	5.63927	2.90	73.00	2.84 0	2.54 2	-3.48 0	-2.59 2
5.29666	5.64273	2.80	64.00	2.19 0	2.06 2	-2.80 0	-2.10 2
5.39503	5.64468	3.10	90.00	4.49 0	3.46 2	-5.21 0	-3.52 2
5.37122	5.64555	3.00	82.00	3.62 0	3.03 2	-4.30 0	-3.09 2
5.25753	5.65287	2.70	55.00	1.66 0	1.60 2	-2.23 0	-1.64 2
5.35570	5.65828	2.90	74.00	2.90 0	2.60 2	-3.55 0	-2.65 2
5.32090	5.66177	2.80	65.00	2.25 0	2.11 2	-2.86 0	-2.16 2
5.39426	5.66496	3.00	83.00	3.70 0	3.09 2	-4.38 0	-3.14 2
5.20598	5.66652	2.60	46.00	1.21 0	1.17 2	-1.75 0	-1.21 2
5.28365	5.67238	2.70	56.00	1.71 0	1.65 2	-2.28 0	-1.69 2
5.37897	5.67737	2.90	75.00	2.97 0	2.65 2	-3.61 0	-2.70 2
5.34505	5.68084	2.80	66.00	2.31 0	2.17 2	-2.91 0	-2.21 2
5.23529	5.68694	2.60	47.00	1.25 0	1.22 2	-1.79 0	-1.25 2
5.30956	5.69187	2.70	57.00	1.75 0	1.70 2	-2.32 0	-1.74 2
5.36911	5.69996	2.80	67.00	2.36 0	2.22 2	-2.97 0	-2.27 2
5.26422	5.70731	2.60	48.00	1.29 0	1.27 2	-1.83 0	-1.30 2
5.33528	5.71136	2.70	58.00	1.80 0	1.76 2	-2.37 0	-1.79 2
5.39310	5.71911	2.80	68.00	2.42 0	2.28 2	-3.02 0	-2.33 2
5.29280	5.72763	2.60	49.00	1.33 0	1.32 2	-1.87 0	-1.35 2
5.36082	5.73085	2.70	59.00	1.85 0	1.81 2	-2.42 0	-1.85 2
5.22921	5.74529	2.50	40.00	9.39-1	9.19 1	-1.44 0	-9.45 1
5.32105	5.74791	2.60	50.00	1.38 0	1.36 2	-1.91 0	-1.40 2
5.38620	5.75034	2.70	60.00	1.90 0	1.86 2	-2.47 0	-1.90 2
5.26203	5.76685	2.50	41.00	9.75-1	9.61 1	-1.47 0	-9.89 1
5.34900	5.76815	2.60	51.00	1.42 0	1.41 2	-1.95 0	-1.45 2
5.29428	5.78833	2.50	42.00	1.01 0	1.00 2	-1.51 0	-1.03 2
5.37665	5.78836	2.60	52.00	1.46 0	1.46 2	-1.99 0	-1.50 2
5.20229	5.80701	2.40	33.00	6.68-1	6.49 1	-1.13 0	-6.70 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.32601	5.80974	2.50	43.00	1.05 0	1.05 2	-1.54 0	-1.08 2
5.24111	5.83011	2.40	34.00	7.00-1	6.86 1	-1.16 0	-7.08 1
5.35726	5.83107	2.50	44.00	1.09 0	1.09 2	-1.58 0	-1.12 2
5.38804	5.85234	2.50	45.00	1.12 0	1.14 2	-1.62 0	-1.17 2
5.27900	5.85311	2.40	35.00	7.33-1	7.25 1	-1.20 0	-7.47 1
5.31604	5.87602	2.40	36.00	7.65-1	7.64 1	-1.23 0	-7.86 1
5.35229	5.89882	2.40	37.00	7.98-1	8.03 1	-1.26 0	-8.27 1
5.23035	5.92066	2.30	28.00	4.92-1	4.81 1	-9.23-1	-4.98 1
5.38779	5.92152	2.40	38.00	8.32-1	8.44 1	-1.29 0	-8.68 1
5.27601	5.94535	2.30	29.00	5.21-1	5.14 1	-9.50-1	-5.32 1
5.32028	5.96996	2.30	30.00	5.51-1	5.48 1	-9.78-1	-5.66 1
5.36328	5.99445	2.30	31.00	5.81-1	5.83 1	-1.01 0	-6.02 1
5.23348	6.04387	2.20	23.00	3.37-1	3.34 1	-7.35-1	-3.47 1
5.28959	6.07020	2.20	24.00	3.64-1	3.62 1	-7.60-1	-3.76 1
5.34345	6.09652	2.20	25.00	3.91-1	3.92 1	-7.85-1	-4.06 1
5.39527	6.12280	2.20	26.00	4.18-1	4.22 1	-8.11-1	-4.37 1
5.22393	6.19337	2.10	18.50	2.15-1	2.21 1	-5.80-1	-2.31 1
5.26023	6.20706	2.10	19.00	2.27-1	2.33 1	-5.92-1	-2.44 1
5.29552	6.22085	2.10	19.50	2.39-1	2.45 1	-6.03-1	-2.56 1
5.32985	6.23470	2.10	20.00	2.52-1	2.58 1	-6.14-1	-2.69 1
5.39587	6.26256	2.10	21.00	2.76-1	2.83 1	-6.37-1	-2.95 1
5.23842	6.39118	2.00	15.00	1.31-1	1.49 1	-4.64-1	-1.56 1
5.28532	6.40481	2.00	15.50	1.42-1	1.58 1	-4.74-1	-1.66 1
5.33049	6.41872	2.00	16.00	1.53-1	1.69 1	-4.84-1	-1.77 1
5.37407	6.43287	2.00	16.50	1.65-1	1.79 1	-4.95-1	-1.88 1
5.24968	6.50798	1.95	13.50	9.82-2	1.21 1	-4.16-1	-1.28 1
5.30334	6.52120	1.95	14.00	1.09-1	1.30 1	-4.25-1	-1.37 1
5.35474	6.53487	1.95	14.50	1.20-1	1.40 1	-4.35-1	-1.47 1
5.24482	6.63451	1.90	12.00	6.79-2	9.66 0	-3.70-1	-1.02 1
5.30741	6.64671	1.90	12.50	7.83-2	1.05 1	-3.79-1	-1.11 1
5.36695	6.65965	1.90	13.00	8.87-2	1.13 1	-3.88-1	-1.19 1
5.21576	6.77388	1.85	10.50	3.97-2	7.44 0	-3.27-1	-7.91 0
5.29062	6.78395	1.85	11.00	4.97-2	8.17 0	-3.36-1	-8.67 0
5.36116	6.79528	1.85	11.50	5.97-2	8.93 0	-3.45-1	-9.45 0
5.22376	6.93606	1.80	9.40	2.12-2	5.98 0	-2.94-1	-6.39 0
5.25945	6.93885	1.80	9.60	2.50-2	6.25 0	-2.97-1	-6.66 0
5.29415	6.94199	1.80	9.80	2.89-2	6.51 0	-3.00-1	-6.94 0
5.32791	6.94543	1.80	10.00	3.27-2	6.79 0	-3.03-1	-7.22 0
5.22993	7.11627	1.75	8.40	5.94-3	4.79 0	-2.63-1	-5.14 0
5.27202	7.11750	1.75	8.60	9.64-3	5.03 0	-2.66-1	-5.39 0
5.31275	7.11925	1.75	8.80	1.33-2	5.27 0	-2.70-1	-5.64 0
5.35220	7.12146	1.75	9.00	1.70-2	5.52 0	-2.73-1	-5.89 0
5.39046	7.12409	1.75	9.20	2.07-2	5.77 0	-2.76-1	-6.16 0
5.30940	7.31561	1.70	7.80	-1.01-3	4.14 0	-2.41-1	-4.46 0
5.35659	7.31576	1.70	8.00	2.55-3	4.37 0	-2.44-1	-4.69 0
5.26044	7.31618	1.70	7.60	-4.57-3	3.93 0	-2.38-1	-4.23 0
5.20955	7.31755	1.70	7.40	-8.13-3	3.72 0	-2.35-1	-4.01 0
5.38565	7.53191	1.65	7.20	-7.36-3	3.54 0	-2.19-1	-3.82 0
5.32994	7.53423	1.65	7.00	-1.08-2	3.34 0	-2.16-1	-3.60 0
5.27181	7.53762	1.65	6.80	-1.42-2	3.14 0	-2.14-1	-3.40 0
5.21105	7.54218	1.65	6.60	-1.76-2	2.95 0	-2.11-1	-3.20 0
5.39161	7.77291	1.60	6.40	-1.64-2	2.79 0	-1.96-1	-3.02 0
5.32424	7.77916	1.60	6.20	-1.97-2	2.61 0	-1.94-1	-2.83 0
5.25342	7.78704	1.60	6.00	-2.30-2	2.43 0	-1.91-1	-2.65 0
5.36091	8.04696	1.55	5.60	-2.47-2	2.12 0	-1.74-1	-2.32 0
5.27679	8.05972	1.55	5.40	-2.78-2	1.96 0	-1.72-1	-2.15 0
5.37252	8.34789	1.50	5.00	-2.91-2	1.68 0	-1.56-1	-1.84 0
5.27013	8.36809	1.50	4.80	-3.22-2	1.54 0	-1.54-1	-1.69 0
5.34383	8.69258	1.45	4.40	-3.30-2	1.28 0	-1.40-1	-1.42 0
5.21520	8.72465	1.45	4.20	-3.60-2	1.16 0	-1.37-1	-1.29 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.32708	9.07610	1.40	3.90	-3.51-2	9.91-1	-1.25-1	-1.11 0
5.24854	9.09874	1.40	3.80	-3.65-2	9.35-1	-1.24-1	-1.05 0
5.34339	9.49488	1.35	3.50	-3.55-2	7.85-1	-1.12-1	-8.84-1
5.24706	9.52618	1.35	3.40	-3.68-2	7.35-1	-1.11-1	-8.30-1
5.31039	9.98029	1.30	3.10	-3.56-2	6.01-1	-9.96-2	-6.83-1
5.34401	10.4992	1.25	2.80	-3.44-2	4.80-1	-8.89-2	-5.50-1
5.32759	11.1027	1.20	2.50	-3.31-2	3.71-1	-7.90-2	-4.29-1
5.22581	11.8214	1.15	2.20	-3.17-2	2.75-1	-6.97-2	-3.23-1
5.28133	12.5587	1.10	2.00	-2.92-2	2.20-1	-6.16-2	-2.60-1
5.28029	13.4254	1.05	1.80	-2.68-2	1.70-1	-5.41-2	-2.04-1
5.25390	14.8646	0.98	1.55	-2.34-2	1.18-1	-4.46-2	-1.43-1
5.32733	15.2873	0.96	1.50	-2.22-2	1.08-1	-4.22-2	-1.33-1
5.39855	15.7381	0.94	1.45	-2.11-2	9.95-2	-3.98-2	-1.22-1
5.24504	21.9540	0.76	0.98	-1.25-2	3.44-2	-2.18-2	-4.51-2
5.25633	22.8995	0.74	0.94	-1.16-2	3.05-2	-2.02-2	-4.04-2
5.23991	23.9374	0.72	0.90	-1.08-2	2.69-2	-1.87-2	-3.59-2
5.35641	28.9488	0.64	0.76	-7.65-3	1.62-2	-1.33-2	-2.25-2
5.24311	47.5663	0.48	0.52	-3.09-3	4.70-3	-5.69-3	-7.47-3
5.23095	66.0685	0.40	0.42	-1.65-3	2.21-3	-3.32-3	-3.95-3
5.40	5.60						
5.41736	5.68450	3.00	84.00	3.78 0	3.14 2	-4.46 0	-3.20 2
5.40224	5.69654	2.90	76.00	3.04 0	2.71 2	-3.68 0	-2.76 2
5.44053	5.70417	3.00	85.00	3.87 0	3.20 2	-4.55 0	-3.26 2
5.42550	5.71579	2.90	77.00	3.11 0	2.77 2	-3.75 0	-2.82 2
5.46378	5.72397	3.00	86.00	3.95 0	3.26 2	-4.63 0	-3.31 2
5.44879	5.73513	2.90	78.00	3.18 0	2.82 2	-3.82 0	-2.88 2
5.41702	5.73831	2.80	69.00	2.48 0	2.34 2	-3.08 0	-2.38 2
5.48711	5.74391	3.00	87.00	4.04 0	3.31 2	-4.72 0	-3.37 2
5.47209	5.75457	2.90	79.00	3.25 0	2.88 2	-3.89 0	-2.93 2
5.44089	5.75756	2.80	70.00	2.54 0	2.39 2	-3.14 0	-2.44 2
5.51054	5.76400	3.00	88.00	4.13 0	3.37 2	-4.80 0	-3.43 2
5.41143	5.76985	2.70	61.00	1.95 0	1.91 2	-2.51 0	-1.96 2
5.49542	5.77410	2.90	80.00	3.32 0	2.94 2	-3.96 0	-2.99 2
5.46471	5.77686	2.80	71.00	2.60 0	2.45 2	-3.20 0	-2.50 2
5.53406	5.78424	3.00	89.00	4.22 0	3.43 2	-4.89 0	-3.48 2
5.43651	5.78936	2.70	62.00	2.00 0	1.97 2	-2.56 0	-2.01 2
5.51879	5.79375	2.90	81.00	3.40 0	2.99 2	-4.03 0	-3.05 2
5.48849	5.79623	2.80	72.00	2.66 0	2.50 2	-3.26 0	-2.55 2
5.55770	5.80464	3.00	90.00	4.31 0	3.48 2	-4.98 0	-3.54 2
5.40403	5.80854	2.60	53.00	1.50 0	1.51 2	-2.03 0	-1.55 2
5.46147	5.80889	2.70	63.00	2.05 0	2.02 2	-2.61 0	-2.06 2
5.54220	5.81350	2.90	82.00	3.47 0	3.05 2	-4.11 0	-3.11 2
5.51224	5.81566	2.80	73.00	2.72 0	2.56 2	-3.32 0	-2.61 2
5.48631	5.82844	2.70	64.00	2.10 0	2.08 2	-2.66 0	-2.12 2
5.43116	5.82869	2.60	54.00	1.55 0	1.56 2	-2.07 0	-1.60 2
5.56567	5.83337	2.90	83.00	3.55 0	3.11 2	-4.18 0	-3.16 2
5.53597	5.83515	2.80	74.00	2.78 0	2.62 2	-3.38 0	-2.67 2
5.51104	5.84802	2.70	65.00	2.16 0	2.13 2	-2.72 0	-2.18 2
5.45804	5.84882	2.60	55.00	1.59 0	1.61 2	-2.12 0	-1.65 2
5.58920	5.85337	2.90	84.00	3.63 0	3.17 2	-4.26 0	-3.22 2
5.55969	5.85473	2.80	75.00	2.85 0	2.67 2	-3.44 0	-2.72 2
5.53568	5.86763	2.70	66.00	2.21 0	2.19 2	-2.77 0	-2.23 2
5.48471	5.86894	2.60	56.00	1.63 0	1.67 2	-2.16 0	-1.70 2
5.41839	5.87354	2.50	46.00	1.16 0	1.19 2	-1.65 0	-1.22 2
5.58341	5.87438	2.80	76.00	2.91 0	2.73 2	-3.51 0	-2.78 2
5.56023	5.88727	2.70	67.00	2.26 0	2.24 2	-2.82 0	-2.29 2
5.51116	5.88903	2.60	57.00	1.68 0	1.72 2	-2.20 0	-1.76 2
5.44833	5.89468	2.50	47.00	1.20 0	1.23 2	-1.69 0	-1.26 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.58470	5.90696	2.70	68.00	2.32 0	2.30 2	-2.87 0	-2.34 2
5.53743	5.90912	2.60	58.00	1.73 0	1.77 2	-2.25 0	-1.31 2
5.47790	5.91576	2.50	48.00	1.24 0	1.28 2	-1.73 0	-1.31 2
5.56351	5.92921	2.60	59.00	1.77 0	1.82 2	-2.29 0	-1.86 2
5.50710	5.93678	2.50	49.00	1.28 0	1.33 2	-1.77 0	-1.36 2
5.42260	5.94412	2.40	39.00	8.65-1	8.85 1	-1.32 0	-9.10 1
5.58942	5.94929	2.60	60.00	1.82 0	1.88 2	-2.34 0	-1.92 2
5.53597	5.95776	2.50	50.00	1.32 0	1.38 2	-1.80 0	-1.41 2
5.45676	5.96663	2.40	40.00	8.99-1	9.28 1	-1.36 0	-9.53 1
5.56453	5.97869	2.50	51.00	1.36 0	1.43 2	-1.84 0	-1.46 2
5.49031	5.98903	2.40	41.00	9.34-1	9.71 1	-1.39 0	-9.97 1
5.59279	5.99958	2.50	52.00	1.40 0	1.48 2	-1.88 0	-1.51 2
5.52329	6.01135	2.40	42.00	9.68-1	1.01 2	-1.42 0	-1.04 2
5.40509	6.01884	2.30	32.00	6.11-1	6.19 1	-1.04 0	-6.38 1
5.55574	6.03358	2.40	43.00	1.00 0	1.06 2	-1.46 0	-1.09 2
5.44581	6.04311	2.30	33.00	6.41-1	6.56 1	-1.06 0	-6.76 1
5.58770	6.05573	2.40	44.00	1.04 0	1.10 2	-1.49 0	-1.13 2
5.48552	6.06727	2.30	34.00	6.71-1	6.93 1	-1.09 0	-7.14 1
5.52430	6.09130	2.30	35.00	7.02-1	7.32 1	-1.12 0	-7.53 1
5.56220	6.11521	2.30	36.00	7.33-1	7.71 1	-1.15 0	-7.93 1
5.59930	6.13900	2.30	37.00	7.64-1	8.12 1	-1.18 0	-8.34 1
5.44524	6.14900	2.20	27.00	4.46-1	4.54 1	-8.36-1	-4.69 1
5.49352	6.17511	2.20	28.00	4.73-1	4.86 1	-8.62-1	-5.02 1
5.54026	6.20110	2.20	29.00	5.01-1	5.20 1	-8.88-1	-5.36 1
5.58559	6.22696	2.20	30.00	5.28-1	5.54 1	-9.15-1	-5.71 1
5.45870	6.29053	2.10	22.00	3.01-1	3.10 1	-6.60-1	-3.22 1
5.51870	6.31855	2.10	23.00	3.26-1	3.38 1	-6.83-1	-3.50 1
5.57615	6.34654	2.10	24.00	3.51-1	3.66 1	-7.07-1	-3.79 1
5.41647	6.44721	2.00	17.00	1.76-1	1.90 1	-5.05-1	-1.99 1
5.45690	6.46170	2.00	17.50	1.87-1	2.01 1	-5.15-1	-2.10 1
5.49636	6.47633	2.00	18.00	1.99-1	2.12 1	-5.26-1	-2.22 1
5.53464	6.49106	2.00	18.50	2.10-1	2.24 1	-5.36-1	-2.34 1
5.57180	6.50587	2.00	19.00	2.22-1	2.36 1	-5.47-1	-2.46 1
5.40407	6.54891	1.95	15.00	1.31-1	1.50 1	-4.45-1	-1.57 1
5.45151	6.56327	1.95	15.50	1.42-1	1.59 1	-4.55-1	-1.67 1
5.49721	6.57789	1.95	16.00	1.52-1	1.70 1	-4.64-1	-1.78 1
5.54130	6.59273	1.95	16.50	1.63-1	1.80 1	-4.74-1	-1.89 1
5.58391	6.60773	1.95	17.00	1.74-1	1.91 1	-4.84-1	-2.00 1
5.42372	6.67321	1.90	13.50	9.91-2	1.22 1	-3.98-1	-1.29 1
5.47799	6.68727	1.90	14.00	1.10-1	1.31 1	-4.07-1	-1.38 1
5.52999	6.70176	1.90	14.50	1.20-1	1.41 1	-4.16-1	-1.48 1
5.57990	6.71660	1.90	15.00	1.30-1	1.50 1	-4.26-1	-1.58 1
5.42788	6.80763	1.85	12.00	6.97-2	9.73 0	-3.53-1	-1.03 1
5.49117	6.82083	1.85	12.50	7.97-2	1.06 1	-3.62-1	-1.11 1
5.55138	6.83473	1.85	13.00	8.97-2	1.14 1	-3.71-1	-1.20 1
5.40848	6.95525	1.80	10.50	4.23-2	7.49 0	-3.12-1	-7.95 0
5.48415	6.96653	1.80	11.00	5.19-2	8.23 0	-3.20-1	-8.71 0
5.55548	6.97901	1.80	11.50	6.15-2	8.99 0	-3.28-1	-9.50 0
5.42760	7.12711	1.75	9.40	2.44-2	6.03 0	-2.79-1	-6.42 0
5.46367	7.13049	1.75	9.60	2.81-2	6.29 0	-2.82-1	-6.70 0
5.49874	7.13419	1.75	9.80	3.18-2	6.56 0	-2.85-1	-6.98 0
5.53286	7.13820	1.75	10.00	3.55-2	6.84 0	-2.88-1	-7.26 0
5.40211	7.31656	1.70	8.20	6.10-3	4.59 0	-2.47-1	-4.92 0
5.44607	7.31795	1.70	8.40	9.65-3	4.83 0	-2.49-1	-5.17 0
5.48859	7.31988	1.70	8.60	1.32-2	5.07 0	-2.52-1	-5.41 0
5.52974	7.32231	1.70	8.80	1.67-2	5.31 0	-2.55-1	-5.67 0
5.56962	7.32518	1.70	9.00	2.03-2	5.56 0	-2.58-1	-5.93 0
5.49049	7.53002	1.65	7.60	-5.37-4	3.96 0	-2.25-1	-4.25 0
5.53995	7.53027	1.65	7.80	2.87-3	4.18 0	-2.27-1	-4.48 0
5.43911	7.53054	1.65	7.40	-3.95-3	3.75 0	-2.22-1	-4.03 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.58762	7.53122	1.65	8.00	6.27-3	4.40 0	-2.30-1	-4.71 0
5.57588	7.76217	1.60	7.00	-6.59-3	3.36 0	-2.04-1	-3.62 0
5.51719	7.76456	1.60	6.80	-9.86-3	3.17 0	-2.01-1	-3.42 0
5.45584	7.76809	1.60	6.60	-1.31-2	2.97 0	-1.99-1	-3.22 0
5.58716	8.02141	1.55	6.20	-1.52-2	2.63 0	-1.82-1	-2.85 0
5.51568	8.02806	1.55	6.00	-1.84-2	2.45 0	-1.79-1	-2.67 0
5.44039	8.03650	1.55	5.80	-2.15-2	2.28 0	-1.77-1	-2.49 0
5.55847	8.31724	1.50	5.40	-2.30-2	1.98 0	-1.61-1	-2.16 0
5.46840	8.33109	1.50	5.20	-2.61-2	1.83 0	-1.59-1	-2.00 0
5.57351	8.64359	1.45	4.80	-2.72-2	1.55 0	-1.44-1	-1.70 0
5.46286	8.66583	1.45	4.60	-3.01-2	1.41 0	-1.42-1	-1.56 0
5.54288	9.01959	1.40	4.20	-3.09-2	1.17 0	-1.28-1	-1.30 0
5.40214	9.05548	1.40	4.00	-3.37-2	1.05 0	-1.26-1	-1.17 0
5.52186	9.44078	1.35	3.70	-3.28-2	8.90-1	-1.14-1	-9.96-1
5.43486	9.46651	1.35	3.60	-3.41-2	8.37-1	-1.13-1	-9.39-1
5.53341	9.90392	1.30	3.30	-3.30-2	6.95-1	-1.01-1	-7.83-1
5.42514	9.94011	1.30	3.20	-3.43-2	6.47-1	-1.00-1	-7.32-1
5.48368	10.4464	1.25	2.90	-3.31-2	5.21-1	-8.97-2	-5.94-1
5.50229	11.0311	1.20	2.60	-3.19-2	4.08-1	-7.96-2	-4.69-1
5.45220	11.7207	1.15	2.30	-3.06-2	3.07-1	-7.03-2	-3.57-1
5.55789	12.4305	1.10	2.10	-2.81-2	2.49-1	-6.21-2	-2.92-1
5.45881	13.3379	1.05	1.85	-2.63-2	1.83-1	-5.43-2	-2.18-1
5.41174	14.3478	1.00	1.65	-2.40-2	1.38-1	-4.73-2	-1.67-1
5.50417	14.7352	0.98	1.60	-2.29-2	1.28-1	-4.48-2	-1.55-1
5.59746	15.1469	0.96	1.55	-2.17-2	1.18-1	-4.23-2	-1.44-1
5.46639	16.2200	0.92	1.40	-2.00-2	9.10-2	-3.75-2	-1.12-1
5.52933	16.7364	0.90	1.35	-1.89-2	8.29-2	-3.53-2	-1.03-1
5.58543	17.2915	0.88	1.30	-1.79-2	7.52-2	-3.31-2	-9.36-2
5.56803	21.7701	0.76	1.00	-1.23-2	3.67-2	-2.18-2	-4.77-2
5.52048	27.4163	0.66	0.80	-8.33-3	1.90-2	-1.45-2	-2.60-2
5.60	5.80						
5.61279	5.87349	2.90	85.00	3.71 0	3.22 2	-4.34 0	-3.28 2
5.63647	5.89375	2.90	86.00	3.79 0	3.28 2	-4.42 0	-3.34 2
5.60712	5.89412	2.80	77.00	2.98 0	2.79 2	-3.57 0	-2.84 2
5.63086	5.91394	2.80	78.00	3.05 0	2.85 2	-3.64 0	-2.90 2
5.66023	5.91415	2.90	87.00	3.87 0	3.34 2	-4.50 0	-3.39 2
5.60911	5.92668	2.70	69.00	2.37 0	2.35 2	-2.93 0	-2.40 2
5.65461	5.93387	2.80	79.00	3.11 0	2.90 2	-3.71 0	-2.95 2
5.68408	5.93470	2.90	88.00	3.96 0	3.40 2	-4.59 0	-3.45 2
5.63346	5.94646	2.70	70.00	2.43 0	2.41 2	-2.98 0	-2.46 2
5.67839	5.95389	2.80	80.00	3.18 0	2.96 2	-3.78 0	-3.01 2
5.70804	5.95540	2.90	89.00	4.04 0	3.45 2	-4.67 0	-3.51 2
5.65776	5.96629	2.70	71.00	2.49 0	2.47 2	-3.04 0	-2.51 2
5.61518	5.96938	2.60	61.00	1.87 0	1.93 2	-2.39 0	-1.97 2
5.70221	5.97402	2.80	81.00	3.26 0	3.02 2	-3.84 0	-3.07 2
5.73211	5.97627	2.90	90.00	4.13 0	3.51 2	-4.76 0	-3.57 2
5.68202	5.98617	2.70	72.00	2.55 0	2.52 2	-3.10 0	-2.57 2
5.64080	5.98948	2.60	62.00	1.91 0	1.99 2	-2.43 0	-2.03 2
5.72608	5.99426	2.80	82.00	3.33 0	3.08 2	-3.92 0	-3.13 2
5.70625	6.00612	2.70	73.00	2.60 0	2.58 2	-3.16 0	-2.63 2
5.66628	6.00959	2.60	63.00	1.96 0	2.04 2	-2.48 0	-2.08 2
5.75000	6.01462	2.80	83.00	3.40 0	3.13 2	-3.99 0	-3.19 2
5.62077	6.02043	2.50	53.00	1.44 0	1.53 2	-1.92 0	-1.56 2
5.73047	6.02614	2.70	74.00	2.66 0	2.64 2	-3.22 0	-2.69 2
5.69165	6.02972	2.60	64.00	2.01 0	2.09 2	-2.53 0	-2.14 2
5.77398	6.03510	2.80	84.00	3.48 0	3.19 2	-4.06 0	-3.24 2
5.64850	6.04124	2.50	54.00	1.48 0	1.58 2	-1.96 0	-1.61 2
5.75466	6.04624	2.70	75.00	2.73 0	2.70 2	-3.28 0	-2.74 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.71691	6.04987	2.60	65.00	2.06 0	2.15 2	-2.58 0	-2.19 2
5.79803	6.05571	2.80	85.00	3.55 0	3.25 2	-4.14 0	-3.30 2
5.67598	6.06204	2.50	55.00	1.52 0	1.63 2	-2.00 0	-1.66 2
5.77886	6.06641	2.70	75.00	2.79 0	2.75 2	-3.34 0	-2.80 2
5.74207	6.07005	2.60	66.00	2.11 0	2.21 2	-2.63 0	-2.25 2
5.61918	6.07779	2.40	45.00	1.07 0	1.15 2	-1.52 0	-1.18 2
5.70323	6.08280	2.50	56.00	1.56 0	1.68 2	-2.04 0	-1.72 2
5.76714	6.09027	2.60	67.00	2.16 0	2.26 2	-2.68 0	-2.30 2
5.65023	6.09978	2.40	46.00	1.11 0	1.20 2	-1.56 0	-1.23 2
5.73028	6.10355	2.50	57.00	1.61 0	1.73 2	-2.09 0	-1.77 2
5.79213	6.11051	2.60	68.00	2.22 0	2.32 2	-2.73 0	-2.36 2
5.68086	6.12169	2.40	47.00	1.15 0	1.24 2	-1.59 0	-1.27 2
5.75712	6.12428	2.50	58.00	1.65 0	1.79 2	-2.13 0	-1.82 2
5.71110	6.14354	2.40	48.00	1.18 0	1.29 2	-1.63 0	-1.32 2
5.78378	6.14501	2.50	59.00	1.69 0	1.84 2	-2.17 0	-1.88 2
5.63563	6.16267	2.30	38.00	7.96-1	8.53 1	-1.21 0	-8.76 1
5.74098	6.16532	2.40	49.00	1.22 0	1.34 2	-1.67 0	-1.37 2
5.67127	6.18622	2.30	39.00	8.27-1	8.95 1	-1.24 0	-9.18 1
5.77052	6.18704	2.40	50.00	1.26 0	1.39 2	-1.70 0	-1.42 2
5.79974	6.20871	2.40	51.00	1.29 0	1.44 2	-1.74 0	-1.47 2
5.70624	6.20965	2.30	40.00	8.60-1	9.37 1	-1.27 0	-9.61 1
5.74059	6.23298	2.30	41.00	8.92-1	9.81 1	-1.31 0	-1.01 2
5.62962	6.25269	2.20	31.00	5.57-1	5.89 1	-9.42-1	-6.07 1
5.77437	6.25620	2.30	42.00	9.24-1	1.02 2	-1.34 0	-1.05 2
5.67244	6.27828	2.20	32.00	5.85-1	6.26 1	-9.69-1	-6.44 1
5.71416	6.30372	2.20	33.00	6.13-1	6.63 1	-9.96-1	-6.82 1
5.75485	6.32901	2.20	34.00	6.42-1	7.01 1	-1.02 0	-7.21 1
5.79458	6.35416	2.20	35.00	6.71-1	7.40 1	-1.05 0	-7.60 1
5.63132	6.37447	2.10	25.00	3.77-1	3.96 1	-7.31-1	-4.10 1
5.68441	6.40230	2.10	26.00	4.02-1	4.27 1	-7.55-1	-4.41 1
5.73562	6.43001	2.10	27.00	4.28-1	4.59 1	-7.79-1	-4.74 1
5.78512	6.45757	2.10	28.00	4.53-1	4.92 1	-8.03-1	-5.07 1
5.60794	6.52075	2.00	19.50	2.33-1	2.48 1	-5.57-1	-2.58 1
5.64310	6.53567	2.00	20.00	2.44-1	2.61 1	-5.68-1	-2.71 1
5.71074	6.56558	2.00	21.00	2.68-1	2.87 1	-5.89-1	-2.98 1
5.77515	6.59553	2.00	22.00	2.91-1	3.14 1	-6.11-1	-3.25 1
5.62513	6.62288	1.95	17.50	1.85-1	2.02 1	-4.94-1	-2.11 1
5.66508	6.63814	1.95	18.00	1.96-1	2.14 1	-5.04-1	-2.23 1
5.70383	6.65348	1.95	18.50	2.07-1	2.26 1	-5.15-1	-2.35 1
5.74146	6.66890	1.95	19.00	2.18-1	2.38 1	-5.25-1	-2.47 1
5.77805	6.68435	1.95	19.50	2.29-1	2.50 1	-5.35-1	-2.60 1
5.62791	6.73172	1.90	15.50	1.41-1	1.61 1	-4.35-1	-1.68 1
5.67417	6.74709	1.90	16.00	1.51-1	1.71 1	-4.45-1	-1.79 1
5.71880	6.76264	1.90	16.50	1.62-1	1.82 1	-4.54-1	-1.89 1
5.76194	6.77835	1.90	17.00	1.73-1	1.92 1	-4.64-1	-2.01 1
5.60882	6.84922	1.85	13.50	9.97-2	1.23 1	-3.80-1	-1.29 1
5.66373	6.86417	1.85	14.00	1.10-1	1.32 1	-3.89-1	-1.39 1
5.71636	6.87952	1.85	14.50	1.20-1	1.42 1	-3.98-1	-1.48 1
5.76689	6.89520	1.85	15.00	1.30-1	1.52 1	-4.07-1	-1.59 1
5.62296	6.99246	1.80	12.00	7.12-2	9.79 0	-3.37-1	-1.03 1
5.68699	7.00672	1.80	12.50	8.08-2	1.06 1	-3.45-1	-1.12 1
5.74793	7.02164	1.80	13.00	9.04-2	1.15 1	-3.54-1	-1.21 1
5.61433	7.14936	1.75	10.50	4.47-2	7.54 0	-2.96-1	-7.99 0
5.69086	7.16192	1.75	11.00	5.39-2	8.29 0	-3.04-1	-8.76 0
5.76302	7.17561	1.75	11.50	6.32-2	9.06 0	-3.12-1	-9.55 0
5.60829	7.32846	1.70	9.20	2.38-2	5.81 0	-2.61-1	-6.19 0
5.64583	7.33211	1.70	9.40	2.74-2	6.07 0	-2.64-1	-6.46 0
5.68230	7.33611	1.70	9.60	3.09-2	6.34 0	-2.67-1	-6.73 0
5.71777	7.34041	1.70	9.80	3.44-2	6.61 0	-2.70-1	-7.01 0
5.75228	7.34501	1.70	10.00	3.80-2	6.89 0	-2.74-1	-7.30 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.63362	7.53280	1.65	8.20	9.67-3	4.63 0	-2.33-1	-4.95 0
5.67805	7.53495	1.65	8.40	1.31-2	4.87 0	-2.36-1	-5.19 0
5.72103	7.53762	1.65	8.60	1.65-2	5.11 0	-2.39-1	-5.44 0
5.76264	7.54076	1.65	8.80	1.99-2	5.35 0	-2.42-1	-5.70 0
5.68615	7.76037	1.60	7.40	-6.05-5	3.78 0	-2.09-1	-4.05 0
5.73808	7.76075	1.60	7.60	3.20-3	3.99 0	-2.12-1	-4.28 0
5.63215	7.76081	1.60	7.20	-3.32-3	3.57 0	-2.07-1	-3.84 0
5.78807	7.76188	1.60	7.80	6.45-3	4.21 0	-2.15-1	-4.51 0
5.78201	8.01022	1.55	6.80	-5.82-3	3.19 0	-1.89-1	-3.44 0
5.72004	8.01266	1.55	6.60	-8.94-3	3.00 0	-1.87-1	-3.24 0
5.65518	8.01634	1.55	6.40	-1.21-2	2.81 0	-1.84-1	-3.04 0
5.79960	8.28985	1.50	6.00	-1.40-2	2.48 0	-1.68-1	-2.68 0
5.72359	8.29693	1.50	5.80	-1.70-2	2.31 0	-1.66-1	-2.50 0
5.64336	8.30597	1.50	5.60	-2.00-2	2.14 0	-1.63-1	-2.33 0
5.77353	8.61017	1.45	5.20	-2.14-2	1.84 0	-1.48-1	-2.01 0
5.67679	8.62522	1.45	5.00	-2.43-2	1.69 0	-1.46-1	-1.85 0
5.79260	8.96529	1.40	4.60	-2.53-2	1.43 0	-1.32-1	-1.57 0
5.67254	8.98984	1.40	4.40	-2.81-2	1.30 0	-1.30-1	-1.43 0
5.75958	9.37704	1.35	4.00	-2.87-2	1.06 0	-1.16-1	-1.18 0
5.68392	9.39625	1.35	3.90	-3.01-2	1.00 0	-1.15-1	-1.11 0
5.60478	9.41744	1.35	3.80	-3.14-2	9.46-1	-1.14-1	-1.05 0
5.73285	9.84180	1.30	3.50	-3.05-2	7.94-1	-1.03-1	-8.90-1
5.63581	9.87127	1.30	3.40	-3.17-2	7.44-1	-1.02-1	-8.36-1
5.73720	10.3569	1.25	3.10	-3.06-2	6.09-1	-9.12-2	-6.88-1
5.61444	10.3992	1.25	3.00	-3.19-2	5.64-1	-9.04-2	-6.40-1
5.66420	10.9678	1.20	2.70	-3.07-2	4.46-1	-8.03-2	-5.10-1
5.65930	11.6327	1.15	2.40	-2.94-2	3.41-1	-7.09-2	-3.94-1
5.78602	13.1832	1.05	1.95	-2.53-2	2.10-1	-5.48-2	-2.47-1
5.62708	13.2574	1.05	1.90	-2.58-2	1.96-1	-5.46-2	-2.32-1
5.62885	14.2389	1.00	1.70	-2.35-2	1.49-1	-4.75-2	-1.79-1
5.73715	14.6178	0.98	1.65	-2.24-2	1.39-1	-4.50-2	-1.67-1
5.69108	15.5852	0.94	1.50	-2.06-2	1.09-1	-3.99-2	-1.33-1
5.78429	16.0529	0.92	1.45	-1.95-2	1.00-1	-3.76-2	-1.23-1
5.63218	17.8900	0.86	1.25	-1.69-2	6.78-2	-3.10-2	-8.49-2
5.66629	18.5373	0.84	1.20	-1.59-2	6.08-2	-2.91-2	-7.66-2
5.68352	19.2401	0.82	1.15	-1.50-2	5.42-2	-2.71-2	-6.87-2
5.67826	20.0064	0.80	1.10	-1.41-2	4.80-2	-2.53-2	-6.13-2
5.64307	20.8457	0.78	1.05	-1.32-2	4.21-2	-2.35-2	-5.43-2
5.61797	22.6931	0.74	0.96	-1.15-2	3.27-2	-2.02-2	-4.28-2
5.64748	23.7041	0.72	0.92	-1.06-2	2.89-2	-1.87-2	-3.82-2
5.64876	24.8168	0.70	0.88	-9.82-3	2.54-2	-1.72-2	-3.39-2
5.61126	26.0474	0.68	0.84	-9.06-3	2.21-2	-1.59-2	-2.98-2
5.60306	32.1153	0.60	0.70	-6.26-3	1.26-2	-1.10-2	-1.79-2
5.76580	36.0496	0.56	0.64	-5.04-3	9.48-3	-8.98-3	-1.38-2
5.72831	41.0469	0.52	0.58	-3.98-3	6.85-3	-7.21-3	-1.03-2
5.80	6.00						
5.82216	6.07646	2.80	86.00	3.63 0	3.31 2	-4.21 0	-3.36 2
5.80306	6.08666	2.70	77.00	2.85 0	2.81 2	-3.40 0	-2.86 2
5.84638	6.09735	2.80	87.00	3.71 0	3.36 2	-4.29 0	-3.42 2
5.82727	6.10701	2.70	78.00	2.91 0	2.87 2	-3.46 0	-2.92 2
5.87070	6.11839	2.80	88.00	3.79 0	3.42 2	-4.37 0	-3.48 2
5.85150	6.12745	2.70	79.00	2.98 0	2.93 2	-3.53 0	-2.98 2
5.81706	6.13080	2.60	69.00	2.27 0	2.38 2	-2.78 0	-2.42 2
5.89512	6.13958	2.80	89.00	3.87 0	3.48 2	-4.45 0	-3.53 2
5.87577	6.14799	2.70	80.00	3.05 0	2.99 2	-3.59 0	-3.03 2
5.84192	6.15114	2.60	70.00	2.32 0	2.43 2	-2.83 0	-2.48 2
5.91965	6.16094	2.80	90.00	3.96 0	3.54 2	-4.54 0	-3.59 2
5.81027	6.16573	2.50	60.00	1.74 0	1.89 2	-2.21 0	-1.93 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.90007	6.16863	2.70	81.00	3.11 0	3.04 2	-3.66 0	-3.09 2
5.86674	6.17153	2.60	71.00	2.38 0	2.49 2	-2.89 0	-2.53 2
5.83661	6.18644	2.50	61.00	1.78 0	1.95 2	-2.26 0	-1.99 2
5.92442	6.18939	2.70	82.00	3.18 0	3.10 2	-3.73 0	-3.15 2
5.89152	6.19198	2.60	72.00	2.43 0	2.55 2	-2.94 0	-2.59 2
5.86279	6.20717	2.50	62.00	1.83 0	2.00 2	-2.30 0	-2.04 2
5.94882	6.21027	2.70	83.00	3.25 0	3.16 2	-3.79 0	-3.21 2
5.91627	6.21248	2.60	73.00	2.49 0	2.60 2	-3.00 0	-2.65 2
5.88885	6.22790	2.50	63.00	1.87 0	2.06 2	-2.35 0	-2.10 2
5.82866	6.23033	2.40	52.00	1.33 0	1.49 2	-1.78 0	-1.52 2
5.97329	6.23127	2.70	84.00	3.32 0	3.22 2	-3.87 0	-3.27 2
5.94099	6.23306	2.60	74.00	2.55 0	2.66 2	-3.05 0	-2.71 2
5.91478	6.24865	2.50	64.00	1.92 0	2.11 2	-2.39 0	-2.15 2
5.85729	6.25191	2.40	53.00	1.37 0	1.54 2	-1.81 0	-1.57 2
5.99783	6.25240	2.70	85.00	3.40 0	3.28 2	-3.94 0	-3.33 2
5.96571	6.25371	2.60	75.00	2.60 0	2.72 2	-3.11 0	-2.77 2
5.94060	6.26942	2.50	65.00	1.97 0	2.17 2	-2.44 0	-2.21 2
5.88566	6.27344	2.40	54.00	1.41 0	1.59 2	-1.85 0	-1.63 2
5.99042	6.27443	2.60	76.00	2.66 0	2.78 2	-3.17 0	-2.82 2
5.80760	6.27932	2.30	43.00	9.57-1	1.07 2	-1.37 0	-1.10 2
5.96632	6.29021	2.50	66.00	2.02 0	2.23 2	-2.49 0	-2.27 2
5.91379	6.29494	2.40	55.00	1.45 0	1.64 2	-1.89 0	-1.68 2
5.84032	6.30234	2.30	44.00	9.91-1	1.12 2	-1.40 0	-1.14 2
5.99195	6.31103	2.50	67.00	2.06 0	2.28 2	-2.54 0	-2.32 2
5.94168	6.31641	2.40	56.00	1.49 0	1.70 2	-1.93 0	-1.73 2
5.87257	6.32526	2.30	45.00	1.02 0	1.16 2	-1.43 0	-1.19 2
5.96935	6.33786	2.40	57.00	1.53 0	1.75 2	-1.97 0	-1.79 2
5.90437	6.34810	2.30	46.00	1.06 0	1.21 2	-1.47 0	-1.24 2
5.99683	6.35929	2.40	58.00	1.57 0	1.80 2	-2.01 0	-1.84 2
5.93575	6.37085	2.30	47.00	1.09 0	1.26 2	-1.50 0	-1.29 2
5.83343	6.37916	2.20	36.00	7.00-1	7.80 1	-1.08 0	-8.01 1
5.96673	6.39352	2.30	48.00	1.13 0	1.31 2	-1.53 0	-1.33 2
5.87145	6.40402	2.20	37.00	7.29-1	8.20 1	-1.11 0	-8.42 1
5.99734	6.41612	2.30	49.00	1.16 0	1.35 2	-1.57 0	-1.38 2
5.90870	6.42874	2.20	38.00	7.59-1	8.62 1	-1.14 0	-8.84 1
5.94523	6.45332	2.20	39.00	7.89-1	9.04 1	-1.16 0	-9.27 1
5.98109	6.47777	2.20	40.00	8.19-1	9.47 1	-1.19 0	-9.70 1
5.83304	6.48498	2.10	29.00	4.79-1	5.25 1	-8.28-1	-5.41 1
5.87953	6.51221	2.10	30.00	5.06-1	5.60 1	-8.53-1	-5.77 1
5.92469	6.53928	2.10	31.00	5.32-1	5.96 1	-8.78-1	-6.13 1
5.96863	6.56617	2.10	32.00	5.58-1	6.33 1	-9.03-1	-6.50 1
5.83668	6.62544	2.00	23.00	3.14-1	3.42 1	-6.33-1	-3.54 1
5.89561	6.65526	2.00	24.00	3.38-1	3.71 1	-6.55-1	-3.83 1
5.95222	6.68495	2.00	25.00	3.61-1	4.01 1	-6.77-1	-4.14 1
5.81367	6.69984	1.95	20.00	2.41-1	2.62 1	-5.45-1	-2.73 1
5.88219	6.73086	1.95	21.00	2.63-1	2.88 1	-5.66-1	-2.99 1
5.94745	6.76187	1.95	22.00	2.85-1	3.16 1	-5.87-1	-3.27 1
5.80369	6.79417	1.90	17.50	1.83-1	2.04 1	-4.74-1	-2.12 1
5.84414	6.81010	1.90	18.00	1.94-1	2.15 1	-4.83-1	-2.24 1
5.88340	6.82609	1.90	18.50	2.04-1	2.27 1	-4.93-1	-2.36 1
5.92152	6.84213	1.90	19.00	2.15-1	2.39 1	-5.03-1	-2.48 1
5.95860	6.85820	1.90	19.50	2.26-1	2.52 1	-5.13-1	-2.61 1
5.99469	6.87429	1.90	20.00	2.36-1	2.64 1	-5.23-1	-2.74 1
5.81550	6.91113	1.85	15.50	1.40-1	1.62 1	-4.16-1	-1.69 1
5.86234	6.92727	1.85	16.00	1.50-1	1.72 1	-4.25-1	-1.80 1
5.90756	6.94358	1.85	16.50	1.60-1	1.83 1	-4.35-1	-1.91 1
5.95126	6.96003	1.85	17.00	1.70-1	1.94 1	-4.44-1	-2.02 1
5.99356	6.97657	1.85	17.50	1.81-1	2.05 1	-4.53-1	-2.13 1
5.80607	7.03710	1.80	13.50	1.00-1	1.24 1	-3.62-1	-1.30 1
5.86167	7.05300	1.80	14.00	1.10-1	1.33 1	-3.71-1	-1.39 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.91497	7.06926	1.80	14.50	1.19-1	1.43 1	-3.80-1	-1.49 1
5.96615	7.08581	1.80	15.00	1.29-1	1.53 1	-3.89-1	-1.59 1
5.83132	7.19023	1.75	12.00	7.24-2	9.87 0	-3.20-1	-1.04 1
5.89614	7.20561	1.75	12.50	8.17-2	1.07 1	-3.29-1	-1.12 1
5.95784	7.22160	1.75	13.00	9.09-2	1.16 1	-3.37-1	-1.21 1
5.83470	7.35759	1.70	10.50	4.68-2	7.60 0	-2.81-1	-8.04 0
5.91215	7.37150	1.70	11.00	5.57-2	8.35 0	-2.89-1	-8.81 0
5.98521	7.38648	1.70	11.50	6.45-2	9.13 0	-2.97-1	-9.61 0
5.80296	7.54434	1.65	9.00	2.32-2	5.60 0	-2.45-1	-5.96 0
5.84208	7.54830	1.65	9.20	2.66-2	5.86 0	-2.47-1	-6.23 0
5.88005	7.55262	1.65	9.40	3.00-2	6.12 0	-2.50-1	-6.50 0
5.91695	7.55727	1.65	9.60	3.34-2	6.39 0	-2.53-1	-6.77 0
5.95284	7.56221	1.65	9.80	3.68-2	6.66 0	-2.56-1	-7.05 0
5.98777	7.56743	1.65	10.00	4.02-2	6.94 0	-2.59-1	-7.34 0
5.83625	7.76368	1.60	8.00	9.70-3	4.44 0	-2.17-1	-4.74 0
5.88276	7.76609	1.60	8.20	1.30-2	4.67 0	-2.20-1	-4.98 0
5.92770	7.76904	1.60	8.40	1.62-2	4.91 0	-2.23-1	-5.23 0
5.97117	7.77250	1.60	8.60	1.94-2	5.15 0	-2.26-1	-5.48 0
5.89818	8.00855	1.55	7.20	4.19-4	3.60 0	-1.94-1	-3.86 0
5.84132	8.00889	1.55	7.00	-2.70-3	3.39 0	-1.92-1	-3.65 0
5.95278	8.00910	1.55	7.40	3.53-3	3.81 0	-1.97-1	-4.08 0
5.94052	8.28069	1.50	6.40	-8.03-3	2.84 0	-1.73-1	-3.06 0
5.87180	8.28451	1.50	6.20	-1.10-2	2.66 0	-1.70-1	-2.87 0
5.95017	8.58829	1.45	5.60	-1.57-2	2.16 0	-1.52-1	-2.34 0
5.86445	8.59798	1.45	5.40	-1.85-2	2.00 0	-1.50-1	-2.17 0
5.90424	8.94513	1.40	4.80	-2.26-2	1.57 0	-1.34-1	-1.71 0
5.90150	9.34381	1.35	4.20	-2.61-2	1.18 0	-1.18-1	-1.30 0
5.99630	9.76943	1.30	3.80	-2.66-2	9.57-1	-1.05-1	-1.06 0
5.91271	9.79115	1.30	3.70	-2.79-2	9.01-1	-1.05-1	-1.00 0
5.82501	9.81519	1.30	3.60	-2.92-2	8.47-1	-1.04-1	-9.45-1
5.96186	10.2850	1.25	3.30	-2.82-2	7.03-1	-9.28-2	-7.89-1
5.85278	10.3190	1.25	3.20	-2.94-2	6.55-1	-9.20-2	-7.37-1
5.95547	10.8617	1.20	2.90	-2.83-2	5.28-1	-8.17-2	-5.98-1
5.81484	10.9116	1.20	2.80	-2.95-2	4.86-1	-8.10-2	-5.53-1
5.84969	11.5555	1.15	2.50	-2.83-2	3.76-1	-7.15-2	-4.32-1
5.80808	12.3199	1.10	2.20	-2.70-2	2.79-1	-6.27-2	-3.25-1
5.93645	13.1147	1.05	2.00	-2.47-2	2.24-1	-5.50-2	-2.62-1
5.83209	14.1395	1.00	1.75	-2.30-2	1.61-1	-4.77-2	-1.92-1
5.95468	14.5111	0.98	1.70	-2.19-2	1.51-1	-4.52-2	-1.80-1
5.84817	15.0200	0.96	1.60	-2.12-2	1.29-1	-4.25-2	-1.56-1
5.96168	15.4476	0.94	1.55	-2.01-2	1.20-1	-4.01-2	-1.44-1
5.87614	16.5531	0.90	1.40	-1.84-2	9.19-2	-3.54-2	-1.13-1
5.96536	17.0895	0.88	1.35	-1.74-2	8.37-2	-3.32-2	-1.03-1
5.95966	22.5009	0.74	0.98	-1.13-2	3.49-2	-2.03-2	-4.54-2
5.86464	30.2344	0.62	0.74	-6.86-3	1.51-2	-1.21-2	-2.10-2
6.00	6.30						
6.02245	6.27366	2.70	86.00	3.47 0	3.33 2	-4.01 0	-3.38 2
6.04715	6.29508	2.70	87.00	3.55 0	3.39 2	-4.08 0	-3.44 2
6.01513	6.29524	2.60	77.00	2.72 0	2.84 2	-3.23 0	-2.88 2
6.03986	6.31614	2.60	78.00	2.78 0	2.89 2	-3.29 0	-2.94 2
6.07196	6.31664	2.70	88.00	3.62 0	3.45 2	-4.16 0	-3.50 2
6.01751	6.33188	2.50	68.00	2.11 0	2.34 2	-2.58 0	-2.38 2
6.06461	6.33713	2.60	79.00	2.84 0	2.95 2	-3.35 0	-3.00 2
6.09687	6.33835	2.70	89.00	3.70 0	3.51 2	-4.24 0	-3.56 2
6.04299	6.35278	2.50	69.00	2.16 0	2.40 2	-2.63 0	-2.44 2
6.08939	6.35822	2.60	80.00	2.91 0	3.01 2	-3.41 0	-3.06 2
6.12190	6.36024	2.70	90.00	3.78 0	3.57 2	-4.32 0	-3.62 2
6.06841	6.37372	2.50	70.00	2.21 0	2.45 2	-2.68 0	-2.50 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.11420	6.37942	2.60	81.00	2.97 0	3.07 2	-3.47 0	-3.12 2
6.02411	6.38070	2.40	59.00	1.61 0	1.86 2	-.05 0	-1.89 2
6.09379	6.39471	2.50	71.00	2.27 0	2.51 2	-2.73 0	-2.55 2
6.13907	6.40073	2.60	82.00	3.04 0	3.13 2	-3.54 0	-3.18 2
6.05123	6.40210	2.40	60.00	1.66 0	1.91 2	-2.09 0	-1.95 2
6.11912	6.41575	2.50	72.00	2.32 0	2.57 2	-2.79 0	-2.61 2
6.16399	6.42216	2.60	83.00	3.10 0	3.19 2	-3.60 0	-3.24 2
6.07818	6.42349	2.40	61.00	1.70 0	1.97 2	-2.13 0	-2.00 2
6.14442	6.43686	2.50	73.00	2.37 0	2.63 2	-2.84 0	-2.67 2
6.02761	6.43865	2.30	50.00	1.20 0	1.40 2	-1.60 0	-1.43 2
6.18898	6.44371	2.60	84.00	3.17 0	3.25 2	-3.67 0	-3.29 2
6.10498	6.44489	2.40	62.00	1.74 0	2.02 2	-2.17 0	-2.06 2
6.16970	6.45803	2.50	74.00	2.43 0	2.69 2	-2.89 0	-2.73 2
6.05754	6.46112	2.30	51.00	1.23 0	1.45 2	-1.64 0	-1.48 2
6.21403	6.46540	2.60	85.00	3.24 0	3.30 2	-3.74 0	-3.35 2
6.13165	6.46629	2.40	63.00	1.78 0	2.08 2	-2.22 0	-2.12 2
6.19497	6.47927	2.50	75.00	2.48 0	2.74 2	-2.95 0	-2.79 2
6.08717	6.48353	2.30	52.00	1.27 0	1.51 2	-1.67 0	-1.54 2
6.23917	6.48722	2.60	86.00	3.31 0	3.36 2	-3.81 0	-3.41 2
6.15819	6.48771	2.40	64.00	1.83 0	2.13 2	-2.26 0	-2.17 2
6.22023	6.50059	2.50	76.00	2.54 0	2.80 2	-3.00 0	-2.85 2
6.01631	6.50209	2.20	41.00	8.50-1	9.91 1	-1.22 0	-1.01 2
6.11651	6.50589	2.30	53.00	1.31 0	1.56 2	-1.71 0	-1.59 2
6.18462	6.50913	2.40	65.00	1.87 0	2.19 2	-2.31 0	-2.23 2
6.26441	6.50919	2.60	87.00	3.38 0	3.42 2	-3.88 0	-3.47 2
6.24549	6.52199	2.50	77.00	2.59 0	2.86 2	-3.06 0	-2.91 2
6.05095	6.52629	2.20	42.00	8.80-1	1.04 2	-1.25 0	-1.06 2
6.14558	6.52820	2.30	54.00	1.34 0	1.61 2	-1.74 0	-1.64 2
6.21095	6.53058	2.40	66.00	1.92 0	2.25 2	-2.35 0	-2.29 2
6.28974	6.53131	2.60	88.00	3.46 0	3.48 2	-3.95 0	-3.53 2
6.27077	6.54348	2.50	78.00	2.65 0	2.92 2	-3.11 0	-2.97 2
6.08503	6.55037	2.20	43.00	9.11-1	1.08 2	-1.28 0	-1.11 2
6.17440	6.55047	2.30	55.00	1.38 0	1.66 2	-1.78 0	-1.69 2
6.23719	6.55206	2.40	67.00	1.97 0	2.31 2	-2.40 0	-2.34 2
6.29608	6.56507	2.50	79.00	2.71 0	2.98 2	-3.17 0	-3.03 2
6.20298	6.57270	2.30	56.00	1.42 0	1.71 2	-1.82 0	-1.75 2
6.26334	6.57357	2.40	68.00	2.01 0	2.36 2	-2.44 0	-2.40 2
6.11860	6.57434	2.20	44.00	9.43-1	1.13 2	-1.31 0	-1.15 2
6.01143	6.59289	2.10	33.00	5.85-1	6.70 1	-9.29-1	-6.89 1
6.23134	6.59490	2.30	57.00	1.46 0	1.77 2	-1.85 0	-1.80 2
6.28942	6.59511	2.40	69.00	2.06 0	2.42 2	-2.49 0	-2.46 2
6.15168	6.59820	2.20	45.00	9.74-1	1.17 2	-1.34 0	-1.20 2
6.25950	6.61707	2.30	58.00	1.49 0	1.82 2	-1.89 0	-1.86 2
6.05319	6.61942	2.10	34.00	6.12-1	7.09 1	-9.55-1	-7.28 1
6.18430	6.62195	2.20	46.00	1.01 0	1.22 2	-1.38 0	-1.25 2
6.28746	6.63922	2.30	59.00	1.53 0	1.88 2	-1.93 0	-1.91 2
6.21649	6.64562	2.20	47.00	1.04 0	1.27 2	-1.41 0	-1.30 2
6.09397	6.64579	2.10	35.00	6.39-1	7.48 1	-9.81-1	-7.68 1
6.24827	6.66919	2.20	48.00	1.07 0	1.32 2	-1.44 0	-1.35 2
6.13385	6.67198	2.10	36.00	6.67-1	7.89 1	-1.01 0	-8.08 1
6.27968	6.69267	2.20	49.00	1.10 0	1.37 2	-1.47 0	-1.40 2
6.17289	6.69801	2.10	37.00	6.94-1	8.30 1	-1.03 0	-8.50 1
6.00672	6.71448	2.00	26.00	3.85-1	4.32 1	-7.00-1	-4.46 1
6.21114	6.72387	2.10	38.00	7.22-1	8.72 1	-1.06 0	-8.93 1
6.05930	6.74383	2.00	27.00	4.09-1	4.64 1	-7.23-1	-4.79 1
6.24865	6.74957	2.10	39.00	7.50-1	9.15 1	-1.09 0	-9.36 1
6.11013	6.77298	2.00	28.00	4.33-1	4.98 1	-7.45-1	-5.12 1
6.28548	6.77513	2.10	40.00	7.79-1	9.58 1	-1.12 0	-9.80 1
6.00980	6.79280	1.95	23.00	3.08-1	3.44 1	-6.08-1	-3.56 1
6.15936	6.80194	2.00	29.00	4.57-1	5.32 1	-7.69-1	-5.47 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.06954	6.82359	1.95	24.00	3.30-1	3.73 1	-6.30-1	-3.85 1
6.20712	6.83068	2.00	30.00	4.82-1	5.67 1	-7.92-1	-5.83 1
6.12692	6.85423	1.95	25.00	3.53-1	4.04 1	-6.51-1	-4.16 1
6.25353	6.85921	2.00	31.00	5.07-1	6.03 1	-8.16-1	-6.20 1
6.18218	6.88467	1.95	26.00	3.76-1	4.35 1	-6.73-1	-4.48 1
6.29869	6.88753	2.00	32.00	5.31-1	6.40 1	-8.39-1	-6.57 1
6.06414	6.90647	1.90	21.00	2.58-1	2.90 1	-5.43-1	-3.01 1
6.23550	6.91490	1.95	27.00	3.99-1	4.67 1	-6.95-1	-4.81 1
6.13030	6.93859	1.90	22.00	2.80-1	3.18 1	-5.63-1	-3.29 1
6.28705	6.94491	1.95	28.00	4.23-1	5.01 1	-7.17-1	-5.15 1
6.19352	6.97059	1.90	23.00	3.01-1	3.46 1	-5.84-1	-3.57 1
6.03456	6.99319	1.85	18.00	1.91-1	2.17 1	-4.63-1	-2.25 1
6.25410	7.00241	1.90	24.00	3.23-1	3.76 1	-6.05-1	-3.87 1
6.07434	7.00986	1.85	18.50	2.01-1	2.29 1	-4.72-1	-2.37 1
6.11299	7.02656	1.85	19.00	2.11-1	2.41 1	-4.82-1	-2.50 1
6.15058	7.04328	1.85	19.50	2.22-1	2.53 1	-4.91-1	-2.63 1
6.18717	7.06001	1.85	20.00	2.32-1	2.66 1	-5.01-1	-2.76 1
6.25760	7.09341	1.85	21.00	2.53-1	2.92 1	-5.20-1	-3.02 1
6.01540	7.10259	1.80	15.50	1.39-1	1.63 1	-3.98-1	-1.70 1
6.06287	7.11955	1.80	16.00	1.49-1	1.73 1	-4.06-1	-1.81 1
6.10869	7.13667	1.80	16.50	1.58-1	1.84 1	-4.15-1	-1.92 1
6.15299	7.15389	1.80	17.00	1.68-1	1.95 1	-4.24-1	-2.03 1
6.19588	7.17118	1.80	17.50	1.78-1	2.07 1	-4.33-1	-2.15 1
6.23745	7.18854	1.80	18.00	1.88-1	2.18 1	-4.43-1	-2.26 1
6.27780	7.20593	1.80	18.50	1.98-1	2.30 1	-4.52-1	-2.39 1
6.01673	7.23809	1.75	13.50	1.00-1	1.25 1	-3.45-1	-1.31 1
6.07307	7.25498	1.75	14.00	1.09-1	1.34 1	-3.54-1	-1.40 1
6.12707	7.27220	1.75	14.50	1.19-1	1.44 1	-3.62-1	-1.50 1
6.17895	7.28967	1.75	15.00	1.28-1	1.54 1	-3.71-1	-1.60 1
6.22888	7.30735	1.75	15.50	1.37-1	1.64 1	-3.79-1	-1.71 1
6.27701	7.32519	1.75	16.00	1.47-1	1.75 1	-3.88-1	-1.82 1
6.05437	7.40234	1.70	12.00	7.34-2	9.94 0	-3.05-1	-1.04 1
6.12003	7.41889	1.70	12.50	8.23-2	1.08 1	-3.13-1	-1.13 1
6.18256	7.43601	1.70	13.00	9.12-2	1.17 1	-3.21-1	-1.22 1
6.24224	7.45359	1.70	13.50	1.00-1	1.26 1	-3.29-1	-1.31 1
6.29935	7.47154	1.70	14.00	1.09-1	1.35 1	-3.37-1	-1.41 1
6.07120	7.58152	1.65	10.50	4.87-2	7.66 0	-2.67-1	-8.08 0
6.14964	7.59686	1.65	11.00	5.72-2	8.42 0	-2.74-1	-8.86 0
6.22366	7.61321	1.65	11.50	6.56-2	9.20 0	-2.82-1	-9.67 0
6.29374	7.63037	1.65	12.00	7.41-2	1.00 1	-2.89-1	-1.05 1
6.01327	7.77640	1.60	8.80	2.27-2	5.40 0	-2.28-1	-5.73 0
6.05408	7.78072	1.60	9.00	2.59-2	5.65 0	-2.31-1	-6.00 0
6.09366	7.78541	1.60	9.20	2.92-2	5.91 0	-2.34-1	-6.26 0
6.13211	7.79045	1.60	9.40	3.24-2	6.17 0	-2.37-1	-6.54 0
6.16947	7.79579	1.60	9.60	3.57-2	6.44 0	-2.39-1	-6.81 0
6.20581	7.80141	1.60	9.80	3.89-2	6.72 0	-2.42-1	-7.10 0
6.24118	7.80729	1.60	10.00	4.21-2	7.00 0	-2.45-1	-7.39 0
6.00529	8.01044	1.55	7.60	6.64-3	4.03 0	-1.99-1	-4.30 0
6.05585	8.01250	1.55	7.80	9.74-3	4.25 0	-2.02-1	-4.53 0
6.10459	8.01520	1.55	8.00	1.28-2	4.48 0	-2.05-1	-4.77 0
6.15165	8.01849	1.55	8.20	1.59-2	4.71 0	-2.07-1	-5.01 0
6.19714	8.02230	1.55	8.40	1.90-2	4.95 0	-2.10-1	-5.26 0
6.24114	8.02659	1.55	8.60	2.21-2	5.19 0	-2.13-1	-5.51 0
6.28377	8.03131	1.55	8.80	2.52-2	5.44 0	-2.15-1	-5.77 0
6.12869	8.27674	1.50	7.00	8.98-4	3.42 0	-1.80-1	-3.67 0
6.06872	8.27695	1.50	6.80	-2.07-3	3.22 0	-1.78-1	-3.46 0
6.18621	8.27750	1.50	7.20	3.86-3	3.63 0	-1.82-1	-3.88 0
6.00608	8.27822	1.50	6.60	-5.05-3	3.03 0	-1.75-1	-3.26 0
6.24144	8.27910	1.50	7.40	6.83-3	3.84 0	-1.85-1	-4.10 0
6.29457	8.28147	1.50	7.60	9.79-3	4.06 0	-1.87-1	-4.33 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.25048	8.56872	1.45	6.40	-4.29-3	2.87 0	-1.62-1	-3.08 0
6.18099	8.57120	1.45	6.20	-7.12-3	2.68 0	-1.59-1	-2.89 0
6.10802	8.57515	1.45	6.00	-9.96-3	2.50 0	-1.57-1	-2.70 0
6.03121	8.58077	1.45	5.80	-1.28-2	2.33 0	-1.55-1	-2.52 0
6.28465	8.89713	1.40	5.60	-1.16-2	2.18 0	-1.42-1	-2.36 0
6.19803	8.90513	1.40	5.40	-1.44-2	2.02 0	-1.40-1	-2.19 0
6.10617	8.91554	1.40	5.20	-1.71-2	1.86 0	-1.38-1	-2.02 0
6.00848	8.92872	1.40	5.00	-1.98-2	1.71 0	-1.36-1	-1.87 0
6.26621	9.27645	1.35	4.80	-1.82-2	1.58 0	-1.24-1	-1.73 0
6.15348	9.29438	1.35	4.60	-2.08-2	1.44 0	-1.22-1	-1.58 0
6.03231	9.31658	1.35	4.40	-2.35-2	1.31 0	-1.20-1	-1.44 0
6.29566	9.70177	1.30	4.20	-2.16-2	1.20 0	-1.09-1	-1.31 0
6.15244	9.73211	1.30	4.00	-2.41-2	1.07 0	-1.07-1	-1.18 0
6.07612	9.74981	1.30	3.90	-2.54-2	1.01 0	-1.06-1	-1.12 0
6.25583	10.2022	1.25	3.60	-2.46-2	8.57-1	-9.52-2	-9.52-1
6.16289	10.2269	1.25	3.50	-2.58-2	8.04-1	-9.44-2	-8.96-1
6.06505	10.2544	1.25	3.40	-2.70-2	7.53-1	-9.36-2	-8.41-1
6.21087	10.7774	1.20	3.10	-2.60-2	6.17-1	-8.32-2	-6.93-1
6.08717	10.8171	1.20	3.00	-2.72-2	5.72-1	-8.25-2	-6.45-1
6.18854	11.4278	1.15	2.70	-2.61-2	4.52-1	-7.28-2	-5.14-1
6.02551	11.4876	1.15	2.60	-2.72-2	4.13-1	-7.22-2	-4.72-1
6.24423	12.1406	1.10	2.40	-2.49-2	3.46-1	-6.38-2	-3.97-1
6.03580	12.2240	1.10	2.30	-2.60-2	3.12-1	-6.33-2	-3.60-1
6.21458	12.9928	1.05	2.10	-2.37-2	2.53-1	-5.55-2	-2.94-1
6.20229	13.9654	1.00	1.85	-2.20-2	1.86-1	-4.82-2	-2.20-1
6.02284	14.0487	1.00	1.80	-2.25-2	1.74-1	-4.79-2	-2.06-1
6.15834	14.4138	0.98	1.75	-2.14-2	1.63-1	-4.54-2	-1.93-1
6.29958	14.8005	0.96	1.70	-2.03-2	1.52-1	-4.29-2	-1.81-1
6.08160	14.9050	0.96	1.65	-2.07-2	1.40-1	-4.27-2	-1.68-1
6.21288	15.3233	0.94	1.60	-1.97-2	1.30-1	-4.03-2	-1.56-1
6.07732	15.9032	0.92	1.50	-1.90-2	1.10-1	-3.78-2	-1.34-1
6.19458	16.3896	0.90	1.45	-1.80-2	1.01-1	-3.56-2	-1.23-1
6.05031	17.6662	0.86	1.30	-1.64-2	7.60-2	-3.12-2	-9.40-2
6.12879	18.2881	0.84	1.25	-1.55-2	6.86-2	-2.92-2	-8.52-2
6.19794	18.9610	0.82	1.20	-1.45-2	6.15-2	-2.72-2	-7.69-2
6.25393	19.6917	0.80	1.15	-1.36-2	5.49-2	-2.54-2	-6.90-2
6.29170	20.4884	0.78	1.10	-1.28-2	4.86-2	-2.36-2	-6.16-2
6.28301	22.3217	0.74	1.00	-1.12-2	3.72-2	-2.03-2	-4.80-2
6.03125	23.4878	0.72	0.94	-1.05-2	3.10-2	-1.87-2	-4.06-2
6.08278	24.5715	0.70	0.90	-9.68-3	2.73-2	-1.73-2	-3.61-2
6.10585	25.7672	0.68	0.86	-8.91-3	2.39-2	-1.59-2	-3.19-2
6.08893	27.0933	0.66	0.82	-8.19-3	2.07-2	-1.45-2	-2.80-2
6.01600	28.5727	0.64	0.78	-7.51-3	1.78-2	-1.33-2	-2.43-2
6.19167	33.6946	0.58	0.68	-5.56-3	1.16-2	-9.95-3	-1.65-2
6.03254	50.8946	0.46	0.50	-2.64-3	4.14-3	-5.00-3	-6.67-3
6.26038	72.0644	0.38	0.40	-1.36-3	1.87-3	-2.86-3	-3.44-3
6.30	6.60						
6.31517	6.55358	2.60	89.00	3.53 0	3.54 2	-4.03 0	-3.59 2
6.34073	6.57603	2.60	90.00	3.61 0	3.60 2	-4.10 0	-3.65 2
6.32141	6.58675	2.50	80.00	2.77 0	3.04 2	-3.23 0	-3.08 2
6.34678	6.60854	2.50	81.00	2.83 0	3.10 2	-3.29 0	-3.14 2
6.31545	6.61670	2.40	70.00	2.11 0	2.48 2	-2.54 0	-2.52 2
6.37220	6.63044	2.50	82.00	2.89 0	3.16 2	-3.35 0	-3.20 2
6.34142	6.63834	2.40	71.00	2.16 0	2.54 2	-2.58 0	-2.58 2
6.39768	6.65247	2.50	83.00	2.96 0	3.22 2	-3.41 0	-3.26 2
6.36735	6.66002	2.40	72.00	2.21 0	2.60 2	-2.63 0	-2.64 2
6.31525	6.66136	2.30	60.00	1.57 0	1.93 2	-1.97 0	-1.97 2
6.42322	6.67461	2.50	84.00	3.02 0	3.28 2	-3.48 0	-3.32 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.39325	6.68177	2.40	73.00	2.26 0	2.65 2	-2.68 0	-2.70 2
6.34287	6.68349	2.30	61.00	1.61 0	1.99 2	-2.01 0	-2.02 2
6.44884	6.69689	2.50	85.00	3.09 0	3.34 2	-3.54 0	-3.38 2
6.41912	6.70358	2.40	74.00	2.31 0	2.71 2	-2.73 0	-2.75 2
6.37034	6.70561	2.30	62.00	1.65 0	2.04 2	-2.05 0	-2.08 2
6.31073	6.71608	2.20	50.00	1.14 0	1.42 2	-1.50 0	-1.45 2
6.47454	6.71931	2.50	86.00	3.15 0	3.39 2	-3.61 0	-3.44 2
6.44499	6.72546	2.40	75.00	2.36 0	2.77 2	-2.78 0	-2.81 2
6.39767	6.72774	2.30	63.00	1.70 0	2.10 2	-2.09 0	-2.14 2
6.34145	6.73941	2.20	51.00	1.17 0	1.47 2	-1.54 0	-1.50 2
6.50033	6.74187	2.50	87.00	3.22 0	3.45 2	-3.68 0	-3.50 2
6.47084	6.74742	2.40	76.00	2.41 0	2.83 2	-2.84 0	-2.87 2
6.42488	6.74987	2.30	64.00	1.74 0	2.16 2	-2.13 0	-2.19 2
6.37185	6.76268	2.20	52.00	1.20 0	1.52 2	-1.57 0	-1.55 2
6.52622	6.76459	2.50	88.00	3.29 0	3.51 2	-3.74 0	-3.56 2
6.49670	6.76946	2.40	77.00	2.47 0	2.89 2	-2.89 0	-2.93 2
6.45196	6.77201	2.30	65.00	1.78 0	2.21 2	-2.17 0	-2.25 2
6.40196	6.78588	2.20	53.00	1.24 0	1.57 2	-1.60 0	-1.60 2
6.55223	6.78746	2.50	89.00	3.36 0	3.57 2	-3.81 0	-3.62 2
6.52258	6.79159	2.40	78.00	2.52 0	2.95 2	-2.94 0	-2.99 2
6.47895	6.79417	2.30	66.00	1.82 0	2.27 2	-2.21 0	-2.31 2
6.32166	6.80053	2.10	41.00	8.07-1	1.00 2	-1.14 0	-1.03 2
6.43179	6.80903	2.20	54.00	1.27 0	1.63 2	-1.64 0	-1.66 2
6.57835	6.81051	2.50	90.00	3.43 0	3.63 2	-3.89 0	-3.68 2
6.54848	6.81381	2.40	79.00	2.58 0	3.01 2	-3.00 0	-3.05 2
6.50584	6.81635	2.30	67.00	1.87 0	2.33 2	-2.26 0	-2.37 2
6.35724	6.82579	2.10	42.00	8.36-1	1.05 2	-1.17 0	-1.07 2
6.46137	6.83213	2.20	55.00	1.31 0	1.68 2	-1.67 0	-1.71 2
6.57441	6.83613	2.40	80.00	2.63 0	3.07 2	-3.05 0	-3.11 2
6.53264	6.83856	2.30	68.00	1.91 0	2.39 2	-2.30 0	-2.42 2
6.39226	6.85092	2.10	43.00	8.65-1	1.09 2	-1.20 0	-1.12 2
6.49070	6.85518	2.20	56.00	1.34 0	1.73 2	-1.71 0	-1.76 2
6.55938	6.86081	2.30	69.00	1.95 0	2.45 2	-2.34 0	-2.48 2
6.42674	6.87592	2.10	44.00	8.94-1	1.14 2	-1.23 0	-1.16 2
6.51980	6.87820	2.20	57.00	1.38 0	1.79 2	-1.74 0	-1.82 2
6.58605	6.88310	2.30	70.00	2.00 0	2.50 2	-2.39 0	-2.54 2
6.46073	6.90080	2.10	45.00	9.24-1	1.19 2	-1.26 0	-1.21 2
6.54870	6.90118	2.20	58.00	1.42 0	1.84 2	-1.78 0	-1.87 2
6.34270	6.91564	2.00	33.00	5.56-1	6.79 1	-8.63-1	-6.96 1
6.57740	6.92414	2.20	59.00	1.45 0	1.90 2	-1.81 0	-1.93 2
6.49424	6.92556	2.10	46.00	9.54-1	1.24 2	-1.29 0	-1.26 2
6.38563	6.94354	2.00	34.00	5.82-1	7.18 1	-8.88-1	-7.35 1
6.52732	6.95021	2.10	47.00	9.84-1	1.29 2	-1.32 0	-1.31 2
6.42757	6.97123	2.00	35.00	6.07-1	7.57 1	-9.12-1	-7.76 1
6.33698	6.97470	1.95	29.00	4.46-1	5.35 1	-7.40-1	-5.50 1
6.55999	6.97475	2.10	48.00	1.02 0	1.33 2	-1.35 0	-1.36 2
6.46859	6.99873	2.00	36.00	6.33-1	7.98 1	-9.37-1	-8.17 1
6.59226	6.99920	2.10	49.00	1.05 0	1.39 2	-1.38 0	-1.41 2
6.38543	7.00425	1.95	30.00	4.70-1	5.71 1	-7.62-1	-5.86 1
6.50874	7.02603	2.00	37.00	6.59-1	8.40 1	-9.62-1	-8.59 1
6.43252	7.03357	1.95	31.00	4.94-1	6.07 1	-7.85-1	-6.23 1
6.31231	7.03403	1.90	25.00	3.45-1	4.06 1	-6.25-1	-4.19 1
6.54809	7.05315	2.00	38.00	6.85-1	8.82 1	-9.87-1	-9.02 1
6.47834	7.06265	1.95	32.00	5.18-1	6.45 1	-8.08-1	-6.61 1
6.36836	7.06544	1.90	26.00	3.67-1	4.38 1	-6.46-1	-4.51 1
6.58668	7.08008	2.00	39.00	7.11-1	9.26 1	-1.01 0	-9.46 1
6.52299	7.09151	1.95	33.00	5.42-1	6.83 1	-8.31-1	-7.00 1
6.42246	7.09660	1.90	27.00	3.90-1	4.70 1	-6.68-1	-4.84 1
6.56656	7.12014	1.95	34.00	5.66-1	7.22 1	-8.55-1	-7.40 1
6.32471	7.12670	1.85	22.00	2.74-1	3.20 1	-5.40-1	-3.30 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.47477	7.12751	1.90	28.00	4.12-1	5.04 1	-6.89-1	-5.18 1
6.52545	7.15816	1.90	29.00	4.35-1	5.39 1	-7.11-1	-5.53 1
6.38885	7.15982	1.85	23.00	2.95-1	3.48 1	-5.60-1	-3.60 1
6.57462	7.18856	1.90	30.00	4.58-1	5.75 1	-7.33-1	-5.89 1
6.45033	7.19272	1.85	24.00	3.16-1	3.78 1	-5.80-1	-3.90 1
6.31700	7.22333	1.80	19.00	2.08-1	2.42 1	-4.61-1	-2.51 1
6.50940	7.22539	1.85	25.00	3.37-1	4.09 1	-6.00-1	-4.21 1
6.35513	7.24073	1.80	19.50	2.17-1	2.55 1	-4.70-1	-2.64 1
6.56630	7.25780	1.85	26.00	3.58-1	4.41 1	-6.20-1	-4.53 1
6.39226	7.25812	1.80	20.00	2.27-1	2.68 1	-4.79-1	-2.77 1
6.46373	7.29281	1.80	21.00	2.47-1	2.94 1	-4.98-1	-3.04 1
6.53184	7.32733	1.80	22.00	2.67-1	3.22 1	-5.17-1	-3.32 1
6.32348	7.34314	1.75	16.50	1.56-1	1.85 1	-3.96-1	-1.93 1
6.36842	7.36118	1.75	17.00	1.66-1	1.97 1	-4.05-1	-2.04 1
6.59695	7.36163	1.80	23.00	2.88-1	3.51 1	-5.36-1	-3.62 1
6.41192	7.37928	1.75	17.50	1.75-1	2.08 1	-4.14-1	-2.16 1
6.45411	7.39741	1.75	18.00	1.85-1	2.20 1	-4.23-1	-2.28 1
6.49505	7.41555	1.75	18.50	1.94-1	2.32 1	-4.31-1	-2.40 1
6.53484	7.43369	1.75	19.00	2.04-1	2.44 1	-4.40-1	-2.53 1
6.57355	7.45181	1.75	19.50	2.13-1	2.57 1	-4.49-1	-2.66 1
6.35412	7.48977	1.70	14.50	1.18-1	1.45 1	-3.45-1	-1.51 1
6.40674	7.50822	1.70	15.00	1.27-1	1.55 1	-3.53-1	-1.61 1
6.45739	7.52685	1.70	15.50	1.36-1	1.65 1	-3.61-1	-1.72 1
6.50622	7.54561	1.70	16.00	1.45-1	1.76 1	-3.69-1	-1.83 1
6.55338	7.56446	1.70	16.50	1.54-1	1.87 1	-3.78-1	-1.94 1
6.59900	7.58336	1.70	17.00	1.63-1	1.98 1	-3.86-1	-2.05 1
6.36031	7.64818	1.65	12.50	8.26-2	1.09 1	-2.97-1	-1.14 1
6.42371	7.66650	1.65	13.00	9.12-2	1.18 1	-3.04-1	-1.23 1
6.48425	7.68524	1.65	13.50	9.97-2	1.27 1	-3.12-1	-1.32 1
6.54219	7.70429	1.65	14.00	1.08-1	1.36 1	-3.20-1	-1.42 1
6.59776	7.72360	1.65	14.50	1.17-1	1.46 1	-3.28-1	-1.52 1
6.32571	7.82298	1.60	10.50	5.03-2	7.73 0	-2.52-1	-8.13 0
6.40521	7.83984	1.60	11.00	5.84-2	8.48 0	-2.59-1	-8.92 0
6.48025	7.85764	1.60	11.50	6.65-2	9.28 0	-2.67-1	-9.73 0
6.55132	7.87619	1.60	12.00	7.46-2	1.01 1	-2.74-1	-1.06 1
6.32509	8.03642	1.55	9.00	2.83-2	5.70 0	-2.18-1	-6.03 0
6.36519	8.04189	1.55	9.20	3.14-2	5.96 0	-2.21-1	-6.30 0
6.40413	8.04768	1.55	9.40	3.45-2	6.23 0	-2.23-1	-6.58 0
6.44199	8.05376	1.55	9.60	3.76-2	6.50 0	-2.26-1	-6.86 0
6.47882	8.06010	1.55	9.80	4.07-2	6.78 0	-2.29-1	-7.14 0
6.51467	8.06669	1.55	10.00	4.38-2	7.06 0	-2.31-1	-7.44 0
6.34575	8.28452	1.50	7.80	1.27-2	4.29 0	-1.90-1	-4.56 0
6.39510	8.28819	1.50	8.00	1.57-2	4.52 0	-1.92-1	-4.80 0
6.44276	8.29242	1.50	8.20	1.87-2	4.75 0	-1.95-1	-5.04 0
6.48883	8.29715	1.50	8.40	2.16-2	4.99 0	-1.97-1	-5.29 0
6.53341	8.30232	1.50	8.60	2.46-2	5.24 0	-2.00-1	-5.55 0
6.57660	8.30791	1.50	8.80	2.75-2	5.49 0	-2.02-1	-5.81 0
6.38016	8.56752	1.45	6.80	1.37-3	3.25 0	-1.66-1	-3.48 0
6.31678	8.56754	1.45	6.60	-1.46-3	3.06 0	-1.64-1	-3.28 0
6.44085	8.56853	1.45	7.00	4.19-3	3.46 0	-1.69-1	-3.69 0
6.49906	8.57044	1.45	7.20	7.01-3	3.67 0	-1.71-1	-3.91 0
6.55499	8.57318	1.45	7.40	9.83-3	3.88 0	-1.73-1	-4.13 0
6.58839	8.88368	1.40	6.40	-8.50-4	2.90 0	-1.51-1	-3.10 0
6.51807	8.88472	1.40	6.20	-3.54-3	2.71 0	-1.49-1	-2.91 0
6.44425	8.88717	1.40	6.00	-6.23-3	2.53 0	-1.46-1	-2.72 0
6.36657	8.89124	1.40	5.80	-8.93-3	2.35 0	-1.44-1	-2.54 0
6.56311	9.24248	1.35	5.40	-1.05-2	2.04 0	-1.30-1	-2.20 0
6.47025	9.25098	1.35	5.20	-1.31-2	1.88 0	-1.28-1	-2.04 0
6.37152	9.26215	1.35	5.00	-1.56-2	1.73 0	-1.26-1	-1.88 0
6.55014	9.65758	1.30	4.60	-1.67-2	1.46 0	-1.13-1	-1.59 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.42773	9.67723	1.30	4.40	-1.92-2	1.32 0	-1.11-1	-1.45 0
6.58626	10.1260	1.25	4.00	-1.99-2	1.09 0	-9.85-2	-1.19 0
6.50920	10.1421	1.25	3.90	-2.10-2	1.03 0	-9.77-2	-1.13 0
6.42864	10.1600	1.25	3.80	-2.22-2	9.68-1	-9.68-2	-1.07 0
6.34429	10.1800	1.25	3.70	-2.34-2	9.12-1	-9.60-2	-1.01 0
6.54145	10.6819	1.20	3.40	-2.26-2	7.63-1	-8.55-2	-8.48-1
6.43736	10.7102	1.20	3.30	-2.37-2	7.12-1	-8.47-2	-7.94-1
6.32737	10.7419	1.20	3.20	-2.49-2	6.64-1	-8.39-2	-7.43-1
6.48200	11.3280	1.15	2.90	-2.39-2	5.36-1	-7.42-2	-6.03-1
6.34028	11.3749	1.15	2.80	-2.50-2	4.93-1	-7.35-2	-5.58-1
6.43593	12.0677	1.10	2.50	-2.38-2	3.82-1	-6.44-2	-4.36-1
6.46634	12.8880	1.05	2.20	-2.27-2	2.84-1	-5.61-2	-3.28-1
6.53137	13.8187	1.00	1.95	-2.11-2	2.13-1	-4.86-2	-2.49-1
6.37149	13.8890	1.00	1.90	-2.16-2	2.00-1	-4.84-2	-2.34-1
6.52938	14.2434	0.98	1.85	-2.04-2	1.88-1	-4.58-2	-2.21-1
6.34951	14.3249	0.98	1.80	-2.09-2	1.75-1	-4.56-2	-2.07-1
6.50370	14.7053	0.96	1.75	-1.98-2	1.64-1	-4.31-2	-1.94-1
6.44679	15.2108	0.94	1.65	-1.92-2	1.41-1	-4.05-2	-1.69-1
6.34845	15.7685	0.92	1.55	-1.86-2	1.21-1	-3.80-2	-1.45-1
6.48818	16.2431	0.90	1.50	-1.76-2	1.11-1	-3.57-2	-1.34-1
6.31276	16.9101	0.88	1.40	-1.70-2	9.28-2	-3.34-2	-1.13-1
6.43088	17.4686	0.86	1.35	-1.60-2	8.46-2	-3.13-2	-1.04-1
6.54761	18.0694	0.84	1.30	-1.50-2	7.68-2	-2.93-2	-9.44-2
6.30445	21.3610	0.76	1.05	-1.20-2	4.27-2	-2.19-2	-5.46-2
6.39327	23.2868	0.72	0.96	-1.03-2	3.31-2	-1.87-2	-4.31-2
6.49075	24.3446	0.70	0.92	-9.53-3	2.93-2	-1.73-2	-3.84-2
6.56892	25.5092	0.68	0.88	-8.77-3	2.58-2	-1.59-2	-3.41-2
6.57818	29.8339	0.62	0.76	-6.73-3	1.65-2	-1.21-2	-2.27-2
6.44487	31.6412	0.60	0.72	-6.13-3	1.40-2	-1.10-2	-1.95-2
6.44198	38.0269	0.54	0.62	-4.43-3	8.63-3	-8.05-3	-1.26-2
6.48536	43.5784	0.50	0.56	-3.46-3	6.15-3	-6.40-3	-9.36-3
6.60	6.90						
6.60037	6.85856	2.40	81.00	2.69 0	3.13 2	-3.11 0	-3.17 2
6.62639	6.88109	2.40	82.00	2.75 0	3.19 2	-3.17 0	-3.23 2
6.65247	6.90375	2.40	83.00	2.81 0	3.25 2	-3.23 0	-3.29 2
6.61267	6.90543	2.30	71.00	2.05 0	2.56 2	-2.43 0	-2.60 2
6.67861	6.92654	2.40	84.00	2.87 0	3.31 2	-3.29 0	-3.35 2
6.63925	6.92781	2.30	72.00	2.09 0	2.62 2	-2.48 0	-2.66 2
6.60592	6.94707	2.20	60.00	1.49 0	1.95 2	-1.85 0	-1.99 2
6.70483	6.94945	2.40	85.00	2.93 0	3.37 2	-3.35 0	-3.41 2
6.66579	6.95025	2.30	73.00	2.14 0	2.68 2	-2.53 0	-2.72 2
6.63427	6.96999	2.20	61.00	1.53 0	2.01 2	-1.89 0	-2.04 2
6.73113	6.97251	2.40	86.00	2.99 0	3.43 2	-3.41 0	-3.47 2
6.69231	6.97275	2.30	74.00	2.19 0	2.74 2	-2.58 0	-2.78 2
6.66246	6.99290	2.20	62.00	1.57 0	2.07 2	-1.92 0	-2.10 2
6.71881	6.99532	2.30	75.00	2.24 0	2.80 2	-2.62 0	-2.84 2
6.75753	6.99571	2.40	87.00	3.06 0	3.49 2	-3.47 0	-3.53 2
6.69052	7.01581	2.20	63.00	1.61 0	2.12 2	-1.96 0	-2.16 2
6.74532	7.01797	2.30	76.00	2.29 0	2.86 2	-2.67 0	-2.90 2
6.78403	7.01907	2.40	88.00	3.12 0	3.55 2	-3.54 0	-3.59 2
6.62418	7.02356	2.10	50.00	1.08 0	1.44 2	-1.41 0	-1.46 2
6.71844	7.03872	2.20	64.00	1.65 0	2.18 2	-2.00 0	-2.22 2
6.77182	7.04069	2.30	77.00	2.34 0	2.92 2	-2.72 0	-2.96 2
6.81064	7.04259	2.40	89.00	3.19 0	3.61 2	-3.61 0	-3.65 2
6.65575	7.04784	2.10	51.00	1.11 0	1.49 2	-1.44 0	-1.51 2
6.74624	7.06163	2.20	65.00	1.69 0	2.24 2	-2.04 0	-2.27 2
6.79834	7.06351	2.30	78.00	2.39 0	2.98 2	-2.77 0	-3.02 2
6.83737	7.06628	2.40	90.00	3.26 0	3.67 2	-3.67 0	-3.71 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.68699	7.07204	2.10	52.00	1.14 0	1.54 2	-1.47 0	-1.57 2
6.77394	7.08456	2.20	66.00	1.73 0	2.30 2	-2.08 0	-2.33 2
6.82488	7.08642	2.30	79.00	2.44 0	3.04 2	-2.83 0	-3.08 2
6.71794	7.09616	2.10	53.00	1.17 0	1.59 2	-1.50 0	-1.62 2
6.62457	7.10684	2.00	40.00	7.37-1	9.70 1	-1.04 0	-9.91 1
6.80154	7.10751	2.20	67.00	1.77 0	2.35 2	-2.12 0	-2.39 2
6.85145	7.10942	2.30	80.00	2.50 0	3.10 2	-2.88 0	-3.14 2
6.74861	7.12022	2.10	54.00	1.21 0	1.65 2	-1.53 0	-1.67 2
6.82905	7.13049	2.20	68.00	1.81 0	2.41 2	-2.16 0	-2.45 2
6.87807	7.13254	2.30	81.00	2.55 0	3.16 2	-2.93 0	-3.20 2
6.66181	7.13342	2.00	41.00	7.64-1	1.02 2	-1.06 0	-1.04 2
6.77900	7.14423	2.10	55.00	1.24 0	1.70 2	-1.56 0	-1.73 2
6.60911	7.14855	1.95	35.00	5.91-1	7.62 1	-8.78-1	-7.80 1
6.85649	7.15349	2.20	69.00	1.85 0	2.47 2	-2.20 0	-2.51 2
6.69842	7.15985	2.00	42.00	7.91-1	1.06 2	-1.09 0	-1.08 2
6.80916	7.16818	2.10	56.00	1.27 0	1.75 2	-1.60 0	-1.78 2
6.88387	7.17654	2.20	70.00	1.89 0	2.53 2	-2.25 0	-2.57 2
6.65075	7.17674	1.95	36.00	6.15-1	8.03 1	-9.02-1	-8.22 1
6.73446	7.18613	2.00	43.00	8.18-1	1.11 2	-1.12 0	-1.13 2
6.83908	7.19208	2.10	57.00	1.31 0	1.81 2	-1.63 0	-1.84 2
6.69150	7.20473	1.95	37.00	6.40-1	8.45 1	-9.26-1	-8.64 1
6.76995	7.21226	2.00	44.00	8.46-1	1.15 2	-1.14 0	-1.18 2
6.86878	7.21595	2.10	58.00	1.34 0	1.86 2	-1.66 0	-1.89 2
6.62242	7.21871	1.90	31.00	4.81-1	6.11 1	-7.55-1	-6.27 1
6.73144	7.23252	1.95	38.00	6.66-1	8.88 1	-9.51-1	-9.08 1
6.80494	7.23825	2.00	45.00	8.74-1	1.20 2	-1.17 0	-1.23 2
6.89828	7.23978	2.10	59.00	1.37 0	1.92 2	-1.70 0	-1.95 2
6.66893	7.24860	1.90	32.00	5.04-1	6.49 1	-7.77-1	-6.65 1
6.77062	7.26011	1.95	39.00	6.91-1	9.32 1	-9.75-1	-9.52 1
6.83944	7.26410	2.00	46.00	9.02-1	1.25 2	-1.20 0	-1.28 2
6.71426	7.27824	1.90	33.00	5.27-1	6.87 1	-7.99-1	-7.04 1
6.80908	7.28751	1.95	40.00	7.17-1	9.76 1	-1.00 0	-9.97 1
6.87349	7.28983	2.00	47.00	9.30-1	1.30 2	-1.23 0	-1.33 2
6.62122	7.28994	1.85	27.00	3.80-1	4.74 1	-6.41-1	-4.87 1
6.75850	7.30764	1.90	34.00	5.51-1	7.27 1	-8.22-1	-7.44 1
6.84688	7.31474	1.95	41.00	7.42-1	1.02 2	-1.03 0	-1.04 2
6.67433	7.32179	1.85	28.00	4.01-1	5.08 1	-6.62-1	-5.21 1
6.80172	7.33680	1.90	35.00	5.74-1	7.67 1	-8.45-1	-7.85 1
6.88406	7.34179	1.95	42.00	7.69-1	1.07 2	-1.05 0	-1.09 2
6.72579	7.35337	1.85	29.00	4.23-1	5.43 1	-6.82-1	-5.57 1
6.84399	7.36573	1.90	36.00	5.98-1	8.09 1	-8.68-1	-8.27 1
6.77573	7.38466	1.85	30.00	4.45-1	5.79 1	-7.04-1	-5.93 1
6.88538	7.39443	1.90	37.00	6.22-1	8.51 1	-8.91-1	-8.69 1
6.65937	7.39568	1.80	24.00	3.08-1	3.81 1	-5.55-1	-3.92 1
6.82427	7.41567	1.85	31.00	4.67-1	6.15 1	-7.25-1	-6.30 1
6.71937	7.42945	1.80	25.00	3.28-1	4.12 1	-5.75-1	-4.24 1
6.87152	7.44641	1.85	32.00	4.90-1	6.53 1	-7.46-1	-6.69 1
6.77716	7.46292	1.80	26.00	3.49-1	4.44 1	-5.95-1	-4.56 1
6.61124	7.46990	1.75	20.00	2.23-1	2.70 1	-4.58-1	-2.79 1
6.83295	7.49608	1.80	27.00	3.70-1	4.77 1	-6.14-1	-4.90 1
6.68381	7.50595	1.75	21.00	2.42-1	2.97 1	-4.76-1	-3.06 1
6.88691	7.52893	1.80	28.00	3.91-1	5.11 1	-6.34-1	-5.24 1
6.75299	7.54178	1.75	22.00	2.61-1	3.25 1	-4.94-1	-3.34 1
6.81913	7.57733	1.75	23.00	2.81-1	3.54 1	-5.13-1	-3.64 1
6.64317	7.60230	1.70	17.50	1.72-1	2.10 1	-3.95-1	-2.17 1
6.88256	7.61258	1.75	24.00	3.00-1	3.84 1	-5.31-1	-3.95 1
6.68600	7.62125	1.70	18.00	1.81-1	2.21 1	-4.03-1	-2.29 1
6.72758	7.64020	1.70	18.50	1.90-1	2.34 1	-4.12-1	-2.42 1
6.76799	7.65912	1.70	19.00	1.99-1	2.46 1	-4.20-1	-2.54 1
6.80731	7.67800	1.70	19.50	2.08-1	2.59 1	-4.29-1	-2.67 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.84560	7.69683	1.70	20.00	2.18-1	2.72 1	-4.37-1	-2.81 1
6.65117	7.74309	1.65	15.00	1.25-1	1.56 1	-3.36-1	-1.62 1
6.70259	7.76273	1.65	15.50	1.34-1	1.67 1	-3.44-1	-1.73 1
6.75218	7.78246	1.65	16.00	1.43-1	1.77 1	-3.52-1	-1.84 1
6.80007	7.80225	1.65	16.50	1.51-1	1.88 1	-3.60-1	-1.95 1
6.84640	7.82208	1.65	17.00	1.60-1	2.00 1	-3.68-1	-2.07 1
6.89128	7.84191	1.65	17.50	1.69-1	2.11 1	-3.76-1	-2.19 1
6.61885	7.89532	1.60	12.50	8.28-2	1.10 1	-2.81-1	-1.15 1
6.68319	7.91492	1.60	13.00	9.09-2	1.19 1	-2.89-1	-1.24 1
6.74464	7.93488	1.60	13.50	9.91-2	1.28 1	-2.96-1	-1.33 1
6.80346	7.95512	1.60	14.00	1.07-1	1.37 1	-3.04-1	-1.43 1
6.85990	7.97557	1.60	14.50	1.15-1	1.47 1	-3.11-1	-1.53 1
6.60037	8.08408	1.55	10.50	5.16-2	7.79 0	-2.38-1	-8.19 0
6.68100	8.10256	1.55	11.00	5.93-2	8.56 0	-2.45-1	-8.98 0
6.75714	8.12191	1.55	11.50	6.71-2	9.36 0	-2.52-1	-9.80 0
6.82928	8.14193	1.55	12.00	7.48-2	1.02 1	-2.59-1	-1.06 1
6.89784	8.16247	1.55	12.50	8.26-2	1.11 1	-2.66-1	-1.15 1
6.61848	8.31387	1.50	9.00	3.05-2	5.75 0	-2.05-1	-6.07 0
6.65913	8.32016	1.50	9.20	3.34-2	6.01 0	-2.08-1	-6.35 0
6.69861	8.32675	1.50	9.40	3.64-2	6.28 0	-2.10-1	-6.62 0
6.73700	8.33362	1.50	9.60	3.93-2	6.56 0	-2.13-1	-6.91 0
6.77436	8.34073	1.50	9.80	4.23-2	6.84 0	-2.15-1	-7.19 0
6.81073	8.34808	1.50	10.00	4.52-2	7.12 0	-2.18-1	-7.49 0
6.89769	8.36728	1.50	10.50	5.26-2	7.86 0	-2.25-1	-8.25 0
6.60880	8.57664	1.45	7.60	1.26-2	4.10 0	-1.76-1	-4.36 0
6.66065	8.58076	1.45	7.80	1.55-2	4.33 0	-1.78-1	-4.59 0
6.71066	8.58546	1.45	8.00	1.83-2	4.56 0	-1.80-1	-4.83 0
6.75896	8.59069	1.45	8.20	2.11-2	4.80 0	-1.83-1	-5.08 0
6.80566	8.59640	1.45	8.40	2.39-2	5.04 0	-1.85-1	-5.33 0
6.85086	8.60253	1.45	8.60	2.67-2	5.29 0	-1.88-1	-5.59 0
6.89467	8.60904	1.45	8.80	2.95-2	5.55 0	-1.90-1	-5.85 0
6.65550	8.88390	1.40	6.60	1.83-3	3.09 0	-1.53-1	-3.30 0
6.71967	8.88521	1.40	6.80	4.52-3	3.29 0	-1.55-1	-3.51 0
6.78115	8.88751	1.40	7.00	7.19-3	3.49 0	-1.57-1	-3.72 0
6.84013	8.89068	1.40	7.20	9.87-3	3.70 0	-1.60-1	-3.94 0
6.89681	8.89463	1.40	7.40	1.25-2	3.92 0	-1.62-1	-4.16 0
6.88699	9.22893	1.35	6.20	-2.61-4	2.74 0	-1.38-1	-2.93 0
6.81224	9.22978	1.35	6.00	-2.81-3	2.55 0	-1.36-1	-2.74 0
6.73362	9.23216	1.35	5.80	-5.36-3	2.38 0	-1.34-1	-2.55 0
6.65073	9.23631	1.35	5.60	-7.92-3	2.21 0	-1.32-1	-2.38 0
6.87042	9.62102	1.30	5.20	-9.36-3	1.90 0	-1.18-1	-2.05 0
6.77055	9.63004	1.30	5.00	-1.18-2	1.75 0	-1.16-1	-1.89 0
6.66407	9.64205	1.30	4.80	-1.42-2	1.60 0	-1.15-1	-1.74 0
6.86440	10.0772	1.25	4.40	-1.52-2	1.34 0	-1.02-1	-1.46 0
6.73092	10.0988	1.25	4.20	-1.75-2	1.21 0	-1.00-1	-1.32 0
6.82330	10.6137	1.20	3.70	-1.92-2	9.24-1	-8.78-2	-1.02 0
6.73398	10.6339	1.20	3.60	-2.04-2	8.68-1	-8.70-2	-9.59-1
6.64017	10.6566	1.20	3.50	-2.15-2	8.15-1	-8.62-2	-9.03-1
6.85707	11.2167	1.15	3.20	-2.07-2	6.73-1	-7.63-2	-7.49-1
6.73953	11.2495	1.15	3.10	-2.17-2	6.26-1	-7.56-2	-6.99-1
6.61478	11.2864	1.15	3.00	-2.28-2	5.80-1	-7.49-2	-6.50-1
6.77735	11.9478	1.10	2.70	-2.18-2	4.59-1	-6.57-2	-5.18-1
6.61304	12.0039	1.10	2.60	-2.28-2	4.20-1	-6.51-2	-4.76-1
6.69561	12.7976	1.05	2.30	-2.17-2	3.17-1	-5.66-2	-3.63-1
6.68273	13.7540	1.00	2.00	-2.06-2	2.28-1	-4.89-2	-2.65-1
6.85930	14.1002	0.98	1.95	-1.95-2	2.15-1	-4.63-2	-2.50-1
6.69900	14.1688	0.98	1.90	-2.00-2	2.01-1	-4.60-2	-2.35-1
6.87564	14.5389	0.96	1.85	-1.89-2	1.89-1	-4.35-2	-2.22-1
6.69532	14.6184	0.96	1.80	-1.94-2	1.76-1	-4.33-2	-2.07-1
6.86986	15.0157	0.94	1.75	-1.83-2	1.65-1	-4.09-2	-1.95-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.66526	15.1087	0.94	1.70	-1.87-2	1.53-1	-4.07-2	-1.81-1
6.83460	15.5371	0.92	1.65	-1.77-2	1.43-1	-3.83-2	-1.69-1
6.60016	15.6470	0.92	1.60	-1.81-2	1.31-1	-3.81-2	-1.57-1
6.75986	16.1115	0.90	1.55	-1.71-2	1.22-1	-3.59-2	-1.46-1
6.63181	16.7502	0.88	1.45	-1.66-2	1.02-1	-3.35-2	-1.24-1
6.77892	17.2934	0.86	1.40	-1.56-2	9.37-2	-3.14-2	-1.14-1
6.66117	18.7176	0.82	1.25	-1.41-2	6.93-2	-2.73-2	-8.56-2
6.76913	19.4193	0.80	1.20	-1.32-2	6.22-2	-2.55-2	-7.73-2
6.86822	20.1815	0.78	1.15	-1.24-2	5.55-2	-2.37-2	-6.94-2
6.73536	23.0998	0.72	0.98	-1.02-2	3.54-2	-1.88-2	-4.56-2
6.87494	24.1343	0.70	0.94	-9.39-3	3.14-2	-1.73-2	-4.08-2
6.61879	26.7974	0.66	0.84	-8.05-3	2.25-2	-1.46-2	-3.00-2
6.62777	28.2303	0.64	0.80	-7.37-3	1.94-2	-1.33-2	-2.62-2
6.87200	35.4357	0.56	0.66	-4.92-3	1.06-2	-8.96-3	-1.52-2
6.90	7.20						
6.90473	7.15576	2.30	82.00	2.61 0	3.22 2	-2.99 0	-3.26 2
6.93145	7.17910	2.30	83.00	2.66 0	3.28 2	-3.04 0	-3.32 2
6.91119	7.19962	2.20	71.00	1.94 0	2.59 2	-2.29 0	-2.63 2
6.95824	7.20258	2.30	84.00	2.72 0	3.34 2	-3.10 0	-3.38 2
6.93847	7.22275	2.20	72.00	1.98 0	2.65 2	-2.33 0	-2.69 2
6.98511	7.22618	2.30	85.00	2.78 0	3.40 2	-3.16 0	-3.44 2
6.96571	7.24594	2.20	73.00	2.03 0	2.71 2	-2.38 0	-2.75 2
7.01206	7.24993	2.30	86.00	2.84 0	3.46 2	-3.22 0	-3.51 2
6.92760	7.26358	2.10	60.00	1.41 0	1.98 2	-1.73 0	-2.01 2
6.99293	7.26919	2.20	74.00	2.07 0	2.77 2	-2.42 0	-2.81 2
7.03911	7.27382	2.30	87.00	2.90 0	3.52 2	-3.28 0	-3.57 2
6.95674	7.28736	2.10	61.00	1.45 0	2.03 2	-1.77 0	-2.06 2
7.02013	7.29251	2.20	75.00	2.12 0	2.83 2	-2.47 0	-2.87 2
7.06627	7.29787	2.30	88.00	2.96 0	3.58 2	-3.34 0	-3.63 2
6.98573	7.31113	2.10	62.00	1.48 0	2.09 2	-1.80 0	-2.12 2
6.90712	7.31545	2.00	48.00	9.59-1	1.35 2	-1.25 0	-1.38 2
7.04733	7.31590	2.20	76.00	2.16 0	2.89 2	-2.51 0	-2.93 2
7.09353	7.32208	2.30	89.00	3.02 0	3.64 2	-3.40 0	-3.69 2
7.01457	7.33488	2.10	63.00	1.52 0	2.15 2	-1.84 0	-2.18 2
7.07454	7.33937	2.20	77.00	2.21 0	2.95 2	-2.56 0	-2.99 2
6.94036	7.34095	2.00	49.00	9.88-1	1.40 2	-1.28 0	-1.43 2
7.12093	7.34646	2.30	90.00	3.09 0	3.70 2	-3.46 0	-3.75 2
7.04327	7.35864	2.10	64.00	1.55 0	2.21 2	-1.87 0	-2.24 2
7.10175	7.36293	2.20	78.00	2.26 0	3.01 2	-2.61 0	-3.05 2
6.97321	7.36635	2.00	50.00	1.02 0	1.45 2	-1.31 0	-1.48 2
6.92064	7.36868	1.95	43.00	7.95-1	1.11 2	-1.08 0	-1.14 2
7.07186	7.38240	2.10	65.00	1.59 0	2.26 2	-1.91 0	-2.30 2
7.12899	7.38658	2.20	79.00	2.31 0	3.07 2	-2.66 0	-3.11 2
7.00572	7.39166	2.00	51.00	1.05 0	1.51 2	-1.34 0	-1.53 2
6.95668	7.39541	1.95	44.00	8.21-1	1.16 2	-1.10 0	-1.18 2
7.10033	7.40616	2.10	66.00	1.63 0	2.32 2	-1.95 0	-2.36 2
7.15626	7.41033	2.20	80.00	2.36 0	3.13 2	-2.71 0	-3.17 2
7.03790	7.41688	2.00	52.00	1.08 0	1.56 2	-1.37 0	-1.59 2
6.99220	7.42200	1.95	45.00	8.48-1	1.21 2	-1.13 0	-1.23 2
6.92594	7.42292	1.90	38.00	6.47-1	8.94 1	-9.15-1	-9.13 1
7.12870	7.42994	2.10	67.00	1.67 0	2.38 2	-1.99 0	-2.42 2
7.18358	7.43418	2.20	81.00	2.41 0	3.20 2	-2.76 0	-3.24 2
7.06976	7.44201	2.00	53.00	1.11 0	1.61 2	-1.40 0	-1.64 2
7.02724	7.44844	1.95	46.00	8.75-1	1.26 2	-1.15 0	-1.28 2
6.96573	7.45121	1.90	39.00	6.71-1	9.38 1	-9.39-1	-9.57 1
7.15699	7.45375	2.10	68.00	1.71 0	2.44 2	-2.02 0	-2.48 2
7.10134	7.46707	2.00	54.00	1.14 0	1.67 2	-1.43 0	-1.69 2
7.06181	7.47476	1.95	47.00	9.03-1	1.31 2	-1.18 0	-1.33 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.9175	V .47688	1.85	33.00	5.12-1	6.92 1	-7.68-1	-7.08 1
7.1852	V .47758	2.10	69.00	1.75 0	2.50 2	-2.06 0	-2.54 2
7.0048	V .47929	1.90	40.00	6.96-1	9.83 1	-9.63-1	-1.00 2
7.1326	V .49206	2.00	55.00	1.17 0	1.72 2	-1.46 0	-1.75 2
7.0959	V .50094	1.95	48.00	9.30-1	1.36 2	-1.21 0	-1.38 2
6.9625	V .50709	1.85	34.00	5.35-1	7.32 1	-7.90-1	-7.49 1
7.0432	V .50718	1.90	41.00	7.21-1	1.03 2	-9.87-1	-1.05 2
7.1636	V .51699	2.00	56.00	1.20 0	1.78 2	-1.49 0	-1.80 2
7.1297	V .52701	1.95	49.00	9.58-1	1.41 2	-1.24 0	-1.44 2
7.0809	V .53489	1.90	42.00	7.46-1	1.07 2	-1.01 0	-1.10 2
7.0064	V .53703	1.85	35.00	5.58-1	7.73 1	-8.12-1	-7.90 1
7.1945	V .54187	2.00	57.00	1.23 0	1.83 2	-1.52 0	-1.96 2
7.1630	V .55297	1.95	50.00	9.87-1	1.46 2	-1.26 0	-1.49 2
6.9392	V .56148	1.80	29.00	4.12-1	5.46 1	-6.54-1	-5.60 1
7.1181	V .56243	1.90	43.00	7.71-1	1.12 2	-1.04 0	-1.14 2
7.0493	V .56674	1.85	36.00	5.81-1	8.14 1	-8.34-1	-8.32 1
7.1960	V .57883	1.95	51.00	1.02 0	1.52 2	-1.29 0	-1.54 2
7.1547	V .58980	1.90	44.00	7.97-1	1.17 2	-1.06 0	-1.19 2
6.9899	V .59371	1.80	30.00	4.33-1	5.83 1	-6.75-1	-5.97 1
7.0914	V .59620	1.85	37.00	6.04-1	8.57 1	-8.57-1	-8.75 1
7.1908	V .61701	1.90	45.00	8.23-1	1.22 2	-1.09 0	-1.24 2
7.1326	V .62543	1.85	38.00	6.27-1	9.00 1	-8.80-1	-9.19 1
7.0392	V .62564	1.80	31.00	4.54-1	6.20 1	-6.95-1	-6.34 1
6.9435	V .64751	1.75	25.00	3.20-1	4.15 1	-5.50-1	-4.26 1
7.1730	V .65444	1.85	39.00	6.51-1	9.45 1	-9.02-1	-9.63 1
7.0873	V .65727	1.80	32.00	4.76-1	6.58 1	-7.16-1	-6.73 1
7.0022	V .68210	1.75	26.00	3.40-1	4.47 1	-5.69-1	-4.59 1
7.1341	V .68861	1.80	33.00	4.97-1	6.97 1	-7.37-1	-7.13 1
7.0589	V .71635	1.75	27.00	3.59-1	4.81 1	-5.88-1	-4.93 1
7.1798	V .71967	1.80	34.00	5.19-1	7.37 1	-7.58-1	-7.53 1
6.9193	V .73432	1.70	21.00	2.36-1	2.99 1	-4.55-1	-3.08 1
7.1138	V .75026	1.75	28.00	3.80-1	5.15 1	-6.07-1	-5.28 1
6.9896	V .77152	1.70	22.00	2.55-1	3.27 1	-4.72-1	-3.37 1
7.1670	V .78382	1.75	29.00	4.00-1	5.51 1	-6.27-1	-5.64 1
7.0569	V .80840	1.70	23.00	2.73-1	3.56 1	-4.90-1	-3.66 1
7.1213	V .84492	1.70	24.00	2.92-1	3.87 1	-5.08-1	-3.97 1
6.9348	V .86173	1.65	18.00	1.77-1	2.23 1	-3.84-1	-2.31 1
7.1833	V .88107	1.70	25.00	3.11-1	4.18 1	-5.26-1	-4.29 1
6.9770	V .88152	1.65	18.50	1.86-1	2.36 1	-3.92-1	-2.43 1
7.0181	V .90127	1.65	19.00	1.95-1	2.48 1	-4.00-1	-2.56 1
7.0581	V .92096	1.65	19.50	2.04-1	2.61 1	-4.08-1	-2.69 1
7.0970	V .94058	1.65	20.00	2.12-1	2.74 1	-4.17-1	-2.83 1
7.1720	V .97959	1.65	21.00	2.30-1	3.01 1	-4.33-1	-3.10 1
6.9141	V .99617	1.60	15.00	1.24-1	1.57 1	-3.19-1	-1.63 1
6.9663	B .01687	1.60	15.50	1.32-1	1.68 1	-3.26-1	-1.74 1
7.0167	B .03764	1.60	16.00	1.40-1	1.79 1	-3.34-1	-1.85 1
7.0654	B .05843	1.60	16.50	1.48-1	1.90 1	-3.42-1	-1.97 1
7.1125	B .07924	1.60	17.00	1.57-1	2.01 1	-3.49-1	-2.08 1
7.1582	B .10002	1.60	17.50	1.65-1	2.13 1	-3.57-1	-2.20 1
6.9631	B .18343	1.55	13.00	9.04-2	1.20 1	-2.73-1	-1.25 1
7.0256	B .20470	1.55	13.50	9.82-2	1.29 1	-2.80-1	-1.34 1
7.0853	B .22619	1.55	14.00	1.06-1	1.39 1	-2.88-1	-1.44 1
7.1427	B .24786	1.55	14.50	1.14-1	1.48 1	-2.95-1	-1.54 1
7.1979	B .26963	1.55	15.00	1.22-1	1.59 1	-3.02-1	-1.65 1
6.9795	B .38749	1.50	11.00	6.00-2	8.64 0	-2.31-1	-9.04 0
7.0568	B .40848	1.50	11.50	6.74-2	9.44 0	-2.38-1	-9.87 0
7.1301	B .43007	1.50	12.00	7.48-2	1.03 1	-2.45-1	-1.07 1
7.1998	B .45213	1.50	12.50	8.22-2	1.12 1	-2.51-1	-1.16 1
6.9371	B .61590	1.45	9.00	3.23-2	5.81 0	-1.93-1	-6.12 0
6.9783	B .62307	1.45	9.20	3.51-2	6.07 0	-1.95-1	-6.39 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.01846	8.63053	1.45	9.40	3.79-2	6.34 0	-1.98-1	-6.67 0
7.05743	8.63824	1.45	9.60	4.07-2	6.62 0	-2.00-1	-6.96 0
7.09535	8.64618	1.45	9.80	4.35-2	6.90 0	-2.02-1	-7.25 0
7.13228	8.65433	1.45	10.00	4.64-2	7.19 0	-2.05-1	-7.54 0
6.95136	8.89926	1.40	7.60	1.52-2	4.14 0	-1.64-1	-4.39 0
7.00393	8.90452	1.40	7.80	1.79-2	4.37 0	-1.67-1	-4.63 0
7.05465	8.91033	1.40	8.00	2.06-2	4.61 0	-1.69-1	-4.87 0
7.10365	8.91664	1.40	8.20	2.32-2	4.85 0	-1.71-1	-5.12 0
7.15104	8.92339	1.40	8.40	2.59-2	5.09 0	-1.73-1	-5.37 0
7.19692	8.93054	1.40	8.60	2.86-2	5.34 0	-1.76-1	-5.63 0
6.95822	9.22945	1.35	6.40	2.28-3	2.93 0	-1.40-1	-3.12 0
7.02621	9.23115	1.35	6.60	4.82-3	3.12 0	-1.42-1	-3.33 0
7.09126	9.23391	1.35	6.80	7.36-3	3.32 0	-1.45-1	-3.54 0
7.15358	9.23759	1.35	7.00	9.90-3	3.53 0	-1.47-1	-3.75 0
7.13706	9.60813	1.30	5.80	-2.10-3	2.40 0	-1.24-1	-2.57 0
7.05311	9.61039	1.30	5.60	-4.52-3	2.23 0	-1.22-1	-2.40 0
6.96440	9.61459	1.30	5.40	-6.94-3	2.06 0	-1.20-1	-2.22 0
7.10343	10.0474	1.25	4.80	-1.06-2	1.62 0	-1.06-1	-1.75 0
6.98817	10.0603	1.25	4.60	-1.29-2	1.48 0	-1.04-1	-1.60 0
7.06778	10.5653	1.20	4.00	-1.59-2	1.10 0	-9.02-2	-1.20 0
6.98989	10.5796	1.20	3.90	-1.70-2	1.04 0	-8.94-2	-1.14 0
6.90850	10.5956	1.20	3.80	-1.81-2	9.81-1	-8.86-2	-1.08 0
7.17290	11.1386	1.15	3.50	-1.75-2	8.26-1	-7.85-2	-9.11-1
7.07318	11.1616	1.15	3.40	-1.85-2	7.73-1	-7.78-2	-8.55-1
6.96809	11.1875	1.15	3.30	-1.96-2	7.22-1	-7.70-2	-8.01-1
7.07330	11.8550	1.10	2.90	-1.98-2	5.44-1	-6.70-2	-6.08-1
6.93035	11.8985	1.10	2.80	-2.08-2	5.01-1	-6.63-2	-5.62-1
7.09878	12.6511	1.05	2.50	-1.98-2	3.88-1	-5.78-2	-4.40-1
6.90557	12.7192	1.05	2.40	-2.07-2	3.52-1	-5.72-2	-4.01-1
6.96271	13.6390	1.00	2.10	-1.97-2	2.57-1	-4.94-2	-2.97-1
7.01108	14.0370	0.98	2.00	-1.91-2	2.29-1	-4.65-2	-2.66-1
7.04572	14.4661	0.96	1.90	-1.85-2	2.03-1	-4.37-2	-2.36-1
7.06197	14.9309	0.94	1.80	-1.79-2	1.78-1	-4.11-2	-2.08-1
7.05359	15.4374	0.92	1.70	-1.73-2	1.54-1	-3.85-2	-1.82-1
7.01214	15.9929	0.90	1.60	-1.67-2	1.33-1	-3.61-2	-1.58-1
7.19831	16.4788	0.88	1.55	-1.57-2	1.23-1	-3.39-2	-1.46-1
6.92601	16.6072	0.88	1.50	-1.61-2	1.12-1	-3.37-2	-1.35-1
7.09863	17.1374	0.86	1.45	-1.52-2	1.03-1	-3.16-2	-1.24-1
6.92888	17.8765	0.84	1.35	-1.46-2	8.55-2	-2.94-2	-1.04-1
7.08074	18.5043	0.82	1.30	-1.37-2	7.76-2	-2.75-2	-9.49-2
6.95398	21.0127	0.76	1.10	-1.16-2	4.92-2	-2.20-2	-6.19-2
7.02038	21.9232	0.74	1.05	-1.08-2	4.33-2	-2.04-2	-5.49-2
7.05912	22.9255	0.72	1.00	-1.00-2	3.77-2	-1.88-2	-4.83-2
7.00339	25.2711	0.68	0.90	-8.64-3	2.78-2	-1.59-2	-3.63-2
7.11385	26.5258	0.66	0.86	-7.92-3	2.43-2	-1.46-2	-3.21-2
7.19669	27.9176	0.64	0.82	-7.24-3	2.11-2	-1.33-2	-2.82-2
7.11061	33.1863	0.58	0.70	-5.44-3	1.29-2	-9.94-3	-1.80-2
6.99375	54.6709	0.44	0.48	-2.24-3	3.63-3	-4.38-3	-5.92-3
7.20	7.50						
7.21094	7.45815	2.20	82.00	2.46 0	3.26 2	-2.81 0	-3.30 2
7.23836	7.48224	2.20	83.00	2.52 0	3.32 2	-2.86 0	-3.36 2
7.21334	7.50144	2.10	70.00	1.79 0	2.56 2	-2.10 0	-2.60 2
7.26586	7.50645	2.20	84.00	2.57 0	3.38 2	-2.91 0	-3.42 2
7.24143	7.52535	2.10	71.00	1.83 0	2.62 2	-2.14 0	-2.66 2
7.29343	7.53080	2.20	85.00	2.62 0	3.44 2	-2.97 0	-3.48 2
7.26947	7.54930	2.10	72.00	1.87 0	2.68 2	-2.18 0	-2.72 2
7.32109	7.55529	2.20	86.00	2.68 0	3.50 2	-3.02 0	-3.54 2
7.22510	7.56669	2.00	58.00	1.26 0	1.89 2	-1.55 0	-1.92 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.29748	7.57330	2.10	73.00	1.91 0	2.74 2	-2.23 0	-2.78 2
7.34884	7.57993	2.20	87.00	2.74 0	3.56 2	-3.08 0	-3.60 2
7.25548	7.59148	2.00	59.00	1.29 0	1.94 2	-1.58 0	-1.97 2
7.32546	7.59737	2.10	74.00	1.95 0	2.80 2	-2.27 0	-2.84 2
7.22876	7.60459	1.95	52.00	1.04 0	1.57 2	-1.32 0	-1.59 2
7.37670	7.60473	2.20	88.00	2.80 0	3.62 2	-3.14 0	-3.66 2
7.28567	7.61623	2.00	60.00	1.33 0	2.00 2	-1.62 0	-2.03 2
7.35342	7.62150	2.10	75.00	2.00 0	2.86 2	-2.31 0	-2.90 2
7.40468	7.62969	2.20	89.00	2.86 0	3.68 2	-3.20 0	-3.72 2
7.26112	7.63027	1.95	53.00	1.07 0	1.62 2	-1.35 0	-1.65 2
7.31569	7.64095	2.00	61.00	1.36 0	2.06 2	-1.65 0	-2.09 2
7.22641	7.64407	1.90	46.00	8.49-1	1.27 2	-1.11 0	-1.29 2
7.38138	7.64570	2.10	76.00	2.04 0	2.93 2	-2.35 0	-2.96 2
7.43279	7.65483	2.20	90.00	2.92 0	3.74 2	-3.26 0	-3.79 2
7.29318	7.65586	1.95	54.00	1.10 0	1.68 2	-1.38 0	-1.70 2
7.34554	7.66566	2.00	62.00	1.39 0	2.12 2	-1.68 0	-2.15 2
7.40935	7.66997	2.10	77.00	2.09 0	2.99 2	-2.40 0	-3.02 2
7.26154	7.67099	1.90	47.00	8.75-1	1.32 2	-1.14 0	-1.34 2
7.32497	7.68138	1.95	55.00	1.13 0	1.73 2	-1.41 0	-1.76 2
7.21280	7.68324	1.85	40.00	6.75-1	9.90 1	-9.26-1	-1.01 2
7.37524	7.69034	2.00	63.00	1.43 0	2.18 2	-1.72 0	-2.21 2
7.43733	7.69434	2.10	78.00	2.13 0	3.05 2	-2.44 0	-3.09 2
7.29623	7.69778	1.90	48.00	9.02-1	1.37 2	-1.16 0	-1.39 2
7.35651	7.70684	1.95	56.00	1.16 0	1.79 2	-1.44 0	-1.81 2
7.25182	7.71183	1.85	41.00	6.99-1	1.04 2	-9.49-1	-1.06 2
7.40480	7.71502	2.00	64.00	1.46 0	2.23 2	-1.75 0	-2.27 2
7.46533	7.71880	2.10	79.00	2.18 0	3.11 2	-2.49 0	-3.15 2
7.33051	7.72444	1.90	49.00	9.29-1	1.42 2	-1.19 0	-1.44 2
7.38780	7.73223	1.95	57.00	1.19 0	1.84 2	-1.47 0	-1.87 2
7.43424	7.73970	2.00	65.00	1.50 0	2.29 2	-1.78 0	-2.32 2
7.29020	7.74023	1.85	42.00	7.23-1	1.08 2	-9.73-1	-1.10 2
7.49336	7.74335	2.10	80.00	2.22 0	3.17 2	-2.54 0	-3.21 2
7.22444	7.75045	1.80	35.00	5.41-1	7.78 1	-7.79-1	-7.95 1
7.36441	7.75099	1.90	50.00	9.56-1	1.47 2	-1.22 0	-1.50 2
7.41887	7.75758	1.95	58.00	1.22 0	1.90 2	-1.50 0	-1.93 2
7.46356	7.76438	2.00	66.00	1.53 0	2.35 2	-1.82 0	-2.38 2
7.32797	7.76844	1.85	43.00	7.48-1	1.13 2	-9.97-1	-1.15 2
7.39795	7.77743	1.90	51.00	9.84-1	1.53 2	-1.24 0	-1.55 2
7.26811	7.78096	1.80	36.00	5.63-1	8.20 1	-8.01-1	-8.37 1
7.44972	7.78288	1.95	59.00	1.26 0	1.96 2	-1.53 0	-1.99 2
7.49278	7.78907	2.00	67.00	1.57 0	2.41 2	-1.85 0	-2.44 2
7.36519	7.79648	1.85	44.00	7.72-1	1.18 2	-1.02 0	-1.20 2
7.43115	7.80376	1.90	52.00	1.01 0	1.58 2	-1.27 0	-1.60 2
7.48039	7.80813	1.95	60.00	1.29 0	2.01 2	-1.56 0	-2.04 2
7.31087	7.81122	1.80	37.00	5.86-1	8.63 1	-8.23-1	-8.81 1
7.21860	7.81705	1.75	30.00	4.20-1	5.87 1	-6.46-1	-6.01 1
7.40186	7.82435	1.85	45.00	7.97-1	1.23 2	-1.05 0	-1.25 2
7.46403	7.83001	1.90	53.00	1.04 0	1.63 2	-1.30 0	-1.66 2
7.35278	7.84123	1.80	38.00	6.08-1	9.07 1	-8.44-1	-9.25 1
7.26877	7.84994	1.75	31.00	4.41-1	6.24 1	-6.66-1	-6.39 1
7.43804	7.85206	1.85	46.00	8.23-1	1.28 2	-1.07 0	-1.30 2
7.49662	7.85616	1.90	54.00	1.07 0	1.69 2	-1.33 0	-1.71 2
7.39390	7.87101	1.80	39.00	6.31-1	9.52 1	-8.67-1	-9.70 1
7.47375	7.87963	1.85	47.00	8.48-1	1.33 2	-1.09 0	-1.35 2
7.31762	7.88251	1.75	32.00	4.61-1	6.63 1	-6.86-1	-6.78 1
7.43428	7.90056	1.80	40.00	6.54-1	9.97 1	-8.89-1	-1.02 2
7.36523	7.91477	1.75	33.00	4.82-1	7.02 1	-7.06-1	-7.18 1
7.24312	7.91685	1.70	26.00	3.30-1	4.51 1	-5.44-1	-4.62 1
7.47397	7.92989	1.80	41.00	6.77-1	1.04 2	-9.11-1	-1.06 2
7.41171	7.94672	1.75	34.00	5.03-1	7.43 1	-7.27-1	-7.58 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.30081	7.95225	1.70	27.00	3.49-1	4.84 1	-5.62-1	-4.96 1
7.45712	7.97838	1.75	35.00	5.24-1	7.84 1	-7.47-1	-8.00 1
7.35662	7.98727	1.70	28.00	3.68-1	5.19 1	-5.81-1	-5.31 1
7.24354	8.01825	1.65	22.00	2.48-1	3.30 1	-4.50-1	-3.39 1
7.41072	8.02191	1.70	29.00	3.88-1	5.55 1	-6.00-1	-5.68 1
7.46324	8.05619	1.70	30.00	4.07-1	5.92 1	-6.18-1	-6.05 1
7.31195	8.05653	1.65	23.00	2.66-1	3.59 1	-4.67-1	-3.69 1
7.37757	8.09440	1.65	24.00	2.84-1	3.90 1	-4.85-1	-4.00 1
7.20246	8.12076	1.60	18.00	1.73-1	2.25 1	-3.65-1	-2.32 1
7.44066	8.13185	1.65	25.00	3.02-1	4.21 1	-5.02-1	-4.32 1
7.24544	8.14145	1.60	18.50	1.82-1	2.37 1	-3.73-1	-2.45 1
7.28723	8.16208	1.60	19.00	1.90-1	2.50 1	-3.81-1	-2.58 1
7.32789	8.18262	1.60	19.50	1.99-1	2.63 1	-3.89-1	-2.71 1
7.36751	8.20308	1.60	20.00	2.07-1	2.76 1	-3.97-1	-2.85 1
7.44383	8.24371	1.60	21.00	2.24-1	3.04 1	-4.13-1	-3.12 1
7.25103	8.29147	1.55	15.50	1.30-1	1.69 1	-3.09-1	-1.75 1
7.30228	8.31333	1.55	16.00	1.37-1	1.80 1	-3.17-1	-1.87 1
7.35181	8.33520	1.55	16.50	1.45-1	1.92 1	-3.24-1	-1.98 1
7.39973	8.35704	1.55	17.00	1.53-1	2.03 1	-3.31-1	-2.10 1
7.44617	8.37883	1.55	17.50	1.61-1	2.15 1	-3.39-1	-2.22 1
7.49121	8.40056	1.55	18.00	1.69-1	2.27 1	-3.46-1	-2.34 1
7.26624	8.47453	1.50	13.00	8.97-2	1.21 1	-2.58-1	-1.25 1
7.32971	8.49719	1.50	13.50	9.71-2	1.30 1	-2.65-1	-1.35 1
7.39051	8.52003	1.50	14.00	1.05-1	1.40 1	-2.72-1	-1.45 1
7.44887	8.54299	1.50	14.50	1.12-1	1.50 1	-2.79-1	-1.55 1
7.22061	8.67547	1.45	10.50	5.34-2	7.94 0	-2.11-1	-8.31 0
7.30378	8.69753	1.45	11.00	6.04-2	8.72 0	-2.18-1	-9.11 0
7.38237	8.72028	1.45	11.50	6.75-2	9.53 0	-2.24-1	-9.94 0
7.45689	8.74356	1.45	12.00	7.45-2	1.04 1	-2.30-1	-1.08 1
7.24139	8.93805	1.40	8.80	3.12-2	5.60 0	-1.78-1	-5.90 0
7.28452	8.94588	1.40	9.00	3.39-2	5.86 0	-1.80-1	-6.17 0
7.32641	8.95400	1.40	9.20	3.66-2	6.13 0	-1.83-1	-6.44 0
7.36711	8.96238	1.40	9.40	3.92-2	6.41 0	-1.85-1	-6.72 0
7.40670	8.97099	1.40	9.60	4.19-2	6.69 0	-1.88-1	-7.01 0
7.44524	8.97981	1.40	9.80	4.46-2	6.97 0	-1.90-1	-7.31 0
7.48277	8.98882	1.40	10.00	4.72-2	7.26 0	-1.92-1	-7.60 0
7.21340	9.24211	1.35	7.20	1.24-2	3.74 0	-1.49-1	-3.97 0
7.27090	9.24736	1.35	7.40	1.50-2	3.96 0	-1.51-1	-4.20 0
7.32626	9.25326	1.35	7.60	1.75-2	4.19 0	-1.53-1	-4.43 0
7.37961	9.25974	1.35	7.80	2.00-2	4.42 0	-1.55-1	-4.67 0
7.43111	9.26674	1.35	8.00	2.25-2	4.65 0	-1.58-1	-4.91 0
7.48087	9.27421	1.35	8.20	2.51-2	4.90 0	-1.60-1	-5.16 0
7.21672	9.60755	1.30	6.00	3.08-4	2.58 0	-1.26-1	-2.76 0
7.29249	9.60844	1.30	6.20	2.71-3	2.77 0	-1.28-1	-2.95 0
7.36470	9.61062	1.30	6.40	5.12-3	2.96 0	-1.30-1	-3.15 0
7.43367	9.61394	1.30	6.60	7.52-3	3.16 0	-1.32-1	-3.35 0
7.49967	9.61825	1.30	6.80	9.91-3	3.36 0	-1.34-1	-3.57 0
7.49745	10.0249	1.25	5.60	-1.42-3	2.26 0	-1.13-1	-2.42 0
7.40754	10.0269	1.25	5.40	-3.70-3	2.09 0	-1.11-1	-2.24 0
7.31234	10.0311	1.25	5.20	-5.98-3	1.93 0	-1.09-1	-2.07 0
7.21120	10.0378	1.25	5.00	-8.27-3	1.77 0	-1.07-1	-1.91 0
7.47436	10.5091	1.20	4.60	-9.38-3	1.50 0	-9.53-2	-1.62 0
7.34907	10.5230	1.20	4.40	-1.16-2	1.36 0	-9.36-2	-1.47 0
7.21404	10.5414	1.20	4.20	-1.37-2	1.23 0	-9.19-2	-1.33 0
7.44411	11.0842	1.15	3.80	-1.44-2	9.94-1	-8.08-2	-1.09 0
7.35797	11.1002	1.15	3.70	-1.54-2	9.37-1	-8.00-2	-1.03 0
7.26768	11.1182	1.15	3.60	-1.64-2	8.81-1	-7.93-2	-9.68-1
7.45197	11.7529	1.10	3.20	-1.68-2	6.83-1	-6.90-2	-7.56-1
7.33325	11.7828	1.10	3.10	-1.78-2	6.35-1	-6.83-2	-7.05-1
7.20730	11.8166	1.10	3.00	-1.88-2	5.88-1	-6.77-2	-6.56-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.44315	12.5398	1.05	2.70	-1.79-2	4.67-1	-5.90-2	-5.23-1
7.27738	12.5917	1.05	2.60	-1.88-2	4.27-1	-5.84-2	-4.81-1
7.44737	13.4563	1.00	2.30	-1.79-2	3.23-1	-5.04-2	-3.67-1
7.21629	13.5407	1.00	2.20	-1.88-2	2.89-1	-4.99-2	-3.31-1
7.29188	13.9251	0.98	2.10	-1.82-2	2.59-1	-4.70-2	-2.98-1
7.35868	14.3378	0.96	2.00	-1.76-2	2.31-1	-4.42-2	-2.67-1
7.20646	14.3992	0.96	1.95	-1.80-2	2.17-1	-4.40-2	-2.51-1
7.41333	14.7825	0.94	1.90	-1.70-2	2.05-1	-4.15-2	-2.37-1
7.24278	14.8535	0.94	1.85	-1.74-2	1.91-1	-4.13-2	-2.22-1
7.45135	15.2642	0.92	1.80	-1.64-2	1.79-1	-3.89-2	-2.09-1
7.25872	15.3468	0.92	1.75	-1.68-2	1.67-1	-3.87-2	-1.95-1
7.46671	15.7886	0.90	1.70	-1.59-2	1.56-1	-3.64-2	-1.83-1
7.24715	15.8857	0.90	1.65	-1.63-2	1.44-1	-3.63-2	-1.70-1
7.45120	16.3633	0.88	1.60	-1.53-2	1.34-1	-3.41-2	-1.58-1
7.39349	16.9980	0.86	1.50	-1.48-2	1.13-1	-3.18-2	-1.35-1
7.27763	17.7057	0.84	1.40	-1.42-2	9.47-2	-2.96-2	-1.14-1
7.46278	18.3164	0.82	1.35	-1.34-2	8.64-2	-2.76-2	-1.05-1
7.23318	19.1821	0.80	1.25	-1.29-2	7.01-2	-2.56-2	-8.61-2
7.38429	19.9162	0.78	1.20	-1.20-2	6.30-2	-2.38-2	-7.77-2
7.23741	23.9391	0.70	0.96	-9.25-3	3.36-2	-1.73-2	-4.33-2
7.41182	25.0510	0.68	0.92	-8.50-3	2.98-2	-1.59-2	-3.87-2
7.23824	29.4705	0.62	0.78	-6.60-3	1.81-2	-1.21-2	-2.45-2
7.21894	31.2142	0.60	0.74	-6.00-3	1.54-2	-1.10-2	-2.11-2
7.23489	40.2253	0.52	0.60	-3.87-3	7.83-3	-7.19-3	-1.15-2
7.38845	46.4200	0.48	0.54	-2.98-3	5.50-3	-5.66-3	-8.44-3
7.50	7.80						
7.52143	7.76801	2.10	81.00	2.27 0	3.23 2	-2.58 0	-3.27 2
7.54956	7.79279	2.10	82.00	2.32 0	3.30 2	-2.63 0	-3.33 2
7.52191	7.81378	2.00	68.00	1.61 0	2.47 2	-1.89 0	-2.50 2
7.57774	7.81768	2.10	83.00	2.37 0	3.36 2	-2.68 0	-3.40 2
7.51087	7.83336	1.95	61.00	1.32 0	2.07 2	-1.59 0	-2.10 2
7.55097	7.83851	2.00	69.00	1.64 0	2.53 2	-1.93 0	-2.57 2
7.60600	7.84270	2.10	84.00	2.42 0	3.42 2	-2.73 0	-3.46 2
7.54118	7.85857	1.95	62.00	1.35 0	2.13 2	-1.62 0	-2.16 2
7.57995	7.86327	2.00	70.00	1.68 0	2.59 2	-1.96 0	-2.63 2
7.63434	7.86786	2.10	85.00	2.47 0	3.48 2	-2.78 0	-3.52 2
7.52892	7.88224	1.90	55.00	1.10 0	1.74 2	-1.36 0	-1.77 2
7.57135	7.88375	1.95	63.00	1.38 0	2.19 2	-1.65 0	-2.22 2
7.60887	7.88807	2.00	71.00	1.72 0	2.65 2	-2.00 0	-2.69 2
7.66276	7.89316	2.10	86.00	2.53 0	3.54 2	-2.83 0	-3.58 2
7.50902	7.90705	1.85	48.00	8.74-1	1.38 2	-1.12 0	-1.40 2
7.56096	7.90825	1.90	56.00	1.13 0	1.80 2	-1.38 0	-1.83 2
7.60137	7.90892	1.95	64.00	1.42 0	2.25 2	-1.69 0	-2.28 2
7.63775	7.91292	2.00	72.00	1.76 0	2.72 2	-2.04 0	-2.75 2
7.69129	7.91861	2.10	87.00	2.58 0	3.60 2	-2.89 0	-3.64 2
7.63126	7.93409	1.95	65.00	1.45 0	2.31 2	-1.72 0	-2.34 2
7.59275	7.93419	1.90	57.00	1.16 0	1.86 2	-1.41 0	-1.88 2
7.54387	7.93433	1.85	49.00	9.00-1	1.43 2	-1.15 0	-1.45 2
7.66660	7.93781	2.00	73.00	1.80 0	2.78 2	-2.08 0	-2.81 2
7.71992	7.94422	2.10	88.00	2.63 0	3.67 2	-2.94 0	-3.70 2
7.51300	7.95902	1.80	42.00	7.00-1	1.09 2	-9.34-1	-1.11 2
7.66104	7.95926	1.95	66.00	1.49 0	2.37 2	-1.75 0	-2.40 2
7.62432	7.96007	1.90	58.00	1.19 0	1.91 2	-1.44 0	-1.94 2
7.57834	7.96150	1.85	50.00	9.26-1	1.48 2	-1.17 0	-1.51 2
7.69541	7.96276	2.00	74.00	1.84 0	2.84 2	-2.12 0	-2.87 2
7.74868	7.97000	2.10	89.00	2.69 0	3.73 2	-3.00 0	-3.77 2
7.69072	7.98444	1.95	67.00	1.52 0	2.43 2	-1.79 0	-2.46 2
7.65568	7.98591	1.90	59.00	1.22 0	1.97 2	-1.47 0	-2.00 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.72421	7.98778	2.00	75.00	1.88 0	2.90 2	-2.16 0	-2.94 2
7.55142	7.98794	1.80	43.00	7.24-1	1.14 2	-9.57-1	-1.16 2
7.61243	7.98854	1.85	51.00	9.52-1	1.54 2	-1.20 0	-1.56 2
7.77756	7.99595	2.10	90.00	2.75 0	3.79 2	-3.05 0	-3.83 2
7.72031	8.00963	1.95	68.00	1.56 0	2.49 2	-1.82 0	-2.52 2
7.50155	8.00975	1.75	36.00	5.46-1	8.26 1	-7.68-1	-8.43 1
7.68683	8.01170	1.90	60.00	1.25 0	2.03 2	-1.50 0	-2.06 2
7.75300	8.01286	2.00	76.00	1.92 0	2.96 2	-2.20 0	-3.00 2
7.64619	8.01548	1.85	52.00	9.79-1	1.59 2	-1.22 0	-1.62 2
7.58927	8.01669	1.80	44.00	7.48-1	1.19 2	-9.81-1	-1.21 2
7.74981	8.03485	1.95	69.00	1.59 0	2.55 2	-1.86 0	-2.58 2
7.71781	8.03746	1.90	61.00	1.28 0	2.09 2	-1.53 0	-2.12 2
7.78180	8.03802	2.00	77.00	1.96 0	3.02 2	-2.24 0	-3.06 2
7.54505	8.04085	1.75	37.00	5.67-1	8.70 1	-7.89-1	-8.87 1
7.67961	8.04232	1.85	53.00	1.01 0	1.65 2	-1.25 0	-1.67 2
7.62657	8.04525	1.80	45.00	7.72-1	1.24 2	-1.00 0	-1.26 2
7.77924	8.06009	1.95	70.00	1.63 0	2.61 2	-1.89 0	-2.64 2
7.74861	8.06318	1.90	62.00	1.31 0	2.15 2	-1.56 0	-2.17 2
7.71274	8.06907	1.85	54.00	1.03 0	1.70 2	-1.28 0	-1.73 2
7.58770	8.07169	1.75	38.00	5.89-1	9.14 1	-8.10-1	-9.31 1
7.66337	8.07364	1.80	46.00	7.96-1	1.29 2	-1.03 0	-1.31 2
7.77926	8.08889	1.90	63.00	1.34 0	2.20 2	-1.59 0	-2.23 2
7.51429	8.09010	1.70	31.00	4.27-1	6.29 1	-6.37-1	-6.43 1
7.74558	8.09573	1.85	55.00	1.06 0	1.76 2	-1.30 0	-1.78 2
7.69969	8.10188	1.80	47.00	8.21-1	1.34 2	-1.05 0	-1.36 2
7.62954	8.10227	1.75	39.00	6.11-1	9.59 1	-8.31-1	-9.76 1
7.77815	8.12231	1.85	56.00	1.09 0	1.81 2	-1.33 0	-1.84 2
7.56401	8.12367	1.70	32.00	4.47-1	6.68 1	-6.57-1	-6.82 1
7.73557	8.12997	1.80	48.00	8.45-1	1.39 2	-1.08 0	-1.41 2
7.67063	8.13262	1.75	40.00	6.33-1	1.00 2	-8.53-1	-1.02 2
7.61247	8.15690	1.70	33.00	4.67-1	7.08 1	-6.76-1	-7.23 1
7.77102	8.15791	1.80	49.00	8.70-1	1.44 2	-1.10 0	-1.46 2
7.71102	8.16273	1.75	41.00	6.55-1	1.05 2	-8.74-1	-1.07 2
7.50147	8.16889	1.65	26.00	3.20-1	4.54 1	-5.19-1	-4.66 1
7.65978	8.18980	1.70	34.00	4.87-1	7.49 1	-6.96-1	-7.64 1
7.75074	8.19262	1.75	42.00	6.77-1	1.10 2	-8.96-1	-1.12 2
7.56020	8.20550	1.65	27.00	3.38-1	4.88 1	-5.37-1	-5.00 1
7.78984	8.22230	1.75	43.00	7.00-1	1.15 2	-9.18-1	-1.17 2
7.70602	8.22238	1.70	35.00	5.07-1	7.90 1	-7.15-1	-8.06 1
7.61703	8.24169	1.65	28.00	3.57-1	5.23 1	-5.55-1	-5.35 1
7.75125	8.25466	1.70	36.00	5.28-1	8.33 1	-7.35-1	-8.49 1
7.67211	8.27748	1.65	29.00	3.76-1	5.59 1	-5.73-1	-5.72 1
7.51663	8.28392	1.60	22.00	2.41-1	3.32 1	-4.29-1	-3.42 1
7.79554	8.28665	1.70	37.00	5.48-1	8.77 1	-7.55-1	-8.93 1
7.72560	8.31287	1.65	30.00	3.94-1	5.96 1	-5.91-1	-6.09 1
7.58628	8.32368	1.60	23.00	2.58-1	3.62 1	-4.45-1	-3.72 1
7.77760	8.34787	1.65	31.00	4.13-1	6.35 1	-6.09-1	-6.48 1
7.65310	8.36298	1.60	24.00	2.75-1	3.93 1	-4.62-1	-4.03 1
7.71737	8.40182	1.60	25.00	2.93-1	4.25 1	-4.78-1	-4.35 1
7.53497	8.42221	1.55	18.50	1.77-1	2.40 1	-3.54-1	-2.47 1
7.77931	8.44018	1.60	26.00	3.10-1	4.58 1	-4.95-1	-4.69 1
7.57751	8.44377	1.55	19.00	1.85-1	2.52 1	-3.61-1	-2.60 1
7.61892	8.46522	1.55	19.50	1.93-1	2.65 1	-3.69-1	-2.73 1
7.65927	8.48657	1.55	20.00	2.01-1	2.79 1	-3.77-1	-2.87 1
7.73701	8.52892	1.55	21.00	2.18-1	3.06 1	-3.92-1	-3.15 1
7.50500	8.56602	1.50	15.00	1.20-1	1.60 1	-2.86-1	-1.66 1
7.55907	8.58907	1.50	15.50	1.27-1	1.71 1	-2.93-1	-1.77 1
7.61125	8.61211	1.50	16.00	1.35-1	1.82 1	-3.00-1	-1.88 1
7.66167	8.63512	1.50	16.50	1.42-1	1.93 1	-3.07-1	-2.00 1
7.71048	8.65807	1.50	17.00	1.50-1	2.05 1	-3.14-1	-2.11 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.75778	8.68093	1.50	17.50	1.57-1	2.17 1	-3.21-1	-2.24 1
7.52776	8.76722	1.45	12.50	8.16-2	1.13 1	-2.37-1	-1.17 1
7.59534	8.79118	1.45	13.00	8.87-2	1.22 1	-2.43-1	-1.26 1
7.65995	8.81533	1.45	13.50	9.58-2	1.31 1	-2.50-1	-1.36 1
7.72185	8.83960	1.45	14.00	1.03-1	1.41 1	-2.56-1	-1.46 1
7.78128	8.86395	1.45	14.50	1.10-1	1.51 1	-2.63-1	-1.57 1
7.57258	9.01205	1.40	10.50	5.39-2	8.02 0	-1.98-1	-8.38 0
7.65717	9.03609	1.40	11.00	6.06-2	8.81 0	-2.04-1	-9.18 0
7.73714	9.06073	1.40	11.50	6.73-2	9.63 0	-2.10-1	-1.00 1
7.52900	9.28208	1.35	8.40	2.76-2	5.15 0	-1.62-1	-5.42 0
7.57562	9.29033	1.35	8.60	3.01-2	5.40 0	-1.64-1	-5.68 0
7.62081	9.29891	1.35	8.80	3.27-2	5.66 0	-1.66-1	-5.94 0
7.66466	9.30778	1.35	9.00	3.52-2	5.93 0	-1.69-1	-6.22 0
7.70724	9.31692	1.35	9.20	3.77-2	6.20 0	-1.71-1	-6.50 0
7.74864	9.32629	1.35	9.40	4.02-2	6.48 0	-1.73-1	-6.78 0
7.78890	9.33588	1.35	9.60	4.28-2	6.76 0	-1.75-1	-7.07 0
7.56293	9.62343	1.30	7.00	1.23-2	3.57 0	-1.36-1	-3.78 0
7.62366	9.62940	1.30	7.20	1.47-2	3.78 0	-1.38-1	-4.00 0
7.68206	9.63606	1.30	7.40	1.71-2	4.01 0	-1.40-1	-4.23 0
7.73829	9.64332	1.30	7.60	1.95-2	4.23 0	-1.43-1	-4.47 0
7.79250	9.65112	1.30	7.80	2.19-2	4.47 0	-1.45-1	-4.71 0
7.58257	10.0247	1.25	5.80	8.51-4	2.43 0	-1.15-1	-2.60 0
7.66338	10.0260	1.25	6.00	3.12-3	2.61 0	-1.17-1	-2.78 0
7.74026	10.0288	1.25	6.20	5.39-3	2.80 0	-1.19-1	-2.98 0
7.70030	10.4921	1.20	5.00	-5.06-3	1.79 0	-9.87-2	-1.93 0
7.59109	10.4990	1.20	4.80	-7.22-3	1.64 0	-9.70-2	-1.77 0
7.75329	11.0376	1.15	4.20	-1.03-2	1.24 0	-8.39-2	-1.35 0
7.60523	11.0578	1.15	4.00	-1.23-2	1.11 0	-8.23-2	-1.21 0
7.52643	11.0701	1.15	3.90	-1.33-2	1.05 0	-8.15-2	-1.15 0
7.77121	11.6829	1.10	3.50	-1.39-2	8.38-1	-7.11-2	-9.19-1
7.67038	11.7033	1.10	3.40	-1.48-2	7.85-1	-7.04-2	-8.63-1
7.56414	11.7265	1.10	3.30	-1.58-2	7.33-1	-6.97-2	-8.09-1
7.74195	12.4546	1.05	2.90	-1.60-2	5.52-1	-6.02-2	-6.14-1
7.59758	12.4944	1.05	2.80	-1.70-2	5.09-1	-5.96-2	-5.68-1
7.65909	13.3835	1.00	2.40	-1.70-2	3.58-1	-5.09-2	-4.05-1
7.77816	13.7477	0.98	2.30	-1.64-2	3.25-1	-4.80-2	-3.68-1
7.54628	13.8296	0.98	2.20	-1.73-2	2.91-1	-4.75-2	-3.32-1
7.64037	14.2290	0.96	2.10	-1.67-2	2.61-1	-4.47-2	-2.99-1
7.72726	14.6578	0.94	2.00	-1.62-2	2.33-1	-4.20-2	-2.68-1
7.57456	14.7175	0.94	1.95	-1.66-2	2.19-1	-4.17-2	-2.52-1
7.63268	15.1888	0.92	1.85	-1.60-2	1.93-1	-3.91-2	-2.23-1
7.67240	15.7004	0.90	1.75	-1.55-2	1.68-1	-3.66-2	-1.96-1
7.68682	16.2590	0.88	1.65	-1.49-2	1.45-1	-3.42-2	-1.71-1
7.66645	16.8730	0.86	1.55	-1.44-2	1.24-1	-3.19-2	-1.47-1
7.59806	17.5537	0.84	1.45	-1.39-2	1.04-1	-2.97-2	-1.25-1
7.65358	18.9744	0.80	1.30	-1.25-2	7.85-2	-2.57-2	-9.54-2
7.53144	20.7141	0.76	1.15	-1.12-2	5.62-2	-2.21-2	-6.98-2
7.67092	21.5846	0.74	1.10	-1.04-2	4.99-2	-2.04-2	-6.23-2
7.79758	22.5384	0.72	1.05	-9.69-3	4.39-2	-1.89-2	-5.52-2
7.57995	23.7576	0.70	0.98	-9.11-3	3.59-2	-1.73-2	-4.59-2
7.79650	24.8472	0.68	0.94	-8.37-3	3.20-2	-1.59-2	-4.11-2
7.57741	26.2758	0.66	0.88	-7.79-3	2.62-2	-1.46-2	-3.43-2
7.72706	27.6315	0.64	0.84	-7.12-3	2.29-2	-1.33-2	-3.02-2
7.66291	37.3632	0.54	0.64	-4.31-3	9.74-3	-8.04-3	-1.39-2
7.57571	79.0323	0.36	0.38	-1.11-3	1.57-3	-2.44-3	-2.97-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.80	8.10						
7.81061	8.06327	2.00	78.00	2.00 0	3.09 2	-2.28 0	-3.12 2
7.80862	8.08537	1.95	71.00	1.66 0	2.67 2	-1.93 0	-2.70 2
7.83944	8.08860	2.00	79.00	2.05 0	3.15 2	-2.32 0	-3.19 2
7.83795	8.11069	1.95	72.00	1.70 0	2.73 2	-1.97 0	-2.77 2
7.86830	8.11404	2.00	80.00	2.09 0	3.21 2	-2.37 0	-3.25 2
7.80977	8.11458	1.90	64.00	1.37 0	2.26 2	-1.63 0	-2.29 2
7.86724	8.13606	1.95	73.00	1.74 0	2.80 2	-2.01 0	-2.83 2
7.89721	8.13958	2.00	81.00	2.13 0	3.27 2	-2.41 0	-3.31 2
7.84014	8.14027	1.90	65.00	1.40 0	2.32 2	-1.66 0	-2.35 2
7.81048	8.14883	1.85	57.00	1.12 0	1.87 2	-1.36 0	-1.90 2
7.89650	8.16149	1.95	74.00	1.78 0	2.86 2	-2.04 0	-2.89 2
7.92617	8.16524	2.00	82.00	2.18 0	3.34 2	-2.46 0	-3.37 2
7.87040	8.16595	1.90	66.00	1.44 0	2.38 2	-1.69 0	-2.41 2
7.84257	8.17528	1.85	58.00	1.15 0	1.93 2	-1.39 0	-1.95 2
7.80608	8.18572	1.80	50.00	8.96-1	1.49 2	-1.13 0	-1.52 2
7.92575	8.18698	1.95	75.00	1.82 0	2.92 2	-2.08 0	-2.95 2
7.95519	8.19101	2.00	83.00	2.23 0	3.40 2	-2.50 0	-3.44 2
7.90056	8.19164	1.90	67.00	1.47 0	2.45 2	-1.72 0	-2.48 2
7.87445	8.20168	1.85	59.00	1.18 0	1.98 2	-1.42 0	-2.01 2
7.95498	8.21253	1.95	76.00	1.86 0	2.98 2	-2.12 0	-3.02 2
7.84076	8.21341	1.80	51.00	9.21-1	1.55 2	-1.15 0	-1.57 2
7.98428	8.21691	2.00	84.00	2.27 0	3.46 2	-2.55 0	-3.50 2
7.93062	8.21734	1.90	68.00	1.51 0	2.51 2	-1.76 0	-2.54 2
7.90613	8.22803	1.85	60.00	1.21 0	2.04 2	-1.45 0	-2.07 2
7.98423	8.23817	1.95	77.00	1.90 0	3.05 2	-2.16 0	-3.08 2
7.87510	8.24098	1.80	52.00	9.47-1	1.60 2	-1.18 0	-1.63 2
8.01345	8.24295	2.00	85.00	2.32 0	3.52 2	-2.60 0	-3.56 2
7.96060	8.24307	1.90	69.00	1.54 0	2.57 2	-1.79 0	-2.60 2
7.82836	8.25179	1.75	44.00	7.23-1	1.20 2	-9.41-1	-1.22 2
7.93762	8.25435	1.85	61.00	1.24 0	2.10 2	-1.47 0	-2.13 2
8.01348	8.26389	1.95	78.00	1.94 0	3.11 2	-2.20 0	-3.14 2
7.90910	8.26845	1.80	53.00	9.73-1	1.66 2	-1.20 0	-1.68 2
7.99050	8.26881	1.90	70.00	1.57 0	2.63 2	-1.83 0	-2.66 2
8.04272	8.26913	2.00	86.00	2.37 0	3.59 2	-2.65 0	-3.62 2
7.96894	8.28063	1.85	62.00	1.27 0	2.16 2	-1.50 0	-2.19 2
7.86633	8.28108	1.75	45.00	7.46-1	1.25 2	-9.63-1	-1.27 2
8.04276	8.28970	1.95	79.00	1.98 0	3.17 2	-2.24 0	-3.21 2
8.02035	8.29460	1.90	71.00	1.61 0	2.69 2	-1.86 0	-2.72 2
8.07208	8.29547	2.00	87.00	2.42 0	3.65 2	-2.70 0	-3.69 2
7.94280	8.29582	1.80	54.00	9.99-1	1.71 2	-1.23 0	-1.74 2
8.00010	8.30688	1.85	63.00	1.30 0	2.22 2	-1.53 0	-2.25 2
7.90378	8.31020	1.75	46.00	7.69-1	1.30 2	-9.86-1	-1.32 2
8.07207	8.31560	1.95	80.00	2.02 0	3.23 2	-2.29 0	-3.27 2
7.83897	8.31836	1.70	38.00	5.69-1	9.21 1	-7.76-1	-9.38 1
8.05015	8.32042	1.90	72.00	1.65 0	2.75 2	-1.90 0	-2.78 2
7.97621	8.32309	1.80	55.00	1.03 0	1.77 2	-1.25 0	-1.79 2
8.03111	8.33312	1.85	64.00	1.33 0	2.28 2	-1.57 0	-2.31 2
7.94075	8.33915	1.75	47.00	7.93-1	1.35 2	-1.01 0	-1.37 2
8.07991	8.34629	1.90	73.00	1.68 0	2.82 2	-1.93 0	-2.85 2
7.88158	8.34980	1.70	39.00	5.90-1	9.66 1	-7.96-1	-9.84 1
8.00934	8.35029	1.80	56.00	1.05 0	1.83 2	-1.28 0	-1.85 2
8.06200	8.35935	1.85	65.00	1.36 0	2.34 2	-1.60 0	-2.37 2
7.97727	8.36793	1.75	48.00	8.17-1	1.40 2	-1.03 0	-1.42 2
8.04223	8.37741	1.80	57.00	1.08 0	1.88 2	-1.31 0	-1.91 2
7.92342	8.38098	1.70	40.00	6.12-1	1.01 2	-8.17-1	-1.03 2
7.82823	8.38249	1.65	32.00	4.32-1	6.74 1	-6.28-1	-6.87 1
8.09276	8.38557	1.85	66.00	1.39 0	2.40 2	-1.63 0	-2.43 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.01336	8.39657	1.75	49.00	8.41-1	1.45 2	-1.06 0	-1.47 2
8.07488	8.40446	1.80	58.00	1.11 0	1.94 2	-1.33 0	-1.97 2
7.96454	8.41191	1.70	41.00	6.33-1	1.06 2	-8.38-1	-1.08 2
7.87761	8.41675	1.65	33.00	4.51-1	7.14 1	-6.46-1	-7.28 1
8.04904	8.42507	1.75	50.00	8.65-1	1.51 2	-1.08 0	-1.53 2
8.00500	8.44262	1.70	42.00	6.55-1	1.11 2	-8.59-1	-1.13 2
7.92580	8.45065	1.65	34.00	4.71-1	7.55 1	-6.65-1	-7.69 1
8.08434	8.45343	1.75	51.00	8.90-1	1.56 2	-1.10 0	-1.58 2
8.04482	8.47310	1.70	43.00	6.76-1	1.16 2	-8.80-1	-1.17 2
7.83915	8.47809	1.60	27.00	3.28-1	4.92 1	-5.12-1	-5.04 1
7.97291	8.48422	1.65	35.00	4.90-1	7.97 1	-6.84-1	-8.12 1
8.08405	8.50336	1.70	44.00	6.98-1	1.21 2	-9.02-1	-1.22 2
7.89706	8.51553	1.60	28.00	3.45-1	5.28 1	-5.29-1	-5.39 1
8.01899	8.51746	1.65	36.00	5.10-1	8.40 1	-7.03-1	-8.55 1
8.06413	8.55039	1.65	37.00	5.30-1	8.84 1	-7.22-1	-9.00 1
7.95319	8.55253	1.60	29.00	3.63-1	5.64 1	-5.46-1	-5.76 1
7.81118	8.57078	1.55	22.00	2.34-1	3.35 1	-4.08-1	-3.44 1
8.00770	8.58910	1.60	30.00	3.81-1	6.01 1	-5.64-1	-6.14 1
7.88216	8.61212	1.55	23.00	2.50-1	3.65 1	-4.23-1	-3.75 1
8.06071	8.62525	1.60	31.00	3.99-1	6.40 1	-5.81-1	-6.53 1
7.95027	8.65295	1.55	24.00	2.67-1	3.97 1	-4.39-1	-4.06 1
8.01579	8.69325	1.55	25.00	2.83-1	4.29 1	-4.55-1	-4.39 1
7.80368	8.70371	1.50	18.00	1.65-1	2.29 1	-3.28-1	-2.36 1
7.84826	8.72638	1.50	18.50	1.73-1	2.42 1	-3.35-1	-2.49 1
8.07895	8.73304	1.55	26.00	3.00-1	4.62 1	-4.71-1	-4.73 1
7.89162	8.74893	1.50	19.00	1.80-1	2.55 1	-3.43-1	-2.62 1
7.93382	8.77136	1.50	19.50	1.88-1	2.68 1	-3.50-1	-2.75 1
7.97495	8.79366	1.50	20.00	1.96-1	2.81 1	-3.57-1	-2.89 1
8.05421	8.83784	1.50	21.00	2.11-1	3.09 1	-3.72-1	-3.17 1
7.83844	8.88831	1.45	15.00	1.17-1	1.62 1	-2.70-1	-1.67 1
7.89353	8.91266	1.45	15.50	1.24-1	1.73 1	-2.76-1	-1.78 1
7.94671	8.93696	1.45	16.00	1.31-1	1.84 1	-2.83-1	-1.90 1
7.99811	8.96118	1.45	16.50	1.39-1	1.95 1	-2.90-1	-2.01 1
8.04786	8.98532	1.45	17.00	1.46-1	2.07 1	-2.97-1	-2.13 1
8.09609	9.00934	1.45	17.50	1.53-1	2.19 1	-3.04-1	-2.25 1
7.81300	9.08581	1.40	12.00	7.40-2	1.05 1	-2.17-1	-1.09 1
7.88516	9.11121	1.40	12.50	8.07-2	1.14 1	-2.23-1	-1.18 1
7.95400	9.13682	1.40	13.00	8.74-2	1.23 1	-2.29-1	-1.28 1
8.01983	9.16257	1.40	13.50	9.42-2	1.33 1	-2.35-1	-1.37 1
8.08291	9.18839	1.40	14.00	1.01-1	1.43 1	-2.42-1	-1.47 1
7.82811	9.34565	1.35	9.80	4.53-2	7.05 0	-1.78-1	-7.37 0
7.86630	9.35559	1.35	10.00	4.78-2	7.34 0	-1.80-1	-7.67 0
7.95771	9.38106	1.35	10.50	5.42-2	8.10 0	-1.86-1	-8.45 0
8.04385	9.40723	1.35	11.00	6.05-2	8.90 0	-1.92-1	-9.26 0
7.84484	9.65941	1.30	8.00	2.43-2	4.71 0	-1.47-1	-4.95 0
7.89544	9.66812	1.30	8.20	2.67-2	4.95 0	-1.49-1	-5.21 0
7.94439	9.67722	1.30	8.40	2.90-2	5.20 0	-1.51-1	-5.46 0
7.99181	9.68665	1.30	8.60	3.14-2	5.46 0	-1.53-1	-5.73 0
8.03779	9.69638	1.30	8.80	3.38-2	5.72 0	-1.55-1	-6.00 0
8.08241	9.70638	1.30	9.00	3.62-2	5.99 0	-1.57-1	-6.27 0
7.81356	10.0328	1.25	6.40	7.65-3	2.99 0	-1.21-1	-3.18 0
7.88360	10.0378	1.25	6.60	9.91-3	3.19 0	-1.22-1	-3.38 0
7.95064	10.0438	1.25	6.80	1.22-2	3.40 0	-1.24-1	-3.60 0
8.01492	10.0507	1.25	7.00	1.44-2	3.61 0	-1.26-1	-3.82 0
8.07666	10.0582	1.25	7.20	1.67-2	3.83 0	-1.28-1	-4.04 0
7.89940	10.4862	1.20	5.40	-7.73-4	2.12 0	-1.02-1	-2.26 0
7.99062	10.4865	1.20	5.60	1.36-3	2.29 0	-1.04-1	-2.44 0
7.80283	10.4880	1.20	5.20	-2.92-3	1.95 0	-1.00-1	-2.09 0
8.07704	10.4885	1.20	5.80	3.50-3	2.46 0	-1.06-1	-2.62 0
8.01703	11.0120	1.15	4.60	-6.21-3	1.52 0	-8.71-2	-1.63 0

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.89006	11.0227	1.15	4.40	-8.23-3	1.38 0	-8.55-2	-1.49 0
8.04566	11.6356	1.10	3.80	-1.10-2	1.01 0	-7.33-2	-1.10 0
7.95846	11.6492	1.10	3.70	-1.19-2	9.50-1	-7.26-2	-1.04 0
7.86710	11.6649	1.10	3.60	-1.29-2	8.94-1	-7.19-2	-9.77-1
8.00465	12.3893	1.05	3.10	-1.42-2	6.45-1	-6.15-2	-7.12-1
7.87733	12.4198	1.05	3.00	-1.51-2	5.98-1	-6.09-2	-6.62-1
8.03436	13.2661	1.00	2.60	-1.52-2	4.34-1	-5.21-2	-4.86-1
7.85405	13.3206	1.00	2.50	-1.61-2	3.95-1	-5.15-2	-4.44-1
7.99067	13.6774	0.98	2.40	-1.56-2	3.61-1	-4.86-2	-4.06-1
7.89564	14.1364	0.96	2.20	-1.59-2	2.94-1	-4.52-2	-3.34-1
8.00989	14.5524	0.94	2.10	-1.53-2	2.64-1	-4.25-2	-3.01-1
7.96550	15.0568	0.92	1.95	-1.52-2	2.20-1	-3.96-2	-2.54-1
7.80376	15.1199	0.92	1.90	-1.56-2	2.06-1	-3.94-2	-2.38-1
8.04749	15.5471	0.90	1.85	-1.47-2	1.94-1	-3.71-2	-2.25-1
7.86560	15.6202	0.90	1.80	-1.51-2	1.81-1	-3.68-2	-2.10-1
7.90699	16.1646	0.88	1.70	-1.45-2	1.57-1	-3.44-2	-1.84-1
7.92001	16.7606	0.86	1.60	-1.40-2	1.35-1	-3.21-2	-1.59-1
7.89364	17.4181	0.84	1.50	-1.35-2	1.15-1	-2.99-2	-1.36-1
7.81231	18.1501	0.82	1.40	-1.30-2	9.57-2	-2.78-2	-1.15-1
8.03646	18.7917	0.80	1.35	-1.21-2	8.74-2	-2.59-2	-1.05-1
7.84924	19.6855	0.78	1.25	-1.17-2	7.09-2	-2.39-2	-8.66-2
8.04850	20.4563	0.76	1.20	-1.09-2	6.38-2	-2.22-2	-7.82-2
7.90418	23.5886	0.70	1.00	-8.98-3	3.83-2	-1.74-2	-4.86-2
8.01239	26.0454	0.66	0.90	-7.66-3	2.82-2	-1.46-2	-3.66-2
7.85052	29.1400	0.62	0.80	-6.48-3	1.98-2	-1.21-2	-2.64-2
7.93298	30.8282	0.60	0.76	-5.88-3	1.69-2	-1.10-2	-2.29-2
7.95288	32.7304	0.58	0.72	-5.32-3	1.43-2	-9.94-3	-1.96-2
7.87855	34.8899	0.56	0.68	-4.80-3	1.19-2	-8.96-3	-1.66-2
8.10	8.40						
8.10156	8.32196	2.00	88.00	2.47 0	3.71 2	-2.75 0	-3.75 2
8.10142	8.34162	1.95	81.00	2.07 0	3.30 2	-2.33 0	-3.33 2
8.13116	8.34863	2.00	89.00	2.52 0	3.77 2	-2.80 0	-3.81 2
8.13083	8.36774	1.95	82.00	2.11 0	3.36 2	-2.37 0	-3.39 2
8.10964	8.37221	1.90	74.00	1.72 0	2.88 2	-1.97 0	-2.91 2
8.16089	8.37547	2.00	90.00	2.58 0	3.84 2	-2.85 0	-3.87 2
8.16029	8.39398	1.95	83.00	2.16 0	3.42 2	-2.42 0	-3.46 2
8.13936	8.39820	1.90	75.00	1.76 0	2.94 2	-2.01 0	-2.97 2
8.12342	8.41180	1.85	67.00	1.42 0	2.46 2	-1.66 0	-2.49 2
8.18983	8.42036	1.95	84.00	2.20 0	3.49 2	-2.46 0	-3.52 2
8.16907	8.42425	1.90	76.00	1.80 0	3.00 2	-2.05 0	-3.04 2
8.10731	8.43145	1.80	59.00	1.14 0	2.00 2	-1.36 0	-2.03 2
8.15398	8.43803	1.85	68.00	1.46 0	2.52 2	-1.69 0	-2.55 2
8.21946	8.44687	1.95	85.00	2.25 0	3.55 2	-2.51 0	-3.58 2
8.19878	8.45038	1.90	77.00	1.84 0	3.07 2	-2.08 0	-3.10 2
8.13953	8.45840	1.80	60.00	1.16 0	2.06 2	-1.39 0	-2.08 2
8.18446	8.46429	1.85	69.00	1.49 0	2.59 2	-1.73 0	-2.62 2
8.24917	8.47352	1.95	86.00	2.29 0	3.61 2	-2.56 0	-3.65 2
8.22850	8.47659	1.90	78.00	1.87 0	3.13 2	-2.12 0	-3.16 2
8.11929	8.48167	1.75	52.00	9.15-1	1.61 2	-1.13 0	-1.64 2
8.17157	8.48529	1.80	61.00	1.19 0	2.12 2	-1.42 0	-2.14 2
8.21486	8.49057	1.85	70.00	1.52 0	2.65 2	-1.76 0	-2.68 2
8.27899	8.50033	1.95	87.00	2.34 0	3.67 2	-2.60 0	-3.71 2
8.25824	8.50290	1.90	79.00	1.92 0	3.19 2	-2.16 0	-3.23 2
8.15391	8.50980	1.75	53.00	9.40-1	1.67 2	-1.15 0	-1.69 2
8.20343	8.51216	1.80	62.00	1.22 0	2.18 2	-1.45 0	-2.20 2
8.24521	8.51688	1.85	71.00	1.56 0	2.71 2	-1.79 0	-2.74 2
8.30892	8.52730	1.95	88.00	2.39 0	3.74 2	-2.65 0	-3.77 2
8.28802	8.52930	1.90	80.00	1.96 0	3.26 2	-2.20 0	-3.29 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.12272	8.53343	1.70	45.00	7.20-1	1.26 2	-9.23-1	-1.28 2
8.18821	8.53782	1.75	54.00	9.65-1	1.73 2	-1.18 0	-1.75 2
8.23513	8.53899	1.80	63.00	1.25 0	2.24 2	-1.48 0	-2.26 2
8.27550	8.54322	1.85	72.00	1.59 0	2.77 2	-1.83 0	-2.80 2
8.33897	8.55444	1.95	89.00	2.44 0	3.80 2	-2.70 0	-3.84 2
8.31784	8.55580	1.90	81.00	2.00 0	3.32 2	-2.25 0	-3.35 2
8.16087	8.56331	1.70	46.00	7.43-1	1.31 2	-9.45-1	-1.33 2
8.22222	8.56575	1.75	55.00	9.91-1	1.78 2	-1.20 0	-1.81 2
8.26668	8.56580	1.80	64.00	1.28 0	2.30 2	-1.51 0	-2.33 2
8.30576	8.56962	1.85	73.00	1.63 0	2.84 2	-1.86 0	-2.87 2
8.36915	8.58176	1.95	90.00	2.49 0	3.86 2	-2.75 0	-3.90 2
8.34772	8.58242	1.90	82.00	2.04 0	3.38 2	-2.29 0	-3.42 2
8.10838	8.58301	1.65	38.00	5.50-1	9.29 1	-7.42-1	-9.45 1
8.29810	8.59260	1.80	65.00	1.31 0	2.36 2	-1.54 0	-2.39 2
8.19853	8.59301	1.70	47.00	7.66-1	1.36 2	-9.67-1	-1.38 2
8.25595	8.59358	1.75	56.00	1.02 0	1.84 2	-1.23 0	-1.86 2
8.33598	8.59607	1.85	74.00	1.66 0	2.90 2	-1.90 0	-2.93 2
8.37765	8.60916	1.90	83.00	2.08 0	3.45 2	-2.33 0	-3.48 2
8.15180	8.61536	1.65	39.00	5.70-1	9.74 1	-7.61-1	-9.91 1
8.32939	8.61939	1.80	66.00	1.34 0	2.42 2	-1.57 0	-2.45 2
8.28942	8.62134	1.75	57.00	1.04 0	1.90 2	-1.26 0	-1.92 2
8.23572	8.62253	1.70	48.00	7.88-1	1.41 2	-9.90-1	-1.43 2
8.36619	8.62257	1.85	75.00	1.70 0	2.96 2	-1.93 0	-2.99 2
8.36058	8.64618	1.80	67.00	1.37 0	2.48 2	-1.60 0	-2.51 2
8.19444	8.64743	1.65	40.00	5.90-1	1.02 2	-7.81-1	-1.04 2
8.32266	8.64902	1.75	58.00	1.07 0	1.96 2	-1.28 0	-1.98 2
8.39639	8.64915	1.85	76.00	1.74 0	3.02 2	-1.97 0	-3.06 2
8.27248	8.65190	1.70	49.00	8.12-1	1.46 2	-1.01 0	-1.49 2
8.11233	8.66099	1.60	32.00	4.18-1	6.79 1	-5.99-1	-6.93 1
8.39167	8.67298	1.80	68.00	1.41 0	2.54 2	-1.63 0	-2.57 2
8.35567	8.67664	1.75	59.00	1.10 0	2.01 2	-1.31 0	-2.04 2
8.23635	8.67923	1.65	41.00	6.11-1	1.07 2	-8.01-1	-1.09 2
8.30882	8.68112	1.70	50.00	8.35-1	1.52 2	-1.04 0	-1.54 2
8.16266	8.69634	1.60	33.00	4.36-1	7.20 1	-6.17-1	-7.34 1
8.38847	8.70421	1.75	60.00	1.12 0	2.07 2	-1.33 0	-2.10 2
8.34478	8.71020	1.70	51.00	8.58-1	1.57 2	-1.06 0	-1.59 2
8.27758	8.71079	1.65	42.00	6.32-1	1.12 2	-8.22-1	-1.13 2
8.21180	8.73131	1.60	34.00	4.55-1	7.61 1	-6.35-1	-7.75 1
8.38038	8.73915	1.70	52.00	8.82-1	1.63 2	-1.08 0	-1.65 2
8.31817	8.74212	1.65	43.00	6.52-1	1.17 2	-8.42-1	-1.18 2
8.25983	8.76591	1.60	35.00	4.73-1	8.04 1	-6.53-1	-8.18 1
8.13997	8.77231	1.55	27.00	3.17-1	4.97 1	-4.87-1	-5.08 1
8.35815	8.77321	1.65	44.00	6.74-1	1.22 2	-8.63-1	-1.23 2
8.30683	8.80017	1.60	36.00	4.92-1	8.47 1	-6.71-1	-8.62 1
8.39757	8.80410	1.65	45.00	6.95-1	1.27 2	-8.84-1	-1.29 2
8.19903	8.81109	1.55	28.00	3.34-1	5.32 1	-5.04-1	-5.44 1
8.35286	8.83410	1.60	37.00	5.11-1	8.91 1	-6.90-1	-9.07 1
8.25629	8.84938	1.55	29.00	3.51-1	5.69 1	-5.20-1	-5.81 1
8.39798	8.86771	1.60	38.00	5.30-1	9.37 1	-7.08-1	-9.52 1
8.12986	8.88146	1.50	22.00	2.27-1	3.38 1	-3.87-1	-3.47 1
8.31189	8.88720	1.55	30.00	3.68-1	6.07 1	-5.37-1	-6.19 1
8.20226	8.92449	1.50	23.00	2.42-1	3.69 1	-4.02-1	-3.78 1
8.36597	8.92457	1.55	31.00	3.85-1	6.46 1	-5.54-1	-6.58 1
8.27175	8.96694	1.50	24.00	2.58-1	4.00 1	-4.17-1	-4.10 1
8.33860	9.00881	1.50	25.00	2.74-1	4.33 1	-4.32-1	-4.43 1
8.14289	9.03323	1.45	18.00	1.60-1	2.31 1	-3.10-1	-2.38 1
8.18837	9.05699	1.45	18.50	1.68-1	2.44 1	-3.17-1	-2.51 1
8.23260	9.08061	1.45	19.00	1.75-1	2.57 1	-3.24-1	-2.64 1
8.27566	9.10408	1.45	19.50	1.82-1	2.70 1	-3.31-1	-2.78 1
8.31763	9.12739	1.45	20.00	1.90-1	2.84 1	-3.38-1	-2.92 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.39853	9.17354	1.45	21.00	2.04-1	3.12 1	-3.52-1	-3.20 1
8.14350	9.21422	1.40	14.50	1.08-1	1.53 1	-2.48-1	-1.58 1
8.20179	9.24002	1.40	15.00	1.15-1	1.63 1	-2.54-1	-1.69 1
8.25798	9.26575	1.40	15.50	1.21-1	1.74 1	-2.61-1	-1.80 1
8.31223	9.29140	1.40	16.00	1.28-1	1.86 1	-2.67-1	-1.91 1
8.36467	9.31693	1.40	16.50	1.35-1	1.97 1	-2.73-1	-2.03 1
8.12532	9.43390	1.35	11.50	6.69-2	9.73 0	-1.97-1	-1.01 1
8.20262	9.46092	1.35	12.00	7.32-2	1.06 1	-2.03-1	-1.10 1
8.27618	9.48818	1.35	12.50	7.96-2	1.15 1	-2.09-1	-1.19 1
8.34638	9.51558	1.35	13.00	8.60-2	1.24 1	-2.15-1	-1.29 1
8.12576	9.71662	1.30	9.20	3.86-2	6.27 0	-1.59-1	-6.56 0
8.16790	9.72706	1.30	9.40	4.10-2	6.55 0	-1.62-1	-6.84 0
8.20891	9.73770	1.30	9.60	4.34-2	6.83 0	-1.64-1	-7.14 0
8.24884	9.74849	1.30	9.80	4.58-2	7.13 0	-1.66-1	-7.44 0
8.28775	9.75944	1.30	10.00	4.82-2	7.42 0	-1.68-1	-7.74 0
8.38090	9.78732	1.30	10.50	5.42-2	8.19 0	-1.74-1	-8.53 0
8.13603	10.0664	1.25	7.40	1.89-2	4.05 0	-1.30-1	-4.27 0
8.19323	10.0751	1.25	7.60	2.12-2	4.28 0	-1.32-1	-4.51 0
8.24839	10.0843	1.25	7.80	2.34-2	4.52 0	-1.34-1	-4.75 0
8.30166	10.0940	1.25	8.00	2.57-2	4.76 0	-1.36-1	-5.00 0
8.35316	10.1041	1.25	8.20	2.80-2	5.01 0	-1.38-1	-5.26 0
8.15911	10.4920	1.20	6.00	5.63-3	2.65 0	-1.08-1	-2.81 0
8.23722	10.4968	1.20	6.20	7.76-3	2.84 0	-1.09-1	-3.01 0
8.31173	10.5027	1.20	6.40	9.88-3	3.03 0	-1.11-1	-3.21 0
8.38294	10.5097	1.20	6.60	1.20-2	3.23 0	-1.13-1	-3.42 0
8.35029	10.9997	1.15	5.20	-1.61-4	1.98 0	-9.20-2	-2.11 0
8.24621	11.0011	1.15	5.00	-2.17-3	1.82 0	-9.04-2	-1.95 0
8.13541	11.0050	1.15	4.80	-4.19-3	1.66 0	-8.87-2	-1.79 0
8.35893	11.5974	1.10	4.20	-7.14-3	1.26 0	-7.63-2	-1.36 0
8.20887	11.6135	1.10	4.00	-9.04-3	1.13 0	-7.48-2	-1.23 0
8.12904	11.6237	1.10	3.90	-1.00-2	1.07 0	-7.40-2	-1.16 0
8.34571	12.3191	1.05	3.40	-1.15-2	7.97-1	-6.35-2	-8.72-1
8.23819	12.3394	1.05	3.30	-1.24-2	7.45-1	-6.28-2	-8.17-1
8.12470	12.3627	1.05	3.20	-1.33-2	6.94-1	-6.22-2	-7.64-1
8.35790	13.1778	1.00	2.80	-1.35-2	5.18-1	-5.32-2	-5.74-1
8.20182	13.2188	1.00	2.70	-1.43-2	4.75-1	-5.26-2	-5.29-1
8.36747	13.5643	0.98	2.60	-1.39-2	4.37-1	-4.97-2	-4.88-1
8.18640	13.6167	0.98	2.50	-1.47-2	3.98-1	-4.91-2	-4.46-1
8.34173	13.9894	0.96	2.40	-1.42-2	3.63-1	-4.62-2	-4.08-1
8.12837	14.0572	0.96	2.30	-1.50-2	3.28-1	-4.57-2	-3.70-1
8.26608	14.4628	0.94	2.20	-1.45-2	2.96-1	-4.29-2	-3.35-1
8.11871	14.9990	0.92	2.00	-1.48-2	2.35-1	-3.98-2	-2.69-1
8.38141	15.4192	0.90	1.95	-1.39-2	2.22-1	-3.75-2	-2.55-1
8.21912	15.4803	0.90	1.90	-1.43-2	2.08-1	-3.73-2	-2.39-1
8.30710	16.0012	0.88	1.80	-1.37-2	1.83-1	-3.48-2	-2.11-1
8.11330	16.0790	0.88	1.75	-1.41-2	1.70-1	-3.46-2	-1.97-1
8.37713	16.5678	0.86	1.70	-1.32-2	1.59-1	-3.25-2	-1.85-1
8.15630	16.6593	0.86	1.65	-1.36-2	1.47-1	-3.23-2	-1.72-1
8.16733	17.2967	0.84	1.55	-1.31-2	1.25-1	-3.00-2	-1.48-1
8.13352	18.0025	0.82	1.45	-1.26-2	1.05-1	-2.79-2	-1.26-1
8.38685	18.6303	0.80	1.40	-1.18-2	9.68-2	-2.60-2	-1.15-1
8.27057	19.4838	0.78	1.30	-1.13-2	7.94-2	-2.41-2	-9.59-2
8.24944	21.2947	0.74	1.15	-1.01-2	5.70-2	-2.05-2	-7.02-2
8.15947	24.6581	0.68	0.96	-8.24-3	3.42-2	-1.60-2	-4.36-2
8.22265	27.3691	0.64	0.86	-6.99-3	2.47-2	-1.33-2	-3.24-2
8.17103	42.6810	0.50	0.58	-3.35-3	7.08-3	-6.38-3	-1.05-2
8.17530	58.9800	0.42	0.46	-1.88-3	3.16-3	-3.80-3	-5.24-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.40	8.80						
8.40766	8.63603	1.90	84.00	2.13 0	3.51 2	-2.37 0	-3.54 2
8.43776	8.66303	1.90	85.00	2.17 0	3.57 2	-2.42 0	-3.61 2
8.42659	8.67580	1.85	77.00	1.77 0	3.09 2	-2.01 0	-3.12 2
8.46794	8.69018	1.90	86.00	2.22 0	3.64 2	-2.46 0	-3.67 2
8.42267	8.69979	1.80	69.00	1.44 0	2.61 2	-1.66 0	-2.63 2
8.45681	8.70253	1.85	78.00	1.81 0	3.15 2	-2.04 0	-3.18 2
8.49823	8.71749	1.90	87.00	2.26 0	3.70 2	-2.51 0	-3.73 2
8.45360	8.72663	1.80	70.00	1.47 0	2.67 2	-1.69 0	-2.70 2
8.48704	8.72935	1.85	79.00	1.85 0	3.22 2	-2.08 0	-3.25 2
8.42108	8.73172	1.75	61.00	1.15 0	2.13 2	-1.36 0	-2.16 2
8.52863	8.74495	1.90	88.00	2.31 0	3.76 2	-2.56 0	-3.80 2
8.48447	8.75349	1.80	71.00	1.50 0	2.73 2	-1.72 0	-2.76 2
8.51732	8.75627	1.85	80.00	1.89 0	3.28 2	-2.12 0	-3.31 2
8.45352	8.75920	1.75	62.00	1.18 0	2.19 2	-1.39 0	-2.22 2
8.41564	8.76797	1.70	53.00	9.06-1	1.68 2	-1.11 0	-1.71 2
8.55915	8.77259	1.90	89.00	2.36 0	3.83 2	-2.60 0	-3.86 2
8.51529	8.78039	1.80	72.00	1.54 0	2.79 2	-1.76 0	-2.82 2
8.54763	8.78330	1.85	81.00	1.93 0	3.34 2	-2.16 0	-3.38 2
8.48578	8.78664	1.75	63.00	1.21 0	2.25 2	-1.42 0	-2.28 2
8.45059	8.79669	1.70	54.00	9.31-1	1.74 2	-1.13 0	-1.76 2
8.58982	8.80040	1.90	90.00	2.41 0	3.89 2	-2.65 0	-3.92 2
8.54606	8.80734	1.80	73.00	1.57 0	2.86 2	-1.79 0	-2.89 2
8.57799	8.81043	1.85	82.00	1.97 0	3.41 2	-2.20 0	-3.44 2
8.51790	8.81405	1.75	64.00	1.24 0	2.32 2	-1.45 0	-2.34 2
8.48523	8.82530	1.70	55.00	9.56-1	1.80 2	-1.15 0	-1.82 2
8.57681	8.83434	1.80	74.00	1.60 0	2.92 2	-1.82 0	-2.95 2
8.43645	8.83479	1.65	46.00	7.16-1	1.32 2	-9.05-1	-1.34 2
8.60842	8.83769	1.85	83.00	2.01 0	3.47 2	-2.24 0	-3.50 2
8.54988	8.84145	1.75	65.00	1.27 0	2.38 2	-1.47 0	-2.40 2
8.51959	8.85381	1.70	56.00	9.80-1	1.85 2	-1.18 0	-1.88 2
8.60753	8.86140	1.80	75.00	1.64 0	2.98 2	-1.86 0	-3.01 2
8.63893	8.86508	1.85	84.00	2.05 0	3.54 2	-2.29 0	-3.57 2
8.47483	8.86528	1.65	47.00	7.38-1	1.37 2	-9.26-1	-1.39 2
8.58174	8.86884	1.75	66.00	1.30 0	2.44 2	-1.50 0	-2.47 2
8.55369	8.88224	1.70	57.00	1.01 0	1.91 2	-1.20 0	-1.94 2
8.63825	8.88852	1.80	76.00	1.68 0	3.05 2	-1.89 0	-3.08 2
8.66951	8.89260	1.85	85.00	2.10 0	3.60 2	-2.33 0	-3.63 2
8.51275	8.89559	1.65	48.00	7.60-1	1.42 2	-9.48-1	-1.44 2
8.61349	8.89623	1.75	67.00	1.32 0	2.50 2	-1.53 0	-2.53 2
8.44226	8.90101	1.60	39.00	5.49-1	9.83 1	-7.27-1	-9.99 1
8.58754	8.91059	1.70	58.00	1.03 0	1.97 2	-1.23 0	-2.00 2
8.66897	8.91571	1.80	77.00	1.71 0	3.11 2	-1.93 0	-3.14 2
8.70020	8.92027	1.85	86.00	2.14 0	3.66 2	-2.37 0	-3.70 2
8.64513	8.92362	1.75	68.00	1.36 0	2.56 2	-1.56 0	-2.59 2
8.55021	8.92573	1.65	49.00	7.82-1	1.48 2	-9.69-1	-1.50 2
8.48576	8.93402	1.60	40.00	5.69-1	1.03 2	-7.46-1	-1.05 2
8.62117	8.93887	1.70	59.00	1.06 0	2.03 2	-1.25 0	-2.06 2
8.69971	8.94299	1.80	78.00	1.75 0	3.18 2	-1.97 0	-3.21 2
8.73098	8.94810	1.85	87.00	2.19 0	3.73 2	-2.42 0	-3.76 2
8.67669	8.95102	1.75	69.00	1.39 0	2.63 2	-1.59 0	-2.65 2
8.58726	8.95571	1.65	50.00	8.05-1	1.53 2	-9.91-1	-1.55 2
8.41864	8.96150	1.55	32.00	4.03-1	6.85 1	-5.71-1	-6.98 1
8.52850	8.96675	1.60	41.00	5.89-1	1.08 2	-7.65-1	-1.09 2
8.65458	8.96709	1.70	60.00	1.08 0	2.09 2	-1.28 0	-2.12 2
8.73046	8.97036	1.80	79.00	1.79 0	3.24 2	-2.00 0	-3.27 2
8.76188	8.97608	1.85	88.00	2.23 0	3.79 2	-2.46 0	-3.82 2
8.70817	8.97844	1.75	70.00	1.42 0	2.69 2	-1.62 0	-2.72 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.62392	8.98555	1.65	51.00	8.27-1	1.59 2	-1.01 0	-1.61 2
8.68780	8.99526	1.70	61.00	1.11 0	2.15 2	-1.31 0	-2.18 2
8.76125	8.99782	1.80	80.00	1.82 0	3.30 2	-2.04 0	-3.34 2
8.47000	8.99801	1.55	33.00	4.20-1	7.26 1	-5.88-1	-7.40 1
8.57056	8.99922	1.60	42.00	6.08-1	1.13 2	-7.85-1	-1.14 2
8.79291	9.00424	1.85	89.00	2.28 0	3.85 2	-2.51 0	-3.89 2
8.73959	9.00589	1.75	71.00	1.45 0	2.75 2	-1.66 0	-2.78 2
8.66021	9.01524	1.65	52.00	8.50-1	1.64 2	-1.04 0	-1.66 2
8.72084	9.02338	1.70	62.00	1.14 0	2.21 2	-1.33 0	-2.24 2
8.79208	9.02539	1.80	81.00	1.86 0	3.37 2	-2.08 0	-3.40 2
8.61196	9.03144	1.60	43.00	6.28-1	1.18 2	-8.05-1	-1.19 2
8.77096	9.03338	1.75	72.00	1.48 0	2.82 2	-1.69 0	-2.84 2
8.52015	9.03411	1.55	34.00	4.38-1	7.68 1	-6.05-1	-7.82 1
8.69615	9.04481	1.65	53.00	8.73-1	1.70 2	-1.06 0	-1.72 2
8.40306	9.05011	1.50	26.00	2.90-1	4.67 1	-4.48-1	-4.77 1
8.75371	9.05146	1.70	63.00	1.16 0	2.27 2	-1.36 0	-2.30 2
8.65274	9.06341	1.60	44.00	6.49-1	1.23 2	-8.24-1	-1.24 2
8.56916	9.06982	1.55	35.00	4.56-1	8.11 1	-6.22-1	-8.25 1
8.73177	9.07425	1.65	54.00	8.97-1	1.75 2	-1.08 0	-1.78 2
8.78642	9.07952	1.70	64.00	1.19 0	2.33 2	-1.39 0	-2.36 2
8.46535	9.09084	1.50	27.00	3.06-1	5.01 1	-4.63-1	-5.12 1
8.69295	9.09517	1.60	45.00	6.69-1	1.28 2	-8.44-1	-1.30 2
8.76709	9.10359	1.65	55.00	9.20-1	1.81 2	-1.11 0	-1.84 2
8.61713	9.10517	1.55	36.00	4.74-1	8.55 1	-6.40-1	-8.69 1
8.73262	9.12670	1.60	46.00	6.90-1	1.33 2	-8.65-1	-1.35 2
8.52564	9.13104	1.50	28.00	3.22-1	5.37 1	-4.79-1	-5.48 1
8.66411	9.14015	1.55	37.00	4.92-1	8.99 1	-6.58-1	-9.14 1
8.77177	9.15804	1.60	47.00	7.10-1	1.38 2	-8.85-1	-1.40 2
8.58410	9.17071	1.50	29.00	3.38-1	5.74 1	-4.94-1	-5.86 1
8.71017	9.17480	1.55	38.00	5.10-1	9.45 1	-6.75-1	-9.60 1
8.75537	9.20912	1.55	39.00	5.29-1	9.92 1	-6.93-1	-1.01 2
8.64088	9.20986	1.50	30.00	3.55-1	6.13 1	-5.10-1	-6.24 1
8.47575	9.21903	1.45	22.00	2.19-1	3.42 1	-3.66-1	-3.50 1
8.79976	9.24313	1.55	40.00	5.48-1	1.04 2	-7.12-1	-1.06 2
8.69610	9.24853	1.50	31.00	3.71-1	6.52 1	-5.26-1	-6.64 1
8.54968	9.26387	1.45	23.00	2.34-1	3.72 1	-3.81-1	-3.81 1
8.74989	9.28673	1.50	32.00	3.88-1	6.92 1	-5.43-1	-7.04 1
8.62065	9.30806	1.45	24.00	2.49-1	4.04 1	-3.95-1	-4.13 1
8.41545	9.34234	1.40	17.00	1.42-1	2.09 1	-2.80-1	-2.15 1
8.68894	9.35160	1.45	25.00	2.64-1	4.37 1	-4.10-1	-4.46 1
8.46468	9.36759	1.40	17.50	1.49-1	2.21 1	-2.86-1	-2.27 1
8.51247	9.39269	1.40	18.00	1.56-1	2.34 1	-2.93-1	-2.40 1
8.75480	9.39451	1.45	26.00	2.79-1	4.71 1	-4.24-1	-4.81 1
8.55890	9.41762	1.40	18.50	1.63-1	2.47 1	-3.00-1	-2.53 1
8.60408	9.44238	1.40	19.00	1.69-1	2.60 1	-3.06-1	-2.67 1
8.64806	9.46696	1.40	19.50	1.76-1	2.73 1	-3.13-1	-2.80 1
8.69093	9.49136	1.40	20.00	1.83-1	2.87 1	-3.19-1	-2.94 1
8.77359	9.53961	1.40	21.00	1.97-1	3.16 1	-3.33-1	-3.23 1
8.41353	9.54305	1.35	13.50	9.24-2	1.34 1	-2.21-1	-1.39 1
8.47790	9.57052	1.35	14.00	9.88-2	1.44 1	-2.27-1	-1.49 1
8.53974	9.59794	1.35	14.50	1.05-1	1.54 1	-2.33-1	-1.59 1
8.59925	9.62529	1.35	15.00	1.12-1	1.65 1	-2.39-1	-1.70 1
8.65663	9.65252	1.35	15.50	1.18-1	1.76 1	-2.45-1	-1.81 1
8.71203	9.67962	1.35	16.00	1.25-1	1.88 1	-2.51-1	-1.93 1
8.76561	9.70656	1.35	16.50	1.31-1	1.99 1	-2.57-1	-2.05 1
8.46872	9.81579	1.30	11.00	6.02-2	9.00 0	-1.79-1	-9.35 0
8.55181	9.84465	1.30	11.50	6.62-2	9.84 0	-1.85-1	-1.02 1
8.63069	9.87377	1.30	12.00	7.22-2	1.07 1	-1.90-1	-1.11 1
8.70578	9.90303	1.30	12.50	7.82-2	1.16 1	-1.96-1	-1.20 1
8.77746	9.93236	1.30	13.00	8.43-2	1.26 1	-2.01-1	-1.30 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.40300	10.1145	1.25	8.40	3.02-2	5.27 0	-1.40-1	-5.52 0
8.45130	10.1252	1.25	8.60	3.25-2	5.53 0	-1.42-1	-5.78 0
8.49814	10.1362	1.25	8.80	3.47-2	5.79 0	-1.44-1	-6.06 0
8.54361	10.1474	1.25	9.00	3.70-2	6.06 0	-1.46-1	-6.33 0
8.58780	10.1588	1.25	9.20	3.92-2	6.34 0	-1.48-1	-6.62 0
8.63076	10.1704	1.25	9.40	4.15-2	6.63 0	-1.50-1	-6.91 0
8.67257	10.1822	1.25	9.60	4.37-2	6.92 0	-1.52-1	-7.21 0
8.71330	10.1941	1.25	9.80	4.60-2	7.21 0	-1.54-1	-7.51 0
8.75299	10.2061	1.25	10.00	4.83-2	7.51 0	-1.57-1	-7.82 0
8.45113	10.5175	1.20	6.80	1.41-2	3.44 0	-1.15-1	-3.63 0
8.51654	10.5261	1.20	7.00	1.63-2	3.66 0	-1.17-1	-3.85 0
8.57938	10.5353	1.20	7.20	1.84-2	3.88 0	-1.19-1	-4.08 0
8.63984	10.5451	1.20	7.40	2.05-2	4.11 0	-1.20-1	-4.31 0
8.69809	10.5555	1.20	7.60	2.26-2	4.34 0	-1.22-1	-4.55 0
8.75429	10.5663	1.20	7.80	2.47-2	4.58 0	-1.24-1	-4.80 0
8.44837	11.0006	1.15	5.40	1.84-3	2.14 0	-9.37-2	-2.28 0
8.54107	11.0034	1.15	5.60	3.85-3	2.32 0	-9.54-2	-2.46 0
8.62892	11.0078	1.15	5.80	5.84-3	2.50 0	-9.71-2	-2.65 0
8.71238	11.0136	1.15	6.00	7.84-3	2.68 0	-9.88-2	-2.84 0
8.79186	11.0206	1.15	6.20	9.83-3	2.87 0	-1.00-1	-3.04 0
8.74673	11.5755	1.10	4.80	-1.47-3	1.69 0	-8.08-2	-1.81 0
8.62652	11.5791	1.10	4.60	-3.35-3	1.54 0	-7.93-2	-1.65 0
8.49766	11.5862	1.10	4.40	-5.24-3	1.40 0	-7.78-2	-1.50 0
8.72594	12.2620	1.05	3.80	-7.87-3	1.03 0	-6.62-2	-1.11 0
8.63753	12.2732	1.05	3.70	-8.76-3	9.66-1	-6.55-2	-1.05 0
8.54495	12.2863	1.05	3.60	-9.66-3	9.08-1	-6.48-2	-9.88-1
8.44781	12.3015	1.05	3.50	-1.06-2	8.52-1	-6.42-2	-9.29-1
8.76973	13.0846	1.00	3.10	-1.09-2	6.56-1	-5.51-2	-7.20-1
8.64085	13.1113	1.00	3.00	-1.18-2	6.08-1	-5.44-2	-6.70-1
8.50389	13.1422	1.00	2.90	-1.26-2	5.62-1	-5.38-2	-6.21-1
8.69249	13.4799	0.98	2.80	-1.22-2	5.21-1	-5.08-2	-5.77-1
8.53567	13.5190	0.98	2.70	-1.30-2	4.78-1	-5.02-2	-5.31-1
8.72015	13.8809	0.96	2.60	-1.26-2	4.41-1	-4.73-2	-4.90-1
8.53828	13.9311	0.96	2.50	-1.34-2	4.01-1	-4.68-2	-4.48-1
8.71397	14.3212	0.94	2.40	-1.29-2	3.66-1	-4.40-2	-4.10-1
8.49973	14.3865	0.94	2.30	-1.37-2	3.30-1	-4.34-2	-3.72-1
8.65953	14.8106	0.92	2.20	-1.32-2	2.98-1	-4.08-2	-3.37-1
8.40235	14.8970	0.92	2.10	-1.40-2	2.66-1	-4.03-2	-3.02-1
8.53517	15.3632	0.90	2.00	-1.35-2	2.37-1	-3.77-2	-2.71-1
8.66182	15.8658	0.88	1.90	-1.30-2	2.10-1	-3.52-2	-2.41-1
8.48959	15.9304	0.88	1.85	-1.34-2	1.96-1	-3.50-2	-2.26-1
8.77855	16.4097	0.86	1.80	-1.25-2	1.84-1	-3.29-2	-2.12-1
8.58409	16.4849	0.86	1.75	-1.29-2	1.71-1	-3.27-2	-1.98-1
8.65861	17.0896	0.84	1.65	-1.24-2	1.48-1	-3.04-2	-1.73-1
8.42161	17.1877	0.84	1.60	-1.27-2	1.36-1	-3.02-2	-1.60-1
8.70436	17.7533	0.82	1.55	-1.19-2	1.27-1	-2.82-2	-1.49-1
8.42989	17.8709	0.82	1.50	-1.22-2	1.16-1	-2.81-2	-1.37-1
8.70891	18.4872	0.80	1.45	-1.14-2	1.07-1	-2.62-2	-1.26-1
8.65438	19.3067	0.78	1.35	-1.10-2	8.84-2	-2.42-2	-1.06-1
8.51444	20.2325	0.76	1.25	-1.05-2	7.18-2	-2.23-2	-8.71-2
8.76758	21.0449	0.74	1.20	-9.76-3	6.46-2	-2.06-2	-7.87-2
8.44926	22.2101	0.72	1.10	-9.36-3	5.06-2	-1.90-2	-6.27-2
8.64386	23.2137	0.70	1.05	-8.66-3	4.45-2	-1.74-2	-5.56-2
8.50252	24.4825	0.68	0.98	-8.11-3	3.65-2	-1.60-2	-4.62-2
8.42135	25.8327	0.66	0.92	-7.54-3	3.03-2	-1.46-2	-3.90-2
8.68678	27.1279	0.64	0.88	-6.87-3	2.67-2	-1.33-2	-3.46-2
8.41999	28.8385	0.62	0.82	-6.36-3	2.15-2	-1.21-2	-2.84-2
8.59359	30.4785	0.60	0.78	-5.77-3	1.85-2	-1.10-2	-2.47-2
8.72748	32.3203	0.58	0.74	-5.21-3	1.57-2	-9.95-3	-2.13-2
8.79795	34.4029	0.56	0.70	-4.69-3	1.32-2	-8.95-3	-1.82-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.76945	36.7765	0.54	0.66	-4.20-3	1.09-2	-8.03-3	-1.53-2
8.58810	39.5067	0.52	0.62	-3.76-3	8.89-3	-7.17-3	-1.28-2
8.47441	49.6263	0.46	0.52	-2.54-3	4.89-3	-4.98-3	-7.58-3
8.80	9.20						
8.82407	9.03258	1.85	90.00	2.33 0	3.92 2	-2.56 0	-3.95 2
8.82296	9.05308	1.80	82.00	1.90 0	3.43 2	-2.12 0	-3.47 2
8.80228	9.06091	1.75	73.00	1.51 0	2.88 2	-1.72 0	-2.91 2
8.85391	9.08088	1.80	83.00	1.94 0	3.50 2	-2.16 0	-3.53 2
8.83358	9.08848	1.75	74.00	1.55 0	2.94 2	-1.75 0	-2.97 2
8.81900	9.10755	1.70	65.00	1.22 0	2.40 2	-1.41 0	-2.42 2
8.88494	9.10881	1.80	84.00	1.98 0	3.56 2	-2.20 0	-3.59 2
8.86485	9.11612	1.75	75.00	1.58 0	3.01 2	-1.79 0	-3.04 2
8.80211	9.13282	1.65	56.00	9.44-1	1.87 2	-1.13 0	-1.89 2
8.85145	9.13557	1.70	66.00	1.25 0	2.46 2	-1.44 0	-2.49 2
8.91604	9.13688	1.80	85.00	2.02 0	3.63 2	-2.24 0	-3.66 2
8.89612	9.14382	1.75	76.00	1.61 0	3.07 2	-1.82 0	-3.10 2
8.83687	9.16196	1.65	57.00	9.68-1	1.93 2	-1.15 0	-1.95 2
8.88379	9.16358	1.70	67.00	1.28 0	2.52 2	-1.47 0	-2.55 2
8.94724	9.16510	1.80	86.00	2.07 0	3.69 2	-2.28 0	-3.72 2
8.92738	9.17159	1.75	77.00	1.65 0	3.14 2	-1.85 0	-3.17 2
8.81045	9.18918	1.60	48.00	7.32-1	1.44 2	-9.06-1	-1.46 2
8.87138	9.19101	1.65	58.00	9.93-1	1.99 2	-1.18 0	-2.01 2
8.91602	9.19160	1.70	68.00	1.31 0	2.58 2	-1.50 0	-2.61 2
8.97855	9.19347	1.80	87.00	2.11 0	3.76 2	-2.33 0	-3.79 2
8.95866	9.19944	1.75	78.00	1.68 0	3.20 2	-1.89 0	-3.23 2
8.94816	9.21962	1.70	69.00	1.34 0	2.65 2	-1.53 0	-2.67 2
8.90566	9.21999	1.65	59.00	1.02 0	2.05 2	-1.20 0	-2.07 2
8.84867	9.22015	1.60	49.00	7.53-1	1.49 2	-9.27-1	-1.51 2
9.00998	9.22200	1.80	88.00	2.15 0	3.82 2	-2.37 0	-3.85 2
8.98996	9.22739	1.75	79.00	1.72 0	3.27 2	-1.93 0	-3.30 2
8.98023	9.24767	1.70	70.00	1.37 0	2.71 2	-1.56 0	-2.74 2
8.93973	9.24891	1.65	60.00	1.04 0	2.11 2	-1.23 0	-2.13 2
9.04153	9.25071	1.80	89.00	2.20 0	3.88 2	-2.41 0	-3.92 2
8.88647	9.25094	1.60	50.00	7.74-1	1.54 2	-9.48-1	-1.56 2
9.02130	9.25542	1.75	80.00	1.76 0	3.33 2	-1.96 0	-3.36 2
9.01223	9.27573	1.70	71.00	1.40 0	2.77 2	-1.59 0	-2.80 2
8.84340	9.27685	1.55	41.00	5.66-1	1.09 2	-7.30-1	-1.10 2
8.97359	9.27776	1.65	61.00	1.07 0	2.17 2	-1.25 0	-2.19 2
9.07322	9.27960	1.80	90.00	2.24 0	3.95 2	-2.46 0	-3.98 2
8.92387	9.28157	1.60	51.00	7.96-1	1.60 2	-9.69-1	-1.62 2
9.05267	9.28357	1.75	81.00	1.79 0	3.40 2	-2.00 0	-3.43 2
9.04418	9.30383	1.70	72.00	1.43 0	2.84 2	-1.62 0	-2.87 2
9.00726	9.30657	1.65	62.00	1.09 0	2.23 2	-1.28 0	-2.26 2
8.88634	9.31028	1.55	42.00	5.85-1	1.14 2	-7.49-1	-1.15 2
9.08410	9.31182	1.75	82.00	1.83 0	3.46 2	-2.04 0	-3.49 2
8.96089	9.31206	1.60	52.00	8.18-1	1.66 2	-9.91-1	-1.68 2
8.80235	9.32447	1.50	33.00	4.05-1	7.33 1	-5.59-1	-7.46 1
9.07609	9.33197	1.70	73.00	1.46 0	2.90 2	-1.65 0	-2.93 2
9.04077	9.33533	1.65	63.00	1.12 0	2.29 2	-1.30 0	-2.32 2
9.11560	9.34020	1.75	83.00	1.87 0	3.53 2	-2.07 0	-3.56 2
8.99756	9.34241	1.60	53.00	8.40-1	1.71 2	-1.01 0	-1.73 2
8.92860	9.34345	1.55	43.00	6.05-1	1.19 2	-7.67-1	-1.20 2
9.10796	9.36016	1.70	74.00	1.49 0	2.97 2	-1.68 0	-3.00 2
8.85357	9.36178	1.50	34.00	4.22-1	7.75 1	-5.75-1	-7.89 1
9.07412	9.36406	1.65	64.00	1.15 0	2.35 2	-1.33 0	-2.38 2
9.14717	9.36871	1.75	84.00	1.91 0	3.59 2	-2.11 0	-3.62 2
9.03389	9.37263	1.60	54.00	8.62-1	1.77 2	-1.03 0	-1.79 2
8.97024	9.37636	1.55	44.00	6.24-1	1.24 2	-7.86-1	-1.25 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.13981	9.38841	1.70	75.00	1.52 0	3.03 2	-1.71 0	-3.06 2
9.10733	9.39276	1.65	65.00	1.17 0	2.42 2	-1.36 0	-2.44 2
9.17882	9.39735	1.75	85.00	1.95 0	3.66 2	-2.15 0	-3.69 2
8.90364	9.39868	1.50	35.00	4.39-1	8.19 1	-5.92-1	-8.32 1
9.06992	9.40273	1.60	55.00	8.85-1	1.83 2	-1.06 0	-1.85 2
9.01129	9.40904	1.55	45.00	6.43-1	1.29 2	-8.06-1	-1.31 2
9.17165	9.41672	1.70	76.00	1.55 0	3.10 2	-1.75 0	-3.13 2
9.14040	9.42145	1.65	66.00	1.20 0	2.48 2	-1.38 0	-2.51 2
9.10565	9.43272	1.60	56.00	9.08-1	1.89 2	-1.08 0	-1.91 2
8.95264	9.43518	1.50	36.00	4.56-1	8.63 1	-6.09-1	-8.77 1
8.81844	9.43681	1.45	27.00	2.95-1	5.06 1	-4.39-1	-5.17 1
9.05179	9.44148	1.55	46.00	6.63-1	1.34 2	-8.25-1	-1.36 2
9.17336	9.45013	1.65	67.00	1.23 0	2.54 2	-1.41 0	-2.57 2
9.14112	9.46262	1.60	57.00	9.31-1	1.95 2	-1.10 0	-1.97 2
9.00064	9.47129	1.50	37.00	4.73-1	9.08 1	-6.26-1	-9.22 1
9.09177	9.47371	1.55	47.00	6.83-1	1.39 2	-8.45-1	-1.41 2
8.88005	9.47852	1.45	28.00	3.10-1	5.43 1	-4.54-1	-5.53 1
9.17632	9.49242	1.60	58.00	9.55-1	2.01 2	-1.13 0	-2.03 2
9.13125	9.50574	1.55	48.00	7.03-1	1.45 2	-8.64-1	-1.47 2
9.04770	9.50704	1.50	38.00	4.91-1	9.54 1	-6.43-1	-9.69 1
8.93980	9.51966	1.45	29.00	3.26-1	5.80 1	-4.69-1	-5.91 1
9.17028	9.53757	1.55	49.00	7.23-1	1.50 2	-8.84-1	-1.52 2
9.09388	9.54245	1.50	39.00	5.08-1	1.00 2	-6.60-1	-1.02 2
8.99783	9.56024	1.45	30.00	3.41-1	6.19 1	-4.84-1	-6.30 1
9.13924	9.57753	1.50	40.00	5.26-1	1.05 2	-6.78-1	-1.06 2
8.85252	9.58712	1.40	22.00	2.12-1	3.45 1	-3.46-1	-3.53 1
9.05429	9.60030	1.45	31.00	3.57-1	6.58 1	-5.00-1	-6.70 1
9.18383	9.61229	1.50	41.00	5.44-1	1.10 2	-6.95-1	-1.11 2
8.92809	9.63389	1.40	23.00	2.26-1	3.76 1	-3.60-1	-3.85 1
9.10928	9.63985	1.45	32.00	3.73-1	6.99 1	-5.15-1	-7.11 1
9.16291	9.67892	1.45	33.00	3.89-1	7.41 1	-5.31-1	-7.53 1
9.00065	9.67993	1.40	24.00	2.40-1	4.08 1	-3.74-1	-4.17 1
9.07048	9.72527	1.40	25.00	2.54-1	4.42 1	-3.88-1	-4.51 1
8.81750	9.73332	1.35	17.00	1.38-1	2.11 1	-2.63-1	-2.17 1
8.86781	9.75991	1.35	17.50	1.44-1	2.24 1	-2.70-1	-2.30 1
9.13784	9.76991	1.40	26.00	2.69-1	4.76 1	-4.02-1	-4.86 1
8.91666	9.78630	1.35	18.00	1.51-1	2.36 1	-2.76-1	-2.42 1
8.96413	9.81249	1.35	18.50	1.57-1	2.49 1	-2.82-1	-2.56 1
9.01032	9.83847	1.35	19.00	1.64-1	2.63 1	-2.88-1	-2.69 1
9.05530	9.86425	1.35	19.50	1.70-1	2.76 1	-2.95-1	-2.83 1
9.09915	9.88982	1.35	20.00	1.77-1	2.90 1	-3.01-1	-2.97 1
9.18371	9.94033	1.35	21.00	1.90-1	3.19 1	-3.14-1	-3.26 1
8.84604	9.96168	1.30	13.50	9.03-2	1.36 1	-2.07-1	-1.40 1
8.91181	9.99094	1.30	14.00	9.64-2	1.46 1	-2.13-1	-1.50 1
8.97501	10.0201	1.30	14.50	1.02-1	1.56 1	-2.18-1	-1.61 1
9.03584	10.0491	1.30	15.00	1.09-1	1.67 1	-2.24-1	-1.72 1
9.09451	10.0779	1.30	15.50	1.15-1	1.78 1	-2.30-1	-1.83 1
9.15117	10.1066	1.30	16.00	1.21-1	1.90 1	-2.36-1	-1.95 1
8.84805	10.2366	1.25	10.50	5.39-2	8.29 0	-1.62-1	-8.61 0
8.93771	10.2676	1.25	11.00	5.96-2	9.11 0	-1.67-1	-9.44 0
9.02258	10.2988	1.25	11.50	6.52-2	9.96 0	-1.72-1	-1.03 1
9.10317	10.3302	1.25	12.00	7.09-2	1.08 1	-1.77-1	-1.12 1
9.17992	10.3617	1.25	12.50	7.66-2	1.18 1	-1.83-1	-1.22 1
8.80858	10.5775	1.20	8.00	2.69-2	4.82 0	-1.26-1	-5.05 0
8.86108	10.5890	1.20	8.20	2.90-2	5.07 0	-1.28-1	-5.31 0
8.91191	10.6008	1.20	8.40	3.11-2	5.33 0	-1.30-1	-5.57 0
8.96117	10.6130	1.20	8.60	3.32-2	5.60 0	-1.32-1	-5.84 0
9.00896	10.6253	1.20	8.80	3.53-2	5.87 0	-1.34-1	-6.12 0
9.05536	10.6378	1.20	9.00	3.75-2	6.14 0	-1.36-1	-6.40 0
9.10046	10.6506	1.20	9.20	3.96-2	6.42 0	-1.38-1	-6.69 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.14432	10.6634	1.20	9.40	4.17-2	6.71 0	-1.39-1	-6.98 0
9.18702	10.6764	1.20	9.60	4.38-2	7.00 0	-1.41-1	-7.28 0
8.86770	11.0287	1.15	6.40	1.18-2	3.07 0	-1.02-1	-3.24 0
8.94022	11.0378	1.15	6.60	1.38-2	3.28 0	-1.04-1	-3.45 0
9.00968	11.0476	1.15	6.80	1.58-2	3.49 0	-1.06-1	-3.67 0
9.07634	11.0581	1.15	7.00	1.78-2	3.71 0	-1.07-1	-3.90 0
9.14039	11.0692	1.15	7.20	1.98-2	3.93 0	-1.09-1	-4.13 0
8.85931	11.5747	1.10	5.00	4.10-4	1.84 0	-8.24-2	-1.97 0
8.96512	11.5764	1.10	5.20	2.28-3	2.01 0	-8.40-2	-2.13 0
9.06488	11.5802	1.10	5.40	4.16-3	2.18 0	-8.55-2	-2.31 0
9.15922	11.5858	1.10	5.60	6.02-3	2.35 0	-8.71-2	-2.49 0
9.18473	12.2261	1.05	4.40	-2.57-3	1.42 0	-7.05-2	-1.52 0
9.04382	12.2331	1.05	4.20	-4.33-3	1.28 0	-6.90-2	-1.38 0
8.89149	12.2447	1.05	4.00	-6.10-3	1.15 0	-6.76-2	-1.24 0
8.81049	12.2526	1.05	3.90	-6.98-3	1.09 0	-6.69-2	-1.17 0
9.11529	13.0246	1.00	3.40	-8.42-3	8.11-1	-5.69-2	-8.83-1
9.00629	13.0416	1.00	3.30	-9.25-3	7.58-1	-5.63-2	-8.27-1
8.89131	13.0615	1.00	3.20	-1.01-2	7.06-1	-5.57-2	-7.73-1
9.10641	13.3917	0.98	3.10	-9.73-3	6.61-1	-5.26-2	-7.24-1
8.97685	13.4168	0.98	3.00	-1.05-2	6.13-1	-5.20-2	-6.73-1
8.83919	13.4460	0.98	2.90	-1.14-2	5.66-1	-5.14-2	-6.24-1
9.19418	13.7685	0.96	2.90	-1.02-2	5.70-1	-4.90-2	-6.27-1
9.04672	13.8005	0.96	2.80	-1.10-2	5.25-1	-4.84-2	-5.80-1
8.88914	13.8377	0.96	2.70	-1.18-2	4.82-1	-4.79-2	-5.34-1
9.09413	14.2175	0.94	2.60	-1.13-2	4.44-1	-4.50-2	-4.93-1
8.91140	14.2654	0.94	2.50	-1.21-2	4.04-1	-4.45-2	-4.51-1
9.10934	14.6747	0.92	2.40	-1.17-2	3.69-1	-4.18-2	-4.12-1
8.89415	14.7372	0.92	2.30	-1.24-2	3.33-1	-4.13-2	-3.74-1
9.07813	15.1818	0.90	2.20	-1.20-2	3.01-1	-3.87-2	-3.39-1
8.81989	15.2649	0.90	2.10	-1.27-2	2.68-1	-3.82-2	-3.04-1
8.97905	15.7529	0.88	2.00	-1.22-2	2.39-1	-3.57-2	-2.72-1
8.82470	15.8068	0.88	1.95	-1.26-2	2.24-1	-3.55-2	-2.56-1
9.13456	16.2790	0.86	1.90	-1.18-2	2.12-1	-3.33-2	-2.42-1
8.96169	16.3413	0.86	1.85	-1.21-2	1.98-1	-3.31-2	-2.27-1
9.08783	16.9210	0.84	1.75	-1.17-2	1.73-1	-3.08-2	-1.99-1
8.88016	17.0011	0.84	1.70	-1.20-2	1.60-1	-3.06-2	-1.86-1
9.19720	17.5531	0.82	1.65	-1.12-2	1.50-1	-2.86-2	-1.74-1
8.95942	17.6478	0.82	1.60	-1.15-2	1.38-1	-2.84-2	-1.61-1
9.00614	18.3599	0.80	1.50	-1.11-2	1.17-1	-2.63-2	-1.38-1
9.00570	19.1504	0.78	1.40	-1.06-2	9.79-2	-2.43-2	-1.16-1
8.93678	20.0371	0.76	1.30	-1.02-2	8.04-2	-2.24-2	-9.65-2
9.02895	21.9295	0.72	1.15	-9.03-3	5.78-2	-1.91-2	-7.07-2
8.82729	24.3191	0.68	1.00	-7.99-3	3.89-2	-1.60-2	-4.89-2
9.17013	25.4534	0.66	0.96	-7.29-3	3.47-2	-1.47-2	-4.40-2
8.80659	25.6358	0.66	0.94	-7.41-3	3.25-2	-1.46-2	-4.14-2
9.12235	26.9058	0.64	0.90	-6.75-3	2.87-2	-1.34-2	-3.69-2
8.95095	28.5629	0.62	0.84	-6.24-3	2.33-2	-1.21-2	-3.05-2
9.20	9.60						
9.21058	9.42614	1.75	86.00	1.99 0	3.72 2	-2.19 0	-3.75 2
9.20350	9.44510	1.70	77.00	1.59 0	3.16 2	-1.78 0	-3.19 2
9.24243	9.45509	1.75	87.00	2.03 0	3.78 2	-2.23 0	-3.82 2
9.23535	9.47356	1.70	78.00	1.62 0	3.23 2	-1.81 0	-3.26 2
9.20622	9.47880	1.65	68.00	1.26 0	2.61 2	-1.44 0	-2.63 2
9.27441	9.48420	1.75	88.00	2.07 0	3.85 2	-2.28 0	-3.88 2
9.26723	9.50210	1.70	79.00	1.66 0	3.29 2	-1.85 0	-3.32 2
9.23899	9.50749	1.65	69.00	1.28 0	2.67 2	-1.46 0	-2.70 2
9.30651	9.51348	1.75	89.00	2.12 0	3.91 2	-2.32 0	-3.95 2
9.21129	9.52214	1.60	59.00	9.78-1	2.07 2	-1.15 0	-2.09 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.29914	9.53075	1.70	80.00	1.69 0	3.36 2	-1.88 0	-3.39 2
9.27167	9.53618	1.65	70.00	1.31 0	2.73 2	-1.49 0	-2.76 2
9.33876	9.54295	1.75	90.00	2.16 0	3.98 2	-2.36 0	-4.01 2
9.24604	9.55179	1.60	60.00	1.00 0	2.13 2	-1.17 0	-2.15 2
9.33109	9.55950	1.70	81.00	1.73 0	3.42 2	-1.92 0	-3.45 2
9.30429	9.56490	1.65	71.00	1.34 0	2.80 2	-1.52 0	-2.83 2
9.20887	9.56923	1.55	50.00	7.44-1	1.56 2	-9.04-1	-1.58 2
9.28059	9.58137	1.60	61.00	1.03 0	2.19 2	-1.20 0	-2.21 2
9.36310	9.58836	1.70	82.00	1.76 0	3.49 2	-1.95 0	-3.52 2
9.33685	9.59365	1.65	72.00	1.37 0	2.86 2	-1.55 0	-2.89 2
9.24706	9.60071	1.55	51.00	7.65-1	1.61 2	-9.25-1	-1.63 2
9.31494	9.61090	1.60	62.00	1.05 0	2.25 2	-1.22 0	-2.27 2
9.39517	9.61734	1.70	83.00	1.80 0	3.55 2	-1.99 0	-3.58 2
9.36937	9.62244	1.65	73.00	1.40 0	2.93 2	-1.58 0	-2.96 2
9.28486	9.63204	1.55	52.00	7.86-1	1.67 2	-9.46-1	-1.69 2
9.34913	9.64038	1.60	63.00	1.08 0	2.31 2	-1.25 0	-2.34 2
9.42732	9.64645	1.70	84.00	1.84 0	3.62 2	-2.03 0	-3.65 2
9.22770	9.64675	1.50	42.00	5.62-1	1.15 2	-7.19-1	-1.16 2
9.40186	9.65128	1.65	74.00	1.43 0	2.99 2	-1.61 0	-3.02 2
9.32230	9.66322	1.55	53.00	8.07-1	1.73 2	-9.66-1	-1.75 2
9.38315	9.66983	1.60	64.00	1.10 0	2.37 2	-1.27 0	-2.40 2
9.45955	9.67570	1.70	85.00	1.88 0	3.69 2	-2.07 0	-3.72 2
9.43432	9.68016	1.65	75.00	1.46 0	3.06 2	-1.64 0	-3.09 2
9.27089	9.68093	1.50	43.00	5.81-1	1.20 2	-7.31-1	-1.21 2
9.35940	9.69426	1.55	54.00	8.28-1	1.79 2	-9.88-1	-1.81 2
9.41702	9.69924	1.60	65.00	1.13 0	2.44 2	-1.30 0	-2.46 2
9.49188	9.70509	1.70	86.00	1.92 0	3.75 2	-2.10 0	-3.78 2
9.46677	9.70912	1.65	76.00	1.49 0	3.12 2	-1.67 0	-3.15 2
9.31344	9.71484	1.50	44.00	5.99-1	1.25 2	-7.49-1	-1.27 2
9.21528	9.71752	1.45	34.00	4.05-1	7.83 1	-5.47-1	-7.96 1
9.39618	9.72518	1.55	55.00	8.50-1	1.85 2	-1.01 0	-1.87 2
9.45076	9.72863	1.60	66.00	1.15 0	2.50 2	-1.32 0	-2.53 2
9.52432	9.73465	1.70	87.00	1.96 0	3.82 2	-2.14 0	-3.85 2
9.49922	9.73814	1.65	77.00	1.53 0	3.19 2	-1.71 0	-3.22 2
9.35539	9.74850	1.50	45.00	6.18-1	1.30 2	-7.67-1	-1.32 2
9.26648	9.75567	1.45	35.00	4.21-1	8.27 1	-5.62-1	-8.40 1
9.43267	9.75598	1.55	56.00	8.72-1	1.90 2	-1.03 0	-1.93 2
9.48439	9.75801	1.60	67.00	1.18 0	2.57 2	-1.35 0	-2.59 2
9.55688	9.76436	1.70	88.00	2.00 0	3.88 2	-2.18 0	-3.91 2
9.53169	9.76724	1.65	78.00	1.56 0	3.25 2	-1.74 0	-3.28 2
9.39677	9.78191	1.50	46.00	6.36-1	1.35 2	-7.86-1	-1.37 2
9.46888	9.78667	1.55	57.00	8.94-1	1.96 2	-1.05 0	-1.99 2
9.51790	9.78739	1.60	68.00	1.21 0	2.63 2	-1.37 0	-2.66 2
9.31659	9.79340	1.45	36.00	4.38-1	8.72 1	-5.78-1	-8.85 1
9.58956	9.79426	1.70	89.00	2.04 0	3.95 2	-2.23 0	-3.98 2
9.56418	9.79643	1.65	79.00	1.59 0	3.32 2	-1.77 0	-3.35 2
9.20294	9.81389	1.40	27.00	2.89-1	5.12 1	-4.16-1	-5.22 1
9.43763	9.81509	1.50	47.00	6.55-1	1.41 2	-8.05-1	-1.43 2
9.55133	9.81677	1.60	69.00	1.23 0	2.69 2	-1.40 0	-2.72 2
9.50483	9.81727	1.55	58.00	9.16-1	2.02 2	-1.07 0	-2.05 2
9.59669	9.82571	1.65	80.00	1.63 0	3.39 2	-1.80 0	-3.42 2
9.36567	9.83072	1.45	37.00	4.54-1	9.17 1	-5.99-1	-9.31 1
9.58467	9.84616	1.60	70.00	1.26 0	2.76 2	-1.43 0	-2.78 2
9.54053	9.84777	1.55	59.00	9.39-1	2.09 2	-1.10 0	-2.11 2
9.47798	9.84806	1.50	48.00	6.75-1	1.46 2	-8.23-1	-1.48 2
9.26597	9.85722	1.40	28.00	2.98-1	5.48 1	-4.30-1	-5.59 1
9.41380	9.86766	1.45	38.00	4.71-1	9.64 1	-6.11-1	-9.78 1
9.57601	9.87820	1.55	60.00	9.62-1	2.15 2	-1.12 0	-2.17 2
9.51787	9.88082	1.50	49.00	6.94-1	1.52 2	-8.43-1	-1.54 2
9.32710	9.89993	1.40	29.00	3.13-1	5.86 1	-4.44-1	-5.97 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.46103	9.90422	1.45	39.00	4.88-1	1.01 2	-6.27-1	-1.03 2
9.55730	9.91339	1.50	50.00	7.14-1	1.57 2	-8.62-1	-1.59 2
9.50743	9.94044	1.45	40.00	5.05-1	1.06 2	-6.44-1	-1.07 2
9.38649	9.94205	1.40	30.00	3.28-1	6.25 1	-4.59-1	-6.36 1
9.59633	9.94578	1.50	51.00	7.33-1	1.63 2	-8.81-1	-1.65 2
9.55303	9.97632	1.45	41.00	5.22-1	1.11 2	-6.61-1	-1.12 2
9.44426	9.98360	1.40	31.00	3.43-1	6.65 1	-4.73-1	-6.76 1
9.26447	9.99000	1.35	22.00	2.04-1	3.49 1	-3.27-1	-3.57 1
9.59790	10.0119	1.45	42.00	5.39-1	1.16 2	-6.78-1	-1.17 2
9.50054	10.0246	1.40	32.00	3.58-1	7.06 1	-4.88-1	-7.18 1
9.34182	10.0389	1.35	23.00	2.17-1	3.80 1	-3.40-1	-3.88 1
9.55543	10.0651	1.40	33.00	3.73-1	7.48 1	-5.03-1	-7.60 1
9.41609	10.0869	1.35	24.00	2.31-1	4.13 1	-3.53-1	-4.21 1
9.48759	10.1342	1.35	25.00	2.44-1	4.46 1	-3.66-1	-4.55 1
9.20598	10.1351	1.30	16.50	1.27-1	2.02 1	-2.42-1	-2.07 1
9.25907	10.1639	1.30	17.00	1.33-1	2.14 1	-2.47-1	-2.19 1
9.55656	10.1807	1.35	26.00	2.58-1	4.81 1	-3.79-1	-4.90 1
9.31055	10.1913	1.30	17.50	1.39-1	2.26 1	-2.53-1	-2.32 1
9.36055	10.2191	1.30	18.00	1.46-1	2.39 1	-2.59-1	-2.45 1
9.40914	10.2466	1.30	18.50	1.52-1	2.52 1	-2.65-1	-2.58 1
9.45643	10.2740	1.30	19.00	1.58-1	2.66 1	-2.71-1	-2.72 1
9.50250	10.3010	1.30	19.50	1.64-1	2.79 1	-2.77-1	-2.86 1
9.54741	10.3279	1.30	20.00	1.71-1	2.94 1	-2.83-1	-3.00 1
9.25321	10.3931	1.25	13.00	8.23-2	1.27 1	-1.88-1	-1.31 1
9.32336	10.4244	1.25	13.50	8.81-2	1.37 1	-1.93-1	-1.41 1
9.39065	10.4556	1.25	14.00	9.38-2	1.47 1	-1.99-1	-1.52 1
9.45533	10.4866	1.25	14.50	9.95-2	1.58 1	-2.04-1	-1.63 1
9.51760	10.5174	1.25	15.00	1.05-1	1.69 1	-2.10-1	-1.74 1
9.57767	10.5480	1.25	15.50	1.11-1	1.80 1	-2.15-1	-1.85 1
9.22862	10.6895	1.20	9.80	4.60-2	7.30 0	-1.43-1	-7.59 0
9.26917	10.7027	1.20	10.00	4.81-2	7.61 0	-1.45-1	-7.90 0
9.36632	10.7361	1.20	10.50	5.34-2	8.40 0	-1.50-1	-8.71 0
9.45799	10.7697	1.20	11.00	5.87-2	9.22 0	-1.55-1	-9.55 0
9.54480	10.8036	1.20	11.50	6.41-2	1.01 1	-1.60-1	-1.04 1
9.20205	11.0808	1.15	7.40	2.18-2	4.16 0	-1.11-1	-4.36 0
9.26147	11.0929	1.15	7.60	2.38-2	4.40 0	-1.13-1	-4.60 0
9.31881	11.1054	1.15	7.80	2.57-2	4.64 0	-1.14-1	-4.85 0
9.37423	11.1182	1.15	8.00	2.77-2	4.89 0	-1.16-1	-5.11 0
9.42783	11.1314	1.15	8.20	2.97-2	5.14 0	-1.18-1	-5.37 0
9.47974	11.1448	1.15	8.40	3.17-2	5.40 0	-1.20-1	-5.64 0
9.53007	11.1584	1.15	8.60	3.37-2	5.67 0	-1.22-1	-5.91 0
9.57890	11.1722	1.15	8.80	3.57-2	5.95 0	-1.23-1	-6.19 0
9.24866	11.5928	1.10	5.80	7.89-3	2.53 0	-8.87-2	-2.68 0
9.33368	11.6012	1.10	6.00	9.75-3	2.72 0	-9.03-2	-2.87 0
9.41468	11.6107	1.10	6.20	1.16-2	2.92 0	-9.20-2	-3.07 0
9.49200	11.6211	1.10	6.40	1.35-2	3.12 0	-9.36-2	-3.28 0
9.56597	11.6324	1.10	6.60	1.53-2	3.33 0	-9.52-2	-3.50 0
9.31572	12.2229	1.05	4.60	-8.14-4	1.56 0	-7.19-2	-1.67 0
9.43799	12.2230	1.05	4.80	9.36-4	1.71 0	-7.34-2	-1.83 0
9.55257	12.2258	1.05	5.00	2.68-3	1.87 0	-7.48-2	-1.99 0
9.58702	12.9725	1.00	3.90	-4.29-3	1.10 0	-6.02-2	-1.19 0
9.50113	12.9793	1.00	3.80	-5.11-3	1.04 0	-5.95-2	-1.12 0
9.41135	12.9877	1.00	3.70	-5.94-3	9.82-1	-5.89-2	-1.06 0
9.31738	12.9979	1.00	3.60	-6.76-3	9.23-1	-5.82-2	-1.00-0
9.21883	13.0101	1.00	3.50	-7.59-3	8.66-1	-5.76-2	-9.40-1
9.55812	13.3230	0.98	3.50	-6.50-3	8.73-1	-5.50-2	-9.45-1
9.45395	13.3361	0.98	3.40	-7.30-3	8.17-1	-5.44-2	-8.87-1
9.34431	13.3518	0.98	3.30	-8.10-3	7.63-1	-5.38-2	-8.31-1
9.22866	13.3702	0.98	3.20	-8.91-3	7.11-1	-5.32-2	-7.77-1
9.58583	13.6977	0.96	3.20	-7.79-3	7.17-1	-5.08-2	-7.81-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.46287	13.7177	0.96	3.10	-8.58-3	6.66-1	-5.02-2	-7.28-1
9.33258	13.7411	0.96	3.00	-9.37-3	6.17-1	-4.96-2	-6.77-1
9.57061	14.1113	0.94	2.90	-9.01-3	5.75-1	-4.67-2	-6.31-1
9.42235	14.1414	0.94	2.80	-9.78-3	5.30-1	-4.61-2	-5.83-1
9.26395	14.1765	0.94	2.70	-1.05-2	4.86-1	-4.56-2	-5.37-1
9.49133	14.5760	0.92	2.60	-1.01-2	4.48-1	-4.28-2	-4.96-1
9.30769	14.6215	0.92	2.50	-1.09-2	4.08-1	-4.23-2	-4.53-1
9.52999	15.0520	0.90	2.40	-1.05-2	3.73-1	-3.96-2	-4.15-1
9.31378	15.1116	0.90	2.30	-1.12-2	3.36-1	-3.91-2	-3.76-1
9.52430	15.5788	0.88	2.20	-1.08-2	3.04-1	-3.66-2	-3.41-1
9.26492	15.6583	0.88	2.10	-1.15-2	2.71-1	-3.61-2	-3.05-1
9.45305	16.1705	0.86	2.00	-1.11-2	2.42-1	-3.37-2	-2.74-1
9.29808	16.2223	0.86	1.95	-1.14-2	2.27-1	-3.35-2	-2.58-1
9.46682	16.7827	0.84	1.85	-1.09-2	2.00-1	-3.12-2	-2.28-1
9.28299	16.8485	0.84	1.80	-1.13-2	1.86-1	-3.10-2	-2.14-1
9.41952	17.4677	0.82	1.70	-1.08-2	1.62-1	-2.88-2	-1.87-1
9.53738	18.1446	0.80	1.60	-1.04-2	1.39-1	-2.67-2	-1.62-1
9.28146	18.2463	0.80	1.55	-1.07-2	1.28-1	-2.65-2	-1.49-1
9.32869	19.0121	0.78	1.45	-1.03-2	1.08-1	-2.49-2	-1.27-1
9.32161	19.8659	0.76	1.35	-9.85-3	8.95-2	-2.26-2	-1.06-1
9.23463	20.8284	0.74	1.25	-9.43-3	7.28-2	-2.08-2	-8.77-2
9.54829	21.6882	0.72	1.20	-8.72-3	6.55-2	-1.92-2	-7.92-2
9.29681	22.8963	0.70	1.10	-8.34-3	5.13-2	-1.75-2	-6.31-2
9.56834	23.9573	0.68	1.05	-7.68-3	4.52-2	-1.61-2	-5.60-2
9.51977	25.2841	0.66	0.98	-7.18-3	3.71-2	-1.47-2	-4.66-2
9.53192	26.7009	0.64	0.92	-6.64-3	3.09-2	-1.34-2	-3.93-2
9.44716	28.3104	0.62	0.86	-6.13-3	2.52-2	-1.22-2	-3.26-2
9.20648	30.1607	0.60	0.80	-5.65-3	2.02-2	-1.10-2	-2.67-2
9.44211	31.9502	0.58	0.76	-5.10-3	1.73-2	-9.95-3	-2.31-2
9.28435	45.4380	0.48	0.56	-2.88-3	6.37-3	-5.64-3	-9.49-3
9.27830	87.1789	0.34	0.36	-8.86-4	1.31-3	-2.07-3	-2.56-3
9.60	10.00						
9.62239	9.82434	1.70	90.00	2.08 0	4.01 2	-2.27 0	-4.04 2
9.62926	9.85510	1.65	81.00	1.66 0	3.45 2	-1.84 0	-3.48 2
9.61794	9.87557	1.60	71.00	1.29 0	2.82 2	-1.46 0	-2.85 2
9.66187	9.88460	1.65	82.00	1.70 0	3.52 2	-1.87 0	-3.55 2
9.65115	9.90501	1.60	72.00	1.32 0	2.89 2	-1.48 0	-2.92 2
9.61128	9.90856	1.55	61.00	9.85-1	2.21 2	-1.14 0	-2.23 2
9.69456	9.91422	1.65	83.00	1.73 0	3.59 2	-1.91 0	-3.61 2
9.68432	9.93448	1.60	73.00	1.35 0	2.95 2	-1.51 0	-2.98 2
9.64636	9.93886	1.55	62.00	1.01 0	2.27 2	-1.17 0	-2.29 2
9.72731	9.94397	1.65	84.00	1.77 0	3.65 2	-1.94 0	-3.68 2
9.71746	9.96400	1.60	74.00	1.38 0	3.02 2	-1.54 0	-3.05 2
9.68126	9.96910	1.55	63.00	1.03 0	2.33 2	-1.19 0	-2.36 2
9.76016	9.97385	1.65	85.00	1.80 0	3.72 2	-1.98 0	-3.75 2
9.63496	9.97801	1.50	52.00	7.53-1	1.69 2	-9.01-1	-1.71 2
9.75057	9.99357	1.60	75.00	1.41 0	3.09 2	-1.57 0	-3.11 2
9.71600	9.99931	1.55	64.00	1.06 0	2.40 2	-1.21 0	-2.42 2
9.79310	10.0039	1.65	86.00	1.84 0	3.78 2	-2.02 0	-3.81 2
9.67322	10.0101	1.50	53.00	7.74-1	1.75 2	-9.21-1	-1.77 2
9.78367	10.0232	1.60	76.00	1.44 0	3.15 2	-1.60 0	-3.18 2
9.75058	10.0295	1.55	65.00	1.08 0	2.46 2	-1.24 0	-2.49 2
9.82615	10.0341	1.65	87.00	1.88 0	3.85 2	-2.06 0	-3.88 2
9.71114	10.0420	1.50	54.00	7.94-1	1.80 2	-9.41-1	-1.82 2
9.64208	10.0471	1.45	43.00	5.57-1	1.21 2	-6.95-1	-1.23 2
9.81677	10.0529	1.60	77.00	1.47 0	3.22 2	-1.63 0	-3.25 2
9.78503	10.0596	1.55	66.00	1.11 0	2.52 2	-1.26 0	-2.55 2
9.85933	10.0644	1.65	88.00	1.92 0	3.92 2	-2.09 0	-3.95 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.74873	10.0738	1.50	55.00	8.15-1	1.86 2	-9.62-1	-1.88 2
9.68561	10.0821	1.45	44.00	5.74-1	1.26 2	-7.12-1	-1.28 2
9.84988	10.0827	1.60	78.00	1.50 0	3.28 2	-1.66 0	-3.31 2
9.81936	10.0897	1.55	67.00	1.13 0	2.59 2	-1.29 0	-2.61 2
9.89263	10.0950	1.65	89.00	1.96 0	3.98 2	-2.13 0	-4.01 2
9.60904	10.1051	1.40	34.00	3.88-1	7.91 1	-5.18-1	-8.04 1
9.78602	10.1054	1.50	56.00	8.36-1	1.92 2	-9.82-1	-1.94 2
9.88301	10.1126	1.60	79.00	1.53 0	3.35 2	-1.69 0	-3.38 2
9.72852	10.1168	1.45	45.00	5.92-1	1.31 2	-7.30-1	-1.33 2
9.85357	10.1199	1.55	68.00	1.16 0	2.65 2	-1.31 0	-2.68 2
9.92608	10.1257	1.65	90.00	2.00 0	4.05 2	-2.17 0	-4.08 2
9.82302	10.1370	1.50	57.00	8.57-1	1.98 2	-1.00 0	-2.00 2
9.91617	10.1425	1.60	80.00	1.56 0	3.42 2	-1.73 0	-3.45 2
9.66145	10.1446	1.40	35.00	4.04-1	8.36 1	-5.33-1	-8.48 1
9.88770	10.1500	1.55	69.00	1.18 0	2.72 2	-1.34 0	-2.74 2
9.77085	10.1513	1.45	46.00	6.10-1	1.37 2	-7.47-1	-1.39 2
9.85976	10.1684	1.50	58.00	8.78-1	2.04 2	-1.02 0	-2.07 2
9.94938	10.1726	1.60	81.00	1.59 0	3.48 2	-1.76 0	-3.51 2
9.92173	10.1801	1.55	70.00	1.21 0	2.78 2	-1.36 0	-2.81 2
9.71275	10.1836	1.40	36.00	4.19-1	8.81 1	-5.48-1	-8.94 1
9.81264	10.1855	1.45	47.00	6.28-1	1.42 2	-7.65-1	-1.44 2
9.89625	10.1998	1.50	59.00	9.00-1	2.11 2	-1.05 0	-2.13 2
9.98264	10.2027	1.60	82.00	1.63 0	3.55 2	-1.79 0	-3.58 2
9.95570	10.2102	1.55	71.00	1.24 0	2.85 2	-1.39 0	-2.88 2
9.85392	10.2194	1.45	48.00	6.46-1	1.48 2	-7.83-1	-1.50 2
9.76300	10.2222	1.40	37.00	4.35-1	9.27 1	-5.64-1	-9.40 1
9.62323	10.2264	1.35	27.00	2.72-1	5.17 1	-3.93-1	-5.27 1
9.93251	10.2310	1.50	60.00	9.22-1	2.17 2	-1.07 0	-2.19 2
9.98961	10.2404	1.55	72.00	1.26 0	2.92 2	-1.42 0	-2.94 2
9.89472	10.2532	1.45	49.00	6.65-1	1.53 2	-8.01-1	-1.55 2
9.81227	10.2604	1.40	38.00	4.51-1	9.74 1	-5.79-1	-9.88 1
9.96855	10.2622	1.50	61.00	9.44-1	2.23 2	-1.09 0	-2.25 2
9.68779	10.2715	1.35	28.00	2.86-1	5.54 1	-4.06-1	-5.64 1
9.93507	10.2867	1.45	50.00	6.83-1	1.59 2	-8.20-1	-1.61 2
9.86063	10.2982	1.40	39.00	4.67-1	1.02 2	-5.95-1	-1.04 2
9.75042	10.3159	1.35	29.00	3.00-1	5.93 1	-4.20-1	-6.03 1
9.97499	10.3201	1.45	51.00	7.02-1	1.65 2	-8.38-1	-1.67 2
9.90814	10.3357	1.40	40.00	4.83-1	1.07 2	-6.11-1	-1.09 2
9.81126	10.3597	1.35	30.00	3.14-1	6.32 1	-4.34-1	-6.43 1
9.95484	10.3727	1.40	41.00	4.99-1	1.12 2	-6.27-1	-1.14 2
9.63403	10.3808	1.30	21.00	1.83-1	3.23 1	-2.95-1	-3.30 1
9.87045	10.4028	1.35	31.00	3.28-1	6.73 1	-4.48-1	-6.84 1
9.71677	10.4328	1.30	22.00	1.96-1	3.53 1	-3.08-1	-3.60 1
9.92812	10.4454	1.35	32.00	3.43-1	7.14 1	-4.62-1	-7.25 1
9.79603	10.4839	1.30	23.00	2.09-1	3.85 1	-3.20-1	-3.92 1
9.98437	10.4874	1.35	33.00	3.57-1	7.57 1	-4.76-1	-7.68 1
9.87217	10.5341	1.30	24.00	2.21-1	4.18 1	-3.32-1	-4.26 1
9.63571	10.5784	1.25	16.00	1.17-1	1.92 1	-2.21-1	-1.97 1
9.94547	10.5834	1.30	25.00	2.34-1	4.52 1	-3.45-1	-4.60 1
9.69185	10.6084	1.25	16.50	1.23-1	2.04 1	-2.26-1	-2.09 1
9.74625	10.6383	1.25	17.00	1.29-1	2.16 1	-2.32-1	-2.22 1
9.79901	10.6678	1.25	17.50	1.34-1	2.29 1	-2.37-1	-2.35 1
9.85025	10.6971	1.25	18.00	1.40-1	2.42 1	-2.43-1	-2.48 1
9.90007	10.7262	1.25	18.50	1.46-1	2.55 1	-2.49-1	-2.61 1
9.94856	10.7549	1.25	19.00	1.52-1	2.69 1	-2.54-1	-2.75 1
9.99579	10.7834	1.25	19.50	1.58-1	2.83 1	-2.60-1	-2.89 1
9.62727	10.8374	1.20	12.00	6.94-2	1.10 1	-1.65-1	-1.13 1
9.70585	10.8712	1.20	12.50	7.48-2	1.19 1	-1.70-1	-1.23 1
9.78090	10.9049	1.20	13.00	8.02-2	1.29 1	-1.75-1	-1.33 1
9.85276	10.9384	1.20	13.50	8.56-2	1.39 1	-1.80-1	-1.43 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.92171	10.9717	1.20	14.00	9.10-2	1.49 1	-1.85-1	-1.54 1
9.98801	11.0047	1.20	14.50	9.64-2	1.60 1	-1.90-1	-1.65 1
9.62633	11.1862	1.15	9.00	3.77-2	6.22 0	-1.25-1	-6.47 0
9.67243	11.2003	1.15	9.20	3.97-2	6.51 0	-1.27-1	-6.77 0
9.71729	11.2146	1.15	9.40	4.17-2	6.80 0	-1.29-1	-7.06 0
9.76096	11.2289	1.15	9.60	4.37-2	7.10 0	-1.31-1	-7.37 0
9.80352	11.2434	1.15	9.80	4.57-2	7.40 0	-1.33-1	-7.68 0
9.84502	11.2578	1.15	10.00	4.77-2	7.71 0	-1.34-1	-7.99 0
9.94446	11.2943	1.15	10.50	5.27-2	8.51 0	-1.39-1	-8.81 0
9.63685	11.6444	1.10	6.80	1.72-2	3.54 0	-9.69-2	-3.72 0
9.70488	11.6570	1.10	7.00	1.91-2	3.76 0	-9.85-2	-3.94 0
9.77029	11.6702	1.10	7.20	2.09-2	3.99 0	-1.00-1	-4.17 0
9.83327	11.6838	1.10	7.40	2.28-2	4.22 0	-1.02-1	-4.41 0
9.89399	11.6978	1.10	7.60	2.46-2	4.46 0	-1.04-1	-4.66 0
9.95261	11.7121	1.10	7.80	2.65-2	4.71 0	-1.05-1	-4.91 0
9.66031	12.2308	1.05	5.20	4.42-3	2.04 0	-7.63-2	-2.16 0
9.76196	12.2378	1.05	5.40	6.16-3	2.21 0	-7.78-2	-2.34 0
9.85813	12.2464	1.05	5.60	7.90-3	2.39 0	-7.93-2	-2.52 0
9.94936	12.2564	1.05	5.80	9.64-3	2.57 0	-8.08-2	-2.71 0
9.96762	12.9582	1.00	4.40	-2.11-4	1.44 0	-6.35-2	-1.54 0
9.82422	12.9605	1.00	4.20	-1.84-3	1.30 0	-6.22-2	-1.39 0
9.66933	12.9673	1.00	4.00	-3.47-3	1.17 0	-6.08-2	-1.26 0
9.92872	13.2903	0.98	3.90	-3.31-3	1.11 0	-5.76-2	-1.20 0
9.84224	13.2959	0.98	3.80	-4.10-3	1.05 0	-5.69-2	-1.13 0
9.75187	13.3031	0.98	3.70	-4.90-3	9.89-1	-5.63-2	-1.07 0
9.65729	13.3121	0.98	3.60	-5.70-3	9.30-1	-5.57-2	-1.01 0
9.91733	13.6550	0.96	3.50	-5.46-3	8.79-1	-5.26-2	-9.51-1
9.81249	13.6667	0.96	3.40	-6.23-3	8.23-1	-5.20-2	-8.92-1
9.70217	13.6808	0.96	3.30	-7.01-3	7.69-1	-5.14-2	-8.35-1
9.96456	14.0458	0.94	3.20	-6.72-3	7.22-1	-4.84-2	-7.85-1
9.84085	14.0641	0.94	3.10	-7.48-3	6.71-1	-4.78-2	-7.32-1
9.70980	14.0858	0.94	3.00	-8.24-3	6.22-1	-4.73-2	-6.80-1
9.97042	14.4763	0.92	2.90	-7.91-3	5.80-1	-4.44-2	-6.34-1
9.82132	14.5043	0.92	2.80	-8.65-3	5.34-1	-4.39-2	-5.86-1
9.66204	14.5373	0.92	2.70	-9.40-3	4.90-1	-4.33-2	-5.40-1
9.91394	14.9585	0.90	2.60	-9.02-3	4.52-1	-4.07-2	-4.98-1
9.72933	15.0014	0.90	2.50	-9.75-3	4.11-1	-4.01-2	-4.56-1
9.97834	15.4553	0.88	2.40	-9.35-3	3.76-1	-3.76-2	-4.17-1
9.76105	15.5118	0.88	2.30	-1.01-2	3.39-1	-3.71-2	-3.78-1
9.74016	16.0800	0.86	2.10	-1.03-2	2.73-1	-3.42-2	-3.07-1
9.96024	16.6190	0.84	2.00	-9.92-3	2.44-1	-3.18-2	-2.75-1
9.80459	16.6685	0.84	1.95	-1.03-2	2.29-1	-3.16-2	-2.59-1
9.64039	16.7229	0.84	1.90	-1.06-2	2.14-1	-3.14-2	-2.43-1
9.82388	17.3210	0.82	1.80	-1.02-2	1.88-1	-2.92-2	-2.15-1
9.62726	17.3906	0.82	1.75	-1.05-2	1.75-1	-2.90-2	-2.01-1
9.99915	17.9713	0.80	1.70	-9.73-3	1.64-1	-2.70-2	-1.88-1
9.77690	18.0535	0.80	1.65	-1.01-2	1.51-1	-2.68-2	-1.75-1
9.90310	18.7799	0.78	1.55	-9.63-3	1.29-1	-2.48-2	-1.50-1
9.02685	18.8895	0.78	1.50	-9.95-3	1.18-1	-2.46-2	-1.39-1
9.99796	19.5819	0.76	1.45	-9.21-3	1.09-1	-2.29-2	-1.28-1
9.67395	19.7151	0.76	1.40	-9.53-3	9.91-2	-2.27-2	-1.17-1
9.65808	20.6398	0.74	1.30	-9.12-3	8.14-2	-2.09-2	-9.72-2
9.87781	22.6257	0.70	1.15	-8.04-3	5.86-2	-1.76-2	-7.12-2
9.83914	25.1267	0.66	1.00	-7.06-3	3.95-2	-1.47-2	-4.93-2
9.91779	26.5115	0.64	0.94	-6.52-3	3.31-2	-1.34-2	-4.18-2
9.91193	28.0786	0.62	0.88	-6.02-3	2.72-2	-1.22-2	-3.49-2
9.77658	29.8713	0.60	0.82	-5.54-3	2.20-2	-1.10-2	-2.87-2
9.64076	33.9668	0.56	0.72	-4.58-3	1.46-2	-8.96-3	-1.98-2
9.77644	36.2558	0.54	0.68	-4.10-3	1.22-2	-8.03-3	-1.68-2
9.80928	38.8753	0.52	0.64	-3.66-3	1.00-2	-7.17-3	-1.41-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.67757	41.9018	0.50	0.60	-3.25-3	8.08-3	-6.37-3	-1.17-2
9.79152	53.2644	0.44	0.50	-2.15-3	4.33-3	-4.35-3	-6.78-3
9.64254	63.9264	0.40	0.44	-1.56-3	2.74-3	-3.29-3	-4.61-3
10.00	10.40						
10.0160	10.2330	1.60	83.00	1.66 0	3.62 2	-1.83 0	-3.65 2
10.0494	10.2635	1.60	84.00	1.70 0	3.68 2	-1.86 0	-3.71 2
10.0235	10.2706	1.55	73.00	1.29 0	2.98 2	-1.45 0	-3.01 2
10.0044	10.2933	1.50	62.00	9.67-1	2.29 2	-1.11 0	-2.32 2
10.0829	10.2940	1.60	85.00	1.73 0	3.75 2	-1.89 0	-3.78 2
10.0573	10.3009	1.55	74.00	1.32 0	3.05 2	-1.47 0	-3.07 2
10.0401	10.3244	1.50	63.00	9.90-1	2.36 2	-1.13 0	-2.38 2
10.1165	10.3247	1.60	86.00	1.77 0	3.82 2	-1.93 0	-3.85 2
10.0911	10.3312	1.55	75.00	1.35 0	3.12 2	-1.50 0	-3.14 2
10.0145	10.3533	1.45	52.00	7.21-1	1.71 2	-8.57-1	-1.72 2
10.0756	10.3554	1.50	64.00	1.01 0	2.42 2	-1.16 0	-2.44 2
10.1502	10.3556	1.60	87.00	1.80 0	3.88 2	-1.97 0	-3.91 2
10.1249	10.3615	1.55	76.00	1.38 0	3.18 2	-1.53 0	-3.21 2
10.0536	10.3863	1.45	53.00	7.41-1	1.76 2	-8.76-1	-1.78 2
10.1109	10.3863	1.50	65.00	1.04 0	2.49 2	-1.18 0	-2.51 2
10.1840	10.3867	1.60	88.00	1.84 0	3.95 2	-2.00 0	-3.98 2
10.1587	10.3919	1.55	77.00	1.41 0	3.25 2	-1.56 0	-3.28 2
10.0008	10.4095	1.40	42.00	5.16-1	1.17 2	-6.43-1	-1.19 2
10.1461	10.4173	1.50	66.00	1.06 0	2.55 2	-1.20 0	-2.57 2
10.2179	10.4179	1.60	89.00	1.88 0	4.02 2	-2.04 0	-4.05 2
10.0924	10.4191	1.45	54.00	7.60-1	1.82 2	-8.95-1	-1.84 2
10.1925	10.4224	1.55	78.00	1.43 0	3.32 2	-1.59 0	-3.34 2
10.0460	10.4459	1.40	43.00	5.33-1	1.22 2	-6.59-1	-1.24 2
10.1812	10.4482	1.50	67.00	1.08 0	2.62 2	-1.23 0	-2.64 2
10.2520	10.4493	1.60	90.00	1.92 0	4.08 2	-2.08 0	-4.11 2
10.1309	10.4518	1.45	55.00	7.80-1	1.88 2	-9.15-1	-1.90 2
10.2263	10.4530	1.55	79.00	1.47 0	3.38 2	-1.62 0	-3.41 2
10.2161	10.4791	1.50	68.00	1.11 0	2.68 2	-1.25 0	-2.70 2
10.0906	10.4820	1.40	44.00	5.49-1	1.28 2	-6.76-1	-1.29 2
10.2601	10.4837	1.55	80.00	1.50 0	3.45 2	-1.65 0	-3.48 2
10.1690	10.4844	1.45	56.00	8.00-1	1.94 2	-9.35-1	-1.96 2
10.2510	10.5100	1.50	69.00	1.13 0	2.75 2	-1.28 0	-2.77 2
10.2940	10.5145	1.55	81.00	1.53 0	3.52 2	-1.68 0	-3.55 2
10.2069	10.5169	1.45	57.00	8.20-1	2.00 2	-9.55-1	-2.02 2
10.1345	10.5178	1.40	45.00	5.66-1	1.33 2	-6.92-1	-1.35 2
10.0393	10.5288	1.35	34.00	3.72-1	8.00 1	-4.90-1	-8.12 1
10.2858	10.5409	1.50	70.00	1.16 0	2.81 2	-1.30 0	-2.84 2
10.3280	10.5454	1.55	82.00	1.56 0	3.58 2	-1.71 0	-3.61 2
10.2445	10.5492	1.45	58.00	8.40-1	2.07 2	-9.75-1	-2.09 2
10.1779	10.5534	1.40	46.00	5.83-1	1.38 2	-7.09-1	-1.40 2
10.0930	10.5698	1.35	35.00	3.86-1	8.45 1	-5.04-1	-8.57 1
10.3205	10.5718	1.50	71.00	1.18 0	2.88 2	-1.33 0	-2.90 2
10.3620	10.5764	1.55	83.00	1.59 0	3.65 2	-1.74 0	-3.68 2
10.2818	10.5814	1.45	59.00	8.61-1	2.13 2	-9.95-1	-2.15 2
10.2207	10.5887	1.40	47.00	6.00-1	1.44 2	-7.26-1	-1.45 2
10.3551	10.6028	1.50	72.00	1.21 0	2.95 2	-1.35 0	-2.97 2
10.3961	10.6075	1.55	84.00	1.62 0	3.72 2	-1.78 0	-3.75 2
10.1456	10.6102	1.35	36.00	4.01-1	8.91 1	-5.19-1	-9.03 1
10.3189	10.6136	1.45	60.00	8.82-1	2.19 2	-1.02 0	-2.21 2
10.2629	10.6237	1.40	48.00	6.18-1	1.49 2	-7.43-1	-1.51 2
10.0162	10.6319	1.30	26.00	2.47-1	4.87 1	-3.57-1	-4.96 1
10.3897	10.6338	1.50	73.00	1.24 0	3.01 2	-1.38 0	-3.04 2
10.3558	10.6456	1.45	61.00	9.03-1	2.25 2	-1.04 0	-2.28 2
10.1971	10.6502	1.35	37.00	4.16-1	9.37 1	-5.34-1	-9.50 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.3047	10.6585	1.40	49.00	6.35-1	1.55 2	-7.61-1	-1.57 2
10.3924	10.6776	1.45	62.00	9.25-1	2.32 2	-1.06 0	-2.34 2
10.0846	10.6796	1.30	27.00	2.60-1	5.23 1	-3.70-1	-5.33 1
10.2476	10.6898	1.35	38.00	4.31-1	9.85 1	-5.48-1	-9.98 1
10.3460	10.6931	1.40	50.00	6.53-1	1.61 2	-7.78-1	-1.63 2
10.1508	10.7266	1.30	28.00	2.74-1	5.61 1	-3.83-1	-5.70 1
10.3869	10.7275	1.40	51.00	6.71-1	1.67 2	-7.96-1	-1.68 2
10.2972	10.7289	1.35	39.00	4.46-1	1.03 2	-5.63-1	-1.05 2
10.3459	10.7677	1.35	40.00	4.62-1	1.08 2	-5.78-1	-1.10 2
10.2150	10.7728	1.30	29.00	2.87-1	6.00 1	-3.96-1	-6.10 1
10.3938	10.8060	1.35	41.00	4.77-1	1.13 2	-5.93-1	-1.15 2
10.0419	10.8116	1.25	20.00	1.64-1	2.97 1	-2.66-1	-3.04 1
10.2774	10.8183	1.30	30.00	3.00-1	6.40 1	-4.09-1	-6.50 1
10.3381	10.8632	1.30	31.00	3.14-1	6.81 1	-4.22-1	-6.91 1
10.1307	10.8671	1.25	21.00	1.76-1	3.27 1	-2.77-1	-3.33 1
10.3973	10.9074	1.30	32.00	3.27-1	7.23 1	-4.36-1	-7.33 1
10.2156	10.9217	1.25	22.00	1.88-1	3.57 1	-2.89-1	-3.65 1
10.2970	10.9752	1.25	23.00	2.00-1	3.90 1	-3.00-1	-3.97 1
10.3751	11.0277	1.25	24.00	2.12-1	4.23 1	-3.12-1	-4.31 1
10.0519	11.0375	1.20	15.00	1.02-1	1.71 1	-1.96-1	-1.76 1
10.1135	11.0700	1.20	15.50	1.07-1	1.83 1	-2.01-1	-1.87 1
10.1730	11.1022	1.20	16.00	1.13-1	1.94 1	-2.06-1	-1.99 1
10.2306	11.1340	1.20	16.50	1.18-1	2.07 1	-2.11-1	-2.12 1
10.2864	11.1656	1.20	17.00	1.24-1	2.19 1	-2.17-1	-2.24 1
10.3406	11.1968	1.20	17.50	1.29-1	2.32 1	-2.22-1	-2.37 1
10.3932	11.2278	1.20	18.00	1.35-1	2.45 1	-2.27-1	-2.51 1
10.0384	11.3309	1.15	11.00	5.77-2	9.35 0	-1.44-1	-9.66 0
10.1273	11.3675	1.15	11.50	6.27-2	1.02 1	-1.48-1	-1.06 1
10.2118	11.4041	1.15	12.00	6.77-2	1.11 1	-1.53-1	-1.15 1
10.2924	11.4404	1.15	12.50	7.27-2	1.21 1	-1.58-1	-1.24 1
10.3694	11.4766	1.15	13.00	7.78-2	1.31 1	-1.63-1	-1.34 1
10.0093	11.7268	1.10	8.00	2.83-2	4.96 0	-1.07-1	-5.17 0
10.0641	11.7417	1.10	8.20	3.02-2	5.22 0	-1.09-1	-5.43 0
10.1172	11.7568	1.10	8.40	3.21-2	5.48 0	-1.10-1	-5.71 0
10.1687	11.7721	1.10	8.60	3.39-2	5.76 0	-1.12-1	-5.98 0
10.2187	11.7875	1.10	8.80	3.58-2	6.03 0	-1.14-1	-6.27 0
10.2673	11.8031	1.10	9.00	3.76-2	6.32 0	-1.15-1	-6.56 0
10.3145	11.8188	1.10	9.20	3.95-2	6.61 0	-1.17-1	-6.85 0
10.3604	11.8345	1.10	9.40	4.14-2	6.90 0	-1.19-1	-7.15 0
10.0361	12.2676	1.05	6.00	1.14-2	2.76 0	-8.23-2	-2.91 0
10.1188	12.2797	1.05	6.20	1.31-2	2.96 0	-8.38-2	-3.11 0
10.1978	12.2928	1.05	6.40	1.48-2	3.17 0	-8.54-2	-3.32 0
10.2734	12.3065	1.05	6.60	1.66-2	3.38 0	-8.69-2	-3.54 0
10.3458	12.3209	1.05	6.80	1.83-2	3.60 0	-8.84-2	-3.76 0
10.1010	12.9594	1.00	4.60	1.41-3	1.59 0	-6.49-2	-1.69 0
10.2256	12.9636	1.00	4.80	3.03-3	1.74 0	-6.62-2	-1.85 0
10.3424	12.9703	1.00	5.00	4.65-3	1.90 0	-6.76-2	-2.02 0
10.3121	13.2812	0.98	4.40	6.44-4	1.45 0	-6.08-2	-1.55 0
10.1676	13.2816	0.98	4.20	-9.32-4	1.31 0	-5.95-2	-1.40 0
10.0116	13.2862	0.98	4.00	-2.51-3	1.18 0	-5.82-2	-1.26 0
10.3740	13.6244	0.96	4.00	-1.60-3	1.19 0	-5.57-2	-1.27 0
10.2905	13.6274	0.96	3.90	-2.37-3	1.12 0	-5.51-2	-1.20 0
10.2034	13.6318	0.96	3.80	-3.14-3	1.06 0	-5.44-2	-1.14 0
10.1124	13.6377	0.96	3.70	-3.91-3	9.97-1	-5.38-2	-1.07 0
10.0172	13.6454	0.96	3.60	-4.68-3	9.37-1	-5.32-2	-1.01 0
10.3987	13.9995	0.94	3.60	-3.72-3	9.44-1	-5.08-2	-1.02 0
10.2982	14.0077	0.94	3.50	-4.47-3	8.86-1	-5.02-2	-9.56-1
10.1927	14.0179	0.94	3.40	-5.22-3	8.30-1	-4.96-2	-8.97-1
10.0816	14.0305	0.94	3.30	-5.97-3	7.75-1	-4.90-2	-8.40-1
10.3668	14.4163	0.92	3.20	-5.71-3	7.28-1	-4.61-2	-7.90-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.2423	14.4329	0.92	3.10	-6.44-3	6.77-1	-4.55-2	-7.36-1
10.1104	14.4527	0.92	3.00	-7.17-3	6.27-1	-4.50-2	-6.84-1
10.3958	14.8656	0.90	2.90	-6.87-3	5.85-1	-4.22-2	-6.38-1
10.2458	14.8914	0.90	2.80	-7.55-3	5.38-1	-4.17-2	-5.90-1
10.0856	14.9221	0.90	2.70	-8.30-3	4.94-1	-4.12-2	-5.43-1
10.3644	15.3673	0.88	2.60	-7.95-3	4.56-1	-3.86-2	-5.01-1
10.1787	15.4075	0.88	2.50	-8.65-3	4.15-1	-3.81-2	-4.58-1
10.2387	15.9405	0.86	2.30	-8.96-3	3.42-1	-3.51-2	-3.80-1
10.0007	16.0041	0.86	2.20	-9.65-3	3.07-1	-3.46-2	-3.43-1
10.2487	16.5326	0.84	2.10	-9.25-3	2.76-1	-3.22-2	-3.09-1
10.3477	17.1488	0.82	1.95	-9.17-3	2.31-1	-2.98-2	-2.61-1
10.1828	17.2007	0.82	1.90	-9.50-3	2.16-1	-2.96-2	-2.45-1
10.0085	17.2579	0.82	1.85	-9.83-3	2.02-1	-2.94-2	-2.30-1
10.2084	17.8974	0.80	1.75	-9.41-3	1.77-1	-2.72-2	-2.02-1
10.3995	18.5946	0.78	1.65	-9.00-3	1.53-1	-2.52-2	-1.76-1
10.1599	18.6821	0.78	1.60	-9.31-3	1.41-1	-2.50-2	-1.63-1
10.2971	19.4638	0.76	1.50	-8.90-3	1.20-1	-2.30-2	-1.39-1
10.3975	20.3298	0.74	1.40	-8.50-3	1.00-1	-2.12-2	-1.18-1
10.0440	20.4748	0.74	1.35	-8.81-3	9.06-2	-2.10-2	-1.07-1
10.0166	21.4795	0.72	1.25	-8.42-3	7.38-2	-1.93-2	-8.83-2
10.3985	22.3935	0.70	1.20	-7.75-3	6.64-2	-1.78-2	-7.98-2
10.2227	23.6516	0.68	1.10	-7.39-3	5.21-2	-1.62-2	-6.36-2
10.2820	26.3361	0.64	0.96	-6.41-3	3.54-2	-1.34-2	-4.43-2
10.3482	27.8654	0.62	0.90	-5.91-3	2.93-2	-1.22-2	-3.72-2
10.3082	29.6071	0.60	0.84	-5.43-3	2.38-2	-1.10-2	-3.08-2
10.1034	31.6152	0.58	0.78	-4.99-3	1.89-2	-9.96-3	-2.50-2
10.40	10.80						
10.4302	10.6388	1.55	85.00	1.66 0	3.79 2	-1.81 0	-3.82 2
10.4243	10.6648	1.50	74.00	1.26 0	3.08 2	-1.40 0	-3.10 2
10.4645	10.6702	1.55	86.00	1.69 0	3.85 2	-1.84 0	-3.88 2
10.4588	10.6958	1.50	75.00	1.29 0	3.15 2	-1.43 0	-3.17 2
10.4989	10.7018	1.55	87.00	1.73 0	3.92 2	-1.88 0	-3.95 2
10.4289	10.7095	1.45	63.00	9.46-1	2.38 2	-1.08 0	-2.40 2
10.4933	10.7270	1.50	76.00	1.32 0	3.21 2	-1.46 0	-3.24 2
10.5334	10.7336	1.55	88.00	1.76 0	3.99 2	-1.91 0	-4.02 2
10.4652	10.7414	1.45	64.00	9.68-1	2.45 2	-1.10 0	-2.47 2
10.5278	10.7582	1.50	77.00	1.34 0	3.28 2	-1.49 0	-3.31 2
10.4274	10.7617	1.40	52.00	6.89-1	1.72 2	-8.14-1	-1.74 2
10.5681	10.7655	1.55	89.00	1.80 0	4.06 2	-1.95 0	-4.08 2
10.5014	10.7732	1.45	65.00	9.91-1	2.51 2	-1.12 0	-2.53 2
10.5624	10.7894	1.50	78.00	1.37 0	3.35 2	-1.52 0	-3.38 2
10.4675	10.7957	1.40	53.00	7.08-1	1.78 2	-8.32-1	-1.80 2
10.6029	10.7976	1.55	90.00	1.84 0	4.12 2	-1.99 0	-4.15 2
10.5374	10.8050	1.45	66.00	1.01 0	2.58 2	-1.15 0	-2.60 2
10.5969	10.8208	1.50	79.00	1.40 0	3.42 2	-1.54 0	-3.44 2
10.5072	10.8296	1.40	54.00	7.26-1	1.84 2	-8.50-1	-1.86 2
10.5732	10.8368	1.45	67.00	1.04 0	2.64 2	-1.17 0	-2.67 2
10.4409	10.8440	1.35	42.00	4.93-1	1.18 2	-6.09-1	-1.20 2
10.6315	10.8522	1.50	80.00	1.43 0	3.49 2	-1.57 0	-3.51 2
10.5466	10.8633	1.40	55.00	7.45-1	1.90 2	-8.69-1	-1.92 2
10.6090	10.8685	1.45	68.00	1.06 0	2.71 2	-1.19 0	-2.73 2
10.4872	10.8817	1.35	43.00	5.09-1	1.24 2	-6.24-1	-1.25 2
10.6661	10.8837	1.50	81.00	1.46 0	3.55 2	-1.60 0	-3.58 2
10.5856	10.8968	1.40	56.00	7.64-1	1.96 2	-8.88-1	-1.98 2
10.6447	10.9003	1.45	69.00	1.08 0	2.78 2	-1.22 0	-2.80 2
10.7008	10.9194	1.50	82.00	1.49 0	3.62 2	-1.63 0	-3.65 2
10.5329	10.9190	1.35	44.00	5.24-1	1.29 2	-6.40-1	-1.31 2
10.6244	10.9302	1.40	57.00	7.83-1	2.03 2	-9.07-1	-2.05 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.6802	10.9320	1.45	70.00	1.11 0	2.84 2	-1.24 0	-2.87 2
10.7355	10.9472	1.50	83.00	1.52 0	3.69 2	-1.66 0	-3.72 2
10.4550	10.9511	1.30	33.00	3.41-1	7.66 1	-4.49-1	-7.77 1
10.5780	10.9560	1.35	45.00	5.40-1	1.34 2	-6.56-1	-1.36 2
10.6629	10.9635	1.40	58.00	8.03-1	2.09 2	-9.26-1	-2.11 2
10.7157	10.9638	1.45	71.00	1.13 0	2.91 2	-1.26 0	-2.93 2
10.7704	10.9791	1.50	84.00	1.55 0	3.76 2	-1.69 0	-3.78 2
10.6224	10.9928	1.35	46.00	5.57-1	1.40 2	-6.72-1	-1.41 2
10.5114	10.9941	1.30	34.00	3.55-1	8.10 1	-4.62-1	-8.21 1
10.7511	10.9955	1.45	72.00	1.16 0	2.98 2	-1.29 0	-3.00 2
10.7011	10.9967	1.40	59.00	8.22-1	2.15 2	-9.45-1	-2.17 2
10.7865	11.0273	1.45	73.00	1.18 0	3.04 2	-1.31 0	-3.07 2
10.6663	11.0292	1.35	47.00	5.73-1	1.45 2	-6.88-1	-1.47 2
10.7391	11.0298	1.40	60.00	8.42-1	2.21 2	-9.65-1	-2.24 2
10.5665	11.0366	1.30	35.00	3.69-1	8.55 1	-4.76-1	-8.67 1
10.7768	11.0628	1.40	61.00	8.62-1	2.28 2	-9.85-1	-2.30 2
10.7096	11.0654	1.35	48.00	5.90-1	1.51 2	-7.04-1	-1.53 2
10.6205	11.0786	1.30	36.00	3.83-1	9.01 1	-4.90-1	-9.14 1
10.4504	11.0793	1.25	25.00	2.24-1	4.57 1	-3.24-1	-4.65 1
10.7525	11.1014	1.35	49.00	6.06-1	1.57 2	-7.21-1	-1.58 2
10.6733	11.1201	1.30	37.00	3.97-1	9.49 1	-5.04-1	-9.61 1
10.5230	11.1299	1.25	26.00	2.36-1	4.93 1	-3.36-1	-5.02 1
10.7948	11.1371	1.35	50.00	6.23-1	1.63 2	-7.37-1	-1.64 2
10.7252	11.1611	1.30	38.00	4.11-1	9.97 1	-5.18-1	-1.01 2
10.5932	11.1797	1.25	27.00	2.49-1	5.30 1	-3.48-1	-5.39 1
10.7761	11.2017	1.30	39.00	4.26-1	1.05 2	-5.32-1	-1.06 2
10.6612	11.2287	1.25	28.00	2.61-1	5.68 1	-3.60-1	-5.77 1
10.4443	11.2584	1.20	18.50	1.40-1	2.59 1	-2.32-1	-2.64 1
10.7272	11.2769	1.25	29.00	2.74-1	6.07 1	-3.72-1	-6.17 1
10.4941	11.2887	1.20	19.00	1.46-1	2.72 1	-2.38-1	-2.78 1
10.5426	11.3187	1.20	19.50	1.51-1	2.87 1	-2.43-1	-2.93 1
10.7913	11.3244	1.25	30.00	2.87-1	6.48 1	-3.85-1	-6.57 1
10.5899	11.3483	1.20	20.00	1.57-1	3.01 1	-2.49-1	-3.07 1
10.6812	11.4068	1.20	21.00	1.68-1	3.31 1	-2.59-1	-3.37 1
10.7685	11.4640	1.20	22.00	1.79-1	3.62 1	-2.70-1	-3.69 1
10.4431	11.5125	1.15	13.50	8.29-2	1.41 1	-1.67-1	-1.45 1
10.5139	11.5480	1.15	14.00	8.79-2	1.51 1	-1.72-1	-1.55 1
10.5820	11.5833	1.15	14.50	9.30-2	1.62 1	-1.77-1	-1.67 1
10.6476	11.6182	1.15	15.00	9.81-2	1.74 1	-1.82-1	-1.78 1
10.7108	11.6527	1.15	15.50	1.03-1	1.85 1	-1.87-1	-1.90 1
10.7720	11.6869	1.15	16.00	1.08-1	1.97 1	-1.92-1	-2.02 1
10.4052	11.8503	1.10	9.60	4.32-2	7.20 0	-1.21-1	-7.46 0
10.4488	11.8662	1.10	9.80	4.51-2	7.51 0	-1.22-1	-7.78 0
10.4913	11.8821	1.10	10.00	4.70-2	7.83 0	-1.24-1	-8.10 0
10.5933	11.9220	1.10	10.50	5.17-2	8.64 0	-1.28-1	-8.92 0
10.6897	11.9618	1.10	11.00	5.63-2	9.49 0	-1.33-1	-9.79 0
10.7810	12.0015	1.10	11.50	6.10-2	1.04 1	-1.37-1	-1.07 1
10.4154	12.3359	1.05	7.00	2.00-2	3.82 0	-9.00-2	-3.99 0
10.4823	12.3513	1.05	7.20	2.18-2	4.05 0	-9.16-2	-4.23 0
10.5468	12.3671	1.05	7.40	2.35-2	4.29 0	-9.31-2	-4.47 0
10.6089	12.3832	1.05	7.60	2.52-2	4.53 0	-9.47-2	-4.72 0
10.6690	12.3996	1.05	7.80	2.70-2	4.78 0	-9.63-2	-4.98 0
10.7270	12.4162	1.05	8.00	2.87-2	5.04 0	-9.78-2	-5.24 0
10.7832	12.4331	1.05	8.20	3.04-2	5.30 0	-9.94-2	-5.51 0
10.4524	12.9790	1.00	5.20	6.26-3	2.07 0	-6.90-2	-2.19 0
10.5561	12.9895	1.00	5.40	7.87-3	2.25 0	-7.04-2	-2.37 0
10.6544	13.0015	1.00	5.60	9.48-3	2.43 0	-7.18-2	-2.56 0
10.7476	13.0147	1.00	5.80	1.11-2	2.62 0	-7.32-2	-2.75 0
10.4465	13.2843	0.98	4.60	2.22-3	1.60 0	-6.22-2	-1.70 0
10.5721	13.2903	0.98	4.80	3.78-3	1.76 0	-6.35-2	-1.86 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.6899	13.2986	0.98	5.00	5.35-3	1.92 0	-6.48-2	-2.03 0
10.5312	13.6220	0.96	4.20	-7.56-5	1.32 0	-5.69-2	-1.41 0
10.6768	13.6237	0.96	4.40	1.45-3	1.46 0	-5.82-2	-1.56 0
10.7582	13.9837	0.94	4.00	-7.47-4	1.20 0	-5.32-2	-1.28 0
10.6741	13.9855	0.94	3.90	-1.49-3	1.13 0	-5.26-2	-1.21 0
10.5863	13.9886	0.94	3.80	-2.23-3	1.07 0	-5.20-2	-1.14 0
10.4946	13.9932	0.94	3.70	-2.97-3	1.00 0	-5.14-2	-1.08 0
10.7028	14.3830	0.92	3.50	-3.53-3	8.93-1	-4.78-2	-9.62-1
10.5965	14.3917	0.92	3.40	-4.25-3	8.36-1	-4.73-2	-9.03-1
10.4847	14.4027	0.92	3.30	-5.98-3	7.81-1	-4.67-2	-8.45-1
10.7948	14.8114	0.90	3.20	-4.75-3	7.34-1	-4.39-2	-7.95-1
10.6694	14.8261	0.90	3.10	-5.45-3	6.83-1	-4.33-2	-7.41-1
10.5367	14.8440	0.90	3.00	-6.15-3	6.33-1	-4.28-2	-6.88-1
10.6982	15.3051	0.88	2.80	-6.57-3	5.43-1	-3.96-2	-5.93-1
10.5370	15.3334	0.88	2.70	-7.26-3	4.98-1	-3.91-2	-5.46-1
10.6586	15.8424	0.86	2.50	-7.61-3	4.19-1	-3.60-2	-4.61-1
10.4571	15.8872	0.86	2.40	-8.28-3	3.79-1	-3.56-2	-4.20-1
10.7498	16.4007	0.84	2.30	-7.92-3	3.45-1	-3.31-2	-3.83-1
10.5106	16.4607	0.84	2.20	-8.58-3	3.10-1	-3.27-2	-3.45-1
10.7939	17.0197	0.82	2.10	-8.20-3	2.79-1	-3.04-2	-3.11-1
10.5041	17.1016	0.82	2.00	-8.85-3	2.46-1	-3.00-2	-2.77-1
10.7657	17.7161	0.80	1.90	-8.46-3	2.19-1	-2.78-2	-2.47-1
10.5906	17.7706	0.80	1.85	-8.77-3	2.04-1	-2.76-2	-2.31-1
10.4052	17.8308	0.80	1.80	-9.09-3	1.90-1	-2.74-2	-2.16-1
10.6235	18.5162	0.78	1.70	-8.69-3	1.66-1	-2.53-2	-1.89-1
10.5744	19.3589	0.76	1.65	-8.48-3	1.31-1	-2.32-2	-1.52-1
10.7226	20.2020	0.74	1.65	-8.20-3	1.11-1	-2.13-2	-1.29-1
10.4412	21.2981	0.72	1.30	-8.12-3	8.25-2	-1.94-2	-9.79-2
10.5817	24.7788	0.66	1.05	-6.74-3	4.60-2	-1.48-2	-5.65-2
10.6263	26.1736	0.64	0.98	-6.30-3	3.77-2	-1.35-2	-4.70-2
10.7584	27.6689	0.62	0.92	-5.80-3	3.14-2	-1.22-2	-3.97-2
10.7169	31.3114	0.58	0.80	-4.89-3	2.06-2	-9.98-3	-2.69-2
10.4160	33.5750	0.56	0.74	-4.48-3	1.61-2	-8.97-3	-2.16-2
10.6964	35.7920	0.54	0.70	-4.00-3	1.36-2	-8.03-3	-1.84-2
10.6187	48.5501	0.46	0.54	-2.45-3	5.71-3	-4.96-3	-8.57-3
10.80	11.20						
10.8053	11.0111	1.50	85.00	1.59 0	3.83 2	-1.73 0	-3.85 2
10.8403	11.0433	1.50	86.00	1.62 0	3.89 2	-1.76 0	-3.92 2
10.8219	11.0592	1.45	74.00	1.21 0	3.11 2	-1.34 0	-3.14 2
10.8754	11.0757	1.50	87.00	1.65 0	3.96 2	-1.79 0	-3.99 2
10.8572	11.0911	1.45	75.00	1.23 0	3.18 2	-1.36 0	-3.20 2
10.8144	11.0957	1.40	62.00	8.83-1	2.34 2	-1.01 0	-2.36 2
10.9106	11.1082	1.50	88.00	1.69 0	4.03 2	-1.83 0	-4.06 2
10.8925	11.1230	1.45	76.00	1.26 0	3.25 2	-1.39 0	-3.27 2
10.8517	11.1286	1.40	63.00	9.03-1	2.41 2	-1.03 0	-2.43 2
10.9460	11.1409	1.50	89.00	1.72 0	4.10 2	-1.86 0	-4.13 2
10.9278	11.1550	1.45	77.00	1.28 0	3.32 2	-1.42 0	-3.34 2
10.8889	11.1614	1.40	64.00	9.24-1	2.47 2	-1.05 0	-2.50 2
10.8367	11.1726	1.35	51.00	6.40-1	1.68 2	-7.54-1	-1.70 2
10.9816	11.1738	1.50	90.00	1.76 0	4.17 2	-1.90 0	-4.19 2
10.9631	11.1871	1.45	78.00	1.31 0	3.38 2	-1.44 0	-3.41 2
10.9259	11.1941	1.40	65.00	9.45-1	2.54 2	-1.07 0	-2.56 2
10.8782	11.2079	1.35	52.00	6.57-1	1.74 2	-7.71-1	-1.76 2
10.9984	11.2192	1.45	79.00	1.34 0	3.45 2	-1.47 0	-3.48 2
10.9628	11.2268	1.40	66.00	9.67-1	2.61 2	-1.09 0	-2.63 2
10.8260	11.2419	1.30	40.00	4.40-1	1.10 2	-5.46-1	-1.11 2
10.9193	11.2430	1.35	53.00	6.75-1	1.80 2	-7.88-1	-1.82 2
11.0337	11.2515	1.45	80.00	1.37 0	3.52 2	-1.50 0	-3.55 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.9995	11.2595	1.40	67.00	9.89-1	2.67 2	-1.11 0	-2.69 2
10.9600	11.2779	1.35	54.00	6.92-1	1.86 2	-8.06-1	-1.88 2
10.8752	11.2816	1.30	41.00	4.55-1	1.15 2	-5.61-1	-1.16 2
11.0691	11.2838	1.45	81.00	1.40 0	3.59 2	-1.53 0	-3.62 2
11.0361	11.2921	1.40	68.00	1.01 0	2.74 2	-1.13 0	-2.76 2
11.0004	11.3126	1.35	55.00	7.10-1	1.93 2	-8.23-1	-1.94 2
11.1046	11.3163	1.45	82.00	1.43 0	3.66 2	-1.55 0	-3.69 2
10.9235	11.3210	1.30	42.00	4.70-1	1.20 2	-5.75-1	-1.21 2
11.0726	11.3247	1.40	69.00	1.03 0	2.81 2	-1.15 0	-2.83 2
11.0405	11.3473	1.35	56.00	7.28-1	1.99 2	-8.41-1	-2.01 2
11.1401	11.3489	1.45	83.00	1.45 0	3.73 2	-1.58 0	-3.75 2
11.1090	11.3574	1.40	70.00	1.06 0	2.87 2	-1.18 0	-2.90 2
10.9711	11.3599	1.30	43.00	4.85-1	1.25 2	-5.90-1	-1.27 2
10.8537	11.3711	1.25	31.00	2.99-1	6.89 1	-3.97-1	-6.99 1
11.1757	11.3816	1.45	84.00	1.48 0	3.80 2	-1.61 0	-3.82 2
11.0802	11.3817	1.35	57.00	7.46-1	2.05 2	-8.59-1	-2.07 2
11.1454	11.3900	1.40	71.00	1.08 0	2.94 2	-1.20 0	-2.96 2
11.0180	11.3986	1.30	44.00	5.00-1	1.31 2	-6.05-1	-1.32 2
11.1196	11.4160	1.35	58.00	7.65-1	2.11 2	-8.77-1	-2.13 2
10.9145	11.4171	1.25	32.00	3.12-1	7.32 1	-4.10-1	-7.42 1
11.1816	11.4226	1.40	72.00	1.10 0	3.01 2	-1.22 0	-3.03 2
11.0643	11.4369	1.30	45.00	5.15-1	1.36 2	-6.20-1	-1.38 2
11.1588	11.4502	1.35	59.00	7.84-1	2.18 2	-8.96-1	-2.20 2
10.9738	11.4625	1.25	33.00	3.25-1	7.76 1	-4.23-1	-7.86 1
11.1099	11.4749	1.30	46.00	5.30-1	1.42 2	-6.35-1	-1.43 2
11.1978	11.4843	1.35	60.00	8.02-1	2.24 2	-9.15-1	-2.26 2
11.0317	11.5073	1.25	34.00	3.38-1	8.20 1	-4.35-1	-8.31 1
11.1549	11.5126	1.30	47.00	5.46-1	1.47 2	-6.50-1	-1.49 2
10.8521	11.5202	1.20	23.00	1.91-1	3.95 1	-2.81-1	-4.02 1
11.1994	11.5500	1.30	48.00	5.61-1	1.53 2	-6.66-1	-1.55 2
11.0884	11.5515	1.25	35.00	3.51-1	8.66 1	-4.48-1	-8.78 1
10.9325	11.5752	1.20	24.00	2.02-1	4.28 1	-2.92-1	-4.36 1
11.1438	11.5951	1.25	36.00	3.65-1	9.13 1	-4.61-1	-9.25 1
11.0098	11.6292	1.20	25.00	2.14-1	4.63 1	-3.04-1	-4.71 1
11.1981	11.6382	1.25	37.00	3.78-1	9.61 1	-4.74-1	-9.73 1
11.0845	11.6822	1.20	26.00	2.25-1	5.00 1	-3.15-1	-5.08 1
10.8312	11.7207	1.15	16.50	1.14-1	2.10 1	-1.97-1	-2.14 1
11.1567	11.7343	1.20	27.00	2.37-1	5.37 1	-3.26-1	-5.46 1
10.8886	11.7542	1.15	17.00	1.19-1	2.22 1	-2.02-1	-2.27 1
10.9443	11.7873	1.15	17.50	1.24-1	2.35 1	-2.07-1	-2.40 1
10.9984	11.8200	1.15	18.00	1.29-1	2.49 1	-2.12-1	-2.54 1
11.0510	11.8523	1.15	18.50	1.34-1	2.62 1	-2.17-1	-2.68 1
11.1022	11.8843	1.15	19.00	1.39-1	2.76 1	-2.22-1	-2.82 1
11.1521	11.9159	1.15	19.50	1.45-1	2.91 1	-2.27-1	-2.96 1
10.8678	12.0410	1.10	12.00	6.58-2	1.13 1	-1.42-1	-1.16 1
10.9506	12.0802	1.10	12.50	7.05-2	1.23 1	-1.46-1	-1.26 1
11.0297	12.1190	1.10	13.00	7.52-2	1.33 1	-1.51-1	-1.36 1
11.1055	12.1575	1.10	13.50	7.99-2	1.43 1	-1.55-1	-1.47 1
11.1783	12.1956	1.10	14.00	8.47-2	1.54 1	-1.60-1	-1.58 1
10.8377	12.4501	1.05	8.40	3.22-2	5.57 0	-1.01-1	-5.78 0
10.8905	12.4672	1.05	8.60	3.39-2	5.85 0	-1.03-1	-6.06 0
10.9417	12.4844	1.05	8.80	3.56-2	6.13 0	-1.04-1	-6.35 0
10.9916	12.5017	1.05	9.00	3.74-2	6.42 0	-1.06-1	-6.65 0
11.0400	12.5191	1.05	9.20	3.91-2	6.71 0	-1.07-1	-6.95 0
11.0872	12.5365	1.05	9.40	4.08-2	7.01 0	-1.09-1	-7.25 0
11.1331	12.5539	1.05	9.60	4.26-2	7.32 0	-1.11-1	-7.57 0
11.1779	12.5714	1.05	9.80	4.43-2	7.63 0	-1.12-1	-7.88 0
10.8363	13.0290	1.00	6.00	1.27-2	2.81 0	-7.46-2	-2.95 0
10.9209	13.0441	1.00	6.20	1.43-2	3.01 0	-7.61-2	-3.16 0
11.0017	13.0600	1.00	6.40	1.59-2	3.22 0	-7.75-2	-3.37 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.0791	13.0766	1.00	6.60	1.75-2	3.44 0	-7.89-2	-3.59 0
11.1534	13.0936	1.00	6.80	1.91-2	3.66 0	-8.04-2	-3.82 0
10.8008	13.3090	0.98	5.20	6.91-3	2.09 0	-6.62-2	-2.20 0
10.9055	13.3210	0.98	5.40	8.47-3	2.26 0	-6.75-2	-2.38 0
11.0046	13.3345	0.98	5.60	1.00-2	2.45 0	-6.89-2	-2.57 0
11.0988	13.3491	0.98	5.80	1.16-2	2.64 0	-7.03-2	-2.77 0
11.1883	13.3647	0.98	6.00	1.31-2	2.83 0	-7.17-2	-2.97 0
10.8123	13.6288	0.96	4.60	2.97-3	1.61 0	-5.95-2	-1.71 0
10.9390	13.6366	0.96	4.80	4.49-3	1.77 0	-6.08-2	-1.87 0
11.0578	13.6468	0.96	5.00	6.00-3	1.93 0	-6.21-2	-2.04 0
11.1697	13.6588	0.96	5.20	7.52-3	2.10 0	-6.34-2	-2.22 0
10.9166	13.9836	0.94	4.20	7.31-4	1.33 0	-5.44-2	-1.42 0
11.0635	13.9875	0.94	4.40	2.21-3	1.48 0	-5.57-2	-1.57 0
11.1663	14.3659	0.92	4.00	6.05-5	1.21 0	-5.08-2	-1.29 0
11.0814	14.3664	0.92	3.90	-6.55-4	1.14 0	-5.02-2	-1.22 0
10.9930	14.3682	0.92	3.80	-1.37-3	1.07 0	-4.96-2	-1.15 0
10.9006	14.3715	0.92	3.70	-2.09-3	1.01 0	-4.90-2	-1.09 0
10.8040	14.3764	0.92	3.60	-2.81-3	9.52-1	-4.84-2	-1.02 0
11.1331	14.7832	0.90	3.50	-2.65-3	9.01-1	-4.55-2	-9.68-1
11.0261	14.7903	0.90	3.40	-3.34-3	8.44-1	-4.50-2	-9.08-1
10.9135	14.7996	0.90	3.30	-4.04-3	7.88-1	-4.44-2	-8.[illegible]-1
11.1247	15.2461	0.88	3.10	-4.51-3	[illegible]	[illegible]	-7.45-1
10.9910	15.2620	0.88	3.00	-4.20-3	6.38-1	-4.06-2	-6.93-1
10.8492	15.2875	0.88	2.90	-5.88-3	5.90-1	-4.01-2	-6.42-1
10.1015	15.7479	0.86	2.80	-5.60-3	5.48-1	-3.75-2	-5.97-1
11.0171	15.7738	0.86	2.70	-6.27-3	5.03-1	-3.70-2	-5.50-1
10.8454	15.8050	0.86	2.60	-6.93-3	4.60-1	-3.65-2	-5.05-1
11.1721	16.3091	0.84	2.50	-6.62-3	4.23-1	-3.41-2	-4.64-1
10.9694	16.3507	0.84	2.40	-7.27-3	3.83-1	-3.36-2	-4.23-1
11.0572	16.9518	0.82	2.20	-7.56-3	3.13-1	-3.08-2	-3.47-1
11.0885	17.6221	0.80	2.00	-7.83-3	2.49-1	-2.82-2	-2.79-1
10.9314	17.6668	0.80	1.95	-8.14-3	2.34-1	-2.80-2	-2.63-1
11.0313	18.3822	0.78	1.80	-8.07-3	1.92-1	-2.57-2	-2.18-1
10.8337	18.4456	0.78	1.75	-8.38-3	1.79-1	-2.55-2	-2.03-1
11.0728	19.1818	0.76	1.65	-7.99-3	1.55-1	-2.35-2	-1.77-1
10.8322	19.2653	0.76	1.60	-8.29-3	1.43-1	-2.34-2	-1.64-1
11.0229	20.0890	0.74	1.50	-7.91-3	1.21-1	-2.15-2	-1.41-1
11.1831	21.0009	0.72	1.40	-7.54-3	1.02-1	-1.97-2	-1.19-1
10.8284	21.1397	0.72	1.35	-7.82-3	9.19-2	-1.96-2	-1.08-1
10.8681	22.1931	0.70	1.25	-7.46-3	7.48-2	-1.79-2	-8.90-2
10.8052	23.3916	0.68	1.15	-7.11-3	5.95-2	-1.63-2	-7.18-2
10.9523	26.0227	0.64	1.00	-6.19-3	4.02-2	-1.35-2	-4.98-2
11.1450	27.4875	0.62	0.94	-5.69-3	3.37-2	-1.23-2	-4.22-2
10.8051	29.3653	0.60	0.86	-5.33-3	2.57-2	-1.11-2	-3.30-2
11.1313	33.2221	0.56	0.76	-4.38-3	1.77-2	-8.98-3	-2.34-2
10.9162	38.3184	0.52	0.66	-3.56-3	1.12-2	-7.17-3	-1.55-2
11.0308	41.2220	0.50	0.62	-3.15-3	9.17-3	-6.37-3	-1.29-2
10.9696	44.5923	0.48	0.58	-2.78-3	7.33-3	-5.63-3	-1.06-2
11.20	11.60						
11.2114	11.4144	1.45	85.00	1.52 0	3.87 2	-1.64 0	-3.89 2
11.2472	11.4475	1.45	86.00	1.55 0	3.94 2	-1.68 0	-3.96 2
11.2179	11.4553	1.40	73.00	1.13 0	3.08 2	-1.25 0	-3.10 2
11.2831	11.4806	1.45	87.00	1.58 0	4.00 2	-1.71 0	-4.03 2
11.2540	11.4880	1.40	74.00	1.15 0	3.15 2	-1.27 0	-3.17 2
11.3191	11.5140	1.45	88.00	1.61 0	4.07 2	-1.74 0	-4.10 2
11.2365	11.5183	1.35	61.00	8.22-1	2.31 2	-9.34-1	-2.33 2
11.2902	11.5208	1.40	75.00	1.18 0	3.22 2	-1.30 0	-3.24 2
11.3553	11.5475	1.45	89.00	1.64 0	4.14 2	-1.77 0	-4.17 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.2749	11.5523	1.35	62.00	8.41-1	2.37 2	-9.53-1	-2.39 2
11.3263	11.5536	1.40	76.00	1.20 0	3.28 2	-1.32 0	-3.31 2
11.3916	11.5812	1.45	90.00	1.68 0	4.21 2	-1.81 0	-4.24 2
11.3132	11.5861	1.35	63.00	8.61-1	2.44 2	-9.72-1	-2.46 2
11.3624	11.5865	1.40	77.00	1.23 0	3.35 2	-1.35 0	-3.38 2
11.2434	11.5872	1.30	49.00	5.77-1	1.59 2	-6.81-1	-1.60 2
11.3986	11.6194	1.40	78.00	1.25 0	3.42 2	-1.37 0	-3.45 2
11.3513	11.6199	1.35	64.00	8.80-1	2.50 2	-9.92-1	-2.52 2
11.2869	11.6241	1.30	50.00	5.93-1	1.65 2	-6.97-1	-1.66 2
11.4347	11.6524	1.40	79.00	1.28 0	3.49 2	[illegible]	-3.52 2
11.3893	11.6536	1.35	65.00	9.01-1	2.57 2	-1.01 0	-2.59 2
11.3279	11.6608	1.30	51.00	6.09-1	1.71 2	-7.13-1	-1.72 2
11.2514	11.6808	1.25	38.00	3.91-1	1.01 2	-4.88-1	-1.02 2
11.4709	11.6856	1.40	80.00	1.30 0	3.56 2	-1.42 0	-3.59 2
11.4271	11.6873	1.35	66.00	9.21-1	2.64 2	-1.03 0	-2.66 2
11.3725	11.6973	1.30	52.00	6.26-1	1.77 2	-7.29-1	-1.78 2
11.5071	11.7188	1.40	81.00	1.33 0	3.63 2	-1.45 0	-3.66 2
11.4647	11.7209	1.35	67.00	9.42-1	2.70 2	-1.05 0	-2.73 2
11.3037	11.7230	1.25	39.00	4.05-1	1.06 2	-5.01-1	-1.07 2
11.4147	11.7335	1.30	53.00	6.42-1	1.83 2	-7.45-1	-1.84 2
11.5434	11.7521	1.40	82.00	1.36 0	3.70 2	-1.48 0	-3.73 2
11.5022	11.7545	1.35	68.00	9.63-1	2.77 2	-1.07 0	-2.79 2
11.3551	11.7646	1.25	40.00	4.19-1	1.11 2	-5.15-1	-1.12 2
11.4565	11.7696	1.30	54.00	6.59-1	1.89 2	-7.62-1	-1.91 2
11.2267	11.7855	1.20	28.00	2.49-1	5.76 1	-3.38-1	-5.85 1
11.5798	11.7856	1.40	83.00	1.39 0	3.77 2	-1.51 0	-3.80 2
11.5398	11.7881	1.35	69.00	9.84-1	2.84 2	-1.09 0	-2.86 2
11.4979	11.8055	1.30	55.00	6.76-1	1.95 2	-7.79-1	-1.97 2
11.4056	11.8058	1.25	41.00	4.33-1	1.16 2	-5.28-1	-1.18 2
11.5770	11.8217	1.35	70.00	1.01 0	2.91 2	-1.12 0	-2.93 2
11.2946	11.8358	1.20	29.00	2.61-1	6.16 1	-3.49-1	-6.25 1
11.5390	11.8412	1.30	56.00	6.93-1	2.01 2	-7.95-1	-2.03 2
11.4553	11.8467	1.25	42.00	4.47-1	1.21 2	-5.42-1	-1.23 2
11.5798	11.8768	1.30	57.00	7.10-1	2.08 2	-8.13-1	-2.09 2
11.3605	11.8853	1.20	30.00	2.73-1	6.56 1	-3.61-1	-6.66 1
11.5042	11.8871	1.25	43.00	4.61-1	1.27 2	-5.56-1	-1.28 2
11.5524	11.9271	1.25	44.00	4.75-1	1.32 2	-5.70-1	-1.34 2
11.4247	11.9341	1.20	31.00	2.85-1	6.99 1	-3.73-1	-7.08 1
11.2008	11.9472	1.15	20.00	1.50-1	3.05 1	-2.32-1	-3.11 1
11.6000	11.9668	1.25	45.00	4.89-1	1.38 2	-5.84-1	-1.39 2
11.4873	11.9821	1.20	32.00	2.97-1	7.42 1	-3.85-1	-7.52 1
11.2948	12.0088	1.15	21.00	1.61-1	3.36 1	-2.42-1	-3.42 1
11.5483	12.0294	1.20	33.00	3.09-1	7.86 1	-3.97-1	-7.96 1
11.3846	12.0690	1.15	22.00	1.71-1	3.67 1	-2.52-1	-3.74 1
11.4707	12.1280	1.15	23.00	1.82-1	4.00 1	-2.63-1	-4.07 1
11.5534	12.1858	1.15	24.00	1.93-1	4.35 1	-2.73-1	-4.42 1
11.2483	12.2332	1.10	14.50	8.95-2	1.65 1	-1.64-1	-1.68 1
11.3158	12.2705	1.10	15.00	9.42-2	1.76 1	-1.69-1	-1.80 1
11.3809	12.3073	1.10	15.50	9.90-2	1.88 1	-1.74-1	-1.92 1
11.4439	12.3437	1.10	16.00	[illegible]	[illegible]	-1.78-1	-2.05 1
11.5049	12.3796	1.10	16.50	1.09-1	2.13 1	-1.83-1	-2.17 1
11.5640	12.4151	1.10	17.00	1.13-1	2.26 1	-1.87-1	-2.30 1
11.2216	12.5889	1.05	10.00	4.61-2	7.95 0	-1.14-1	-8.21 0
11.3264	12.6324	1.05	10.50	5.04-2	8.78 0	-1.18-1	-9.05 0
11.4255	12.6758	1.05	11.00	5.48-2	9.64 0	-1.22-1	-9.93 0
11.5194	12.7189	1.05	11.50	5.92-2	1.05 1	-1.26-1	-1.08 1
11.2247	13.1111	1.00	7.00	2.07-2	3.89 0	-8.19-2	-4.05 0
11.2933	13.1290	1.00	7.20	2.23-2	4.12 0	-8.33-2	-4.29 0
11.3594	13.1472	1.00	7.40	2.39-2	4.36 0	-8.48-2	-4.54 0
11.4232	13.1657	1.00	7.60	2.56-2	4.61 0	-8.62-2	-4.79 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.7076	28.9401	0.60	0.90	-5.12-3	2.99-2	-1.11-2	-3.76-2
11.8201	30.7831	0.58	0.84	-4.69-3	2.43-2	-1.00-2	-3.11-2
11.7932	32.9033	0.56	0.78	-4.28-3	1.94-2	-8.99-3	-2.53-2
11.9236	37.8251	0.52	0.68	-3.46-3	1.26-2	-7.17-3	-1.71-2
12.00	12.50						
12.0220	12.2276	1.35	82.00	1.29 0	3.75 2	-1.40 0	-3.77 2
12.0129	12.2613	1.30	68.00	9.15-1	2.81 2	-1.02 0	-2.83 2
12.0593	12.2620	1.35	83.00	1.32 0	3.82 2	-1.43 0	-3.84 2
12.0513	12.2959	1.30	69.00	9.35-1	2.88 2	-1.04 0	-2.90 2
12.0966	12.2965	1.35	84.00	1.35 0	3.89 2	-1.45 0	-3.91 2
12.0031	12.3113	1.25	54.00	6.25-1	1.91 2	-7.19-1	-1.93 2
12.0896	12.3305	1.30	70.00	9.55-1	2.94 2	-1.06 0	-2.97 2
12.1340	12.3311	1.35	85.00	1.37 0	3.96 2	-1.48 0	-3.98 2
12.0457	12.3484	1.25	55.00	6.41-1	1.98 2	-7.34-1	-1.99 2
12.1278	12.3651	1.30	71.00	9.76-1	3.01 2	-1.08 0	-3.04 2
12.1715	12.3659	1.35	86.00	1.40 0	4.03 2	-1.51 0	-4.05 2
12.0879	12.3853	1.25	56.00	6.57-1	2.04 2	-7.50-1	-2.06 2
12.1659	12.3997	1.30	72.00	9.97-1	3.08 2	-1.10 0	-3.11 2
12.2091	12.4009	1.35	87.00	1.43 0	4.10 2	-1.54 0	-4.12 2
12.1298	12.4221	1.25	57.00	6.74-1	2.10 2	-7.67-1	-2.12 2
12.0439	12.4290	1.20	42.00	4.23-1	1.23 2	-5.09-1	-1.24 2
12.2040	12.4344	1.30	73.00	1.02 0	3.15 2	-1.12 0	-3.18 2
12.2469	12.4360	1.35	88.00	1.46 0	4.17 2	-1.57 0	-4.19 2
12.1714	12.4587	1.25	58.00	6.90-1	2.17 2	-7.83-1	-2.19 2
12.2421	12.4690	1.30	74.00	1.04 0	3.22 2	-1.14 0	-3.25 2
12.0943	12.4709	1.20	43.00	4.37-1	1.29 2	-5.23-1	-1.30 2
12.2848	12.4713	1.35	89.00	1.49 0	4.24 2	-1.60 0	-4.26 2
12.2128	12.4952	1.25	59.00	7.07-1	2.23 2	-7.99-1	-2.25 2
12.2800	12.5037	1.30	75.00	1.06 0	3.30 2	-1.16 0	-3.32 2
12.3228	12.5068	1.35	90.00	1.52 0	4.31 2	-1.63 0	-4.33 2
12.1439	12.5125	1.20	44.00	4.50-1	1.34 2	-5.36-1	-1.36 2
12.2538	12.5316	1.25	60.00	7.24-1	2.30 2	-8.16-1	-2.32 2
12.3180	12.5385	1.30	76.00	1.08 0	3.37 2	-1.18 0	-3.39 2
12.1929	12.5537	1.20	45.00	4.64-1	1.40 2	-5.49-1	-1.41 2
12.0607	12.5615	1.15	31.00	2.70-1	7.09 1	-3.49-1	-7.18 1
12.2946	12.5678	1.25	61.00	7.41-1	2.37 2	-8.33-1	-2.38 2
12.3560	12.5733	1.30	77.00	1.11 0	3.44 2	-1.21 0	-3.46 2
12.2411	12.5946	1.20	46.00	4.77-1	1.45 2	-5.63-1	-1.47 2
12.3352	12.6040	1.25	62.00	7.58-1	2.43 2	-8.50-1	-2.45 2
12.3940	12.6081	1.30	78.00	1.13 0	3.51 2	-1.23 0	-3.53 2
12.1251	12.6117	1.15	32.00	2.81-1	7.53 1	-3.60-1	-7.62 1
12.2888	12.6351	1.20	47.00	4.91-1	1.51 2	-5.76-1	-1.53 2
12.3756	12.6400	1.25	63.00	7.76-1	2.50 2	-8.68-1	-2.52 2
12.4320	12.6431	1.30	79.00	1.15 0	3.58 2	-1.25 0	-3.60 2
12.1881	12.6611	1.15	33.00	2.93-1	7.98 1	-3.71-1	-8.08 1
12.3359	12.6753	1.20	48.00	5.05-1	1.57 2	-5.90-1	-1.59 2
12.4158	12.6760	1.25	64.00	7.93-1	2.57 2	-8.85-1	-2.59 2
12.4700	12.6781	1.30	80.00	1.18 0	3.65 2	-1.28 0	-3.67 2
12.2495	12.7097	1.15	34.00	3.04-1	8.44 1	-3.83-1	-8.54 1
12.4558	12.7119	1.25	65.00	8.12-1	2.64 2	-9.03-1	-2.66 2
12.3824	12.7152	1.20	49.00	5.19-1	1.63 2	-6.04-1	-1.65 2
12.4956	12.7477	1.25	66.00	8.30-1	2.71 2	-9.21-1	-2.73 2
12.0752	12.7479	1.10	22.00	1.63-1	3.73 1	-2.35-1	-3.79 1
12.4284	12.7549	1.20	50.00	5.33-1	1.69 2	-6.18-1	-1.71 2
12.3096	12.7577	1.15	35.00	3.16-1	8.91 1	-3.94-1	-9.02 1
12.4739	12.7942	1.20	51.00	5.48-1	1.75 2	-6.32-1	-1.77 2
12.3685	12.8051	1.15	36.00	3.28-1	9.39 1	-4.06-1	-9.50 1
12.1640	12.8100	1.10	23.00	1.73-1	4.07 1	-2.45-1	-4.13 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.4261	12.8518	1.15	37.00	3.40-1	9.89 1	-4.17-1	-1.00 2
12.2494	12.8708	1.10	24.00	1.83-1	4.41 1	-2.54-1	-4.48 1
12.4827	12.8980	1.15	38.00	3.52-1	1.04 2	-4.29-1	-1.05 2
12.3317	12.9304	1.10	25.00	1.93-1	4.77 1	-2.64-1	-4.85 1
12.0008	12.9682	1.05	14.50	8.57-2	1.67 1	-1.52-1	-1.71 1
12.4111	12.9887	1.10	26.00	2.03-1	5.15 1	-2.74-1	-5.22 1
12.0703	13.0081	1.05	15.00	9.02-2	1.79 1	-1.56-1	-1.83 1
12.4879	13.0460	1.10	27.00	2.13-1	5.53 1	-2.84-1	-5.61 1
12.1375	13.0474	1.05	15.50	9.47-2	1.91 1	-1.60-1	-1.95 1
12.2025	13.0861	1.05	16.00	9.91-2	2.03 1	-1.64-1	-2.08 1
12.2654	13.1244	1.05	16.50	1.04-1	2.16 1	-1.69-1	-2.21 1
12.3264	13.1622	1.05	17.00	1.08-1	2.29 1	-1.73-1	-2.34 1
12.3856	13.1995	1.05	17.50	1.13-1	2.43 1	-1.78-1	-2.47 1
12.4432	13.2363	1.05	18.00	1.17-1	2.57 1	-1.82-1	-2.61 1
12.4991	13.2726	1.05	18.50	1.22-1	2.71 1	-1.86-1	-2.76 1
12.0080	13.3758	1.00	9.80	4.33-2	7.77 0	-1.03-1	-8.01 0
12.0530	13.3950	1.00	10.00	4.49-2	8.09 0	-1.04-1	-8.34 0
12.1609	13.4427	1.00	10.50	4.90-2	8.93 0	-1.08-1	-9.19 0
12.2630	13.4900	1.00	11.00	5.30-2	9.81 0	-1.12-1	-1.01 1
12.3599	13.5368	1.00	11.50	5.71-2	1.07 1	-1.16-1	-1.10 1
12.4520	13.5831	1.00	12.00	6.12-2	1.17 1	-1.20-1	-1.20 1
12.0188	13.5897	0.98	8.40	3.19-2	5.71 0	-8.87-2	-5.91 0
12.0737	13.6097	0.98	8.60	3.34-2	5.99 0	-9.02-2	-6.20 0
12.1270	13.6298	0.98	8.80	3.50-2	6.28 0	-9.17-2	-6.49 0
12.1789	13.6499	0.98	9.00	3.65-2	6.58 0	-9.31-2	-6.79 0
12.2293	13.6699	0.98	9.20	3.81-2	6.88 0	-9.46-2	-7.10 0
12.2784	13.6900	0.98	9.40	3.97-2	7.19 0	-9.61-2	-7.41 0
12.3263	13.7100	0.98	9.60	4.12-2	7.50 0	-9.75-2	-7.73 0
12.3730	13.7299	0.98	9.80	4.28-2	7.82 0	-9.90-2	-8.06 0
12.4185	13.7499	0.98	10.00	4.44-2	8.15 0	-1.00-1	-8.39 0
12.0275	13.8348	0.96	7.20	2.26-2	4.18 0	-7.70-2	-4.35 0
12.0951	13.8551	0.96	7.40	2.41-2	4.43 0	-7.84-2	-4.60 0
12.1603	13.8756	0.96	7.60	2.56-2	4.68 0	-7.98-2	-4.85 0
12.2233	13.8963	0.96	7.80	2.71-2	4.94 0	-8.12-2	-5.12 0
12.2843	13.9171	0.96	8.00	2.87-2	5.20 0	-8.26-2	-5.39 0
12.3433	13.9379	0.96	8.20	3.02-2	5.47 0	-8.40-2	-5.66 0
12.4006	13.9588	0.96	8.40	3.17-2	5.75 0	-8.54-2	-5.95 0
12.4562	13.9798	0.96	8.60	3.32-2	6.04 0	-8.68-2	-6.24 0
12.0432	14.1172	0.94	6.20	1.54-2	3.08 0	-6.73-2	-3.22 0
12.1265	14.1369	0.94	6.40	1.68-2	3.30 0	-6.86-2	-3.44 0
12.2064	14.1572	0.94	6.60	1.83-2	3.52 0	-6.99-2	-3.66 0
12.2831	14.1778	0.94	6.80	1.98-2	3.74 0	-7.12-2	-3.89 0
12.3567	14.1988	0.94	7.00	2.12-2	3.98 0	-7.26-2	-4.13 0
12.4277	14.2201	0.94	7.20	2.27-2	4.22 0	-7.39-2	-4.38 0
12.4960	14.2415	0.94	7.40	2.41-2	4.46 0	-7.53-2	-4.63 0
12.0839	14.4420	0.92	5.40	1.00-2	2.32 0	-5.94-2	-2.43 0
12.1860	14.4603	0.92	5.60	1.14-2	2.50 0	-6.06-2	-2.62 0
12.2830	14.4794	0.92	5.80	1.28-2	2.70 0	-6.19-2	-2.82 0
12.3754	14.4994	0.92	6.00	1.42-2	2.90 0	-6.32-2	-3.03 0
12.4636	14.5200	0.92	6.20	1.56-2	3.11 0	-6.44-2	-3.24 0
12.0501	14.7983	0.90	4.60	4.94-3	1.65 0	-5.19-2	-1.75 0
12.1804	14.8122	0.90	4.80	6.31-3	1.81 0	-5.31-2	-1.91 0
12.3027	14.8281	0.90	5.00	7.68-3	1.98 0	-5.43-2	-2.08 0
12.4179	14.8456	0.90	5.20	9.05-3	2.15 0	-5.56-2	-2.26 0
12.0630	15.2082	0.88	4.00	1.53-3	1.23 0	-4.61-2	-1.30 0
12.2256	15.2158	0.88	4.20	2.86-3	1.37 0	-4.72-2	-1.45 0
12.3764	15.2268	0.88	4.40	4.18-3	1.51 0	-4.84-2	-1.60 0
12.2844	15.6657	0.86	3.70	2.58-4	1.04 0	-4.22-2	-1.11 0
12.1853	15.6659	0.86	3.60	-3.86-4	9.77-1	-4.17-2	-1.04 0
12.3791	15.6670	0.86	3.80	9.02-4	1.10 0	-4.28-2	-1.17 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.0816	15.6677	0.86	3.50	-1.03-3	9.17-1	-4.12-2	-9.82-1
12.4699	15.6696	0.86	3.90	1.54-3	1.17 0	-4.33-2	-1.24 0
12.4959	16.1595	0.84	3.40	-9.23-4	8.67-1	-3.86-2	-9.28-1
12.3805	16.1633	0.84	3.30	-1.55-3	8.10-1	-3.80-2	-8.69-1
12.2591	16.1692	0.84	3.20	-2.17-3	7.55-1	-3.75-2	-8.11-1
12.1309	16.1778	0.84	3.10	-2.80-3	7.02-1	-3.70-2	-7.56-1
12.4067	16.7174	0.82	2.90	-3.23-3	6.07-1	-3.41-2	-6.56-1
12.2525	16.7335	0.82	2.80	-3.84-3	5.59-1	-3.36-2	-6.06-1
12.0880	16.7540	0.82	2.70	-4.45-3	5.13-1	-3.31-2	-5.58-1
12.3145	17.3516	0.80	2.50	-4.80-3	4.31-1	-3.04-2	-4.71-1
12.1091	17.3864	0.80	2.40	-5.40-3	3.91-1	-2.99-2	-4.29-1
12.2775	18.0536	0.78	2.20	-5.70-3	3.19-1	-2.73-2	-3.53-1
12.0112	18.1125	0.78	2.10	-6.28-3	2.85-1	-2.69-2	-3.16-1
12.3980	18.7946	0.76	2.00	-5.97-3	2.55-1	-2.48-2	-2.84-1
12.2391	18.8339	0.76	1.95	-6.25-3	2.39-1	-2.46-2	-2.67-1
12.0716	18.8775	0.76	1.90	-6.54-3	2.24-1	-2.45-2	-2.51-1
12.4396	19.6299	0.74	1.80	-6.21-3	1.97-1	-2.25-2	-2.21-1
12.2400	19.6864	0.74	1.75	-6.49-3	1.83-1	-2.23-2	-2.07-1
12.0279	19.7496	0.74	1.70	-6.77-3	1.70-1	-2.22-2	-1.92-1
12.3506	20.5917	0.72	1.60	-6.43-3	1.46-1	-2.03-2	-1.67-1
12.0905	20.6760	0.72	1.55	-6.70-3	1.34-1	-2.02-2	-1.54-1
12.3663	21.6198	0.70	1.45	-6.36-3	1.14-1	-1.84-2	-1.31-1
12.0386	21.7358	0.70	1.40	-6.63-3	1.03-1	-1.83-2	-1.20-1
12.2259	22.8119	0.68	1.30	-6.30-3	8.50-2	-1.67-2	-9.96-2
12.3455	24.0248	0.66	1.20	-5.98-3	6.85-2	-1.51-2	-8.13-2
12.3543	25.4101	0.64	1.10	-5.67-3	5.39-2	-1.37-2	-6.48-2
12.1818	27.0206	0.62	1.00	-5.35-3	4.10-2	-1.24-2	-5.03-2
12.1187	28.7527	0.60	0.92	-5.02-3	3.21-2	-1.11-2	-4.01-2
12.3179	30.5529	0.58	0.86	-4.59-3	2.63-2	-1.00-2	-3.33-2
12.4075	32.6145	0.56	0.80	-4.18-3	2.11-2	-9.01-3	-2.72-2
12.3156	35.0058	0.54	0.74	-3.81-3	1.65-2	-8.05-3	-2.18-2
12.2522	40.6263	0.50	0.64	-3.06-3	1.03-2	-6.37-3	-1.43-2
12.4759	43.8600	0.48	0.60	-2.69-3	8.36-3	-5.63-3	-1.18-2
12.2313	52.0835	0.44	0.52	-2.06-3	5.11-3	-4.34-3	-7.71-3
12.50	13.00						
12.5081	12.7132	1.30	81.00	1.20 0	3.72 2	-1.30 0	-3.75 2
12.5462	12.7485	1.30	82.00	1.23 0	3.79 2	-1.33 0	-3.82 2
12.5353	12.7835	1.25	67.00	8.48-1	2.77 2	-9.40-1	-2.79 2
12.5844	12.7839	1.30	83.00	1.25 0	3.87 2	-1.35 0	-3.89 2
12.5749	12.8192	1.25	68.00	8.67-1	2.84 2	-9.59-1	-2.86 2
12.6226	12.8193	1.30	84.00	1.28 0	3.94 2	-1.38 0	-3.96 2
12.5190	12.8333	1.20	52.00	5.62-1	1.81 2	-6.47-1	-1.83 2
12.6143	12.8550	1.25	69.00	8.86-1	2.91 2	-9.77-1	-2.93 2
12.6610	12.8550	1.30	85.00	1.30 0	4.01 2	-1.40 0	-4.03 2
12.5636	12.8722	1.20	53.00	5.77-1	1.88 2	-6.61-1	-1.89 2
12.6537	12.8907	1.25	70.00	9.05-1	2.98 2	-9.97-1	-3.01 2
12.6994	12.8908	1.30	86.00	1.33 0	4.08 2	-1.43 0	-4.10 2
12.6078	12.9108	1.20	54.00	5.92-1	1.94 2	-6.76-1	-1.96 2
12.6929	12.9264	1.25	71.00	9.25-1	3.06 2	-1.02 0	-3.08 2
12.7380	12.9267	1.30	87.00	1.36 0	4.15 2	-1.46 0	-4.18 2
12.5382	12.9436	1.15	39.00	3.64-1	1.09 2	-4.41-1	-1.10 2
12.6516	12.9493	1.20	55.00	6.07-1	2.00 2	-6.91-1	-2.02 2
12.7321	12.9621	1.25	72.00	9.45-1	3.13 2	-1.04 0	-3.15 2
12.7767	12.9628	1.30	88.00	1.39 0	4.22 2	-1.48 0	-4.25 2
12.6951	12.9875	1.20	56.00	6.22-1	2.07 2	-7.06-1	-2.08 2
12.5927	12.9887	1.15	40.00	3.76-1	1.14 2	-4.53-1	-1.15 2
12.7712	12.9978	1.25	73.00	9.65-1	3.20 2	-1.06 0	-3.22 2
12.8156	12.9991	1.30	89.00	1.41 0	4.29 2	-1.51 0	-4.32 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.7383	13.0256	1.20	57.00	6.37-1	2.13 2	-7.21-1	-2.15 2
12.6463	13.0333	1.15	41.00	3.88-1	1.20 2	-4.65-1	-1.21 2
12.8103	13.0335	1.25	74.00	9.86-1	3.27 2	-1.08 0	-3.29 2
12.8546	13.0356	1.30	90.00	1.44 0	4.37 2	-1.54 0	-4.39 2
12.7811	13.0635	1.20	58.00	6.53-1	2.20 2	-7.37-1	-2.22 2
12.8493	13.0693	1.25	75.00	1.01 0	3.34 2	-1.10 0	-3.36 2
12.6990	13.0774	1.15	42.00	4.00-1	1.25 2	-4.77-1	-1.26 2
12.8236	13.1013	1.20	59.00	6.69-1	2.27 2	-7.52-1	-2.28 2
12.5623	13.1022	1.10	28.00	2.24-1	5.93 1	-2.95-1	-6.01 1
12.8883	13.1051	1.25	76.00	1.03 0	3.41 2	-1.12 0	-3.43 2
12.7510	13.1211	1.15	43.00	4.13-1	1.31 2	-4.90-1	-1.32 2
12.8659	13.1389	1.20	60.00	6.85-1	2.33 2	-7.68-1	-2.35 2
12.9273	13.1410	1.25	77.00	1.05 0	3.48 2	-1.14 0	-3.51 2
12.6345	13.1573	1.10	29.00	2.34-1	6.34 1	-3.05-1	-6.43 1
12.8021	13.1643	1.15	44.00	4.26-1	1.36 2	-5.02-1	-1.37 2
12.9079	13.1764	1.20	61.00	7.01-1	2.40 2	-7.84-1	-2.42 2
12.9663	13.1769	1.25	78.00	1.07 0	3.56 2	-1.16 0	-3.58 2
12.8526	13.2072	1.15	45.00	4.38-1	1.42 2	-5.15-1	-1.43 2
12.7047	13.2116	1.10	30.00	2.45-1	6.77 1	-3.15-1	-6.85 1
12.9497	13.2138	1.20	62.00	7.17-1	2.47 2	-8.00-1	-2.49 2
12.9024	13.2496	1.15	46.00	4.51-1	1.48 2	-5.28-1	-1.49 2
12.9912	13.2511	1.20	63.00	7.34-1	2.54 2	-8.17-1	-2.55 2
12.7730	13.2649	1.10	31.00	2.55-1	7.20 1	-3.26-1	-7.29 1
12.9515	13.2917	1.15	47.00	4.64-1	1.54 2	-5.40-1	-1.55 2
12.5537	13.3085	1.05	19.00	1.26-1	2.85 1	-1.91-1	-2.90 1
12.8396	13.3174	1.10	32.00	2.66-1	7.65 1	-3.36-1	-7.74 1
12.6068	13.3439	1.05	19.50	1.31-1	3.00 1	-1.95-1	-3.05 1
12.9046	13.3690	1.10	33.00	2.77-1	8.10 1	-3.47-1	-8.20 1
12.6587	13.3789	1.05	20.00	1.36-1	3.15 1	-2.00-1	-3.21 1
12.9681	13.4199	1.10	34.00	2.88-1	8.57 1	-3.57-1	-8.67 1
12.7588	13.4476	1.05	21.00	1.45-1	3.47 1	-2.09-1	-3.52 1
12.8545	13.5146	1.05	22.00	1.54-1	3.79 1	-2.18-1	-3.85 1
12.9463	13.5802	1.05	23.00	1.63-1	4.13 1	-2.27-1	-4.20 1
12.5399	13.6288	1.00	12.50	6.53-2	1.27 1	-1.24-1	-1.30 1
12.6241	13.6739	1.00	13.00	6.94-2	1.37 1	-1.28-1	-1.40 1
12.7047	13.7184	1.00	13.50	7.35-2	1.48 1	-1.31-1	-1.51 1
12.7822	13.7623	1.00	14.00	7.76-2	1.59 1	-1.35-1	-1.63 1
12.5278	13.7993	0.98	10.50	4.83-2	9.00 0	-1.04-1	-9.25 0
12.8568	13.8056	1.00	14.50	8.18-2	1.70 1	-1.39-1	-1.74 1
12.9287	13.8482	1.00	15.00	8.59-2	1.82 1	-1.43-1	-1.86 1
12.6312	13.8483	0.98	11.00	5.23-2	9.88 0	-1.08-1	-1.02 1
12.9981	13.8903	1.00	15.50	9.01-2	1.95 1	-1.47-1	-1.99 1
12.7293	13.8968	0.98	11.50	5.62-2	1.08 1	-1.12-1	-1.11 1
12.8227	13.9446	0.98	12.00	6.02-2	1.18 1	-1.15-1	-1.21 1
12.9118	13.9918	0.98	12.50	6.42-2	1.28 1	-1.19-1	-1.31 1
12.5101	14.0007	0.96	8.80	3.47-2	6.33 0	-8.82-2	-6.53 0
12.5626	14.0217	0.96	9.00	3.62-2	6.63 0	-8.96-2	-6.84 0
12.9970	14.0383	0.98	13.00	6.81-2	1.38 1	-1.23-1	-1.41 1
12.6137	14.0426	0.96	9.20	3.77-2	6.93 0	-9.11-2	-7.15 0
12.6634	14.0634	0.96	9.40	3.93-2	7.24 0	-9.25-2	-7.46 0
12.7119	14.0842	0.96	9.60	4.08-2	7.56 0	-9.39-2	-7.79 0
12.7592	14.1050	0.96	9.80	4.23-2	7.88 0	-9.53-2	-8.11 0
12.8053	14.1257	0.96	10.00	4.38-2	8.21 0	-9.68-2	-8.45 0
12.9161	14.1770	0.96	10.50	4.76-2	9.07 0	-1.00-1	-9.32 0
12.5620	14.2631	0.94	7.60	2.56-2	4.72 0	-7.66-2	-4.89 0
12.6258	14.2849	0.94	7.80	2.71-2	4.98 0	-7.80-2	-5.15 0
12.6875	14.3067	0.94	8.00	2.85-2	5.24 0	-7.93-2	-5.43 0
12.7473	14.3285	0.94	8.20	3.00-2	5.52 0	-8.07-2	-5.70 0
12.8053	14.3504	0.94	8.40	3.15-2	5.80 0	-8.21-2	-5.99 0
12.8615	14.3723	0.94	8.60	3.29-2	6.09 0	-8.34-2	-6.28 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.9162	14.3942	0.94	8.80	3.44-2	6.38 0	-8.48-2	-6.58 0
12.9694	14.4160	0.94	9.00	3.59-2	6.68 0	-8.62-2	-6.89 0
12.5479	14.5412	0.92	6.40	1.71-2	3.32 0	-6.57-2	-3.46 0
12.6287	14.5628	0.92	6.60	1.85-2	3.54 0	-6.70-2	-3.69 0
12.7062	14.5848	0.92	6.80	1.99-2	3.77 0	-6.83-2	-3.92 0
12.7807	14.6070	0.92	7.00	2.13-2	4.01 0	-6.96-2	-4.16 0
12.8525	14.6295	0.92	7.20	2.27-2	4.25 0	-7.09-2	-4.41 0
12.9217	14.6522	0.92	7.40	2.41-2	4.50 0	-7.22-2	-4.66 0
12.9885	14.6749	0.92	7.60	2.55-2	4.76 0	-7.35-2	-4.92 0
12.5268	14.8645	0.90	5.40	1.04-2	2.34 0	-5.68-2	-2.45 0
12.6300	14.8844	0.90	5.60	1.18-2	2.53 0	-5.80-2	-2.64 0
12.7281	14.9053	0.90	5.80	1.31-2	2.72 0	-5.92-2	-2.84 0
12.8215	14.9268	0.90	6.00	1.45-2	2.92 0	-6.05-2	-3.05 0
12.9107	14.9490	0.90	6.20	1.59-2	3.13 0	-6.17-2	-3.26 0
12.9960	14.9717	0.90	6.40	1.72-2	3.35 0	-6.29-2	-3.49 0
12.5170	15.2407	0.88	4.60	5.50-3	1.67 0	-4.95-2	-1.76 0
12.6486	15.2569	0.88	4.80	6.83-3	1.83 0	-5.07-2	-1.92 0
12.7721	15.2749	0.88	5.00	8.15-3	2.00 0	-5.19-2	-2.10 0
12.8886	15.2944	0.88	5.20	9.47-3	2.17 0	-5.30-2	-2.28 0
12.9987	15.3152	0.88	5.40	1.08-2	2.36 0	-5.42-2	-2.47 0
12.5569	15.6733	0.86	4.00	2.19-3	1.24 0	-4.39-2	-1.31 0
12.7211	15.6837	0.86	4.20	3.47-3	1.38 0	-4.50-2	-1.46 0
12.8735	15.6974	0.86	4.40	4.74-3	1.53 0	-4.61-2	-1.61 0
12.6056	16.1578	0.84	3.50	-3.00-4	9.26-1	-3.91-2	-9.89-1
12.7103	16.1578	0.84	3.60	3.21-4	9.87-1	-3.96-2	-1.05 0
12.8102	16.1594	0.84	3.70	9.41-4	1.05 0	-4.01-2	-1.12 0
12.9058	16.1623	0.84	3.80	1.56-3	1.11 0	-4.06-2	-1.18 0
12.9974	16.1665	0.84	3.90	2.18-3	1.18 0	-4.12-2	-1.25 0
12.9403	16.6857	0.82	3.30	-8.17-4	8.18-1	-3.60-2	-8.76-1
12.8178	16.6896	0.82	3.20	-1.42-3	7.62-1	-3.55-2	-8.18-1
12.6885	16.6959	0.82	3.10	-2.02-3	7.09-1	-3.51-2	-7.62-1
12.5518	16.7050	0.82	3.00	-2.62-3	6.57-1	-3.46-2	-7.08-1
12.8481	17.2836	0.80	2.80	-3.04-3	5.65-1	-3.17-2	-6.11-1
12.6823	17.3011	0.80	2.70	-3.62-3	5.18-1	-3.13-2	-5.62-1
12.5049	17.3235	0.80	2.60	-4.21-3	4.74-1	-3.08-2	-5.16-1
12.9518	17.9357	0.78	2.50	-3.98-3	4.36-1	-2.86-2	-4.75-1
12.7450	17.9669	0.78	2.40	-4.55-3	3.95-1	-2.82-2	-4.32-1
12.5211	18.0056	0.78	2.30	-5.12-3	3.56-1	-2.77-2	-3.92-1
12.9609	18.6735	0.76	2.20	-4.85-3	3.23-1	-2.56-2	-3.56-1
12.6928	18.7276	0.76	2.10	-5.41-3	2.88-1	-2.52-2	-3.19-1
12.9742	19.4935	0.74	1.95	-5.39-3	2.42-1	-2.31-2	-2.69-1
12.8058	19.5341	0.74	1.90	-5.66-3	2.26-1	-2.29-2	-2.53-1
12.6279	19.5793	0.74	1.85	-5.93-3	2.11-1	-2.27-2	-2.37-1
12.8206	20.4503	0.72	1.70	-5.89-3	1.72-1	-2.07-2	-1.94-1
12.5933	20.5169	0.72	1.65	-6.16-3	1.59-1	-2.05-2	-1.80-1
12.9499	21.4281	0.70	1.55	-5.84-3	1.36-1	-1.87-2	-1.55-1
12.6691	21.5179	0.70	1.50	-6.10-3	1.25-1	-1.86-2	-1.43-1
12.9734	22.5429	0.68	1.40	-5.78-3	1.05-1	-1.69-2	-1.21-1
12.6159	22.6682	0.68	1.35	-6.04-3	9.45-2	-1.68-2	-1.10-1
12.8182	23.8428	0.66	1.25	-5.73-3	7.72-2	-1.53-2	-9.07-2
12.9402	25.1737	0.64	1.15	-5.43-3	6.15-2	-1.38-2	-7.32-2
12.9280	26.7038	0.62	1.05	-5.14-3	4.76-2	-1.25-2	-5.76-2
12.8718	28.4206	0.60	0.96	-4.83-3	3.68-2	-1.12-2	-4.53-2
12.5060	28.5801	0.60	0.94	-4.93-3	3.44-2	-1.12-2	-4.26-2
12.7842	30.3423	0.58	0.88	-4.49-3	2.84-2	-1.01-2	-3.56-2
12.9792	32.3524	0.56	0.82	-4.09-3	2.30-2	-9.03-3	-2.93-2
12.8440	37.3867	0.52	0.70	-3.37-3	1.40-2	-7.18-3	-1.87-2
12.5136	47.6315	0.46	0.56	-2.36-3	6.62-3	-4.95-3	-9.64-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.00	13.50						
13.0053	13.2129	1.25	79.00	1.09 0	3.63 2	-1.18 0	-3.65 2
13.0444	13.2490	1.25	80.00	1.12 0	3.70 2	-1.21 0	-3.72 2
13.0835	13.2852	1.25	81.00	1.14 0	3.77 2	-1.23 0	-3.80 2
13.0326	13.2883	1.20	64.00	7.50-1	2.61 2	-8.33-1	-2.62 2
13.1226	13.3215	1.25	82.00	1.16 0	3.85 2	-1.25 0	-3.87 2
13.0737	13.3254	1.20	65.00	7.67-1	2.67 2	-8.50-1	-2.69 2
13.0000	13.3335	1.15	48.00	4.77-1	1.60 2	-5.53-1	-1.61 2
13.1618	13.3580	1.25	83.00	1.19 0	3.92 2	-1.28 0	-3.94 2
13.1147	13.3624	1.20	66.00	7.85-1	2.74 2	-8.67-1	-2.76 2
13.0480	13.3750	1.15	49.00	4.90-1	1.66 2	-5.66-1	-1.67 2
13.2011	13.3945	1.25	84.00	1.21 0	3.99 2	-1.30 0	-4.01 2
13.1556	13.3994	1.20	67.00	8.02-1	2.81 2	-8.85-1	-2.83 2
13.0954	13.4161	1.15	50.00	5.04-1	1.72 2	-5.80-1	-1.73 2
13.2405	13.4312	1.25	85.00	1.23 0	4.06 2	-1.32 0	-4.09 2
13.1963	13.4364	1.20	68.00	8.20-1	2.89 2	-9.02-1	-2.90 2
13.1424	13.4570	1.15	51.00	5.17-1	1.78 2	-5.93-1	-1.79 2
13.2800	13.4681	1.25	86.00	1.26 0	4.14 2	-1.35 0	-4.16 2
13.0302	13.4701	1.10	35.00	2.98-1	9.05 1	-3.68-1	-9.15 1
13.2369	13.4733	1.20	69.00	8.38-1	2.96 2	-9.20-1	-2.98 2
13.1888	13.4976	1.15	52.00	5.31-1	1.84 2	-6.07-1	-1.86 2
13.3196	13.5051	1.25	87.00	1.29 0	4.21 2	-1.37 0	-4.23 2
13.2773	13.5102	1.20	70.00	8.56-1	3.03 2	-9.38-1	-3.05 2
13.0909	13.5195	1.10	36.00	3.09-1	9.54 1	-3.79-1	-9.65 1
13.2348	13.5379	1.15	53.00	5.45-1	1.91 2	-6.20-1	-1.92 2
13.3594	13.5423	1.25	88.00	1.31 0	4.28 2	-1.40 0	-4.30 2
13.3177	13.5471	1.20	71.00	8.74-1	3.10 2	-9.57-1	-3.12 2
13.1505	13.5683	1.10	37.00	3.21-1	1.00 2	-3.90-1	-1.02 2
13.2804	13.5780	1.15	54.00	5.59-1	1.97 2	-6.34-1	-1.98 2
13.3992	13.5796	1.25	89.00	1.34 0	4.35 2	-1.43 0	-4.38 2
13.3580	13.5839	1.20	72.00	8.93-1	3.17 2	-9.75-1	-3.19 2
13.2089	13.6165	1.10	38.00	3.32-1	1.06 2	-4.01-1	-1.07 2
13.4393	13.6172	1.25	90.00	1.37 0	4.43 2	-1.45 0	-4.45 2
13.3256	13.6179	1.15	55.00	5.73-1	2.03 2	-6.48-1	-2.05 2
13.3982	13.6208	1.20	73.00	9.12-1	3.24 2	-9.94-1	-3.26 2
13.0346	13.6443	1.05	24.00	1.73-1	4.49 1	-2.36-1	-4.55 1
13.3704	13.6576	1.15	56.00	5.87-1	2.10 2	-6.62-1	-2.12 2
13.4384	13.6577	1.20	74.00	9.32-1	3.32 2	-1.01 0	-3.34 2
13.2662	13.6641	1.10	39.00	3.43-1	1.11 2	-4.12-1	-1.12 2
13.4786	13.6947	1.20	75.00	9.51-1	3.39 2	-1.03 0	-3.41 2
13.4149	13.6970	1.15	57.00	6.02-1	2.17 2	-6.77-1	-2.18 2
13.1197	13.7070	1.05	25.00	1.82-1	4.86 1	-2.45-1	-4.92 1
13.3225	13.7112	1.10	40.00	3.54-1	1.16 2	-4.23-1	-1.17 2
13.4590	13.7364	1.15	58.00	6.16-1	2.23 2	-6.91-1	-2.25 2
13.3779	13.7577	1.10	41.00	3.66-1	1.22 2	-4.35-1	-1.23 2
13.2018	13.7685	1.05	26.00	1.92-1	5.24 1	-2.55-1	-5.31 1
13.4324	13.8037	1.10	42.00	3.78-1	1.27 2	-4.46-1	-1.28 2
13.2812	13.8287	1.05	27.00	2.01-1	5.63 1	-2.64-1	-5.70 1
13.4860	13.8492	1.10	43.00	3.89-1	1.33 2	-4.58-1	-1.34 2
13.3582	13.8877	1.05	28.00	2.11-1	6.03 1	-2.74-1	-6.11 1
13.0653	13.9317	1.00	16.00	9.43-2	2.07 1	-1.51-1	-2.11 1
13.4329	13.9457	1.05	29.00	2.21-1	6.45 1	-2.83-1	-6.53 1
13.1304	13.9725	1.00	16.50	9.85-2	2.20 1	-1.55-1	-2.24 1
13.1935	14.0128	1.00	17.00	1.03-1	2.33 1	-1.60-1	-2.38 1
13.2548	14.0525	1.00	17.50	1.07-1	2.47 1	-1.64-1	-2.52 1
13.0788	14.0842	0.98	13.50	7.21-2	1.49 1	-1.27-1	-1.52 1
13.3143	14.0917	1.00	18.00	1.11-1	2.61 1	-1.68-1	-2.66 1
13.1573	14.1294	0.98	14.00	7.61-2	1.60 1	-1.31-1	-1.64 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.3723	14.1303	1.00	18.50	1.15-1	2.76 1	-1.72-1	-2.80 1
13.4287	14.1685	1.00	19.00	1.20-1	2.90 1	-1.76-1	-2.95 1
13.2330	14.1739	0.98	14.50	8.02-2	1.72 1	-1.35-1	-1.75 1
13.4837	14.2061	1.00	19.50	1.24-1	3.05 1	-1.80-1	-3.11 1
13.3059	14.2178	0.98	15.00	8.42-2	1.84 1	-1.39-1	-1.87 1
13.0208	14.2278	0.96	11.00	5.15-2	9.96 0	-1.04-1	-1.02 1
13.3763	14.2610	0.98	15.50	8.82-2	1.96 1	-1.42-1	-2.00 1
13.1202	14.2779	0.96	11.50	5.53-2	1.09 1	-1.08-1	-1.12 1
13.4445	14.3036	0.98	16.00	9.23-2	2.09 1	-1.46-1	-2.13 1
13.2149	14.3273	0.96	12.00	5.91-2	1.19 1	-1.11-1	-1.22 1
13.3052	14.3761	0.96	12.50	6.30-2	1.29 1	-1.15-1	-1.32 1
13.3916	14.4241	0.96	13.00	6.69-2	1.39 1	-1.19-1	-1.42 1
13.0211	14.4378	0.94	9.20	3.73-2	6.99 0	-8.76-2	-7.20 0
13.0715	14.4595	0.94	9.40	3.88-2	7.30 0	-8.90-2	-7.52 0
13.4745	14.4714	0.96	13.50	7.07-2	1.50 1	-1.22-1	-1.53 1
13.1206	14.4812	0.94	9.60	4.03-2	7.62 0	-9.04-2	-7.84 0
13.1685	14.5028	0.94	9.80	4.18-2	7.95 0	-9.18-2	-8.17 0
13.2152	14.5243	0.94	10.00	4.32-2	8.28 0	-9.32-2	-8.51 0
13.3275	14.5775	0.94	10.50	4.69-2	9.14 0	-9.67-2	-9.38 0
13.4336	14.6302	0.94	11.00	5.06-2	1.00 1	-1.00-1	-1.03 1
13.0531	14.6978	0.92	7.80	2.70-2	5.02 0	-7.49-2	-5.19 0
13.1156	14.7206	0.92	8.00	2.84-2	5.29 0	-7.62-2	-5.47 0
13.1761	14.7436	0.92	8.20	2.98-2	5.56 0	-7.75-2	-5.75 0
13.2348	14.7665	0.92	8.40	3.12-2	5.85 0	-7.88-2	-6.03 0
13.2918	14.7894	0.92	8.60	3.26-2	6.14 0	-8.02-2	-6.33 0
13.3472	14.8122	0.92	8.80	3.41-2	6.43 0	-8.15-2	-6.63 0
13.4011	14.8350	0.92	9.00	3.55-2	6.74 0	-8.28-2	-6.94 0
13.4535	14.8577	0.92	9.20	3.69-2	7.04 0	-8.42-2	-7.25 0
13.0777	14.9947	0.90	6.60	1.86-2	3.57 0	-6.42-2	-3.71 0
13.1562	15.0181	0.90	6.80	2.00-2	3.80 0	-6.55-2	-3.95 0
13.2317	15.0416	0.90	7.00	2.13-2	4.04 0	-6.67-2	-4.19 0
13.3043	15.0654	0.90	7.20	2.27-2	4.29 0	-6.80-2	-4.44 0
13.3744	15.0893	0.90	7.40	2.41-2	4.54 0	-6.92-2	-4.70 0
13.4421	15.1132	0.90	7.60	2.54-2	4.80 0	-7.05-2	-4.96 0
13.1031	15.3370	0.88	5.60	1.21-2	2.55 0	-5.54-2	-2.66 0
13.2023	15.3596	0.88	5.80	1.34-2	2.75 0	-5.66-2	-2.86 0
13.2968	15.3828	0.88	6.00	1.47-2	2.95 0	-5.78-2	-3.07 0
13.3870	15.4066	0.88	6.20	1.61-2	3.16 0	-5.90-2	-3.29 0
13.4734	15.4308	0.88	6.40	1.74-2	3.38 0	-6.02-2	-3.51 0
13.0155	15.7138	0.86	4.60	6.02-3	1.68 0	-4.72-2	-1.77 0
13.1484	15.7323	0.86	4.80	7.29-3	1.85 0	-4.83-2	-1.94 0
13.2733	15.7525	0.86	5.00	8.57-3	2.02 0	-4.95-2	-2.11 0
13.3911	15.7742	0.86	5.20	9.84-3	2.19 0	-5.06-2	-2.30 0
13.0854	16.1718	0.84	4.00	2.80-3	1.25 0	-4.17-2	-1.32 0
13.2512	16.1851	0.84	4.20	4.03-3	1.39 0	-4.28-2	-1.47 0
13.4051	16.2016	0.84	4.40	5.26-3	1.54 0	-4.38-2	-1.62 0
13.0567	16.6840	0.82	3.40	-2.17-4	8.76-1	-3.65-2	-9.35-1
13.1674	16.6843	0.82	3.50	3.81-4	9.35-1	-3.70-2	-9.97-1
13.2730	16.6862	0.82	3.60	9.79-4	9.97-1	-3.75-2	-1.06 0
13.3739	16.6895	0.82	3.70	1.57-3	1.06 0	-3.81-2	-1.13 0
13.4705	16.6943	0.82	3.80	2.17-3	1.13 0	-3.86-2	-1.19 0
13.4181	17.2498	0.80	3.20	-7.13-4	7.70-1	-3.36-2	-8.25-1
13.2877	17.2538	0.80	3.10	-1.29-3	7.16-1	-3.31-2	-7.68-1
13.1498	17.2604	0.80	3.00	-1.87-3	6.64-1	-3.27-2	-7.14-1
13.0036	17.2702	0.80	2.90	-2.45-3	6.13-1	-3.22-2	-6.61-1
13.4896	17.8775	0.78	2.80	-2.29-3	5.71-1	-2.99-2	-6.16-1
13.3225	17.8919	0.78	2.70	-2.85-3	5.24-1	-2.95-2	-5.67-1
13.1437	17.9111	0.78	2.60	-3.41-3	4.79-1	-2.90-2	-5.20-1
13.4316	18.5954	0.76	2.40	-3.75-3	4.00-1	-2.65-2	-4.36-1
13.2061	18.6300	0.76	2.30	-4.30-3	3.61-1	-2.61-2	-3.95-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.4308	19.3958	0.74	2.10	-4.59-3	2.92-1	-2.36-2	-3.21-1
13.1341	19.4573	0.74	2.00	-5.12-3	2.58-1	-2.33-2	-2.86-1
13.4239	20.2915	0.72	1.85	-5.10-3	2.14-1	-2.12-2	-2.39-1
13.2346	20.3384	0.72	1.80	-5.36-3	2.00-1	-2.10-2	-2.23-1
13.0339	20.3911	0.72	1.75	-5.63-3	1.85-1	-2.08-2	-2.09-1
13.4553	21.2787	0.70	1.65	-5.33-3	1.61-1	-1.91-2	-1.82-1
13.2113	21.3488	0.70	1.60	-5.58-3	1.48-1	-1.89-2	-1.68-1
13.3025	22.4335	0.68	1.45	-5.53-3	1.15-1	-1.71-2	-1.32-1
13.2473	23.6859	0.66	1.30	-5.48-3	8.63-2	-1.54-2	-1.01-1
13.4657	24.9726	0.64	1.20	-5.18-3	6.97-2	-1.39-2	-8.21-2
13.2176	28.2733	0.60	0.98	-4.74-3	3.92-2	-1.12-2	-4.80-2
13.2220	30.1491	0.58	0.90	-4.40-3	3.05-2	-1.01-2	-3.81-2
13.0316	34.6716	0.54	0.76	-3.72-3	1.82-2	-8.07-3	-2.37-2
13.3594	40.1020	0.50	0.66	-2.97-3	1.16-2	-6.37-3	-1.58-2
13.3965	62.1873	0.40	0.46	-1.48-3	3.34-3	-3.27-3	-5.36-3
13.50	14.00						
13.5187	13.7316	1.20	76.00	9.71-1	3.46 2	-1.05 0	-3.48 2
13.5588	13.7687	1.20	77.00	9.91-1	3.54 2	-1.07 0	-3.56 2
13.5029	13.7755	1.15	59.00	6.31-1	2.30 2	-7.06-1	-2.32 2
13.5989	13.8058	1.20	78.00	1.01 0	3.61 2	-1.09 0	-3.63 2
13.5465	13.8145	1.15	60.00	6.46-1	2.37 2	-7.21-1	-2.39 2
13.6390	13.8429	1.20	79.00	1.03 0	3.68 2	-1.11 0	-3.70 2
13.5897	13.8534	1.15	61.00	6.61-1	2.44 2	-7.36-1	-2.45 2
13.6792	13.8802	1.20	80.00	1.05 0	3.76 2	-1.14 0	-3.78 2
13.6328	13.8921	1.15	62.00	6.77-1	2.51 2	-7.51-1	-2.52 2
13.5389	13.8942	1.10	44.00	4.01-1	1.38 2	-4.69-1	-1.40 2
13.7194	13.9175	1.20	81.00	1.08 0	3.83 2	-1.16 0	-3.85 2
13.6756	13.9307	1.15	63.00	6.92-1	2.58 2	-7.66-1	-2.59 2
13.5910	13.9389	1.10	45.00	4.13-1	1.44 2	-4.81-1	-1.45 2
13.7596	13.9550	1.20	82.00	1.10 0	3.90 2	-1.18 0	-3.92 2
13.7182	13.9692	1.15	64.00	7.08-1	2.65 2	-7.82-1	-2.66 2
13.6424	13.9831	1.10	46.00	4.25-1	1.50 2	-4.93-1	-1.51 2
13.7999	13.9926	1.20	83.00	1.12 0	3.98 2	-1.20 0	-4.00 2
13.5056	14.0026	1.05	30.00	2.31-1	6.88 1	-2.93-1	-6.96 1
13.7607	14.0077	1.15	65.00	7.24-1	2.72 2	-7.98-1	-2.73 2
13.6931	14.0269	1.10	47.00	4.37-1	1.56 2	-5.05-1	-1.57 2
13.8403	14.0303	1.20	84.00	1.14 0	4.05 2	-1.22 0	-4.07 2
13.8029	14.0460	1.15	66.00	7.40-1	2.79 2	-8.14-1	-2.81 2
13.5763	14.0586	1.05	31.00	2.41-1	7.32 1	-3.03-1	-7.41 1
13.8808	14.0681	1.20	85.00	1.17 0	4.12 2	-1.25 0	-4.15 2
13.7433	14.0704	1.10	48.00	4.50-1	1.62 2	-5.17-1	-1.63 2
13.8450	14.0843	1.15	67.00	7.56-1	2.86 2	-8.30-1	-2.88 2
13.9214	14.1061	1.20	86.00	1.19 0	4.20 2	-1.27 0	-4.22 2
13.7928	14.1135	1.10	49.00	4.62-1	1.68 2	-5.30-1	-1.70 2
13.6452	14.1136	1.05	32.00	2.51-1	7.78 1	-3.12-1	-7.87 1
13.8869	14.1226	1.15	68.00	7.73-1	2.93 2	-8.47-1	-2.95 2
13.9621	14.1443	1.20	87.00	1.21 0	4.27 2	-1.29 0	-4.29 2
13.8418	14.1563	1.10	50.00	4.74-1	1.75 2	-5.42-1	-1.76 2
13.9287	14.1608	1.15	69.00	7.90-1	3.00 2	-8.64-1	-3.02 2
13.7124	14.1677	1.05	33.00	2.61-1	8.24 1	-3.22-1	-8.34 1
13.8903	14.1988	1.10	51.00	4.87-1	1.81 2	-5.55-1	-1.82 2
13.9704	14.1989	1.15	70.00	8.07-1	3.08 2	-8.81-1	-3.09 2
13.7781	14.2210	1.05	34.00	2.71-1	8.72 1	-3.32-1	-8.82 1
13.9382	14.2410	1.10	52.00	5.00-1	1.87 2	-5.67-1	-1.89 2
13.5374	14.2432	1.00	20.00	1.28-1	3.21 1	-1.84-1	-3.26 1
13.8423	14.2736	1.05	35.00	2.81-1	9.21 1	-3.42-1	-9.31 1
13.9857	14.2830	1.10	53.00	5.13-1	1.94 2	-5.80-1	-1.95 2
13.6411	14.3160	1.00	21.00	1.37-1	3.53 1	-1.93-1	-3.58 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.9052	14.3253	1.05	36.00	2.91-1	9.71 1	-3.53-1	-9.81 1
13.5104	14.3455	0.98	16.50	9.63-2	2.22 1	-1.50-1	-2.26 1
13.9668	14.3764	1.05	37.00	3.02-1	1.02 2	-3.63-1	-1.03 2
13.5745	14.3869	0.98	17.00	1.00-1	2.35 1	-1.54-1	-2.39 1
13.7403	14.3870	1.00	22.00	1.45-1	3.86 1	-2.01-1	-3.92 1
13.6366	14.4276	0.98	17.50	1.05-1	2.49 1	-1.58-1	-2.53 1
13.8354	14.4563	1.00	23.00	1.54-1	4.21 1	-2.10-1	-4.27 1
13.6970	14.4678	0.98	18.00	1.09-1	2.63 1	-1.62-1	-2.68 1
13.7558	14.5074	0.98	18.50	1.13-1	2.78 1	-1.66-1	-2.82 1
13.5542	14.5179	0.96	14.00	7.46-2	1.61 1	-1.26-1	-1.65 1
13.9269	14.5241	1.00	24.00	1.63-1	4.57 1	-2.18-1	-4.63 1
13.8131	14.5465	0.98	19.00	1.17-1	2.93 1	-1.70-1	-2.97 1
13.6309	14.5638	0.96	14.50	7.85-2	1.73 1	-1.30-1	-1.77 1
13.8689	14.5851	0.98	19.50	1.21-1	3.08 1	-1.74-1	-3.13 1
13.7049	14.6089	0.96	15.00	8.24-2	1.85 1	-1.34-1	-1.89 1
13.9234	14.6231	0.98	20.00	1.25-1	3.23 1	-1.78-1	-3.29 1
13.7763	14.6533	0.96	15.50	8.63-2	1.98 1	-1.38-1	-2.01 1
13.5344	14.6820	0.94	11.50	5.43-2	1.10 1	-1.04-1	-1.13 1
13.8455	14.6971	0.96	16.00	9.03-2	2.10 1	-1.41-1	-2.14 1
13.6304	14.7331	0.94	12.00	5.81-2	1.20 1	-1.07-1	-1.22 1
13.9124	14.7402	0.96	16.50	9.42-2	2.24 1	-1.45-1	-2.28 1
13.9774	14.7827	0.96	17.00	9.82-2	2.37 1	-1.49-1	-2.41 1
13.7220	14.7835	0.94	12.50	6.18-2	1.30 1	-1.11-1	-1.33 1
13.8097	14.8330	0.94	13.00	6.55-2	1.40 1	-1.14-1	-1.44 1
13.5046	14.8803	0.92	9.40	3.83-2	7.36 0	-8.55-2	-7.57 0
13.8938	14.8818	0.94	13.50	6.93-2	1.51 1	-1.18-1	-1.55 1
13.5544	14.9029	0.92	9.60	3.97-2	7.68 0	-8.69-2	-7.90 0
13.6029	14.9253	0.92	9.80	4.12-2	8.01 0	-8.82-2	-8.24 0
13.9747	14.9298	0.94	14.00	7.31-2	1.63 1	-1.22-1	-1.66 1
13.6503	14.9476	0.92	10.00	4.26-2	8.35 0	-8.96-2	-8.58 0
13.7641	15.0029	0.92	10.50	4.62-2	9.22 0	-9.30-2	-9.46 0
13.8718	15.0575	0.92	11.00	4.98-2	1.01 1	-9.64-2	-1.04 1
13.9740	15.1112	0.92	11.50	5.34-2	1.11 1	-9.98-2	-1.13 1
13.5075	15.1372	0.90	7.80	2.68-2	5.06 0	-7.18-2	-5.23 0
13.5708	15.1613	0.90	8.00	2.82-2	5.33 0	-7.31-2	-5.51 0
13.6321	15.1853	0.90	8.20	2.95-2	5.61 0	-7.44-2	-5.79 0
13.6916	15.2092	0.90	8.40	3.09-2	5.90 0	-7.56-2	-6.08 0
13.7494	15.2332	0.90	8.60	3.23-2	6.19 0	-7.69-2	-6.38 0
13.8055	15.2570	0.90	8.80	3.37-2	6.49 0	-7.82-2	-6.68 0
13.8601	15.2808	0.90	9.00	3.50-2	6.79 0	-7.95-2	-6.99 0
13.9133	15.3045	0.90	9.20	3.64-2	7.11 0	-8.08-2	-7.31 0
13.9651	15.3281	0.90	9.40	3.78-2	7.42 0	-8.21-2	-7.63 0
13.5562	15.4553	0.88	6.60	1.87-2	3.61 0	-6.14-2	-3.74 0
13.6356	15.4801	0.88	6.80	2.00-2	3.84 0	-6.26-2	-3.98 0
13.7120	15.5051	0.88	7.00	2.13-2	4.08 0	-6.39-2	-4.23 0
13.7856	15.5302	0.88	7.20	2.27-2	4.33 0	-6.51-2	-4.48 0
13.8566	15.5554	0.88	7.40	2.40-2	4.58 0	-6.63-2	-4.74 0
13.9252	15.5806	0.88	7.60	2.53-2	4.84 0	-6.76-2	-5.00 0
13.9915	15.6058	0.88	7.80	2.66-2	5.11 0	-6.88-2	-5.27 0
13.5025	15.7969	0.86	5.40	1.11-2	2.38 0	-5.17-2	-2.49 0
13.6081	15.8206	0.86	5.60	1.24-2	2.57 0	-5.29-2	-2.68 0
13.7085	15.8451	0.86	5.80	1.37-2	2.77 0	-5.41-2	-2.89 0
13.8041	15.8701	0.86	6.00	1.49-2	2.98 0	-5.52-2	-3.10 0
13.8955	15.8956	0.86	6.20	1.62-2	3.19 0	-5.64-2	-3.32 0
13.9830	15.9214	0.86	6.40	1.75-2	3.41 0	-5.76-2	-3.54 0
13.5487	16.2206	0.84	4.60	6.49-3	1.70 0	-4.49-2	-1.79 0
13.6831	16.2416	0.84	4.80	7.72-3	1.86 0	-4.60-2	-1.96 0
13.8094	16.2641	0.84	5.00	8.94-3	2.04 0	-4.71-2	-2.13 0
13.9286	16.2880	0.84	5.20	1.02-2	2.22 0	-4.82-2	-2.32 0
13.5630	16.7002	0.82	3.90	2.76-3	1.19 0	-3.91-2	-1.26 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.6519	16.7071	0.82	4.00	3.36-3	1.26 0	-3.96-2	-1.33 0
13.8194	16.7236	0.82	4.20	4.54-3	1.41 0	-4.06-2	-1.48 0
13.9751	16.7430	0.82	4.40	5.73-3	1.56 0	-4.17-2	-1.64 0
13.5418	17.2483	0.80	3.30	-1.37-4	8.27-1	-3.41-2	-8.83-1
13.6592	17.2488	0.80	3.40	4.39-4	8.85-1	-3.46-2	-9.43-1
13.7710	17.2511	0.80	3.50	1.01-3	9.45-1	-3.51-2	-1.01 0
13.8777	17.2550	0.80	3.60	1.59-3	1.01 0	-3.56-2	-1.07 0
13.9796	17.2604	0.80	3.70	2.16-3	1.07 0	-3.60-2	-1.14 0
13.9331	17.8560	0.78	3.10	-6.14-4	7.24-1	-3.13-2	-7.75-1
13.7939	17.9600	0.78	3.00	-1.17-3	6.71-1	-3.08-2	-7.20-1
13.6464	17.8670	0.78	2.90	-1.73-3	6.20-1	-3.04-2	-6.67-1
13.8334	18.5472	0.76	2.60	-2.66-3	4.85-1	-2.73-2	-5.25-1
13.6400	18.5682	0.76	2.50	-3.21-3	4.41-1	-2.69-2	-4.80-1
13.9477	19.3081	0.74	2.30	-3.53-3	3.65-1	-2.44-2	-3.99-1
13.7007	19.3468	0.74	2.20	-4.06-3	3.27-1	-2.40-2	-3.59-1
13.9333	20.1793	0.72	2.00	-4.33-3	2.61-1	-2.17-2	-2.89-1
13.7724	20.2124	0.72	1.95	-4.58-3	2.45-1	-2.16-2	-2.72-1
13.6029	20.2496	0.72	1.90	-4.84-3	2.29-1	-2.14-2	-2.55-1
13.8984	21.1617	0.70	1.75	-4.82-3	1.88-1	-1.94-2	-2.11-1
13.6838	21.2167	0.70	1.70	-5.07-3	1.74-1	-1.92-2	-1.96-1
13.8889	22.2536	0.68	1.55	-5.03-3	1.38-1	-1.74-2	-1.57-1
13.6067	22.3377	0.68	1.50	-5.28-3	1.27-1	-1.72-2	-1.44-1
13.9980	23.4325	0.66	1.40	-4.99-3	1.06-1	-1.67-2	-1.22-1
13.6389	23.5503	0.66	1.35	-5.23-3	9.61-2	-1.65-2	-1.11-1
13.9402	24.8007	0.64	1.25	-4.95-3	7.85-2	-1.41-2	-9.16-2
13.5876	26.4387	0.62	1.10	-4.91-3	5.48-2	-1.26-2	-6.55-2
13.5452	28.1368	0.60	1.00	-4.64-3	4.18-2	-1.13-2	-5.08-2
13.6339	29.9716	0.58	0.92	-4.31-3	3.28-2	-1.01-2	-4.06-2
13.5124	32.1138	0.56	0.84	-4.00-3	2.49-2	-9.06-3	-3.15-2
13.6944	34.3703	0.54	0.78	-3.63-3	1.99-2	-8.09-3	-2.56-2
13.6881	36.9958	0.52	0.72	-3.29-3	1.54-2	-7.19-3	-2.03-2
13.8290	43.2230	0.48	0.62	-2.61-3	9.49-3	-5.63-3	-1.31-2
13.8239	76.2830	0.36	0.40	-1.03-3	2.01-3	-2.41-3	-3.53-3
14.00	14.70						
14.0030	14.1826	1.20	88.00	1.24 0	4.35 2	-1.32 0	-4.37 2
14.0440	14.2211	1.20	89.00	1.26 0	4.42 2	-1.34 0	-4.44 2
14.0120	14.2371	1.15	71.00	8.24-1	3.15 2	-8.98-1	-3.17 2
14.0851	14.2598	1.20	90.00	1.29 0	4.49 2	-1.37 0	-4.51 2
14.0536	14.2752	1.15	72.00	8.42-1	3.22 2	-9.15-1	-3.24 2
14.0950	14.3134	1.15	73.00	8.60-1	3.30 2	-9.33-1	-3.31 2
14.0328	14.3247	1.10	54.00	5.26-1	2.00 2	-5.93-1	-2.02 2
14.1364	14.3516	1.15	74.00	8.78-1	3.37 2	-9.51-1	-3.39 2
14.0795	14.3661	1.10	55.00	5.39-1	2.07 2	-6.06-1	-2.08 2
14.1777	14.3898	1.15	75.00	8.96-1	3.44 2	-9.70-1	-3.46 2
14.1258	14.4073	1.10	56.00	5.53-1	2.13 2	-6.19-1	-2.15 2
14.0273	14.4268	1.05	38.00	3.12-1	1.07 2	-3.73-1	-1.08 2
14.2191	14.4280	1.15	76.00	9.15-1	3.52 2	-9.88-1	-3.54 2
14.1717	14.4484	1.10	57.00	5.66-1	2.20 2	-6.33-1	-2.22 2
14.2604	14.4663	1.15	77.00	9.34-1	3.59 2	-1.01 0	-3.61 2
14.0866	14.4766	1.05	39.00	3.23-1	1.13 2	-3.84-1	-1.14 2
14.2173	14.4892	1.10	58.00	5.80-1	2.27 2	-6.47-1	-2.29 2
14.3017	14.5046	1.15	78.00	9.53-1	3.67 2	-1.03 0	-3.69 2
14.1449	14.5257	1.05	40.00	3.33-1	1.18 2	-3.94-1	-1.19 2
14.2626	14.5298	1.10	59.00	5.94-1	2.34 2	-6.60-1	-2.35 2
14.3430	14.5430	1.15	79.00	9.73-1	3.74 2	-1.05 0	-3.76 2
14.3075	14.5703	1.10	60.00	6.08-1	2.41 2	-6.74-1	-2.42 2
14.2022	14.5743	1.05	41.00	3.44-1	1.24 2	-4.05-1	-1.25 2
14.3844	14.5815	1.15	80.00	9.93-1	3.82 2	-1.07 0	-3.84 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.0151	14.5903	1.00	25.00	1.72-1	4.95 1	-2.27-1	-5.01 1
14.3522	14.6107	1.10	61.00	6.22-1	2.48 2	-6.88-1	-2.49 2
14.4258	14.6201	1.15	81.00	1.01 0	3.89 2	-1.09 0	-3.91 2
14.2586	14.6224	1.05	42.00	3.55-1	1.29 2	-4.15-1	-1.30 2
14.3967	14.6509	1.10	62.00	6.36-1	2.55 2	-7.03-1	-2.56 2
14.1002	14.6551	1.00	26.00	1.81-1	5.33 1	-2.36-1	-5.40 1
14.4672	14.6588	1.15	82.00	1.03 0	3.97 2	-1.11 0	-3.99 2
14.3141	14.6699	1.05	43.00	3.66-1	1.35 2	-4.26-1	-1.36 2
14.4409	14.6909	1.10	63.00	6.51-1	2.62 2	-7.17-1	-2.64 2
14.5087	14.6976	1.15	83.00	1.06 0	4.04 2	-1.13 0	-4.06 2
14.0286	14.6977	0.98	21.00	1.33-1	3.56 1	-1.86-1	-3.61 1
14.3688	14.7169	1.05	44.00	3.77-1	1.41 2	-4.37-1	-1.42 2
14.1825	14.7186	1.00	27.00	1.89-1	5.73 1	-2.44-1	-5.80 1
14.4849	14.7309	1.10	64.00	6.66-1	2.69 2	-7.32-1	-2.71 2
14.5503	14.7366	1.15	84.00	1.08 0	4.12 2	-1.15 0	-4.14 2
14.4227	14.7635	1.05	45.00	3.88-1	1.47 2	-4.48-1	-1.48 2
14.1293	14.7704	0.98	22.00	1.42-1	3.89 1	-1.95-1	-3.95 1
14.5287	14.7708	1.10	65.00	6.81-1	2.76 2	-7.47-1	-2.78 2
14.5920	14.7757	1.15	85.00	1.10 0	4.19 2	-1.17 0	-4.21 2
14.2624	14.7808	1.00	28.00	1.98-1	6.15 1	-2.53-1	-6.22 1
14.4759	14.8097	1.05	46.00	3.99-1	1.53 2	-4.59-1	-1.54 2
14.5723	14.8106	1.10	66.00	6.96-1	2.83 2	-7.62-1	-2.85 2
14.6338	14.8149	1.15	86.00	1.12 0	4.27 2	-1.19 0	-4.29 2
14.0405	14.8245	0.96	17.50	1.02-1	2.51 1	-1.53-1	-2.55 1
14.2259	14.8414	0.98	23.00	1.50-1	4.24 1	-2.03-1	-4.30 1
14.3398	14.8418	1.00	29.00	2.08-1	6.57 1	-2.62-1	-6.65 1
14.6157	14.8503	1.10	67.00	7.11-1	2.91 2	-7.77-1	-2.92 2
14.6757	14.8543	1.15	87.00	1.14 0	4.34 2	-1.22 0	-4.36 2
14.5284	14.8554	1.05	47.00	4.11-1	1.59 2	-4.71-1	-1.60 2
14.1018	14.8658	0.96	18.00	1.06-1	2.65 1	-1.57-1	-2.70 1
14.6590	14.8899	1.10	68.00	7.27-1	2.98 2	-7.92-1	-3.00 2
14.5803	14.9007	1.05	48.00	4.22-1	1.65 2	-4.82-1	-1.66 2
14.4151	14.9017	1.00	30.00	2.17-1	7.01 1	-2.71-1	-7.09 1
14.1615	14.9064	0.96	18.50	1.10-1	2.80 1	-1.61-1	-2.85 1
14.3187	14.9107	0.98	24.00	1.59-1	4.61 1	-2.11-1	-4.67 1
14.6316	14.9457	1.05	49.00	4.34-1	1.71 2	-4.93-1	-1.73 2
14.2196	14.9465	0.96	19.00	1.14-1	2.95 1	-1.65-1	-3.00 1
14.4884	14.9606	1.00	31.00	2.26-1	7.46 1	-2.80-1	-7.54 1
14.0525	14.9770	0.94	14.50	7.68-2	1.75 1	-1.25-1	-1.78 1
14.4082	14.9784	0.98	25.00	1.67-1	4.98 1	-2.20-1	-5.05 1
14.2763	14.9860	0.96	19.50	1.18-1	3.10 1	-1.68-1	-3.15 1
14.6823	14.9903	1.05	50.00	4.45-1	1.78 2	-5.05-1	-1.79 2
14.5599	15.0184	1.00	32.00	2.35-1	7.93 1	-2.89-1	-8.01 1
14.1276	15.0235	0.94	15.00	8.06-2	1.87 1	-1.29-1	-1.90 1
14.3316	15.0250	0.96	20.00	1.22-1	3.26 1	-1.72-1	-3.31 1
14.4946	15.0446	0.98	26.00	1.76-1	5.38 1	-2.28-1	-5.44 1
14.2001	15.0692	0.94	15.50	8.44-2	1.99 1	-1.33-1	-2.03 1
14.6296	15.0753	1.00	33.00	2.45-1	8.40 1	-2.99-1	-8.49 1
14.4384	15.1015	0.96	21.00	1.30-1	3.59 1	-1.80-1	-3.64 1
14.5782	15.1095	0.98	27.00	1.85-1	5.78 1	-2.37-1	-5.85 1
14.2703	15.1142	0.94	16.00	8.82-2	2.12 1	-1.36-1	-2.16 1
14.6978	15.1312	1.00	34.00	2.54-1	8.89 1	-3.08-1	-8.98 1
14.3383	15.1585	0.94	16.50	9.20-2	2.25 1	-1.40-1	-2.29 1
14.0714	15.1641	0.92	12.00	5.70-2	1.21 1	-1.03-1	-1.23 1
14.6593	15.1731	0.98	28.00	1.93-1	6.20 1	-2.45-1	-6.27 1
14.5407	15.1760	0.96	22.00	1.38-1	3.92 1	-1.88-1	-3.98 1
14.4042	15.2022	0.94	17.00	9.59-2	2.39 1	-1.44-1	-2.43 1
14.1644	15.2161	0.92	12.50	6.06-2	1.31 1	-1.07-1	-1.34 1
14.4682	15.2451	0.94	17.50	9.97-2	2.53 1	-1.48-1	-2.57 1
14.6387	15.2486	0.96	23.00	1.47-1	4.28 1	-1.96-1	-4.34 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.2534	15.2672	0.92	13.00	6.42-2	1.42 1	-1.10-1	-1.45 1
14.5305	15.2875	0.94	18.00	1.04-1	2.67 1	-1.51-1	-2.72 1
14.3387	15.3176	0.92	13.50	6.78-2	1.53 1	-1.14-1	-1.56 1
14.5911	15.3292	0.94	18.50	1.07-1	2.82 1	-1.55-1	-2.87 1
14.0155	15.3515	0.90	9.60	3.92-2	7.75 0	-8.34-2	-7.96 0
14.4208	15.3670	0.92	14.00	7.15-2	1.64 1	-1.17-1	-1.67 1
14.6502	15.3704	0.94	19.00	1.11-1	2.97 1	-1.59-1	-3.02 1
14.0648	15.3749	0.90	9.80	4.06-2	8.08 0	-8.48-2	-8.30 0
14.1129	15.3981	0.90	10.00	4.19-2	8.42 0	-8.61-2	-8.64 0
14.4998	15.4157	0.92	14.50	7.51-2	1.76 1	-1.21-1	-1.79 1
14.2283	15.4555	0.90	10.50	4.54-2	9.30 0	-8.94-2	-9.53 0
14.5760	15.4635	0.92	15.00	7.88-2	1.88 1	-1.24-1	-1.92 1
14.6497	15.5106	0.92	15.50	8.25-2	2.01 1	-1.28-1	-2.05 1
14.3376	15.5121	0.90	11.00	4.89-2	1.02 1	-9.27-2	-1.05 1
14.4413	15.5677	0.90	11.50	5.23-2	1.12 1	-9.60-2	-1.14 1
14.5402	15.6224	0.90	12.00	5.58-2	1.22 1	-9.94-2	-1.24 1
14.0557	15.6310	0.88	8.00	2.79-2	5.38 0	-7.00-2	-5.55 0
14.1178	15.6562	0.88	8.20	2.93-2	5.66 0	-7.13-2	-5.84 0
14.6345	15.6762	0.90	12.50	5.93-2	1.32 1	-1.03-1	-1.35 1
14.1782	15.6813	0.88	8.40	3.06-2	5.95 0	-7.25-2	-6.13 0
14.2367	15.7063	0.88	8.60	3.19-2	6.25 0	-7.38-2	-6.43 0
14.2937	15.7312	0.88	8.80	3.32-2	6.55 0	-7.50-2	-6.74 0
14.3491	15.7561	0.88	9.00	3.46-2	6.86 0	-7.63-2	-7.05 0
14.4030	15.7808	0.88	9.20	3.59-2	7.17 0	-7.76-2	-7.37 0
14.4555	15.8053	0.88	9.40	3.72-2	7.49 0	-7.88-2	-7.70 0
14.5067	15.8298	0.88	9.60	3.86-2	7.82 0	-8.01-2	-8.03 0
14.5567	15.8540	0.88	9.80	3.99-2	8.16 0	-8.14-2	-8.37 0
14.6055	15.8782	0.88	10.00	4.12-2	8.50 0	-8.26-2	-8.72 0
14.0668	15.9475	0.86	6.60	1.87-2	3.64 0	-5.87-2	-3.77 0
14.1473	15.9738	0.86	6.80	2.00-2	3.87 0	-5.99-2	-4.01 0
14.2247	16.0002	0.86	7.00	2.13-2	4.12 0	-6.11-2	-4.26 0
14.2993	16.0267	0.86	7.20	2.26-2	4.37 0	-6.23-2	-4.51 0
14.3713	16.0533	0.86	7.40	2.38-2	4.62 0	-6.35-2	-4.78 0
14.4408	16.0798	0.86	7.60	2.51-2	4.89 0	-6.47-2	-5.04 0
14.5080	16.1063	0.86	7.80	2.64-2	5.16 0	-6.59-2	-5.32 0
14.5731	16.1328	0.86	8.00	2.77-2	5.43 0	-6.71-2	-5.60 0
14.6362	16.1592	0.86	8.20	2.89-2	5.72 0	-6.83-2	-5.89 0
14.6974	16.1855	0.86	8.40	3.02-2	6.01 0	-6.95-2	-6.18 0
14.0413	16.3129	0.84	5.40	1.14-2	2.40 0	-4.93-2	-2.51 0
14.1482	16.3386	0.84	5.60	1.26-2	2.60 0	-5.04-2	-2.71 0
14.2498	16.3650	0.84	5.80	1.38-2	2.80 0	-5.16-2	-2.91 0
14.3468	16.3919	0.84	6.00	1.51-2	3.01 0	-5.27-2	-3.12 0
14.4393	16.4191	0.84	6.20	1.63-2	3.22 0	-5.38-2	-3.34 0
14.5279	16.4467	0.84	6.40	1.75-2	3.45 0	-5.50-2	-3.57 0
14.6129	16.4744	0.84	6.60	1.88-2	3.68 0	-5.61-2	-3.81 0
14.6945	16.5023	0.84	6.80	2.00-2	3.91 0	-5.72-2	-4.05 0
14.1202	16.7647	0.82	4.60	6.91-3	1.72 0	-4.27-2	-1.80 0
14.2562	16.7883	0.82	4.80	8.09-3	1.88 0	-4.38-2	-1.97 0
14.3841	16.8133	0.82	5.00	9.27-3	2.06 0	-4.48-2	-2.15 0
14.5047	16.8395	0.82	5.20	1.05-2	2.24 0	-4.59-2	-2.34 0
14.6188	16.8666	0.82	5.40	1.16-2	2.43 0	-4.70-2	-2.53 0
14.0772	17.2669	0.80	3.80	2.73-3	1.14 0	-3.65-2	-1.20 0
14.1707	17.2746	0.80	3.90	3.30-3	1.21 0	-3.70-2	-1.27 0
14.2605	17.2832	0.80	4.00	3.87-3	1.28 0	-3.75-2	-1.35 0
14.4299	17.3030	0.80	4.20	5.01-3	1.42 0	-3.85-2	-1.50 0
14.5873	17.3255	0.80	4.40	6.15-3	1.57 0	-3.95-2	-1.65 0
14.0647	17.8546	0.78	3.20	-5.93-5	7.79-1	-3.18-2	-8.32-1
14.1895	17.8554	0.78	3.30	4.94-4	8.36-1	-3.22-2	-8.91-1
14.3082	17.8582	0.78	3.40	1.05-3	8.95-1	-3.27-2	-9.52-1
14.4211	17.8628	0.78	3.50	1.60-3	9.56-1	-3.32-2	-1.01 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.5289	17.8688	0.78	3.60	2.15-3	1.02 0	-3.36-2	-1.08 0
14.6319	17.8761	0.78	3.70	2.70-3	1.08 0	-3.41-2	-1.15 0
14.6299	18.5077	0.76	3.10	1.44-5	7.32-1	-2.95-2	-7.82-1
14.4893	18.5089	0.76	3.00	-5.18-4	6.79-1	-2.91-2	-7.27-1
14.3405	18.5130	0.76	2.90	-1.05-3	6.27-1	-2.86-2	-6.73-1
14.1823	18.5203	0.76	2.80	-1.59-3	5.78-1	-2.82-2	-6.22-1
14.0137	18.5315	0.76	2.70	-2.12-3	5.30-1	-2.77-2	-5.72-1
14.5802	19.2378	0.74	2.60	-1.97-3	4.91-1	-2.57-2	-5.30-1
14.3851	19.2549	0.74	2.50	-2.49-3	4.47-1	-2.52-2	-4.84-1
14.1750	19.2779	0.74	2.40	-3.01-3	4.05-1	-2.48-2	-4.40-1
14.5040	20.0802	0.72	2.20	-3.31-3	3.31-1	-2.25-2	-3.63-1
14.2321	20.1237	0.72	2.10	-3.82-3	2.95-1	-2.21-2	-3.25-1
14.6416	20.9981	0.70	1.95	-3.83-3	2.48-1	-2.01-2	-2.74-1
14.4709	21.0318	0.70	1.90	-4.08-3	2.33-1	-1.99-2	-2.58-1
14.2908	21.0700	0.70	1.85	-4.32-3	2.17-1	-1.97-2	-2.41-1
14.1003	21.1131	0.70	1.80	-4.57-3	2.02-1	-1.96-2	-2.26-1
14.6269	22.0574	0.68	1.70	-4.31-3	1.77-1	-1.79-2	-1.98-1
14.3971	22.1147	0.68	1.65	-4.55-3	1.63-1	-1.77-2	-1.84-1
14.1517	22.1797	0.68	1.60	-4.79-3	1.51-1	-1.76-2	-1.70-1
14.6345	23.2408	0.66	1.50	-4.52-3	1.29-1	-1.60-2	-1.46-1
14.3287	23.3301	0.66	1.45	-4.75-3	1.17-1	-1.58-2	-1.34-1
14.3711	24.6532	0.64	1.30	-4.71-3	8.78-2	-1.42-2	-1.02-1
14.1754	26.2154	0.62	1.15	-4.67-3	6.26-2	-1.27-2	-7.40-2
14.2936	27.8374	0.60	1.05	-4.42-3	4.86-2	-1.14-2	-5.83-2
14.3888	29.6579	0.58	0.96	-4.13-3	3.75-2	-1.02-2	-4.58-2
14.0222	29.8083	0.58	0.94	-4.22-3	3.51-2	-1.02-2	-4.31-2
14.4782	31.6976	0.56	0.88	-3.82-3	2.90-2	-9.11-3	-3.61-2
14.0110	31.8963	0.56	0.86	-3.91-3	2.69-2	-9.08-3	-3.38-2
14.3096	34.0980	0.54	0.80	-3.54-3	2.17-2	-8.11-3	-2.76-2
14.4646	36.6461	0.52	0.74	-3.20-3	1.70-2	-7.21-3	-2.21-2
14.3672	39.6389	0.50	0.68	-2.89-3	1.29-2	-6.38-3	-1.73-2
14.1979	46.8430	0.46	0.58	-2.28-3	7.61-3	-4.95-3	-1.08-2
14.3735	51.0857	0.44	0.54	-1.98-3	5.96-3	-4.33-3	-8.73-3
14.1977	56.1205	0.42	0.50	-1.71-3	4.54-3	-3.77-3	-6.91-3
14.4891	108.096	0.30	0.32	-5.39-4	8.76-4	-1.47-3	-1.87-3
14.70	15.40						
14.7177	14.8939	1.15	88.00	1.17 0	4.41 2	-1.24 0	-4.44 2
14.7021	14.9295	1.10	69.00	7.42-1	3.05 2	-8.08-1	-3.07 2
14.7599	14.9336	1.15	89.00	1.19 0	4.49 2	-1.26 0	-4.51 2
14.7452	14.9691	1.10	70.00	7.58-1	3.13 2	-8.24-1	-3.15 2
14.8023	14.9736	1.15	90.00	1.21 0	4.56 2	-1.29 0	-4.59 2
14.7881	15.0086	1.10	71.00	7.75-1	3.20 2	-8.40-1	-3.22 2
14.7324	15.0346	1.05	51.00	4.57-1	1.84 2	-5.17-1	-1.85 2
14.8309	15.0482	1.10	72.00	7.91-1	3.28 2	-8.57-1	-3.29 2
14.7821	15.0786	1.05	52.00	4.69-1	1.91 2	-5.29-1	-1.92 2
14.8737	15.0877	1.10	73.00	8.08-1	3.35 2	-8.73-1	-3.37 2
14.8312	15.1223	1.05	53.00	4.81-1	1.97 2	-5.41-1	-1.99 2
14.9164	15.1272	1.10	74.00	8.25-1	3.43 2	-8.90-1	-3.44 2
14.8799	15.1657	1.05	54.00	4.93-1	2.04 2	-5.53-1	-2.05 2
14.9591	15.1668	1.10	75.00	8.42-1	3.50 2	-9.07-1	-3.52 2
14.7644	15.1864	1.00	35.00	2.63-1	9.39 1	-3.17-1	-9.48 1
15.0017	15.2064	1.10	76.00	8.60-1	3.58 2	-9.25-1	-3.60 2
14.9282	15.2088	1.05	55.00	5.06-1	2.11 2	-5.65-1	-2.12 2
14.7379	15.2354	0.98	29.00	2.02-1	6.63 1	-2.54-1	-6.70 1
14.8296	15.2407	1.00	36.00	2.73-1	9.89 1	-3.27-1	-9.99 1
15.0443	15.2460	1.10	77.00	8.78-1	3.65 2	-9.43-1	-3.67 2
14.9761	15.2517	1.05	56.00	5.18-1	2.17 2	-5.77-1	-2.19 2
15.0869	15.2857	1.10	78.00	8.96-1	3.73 2	-9.61-1	-3.75 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.8935	15.2942	1.00	37.00	2.83-1	1.04 2	-3.36-1	-1.05 2
15.0236	15.2944	1.05	57.00	5.31-1	2.24 2	-5.90-1	-2.26 2
14.8144	15.2966	0.98	30.00	2.11-1	7.07 1	-2.63-1	-7.15 1
14.7330	15.3195	0.96	24.00	1.55-1	4.64 1	-2.04-1	-4.71 1
15.1296	15.3255	1.10	79.00	9.14-1	3.80 2	-9.79-1	-3.82 2
15.0708	15.3369	1.05	58.00	5.44-1	2.31 2	-6.03-1	-2.33 2
14.9562	15.3471	1.00	38.00	2.92-1	1.09 2	-3.46-1	-1.10 2
14.8888	15.3566	0.98	31.00	2.20-1	7.52 1	-2.71-1	-7.60 1
15.1722	15.3653	1.10	80.00	9.33-1	3.88 2	-9.98-1	-3.90 2
15.1176	15.3792	1.05	59.00	5.57-1	2.38 2	-6.16-1	-2.40 2
14.8239	15.3888	0.96	25.00	1.63-1	5.03 1	-2.13-1	-5.09 1
15.0177	15.3992	1.00	39.00	3.02-1	1.15 2	-3.56-1	-1.16 2
15.2149	15.4053	1.10	81.00	9.52-1	3.96 2	-1.02 0	-3.98 2
14.7077	15.4109	0.94	19.50	1.15-1	3.13 1	-1.63-1	-3.18 1
14.9614	15.4157	0.98	32.00	2.29-1	7.99 1	-2.80-1	-8.07 1
15.1641	15.4213	1.05	60.00	5.70-1	2.45 2	-6.29-1	-2.47 2
15.2577	15.4453	1.10	82.00	9.71-1	4.03 2	-1.04 0	-4.05 2
15.0782	15.4507	1.00	40.00	3.12-1	1.20 2	-3.65-1	-1.21 2
14.7639	15.4509	0.94	20.00	1.19-1	3.29 1	-1.66-1	-3.34 1
14.9116	15.4566	0.96	26.00	1.71-1	5.42 1	-2.21-1	-5.49 1
15.2103	15.4633	1.05	61.00	5.83-1	2.52 2	-6.42-1	-2.54 2
15.0322	15.4737	0.98	33.00	2.38-1	8.47 1	-2.89-1	-8.55 1
15.3005	15.4855	1.10	83.00	9.91-1	4.11 2	-1.06 0	-4.13 2
15.1376	15.5016	1.00	41.00	3.22-1	1.26 2	-3.75-1	-1.27 2
15.2563	15.5051	1.05	62.00	5.96-1	2.59 2	-6.55-1	-2.61 2
14.9966	15.5229	0.96	27.00	1.80-1	5.83 1	-2.29-1	-5.90 1
15.3433	15.5258	1.10	84.00	1.01 0	4.19 2	-1.08 0	-4.21 2
14.8724	15.5293	0.94	21.00	1.27-1	3.62 1	-1.74-1	-3.67 1
15.1013	15.5309	0.98	34.00	2.47-1	8.96 1	-2.98-1	-9.05 1
15.3020	15.5467	1.05	63.00	6.10-1	2.67 2	-6.69-1	-2.68 2
15.1961	15.5519	1.00	42.00	3.32-1	1.32 2	-3.85-1	-1.33 2
14.7210	15.5569	0.92	16.00	8.62-2	2.14 1	-1.32-1	-2.18 1
15.3863	15.5662	1.10	85.00	1.03 0	4.26 2	-1.10 0	-4.28 2
15.1690	15.5871	0.98	35.00	2.56-1	9.46 1	-3.07-1	-9.55 1
15.0789	15.5879	0.96	28.00	1.88-1	6.25 1	-2.37-1	-6.32 1
15.3475	15.5883	1.05	64.00	6.24-1	2.74 2	-6.82-1	-2.76 2
15.2537	15.6017	1.00	43.00	3.42-1	1.38 2	-3.95-1	-1.39 2
14.7900	15.6025	0.92	16.50	8.99-2	2.27 1	-1.35-1	-2.31 1
14.9762	15.6056	0.94	22.00	1.35-1	3.96 1	-1.82-1	-4.01 1
15.3928	15.6297	1.05	65.00	6.38-1	2.81 2	-6.96-1	-2.83 2
15.2352	15.6425	0.98	36.00	2.66-1	9.98 1	-3.17-1	-1.01 2
14.8570	15.6474	0.92	17.00	9.36-2	2.41 1	-1.39-1	-2.45 1
15.3104	15.6509	1.00	44.00	3.53-1	1.44 2	-4.06-1	-1.45 2
15.1587	15.6516	0.96	29.00	1.97-1	6.68 1	-2.46-1	-6.75 1
15.0759	15.6800	0.94	23.00	1.43-1	4.31 1	-1.90-1	-4.37 1
14.9221	15.6915	0.92	17.50	9.73-2	2.55 1	-1.42-1	-2.59 1
15.3001	15.6971	0.98	37.00	2.75-1	1.05 2	-3.26-1	-1.06 2
15.3663	15.6996	1.00	45.00	3.63-1	1.50 2	-4.16-1	-1.51 2
15.2364	15.7141	0.96	30.00	2.05-1	7.13 1	-2.54-1	-7.20 1
14.7249	15.7290	0.90	13.00	6.28-2	1.43 1	-1.06-1	-1.46 1
14.9853	15.7351	0.92	18.00	1.01-1	2.70 1	-1.46-1	-2.74 1
15.3638	15.7510	0.98	38.00	2.85-1	1.10 2	-3.35-1	-1.11 2
15.1716	15.7526	0.94	24.00	1.51-1	4.68 1	-1.98-1	-4.74 1
15.3120	15.7754	0.96	31.00	2.14-1	7.59 1	-2.63-1	-7.66 1
15.0469	15.7779	0.92	18.50	1.05-1	2.85 1	-1.50-1	-2.89 1
14.8116	15.7810	0.90	13.50	6.64-2	1.54 1	-1.10-1	-1.57 1
15.1069	15.8201	0.92	19.00	1.09-1	3.00 1	-1.53-1	-3.05 1
15.2640	15.8235	0.94	25.00	1.59-1	5.07 1	-2.05-1	-5.13 1
14.8949	15.8320	0.90	14.00	6.99-2	1.66 1	-1.13-1	-1.69 1
15.3857	15.8357	0.96	32.00	2.23-1	8.06 1	-2.71-1	-8.14 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.1654	15.8618	0.92	19.50	1.12-1	3.16 1	-1.57-1	-3.20 1
14.9752	15.8822	0.90	14.50	7.34-2	1.78 1	-1.16-1	-1.81 1
15.3531	15.8929	0.94	26.00	1.67-1	5.47 1	-2.13-1	-5.53 1
15.2224	15.9028	0.92	20.00	1.16-1	3.32 1	-1.61-1	-3.36 1
15.0527	15.9315	0.90	15.00	7.70-2	1.90 1	-1.20-1	-1.93 1
14.7226	15.9379	0.88	10.50	4.46-2	9.38 0	-8.58-2	-9.61 0
15.1275	15.9800	0.90	15.50	8.05-2	2.03 1	-1.23-1	-2.06 1
15.3327	15.9832	0.92	21.00	1.24-1	3.65 1	-1.68-1	-3.70 1
14.8336	15.9965	0.88	11.00	4.79-2	1.03 1	-8.90-2	-1.06 1
15.1999	16.0276	0.90	16.00	8.41-2	2.16 1	-1.27-1	-2.20 1
14.9389	16.0542	0.88	11.50	5.13-2	1.13 1	-9.23-2	-1.15 1
15.2701	16.0745	0.90	16.50	8.77-2	2.29 1	-1.30-1	-2.33 1
15.0393	16.1108	0.88	12.00	5.47-2	1.23 1	-9.55-2	-1.25 1
15.3381	16.1207	0.90	17.00	9.13-2	2.43 1	-1.34-1	-2.47 1
15.1352	16.1664	0.88	12.50	5.81-2	1.33 1	-9.88-2	-1.36 1
14.7568	16.2116	0.86	8.60	3.15-2	6.30 0	-7.07-2	-6.49 0
15.2270	16.2210	0.88	13.00	6.14-2	1.44 1	-1.02-1	-1.47 1
14.8146	16.2377	0.86	8.80	3.28-2	6.61 0	-7.19-2	-6.79 0
14.8708	16.2636	0.86	9.00	3.41-2	6.92 0	-7.31-2	-7.11 0
15.3151	16.2747	0.88	13.50	6.48-2	1.55 1	-1.05-1	-1.59 1
14.9255	16.2894	0.86	9.20	3.54-2	7.24 0	-7.43-2	-7.43 0
14.9788	16.3150	0.86	9.40	3.66-2	7.56 0	-7.56-2	-7.76 0
15.3997	16.3273	0.88	14.00	6.82-2	1.67 1	-1.09-1	-1.70 1
15.0308	16.3404	0.86	9.60	3.79-2	7.90 0	-7.68-2	-8.10 0
15.0815	16.3657	0.86	9.80	3.92-2	8.23 0	-7.80-2	-8.44 0
15.1311	16.3908	0.86	10.00	4.05-2	8.58 0	-7.93-2	-8.79 0
15.2501	16.4528	0.86	10.50	4.37-2	9.47 0	-8.24-2	-9.70 0
15.3627	16.5137	0.86	11.00	4.70-2	1.04 1	-8.55-2	-1.06 1
14.7730	16.5302	0.84	7.00	2.12-2	4.16 0	-5.84-2	-4.30 0
14.8486	16.5582	0.84	7.20	2.24-2	4.41 0	-5.95-2	-4.55 0
14.9216	16.5862	0.84	7.40	2.37-2	4.67 0	-6.07-2	-4.82 0
14.9921	16.6142	0.84	7.60	2.49-2	4.93 0	-6.18-2	-5.09 0
15.0603	16.6420	0.84	7.80	2.61-2	5.21 0	-6.30-2	-5.36 0
15.1264	16.6698	0.84	8.00	2.74-2	5.49 0	-6.42-2	-5.65 0
15.1904	16.6975	0.84	8.20	2.86-2	5.77 0	-6.53-2	-5.94 0
15.2525	16.7250	0.84	8.40	2.98-2	6.07 0	-6.65-2	-6.24 0
15.3128	16.7524	0.84	8.60	3.11-2	6.37 0	-6.77-2	-6.54 0
15.3715	16.7796	0.84	8.80	3.23-2	6.67 0	-6.88-2	-6.86 0
14.7271	16.8945	0.82	5.60	1.28-2	2.62 0	-4.81-2	-2.73 0
14.8301	16.9229	0.82	5.80	1.40-2	2.83 0	-4.91-2	-2.94 0
14.9283	16.9517	0.82	6.00	1.52-2	3.04 0	-5.02-2	-3.15 0
15.0221	16.9808	0.82	6.20	1.64-2	3.26 0	-5.13-2	-3.38 0
15.1119	17.0102	0.82	6.40	1.75-2	3.48 0	-5.24-2	-3.61 0
15.1981	17.0396	0.82	6.60	1.87-2	3.71 0	-5.35-2	-3.84 0
15.2808	17.0692	0.82	6.80	1.99-2	3.95 0	-5.46-2	-4.09 0
15.3605	17.0988	0.82	7.00	2.11-2	4.20 0	-5.57-2	-4.34 0
14.7342	17.3501	0.80	4.60	7.29-3	1.73 0	-4.06-2	-1.82 0
14.8719	17.3764	0.80	4.80	8.42-3	1.90 0	-4.16-2	-1.99 0
15.0013	17.4040	0.80	5.00	9.56-3	2.08 0	-4.26-2	-2.17 0
15.1235	17.4327	0.80	5.20	1.07-2	2.26 0	-4.36-2	-2.36 0
15.2391	17.4622	0.80	5.40	1.18-2	2.45 0	-4.47-2	-2.55 0
15.3488	17.4922	0.80	5.60	1.30-2	2.65 0	-4.57-2	-2.76 0
14.7305	17.8847	0.78	3.80	3.25-3	1.15 0	-3.46-2	-1.22 0
14.8251	17.8942	0.78	3.90	3.79-3	1.22 0	-3.51-2	-1.29 0
14.9159	17.9047	0.78	4.00	4.34-3	1.29 0	-3.55-2	-1.36 0
15.0873	17.9279	0.78	4.20	5.44-3	1.44 0	-3.65-2	-1.51 0
15.2466	17.9536	0.78	4.40	6.53-3	1.59 0	-3.75-2	-1.67 0
15.3953	17.9813	0.78	4.60	7.62-3	1.75 0	-3.85-2	-1.84 0
14.7628	18.5089	0.76	3.20	5.45-4	7.88-1	-3.00-2	-8.40-1
14.8889	18.5123	0.76	3.30	1.08-3	8.46-1	-3.04-2	-8.99-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.0088	18.5175	0.76	3.40	1.60-3	9.05-1	-3.09-2	-9.61-1
15.1229	18.5244	0.76	3.50	2.13-3	9.67-1	-3.13-2	-1.02 0
15.2319	18.5326	0.76	3.60	2.66-3	1.03 0	-3.18-2	-1.09 0
15.3360	18.5421	0.76	3.70	3.19-3	1.10 0	-3.22-2	-1.16 0
15.2422	19.2129	0.74	3.00	8.41-5	6.87-1	-2.73-2	-7.34-1
15.0918	19.2139	0.74	2.90	-4.26-4	6.35-1	-2.69-2	-6.80-1
15.3841	19.2146	0.74	3.10	5.93-4	7.41-1	-2.78-2	-7.90-1
14.9321	19.2180	0.74	2.80	-9.38-4	5.85-1	-2.65-2	-6.28-1
14.7620	19.2257	0.74	2.70	-1.45-3	5.37-1	-2.61-2	-5.78-1
15.3908	19.9894	0.72	2.60	-1.32-3	4.97-1	-2.41-2	-5.35-1
15.1939	20.0024	0.72	2.50	-1.82-3	4.53-1	-2.37-2	-4.89-1
14.9820	20.0210	0.72	2.40	-2.31-3	4.10-1	-2.33-2	-4.45-1
14.7529	20.0465	0.72	2.30	-2.81-3	3.70-1	-2.29-2	-4.03-1
15.3787	20.8813	0.70	2.20	-2.62-3	3.36-1	-2.10-2	-3.66-1
15.1046	20.9190	0.70	2.10	-3.10-3	2.99-1	-2.06-2	-3.28-1
14.8037	20.9683	0.70	2.00	-3.59-3	2.65-1	-2.03-2	-2.92-1
15.2378	21.9237	0.68	1.85	-3.60-3	2.20-1	-1.84-2	-2.44-1
15.0460	21.9627	0.68	1.80	-3.83-3	2.05-1	-1.82-2	-2.28-1
14.8428	22.0070	0.68	1.75	-4.07-3	1.91-1	-1.80-2	-2.13-1
15.1825	23.0947	0.66	1.60	-4.06-3	1.53-1	-1.63-2	-1.72-1
14.9183	23.1628	0.66	1.55	-4.29-3	1.40-1	-1.61-2	-1.59-1
15.1253	24.4165	0.64	1.40	-4.26-3	1.08-1	-1.44-2	-1.24-1
14.7645	24.5262	0.64	1.35	-4.48-3	9.77-2	-1.43-2	-1.12-1
15.1794	25.8653	0.62	1.25	-4.22-3	7.99-2	-1.29-2	-9.27-2
14.7029	26.0262	0.62	1.20	-4.45-3	7.10-2	-1.28-2	-8.31-2
14.9554	27.5878	0.60	1.10	-4.19-3	5.59-2	-1.15-2	-6.63-2
15.0641	29.3906	0.58	1.00	-3.96-3	4.27-2	-1.03-2	-5.15-2
14.7355	29.5190	0.58	0.98	-4.04-3	4.01-2	-1.02-2	-4.86-2
15.3299	31.3489	0.56	0.92	-3.65-3	3.35-2	-9.17-3	-4.11-2
14.9170	31.5157	0.56	0.90	-3.74-3	3.12-2	-9.14-3	-3.86-2
14.8821	33.8513	0.54	0.82	-3.46-3	2.36-2	-8.13-3	-2.97-2
15.1814	36.3325	0.52	0.76	-3.12-3	1.87-2	-7.23-3	-2.40-2
15.2881	39.2284	0.50	0.70	-2.81-3	1.44-2	-6.40-3	-1.89-2
15.0503	42.6665	0.48	0.64	-2.53-3	1.07-2	-5.64-3	-1.45-2
15.40	16.10						
15.4294	15.6068	1.10	86.00	1.05 0	4.34 2	-1.12 0	-4.36 2
15.4726	15.6475	1.10	87.00	1.07 0	4.42 2	-1.14 0	-4.44 2
15.4379	15.6711	1.05	66.00	6.52-1	2.89 2	-7.10-1	-2.90 2
15.5160	15.6884	1.10	88.00	1.10 0	4.49 2	-1.16 0	-4.51 2
15.4828	15.7123	1.05	67.00	6.66-1	2.96 2	-7.25-1	-2.98 2
15.5595	15.7295	1.10	89.00	1.12 0	4.57 2	-1.18 0	-4.59 2
15.4215	15.7478	1.00	46.00	3.73-1	1.56 2	-4.26-1	-1.57 2
15.5276	15.7535	1.05	68.00	6.81-1	3.04 2	-7.39-1	-3.05 2
15.6031	15.7709	1.10	90.00	1.14 0	4.64 2	-1.20 0	-4.66 2
15.5722	15.7946	1.05	69.00	6.95-1	3.11 2	-7.54-1	-3.13 2
15.4760	15.7956	1.00	47.00	3.84-1	1.62 2	-4.37-1	-1.63 2
15.4262	15.8042	0.98	39.00	2.94-1	1.16 2	-3.45-1	-1.17 2
15.6167	15.8357	1.05	70.00	7.10-1	3.19 2	-7.69-1	-3.20 2
15.5298	15.8430	1.00	48.00	3.95-1	1.68 2	-4.47-1	-1.69 2
15.4876	15.8567	0.98	40.00	3.04-1	1.21 2	-3.54-1	-1.22 2
15.6610	15.8768	1.05	71.00	7.26-1	3.26 2	-7.84-1	-3.28 2
15.5829	15.8900	1.00	49.00	4.05-1	1.75 2	-4.58-1	-1.76 2
15.4576	15.8950	0.96	33.00	2.32-1	8.54 1	-2.80-1	-8.62 1
15.5480	15.9085	0.98	41.00	3.13-1	1.27 2	-3.64-1	-1.28 2
15.7053	15.9178	1.05	72.00	7.41-1	3.34 2	-7.99-1	-3.35 2
15.6355	15.9366	1.00	50.00	4.16-1	1.81 2	-4.69-1	-1.82 2
15.5279	15.9533	0.96	34.00	2.41-1	9.03 1	-2.89-1	-9.12 1
15.7495	15.9588	1.05	73.00	7.57-1	3.41 2	-8.15-1	-3.43 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.6073	15.9598	0.98	42.00	3.23-1	1.33 2	-3.74-1	-1.34 2
15.4394	15.9607	0.94	27.00	1.75-1	5.88 1	-2.21-1	-5.94 1
15.6875	15.9829	1.00	51.00	4.27-1	1.88 2	-4.80-1	-1.89 2
15.7937	15.9999	1.05	74.00	7.72-1	3.49 2	-8.30-1	-3.51 2
15.6658	16.0105	0.98	43.00	3.33-1	1.39 2	-3.83-1	-1.40 2
15.5966	16.0107	0.96	35.00	2.49-1	9.54 1	-2.98-1	-9.63 1
15.5231	16.0272	0.94	28.00	1.83-1	6.30 1	-2.30-1	-6.37 1
15.7390	16.0288	1.00	52.00	4.38-1	1.94 2	-4.91-1	-1.96 2
15.8378	16.0409	1.05	75.00	7.89-1	3.57 2	-8.46-1	-3.58 2
15.7234	16.0606	0.98	44.00	3.43-1	1.45 2	-3.93-1	-1.46 2
15.4382	16.0614	0.92	22.00	1.31-1	3.99 1	-1.76-1	-4.05 1
15.6639	16.0673	0.96	36.00	2.59-1	1.01 2	-3.07-1	-1.02 2
15.7899	16.0744	1.00	53.00	4.50-1	2.01 2	-5.02-1	-2.02 2
15.8818	16.0820	1.05	76.00	8.05-1	3.64 2	-8.63-1	-3.66 2
15.6042	16.0923	0.94	29.00	1.92-1	6.74 1	-2.38-1	-6.81 1
15.7802	16.1103	0.98	45.00	3.53-1	1.51 2	-4.03-1	-1.52 2
15.8404	16.1197	1.00	54.00	4.61-1	2.08 2	-5.13-1	-2.09 2
15.7298	16.1230	0.96	37.00	2.68-1	1.06 2	-3.16-1	-1.07 2
15.9259	16.1231	1.05	77.00	8.22-1	3.72 2	-8.79-1	-3.74 2
15.5395	16.1377	0.92	23.00	1.39-1	4.35 1	-1.83-1	-4.41 1
15.6831	16.1562	0.94	30.00	2.00-1	7.19 1	-2.46-1	-7.26 1
15.8362	16.1594	0.98	46.00	3.63-1	1.57 2	-4.13-1	-1.58 2
15.9699	16.1643	1.05	78.00	8.39-1	3.80 2	-8.96-1	-3.82 2
15.8905	16.1647	1.00	55.00	4.73-1	2.15 2	-5.25-1	-2.16 2
15.4042	16.1661	0.90	17.50	9.49-2	2.58 1	-1.37-1	-2.62 1
15.7944	16.1780	0.96	38.00	2.77-1	1.11 2	-3.25-1	-1.12 2
16.0139	16.2055	1.05	79.00	8.56-1	3.88 2	-9.13-1	-3.89 2
15.8915	16.2081	0.98	47.00	3.73-1	1.63 2	-4.23-1	-1.64 2
15.9401	16.2095	1.00	56.00	4.84-1	2.22 2	-5.36-1	-2.23 2
15.4685	16.2108	0.90	18.00	9.85-2	2.72 1	-1.41-1	-2.76 1
15.6368	16.2120	0.92	24.00	1.47-1	4.73 1	-1.91-1	-4.78 1
15.7600	16.2189	0.94	31.00	2.08-1	7.65 1	-2.54-1	-7.73 1
15.8579	16.2322	0.96	39.00	2.86-1	1.17 2	-3.34-1	-1.18 2
16.0580	16.2469	1.05	80.00	8.73-1	3.95 2	-9.31-1	-3.97 2
15.9894	16.2540	1.00	57.00	4.96-1	2.29 2	-5.48-1	-2.30 2
15.5311	16.2548	0.90	18.50	1.02-1	2.87 1	-1.44-1	-2.92 1
15.9461	16.2564	0.98	48.00	3.84-1	1.70 2	-4.34-1	-1.71 2
15.8349	16.2805	0.94	32.00	2.17-1	8.13 1	-2.63-1	-8.21 1
15.7307	16.2847	0.92	25.00	1.55-1	5.11 1	-1.98-1	-5.17 1
15.9203	16.2857	0.96	40.00	2.95-1	1.22 2	-3.43-1	-1.23 2
15.5921	16.2982	0.90	19.00	1.06-1	3.03 1	-1.48-1	-3.07 1
16.0382	16.2983	1.00	58.00	5.08-1	2.36 2	-5.60-1	-2.37 2
16.0001	16.3042	0.98	49.00	3.94-1	1.76 2	-4.44-1	-1.77 2
15.9816	16.3386	0.96	41.00	3.05-1	1.28 2	-3.52-1	-1.29 2
15.6516	16.3409	0.90	19.50	1.09-1	3.19 1	-1.51-1	-3.23 1
15.9079	16.3410	0.94	33.00	2.25-1	8.61 1	-2.71-1	-8.70 1
16.0868	16.3424	1.00	59.00	5.20-1	2.43 2	-5.72-1	-2.44 2
16.0534	16.3517	0.98	50.00	4.05-1	1.83 2	-4.55-1	-1.84 2
15.8213	16.3557	0.92	26.00	1.62-1	5.51 1	-2.06-1	-5.58 1
15.4813	16.3791	0.88	14.50	7.17-2	1.79 1	-1.12-1	-1.83 1
15.7096	16.3831	0.90	20.00	1.13-1	3.35 1	-1.55-1	-3.39 1
16.0419	16.3909	0.96	42.00	3.14-1	1.34 2	-3.62-1	-1.35 2
15.9793	16.4006	0.94	34.00	2.34-1	9.11 1	-2.80-1	-9.20 1
15.9090	16.4251	0.92	27.00	1.70-1	5.93 1	-2.14-1	-6.00 1
15.5600	16.4299	0.88	15.00	7.51-2	1.92 1	-1.15-1	-1.95 1
16.0492	16.4592	0.94	35.00	2.43-1	9.62 1	-2.88-1	-9.71 1
15.8217	16.4655	0.90	21.00	1.20-1	3.68 1	-1.62-1	-3.73 1
15.6361	16.4798	0.88	15.50	7.85-2	2.05 1	-1.19-1	-2.08 1
15.9940	16.4931	0.92	28.00	1.78-1	6.36 1	-2.22-1	-6.43 1
15.7097	16.5289	0.88	16.00	8.20-2	2.18 1	-1.22-1	-2.22 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.9290	16.5458	0.90	22.00	1.28-1	4.03 1	-1.69-1	-4.08 1
16.0766	16.5597	0.92	29.00	1.86-1	6.80 1	-2.30-1	-6.87 1
15.4698	16.5735	0.86	11.50	5.02-2	1.14 1	-8.86-2	-1.16 1
15.7810	16.5772	0.88	16.50	8.54-2	2.32 1	-1.25-1	-2.35 1
16.0319	16.6240	0.90	23.00	1.35-1	4.39 1	-1.77-1	-4.45 1
15.8503	16.6247	0.88	17.00	8.89-2	2.46 1	-1.29-1	-2.49 1
15.5718	16.6321	0.86	12.00	5.35-2	1.24 1	-9.17-2	-1.27 1
15.9175	16.6714	0.88	17.50	9.24-2	2.60 1	-1.32-1	-2.64 1
15.6692	16.6897	0.86	12.50	5.67-2	1.35 1	-9.49-2	-1.37 1
15.9829	16.7174	0.88	18.00	9.59-2	2.75 1	-1.36-1	-2.79 1
15.7625	16.7461	0.86	13.00	6.00-2	1.46 1	-9.80-2	-1.48 1
16.0465	16.7627	0.88	18.50	9.94-2	2.90 1	-1.39-1	-2.94 1
15.8520	16.8015	0.86	13.50	6.33-2	1.57 1	-1.01-1	-1.60 1
15.4285	16.8066	0.84	9.00	3.35-2	6.99 0	-7.00-2	-7.18 0
15.4841	16.8335	0.84	9.20	3.48-2	7.31 0	-7.12-2	-7.50 0
15.9381	16.8559	0.86	14.00	6.66-2	1.69 1	-1.04-1	-1.72 1
15.5383	16.8602	0.84	9.40	3.60-2	7.64 0	-7.24-2	-7.83 0
15.5911	16.8867	0.84	9.60	3.73-2	7.97 0	-7.36-2	-8.17 0
16.0211	16.9093	0.86	14.50	6.99-2	1.81 1	-1.08-1	-1.84 1
15.6426	16.9131	0.84	9.80	3.85-2	8.32 0	-7.48-2	-8.52 0
15.6929	16.9392	0.84	10.00	3.97-2	8.67 0	-7.60-2	-8.87 0
15.8138	17.0036	0.84	10.50	4.29-2	9.57 0	-7.89-2	-9.79 0
15.9283	17.0669	0.84	11.00	4.60-2	1.05 1	-8.20-2	-1.07 1
15.4372	17.1283	0.82	7.20	2.23-2	4.45 0	-5.68-2	-4.60 0
16.0371	17.1289	0.84	11.50	4.91-2	1.15 1	-8.50-2	-1.17 1
15.5113	17.1578	0.82	7.40	2.35-2	4.72 0	-5.80-2	-4.86 0
15.5828	17.1872	0.82	7.60	2.46-2	4.98 0	-5.91-2	-5.14 0
15.6521	17.2165	0.82	7.80	2.58-2	5.26 0	-6.02-2	-5.42 0
15.7191	17.2457	0.82	8.00	2.70-2	5.54 0	-6.13-2	-5.70 0
15.7841	17.2747	0.82	8.20	2.82-2	5.83 0	-6.24-2	-6.00 0
15.8472	17.3035	0.82	8.40	2.94-2	6.13 0	-6.36-2	-6.30 0
15.9085	17.3321	0.82	8.60	3.06-2	6.43 0	-6.47-2	-6.61 0
15.9681	17.3606	0.82	8.80	3.18-2	6.74 0	-6.58-2	-6.92 0
16.0260	17.3889	0.82	9.00	3.30-2	7.06 0	-6.70-2	-7.24 0
16.0825	17.4169	0.82	9.20	3.42-2	7.39 0	-6.81-2	-7.57 0
15.4532	17.5228	0.80	5.80	1.41-2	2.86 0	-4.68-2	-2.97 0
15.5528	17.5537	0.80	6.00	1.52-2	3.07 0	-4.78-2	-3.18 0
15.6479	17.5848	0.80	6.20	1.64-2	3.29 0	-4.89-2	-3.41 0
15.7391	17.6160	0.80	6.40	1.75-2	3.52 0	-4.99-2	-3.64 0
15.8265	17.6473	0.80	6.60	1.86-2	3.75 0	-5.10-2	-3.88 0
15.9105	17.6786	0.80	6.80	1.98-2	4.00 0	-5.21-2	-4.13 0
15.9913	17.7099	0.80	7.00	2.09-2	4.25 0	-5.31-2	-4.38 0
16.0692	17.7411	0.80	7.20	2.21-2	4.50 0	-5.42-2	-4.64 0
15.5347	18.0105	0.78	4.80	8.71-3	1.92 0	-3.95-2	-2.01 0
15.6659	18.0409	0.78	5.00	9.80-3	2.10 0	-4.05-2	-2.19 0
15.7897	18.0721	0.78	5.20	1.09-2	2.29 0	-4.14-2	-2.38 0
15.9069	18.1041	0.78	5.40	1.20-2	2.48 0	-4.25-2	-2.58 0
16.0181	18.1365	0.78	5.60	1.31-2	2.68 0	-4.35-2	-2.78 0
15.4358	18.5527	0.76	3.80	3.71-3	1.16 0	-3.27-2	-1.23 0
15.5314	18.5643	0.76	3.90	4.24-3	1.23 0	-3.32-2	-1.30 0
15.6233	18.5767	0.76	4.00	4.76-3	1.30 0	-3.36-2	-1.37 0
15.7968	18.6036	0.76	4.20	5.81-3	1.45 0	-3.46-2	-1.52 0
15.9581	18.6327	0.76	4.40	6.86-3	1.61 0	-3.55-2	-1.69 0
15.5184	19.2187	0.74	3.20	1.10-3	7.98-1	-2.82-2	-8.48-1
15.6459	19.2247	0.74	3.30	1.61-3	8.56-1	-2.86-2	-9.09-1
15.7671	19.2326	0.74	3.40	2.12-3	9.16-1	-2.91-2	-9.71-1
15.8825	19.2419	0.74	3.50	2.62-3	9.79-1	-2.95-2	-1.04 0
15.9927	19.2525	0.74	3.60	3.13-3	1.04 0	-3.00-2	-1.10 0
16.0981	19.2643	0.74	3.70	3.63-3	1.11 0	-3.04-2	-1.17 0
15.9074	19.9765	0.72	2.90	1.50-4	6.43-1	-2.53-2	-6.87-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.7461	19.9771	0.72	2.80	-3.39-4	5.93-1	-2.49-2	-6.35-1
16.0593	19.9788	0.72	3.00	6.37-4	6.96-1	-2.57-2	-7.42-1
15.5743	19.9812	0.72	2.70	-8.30-4	5.44-1	-2.45-2	-5.84-1
16.0746	20.8185	0.70	2.50	-1.20-3	4.59-1	-2.21-2	-4.94-1
15.8608	20.8325	0.70	2.40	-1.67-3	4.16-1	-2.18-2	-4.50-1
15.6297	20.8530	0.70	2.30	-2.15-3	3.75-1	-2.14-2	-4.07-1
16.0577	21.7906	0.68	2.10	-2.44-3	3.04-1	-1.92-2	-3.32-1
15.7544	21.8332	0.68	2.00	-2.90-3	2.69-1	-1.89-2	-2.95-1
15.5912	21.8594	0.68	1.95	-3.13-3	2.52-1	-1.87-2	-2.77-1
15.4192	21.8894	0.68	1.90	-3.37-3	2.36-1	-1.85-2	-2.60-1
16.0826	22.8977	0.66	1.80	-3.15-3	2.09-1	-1.69-2	-2.31-1
15.8780	22.9374	0.66	1.75	-3.38-3	1.94-1	-1.67-2	-2.15-1
15.6607	22.9830	0.66	1.70	-3.60-3	1.80-1	-1.66-2	-2.00-1
15.4294	23.0351	0.66	1.65	-3.83-3	1.66-1	-1.64-2	-1.86-1
16.0506	24.1678	0.64	1.55	-3.59-3	1.43-1	-1.49-2	-1.61-1
15.7651	24.2392	0.64	1.50	-3.81-3	1.31-1	-1.47-2	-1.48-1
15.4577	24.3215	0.64	1.45	-4.03-3	1.19-1	-1.46-2	-1.35-1
16.0075	25.6101	0.62	1.35	-3.79-3	9.94-2	-1.32-2	-1.14-1
15.6122	25.7278	0.62	1.30	-4.01-3	8.94-2	-1.30-2	-1.03-1
16.0750	27.2023	0.60	1.20	-3.77-3	7.24-2	-1.17-2	-8.41-2
15.5453	27.3786	0.60	1.15	-3.98-3	6.39-2	-1.16-2	-7.49-2
15.8147	29.1099	0.58	1.05	-3.75-3	4.96-2	-1.04-2	-5.91-2
16.0867	31.0550	0.56	0.96	-3.49-3	3.84-2	-9.24-3	-4.65-2
15.7191	31.1958	0.56	0.94	-3.57-3	3.59-2	-9.20-3	-4.37-2
15.9158	33.4235	0.54	0.86	-3.29-3	2.76-2	-8.18-3	-3.42-2
15.4162	33.6273	0.54	0.84	-3.37-3	2.55-2	-8.16-3	-3.19-2
15.8450	36.0503	0.52	0.78	-3.04-3	2.04-2	-7.25-3	-2.60-2
15.7034	46.1627	0.46	0.60	-2.20-3	8.68-3	-4.95-3	-1.21-2
15.8857	67.7037	0.38	0.44	-1.20-3	2.92-3	-2.80-3	-4.73-3
16.10	16.80						
16.1021	16.2883	1.05	81.00	8.91-1	4.03 2	-9.48-1	-4.05 2
16.1463	16.3298	1.05	82.00	9.09-1	4.11 2	-9.66-1	-4.13 2
16.1905	16.3714	1.05	83.00	9.27-1	4.19 2	-9.85-1	-4.21 2
16.1350	16.3863	1.00	60.00	5.32-1	2.50 2	-5.84-1	-2.52 2
16.1062	16.3988	0.98	51.00	4.16-1	1.89 2	-4.65-1	-1.91 2
16.2348	16.4131	1.05	84.00	9.46-1	4.27 2	-1.00 0	-4.28 2
16.1829	16.4300	1.00	61.00	5.44-1	2.57 2	-5.96-1	-2.59 2
16.1012	16.4426	0.96	43.00	3.24-1	1.40 2	-3.71-1	-1.41 2
16.1585	16.4455	0.98	52.00	4.26-1	1.96 2	-4.76-1	-1.97 2
16.2792	16.4550	1.05	85.00	9.65-1	4.34 2	-1.02 0	-4.36 2
16.2305	16.4736	1.00	62.00	5.57-1	2.65 2	-6.09-1	-2.66 2
16.2102	16.4919	0.98	53.00	4.37-1	2.03 2	-4.87-1	-2.04 2
16.1597	16.4937	0.96	44.00	3.33-1	1.46 2	-3.81-1	-1.47 2
16.3237	16.4971	1.05	86.00	9.85-1	4.42 2	-1.04 0	-4.44 2
16.1175	16.5169	0.94	36.00	2.51-1	1.01 2	-2.97-1	-1.02 2
16.2779	16.5170	1.00	63.00	5.70-1	2.72 2	-6.21-1	-2.74 2
16.2615	16.5380	0.98	54.00	4.48-1	2.10 2	-4.98-1	-2.11 2
16.3683	16.5393	1.05	87.00	1.00 0	4.50 2	-1.06 0	-4.52 2
16.2174	16.5443	0.96	45.00	3.43-1	1.52 2	-3.91-1	-1.53 2
16.3250	16.5602	1.00	64.00	5.82-1	2.79 2	-6.34-1	-2.81 2
16.1845	16.5738	0.94	37.00	2.60-1	1.07 2	-3.05-1	-1.08 2
16.4131	16.5816	1.05	88.00	1.02 0	4.58 2	-1.08 0	-4.60 2
16.3123	16.5839	0.98	55.00	4.59-1	2.17 2	-5.09-1	-2.18 2
16.2743	16.5943	0.96	46.00	3.53-1	1.58 2	-4.00-1	-1.60 2
16.3720	16.6034	1.00	65.00	5.95-1	2.87 2	-6.47-1	-2.89 2
16.4580	16.6242	1.05	89.00	1.05 0	4.65 2	-1.10 0	-4.67 2
16.1568	16.6250	0.92	30.00	1.94-1	7.25 1	-2.38-1	-7.33 1
16.3627	16.6294	0.98	56.00	4.71-1	2.24 2	-5.20-1	-2.25 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.2502	16.6299	0.94	38.00	2.69-1	1.12 2	-3.14-1	-1.13 2
16.3305	16.6440	0.96	47.00	3.63-1	1.65 2	-4.10-1	-1.66 2
16.4187	16.6464	1.00	66.00	6.09-1	2.94 2	-6.60-1	-2.96 2
16.5031	16.6670	1.05	90.00	1.07 0	4.73 2	-1.12 0	-4.75 2
16.4127	16.6747	0.98	57.00	4.82-1	2.31 2	-5.31-1	-2.32 2
16.3147	16.6852	0.94	39.00	2.78-1	1.18 2	-3.23-1	-1.19 2
16.2349	16.6891	0.92	31.00	2.02-1	7.72 1	-2.46-1	-7.80 1
16.4652	16.6894	1.00	67.00	6.22-1	3.02 2	-6.73-1	-3.04 2
16.3859	16.6931	0.96	48.00	3.73-1	1.71 2	-4.20-1	-1.72 2
16.1309	16.7002	0.90	24.00	1.43-1	4.77 1	-1.84-1	-4.83 1
16.4623	16.7198	0.98	58.00	4.94-1	2.38 2	-5.43-1	-2.39 2
16.5116	16.7322	1.00	68.00	6.35-1	3.10 2	-6.87-1	-3.11 2
16.3781	16.7399	0.94	40.00	2.87-1	1.24 2	-3.32-1	-1.25 2
16.4408	16.7419	0.96	49.00	3.83-1	1.78 2	-4.30-1	-1.79 2
16.3110	16.7521	0.92	32.00	2.11-1	8.20 1	-2.54-1	-8.28 1
16.5116	16.7647	0.98	59.00	5.05-1	2.45 2	-5.54-1	-2.46 2
16.2264	16.7746	0.90	25.00	1.50-1	5.16 1	-1.92-1	-5.22 1
16.5578	16.7750	1.00	69.00	6.49-1	3.17 2	-7.00-1	-3.19 2
16.4950	16.7902	0.96	50.00	3.93-1	1.84 2	-4.40-1	-1.65 2
16.4404	16.7938	0.94	41.00	2.96-1	1.29 2	-3.41-1	-1.30 2
16.1085	16.8072	0.88	19.00	1.03-1	3.06 1	-1.42-1	-3.10 1
16.5605	16.8093	0.98	60.00	5.17-1	2.52 2	-5.66-1	-2.54 2
16.3853	16.8139	0.92	33.00	2.19-1	8.69 1	-2.62-1	-8.77 1
16.6039	16.8178	1.00	70.00	6.63-1	3.25 2	-7.14-1	-3.27 2
16.5486	16.8382	0.96	51.00	4.04-1	1.91 2	-4.51-1	-1.92 2
16.5016	16.8471	0.94	42.00	3.05-1	1.35 2	-3.50-1	-1.36 2
16.3185	16.8473	0.90	26.00	1.58-1	5.57 1	-1.99-1	-5.63 1
16.1690	16.8511	0.88	19.50	1.06-1	3.22 1	-1.46-1	-3.26 1
16.6091	16.8538	0.98	61.00	5.29-1	2.60 2	-5.78-1	-2.61 2
16.6498	16.8605	1.00	71.00	6.77-1	3.33 2	-7.28-1	-3.34 2
16.4579	16.8748	0.92	34.00	2.27-1	9.20 1	-2.70-1	-9.28 1
16.6016	16.8858	0.96	52.00	4.14-1	1.98 2	-4.61-1	-1.99 2
16.2280	16.8944	0.88	20.00	1.10-1	3.38 1	-1.49-1	-3.42 1
16.6575	16.8981	0.98	62.00	5.41-1	2.67 2	-5.90-1	-2.68 2
16.5620	16.8998	0.94	43.00	3.15-1	1.41 2	-3.59-1	-1.42 2
16.6957	16.9032	1.00	72.00	6.91-1	3.41 2	-7.42-1	-3.42 2
16.4077	16.9184	0.90	27.00	1.65-1	5.99 1	-2.07-1	-6.05 1
16.6542	16.9331	0.96	53.00	4.25-1	2.05 2	-4.72-1	-2.06 2
16.5289	16.9347	0.92	35.00	2.36-1	9.71 1	-2.79-1	-9.80 1
16.7056	16.9422	0.98	63.00	5.54-1	2.74 2	-6.02-1	-2.76 2
16.7415	16.9458	1.00	73.00	7.06-1	3.48 2	-7.57-1	-3.50 2
16.6214	16.9519	0.94	44.00	3.24-1	1.47 2	-3.69-1	-1.48 2
16.1011	16.9617	0.86	15.00	7.32-2	1.94 1	-1.11-1	-1.97 1
16.3421	16.9791	0.88	21.00	1.17-1	3.72 1	-1.56-1	-3.76 1
16.7062	16.9800	0.96	54.00	4.36-1	2.11 2	-4.82-1	-2.13 2
16.7534	16.9862	0.98	64.00	5.66-1	2.82 2	-6.15-1	-2.83 2
16.4942	16.9880	0.90	28.00	1.73-1	6.42 1	-2.14-1	-6.48 1
16.7872	16.9885	1.00	74.00	7.21-1	3.56 2	-7.72-1	-3.58 2
16.5984	16.9936	0.92	36.00	2.44-1	1.02 2	-2.87-1	-1.03 2
16.6800	17.0035	0.94	45.00	3.33-1	1.54 2	-3.78-1	-1.55 2
16.1785	17.0132	0.86	15.50	7.65-2	2.07 1	-1.14-1	-2.10 1
16.7578	17.0267	0.96	55.00	4.46-1	2.18 2	-4.93-1	-2.20 2
16.6665	17.0517	0.92	37.00	2.53-1	1.08 2	-2.95-1	-1.09 2
16.7378	17.0546	0.94	46.00	3.43-1	1.60 2	-3.88-1	-1.61 2
16.5781	17.0562	0.90	29.00	1.81-1	6.86 1	-2.22-1	-6.93 1
16.4512	17.0614	0.88	22.00	1.24-1	4.07 1	-1.63-1	-4.12 1
16.2534	17.0638	0.86	16.00	7.99-2	2.20 1	-1.17-1	-2.24 1
16.7949	17.1052	0.94	47.00	3.53-1	1.66 2	-3.97-1	-1.67 2
16.7333	17.1090	0.92	38.00	2.61-1	1.13 2	-3.04-1	-1.14 2
16.3259	17.1135	0.86	16.50	8.32-2	2.34 1	-1.21-1	-2.38 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.6597	17.1230	0.90	30.00	1.89-1	7.32 1	-2.30-1	-7.39 1
16.5559	17.1416	0.88	23.00	1.31-1	4.44 1	-1.70-1	-4.49 1
16.3963	17.1624	0.86	17.00	8.86-2	2.48 1	-1.24-1	-2.52 1
16.7988	17.1655	0.92	39.00	2.70-1	1.19 2	-3.12-1	-1.20 2
16.7392	17.1886	0.90	31.00	1.97-1	7.79 1	-2.37-1	-7.87 1
16.1408	17.1896	0.84	12.00	5.23-2	1.25 1	-8.80-2	-1.28 1
16.4647	17.2105	0.86	17.50	8.99-2	2.63 1	-1.27-1	-2.67 1
16.6566	17.2198	0.88	24.00	1.39-1	4.82 1	-1.78-1	-4.87 1
16.2399	17.2492	0.84	12.50	5.54-2	1.36 1	-9.11-2	-1.39 1
16.5313	17.2578	0.86	18.00	9.33-2	2.78 1	-1.30-1	-2.82 1
16.7537	17.2961	0.88	25.00	1.46-1	5.21 1	-1.85-1	-5.27 1
16.5960	17.3044	0.86	18.50	9.67-2	2.93 1	-1.34-1	-2.97 1
16.3348	17.3076	0.84	13.00	5.86-2	1.47 1	-9.41-2	-1.50 1
16.6591	17.3502	0.86	19.00	1.00-1	3.09 1	-1.37-1	-3.13 1
16.4259	17.3649	0.84	13.50	6.17-2	1.59 1	-9.72-2	-1.62 1
16.7207	17.3953	0.86	19.50	1.03-1	3.25 1	-1.40-1	-3.29 1
16.5135	17.4211	0.84	14.00	6.49-2	1.71 1	-1.00-1	-1.74 1
16.7807	17.4398	0.86	20.00	1.07-1	3.41 1	-1.44-1	-3.46 1
16.1375	17.4448	0.82	9.40	3.54-2	7.72 0	-6.93-2	-7.91 0
16.1912	17.4724	0.82	9.60	3.66-2	8.06 0	-7.04-2	-8.25 0
16.5979	17.4762	0.84	14.50	6.81-2	1.83 1	-1.03-1	-1.86 1
16.2436	17.4998	0.82	9.80	3.78-2	8.40 0	-7.16-2	-8.60 0
16.2947	17.5270	0.82	10.00	3.90-2	8.76 0	-7.27-2	-8.96 0
16.6793	17.5303	0.84	15.00	7.13-2	1.96 1	-1.07-1	-1.99 1
16.7580	17.5834	0.84	15.50	7.45-2	2.09 1	-1.10-1	-2.12 1
16.4176	17.5941	0.82	10.50	4.20-2	9.67 0	-7.56-2	-9.88 0
16.5341	17.6597	0.82	11.00	4.50-2	1.06 1	-7.85-2	-1.09 1
16.6448	17.7240	0.82	11.50	4.80-2	1.16 1	-8.14-2	-1.19 1
16.1444	17.7722	0.80	7.40	2.32-2	4.77 0	-5.53-2	-4.91 0
16.7502	17.7870	0.82	12.00	5.10-2	1.27 1	-8.44-2	-1.29 1
16.2171	17.8031	0.80	7.60	2.43-2	5.04 0	-5.64-2	-5.19 0
16.2874	17.8339	0.80	7.80	2.55-2	5.32 0	-5.75-2	-5.47 0
16.3555	17.8645	0.80	8.00	2.66-2	5.60 0	-5.85-2	-5.76 0
16.4216	17.8949	0.80	8.20	2.78-2	5.90 0	-5.96-2	-6.06 0
16.4857	17.9251	0.80	8.40	2.89-2	6.20 0	-6.07-2	-6.36 0
16.5480	17.9551	0.80	8.60	3.01-2	6.50 0	-6.18-2	-6.67 0
16.6085	17.9849	0.80	8.80	3.12-2	6.82 0	-6.29-2	-6.99 0
16.6675	18.0144	0.80	9.00	3.24-2	7.14 0	-6.40-2	-7.32 0
16.7249	18.0437	0.80	9.20	3.35-2	7.47 0	-6.51-2	-7.65 0
16.7808	18.0728	0.80	9.40	3.47-2	7.80 0	-6.62-2	-7.99 0
16.1240	18.1694	0.78	5.80	1.42-2	2.89 0	-4.45-2	-3.00 0
16.2251	18.2024	0.78	6.00	1.53-2	3.10 0	-4.55-2	-3.22 0
16.3216	18.2356	0.78	6.20	1.64-2	3.33 0	-4.65-2	-3.44 0
16.4141	18.2688	0.78	6.40	1.74-2	3.56 0	-4.75-2	-3.68 0
16.5029	18.3020	0.78	6.60	1.85-2	3.80 0	-4.86-2	-3.92 0
16.5882	18.3352	0.78	6.80	1.96-2	4.04 0	-4.96-2	-4.17 0
16.6703	18.3683	0.78	7.00	2.07-2	4.29 0	-5.06-2	-4.43 0
16.7494	18.4012	0.78	7.20	2.18-2	4.55 0	-5.17-2	-4.69 0
16.1088	18.6636	0.76	4.60	7.91-3	1.77 0	-3.64-2	-1.85 0
16.2501	18.6959	0.76	4.80	8.96-3	1.95 0	-3.74-2	-2.03 0
16.3830	18.7292	0.76	5.00	1.00-2	2.13 0	-3.84-2	-2.21 0
16.5086	18.7632	0.76	5.20	1.11-2	2.31 0	-3.93-2	-2.41 0
16.6275	18.7977	0.76	5.40	1.21-2	2.51 0	-4.03-2	-2.61 0
16.7404	18.8327	0.76	5.60	1.31-2	2.71 0	-4.13-2	-2.81 0
16.1991	19.2771	0.74	3.80	4.13-3	1.18 0	-3.09-2	-1.24 0
16.2959	19.2907	0.74	3.90	4.64-3	1.25 0	-3.13-2	-1.31 0
16.3890	19.3052	0.74	4.00	5.14-3	1.32 0	-3.18-2	-1.39 0
16.5647	19.3359	0.74	4.20	6.15-3	1.47 0	-3.27-2	-1.54 0
16.7282	19.3687	0.74	4.40	7.15-3	1.63 0	-3.36-2	-1.70 0
16.2028	19.9837	0.72	3.10	1.12-3	7.51-1	-2.61-2	-7.99-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.3386	19.9907	0.72	3.20	1.61-3	8.08-1	-2.65-2	-8.58-1
16.4675	19.9997	0.72	3.30	2.09-3	8.67-1	-2.70-2	-9.19-1
16.5901	20.0102	0.72	3.40	2.58-3	9.28-1	-2.74-2	-9.82-1
16.7069	20.0221	0.72	3.50	3.06-3	9.92-1	-2.78-2	-1.05 0
16.6323	20.8057	0.70	2.80	2.10-4	6.01-1	-2.33-2	-6.42-1
16.4587	20.8059	0.70	2.70	-2.57-4	5.51-1	-2.29-2	-5.90-1
16.7953	20.8087	0.70	2.90	6.77-4	6.52-1	-2.37-2	-6.95-1
16.2733	20.8099	0.70	2.60	-7.26-4	5.04-1	-2.25-2	-5.41-1
16.5873	21.7365	0.68	2.30	-1.53-3	3.80-1	-2.00-2	-4.12-1
16.3341	21.7591	0.68	2.20	-1.98-3	3.41-1	-1.96-2	-3.71-1
16.7964	22.7845	0.66	2.00	-2.27-3	2.73-1	-1.76-2	-2.99-1
16.6318	22.8069	0.66	1.95	-2.49-3	2.56-1	-1.74-2	-2.81-1
16.4586	22.8330	0.66	1.90	-2.71-3	2.40-1	-1.72-2	-2.64-1
16.2758	22.8630	0.66	1.85	-2.93-3	2.24-1	-1.71-2	-2.47-1
16.7979	24.0054	0.64	1.70	-2.95-3	1.83-1	-1.53-2	-2.03-1
16.5650	24.0520	0.64	1.65	-3.16-3	1.69-1	-1.52-2	-1.88-1
16.3165	24.1058	0.64	1.60	-3.38-3	1.56-1	-1.50-2	-1.74-1
16.7045	25.4221	0.62	1.45	-3.37-3	1.21-1	-1.34-2	-1.37-1
16.3702	25.5090	0.62	1.40	-3.58-3	1.10-1	-1.33-2	-1.25-1
16.5536	27.0531	0.60	1.25	-3.56-3	8.14-2	-1.18-2	-9.39-2
16.4789	28.8773	0.58	1.10	-3.54-3	5.71-2	-1.05-2	-6.72-2
16.7640	30.8057	0.56	1.00	-3.33-3	4.36-2	-9.31-3	-5.22-2
16.4344	30.9253	0.56	0.98	-3.41-3	4.10-2	-9.27-3	-4.93-2
16.3840	33.2377	0.54	0.88	-3.21-3	2.98-2	-8.21-3	-3.66-2
16.4611	35.7960	0.52	0.80	-2.96-3	2.23-2	-7.27-3	-2.80-2
16.1328	38.8634	0.50	0.72	-2.73-3	1.59-2	-6.41-3	-2.07-2
16.1576	42.1783	0.48	0.66	-2.45-3	1.20-2	-5.65-3	-1.60-2
16.2664	50.2375	0.44	0.56	-1.90-3	6.90-3	-4.33-3	-9.84-3
16.6336	55.0375	0.42	0.52	-1.64-3	5.35-3	-3.76-3	-7.88-3
16.6181	60.7642	0.40	0.48	-1.40-3	4.03-3	-3.25-3	-6.18-3
16.80	17.50						
16.8010	17.0301	0.98	65.00	5.79-1	2.89 2	-6.27-1	-2.91 2
16.8328	17.0312	1.00	75.00	7.36-1	3.64 2	-7.87-1	-3.66 2
16.8090	17.0730	0.96	56.00	4.57-1	2.25 2	-5.04-1	-2.27 2
16.8484	17.0739	0.98	66.00	5.91-1	2.97 2	-6.40-1	-2.99 2
16.8785	17.0739	1.00	76.00	7.51-1	3.72 2	-8.02-1	-3.74 2
16.9241	17.1166	1.00	77.00	7.66-1	3.80 2	-8.17-1	-3.81 2
16.8956	17.1176	0.98	67.00	6.04-1	3.05 2	-6.53-1	-3.06 2
16.8598	17.1192	0.96	57.00	4.68-1	2.33 2	-5.15-1	-2.34 2
16.8513	17.1553	0.94	48.00	3.62-1	1.73 2	-4.07-1	-1.74 2
16.9696	17.1594	1.00	78.00	7.82-1	3.88 2	-8.33-1	-3.89 2
16.9427	17.1611	0.98	68.00	6.17-1	3.12 2	-6.66-1	-3.14 2
16.9101	17.1650	0.96	58.00	4.80-1	2.40 2	-5.26-1	-2.41 2
17.0152	17.2023	1.00	79.00	7.98-1	3.96 2	-8.49-1	-3.97 2
16.9896	17.2047	0.98	69.00	6.31-1	3.20 2	-6.79-1	-3.22 2
16.9070	17.2049	0.94	49.00	3.72-1	1.79 2	-4.17-1	-1.80 2
16.9602	17.2107	0.96	59.00	4.91-1	2.47 2	-5.37-1	-2.49 2
16.8633	17.2212	0.92	40.00	2.79-1	1.25 2	-3.21-1	-1.26 2
17.0608	17.2452	1.00	80.00	8.14-1	4.03 2	-8.65-1	-4.05 2
17.0364	17.2481	0.98	70.00	6.44-1	3.28 2	-6.93-1	-3.29 2
16.8166	17.2529	0.90	32.00	2.05-1	8.28 1	-2.45-1	-8.35 1
16.9620	17.2542	0.94	50.00	3.82-1	1.86 2	-4.26-1	-1.87 2
17.0099	17.2561	0.96	60.00	5.02-1	2.54 2	-5.49-1	-2.56 2
16.9266	17.2763	0.92	41.00	2.87-1	1.31 2	-3.30-1	-1.32 2
17.1065	17.2882	1.00	81.00	8.31-1	4.11 2	-8.81-1	-4.13 2
17.0830	17.2915	0.98	71.00	6.58-1	3.36 2	-7.06-1	-3.37 2
17.0592	17.3014	0.96	61.00	5.14-1	2.62 2	-5.60-1	-2.63 2
17.0165	17.3031	0.94	51.00	3.92-1	1.93 2	-4.36-1	-1.94 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.8922	17.3162	0.90	33.00	2.13-1	8.77 1	-2.53-1	-8.85 1
16.9889	17.3307	0.92	42.00	2.96-1	1.36 2	-3.39-1	-1.37 2
17.1522	17.3313	1.00	82.00	8.48-1	4.19 2	-8.98-1	-4.21 2
17.1295	17.3349	0.98	72.00	6.72-1	3.43 2	-7.20-1	-3.45 2
17.1083	17.3465	0.96	62.00	5.26-1	2.69 2	-5.72-1	-2.71 2
17.0704	17.3516	0.94	52.00	4.02-1	1.99 2	-4.46-1	-2.01 2
16.8475	17.3706	0.88	26.00	1.53-1	5.62 1	-1.92-1	-5.68 1
17.1980	17.3745	1.00	83.00	8.65-1	4.27 2	-9.15-1	-4.29 2
17.1760	17.3783	0.98	73.00	6.86-1	3.51 2	-7.34-1	-3.53 2
16.9660	17.3784	0.90	34.00	2.21-1	9.28 1	-2.61-1	-9.37 1
17.0502	17.3845	0.92	43.00	3.05-1	1.43 2	-3.48-1	-1.44 2
17.1572	17.3914	0.96	63.00	5.38-1	2.77 2	-5.84-1	-2.78 2
17.1238	17.3997	0.94	53.00	4.12-1	2.06 2	-4.57-1	-2.08 2
17.2438	17.4178	1.00	84.00	8.82-1	4.35 2	-9.33-1	-4.37 2
17.2224	17.4216	0.98	74.00	7.00-1	3.59 2	-7.48-1	-3.61 2
17.2057	17.4362	0.96	64.00	5.50-1	2.84 2	-5.96-1	-2.86 2
17.1106	17.4376	0.92	44.00	3.14-1	1.49 2	-3.57-1	-1.50 2
17.0382	17.4396	0.90	35.00	2.29-1	9.81 1	-2.69-1	-9.89 1
16.9383	17.4434	0.88	27.00	1.61-1	6.04 1	-1.99-1	-6.11 1
17.1767	17.4476	0.94	54.00	4.23-1	2.13 2	-4.67-1	-2.15 2
17.2897	17.4613	1.00	85.00	9.00-1	4.43 2	-9.50-1	-4.45 2
17.2687	17.4650	0.98	75.00	7.15-1	3.67 2	-7.63-1	-3.69 2
17.2541	17.4808	0.96	65.00	5.62-1	2.92 2	-6.08-1	-2.94 2
17.1702	17.4903	0.92	45.00	3.24-1	1.55 2	-3.66-1	-1.56 2
17.2291	17.4951	0.94	55.00	4.33-1	2.20 2	-4.77-1	-2.22 2
17.1089	17.4998	0.90	36.00	2.37-1	1.03 2	-2.77-1	-1.04 2
17.3358	17.5050	1.00	86.00	9.18-1	4.51 2	-9.68-1	-4.53 2
17.3150	17.5084	0.98	76.00	7.30-1	3.75 2	-7.78-1	-3.77 2
17.0263	17.5147	0.88	28.00	1.68-1	6.48 1	-2.07-1	-6.55 1
17.3022	17.5253	0.96	66.00	5.74-1	3.00 2	-6.20-1	-3.01 2
16.8968	17.5268	0.86	21.00	1.14-1	3.75 1	-1.51-1	-3.80 1
17.2811	17.5423	0.94	56.00	4.44-1	2.28 2	-4.88-1	-2.29 2
17.2290	17.5423	0.92	46.00	3.33-1	1.61 2	-3.75-1	-1.62 2
17.3819	17.5487	1.00	87.00	9.36-1	4.59 2	-9.87-1	-4.61 2
17.3612	17.5518	0.98	77.00	7.45-1	3.83 2	-7.93-1	-3.85 2
17.1781	17.5592	0.90	37.00	2.45-1	1.09 2	-2.85-1	-1.10 2
17.3501	17.5697	0.96	67.00	5.87-1	3.07 2	-6.33-1	-3.09 2
17.1117	17.5844	0.88	29.00	1.76-1	6.93 1	-2.14-1	-7.00 1
17.3326	17.5893	0.94	57.00	4.55-1	2.35 2	-4.99-1	-2.36 2
17.4282	17.5927	1.00	88.00	9.55-1	4.67 2	-1.01 0	-4.69 2
17.2870	17.5939	0.92	47.00	3.42-1	1.68 2	-3.84-1	-1.69 2
17.4075	17.5953	0.98	78.00	7.60-1	3.91 2	-8.08-1	-3.93 2
17.0079	17.6113	0.86	22.00	1.21-1	4.11 1	-1.57-1	-4.16 1
17.3979	17.6141	0.96	68.00	6.00-1	3.15 2	-6.45-1	-3.17 2
17.2461	17.6177	0.90	38.00	2.53-1	1.14 2	-2.94-1	-1.15 2
16.8342	17.6355	0.84	16.00	7.77-2	2.22 1	-1.13-1	-2.26 1
17.3838	17.6360	0.94	58.00	4.66-1	2.42 2	-5.09-1	-2.43 2
17.4747	17.6369	1.00	89.00	9.74-1	4.75 2	-1.02 0	-4.77 2
17.4537	17.6388	0.98	79.00	7.75-1	3.99 2	-8.23-1	-4.01 2
17.3443	17.6450	0.92	48.00	3.52-1	1.74 2	-3.94-1	-1.75 2
17.1947	17.6528	0.88	30.00	1.83-1	7.39 1	-2.22-1	-7.46 1
17.4455	17.6583	0.96	69.00	6.12-1	3.23 2	-6.58-1	-3.24 2
17.3127	17.6754	0.90	39.00	2.62-1	1.20 2	-3.02-1	-1.21 2
17.4346	17.6825	0.94	59.00	4.76-1	2.49 2	-5.20-1	-2.51 2
16.9081	17.6868	0.84	16.50	8.10-2	2.36 1	-1.16-1	-2.40 1
17.1144	17.6936	0.86	23.00	1.28-1	4.48 1	-1.64-1	-4.53 1
17.4009	17.6957	0.92	49.00	3.61-1	1.81 2	-4.03-1	-1.82 2
17.4930	17.7025	0.96	70.00	6.26-1	3.31 2	-6.71-1	-3.32 2
17.2755	17.7199	0.88	31.00	1.91-1	7.87 1	-2.29-1	-7.94 1
17.4851	17.7288	0.94	60.00	4.88-1	2.57 2	-5.31-1	-2.58 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.3783	17.7323	0.90	40.00	2.70-1	1.26 2	-3.10-1	-1.27 2
16.9797	17.7371	0.84	17.00	8.42-2	2.51 1	-1.19-1	-2.54 1
17.4568	17.7459	0.92	50.00	3.71-1	1.88 2	-4.13-1	-1.89 2
17.2170	17.7738	0.86	24.00	1.35-1	4.87 1	-1.71-1	-4.92 1
17.3543	17.7858	0.88	32.00	1.98-1	8.36 1	-2.37-1	-8.43 1
17.0494	17.7867	0.84	17.50	8.74-2	2.65 1	-1.22-1	-2.69 1
17.4427	17.7885	0.90	41.00	2.79-1	1.32 2	-3.19-1	-1.33 2
17.1171	17.8353	0.84	18.00	9.07-2	2.80 1	-1.25-1	-2.84 1
16.8511	17.8487	0.82	12.50	5.41-2	1.37 1	-8.73-2	-1.40 1
17.4312	17.8505	0.88	33.00	2.06-1	8.86 1	-2.44-1	-8.94 1
17.3158	17.8520	0.86	25.00	1.42-1	5.26 1	-1.78-1	-5.32 1
17.1830	17.8832	0.84	18.50	9.40-2	2.96 1	-1.29-1	-3.00 1
16.9476	17.9092	0.82	13.00	5.71-2	1.49 1	-9.03-2	-1.51 1
17.4113	17.9284	0.86	26.00	1.49-1	5.68 1	-1.85-1	-5.74 1
17.2472	17.9304	0.84	19.00	9.72-2	3.12 1	-1.32-1	-3.16 1
17.0403	17.9684	0.82	13.50	6.02-2	1.60 1	-9.32-2	-1.63 1
17.3099	17.9768	0.84	19.50	1.01-1	3.28 1	-1.35-1	-3.32 1
17.3711	18.0225	0.84	20.00	1.04-1	3.45 1	-1.38-1	-3.49 1
17.1295	18.0265	0.82	14.00	6.32-2	1.72 1	-9.62-2	-1.75 1
17.2154	18.0834	0.82	14.50	6.63-2	1.85 1	-9.92-2	-1.88 1
16.8354	18.1016	0.80	9.60	3.58-2	8.15 0	-6.73-2	-8.34 0
17.4892	18.1119	0.84	21.00	1.10-1	3.79 1	-1.45-1	-3.84 1
16.8887	18.1301	0.80	9.80	3.70-2	8.50 0	-6.84-2	-8.69 0
17.2983	18.1393	0.82	15.00	6.94-2	1.98 1	-1.02-1	-2.01 1
16.9407	18.1585	0.80	10.00	3.81-2	8.85 0	-6.95-2	-9.05 0
17.3785	18.1941	0.82	15.50	7.25-2	2.11 1	-1.05-1	-2.14 1
17.0658	18.2282	0.80	10.50	4.10-2	9.78 0	-7.23-2	-9.99 0
17.4560	18.2479	0.82	16.00	7.56-2	2.25 1	-1.08-1	-2.28 1
17.1842	18.2965	0.80	11.00	4.39-2	1.07 1	-7.51-2	-1.10 1
17.2969	18.3632	0.80	11.50	4.68-2	1.18 1	-7.80-2	-1.20 1
17.4043	18.4286	0.80	12.00	4.98-2	1.28 1	-8.08-2	-1.30 1
16.8258	18.4340	0.78	7.40	2.29-2	4.82 0	-5.27-2	-4.96 0
16.8997	18.4666	0.78	7.60	2.40-2	5.10 0	-5.37-2	-5.24 0
16.9712	18.4989	0.78	7.80	2.51-2	5.38 0	-5.48-2	-5.53 0
17.0404	18.5311	0.78	8.00	2.62-2	5.67 0	-5.58-2	-5.82 0
17.1076	18.5630	0.78	8.20	2.73-2	5.96 0	-5.69-2	-6.12 0
17.1727	18.5946	0.78	8.40	2.84-2	6.27 0	-5.79-2	-6.43 0
17.2361	18.6260	0.78	8.60	2.95-2	6.58 0	-5.90-2	-6.75 0
17.2977	18.6571	0.78	8.80	3.06-2	6.90 0	-6.00-2	-7.07 0
17.3576	18.6880	0.78	9.00	3.17-2	7.22 0	-6.11-2	-7.40 0
17.4160	18.7186	0.78	9.20	3.28-2	7.56 0	-6.22-2	-7.73 0
17.4730	18.7489	0.78	9.40	3.40-2	7.90 0	-6.32-2	-8.08 0
16.8479	18.8679	0.76	5.80	1.42-2	2.92 0	-4.22-2	-3.03 0
16.9504	18.9032	0.76	6.00	1.52-2	3.14 0	-4.32-2	-3.25 0
17.0485	18.9386	0.76	6.20	1.63-2	3.37 0	-4.42-2	-3.48 0
17.1425	18.9739	0.76	6.40	1.73-2	3.60 0	-4.52-2	-3.72 0
17.2326	19.0092	0.76	6.60	1.84-2	3.84 0	-4.62-2	-3.96 0
17.3193	19.0443	0.76	6.80	1.94-2	4.09 0	-4.72-2	-4.21 0
17.4027	19.0793	0.76	7.00	2.05-2	4.35 0	-4.82-2	-4.47 0
17.4832	19.1141	0.76	7.20	2.16-2	4.61 0	-4.92-2	-4.74 0
16.8809	19.4031	0.74	4.60	8.16-3	1.80 0	-3.45-2	-1.87 0
17.0241	19.4386	0.74	4.80	9.16-3	1.97 0	-3.54-2	-2.05 0
17.1590	19.4749	0.74	5.00	1.02-2	2.15 0	-3.63-2	-2.24 0
17.2864	19.5118	0.74	5.20	1.12-2	2.34 0	-3.72-2	-2.43 0
17.4071	19.5491	0.74	5.40	1.22-2	2.54 0	-3.82-2	-2.64 0
16.8185	20.0353	0.72	3.60	3.55-3	1.06 0	-2.82-2	-1.11 0
16.9252	20.0495	0.72	3.70	4.03-3	1.12 0	-2.87-2	-1.18 0
17.0274	20.0646	0.72	3.80	4.51-3	1.19 0	-2.91-2	-1.25 0
17.1255	20.0805	0.72	3.90	4.99-3	1.26 0	-2.95-2	-1.33 0
17.2198	20.0971	0.72	4.00	5.47-3	1.34 0	-2.99-2	-1.40 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.3979	20.1320	0.72	4.20	6.44-3	1.49 0	-3.08-2	-1.56 0
16.9489	20.8146	0.70	3.00	1.14-3	7.06-1	-2.41-2	-7.50-1
17.0940	20.8228	0.70	3.10	1.61-3	7.62-1	-2.45-2	-8.08-1
17.2314	20.8330	0.70	3.20	2.07-3	8.19-1	-2.49-2	-8.68-1
17.3618	20.8449	0.70	3.30	2.53-3	8.79-1	-2.53-2	-9.29-1
17.4859	20.8583	0.70	3.40	3.00-3	9.41-1	-2.57-2	-9.93-1
17.2372	21.7084	0.68	2.60	-1.80-4	5.11-1	-2.11-2	-5.48-1
17.4246	21.7088	0.68	2.70	2.67-4	5.59-1	-2.14-2	-5.98-1
17.0365	21.7123	0.68	2.50	-6.29-4	4.66-1	-2.07-2	-5.00-1
16.8206	21.7214	0.68	2.40	-1.08-3	4.22-1	-2.03-2	-4.55-1
17.3811	22.7241	0.66	2.20	-1.40-3	3.46-1	-1.82-2	-3.75-1
17.1023	22.7491	0.66	2.10	-1.83-3	3.09-1	-1.79-2	-3.36-1
17.4176	23.9003	0.64	1.85	-2.31-3	2.28-1	-1.58-2	-2.50-1
17.2229	23.9302	0.64	1.80	-2.52-3	2.12-1	-1.56-2	-2.34-1
17.0167	23.9650	0.64	1.75	-2.73-3	1.97-1	-1.55-2	-2.18-1
17.3010	25.2828	0.62	1.55	-2.95-3	1.45-1	-1.37-2	-1.63-1
17.0138	25.3472	0.62	1.50	-3.16-3	1.33-1	-1.36-2	-1.50-1
17.3859	26.8188	0.60	1.35	-3.15-3	1.01-1	-1.21-2	-1.15-1
16.9885	26.9265	0.60	1.30	-3.35-3	9.11-2	-1.19-2	-1.04-1
17.0712	28.6833	0.58	1.15	-3.34-3	6.52-2	-1.06-2	-7.60-2
17.2376	32.9130	0.54	0.92	-3.06-3	3.44-2	-8.28-3	-4.17-2
16.8237	33.0681	0.54	0.90	-3.13-3	3.20-2	-8.24-3	-3.91-2
17.0345	35.5661	0.52	0.82	-2.88-3	2.42-2	-7.30-3	-3.02-2
16.9100	38.5378	0.50	0.74	-2.65-3	1.75-2	-6.43-3	-2.25-2
17.1657	41.7484	0.48	0.68	-2.37-3	1.34-2	-5.66-3	-1.76-2
17.0560	45.5732	0.46	0.62	-2.12-3	9.85-3	-4.96-3	-1.34-2
16.8321	84.0588	0.34	0.38	-8.14-4	1.71-3	-2.04-3	-3.07-3
17.50	18.20						
17.5213	17.6813	1.00	90.00	9.94-1	4.83 2	-1.04 0	-4.85 2
17.5000	17.6824	0.98	80.00	7.91-1	4.07 2	-8.39-1	-4.09 2
17.5463	17.7261	0.98	81.00	8.07-1	4.15 2	-8.55-1	-4.17 2
17.5403	17.7467	0.96	71.00	6.39-1	3.39 2	-6.85-1	-3.40 2
17.5927	17.7699	0.98	82.00	8.23-1	4.23 2	-8.71-1	-4.25 2
17.5353	17.7748	0.94	61.00	4.99-1	2.64 2	-5.43-1	-2.66 2
17.5876	17.7908	0.96	72.00	6.52-1	3.47 2	-6.98-1	-3.48 2
17.5122	17.7957	0.92	51.00	3.80-1	1.94 2	-4.22-1	-1.96 2
17.6391	17.8138	0.98	83.00	8.40-1	4.31 2	-8.88-1	-4.33 2
17.5851	17.8207	0.94	62.00	5.10-1	2.72 2	-5.54-1	-2.73 2
17.6347	17.8349	0.96	73.00	6.66-1	3.54 2	-7.12-1	-3.56 2
17.5060	17.8441	0.90	42.00	2.88-1	1.38 2	-3.27-1	-1.39 2
17.5670	17.8451	0.92	52.00	3.90-1	2.01 2	-4.32-1	-2.03 2
17.6856	17.8578	0.98	84.00	8.57-1	4.39 2	-9.05-1	-4.41 2
17.6347	17.8664	0.94	63.00	5.22-1	2.79 2	-5.65-1	-2.81 2
17.6818	17.8790	0.96	74.00	6.80-1	3.62 2	-7.25-1	-3.64 2
17.6212	17.8942	0.92	53.00	4.00-1	2.08 2	-4.42-1	-2.10 2
17.5684	17.8990	0.90	43.00	2.96-1	1.44 2	-3.36-1	-1.45 2
17.7322	17.9020	0.98	85.00	8.74-1	4.47 2	-9.22-1	-4.49 2
17.6840	17.9120	0.94	64.00	5.33-1	2.87 2	-5.77-1	-2.88 2
17.5063	17.9141	0.88	34.00	2.14-1	9.38 1	-2.52-1	-9.46 1
17.7288	17.9231	0.96	75.00	6.94-1	3.70 2	-7.40-1	-3.72 2
17.6750	17.9430	0.92	54.00	4.10-1	2.15 2	-4.52-1	-2.17 2
17.7789	17.9463	0.98	86.00	8.92-1	4.55 2	-9.39-1	-4.57 2
17.6298	17.9532	0.90	44.00	3.05-1	1.50 2	-3.45-1	-1.51 2
17.7331	17.9574	0.94	65.00	5.45-1	2.95 2	-5.89-1	-2.96 2
17.7758	17.9672	0.96	76.00	7.08-1	3.78 2	-7.54-1	-3.80 2
17.5798	17.9767	0.88	35.00	2.22-1	9.90 1	-2.60-1	-9.99 1
17.8257	17.9908	0.98	87.00	9.09-1	4.63 2	-9.57-1	-4.65 2
17.7283	17.9914	0.92	55.00	4.20-1	2.23 2	-4.62-1	-2.24 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.7820	18.0027	0.94	66.00	5.57-1	3.02 2	-6.01-1	-3.04 2
17.5037	18.0030	0.86	27.00	1.56-1	6.11 1	-1.92-1	-6.17 1
17.6904	18.0069	0.90	45.00	3.14-1	1.56 2	-3.54-1	-1.58 2
17.8227	18.0113	0.96	77.00	7.23-1	3.86 2	-7.68-1	-3.88 2
17.8727	18.0354	0.98	88.00	9.28-1	4.71 2	-9.75-1	-4.73 2
17.6517	18.0383	0.88	36.00	2.30-1	1.04 2	-2.68-1	-1.05 2
17.7811	18.0395	0.92	56.00	4.31-1	2.30 2	-4.72-1	-2.31 2
17.8307	18.0479	0.94	67.00	5.69-1	3.10 2	-6.13-1	-3.12 2
17.8697	18.0555	0.96	78.00	7.38-1	3.95 2	-7.83-1	-3.96 2
17.7502	18.0601	0.90	46.00	3.23-1	1.63 2	-3.62-1	-1.64 2
17.5932	18.0760	0.86	28.00	1.63-1	6.55 1	-1.99-1	-6.61 1
17.9198	18.0803	0.98	89.00	9.46-1	4.79 2	-9.94-1	-4.81 2
17.8335	18.0874	0.92	57.00	4.41-1	2.37 2	-4.83-1	-2.38 2
17.8792	18.0930	0.94	68.00	5.82-1	3.18 2	-6.25-1	-3.20 2
17.7222	18.0989	0.88	37.00	2.38-1	1.10 2	-2.76-1	-1.11 2
17.9166	18.0997	0.96	79.00	7.53-1	4.03 2	-7.98-1	-4.04 2
17.8092	18.1127	0.90	47.00	3.32-1	1.69 2	-3.71-1	-1.70 2
17.9671	18.1253	0.98	90.00	9.65-1	4.87 2	-1.01 0	-4.89 2
17.8855	18.1349	0.92	58.00	4.52-1	2.44 2	-4.93-1	-2.46 2
17.9275	18.1381	0.94	69.00	5.94-1	3.26 2	-6.38-1	-3.27 2
17.9636	18.1440	0.96	80.00	7.68-1	4.11 2	-8.13-1	-4.12 2
17.6802	18.1475	0.86	29.00	1.70-1	7.00 1	-2.06-1	-7.07 1
17.7913	18.1587	0.88	38.00	2.46-1	1.16 2	-2.84-1	-1.16 2
17.8674	18.1648	0.90	48.00	3.41-1	1.76 2	-3.80-1	-1.77 2
17.9371	18.1823	0.92	59.00	4.62-1	2.52 2	-5.04-1	-2.53 2
17.9758	18.1830	0.94	70.00	6.07-1	3.34 2	-6.50-1	-3.35 2
18.0105	18.1884	0.96	81.00	7.83-1	4.19 2	-8.29-1	-4.21 2
17.6024	18.1988	0.84	22.00	1.17-1	4.15 1	-1.51-1	-4.20 1
17.9250	18.2165	0.90	49.00	3.50-1	1.83 2	-3.90-1	-1.84 2
17.7647	18.2176	0.86	30.00	1.78-1	7.47 1	-2.14-1	-7.54 1
17.8592	18.2177	0.88	39.00	2.54-1	1.21 2	-2.92-1	-1.22 2
18.0238	18.2279	0.94	71.00	6.20-1	3.42 2	-6.63-1	-3.43 2
17.9884	18.2294	0.92	60.00	4.73-1	2.59 2	-5.14-1	-2.61 2
18.0576	18.2329	0.96	82.00	7.99-1	4.27 2	-8.45-1	-4.29 2
17.9819	18.2677	0.90	50.00	3.59-1	1.90 2	-3.99-1	-1.91 2
18.0718	18.2728	0.94	72.00	6.33-1	3.50 2	-6.76-1	-3.51 2
17.9258	18.2759	0.88	40.00	2.62-1	1.27 2	-3.00-1	-1.28 2
18.0394	18.2763	0.92	61.00	4.84-1	2.67 2	-5.25-1	-2.68 2
18.1047	18.2775	0.96	83.00	8.15-1	4.35 2	-8.61-1	-4.37 2
17.7109	18.2833	0.84	23.00	1.24-1	4.53 1	-1.58-1	-4.58 1
17.8470	18.2863	0.86	31.00	1.85-1	7.95 1	-2.21-1	-8.02 1
17.5313	18.3007	0.82	16.50	7.87-2	2.39 1	-1.11-1	-2.42 1
18.1197	18.3177	0.94	73.00	6.46-1	3.58 2	-6.89-1	-3.59 2
18.0382	18.3185	0.90	51.00	3.69-1	1.96 2	-4.08-1	-1.98 2
18.1519	18.3223	0.96	84.00	8.32-1	4.43 2	-8.77-1	-4.45 2
18.0901	18.3231	0.92	62.00	4.95-1	2.74 2	-5.36-1	-2.76 2
17.9913	18.3333	0.88	41.00	2.70-1	1.33 2	-3.08-1	-1.34 2
17.6042	18.3526	0.82	17.00	8.18-2	2.53 1	-1.14-1	-2.57 1
17.9272	18.3537	0.86	32.00	1.92-1	8.45 1	-2.28-1	-8.52 1
18.1675	18.3625	0.94	74.00	6.60-1	3.66 2	-7.03-1	-3.67 2
17.8153	18.3656	0.84	24.00	1.31-1	4.92 1	-1.65-1	-4.97 1
18.1991	18.3671	0.96	85.00	8.48-1	4.51 2	-8.94-1	-4.53 2
18.0939	18.3689	0.90	52.00	3.78-1	2.03 2	-4.18-1	-2.05 2
18.1404	18.3696	0.92	63.00	5.06-1	2.82 2	-5.47-1	-2.83 2
18.0558	18.3900	0.88	42.00	2.79-1	1.39 2	-3.16-1	-1.40 2
17.6752	18.4036	0.82	17.50	8.49-2	2.68 1	-1.17-1	-2.72 1
18.1906	18.4160	0.92	64.00	5.17-1	2.90 2	-5.58-1	-2.91 2
18.1491	18.4189	0.90	53.00	3.88-1	2.10 2	-4.27-1	-2.12 2
18.0055	18.4199	0.86	33.00	2.00-1	8.95 1	-2.36-1	-9.03 1
17.9160	18.4459	0.84	25.00	1.37-1	5.32 1	-1.71-1	-5.38 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.1193	18.4460	0.88	43.00	2.87-1	1.45 2	-3.25-1	-1.46 2
17.7441	18.4538	0.82	18.00	8.81-2	2.84 1	-1.21-1	-2.87 1
18.0820	18.4850	0.86	34.00	2.07-1	9.47 1	-2.43-1	-9.55 1
17.9069	18.4925	0.80	12.50	5.27-2	1.39 1	-8.36-2	-1.42 1
18.1818	18.5015	0.88	44.00	2.96-1	1.52 2	-3.33-1	-1.53 2
17.8113	18.5031	0.82	18.50	9.12-2	2.99 1	-1.24-1	-3.03 1
18.0192	18.5242	0.84	26.00	1.44-1	5.74 1	-1.78-1	-5.80 1
18.1568	18.5490	0.86	35.00	2.15-1	1.00 2	-2.51-1	-1.01 2
17.8767	18.5516	0.82	19.00	9.44-2	3.15 1	-1.27-1	-3.19 1
17.6052	18.5551	0.80	13.00	5.56-2	1.50 1	-8.65-2	-1.53 1
17.9406	18.5994	0.82	19.50	9.76-2	3.32 1	-1.30-1	-3.36 1
18.1073	18.6007	0.84	27.00	1.51-1	6.17 1	-1.85-1	-6.23 1
17.6996	18.6164	0.80	13.50	5.86-2	1.62 1	-8.93-2	-1.65 1
18.0029	18.6464	0.82	20.00	1.01-1	3.49 1	-1.33-1	-3.53 1
18.1985	18.6756	0.84	28.00	1.58-1	6.62 1	-1.92-1	-6.68 1
17.7904	18.6765	0.80	14.00	6.15-2	1.74 1	-9.22-2	-1.77 1
17.8779	18.7353	0.80	14.50	6.45-2	1.87 1	-9.51-2	-1.90 1
18.1233	18.7384	0.82	21.00	1.07-1	3.84 1	-1.39-1	-3.88 1
17.5285	18.7790	0.78	9.60	3.51-2	8.24 0	-6.43-2	-8.43 0
17.9624	18.7930	0.80	15.00	6.75-2	2.00 1	-9.80-2	-2.03 1
17.5827	18.8088	0.78	9.80	3.62-2	8.60 0	-6.54-2	-8.79 0
17.6357	18.8383	0.78	10.00	3.73-2	8.96 0	-6.64-2	-9.15 0
18.0441	18.8496	0.80	15.50	7.04-2	2.13 1	-1.01-1	-2.17 1
18.1231	18.9051	0.80	16.00	7.34-2	2.27 1	-1.04-1	-2.31 1
17.7630	18.9109	0.78	10.50	4.01-2	9.89 0	-6.91-2	-1.01 1
18.1997	18.9596	0.80	16.50	7.64-2	2.42 1	-1.07-1	-2.45 1
17.8836	18.9818	0.78	11.00	4.29-2	1.09 1	-7.18-2	-1.11 1
17.9983	19.0512	0.78	11.50	4.57-2	1.19 1	-7.45-2	-1.21 1
18.1077	19.1190	0.78	12.00	4.85-2	1.30 1	-7.73-2	-1.32 1
17.5609	19.1486	0.76	7.40	2.26-2	4.88 0	-5.02-2	-5.02 0
17.6360	19.1829	0.76	7.60	2.37-2	5.16 0	-5.12-2	-5.30 0
17.7087	19.2169	0.76	7.80	2.47-2	5.44 0	-5.22-2	-5.59 0
17.7791	19.2507	0.76	8.00	2.58-2	5.74 0	-5.32-2	-5.89 0
17.8475	19.2841	0.76	8.20	2.68-2	6.04 0	-5.42-2	-6.19 0
17.9138	19.3173	0.76	8.40	2.79-2	6.34 0	-5.52-2	-6.50 0
17.9782	19.3502	0.76	8.60	2.90-2	6.66 0	-5.62-2	-6.82 0
18.0409	19.3828	0.76	8.80	3.00-2	6.98 0	-5.72-2	-7.15 0
18.1020	19.4151	0.76	9.00	3.11-2	7.31 0	-5.83-2	-7.48 0
18.1614	19.4470	0.76	9.20	3.21-2	7.65 0	-5.93-2	-7.82 0
17.5218	19.5867	0.74	5.60	1.32-2	2.75 0	-3.91-2	-2.84 0
17.6309	19.6245	0.74	5.80	1.42-2	2.96 0	-4.01-2	-3.06 0
17.7351	19.6622	0.74	6.00	1.52-2	3.18 0	-4.10-2	-3.29 0
17.8348	19.6999	0.74	6.20	1.62-2	3.41 0	-4.19-2	-3.52 0
17.9303	19.7375	0.74	6.40	1.72-2	3.65 0	-4.29-2	-3.76 0
18.0219	19.7749	0.74	6.60	1.82-2	3.89 0	-4.39-2	-4.01 0
18.1101	19.8121	0.74	6.80	1.92-2	4.14 0	-4.48-2	-4.26 0
18.1950	19.8491	0.74	7.00	2.02-2	4.40 0	-4.58-2	-4.53 0
17.5637	20.1686	0.72	4.40	7.40-3	1.65 0	-3.17-2	-1.72 0
17.7186	20.2066	0.72	4.60	8.36-3	1.82 0	-3.26-2	-1.90 0
17.8640	20.2455	0.72	4.80	9.32-3	2.00 0	-3.35-2	-2.08 0
18.0009	20.2850	0.72	5.00	1.03-2	2.18 0	-3.43-2	-2.27 0
18.1303	20.3251	0.72	5.20	1.12-2	2.37 0	-3.52-2	-2.46 0
17.6042	20.8731	0.70	3.50	3.46-3	1.01 0	-2.61-2	-1.06 0
17.7172	20.8889	0.70	3.60	3.92-3	1.07 0	-2.69-2	-1.13 0
17.8253	20.9056	0.70	3.70	4.38-3	1.14 0	-2.70-2	-1.20 0
17.9289	20.9232	0.70	3.80	4.84-3	1.21 0	-2.74-2	-1.27 0
18.0284	20.9419	0.70	3.90	5.30-3	1.28 0	-2.78-2	-1.34 0
18.1240	20.9604	0.70	4.00	5.76-3	1.36 0	-2.82-2	-1.42 0
17.6000	21.7127	0.68	2.80	7.12-4	6.10-1	-2.18-2	-6.50-1
17.7649	21.7197	0.68	2.90	1.16-3	6.62-1	-2.22-2	-7.04-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.9203	21.7292	0.68	3.00	1.60-3	7.16-1	-2.26-2	-7.60-1
18.0671	21.7410	0.68	3.10	2.04-3	7.73-1	-2.30-2	-8.18-1
18.0905	22.6945	0.66	2.50	-1.09-4	4.73-1	-1.93-2	-5.07-1
17.8723	22.6982	0.66	2.40	-5.36-4	4.28-1	-1.89-2	-4.61-1
17.6367	22.7077	0.66	2.30	-9.66-4	3.86-1	-1.86-2	-4.17-1
17.9425	23.8346	0.64	2.00	-1.68-3	2.78-1	-1.63-2	-3.02-1
17.7765	23.8529	0.64	1.95	-1.89-3	2.60-1	-1.61-2	-2.84-1
17.6018	23.8747	0.64	1.90	-2.10-3	2.44-1	-1.60-2	-2.67-1
18.0535	25.1391	0.62	1.70	-2.34-3	1.86-1	-1.41-2	-2.05-1
17.8189	25.1799	0.62	1.65	-2.55-3	1.72-1	-1.40-2	-1.91-1
17.5687	25.2275	0.62	1.60	-2.75-3	1.58-1	-1.39-2	-1.76-1
18.0869	26.6486	0.60	1.45	-2.76-3	1.24-1	-1.23-2	-1.39-1
17.7506	26.7269	0.60	1.40	-2.95-3	1.12-1	-1.22-2	-1.27-1
18.0841	28.3844	0.58	1.25	-2.95-3	8.31-2	-1.08-2	-9.53-2
17.6032	28.5208	0.58	1.20	-3.14-3	7.39-2	-1.07-2	-8.53-2
18.1838	30.3309	0.56	1.10	-2.94-3	5.84-2	-9.51-3	-6.83-2
17.5171	30.5454	0.56	1.05	-3.13-3	5.07-2	-9.40-3	-5.99-2
17.9966	32.6406	0.54	0.96	-2.91-3	3.94-2	-8.34-3	-4.72-2
17.6279	32.7709	0.54	0.94	-2.98-3	3.68-2	-8.31-3	-4.44-2
18.0702	35.1691	0.52	0.86	-2.73-3	2.84-2	-7.35-3	-3.48-2
17.5697	35.3580	0.52	0.84	-2.81-3	2.62-2	-7.32-3	-3.25-2
17.6276	38.2465	0.50	0.76	-2.58-3	1.92-2	-6.45-3	-2.44-2
18.0870	41.3686	0.48	0.70	-2.30-3	1.49-2	-5.67-3	-1.93-2
17.9491	49.5126	0.44	0.58	-1.83-3	7.93-3	-4.33-3	-1.10-2
18.20	18.90						
18.2152	18.4073	0.94	75.00	6.73-1	3.74 2	-7.16-1	-3.76 2
18.2465	18.4121	0.96	86.00	8.65-1	4.59 2	-9.10-1	-4.61 2
18.2629	18.4522	0.94	76.00	6.87-1	3.82 2	-7.30-1	-3.84 2
18.2940	18.4573	0.96	87.00	8.83-1	4.68 2	-9.28-1	-4.69 2
18.2405	18.4623	0.92	65.00	5.29-1	2.98 2	-5.70-1	-2.99 2
18.2037	18.4686	0.90	54.00	3.98-1	2.18 2	-4.37-1	-2.19 2
18.3106	18.4971	0.94	77.00	7.01-1	3.90 2	-7.44-1	-3.92 2
18.3417	18.5027	0.96	88.00	9.00-1	4.76 2	-9.45-1	-4.77 2
18.2901	18.5084	0.92	66.00	5.40-1	3.05 2	-5.81-1	-3.07 2
18.2579	18.5180	0.90	55.00	4.08-1	2.25 2	-4.47-1	-2.26 2
18.3582	18.5420	0.94	78.00	7.16-1	3.98 2	-7.58-1	-4.00 2
18.3895	18.5482	0.96	89.00	9.18-1	4.84 2	-9.63-1	-4.85 2
18.3396	18.5544	0.92	67.00	5.52-1	3.13 2	-5.93-1	-3.15 2
18.2434	18.5563	0.88	45.00	3.04-1	1.58 2	-3.41-1	-1.59 2
18.3116	18.5671	0.90	56.00	4.17-1	2.32 2	-4.57-1	-2.33 2
18.4059	18.5870	0.94	79.00	7.30-1	4.06 2	-7.73-1	-4.08 2
18.4374	18.5940	0.96	90.00	9.37-1	4.92 2	-9.82-1	-4.94 2
18.3889	18.6003	0.92	68.00	5.64-1	3.21 2	-6.05-1	-3.23 2
18.3042	18.6105	0.88	46.00	3.13-1	1.65 2	-3.50-1	-1.66 2
18.2300	18.6120	0.86	36.00	2.23-1	1.06 2	-2.58-1	-1.06 2
18.3649	18.6158	0.90	57.00	4.28-1	2.39 2	-4.67-1	-2.41 2
18.4535	18.6320	0.94	80.00	7.45-1	4.15 2	-7.88-1	-4.16 2
18.4380	18.6461	0.92	69.00	5.76-1	3.29 2	-6.17-1	-3.31 2
18.3642	18.6642	0.88	47.00	3.22-1	1.71 2	-3.59-1	-1.72 2
18.4177	18.6643	0.90	58.00	4.38-1	2.47 2	-4.77-1	-2.48 2
18.3017	18.6740	0.86	37.00	2.30-1	1.11 2	-2.66-1	-1.12 2
18.5012	18.6772	0.94	81.00	7.60-1	4.23 2	-8.03-1	-4.24 2
18.4869	18.6919	0.92	70.00	5.89-1	3.37 2	-6.29-1	-3.39 2
18.4702	18.7126	0.90	59.00	4.48-1	2.54 2	-4.87-1	-2.56 2
18.4235	18.7174	0.88	48.00	3.30-1	1.78 2	-3.67-1	-1.79 2
18.5490	18.7224	0.94	82.00	7.75-1	4.31 2	-8.18-1	-4.33 2
18.3721	18.7352	0.86	38.00	2.38-1	1.17 2	-2.74-1	-1.18 2
18.5358	18.7376	0.92	71.00	6.01-1	3.45 2	-6.42-1	-3.47 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.2871	18.7488	0.84	29.00	1.65-1	7.08 1	-1.99-1	-7.14 1
18.5224	18.7606	0.90	60.00	4.58-1	2.62 2	-4.97-1	-2.63 2
18.5968	18.7677	0.94	83.00	7.91-1	4.39 2	-8.34-1	-4.41 2
18.4821	18.7702	0.88	49.00	3.39-1	1.85 2	-3.76-1	-1.86 2
18.5845	18.7832	0.92	72.00	6.14-1	3.53 2	-6.54-1	-3.55 2
18.4412	18.7954	0.86	39.00	2.46-1	1.23 2	-2.81-1	-1.23 2
18.5742	18.8084	0.90	61.00	4.69-1	2.69 2	-5.08-1	-2.71 2
18.6447	18.8132	0.94	84.00	8.07-1	4.47 2	-8.49-1	-4.49 2
18.3732	18.8206	0.84	30.00	1.72-1	7.55 1	-2.06-1	-7.62 1
18.5400	18.8224	0.88	50.00	3.48-1	1.91 2	-3.85-1	-1.93 2
18.2385	18.8276	0.82	22.00	1.14-1	4.20 1	-1.46-1	-4.25 1
18.6331	18.8289	0.92	73.00	6.26-1	3.61 2	-6.67-1	-3.63 2
18.5090	18.8549	0.86	40.00	2.54-1	1.29 2	-2.89-1	-1.29 2
18.6257	18.8560	0.90	62.00	4.80-1	2.77 2	-5.18-1	-2.79 2
18.6927	18.8588	0.94	85.00	8.23-1	4.56 2	-8.66-1	-4.57 2
18.5972	18.8742	0.88	51.00	3.57-1	1.98 2	-3.94-1	-2.00 2
18.6817	18.8745	0.92	74.00	6.39-1	3.69 2	-6.80-1	-3.71 2
18.4570	18.8910	0.84	31.00	1.79-1	8.04 1	-2.13-1	-8.11 1
18.6769	18.9034	0.90	63.00	4.90-1	2.85 2	-5.29-1	-2.86 2
18.7407	18.9045	0.94	86.00	8.39-1	4.64 2	-8.82-1	-4.65 2
18.5757	18.9136	0.86	41.00	2.62-1	1.35 2	-2.97-1	-1.35 2
18.3491	18.9145	0.82	23.00	1.20-1	4.58 1	-1.52-1	-4.63 1
18.7302	18.9201	0.92	75.00	6.53-1	3.78 2	-6.93-1	-3.79 2
18.6539	18.9257	0.88	52.00	3.67-1	2.05 2	-4.03-1	-2.07 2
18.7890	18.9504	0.94	87.00	8.56-1	4.72 2	-8.99-1	-4.74 2
18.7278	18.9507	0.90	64.00	5.01-1	2.93 2	-5.40-1	-2.94 2
18.5387	18.9600	0.84	32.00	1.86-1	8.54 1	-2.20-1	-8.61 1
18.7786	18.9657	0.92	76.00	6.66-1	3.86 2	-7.07-1	-3.87 2
18.6413	18.9715	0.86	42.00	2.70-1	1.41 2	-3.05-1	-1.42 2
18.7100	18.9767	0.88	53.00	3.76-1	2.13 2	-4.13-1	-2.14 2
18.8373	18.9965	0.94	88.00	8.73-1	4.80 2	-9.16-1	-4.82 2
18.7785	18.9978	0.90	65.00	5.12-1	3.01 2	-5.51-1	-3.02 2
18.4555	18.9990	0.82	24.00	1.27-1	4.97 1	-1.58-1	-5.02 1
18.8270	19.0114	0.92	77.00	6.80-1	3.94 2	-7.20-1	-3.96 2
18.2741	19.0132	0.80	17.00	7.94-2	2.56 1	-1.10-1	-2.60 1
18.7656	19.0274	0.88	54.00	3.85-1	2.20 2	-4.22-1	-2.21 2
18.6185	19.0278	0.84	33.00	1.94-1	9.05 1	-2.27-1	-9.13 1
18.7060	19.0288	0.86	43.00	2.78-1	1.47 2	-3.13-1	-1.48 2
18.8858	19.0428	0.94	89.00	8.91-1	4.88 2	-9.33-1	-4.90 2
18.8290	19.0447	0.90	66.00	5.24-1	3.08 2	-5.62-1	-3.10 2
18.8754	19.0571	0.92	78.00	6.94-1	4.02 2	-7.34-1	-4.04 2
18.3464	19.0658	0.80	17.50	8.24-2	2.71 1	-1.13-1	-2.75 1
18.8207	19.0777	0.88	55.00	3.95-1	2.27 2	-4.32-1	-2.28 2
18.5581	19.0814	0.82	25.00	1.33-1	5.38 1	-1.65-1	-5.44 1
18.7696	19.0854	0.86	44.00	2.86-1	1.53 2	-3.21-1	-1.54 2
18.8793	19.0916	0.90	67.00	5.35-1	3.16 2	-5.74-1	-3.18 2
18.6964	19.0944	0.84	34.00	2.01-1	9.58 1	-2.34-1	-9.65 1
18.4167	19.1174	0.80	18.00	8.55-2	2.87 1	-1.16-1	-2.91 1
18.8753	19.1277	0.88	56.00	4.04-1	2.34 2	-4.41-1	-2.36 2
18.8323	19.1414	0.86	45.00	2.95-1	1.60 2	-3.30-1	-1.61 2
18.7725	19.1600	0.84	35.00	2.08-1	1.01 2	-2.41-1	-1.02 2
18.6572	19.1618	0.82	26.00	1.40-1	5.80 1	-1.71-1	-5.86 1
18.4851	19.1682	0.80	18.50	8.85-2	3.03 1	-1.19-1	-3.07 1
18.2122	19.1853	0.78	12.50	5.13-2	1.41 1	-8.00-2	-1.43 1
18.8942	19.1968	0.86	46.00	3.03-1	1.66 2	-3.38-1	-1.67 2
18.5518	19.2182	0.80	19.00	9.15-2	3.19 1	-1.22-1	-3.23 1
18.8471	19.2244	0.84	36.00	2.16-1	1.07 2	-2.49-1	-1.07 2
18.7531	19.2403	0.82	27.00	1.46-1	6.24 1	-1.78-1	-6.30 1
18.3124	19.2502	0.78	13.00	5.41-2	1.52 1	-8.28-2	-1.55 1
18.6169	19.2674	0.80	19.50	9.46-2	3.36 1	-1.25-1	-3.40 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.4086	19.3136	0.78	13.50	5.69-2	1.64 1	-8.55-2	-1.67 1
18.6804	19.3158	0.80	20.00	9.77-2	3.53 1	-1.28-1	-3.57 1
18.8460	19.3171	0.82	28.00	1.53-1	6.69 1	-1.85-1	-6.75 1
18.5012	19.3758	0.78	14.00	5.98-2	1.76 1	-8.83-2	-1.79 1
18.8032	19.4104	0.80	21.00	1.04-1	3.88 1	-1.34-1	-3.92 1
18.5903	19.4366	0.78	14.50	6.26-2	1.89 1	-9.11-2	-1.92 1
18.2194	19.4787	0.76	9.40	3.32-2	7.99 0	-6.03-2	-8.17 0
18.6765	19.4963	0.78	15.00	6.55-2	2.02 1	-9.39-2	-2.05 1
18.2759	19.5101	0.76	9.60	3.43-2	8.34 0	-6.13-2	-8.53 0
18.3311	19.5411	0.76	9.80	3.53-2	8.70 0	-6.24-2	-8.89 0
18.7597	19.5547	0.78	15.50	6.84-2	2.16 1	-9.67-2	-2.19 1
18.3851	19.5719	0.76	10.00	3.64-2	9.07 0	-6.34-2	-9.26 0
18.8403	19.6121	0.78	16.00	7.12-2	2.30 1	-9.95-2	-2.33 1
18.5147	19.6475	0.76	10.50	3.91-2	1.00 1	-6.60-2	-1.02 1
18.6377	19.7213	0.76	11.00	4.18-2	1.10 1	-6.86-2	-1.12 1
18.7546	19.7934	0.76	11.50	4.45-2	1.20 1	-7.12-2	-1.23 1
18.8660	19.8638	0.76	12.00	4.72-2	1.31 1	-7.38-2	-1.33 1
18.2768	19.8858	0.74	7.20	2.12-2	4.67 0	-4.67-2	-4.80 0
18.3559	19.9222	0.74	7.40	2.23-2	4.94 0	-4.77-2	-5.08 0
18.4323	19.9583	0.74	7.60	2.33-2	5.22 0	-4.87-2	-5.36 0
18.5063	19.9941	0.74	7.80	2.43-2	5.51 0	-4.96-2	-5.66 0
18.5780	20.0295	0.74	8.00	2.53-2	5.81 0	-5.06-2	-5.96 0
18.6475	20.0647	0.74	8.20	2.63-2	6.11 0	-5.16-2	-6.27 0
18.7151	20.0995	0.74	8.40	2.73-2	6.43 0	-5.26-2	-6.58 0
18.7807	20.1339	0.74	8.60	2.83-2	6.75 0	-5.35-2	-6.90 0
18.8446	20.1680	0.74	8.80	2.94-2	7.07 0	-5.45-2	-7.24 0
18.2529	20.3653	0.72	5.40	1.22-2	2.58 0	-3.61-2	-2.67 0
18.3694	20.4057	0.72	5.60	1.32-2	2.78 0	-3.70-2	-2.88 0
18.4803	20.4461	0.72	5.80	1.41-2	3.00 0	-3.79-2	-3.10 0
18.5862	20.4864	0.72	6.00	1.51-2	3.22 0	-3.89-2	-3.33 0
18.6876	20.5266	0.72	6.20	1.61-2	3.46 0	-3.98-2	-3.56 0
18.7847	20.5665	0.72	6.40	1.70-2	3.70 0	-4.07-2	-3.81 0
18.8780	20.6062	0.72	6.60	1.80-2	3.94 0	-4.16-2	-4.06 0
18.3046	20.9996	0.70	4.20	6.68-3	1.51 0	-2.90-2	-1.58 0
18.4728	21.0404	0.70	4.40	7.60-3	1.67 0	-2.99-2	-1.75 0
18.6301	21.0822	0.70	4.60	8.52-3	1.85 0	-3.07-2	-1.92 0
18.7777	21.1247	0.70	4.80	9.44-3	2.03 0	-3.16-2	-2.10 0
18.2062	21.7545	0.68	3.20	2.49-3	8.32-1	-2.34-2	-8.79-1
18.3383	21.7697	0.68	3.30	2.93-3	8.92-1	-2.37-2	-9.41-1
18.4640	21.7862	0.68	3.40	3.37-3	9.55-1	-2.41-2	-1.01 0
18.5839	21.8039	0.68	3.50	3.81-3	1.02 0	-2.45-2	-1.07 0
18.6984	21.8225	0.68	3.60	4.25-3	1.09 0	-2.49-2	-1.14 0
18.8081	21.8420	0.68	3.70	4.69-3	1.16 0	-2.53-2	-1.21 0
18.2934	22.6955	0.66	2.60	3.17-4	5.19-1	-1.97-2	-5.55-1
18.4828	22.7006	0.66	2.70	7.42-4	5.68-1	-2.00-2	-6.06-1
18.6603	22.7089	0.66	2.80	1.17-3	6.19-1	-2.04-2	-6.58-1
18.8272	22.7201	0.66	2.90	1.59-3	6.72-1	-2.07-2	-7.13-1
18.7908	23.7789	0.64	2.30	-4.50-4	3.93-1	-1.73-2	-4.23-1
18.5326	23.7888	0.64	2.20	-8.60-4	3.52-1	-1.69-2	-3.80-1
18.2512	23.8067	0.64	2.10	-1.27-3	3.14-1	-1.66-2	-3.40-1
18.8640	25.0290	0.62	1.90	-1.55-3	2.48-1	-1.48-2	-2.71-1
18.6782	25.0499	0.62	1.85	-1.74-3	2.32-1	-1.46-2	-2.54-1
18.4819	25.0748	0.62	1.80	-1.94-3	2.16-1	-1.45-2	-2.37-1
18.2740	25.1043	0.62	1.75	-2.14-3	2.01-1	-1.43-2	-2.21-1
18.6874	26.5250	0.60	1.55	-2.37-3	1.48-1	-1.26-2	-1.65-1
18.3982	26.5818	0.60	1.50	-2.56-3	1.36-1	-1.25-2	-1.52-1
18.5213	28.2694	0.58	1.30	-2.76-3	9.30-2	-1.09-2	-1.06-1
18.7787	30.1534	0.56	1.15	-2.76-3	6.67-2	-9.61-3	-7.72-2
18.6760	32.4109	0.54	1.00	-2.76-3	4.47-2	-8.42-3	-5.31-2
18.3454	32.5209	0.54	0.98	-2.83-3	4.20-2	-8.38-3	-5.01-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.5395	34.9975	0.52	0.88	-2.66-3	3.06-2	-7.38-3	-3.73-2
18.2920	37.9854	0.50	0.78	-2.50-3	2.10-2	-6.47-3	-2.64-2
18.2769	45.0600	0.46	0.64	-2.05-3	1.11-2	-4.97-3	-1.48-2
18.7720	54.1272	0.42	0.54	-1.56-3	6.25-3	-3.76-3	-8.93-3
18.5151	121.578	0.28	0.30	-4.07-4	7.07-4	-1.23-3	-1.59-3
18.90	19.60						
18.9345	19.0893	0.94	90.00	9.08-1	4.97 2	-9.51-1	-4.98 2
18.9238	19.1028	0.92	79.00	7.08-1	4.10 2	-7.48-1	-4.12 2
18.9294	19.1383	0.90	68.00	5.47-1	3.24 2	-5.85-1	-3.26 2
18.9722	19.1486	0.92	80.00	7.22-1	4.19 2	-7.63-1	-4.20 2
18.9295	19.1775	0.88	57.00	4.14-1	2.42 2	-4.51-1	-2.43 2
18.9793	19.1850	0.90	69.00	5.58-1	3.32 2	-5.97-1	-3.34 2
19.0206	19.1945	0.92	81.00	7.37-1	4.27 2	-7.77-1	-4.29 2
18.9833	19.2269	0.88	58.00	4.24-1	2.49 2	-4.61-1	-2.51 2
19.0290	19.2316	0.90	70.00	5.70-1	3.41 2	-6.09-1	-3.42 2
19.0691	19.2405	0.92	82.00	7.51-1	4.35 2	-7.92-1	-4.37 2
18.9553	19.2516	0.86	47.00	3.11-1	1.73 2	-3.46-1	-1.74 2
19.0367	19.2761	0.88	59.00	4.34-1	2.57 2	-4.70-1	-2.58 2
19.0787	19.2781	0.90	71.00	5.82-1	3.49 2	-6.21-1	-3.50 2
19.1177	19.2866	0.92	83.00	7.67-1	4.44 2	-8.07-1	-4.45 2
18.9202	19.2879	0.84	37.00	2.23-1	1.12 2	-2.56-1	-1.13 2
19.0156	19.3060	0.86	48.00	3.20-1	1.80 2	-3.55-1	-1.81 2
19.1282	19.3246	0.90	72.00	5.94-1	3.57 2	-6.33-1	-3.58 2
19.0897	19.3250	0.88	60.00	4.44-1	2.65 2	-4.80-1	-2.66 2
19.1663	19.3328	0.92	84.00	7.82-1	4.52 2	-8.22-1	-4.53 2
18.9919	19.3504	0.84	38.00	2.31-1	1.18 2	-2.64-1	-1.19 2
19.0752	19.3598	0.86	49.00	3.28-1	1.87 2	-3.63-1	-1.88 2
19.1776	19.3710	0.90	73.00	6.07-1	3.65 2	-6.45-1	-3.67 2
19.1424	19.3738	0.88	61.00	4.54-1	2.72 2	-4.91-1	-2.74 2
19.2150	19.3792	0.92	85.00	7.98-1	4.60 2	-8.38-1	-4.62 2
18.9363	19.3922	0.82	29.00	1.60-1	7.16 1	-1.91-1	-7.22 1
19.0622	19.4121	0.84	39.00	2.38-1	1.24 2	-2.71-1	-1.25 2
19.1341	19.4131	0.86	50.00	3.37-1	1.94 2	-3.72-1	-1.95 2
19.2269	19.4175	0.90	74.00	6.19-1	3.73 2	-6.58-1	-3.75 2
19.1947	19.4223	0.88	62.00	4.64-1	2.80 2	-5.01-1	-2.81 2
19.2638	19.4257	0.92	86.00	8.14-1	4.68 2	-8.54-1	-4.70 2
19.2762	19.4639	0.90	75.00	6.32-1	3.81 2	-6.71-1	-3.83 2
19.0240	19.4658	0.82	30.00	1.67-1	7.64 1	-1.98-1	-7.70 1
19.1924	19.4660	0.86	51.00	3.46-1	2.01 2	-3.81-1	-2.02 2
19.2468	19.4706	0.88	63.00	4.75-1	2.88 2	-5.11-1	-2.89 2
19.3128	19.4724	0.92	87.00	8.30-1	4.77 2	-8.70-1	-4.78 2
19.1313	19.4729	0.84	40.00	2.46-1	1.30 2	-2.79-1	-1.31 2
18.9206	19.5022	0.80	22.00	1.10-1	4.25 1	-1.40-1	-4.30 1
19.3254	19.5103	0.90	76.00	6.45-1	3.90 2	-6.84-1	-3.91 2
19.2501	19.5185	0.86	52.00	3.55-1	2.08 2	-3.89-1	-2.09 2
19.2986	19.5188	0.88	64.00	4.85-1	2.96 2	-5.22-1	-2.97 2
19.3619	19.5192	0.92	88.00	8.46-1	4.85 2	-8.86-1	-4.87 2
19.1993	19.5329	0.84	41.00	2.53-1	1.36 2	-2.86-1	-1.37 2
19.1095	19.5379	0.82	31.00	1.73-1	8.13 1	-2.05-1	-8.20 1
19.3746	19.5568	0.90	77.00	6.58-1	3.98 2	-6.97-1	-4.00 2
19.4111	19.5662	0.92	89.00	8.63-1	4.93 2	-9.03-1	-4.95 2
19.3502	19.5668	0.88	65.00	4.96-1	3.04 2	-5.33-1	-3.05 2
19.3072	19.5706	0.86	53.00	3.64-1	2.15 2	-3.98-1	-2.16 2
19.0334	19.5915	0.80	23.00	1.16-1	4.63 1	-1.46-1	-4.68 1
19.2661	19.5921	0.84	42.00	2.61-1	1.42 2	-2.94-1	-1.43 2
19.4237	19.6033	0.90	78.00	6.72-1	4.06 2	-7.10-1	-4.08 2
19.1927	19.6087	0.82	32.00	1.80-1	8.64 1	-2.12-1	-8.71 1
19.4605	19.6135	0.92	90.00	8.80-1	5.01 2	-9.20-1	-5.03 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.4015	19.6146	0.88	66.00	5.07-1	3.12 2	-5.43-1	-3.13 2
19.3638	19.6223	0.86	54.00	3.73-1	2.22 2	-4.07-1	-2.23 2
19.4729	19.6498	0.90	79.00	6.86-1	4.15 2	-7.24-1	-4.16 2
19.3319	19.6507	0.84	43.00	2.69-1	1.49 2	-3.02-1	-1.50 2
19.4526	19.6623	0.88	67.00	5.18-1	3.20 2	-5.54-1	-3.21 2
18.9184	19.6684	0.78	16.50	7.41-2	2.45 1	-1.02-1	-2.48 1
19.4198	19.6737	0.86	55.00	3.82-1	2.30 2	-4.17-1	-2.31 2
19.2740	19.6781	0.82	33.00	1.87-1	9.16 1	-2.19-1	-9.23 1
19.1419	19.6783	0.80	24.00	1.23-1	5.03 1	-1.52-1	-5.08 1
19.5221	19.6964	0.90	80.00	6.99-1	4.23 2	-7.38-1	-4.25 2
19.3967	19.7085	0.84	44.00	2.77-1	1.55 2	-3.10-1	-1.56 2
19.5035	19.7100	0.88	68.00	5.29-1	3.28 2	-5.65-1	-3.29 2
18.9943	19.7236	0.78	17.00	7.70-2	2.59 1	-1.05-1	-2.63 1
19.4754	19.7247	0.86	56.00	3.91-1	2.37 2	-4.26-1	-2.38 2
19.5713	19.7431	0.90	81.00	7.14-1	4.31 2	-7.52-1	-4.33 2
19.3534	19.7464	0.82	34.00	1.94-1	9.69 1	-2.25-1	-9.76 1
19.5543	19.7575	0.88	69.00	5.41-1	3.36 2	-5.77-1	-3.37 2
19.2465	19.7630	0.80	25.00	1.29-1	5.44 1	-1.58-1	-5.50 1
19.4606	19.7657	0.84	45.00	2.85-1	1.62 2	-3.18-1	-1.63 2
19.5305	19.7754	0.86	57.00	4.01-1	2.45 2	-4.35-1	-2.46 2
19.0680	19.7778	0.78	17.50	7.99-2	2.75 1	-1.08-1	-2.78 1
19.4310	19.8134	0.82	35.00	2.01-1	1.02 2	-2.33-1	-1.03 2
19.5236	19.8223	0.84	46.00	2.93-1	1.68 2	-3.26-1	-1.69 2
19.5853	19.8259	0.86	58.00	4.10-1	2.52 2	-4.45-1	-2.53 2
19.1397	19.8311	0.78	18.00	8.28-2	2.90 1	-1.11-1	-2.94 1
19.3475	19.8455	0.80	26.00	1.35-1	5.87 1	-1.65-1	-5.93 1
19.5858	19.8784	0.84	47.00	3.01-1	1.75 2	-3.34-1	-1.76 2
19.5070	19.8794	0.82	36.00	2.09-1	1.08 2	-2.40-1	-1.09 2
19.2095	19.8835	0.78	18.50	8.58-2	3.06 1	-1.14-1	-3.10 1
19.4453	19.9261	0.80	27.00	1.42-1	6.32 1	-1.71-1	-6.37 1
18.9726	19.9326	0.76	12.50	4.99-2	1.42 1	-7.65-2	-1.45 1
19.2775	19.9350	0.78	19.00	8.87-2	3.23 1	-1.17-1	-3.27 1
19.5815	19.9444	0.82	37.00	2.16-1	1.14 2	-2.47-1	-1.14 2
19.3439	19.9857	0.78	19.50	9.16-2	3.40 1	-1.20-1	-3.44 1
19.0747	19.9998	0.76	13.00	5.26-2	1.54 1	-7.91-2	-1.57 1
19.5401	20.0049	0.80	28.00	1.48-1	6.77 1	-1.77-1	-6.83 1
19.4086	20.0355	0.78	20.00	9.46-2	3.57 1	-1.22-1	-3.61 1
19.1728	20.0656	0.76	13.50	5.53-2	1.66 1	-8.18-2	-1.69 1
19.2672	20.1299	0.76	14.00	5.80-2	1.79 1	-8.45-2	-1.81 1
19.5338	20.1329	0.78	21.00	1.01-1	3.93 1	-1.28-1	-3.97 1
19.3582	20.1929	0.76	14.50	6.08-2	1.92 1	-8.71-2	-1.94 1
18.9067	20.2018	0.74	9.00	3.04-2	7.41 0	-5.55-2	-7.57 0
18.9673	20.2352	0.74	9.20	3.14-2	7.75 0	-5.65-2	-7.92 0
19.4460	20.2546	0.76	15.00	6.35-2	2.05 1	-8.98-2	-2.08 1
19.0264	20.2683	0.74	9.40	3.24-2	8.10 0	-5.75-2	-8.27 0
19.0840	20.3010	0.74	9.60	3.35-2	8.45 0	-5.85-2	-8.63 0
19.5309	20.3151	0.76	15.50	6.63-2	2.19 1	-9.25-2	-2.22 1
19.1402	20.3334	0.74	9.80	3.45-2	8.82 0	-5.94-2	-9.00 0
19.1952	20.3655	0.74	10.00	3.55-2	9.19 0	-6.04-2	-9.37 0
19.3274	20.4443	0.74	10.50	3.81-2	1.01 1	-6.29-2	-1.03 1
19.4527	20.5212	0.74	11.00	4.07-2	1.11 1	-6.54-2	-1.14 1
19.5719	20.5961	0.74	11.50	4.32-2	1.22 1	-6.80-2	-1.24 1
18.9677	20.6456	0.72	6.80	1.90-2	4.20 0	-4.25-2	-4.32 0
19.0540	20.6847	0.72	7.00	1.99-2	4.46 0	-4.34-2	-4.58 0
19.1374	20.7234	0.72	7.20	2.09-2	4.73 0	-4.44-2	-4.86 0
19.2179	20.7618	0.72	7.40	2.19-2	5.01 0	-4.53-2	-5.14 0
19.2957	20.7998	0.72	7.60	2.28-2	5.30 0	-4.62-2	-5.43 0
19.3710	20.8375	0.72	7.80	2.38-2	5.59 0	-4.72-2	-5.73 0
19.4441	20.8748	0.72	8.00	2.48-2	5.89 0	-4.81-2	-6.03 0
19.5149	20.9116	0.72	8.20	2.58-2	6.20 0	-4.90-2	-6.35 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.5838	20.9481	0.72	8.40	2.67-2	6.51 0	-5.00-2	-6.67 0
18.9168	21.1677	0.70	5.00	1.04-2	2.21 0	-3.24-2	-2.29 0
19.0483	21.2110	0.70	5.20	1.13-2	2.41 0	-3.33-2	-2.49 0
19.1729	21.2544	0.70	5.40	1.22-2	2.61 0	-3.42-2	-2.70 0
19.2914	21.2977	0.70	5.60	1.31-2	2.82 0	-3.50-2	-2.92 0
19.4042	21.3409	0.70	5.80	1.40-2	3.04 0	-3.59-2	-3.14 0
19.5120	21.3840	0.70	6.00	1.50-2	3.27 0	-3.68-2	-3.37 0
18.9131	21.8622	0.68	3.80	5.13-3	1.23 0	-2.57-2	-1.29 0
19.0140	21.8830	0.68	3.90	5.57-3	1.30 0	-2.61-2	-1.36 0
19.1110	21.9044	0.68	4.00	6.01-3	1.38 0	-2.65-2	-1.44 0
19.2944	21.9482	0.68	4.20	6.89-3	1.53 0	-2.73-2	-1.60 0
19.4651	21.9933	0.68	4.40	7.77-3	1.70 0	-2.81-2	-1.77 0
18.9845	22.7336	0.66	3.00	2.01-3	7.28-1	-2.11-2	-7.70-1
19.1332	22.7491	0.66	3.10	2.43-3	7.85-1	-2.15-2	-8.29-1
19.2741	22.7663	0.66	3.20	2.85-3	8.45-1	-2.19-2	-8.91-1
19.4080	22.7849	0.66	3.30	3.28-3	9.06-1	-2.22-2	-9.54-1
19.5354	22.8047	0.66	3.40	3.70-3	9.70-1	-2.26-2	-1.02 0
19.0289	23.7755	0.64	2.40	-4.30-5	4.36-1	-1.76-2	-4.67-1
19.2495	23.7774	0.64	2.50	3.63-4	4.81-1	-1.80-2	-5.14-1
19.4547	23.7838	0.64	2.60	7.68-4	5.28-1	-1.83-2	-5.63-1
19.5194	24.9782	0.62	2.10	-7.60-4	3.19-1	-1.54-2	-3.45-1
19.2078	24.9979	0.62	2.00	-1.15-3	2.83-1	-1.51-2	-3.07-1
19.0403	25.0118	0.62	1.95	-1.35-3	2.65-1	-1.49-2	-2.88-1
19.4456	26.4013	0.60	1.70	-1.79-3	1.90-1	-1.30-2	-2.09-1
19.2092	26.4358	0.60	1.65	-1.98-3	1.75-1	-1.29-2	-1.93-1
18.9570	26.4767	0.60	1.60	-2.17-3	1.61-1	-1.27-2	-1.79-1
19.2880	28.0905	0.58	1.40	-2.38-3	1.15-1	-1.12-2	-1.29-1
18.9210	28.1724	0.58	1.35	-2.57-3	1.03-1	-1.10-2	-1.17-1
19.3132	30.0059	0.56	1.20	-2.57-3	7.56-2	-9.72-3	-8.67-2
19.4319	32.1725	0.54	1.05	-2.58-3	5.20-2	-8.51-3	-6.09-2
19.3953	34.6987	0.52	0.92	-2.51-3	3.53-2	-7.45-3	-4.25-2
18.9803	34.8412	0.52	0.90	-2.59-3	3.29-2	-7.41-3	-3.98-2
19.4834	37.5392	0.50	0.82	-2.36-3	2.49-2	-6.52-3	-3.08-2
18.9090	37.7507	0.50	0.80	-2.43-3	2.29-2	-6.50-3	-2.86-2
18.9322	41.0320	0.48	0.72	-2.23-3	1.64-2	-5.69-3	-2.11-2
19.3840	44.6116	0.46	0.66	-1.98-3	1.24-2	-4.98-3	-1.64-2
19.4530	48.8901	0.44	0.60	-1.76-3	9.05-3	-4.34-3	-1.23-2
19.4051	59.5911	0.40	0.50	-1.33-3	4.79-3	-3.25-3	-7.09-3
19.0297	74.1289	0.36	0.42	-9.58-4	2.53-3	-2.39-3	-4.17-3
19.60	20.30						
19.6205	19.7899	0.90	82.00	7.28-1	4.40 2	-7.66-1	-4.41 2
19.6049	19.8049	0.88	70.00	5.52-1	3.44 2	-5.88-1	-3.46 2
19.6699	19.8368	0.90	83.00	7.42-1	4.48 2	-7.80-1	-4.50 2
19.6553	19.8523	0.88	71.00	5.64-1	3.52 2	-6.00-1	-3.54 2
19.6396	19.8760	0.86	59.00	4.20-1	2.60 2	-4.54-1	-2.61 2
19.7192	19.8838	0.90	84.00	7.57-1	4.57 2	-7.95-1	-4.58 2
19.7057	19.8996	0.88	72.00	5.75-1	3.61 2	-6.12-1	-3.62 2
19.6935	19.9259	0.86	60.00	4.30-1	2.68 2	-4.64-1	-2.69 2
19.7687	19.9309	0.90	85.00	7.72-1	4.65 2	-8.10-1	-4.67 2
19.6472	19.9339	0.84	48.00	3.09-1	1.82 2	-3.42-1	-1.83 2
19.7559	19.9469	0.88	73.00	5.87-1	3.69 2	-6.24-1	-3.70 2
19.7471	19.9756	0.86	61.00	4.39-1	2.75 2	-4.74-1	-2.77 2
19.8183	19.9782	0.90	86.00	7.88-1	4.73 2	-8.26-1	-4.75 2
19.7079	19.9888	0.84	49.00	3.18-1	1.89 2	-3.50-1	-1.90 2
19.8060	19.9942	0.88	74.00	6.00-1	3.77 2	-6.36-1	-3.79 2
19.6545	20.0084	0.82	38.00	2.23-1	1.19 2	-2.54-1	-1.20 2
19.8004	20.0251	0.86	62.00	4.49-1	2.83 2	-4.84-1	-2.84 2
19.8680	20.0257	0.90	87.00	8.04-1	4.82 2	-8.41-1	-4.83 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.8561	20.0415	0.88	75.00	6.12-1	3.86 2	-6.48-1	-3.87 2
19.7679	20.0433	0.84	50.00	3.26-1	1.96 2	-3.59-1	-1.97 2
19.7262	20.0715	0.82	39.00	2.30-1	1.25 2	-2.61-1	-1.26 2
19.9179	20.0733	0.90	88.00	8.20-1	4.90 2	-8.57-1	-4.92 2
19.8534	20.0743	0.86	63.00	4.59-1	2.91 2	-4.94-1	-2.92 2
19.6321	20.0820	0.80	29.00	1.55-1	7.24 1	-1.84-1	-7.31 1
19.9061	20.0887	0.88	76.00	6.25-1	3.94 2	-6.61-1	-3.95 2
19.8272	20.0973	0.84	51.00	3.35-1	2.03 2	-3.67-1	-2.04 2
19.9679	20.1211	0.90	89.00	8.36-1	4.98 2	-8.74-1	-5.00 2
19.9061	20.1234	0.86	64.00	4.70-1	2.99 2	-5.04-1	-3.00 2
19.7966	20.1337	0.82	40.00	2.38-1	1.31 2	-2.68-1	-1.32 2
19.9561	20.1360	0.88	77.00	6.37-1	4.02 2	-6.73-1	-4.04 2
19.8859	20.1509	0.84	52.00	3.43-1	2.10 2	-3.76-1	-2.11 2
19.7216	20.1575	0.80	30.00	1.61-1	7.73 1	-1.90-1	-7.79 1
20.0181	20.1692	0.90	90.00	8.52-1	5.07 2	-8.90-1	-5.08 2
19.9585	20.1723	0.86	65.00	4.80-1	3.07 2	-5.14-1	-3.08 2
20.0061	20.1834	0.88	78.00	6.50-1	4.11 2	-6.86-1	-4.12 2
19.8658	20.1951	0.82	41.00	2.45-1	1.38 2	-2.76-1	-1.39 2
19.9441	20.2041	0.84	53.00	3.52-1	2.17 2	-3.84-1	-2.18 2
20.0107	20.2211	0.86	66.00	4.91-1	3.15 2	-5.25-1	-3.17 2
19.6537	20.2274	0.78	22.00	1.06-1	4.30 1	-1.34-1	-4.35 1
20.0560	20.2307	0.88	79.00	6.64-1	4.19 2	-6.99-1	-4.21 2
19.8087	20.2314	0.80	31.00	1.68-1	8.23 1	-1.97-1	-8.30 1
19.9339	20.2557	0.82	42.00	2.53-1	1.44 2	-2.83-1	-1.45 2
20.0017	20.2569	0.84	54.00	3.61-1	2.25 2	-3.93-1	-2.26 2
20.0627	20.2698	0.86	67.00	5.01-1	3.23 2	-5.35-1	-3.25 2
20.1060	20.2782	0.88	80.00	6.77-1	4.28 2	-7.13-1	-4.29 2
19.8936	20.3040	0.80	32.00	1.74-1	8.74 1	-2.04-1	-8.81 1
20.0587	20.3093	0.84	55.00	3.69-1	2.32 2	-4.02-1	-2.33 2
20.0010	20.3155	0.82	43.00	2.60-1	1.50 2	-2.91-1	-1.51 2
20.1145	20.3183	0.86	68.00	5.12-1	3.32 2	-5.46-1	-3.33 2
19.7687	20.3192	0.78	23.00	1.12-1	4.69 1	-1.40-1	-4.74 1
20.1560	20.3257	0.88	81.00	6.91-1	4.36 2	-7.26-1	-4.38 2
20.1153	20.3614	0.84	56.00	3.78-1	2.40 2	-4.11-1	-2.41 2
20.1661	20.3667	0.86	69.00	5.23-1	3.40 2	-5.57-1	-3.41 2
20.2061	20.3733	0.88	82.00	7.04-1	4.45 2	-7.40-1	-4.46 2
19.6132	20.3743	0.76	16.00	6.91-2	2.33 1	-9.53-2	-2.36 1
20.0670	20.3747	0.82	44.00	2.68-1	1.57 2	-2.98-1	-1.58 2
19.9764	20.3752	0.80	33.00	1.81-1	9.27 1	-2.10-1	-9.34 1
19.8794	20.4085	0.78	24.00	1.19-1	5.09 1	-1.46-1	-5.14 1
20.1715	20.4132	0.84	57.00	3.87-1	2.47 2	-4.20-1	-2.49 2
20.2176	20.4151	0.86	70.00	5.34-1	3.48 2	-5.68-1	-3.49 2
20.2562	20.4210	0.88	83.00	7.19-1	4.53 2	-7.54-1	-4.55 2
19.6929	20.4324	0.76	16.50	7.18-2	2.48 1	-9.80-2	-2.51 1
20.1321	20.4332	0.82	45.00	2.75-1	1.63 2	-3.06-1	-1.64 2
20.0574	20.4451	0.80	34.00	1.88-1	9.81 1	-2.17-1	-9.88 1
20.2689	20.4633	0.86	71.00	5.45-1	3.56 2	-5.79-1	-3.58 2
20.2272	20.4646	0.84	58.00	3.97-1	2.55 2	-4.29-1	-2.56 2
19.7703	20.4895	0.76	17.00	7.46-2	2.63 1	-1.01-1	-2.66 1
20.1963	20.4911	0.82	46.00	2.83-1	1.70 2	-3.14-1	-1.71 2
19.9861	20.4955	0.78	25.00	1.25-1	5.51 1	-1.52-1	-5.56 1
20.1366	20.5138	0.80	35.00	1.95-1	1.04 2	-2.24-1	-1.04 2
20.2824	20.5158	0.84	59.00	4.06-1	2.63 2	-4.38-1	-2.64 2
19.8455	20.5454	0.76	17.50	7.74-2	2.78 1	-1.03-1	-2.82 1
20.2597	20.5483	0.82	47.00	2.91-1	1.77 2	-3.22-1	-1.78 2
20.0892	20.5803	0.78	26.00	1.31-1	5.95 1	-1.58-1	-6.00 1
20.2140	20.5814	0.80	36.00	2.02-1	1.09 2	-2.30-1	-1.10 2
19.9186	20.6004	0.76	18.00	8.02-2	2.94 1	-1.06-1	-2.98 1
20.2900	20.6480	0.80	37.00	2.08-1	1.15 2	-2.37-1	-1.16 2
19.9899	20.6545	0.76	18.50	8.30-2	3.10 1	-1.09-1	-3.14 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
20.1890	20.6631	0.78	27.00	1.37-1	6.40 1	-1.64-1	-6.45 1
19.6856	20.6693	0.74	12.00	4.58-2	1.33 1	-7.05-2	-1.35 1
20.0593	20.7076	0.76	19.00	8.58-2	3.27 1	-1.12-1	-3.31 1
19.7943	20.7407	0.74	12.50	4.84-2	1.44 1	-7.30-2	-1.47 1
20.2857	20.7440	0.78	28.00	1.43-1	6.86 1	-1.70-1	-6.92 1
20.1270	20.7598	0.76	19.50	8.87-2	3.44 1	-1.15-1	-3.48 1
19.8985	20.8104	0.74	13.00	5.10-2	1.56 1	-7.56-2	-1.59 1
20.1931	20.8111	0.76	20.00	9.15-2	3.62 1	-1.17-1	-3.66 1
19.9986	20.8786	0.74	13.50	5.37-2	1.68 1	-7.81-2	-1.71 1
20.0949	20.9453	0.74	14.00	5.63-2	1.81 1	-8.07-2	-1.84 1
19.6507	20.9842	0.72	8.60	2.77-2	6.84 0	-5.09-2	-6.99 0
20.1878	21.0105	0.74	14.50	5.89-2	1.94 1	-8.33-2	-1.97 1
19.7157	21.0200	0.72	8.80	2.87-2	7.17 0	-5.18-2	-7.33 0
19.7791	21.0553	0.72	9.00	2.97-2	7.51 0	-5.28-2	-7.67 0
20.2774	21.0743	0.74	15.00	6.16-2	2.08 1	-8.59-2	-2.11 1
19.8409	21.0903	0.72	9.20	3.06-2	7.85 0	-5.37-2	-8.02 0
19.9011	21.1248	0.72	9.40	3.16-2	8.21 0	-5.47-2	-8.38 0
19.9599	21.1591	0.72	9.60	3.26-2	8.57 0	-5.56-2	-8.74 0
20.0172	21.1929	0.72	9.80	3.36-2	8.94 0	-5.66-2	-9.12 0
20.0733	21.2264	0.72	10.00	3.46-2	9.31 0	-5.75-2	-9.50 0
20.2081	21.3085	0.72	10.50	3.70-2	1.03 1	-5.99-2	-1.05 1
19.6152	21.4267	0.70	6.20	1.59-2	3.51 0	-3.76-2	-3.61 0
19.7140	21.4692	0.70	6.40	1.68-2	3.75 0	-3.85-2	-3.86 0
19.8090	21.5113	0.70	6.60	1.77-2	4.00 0	-3.94-2	-4.11 0
19.9003	21.5530	0.70	6.80	1.87-2	4.26 0	-4.03-2	-4.38 0
19.9883	21.5943	0.70	7.00	1.96-2	4.53 0	-4.12-2	-4.65 0
20.0732	21.6352	0.70	7.20	2.05-2	4.80 0	-4.21-2	-4.92 0
20.1552	21.6757	0.70	7.40	2.15-2	5.08 0	-4.30-2	-5.21 0
20.2345	21.7158	0.70	7.60	2.24-2	5.37 0	-4.38-2	-5.50 0
19.6249	22.0392	0.68	4.60	8.64-3	1.87 0	-2.90-2	-1.95 0
19.7750	22.0856	0.68	4.80	9.52-3	2.06 0	-2.98-2	-2.13 0
19.9164	22.1323	0.68	5.00	1.04-2	2.25 0	-3.06-2	-2.33 0
20.0501	22.1790	0.68	5.20	1.13-2	2.44 0	-3.14-2	-2.53 0
20.1769	22.2257	0.68	5.40	1.22-2	2.65 0	-3.22-2	-2.74 0
20.2974	22.2722	0.68	5.60	1.30-2	2.87 0	-3.31-2	-2.96 0
19.6570	22.8255	0.66	3.50	4.12-3	1.04 0	-2.30-2	-1.09 0
19.7732	22.8471	0.66	3.60	4.54-3	1.10 0	-2.34-2	-1.16 0
19.8844	22.8695	0.66	3.70	4.95-3	1.18 0	-2.38-2	-1.23 0
19.9910	22.8925	0.66	3.80	5.37-3	1.25 0	-2.41-2	-1.30 0
20.0934	22.9160	0.66	3.90	5.79-3	1.32 0	-2.45-2	-1.38 0
20.1919	22.9399	0.66	4.00	6.21-3	1.40 0	-2.49-2	-1.46 0
19.6464	23.7938	0.64	2.70	1.17-3	5.78-1	-1.87-2	-6.14-1
19.8261	23.8069	0.64	2.80	1.57-3	6.30-1	-1.90-2	-6.68-1
19.9951	23.8225	0.64	2.90	1.98-3	6.84-1	-1.94-2	-7.23-1
20.1544	23.8402	0.64	3.00	2.38-3	7.40-1	-1.97-2	-7.81-1
20.0647	24.9648	0.62	2.30	1.67-5	4.00-1	-1.60-2	-4.29-1
19.8038	24.9678	0.62	2.20	-3.71-4	3.58-1	-1.57-2	-3.86-1
20.2631	26.3134	0.60	1.90	-1.04-3	2.53-1	-1.36-2	-2.75-1
20.0756	26.3291	0.60	1.85	-1.23-3	2.36-1	-1.35-2	-2.57-1
19.8775	26.3486	0.60	1.80	-1.41-3	2.20-1	-1.33-2	-2.41-1
19.6679	26.3725	0.60	1.75	-1.60-3	2.04-1	-1.32-2	-2.24-1
20.2312	27.9147	0.58	1.55	-1.83-3	1.51-1	-1.16-2	-1.68-1
19.9399	27.9634	0.58	1.50	-2.01-3	1.38-1	-1.14-2	-1.54-1
19.6264	28.0215	0.58	1.45	-2.20-3	1.26-1	-1.13-2	-1.41-1
20.2364	29.7808	0.56	1.30	-2.21-3	9.51-2	-9.96-3	-1.08-1
19.7967	29.8832	0.56	1.25	-2.39-3	8.50-2	-9.84-3	-9.69-2
20.1014	31.9778	0.54	1.10	-2.40-3	5.98-2	-8.61-3	-6.94-2
20.1565	34.4498	0.52	0.96	-2.38-3	4.04-2	-7.51-3	-4.81-2
19.7867	34.5687	0.52	0.94	-2.44-3	3.78-2	-7.48-3	-4.52-2
20.0195	37.3484	0.50	0.84	-2.29-3	2.70-2	-6.55-3	-3.31-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.7100	40.7328	0.48	0.74	-2.16-3	1.81-2	-5.71-3	-2.29-2
19.6277	66.1443	0.38	0.46	-1.13-3	3.55-3	-2.79-3	-5.51-3
20.30	21.00						
20.3064	20.4688	0.88	84.00	7.33-1	4.61 2	-7.69-1	-4.63 2
20.3201	20.5116	0.86	72.00	5.57-1	3.65 2	-5.91-1	-3.66 2
20.3566	20.5168	0.88	85.00	7.48-1	4.70 2	-7.83-1	-4.72 2
20.3711	20.5597	0.86	73.00	5.68-1	3.73 2	-6.02-1	-3.75 2
20.4070	20.5649	0.88	86.00	7.62-1	4.78 2	-7.98-1	-4.80 2
20.3374	20.5667	0.84	60.00	4.15-1	2.71 2	-4.47-1	-2.72 2
20.3222	20.6051	0.82	48.00	2.99-1	1.84 2	-3.29-1	-1.85 2
20.4221	20.6079	0.86	74.00	5.80-1	3.81 2	-6.14-1	-3.83 2
20.4575	20.6132	0.88	87.00	7.78-1	4.87 2	-8.13-1	-4.89 2
20.3919	20.6174	0.84	61.00	4.25-1	2.78 2	-4.57-1	-2.80 2
20.4731	20.6560	0.86	75.00	5.92-1	3.90 2	-6.26-1	-3.91 2
20.3841	20.6612	0.82	49.00	3.07-1	1.91 2	-3.37-1	-1.92 2
20.5082	20.6616	0.88	88.00	7.93-1	4.95 2	-8.29-1	-4.97 2
20.4461	20.6679	0.84	62.00	4.34-1	2.86 2	-4.66-1	-2.88 2
20.5239	20.7042	0.86	76.00	6.04-1	3.98 2	-6.38-1	-4.00 2
20.5590	20.7103	0.88	89.00	8.09-1	5.04 2	-8.44-1	-5.05 2
20.3644	20.7135	0.80	38.00	2.15-1	1.21 2	-2.44-1	-1.22 2
20.4452	20.7169	0.82	50.00	3.15-1	1.98 2	-3.46-1	-1.99 2
20.5001	20.7181	0.84	63.00	4.44-1	2.94 2	-4.76-1	-2.96 2
20.5747	20.7523	0.86	77.00	6.16-1	4.07 2	-6.50-1	-4.08 2
20.6100	20.7591	0.88	90.00	8.25-1	5.12 2	-8.60-1	-5.14 2
20.5537	20.7682	0.84	64.00	4.54-1	3.03 2	-4.86-1	-3.04 2
20.5056	20.7721	0.82	51.00	3.23-1	2.05 2	-3.54-1	-2.06 2
20.4375	20.7781	0.80	39.00	2.22-1	1.27 2	-2.51-1	-1.28 2
20.6255	20.8005	0.86	78.00	6.29-1	4.15 2	-6.63-1	-4.17 2
20.6071	20.8181	0.84	65.00	4.64-1	3.11 2	-4.96-1	-3.12 2
20.3795	20.8232	0.78	29.00	1.49-1	7.34 1	-1.77-1	-7.40 1
20.5654	20.8268	0.82	52.00	3.32-1	2.13 2	-3.62-1	-2.14 2
20.5093	20.8418	0.80	40.00	2.30-1	1.33 2	-2.58-1	-1.34 2
20.6763	20.8488	0.86	79.00	6.42-1	4.24 2	-6.75-1	-4.25 2
20.6602	20.8678	0.84	66.00	4.74-1	3.19 2	-5.06-1	-3.20 2
20.6246	20.8811	0.82	53.00	3.40-1	2.20 2	-3.70-1	-2.21 2
20.7271	20.8971	0.86	80.00	6.55-1	4.32 2	-6.88-1	-4.34 2
20.4708	20.9006	0.78	30.00	1.56-1	7.83 1	-1.83-1	-7.89 1
20.5799	20.9046	0.80	41.00	2.37-1	1.39 2	-2.65-1	-1.40 2
20.3209	20.9115	0.76	21.00	9.72-2	3.98 1	-1.23-1	-4.02 1
20.7131	20.9174	0.84	67.00	4.84-1	3.27 2	-5.16-1	-3.28 2
20.6833	20.9351	0.82	54.00	3.48-1	2.27 2	-3.79-1	-2.29 2
20.7780	20.9454	0.86	81.00	6.68-1	4.41 2	-7.01-1	-4.43 2
20.6493	20.9666	0.80	42.00	2.44-1	1.46 2	-2.73-1	-1.47 2
20.7658	20.9669	0.84	68.00	4.95-1	3.35 2	-5.27-1	-3.37 2
20.5597	20.9765	0.78	31.00	1.62-1	8.33 1	-1.89-1	-8.40 1
20.7414	20.9886	0.82	55.00	3.57-1	2.35 2	-3.87-1	-2.36 2
20.8289	20.9939	0.86	82.00	6.81-1	4.50 2	-7.15-1	-4.51 2
20.4433	21.0088	0.76	22.00	1.03-1	4.36 1	-1.29-1	-4.40 1
20.8183	21.0162	0.84	69.00	5.05-1	3.44 2	-5.37-1	-3.45 2
20.7176	21.0279	0.80	43.00	2.51-1	1.52 2	-2.80-1	-1.53 2
20.7991	21.0418	0.82	56.00	3.66-1	2.43 2	-3.96-1	-2.44 2
20.8798	21.0429	0.86	83.00	6.95-1	4.58 2	-7.28-1	-4.60 2
20.6463	21.0509	0.78	32.00	1.68-1	8.85 1	-1.96-1	-8.92 1
20.8707	21.0655	0.84	70.00	5.16-1	3.52 2	-5.48-1	-3.53 2
20.7850	21.0884	0.80	44.00	2.59-1	1.59 2	-2.87-1	-1.60 2
20.9308	21.0912	0.86	84.00	7.09-1	4.67 2	-7.42-1	-4.68 2
20.8562	21.0946	0.82	57.00	3.74-1	2.50 2	-4.04-1	-2.51 2
20.5607	21.1033	0.76	23.00	1.09-1	4.75 1	-1.34-1	-4.80 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
20.9229	21.1147	0.84	71.00	5.27-1	3.60 2	-5.59-1	-3.62 2
20.7308	21.1239	0.78	33.00	1.75-1	9.39 1	-2.02-1	-9.46 1
20.3641	21.1368	0.74	15.50	6.42-2	2.22 1	-8.85-2	-2.25 1
20.9819	21.1400	0.86	85.00	7.23-1	4.75 2	-7.56-1	-4.77 2
20.9129	21.1472	0.82	58.00	3.83-1	2.58 2	-4.13-1	-2.59 2
20.8513	21.1482	0.80	45.00	2.66-1	1.65 2	-2.95-1	-1.66 2
20.9749	21.1639	0.84	72.00	5.38-1	3.69 2	-5.70-1	-3.70 2
20.6737	21.1952	0.76	24.00	1.15-1	5.16 1	-1.40-1	-5.21 1
20.8134	21.1956	0.78	34.00	1.81-1	9.93 1	-2.08-1	-1.00 2
20.4481	21.1981	0.74	16.00	6.69-2	2.36 1	-9.11-2	-2.39 1
20.9692	21.1994	0.82	59.00	3.92-1	2.66 2	-4.22-1	-2.67 2
20.9168	21.2074	0.80	46.00	2.73-1	1.72 2	-3.02-1	-1.73 2
20.5295	21.2582	0.74	16.50	6.95-2	2.51 1	-9.37-2	-2.54 1
20.9813	21.2660	0.80	47.00	2.81-1	1.79 2	-3.10-1	-1.80 2
20.8942	21.2661	0.78	35.00	1.88-1	1.05 2	-2.15-1	-1.06 2
20.7826	21.2846	0.76	25.00	1.20-1	5.59 1	-1.46-1	-5.64 1
20.6085	21.3171	0.74	17.00	7.22-2	2.66 1	-9.63-2	-2.70 1
20.9732	21.3354	0.78	36.00	1.95-1	1.11 2	-2.21-1	-1.11 2
20.8878	21.3718	0.76	26.00	1.26-1	6.03 1	-1.52-1	-6.08 1
20.6853	21.3749	0.74	17.50	7.49-2	2.82 1	-9.90-2	-2.85 1
20.3360	21.3886	0.72	11.00	3.95-2	1.13 1	-6.24-2	-1.15 1
20.7600	21.4317	0.74	18.00	7.76-2	2.98 1	-1.02-1	-3.02 1
20.9897	21.4569	0.76	27.00	1.32-1	6.48 1	-1.58-1	-6.54 1
20.4576	21.4666	0.72	11.50	4.20-2	1.24 1	-6.48-2	-1.26 1
20.8327	21.4874	0.74	18.50	8.03-2	3.15 1	-1.04-1	-3.18 1
20.9036	21.5422	0.74	19.00	8.30-2	3.32 1	-1.07-1	-3.35 1
20.5737	21.5426	0.72	12.00	4.45-2	1.35 1	-6.72-2	-1.37 1
20.9728	21.5961	0.74	19.50	8.57-2	3.49 1	-1.10-1	-3.53 1
20.6847	21.6168	0.72	12.50	4.70-2	1.46 1	-6.96-2	-1.49 1
20.7911	21.6892	0.72	13.00	4.95-2	1.58 1	-7.21-2	-1.61 1
20.3113	21.7554	0.70	7.80	2.33-2	5.67 0	-4.47-2	-5.81 0
20.8933	21.7599	0.72	13.50	5.20-2	1.71 1	-7.45-2	-1.73 1
20.3858	21.7946	0.70	8.00	2.42-2	5.98 0	-4.56-2	-6.12 0
20.9916	21.8290	0.72	14.00	5.45-2	1.84 1	-7.70-2	-1.86 1
20.4581	21.8333	0.70	8.20	2.52-2	6.29 0	-4.65-2	-6.43 0
20.5282	21.8716	0.70	8.40	2.61-2	6.61 0	-4.74-2	-6.76 0
20.5965	21.9095	0.70	8.60	2.70-2	6.94 0	-4.83-2	-7.09 0
20.6628	21.9469	0.70	8.80	2.80-2	7.27 0	-4.93-2	-7.43 0
20.7275	21.9839	0.70	9.00	2.89-2	7.62 0	-5.02-2	-7.78 0
20.7905	22.0205	0.70	9.20	2.99-2	7.97 0	-5.11-2	-8.13 0
20.8519	22.0567	0.70	9.40	3.08-2	8.33 0	-5.20-2	-8.50 0
20.9119	22.0924	0.70	9.60	3.17-2	8.70 0	-5.29-2	-8.87 0
20.9705	22.1278	0.70	9.80	3.27-2	9.07 0	-5.38-2	-9.24 0
20.4123	22.3184	0.68	5.80	1.39-2	3.09 0	-3.39-2	-3.18 0
20.5221	22.3643	0.68	6.00	1.48-2	3.32 0	-3.48-2	-3.42 0
20.6271	22.4099	0.68	6.20	1.57-2	3.56 0	-3.56-2	-3.66 0
20.7278	22.4550	0.68	6.40	1.66-2	3.81 0	-3.64-2	-3.91 0
20.8246	22.4996	0.68	6.60	1.75-2	4.06 0	-3.73-2	-4.17 0
20.9176	22.5438	0.68	6.80	1.83-2	4.32 0	-3.81-2	-4.44 0
20.3782	22.9887	0.66	4.20	7.05-3	1.56 0	-2.57-2	-1.62 0
20.5517	23.0384	0.66	4.40	7.89-3	1.73 0	-2.65-2	-1.79 0
20.7142	23.0887	0.66	4.60	8.73-3	1.90 0	-2.72-2	-1.97 0
20.8668	23.1392	0.66	4.80	9.57-3	2.09 0	-2.80-2	-2.16 0
20.?052	23.8598	0.64	3.10	2.78-3	7.98-1	-2.01-2	-8.41-1
20.4480	23.8808	0.64	3.20	3.18-3	8.59-1	-2.04-2	-9.04-1
20.5838	23.9030	0.64	3.30	3.58-3	9.22-1	-2.08-2	-9.68-1
20.7131	23.9263	0.64	3.40	3.98-3	9.87-1	-2.12-2	-1.04 0
20.8365	23.9505	0.64	3.50	4.38-3	1.05 0	-2.15-2	-1.10 0
20.9544	23.9754	0.64	3.60	4.78-3	1.12 0	-2.19-2	-1.18 0
20.3055	24.9679	0.62	2.40	4.03-4	4.44-1	-1.64-2	-4.74-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
20.5287	24.9759	0.62	2.50	7.88-4	4.89-1	-1.67-2	-5.22-1
20.7364	24.9880	0.62	2.60	1.17-3	5.38-1	-1.70-2	-5.72-1
20.9305	25.0033	0.62	2.70	1.55-3	5.88-1	-1.74-2	-6.24-1
20.9251	26.2809	0.60	2.10	-2.98-4	3.26-1	-1.42-2	-3.51-1
20.6103	26.2918	0.60	2.00	-6.68-4	2.88-1	-1.39-2	-3.12-1
20.4411	26.3011	0.60	1.95	-8.53-4	2.70-1	-1.38-2	-2.93-1
20.9955	27.8126	0.58	1.70	-1.29-3	1.93-1	-1.20-2	-2.12-1
20.7571	27.8403	0.58	1.65	-1.47-3	1.79-1	-1.18-2	-1.97-1
20.5029	27.8740	0.58	1.60	-1.65-3	1.65-1	-1.17-2	-1.82-1
20.6385	29.6954	0.56	1.35	-2.04-3	1.06-1	-1.01-2	-1.19-1
20.6990	31.8182	0.54	1.15	-2.23-3	6.83-2	-8.72-3	-7.85-2
20.8382	34.2413	0.52	1.00	-2.24-3	4.59-2	-7.59-3	-5.40-2
20.5065	34.3410	0.52	0.98	-2.31-3	4.31-2	-7.55-3	-5.10-2
20.9915	37.0196	0.50	0.88	-2.16-3	3.15-2	-6.61-3	-3.80-2
20.5211	37.1759	0.50	0.86	-2.22-3	2.92-2	-6.58-3	-3.55-2
20.4283	40.4662	0.48	0.76	-2.09-3	1.99-2	-5.74-3	-2.49-2
20.3921	44.2183	0.46	0.68	-1.91-3	1.39-2	-5.00-3	-1.80-2
20.8043	48.3531	0.44	0.62	-1.69-3	1.03-2	-4.35-3	-1.37-2
20.6615	53.3575	0.42	0.56	-1.50-3	7.23-3	-3.76-3	-1.01-2
20.7509	93.2235	0.32	0.36	-6.32-4	1.44-3	-1.72-3	-2.66-3
21.00	22.00						
21.0331	21.1889	0.86	86.00	7.37-1	4.84 2	-7.71-1	-4.85 2
21.0269	21.2130	0.84	73.00	5.49-1	3.77 2	-5.81-1	-3.79 2
21.0845	21.2381	0.86	87.00	7.52-1	4.92 2	-7.85-1	-4.94 2
21.0252	21.2514	0.82	60.00	4.01-1	2.74 2	-4.31-1	-2.75 2
21.0788	21.2620	0.84	74.00	5.60-1	3.86 2	-5.92-1	-3.87 2
21.1359	21.2874	0.86	88.00	7.67-1	5.01 2	-8.00-1	-5.03 2
21.0807	21.3031	0.82	61.00	4.10-1	2.82 2	-4.40-1	-2.83 2
21.1306	21.3111	0.84	75.00	5.72-1	3.94 2	-6.04-1	-3.96 2
21.0451	21.3240	0.80	48.00	2.89-1	1.86 2	-3.17-1	-1.87 2
21.1976	21.3369	0.86	89.00	7.82-1	5.10 2	-8.15-1	-5.11 2
21.1359	21.3546	0.82	62.00	4.20-1	2.90 2	-4.50-1	-2.91 2
21.1823	21.3601	0.84	76.00	5.84-1	4.03 2	-6.15-1	-4.05 2
21.1081	21.3814	0.80	49.00	2.96-1	1.93 2	-3.25-1	-1.94 2
21.2394	21.3866	0.86	90.00	7.97-1	5.18 2	-8.31-1	-5.20 2
21.0507	21.4036	0.78	37.00	2.01-1	1.17 2	-2.28-1	-1.17 2
21.1908	21.4059	0.82	63.00	4.29-1	2.98 2	-4.59-1	-2.99 2
21.2340	21.4092	0.84	77.00	5.96-1	4.12 2	-6.27-1	-4.13 2
21.1704	21.4383	0.80	50.00	3.04-1	2.01 2	-3.33-1	-2.02 2
21.2454	21.4570	0.82	64.00	4.38-1	3.06 2	-4.68-1	-3.08 2
21.2857	21.4583	0.84	78.00	6.08-1	4.20 2	-6.39-1	-4.22 2
21.1266	21.4707	0.78	38.00	2.08-1	1.22 2	-2.35-1	-1.23 2
21.2320	21.4947	0.80	51.00	3.12-1	2.08 2	-3.40-1	-2.09 2
21.3374	21.5074	0.84	79.00	6.20-1	4.29 2	-6.52-1	-4.30 2
21.2998	21.5079	0.82	65.00	4.48-1	3.14 2	-4.78-1	-3.16 2
21.2012	21.5369	0.78	39.00	2.15-1	1.29 2	-2.41-1	-1.29 2
21.0884	21.5401	0.76	28.00	1.38-1	6.95 1	-1.64-1	-7.01 1
21.2930	21.5507	0.80	52.00	3.20-1	2.15 2	-3.48-1	-2.16 2
21.3890	21.5566	0.84	80.00	6.32-1	4.38 2	-6.64-1	-4.39 2
21.3539	21.5586	0.82	66.00	4.58-1	3.23 2	-4.88-1	-3.24 2
21.2744	21.6021	0.78	40.00	2.22-1	1.35 2	-2.48-1	-1.36 2
21.4407	21.6059	0.84	81.00	6.45-1	4.46 2	-6.77-1	-4.48 2
21.3533	21.6062	0.80	53.00	3.28-1	2.23 2	-3.56-1	-2.24 2
21.4077	21.6092	0.82	67.00	4.68-1	3.31 2	-4.98-1	-3.32 2
21.1842	21.6213	0.76	29.00	1.44-1	7.43 1	-1.69-1	-7.49 1
21.0403	21.6491	0.74	20.00	8.84-2	3.67 1	-1.12-1	-3.71 1
21.4925	21.6553	0.84	82.00	6.58-1	4.55 2	-6.90-1	-4.56 2
21.4614	21.6597	0.82	68.00	4.78-1	3.39 2	-5.08-1	-3.41 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.4131	21.6613	0.80	54.00	3.36-1	2.30 2	-3.64-1	-2.31 2
21.3464	21.6664	0.78	41.00	2.28-1	1.41 2	-2.55-1	-1.42 2
21.2774	21.7009	0.76	30.00	1.50-1	7.93 1	-1.76-1	-7.99 1
21.5443	21.7047	0.84	83.00	6.71-1	4.64 2	-7.03-1	-4.65 2
21.5148	21.7100	0.82	69.00	4.88-1	3.48 2	-5.18-1	-3.49 2
21.4723	21.7160	0.80	55.00	3.44-1	2.38 2	-3.73-1	-2.39 2
21.4172	21.7299	0.78	42.00	2.35-1	1.48 2	-2.62-1	-1.48 2
21.1708	21.7525	0.74	21.00	9.39-2	4.03 1	-1.18-1	-4.08 1
21.5961	21.7543	0.84	84.00	6.85-1	4.72 2	-7.16-1	-4.74 2
21.5681	21.7603	0.82	70.00	4.98-1	3.56 2	-5.28-1	-3.58 2
21.5310	21.7703	0.80	56.00	3.53-1	2.46 2	-3.81-1	-2.47 2
21.3681	21.7788	0.76	31.00	1.56-1	8.45 1	-1.82-1	-8.51 1
21.4869	21.7926	0.78	43.00	2.42-1	1.54 2	-2.69-1	-1.55 2
21.6481	21.8040	0.84	85.00	6.98-1	4.81 2	-7.30-1	-4.83 2
21.6213	21.8104	0.82	71.00	5.09-1	3.65 2	-5.38-1	-3.66 2
21.5893	21.8243	0.80	57.00	3.61-1	2.53 2	-3.89-1	-2.55 2
21.2958	21.8527	0.74	22.00	9.94-2	4.42 1	-1.23-1	-4.46 1
21.7002	21.8538	0.84	86.00	7.12-1	4.90 2	-7.43-1	-4.91 2
21.5556	21.8546	0.78	44.00	2.49-1	1.61 2	-2.76-1	-1.62 2
21.4565	21.8551	0.76	32.00	1.63-1	8.97 1	-1.88-1	-9.04 1
21.6743	21.8605	0.82	72.00	5.19-1	3.74 2	-5.49-1	-3.75 2
21.6471	21.8779	0.80	58.00	3.70-1	2.61 2	-3.98-1	-2.63 2
21.0865	21.8966	0.72	14.50	5.70-2	1.97 1	-7.95-2	-2.00 1
21.7524	21.9039	0.84	87.00	7.26-1	4.98 2	-7.58-1	-5.00 2
21.7271	21.9106	0.82	73.00	5.30-1	3.82 2	-5.60-1	-3.84 2
21.6232	21.9158	0.78	45.00	2.57-1	1.68 2	-2.83-1	-1.69 2
21.5428	21.9300	0.76	33.00	1.69-1	9.51 1	-1.94-1	-9.58 1
21.7044	21.9313	0.80	59.00	3.78-1	2.69 2	-4.06-1	-2.71 2
21.4157	21.9501	0.74	23.00	1.05-1	4.82 1	-1.29-1	-4.86 1
21.8047	21.9540	0.84	88.00	7.41-1	5.07 2	-7.7[illegible]-1	-5.09 2
21.7799	21.9606	0.82	74.00	5.41-1	3.91 2	-5.71-1	-3.92 2
21.1780	21.9627	0.72	15.00	5.96-2	2.11 1	-8.20-2	-2.14 1
21.6900	21.9764	0.78	46.00	2.64-1	1.75 2	-2.90-1	-1.76 2
21.7614	21.9844	0.80	60.00	3.87-1	2.77 2	-4.15-1	-2.79 2
21.6271	22.0036	0.76	34.00	1.75-1	1.01 2	-2.00-1	-1.01 2
21.8572	22.0044	0.84	89.00	7.55-1	5.16 2	-7.87-1	-5.17 2
21.8327	22.0106	0.82	75.00	5.52-1	3.99 2	-5.82-1	-4.01 2
21.2666	22.0274	0.72	15.50	6.21-2	2.25 1	-8.45-2	-2.28 1
21.7559	22.0363	0.78	47.00	2.71-1	1.82 2	-2.98-1	-1.83 2
21.8180	22.0372	0.80	61.00	3.96-1	2.85 2	-4.24-1	-2.87 2
21.5311	22.0447	0.74	24.00	1.11-1	5.23 1	-1.34-1	-5.28 1
21.9099	22.0550	0.84	90.00	7.70-1	5.24 2	-8.02-1	-5.26 2
21.8853	22.0606	0.82	76.00	5.64-1	4.08 2	-5.93-1	-4.10 2
21.7096	22.0759	0.76	35.00	1.81-1	1.06 2	-2.06-1	-1.07 2
21.8743	22.0898	0.80	62.00	4.05-1	2.94 2	-4.33-1	-2.95 2
21.3523	22.0908	0.72	16.00	6.47-2	2.40 1	-8.70-2	-2.43 1
21.8209	22.0956	0.78	48.00	2.78-1	1.89 2	-3.05-1	-1.90 2
21.9379	22.1106	0.82	77.00	5.75-1	4.17 2	-6.05-1	-4.18 2
21.6424	22.1367	0.74	25.00	1.16-1	5.66 1	-1.40-1	-5.71 1
21.9302	22.1421	0.80	63.00	4.14-1	3.02 2	-4.42-1	-3.03 2
21.7902	22.1469	0.76	36.00	1.88-1	1.12 2	-2.13-1	-1.13 2
21.4355	22.1529	0.72	16.50	6.72-2	2.55 1	-8.95-2	-2.58 1
21.8851	22.1544	0.78	49.00	2.86-1	1.96 2	-3.12-1	-1.97 2
21.9905	22.1607	0.82	78.00	5.87-1	4.26 2	-6.16-1	-4.27 2
21.0277	22.1627	0.70	10.00	3.36-2	9.45 0	-5.47-2	-9.63 0
21.9858	22.1943	0.80	64.00	4.23-1	3.10 2	-4.51-1	-3.11 2
21.9487	22.2126	0.78	50.00	2.93-1	2.03 2	-3.20-1	-2.04 2
21.5162	22.2138	0.72	17.00	6.98-2	2.70 1	-9.20-2	-2.73 1
21.8693	22.2169	0.76	37.00	1.94-1	1.18 2	-2.19-1	-1.19 2
21.7499	22.2264	0.74	26.00	1.22-1	6.11 1	-1.45-1	-6.16 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.1654	22.2485	0.70	10.50	3.60-2	1.04 1	-5.70-2	-1.06 1
21.5947	22.2736	0.72	17.50	7.24-2	2.86 1	-9.46-2	-2.89 1
21.9468	22.2857	0.76	38.00	2.01-1	1.24 2	-2.25-1	-1.25 2
21.8539	22.3140	0.74	27.00	1.28-1	6.57 1	-1.51-1	-6.63 1
21.2959	22.3318	0.70	11.00	3.84-2	1.15 1	-5.93-2	-1.17 1
21.6710	22.3322	0.72	18.00	7.49-2	3.02 1	-9.71-2	-3.06 1
21.7453	22.3898	0.72	18.50	7.75-2	3.19 1	-9.97-2	-3.23 1
21.9547	22.3994	0.74	28.00	1.33-1	7.05 1	-1.57-1	-7.10 1
21.4201	22.4130	0.70	11.50	4.07-2	1.26 1	-6.17-2	-1.28 1
21.8178	22.4464	0.72	19.00	8.01-2	3.36 1	-1.02-1	-3.40 1
21.5387	22.4921	0.70	12.00	4.31-2	1.37 1	-6.40-2	-1.39 1
21.8885	22.5020	0.72	19.50	8.27-2	3.54 1	-1.05-1	-3.58 1
21.9575	22.5566	0.72	20.00	8.53-2	3.72 1	-1.07-1	-3.76 1
21.6521	22.5692	0.70	12.50	4.55-2	1.49 1	-6.63-2	-1.51 1
21.0073	22.5875	0.68	7.00	1.92-2	4.60 0	-3.90-2	-4.71 0
21.0939	22.6307	0.68	7.20	2.01-2	4.87 0	-3.98-2	-5.00 0
21.7608	22.6444	0.70	13.00	4.79-2	1.61 1	-6.87-2	-1.63 1
21.1775	22.6734	0.68	7.40	2.10-2	5.16 0	-4.07-2	-5.29 0
21.2584	22.7156	0.68	7.60	2.19-2	5.46 0	-4.15-2	-5.58 0
21.8652	22.7178	0.70	13.50	5.03-2	1.73 1	-7.10-2	-1.76 1
21.3368	22.7573	0.68	7.80	2.28-2	5.76 0	-4.24-2	-5.89 0
21.9657	22.7895	0.70	14.00	5.27-2	1.86 1	-7.34-2	-1.89 1
21.4128	22.7985	0.68	8.00	2.37-2	6.07 0	-4.33-2	-6.21 0
21.4865	22.8392	0.68	8.20	2.46-2	6.39 0	-4.41-2	-6.53 0
21.5581	22.8795	0.68	8.40	2.55-2	6.71 0	-4.50-2	-6.86 0
21.6277	22.9192	0.68	8.60	2.64-2	7.05 0	-4.59-2	-7.19 0
21.6955	22.9584	0.68	8.80	2.73-2	7.39 0	-4.67-2	-7.54 0
21.7615	22.9972	0.68	9.00	2.82-2	7.74 0	-4.76-2	-7.89 0
21.8259	23.0355	0.68	9.20	2.90-2	8.10 0	-4.85-2	-8.25 0
21.8886	23.0733	0.68	9.40	2.99-2	8.46 0	-4.93-2	-8.62 0
21.9499	23.1107	0.68	9.60	3.08-2	8.83 0	-5.02-2	-9.00 0
21.0107	23.1897	0.66	5.00	1.04-2	2.28 0	-2.88-2	-2.36 0
21.1468	23.2401	0.66	5.20	1.12-2	2.48 0	-2.96-2	-2.57 0
21.2759	23.2903	0.66	5.40	1.21-2	2.69 0	-3.04-2	-2.78 0
21.3986	23.3402	0.66	5.60	1.29-2	2.91 0	-3.12-2	-3.00 0
21.5157	23.3896	0.66	5.80	1.38-2	3.14 0	-3.20-2	-3.23 0
21.6275	23.4386	0.66	6.00	1.46-2	3.37 0	-3.28-2	-3.47 0
21.7346	23.4870	0.66	6.20	1.55-2	3.62 0	-3.36-2	-3.72 0
21.8373	23.5349	0.66	6.40	1.63-2	3.87 0	-3.44-2	-3.97 0
21.9359	23.5823	0.66	6.60	1.71-2	4.13 0	-3.52-2	-4.24 0
21.0673	24.0008	0.64	3.70	5.18-3	1.20 0	-2.22-2	-1.25 0
21.1756	24.0268	0.64	3.80	5.58-3	1.27 0	-2.26-2	-1.32 0
21.2797	24.0532	0.64	3.90	5.98-3	1.34 0	-2.30-2	-1.40 0
21.3798	24.0798	0.64	4.00	6.38-3	1.42 0	-2.33-2	-1.48 0
21.5691	24.1339	0.64	4.20	7.17-3	1.59 0	-2.41-2	-1.65 0
21.7456	24.1885	0.64	4.40	7.97-3	1.76 0	-2.48-2	-1.82 0
21.9109	24.2434	0.64	4.60	8.77-3	1.94 0	-2.56-2	-2.01 0
21.1126	25.0214	0.62	2.80	1.94-3	6.41-1	-1.77-2	-6.78-1
21.2838	25.0418	0.62	2.90	2.32-3	6.96-1	-1.80-2	-7.35-1
21.4454	25.0641	0.62	3.00	2.70-3	7.53-1	-1.84-2	-7.94-1
21.5982	25.0879	0.62	3.10	3.08-3	8.13-1	-1.87-2	-8.55-1
21.7432	25.1130	0.62	3.20	3.46-3	8.75-1	-1.91-2	-9.18-1
21.8810	25.1392	0.62	3.30	3.84-3	9.39-1	-1.94-2	-9.84-1
21.2125	26.2786	0.60	2.20	7.03-5	3.65-1	-1.45-2	-3.92-1
21.4765	26.2831	0.60	2.30	4.37-4	4.08-1	-1.48-2	-4.36-1
21.7201	26.2931	0.60	2.40	8.03-4	4.52-1	-1.52-2	-4.82-1
21.9461	26.3076	0.60	2.50	1.17-3	4.99-1	-1.55-2	-5.30-1
21.8207	27.7485	0.58	1.90	-5.82-4	2.58-1	-1.25-2	-2.80-1
21.6313	27.7587	0.58	1.85	-7.59-4	2.41-1	-1.24-2	-2.62-1
21.4313	27.7724	0.58	1.80	-9.35-4	2.25-1	-1.23-2	-2.45-1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.2198	27.7902	0.58	1.75	-1.11-3	2.09-1	-1.21-2	-2.28-1
21.9582	29.4765	0.56	1.55	-1.35-3	1.55-1	-1.06-2	-1.71-1
21.6646	29.5165	0.56	1.50	-1.52-3	1.42-1	-1.05-2	-1.57-1
21.3488	29.5653	0.56	1.45	-1.69-3	1.29-1	-1.03-2	-1.44-1
21.0079	29.6243	0.56	1.40	-1.86-3	1.17-1	-1.02-2	-1.31-1
21.7224	31.5789	0.54	1.25	-1.89-3	8.71-2	-8.94-3	-9.86-2
21.2363	31.6869	0.54	1.20	-2.06-3	7.74-2	-8.83-3	-8.83-2
21.5971	34.0269	0.52	1.05	-2.07-3	5.34-2	-7.68-3	-6.21-2
21.8496	36.7493	0.50	0.92	-2.03-3	3.64-2	-6.68-3	-4.33-2
21.4334	36.8780	0.50	0.90	-2.09-3	3.39-2	-6.64-3	-4.06-2
21.7113	40.0148	0.48	0.80	-1.96-3	2.37-2	-5.79-3	-2.92-2
21.0935	40.2280	0.48	0.78	-2.02-3	2.17-2	-5.76-3	-2.70-2
21.3136	43.8723	0.46	0.70	-1.85-3	1.54-2	-5.01-3	-1.97-2
21.8342	58.6177	0.40	0.52	-1.27-3	5.64-3	-3.25-3	-8.09-3
22.00	23.00						
22.0431	22.2107	0.82	79.00	5.98-1	4.34 2	-6.28-1	-4.36 2
22.0411	22.2462	0.80	65.00	4.32-1	3.19 2	-4.60-1	-3.20 2
22.0956	22.2609	0.82	80.00	6.11-1	4.43 2	-6.40-1	-4.45 2
22.0115	22.2703	0.78	51.00	3.01-1	2.11 2	-3.27-1	-2.12 2
22.0962	22.2980	0.80	66.00	4.42-1	3.27 2	-4.70-1	-3.28 2
22.1482	22.3111	0.82	81.00	6.23-1	4.52 2	-6.52-1	-4.53 2
22.0736	22.3275	0.78	52.00	3.09-1	2.18 2	-3.35-1	-2.19 2
22.1511	22.3496	0.80	67.00	4.51-1	3.35 2	-4.79-1	-3.37 2
22.0229	22.3535	0.76	39.00	2.07-1	1.30 2	-2.32-1	-1.31 2
22.2009	22.3614	0.82	82.00	6.35-1	4.61 2	-6.65-1	-4.62 2
22.1352	22.3842	0.78	53.00	3.16-1	2.26 2	-3.43-1	-2.27 2
22.2057	22.4011	0.80	68.00	4.61-1	3.44 2	-4.89-1	-3.45 2
22.2536	22.4117	0.82	83.00	6.48-1	4.69 2	-6.77-1	-4.71 2
22.0977	22.4203	0.76	40.00	2.14-1	1.37 2	-2.38-1	-1.37 2
22.1961	22.4406	0.78	54.00	3.24-1	2.33 2	-3.51-1	-2.34 2
22.2602	22.4525	0.80	69.00	4.71-1	3.52 2	-4.99-1	-3.54 2
22.3064	22.4622	0.82	84.00	6.61-1	4.78 2	-6.90-1	-4.80 2
22.0526	22.4829	0.74	29.00	1.39-1	7.54 1	-1.62-1	-7.60 1
22.1711	22.4863	0.76	41.00	2.20-1	1.43 2	-2.45-1	-1.44 2
22.2565	22.4965	0.78	55.00	3.32-1	2.41 2	-3.58-1	-2.42 2
22.3144	22.5038	0.80	70.00	4.81-1	3.61 2	-5.08-1	-3.62 2
22.3592	22.5129	0.82	85.00	6.74-1	4.87 2	-7.03-1	-4.89 2
22.2434	22.5513	0.76	42.00	2.27-1	1.50 2	-2.52-1	-1.50 2
22.3163	22.5520	0.78	56.00	3.40-1	2.49 2	-3.66-1	-2.50 2
22.3685	22.5549	0.80	71.00	4.91-1	3.70 2	-5.19-1	-3.71 2
22.4122	22.5636	0.82	86.00	6.87-1	4.96 2	-7.17-1	-4.97 2
22.1478	22.5647	0.74	30.00	1.45-1	8.05 1	-1.68-1	-8.11 1
22.4225	22.6061	0.80	72.00	5.01-1	3.78 2	-5.29-1	-3.80 2
22.3757	22.6072	0.78	57.00	3.48-1	2.57 2	-3.74-1	-2.58 2
22.4653	22.6146	0.82	87.00	7.01-1	5.05 2	-7.30-1	-5.06 2
22.3145	22.6155	0.76	43.00	2.34-1	1.56 2	-2.58-1	-1.57 2
22.2405	22.6447	0.74	31.00	1.51-1	8.57 1	-1.74-1	-8.63 1
22.4764	22.6571	0.80	73.00	5.11-1	3.87 2	-5.39-1	-3.88 2
22.4346	22.6620	0.78	58.00	3.56-1	2.65 2	-3.83-1	-2.66 2
22.0909	22.6633	0.72	21.00	9.06-2	4.09 1	-1.13-1	-4.13 1
22.5185	22.6657	0.82	88.00	7.15-1	5.13 2	-7.44-1	-5.15 2
22.3846	22.6790	0.76	44.00	2.40-1	1.63 2	-2.65-1	-1.64 2
22.5301	22.7081	0.80	74.00	5.22-1	3.96 2	-5.50-1	-3.97 2
22.4931	22.7165	0.78	59.00	3.65-1	2.73 2	-3.91-1	-2.74 2
22.5719	22.7170	0.82	89.00	7.29-1	5.22 2	-7.58-1	-5.24 2
22.3308	22.7231	0.74	32.00	1.57-1	9.10 1	-1.80-1	-9.16 1
22.4536	22.7417	0.76	45.00	2.47-1	1.70 2	-2.72-1	-1.71 2
22.5838	22.7591	0.80	75.00	5.33-1	4.05 2	-5.60-1	-4.06 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
22.2186	22.7667	0.72	22.00	9.59-2	4.48 1	-1.18-1	-4.53 1
22.6254	22.7685	0.82	90.00	7.43-1	5.31 2	-7.73-1	-5.33 2
22.5512	22.7708	0.78	60.00	3.73-1	2.81 2	-3.99-1	-2.82 2
22.4189	22.8000	0.74	33.00	1.63-1	9.65 1	-1.86-1	-9.72 1
22.5217	22.8037	0.76	46.00	2.54-1	1.77 2	-2.79-1	-1.78 2
22.6374	22.8101	0.80	76.00	5.43-1	4.13 2	-5.71-1	-4.15 2
22.6088	22.8247	0.78	61.00	3.82-1	2.89 2	-4.08-1	-2.91 2
22.0626	22.8596	0.70	14.50	5.51-2	2.00 1	-7.58-2	-2.03 1
22.6910	22.8611	0.80	77.00	5.55-1	4.22 2	-5.82-1	-4.24 2
22.5889	22.8651	0.76	47.00	2.61-1	1.84 2	-2.86-1	-1.85 2
22.3412	22.8670	0.72	23.00	1.01-1	4.89 1	-1.23-1	-4.93 1
22.5050	22.8755	0.74	34.00	1.69-1	1.02 2	-1.92-1	-1.03 2
22.6662	22.8784	0.78	62.00	3.90-1	2.98 2	-4.16-1	-2.99 2
22.7445	22.9121	0.80	78.00	5.66-1	4.31 2	-5.93-1	-4.33 2
22.6553	22.9258	0.76	48.00	2.68-1	1.91 2	-2.93-1	-1.92 2
22.1562	22.9281	0.70	15.00	5.76-2	2.14 1	-7.82-2	-2.17 1
22.7232	22.9319	0.78	63.00	3.99-1	3.06 2	-4.25-1	-3.07 2
22.5892	22.9497	0.74	35.00	1.75-1	1.08 2	-1.98-1	-1.09 2
22.7980	22.9632	0.80	79.00	5.77-1	4.40 2	-6.05-1	-4.41 2
22.4591	22.9644	0.72	24.00	1.07-1	5.31 1	-1.28-1	-5.36 1
22.7799	22.9851	0.78	64.00	4.08-1	3.14 2	-4.34-1	-3.16 2
22.7209	22.9859	0.76	49.00	2.75-1	1.99 2	-3.00-1	-2.00 2
22.2468	22.9951	0.70	15.50	6.00-2	2.28 1	-8.06-2	-2.31 1
22.8515	23.0143	0.80	80.00	5.89-1	4.49 2	-6.16-1	-4.50 2
22.6716	23.0226	0.74	36.00	1.81-1	1.14 2	-2.04-1	-1.14 2
22.8363	23.0382	0.78	65.00	4.17-1	3.23 2	-4.43-1	-3.24 2
22.7856	23.0455	0.76	50.00	2.83-1	2.06 2	-3.07-1	-2.07 2
22.5728	23.0592	0.72	25.00	1.12-1	5.75 1	-1.34-1	-5.80 1
22.3344	23.0608	0.70	16.00	6.25-2	2.43 1	-8.30-2	-2.46 1
22.9051	23.0654	0.80	81.00	6.01-1	4.58 2	-6.28-1	-4.59 2
22.8924	23.0911	0.78	66.00	4.26-1	3.31 2	-4.52-1	-3.33 2
22.7524	23.0944	0.74	37.00	1.87-1	1.20 2	-2.10-1	-1.21 2
22.8497	23.1045	0.76	51.00	2.90-1	2.14 2	-3.14-1	-2.15 2
22.9586	23.1167	0.80	82.00	6.13-1	4.67 2	-6.40-1	-4.68 2
22.4194	23.1251	0.70	16.50	6.49-2	2.59 1	-8.54-2	-2.62 1
22.9483	23.1438	0.78	67.00	4.35-1	3.40 2	-4.61-1	-3.41 2
22.0097	23.1477	0.68	9.80	3.17-2	9.21 0	-5.11-2	-9.38 0
22.6827	23.1516	0.72	26.00	1.17-1	6.20 1	-1.39-1	-6.25 1
22.9131	23.1630	0.76	52.00	2.97-1	2.21 2	-3.22-1	-2.22 2
22.8315	23.1650	0.74	38.00	1.93-1	1.26 2	-2.16-1	-1.27 2
22.0681	23.1842	0.68	10.00	3.27-2	9.60 0	-5.20-2	-9.78 0
22.5020	23.1881	0.70	17.00	6.74-2	2.74 1	-8.78-2	-2.77 1
22.9759	23.2211	0.76	53.00	3.05-1	2.29 2	-3.29-1	-2.30 2
22.9092	23.2345	0.74	39.00	1.99-1	1.32 2	-2.22-1	-1.33 2
22.7890	23.2416	0.72	27.00	1.23-1	6.67 1	-1.45-1	-6.72 1
22.5822	23.2499	0.70	17.50	6.98-2	2.90 1	-9.03-2	-2.94 1
22.2087	23.2737	0.68	10.50	3.49-2	1.06 1	-5.42-2	-1.08 1
22.9855	23.3030	0.74	40.00	2.06-1	1.39 2	-2.29-1	-1.39 2
22.6602	23.3105	0.70	18.00	7.23-2	3.07 1	-9.27-2	-3.10 1
22.8921	23.3295	0.72	28.00	1.28-1	7.15 1	-1.50-1	-7.21 1
22.3422	23.3606	0.68	11.00	3.72-2	1.17 1	-5.64-2	-1.18 1
22.7363	23.3700	0.70	18.50	7.48-2	3.24 1	-9.52-2	-3.28 1
22.9922	23.4154	0.72	29.00	1.34-1	7.65 1	-1.56-1	-7.71 1
22.8103	23.4285	0.70	19.00	7.73-2	3.42 1	-9.76-2	-3.45 1
22.4691	23.4452	0.68	11.50	3.95-2	1.28 1	-5.86-2	-1.30 1
22.8826	23.4859	0.70	19.50	7.98-2	3.59 1	-1.00-1	-3.63 1
22.5903	23.5276	0.68	12.00	4.17-2	1.39 1	-6.09-2	-1.41 1
22.9532	23.5423	0.70	20.00	8.23-2	3.78 1	-1.03-1	-3.82 1
22.7062	23.6077	0.68	12.50	4.40-2	1.51 1	-6.31-2	-1.53 1
22.0309	23.6291	0.66	6.80	1.80-2	4.40 0	-3.60-2	-4.51 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
22.1224	23.6754	0.66	7.00	1.88-2	4.67 0	-3.69-2	-4.79 0
22.8174	23.6859	0.68	13.00	4.63-2	1.63 1	-6.54-2	-1.66 1
22.2107	23.7210	0.66	7.20	1.97-2	4.96 0	-3.77-2	-5.07 0
22.9242	23.7621	0.68	13.50	4.86-2	1.76 1	-6.76-2	-1.79 1
22.2961	23.7661	0.66	7.40	2.05-2	5.25 0	-3.85-2	-5.37 0
22.3786	23.8106	0.66	7.60	2.14-2	5.55 0	-3.93-2	-5.67 0
22.4586	23.8545	0.66	7.80	2.22-2	5.85 0	-4.01-2	-5.98 0
22.5362	23.8978	0.66	8.00	2.31-2	6.17 0	-4.10-2	-6.30 0
22.6115	23.9406	0.66	8.20	2.39-2	6.49 0	-4.18-2	-6.63 0
22.6847	23.9828	0.66	8.40	2.48-2	6.83 0	-4.26-2	-6.97 0
22.7558	24.0245	0.66	8.60	2.56-2	7.17 0	-4.34-2	-7.31 0
22.8250	24.0657	0.66	8.80	2.65-2	7.51 0	-4.43-2	-7.66 0
22.8925	24.1063	0.66	9.00	2.74-2	7.87 0	-4.51-2	-8.02 0
22.9582	24.1465	0.66	9.20	2.82-2	8.23 0	-4.59-2	-8.39 0
22.0663	24.2983	0.64	4.80	9.57-3	2.13 0	-2.63-2	-2.20 0
22.2128	24.3529	0.64	5.00	1.04-2	2.32 0	-2.71-2	-2.40 0
22.3514	24.4073	0.64	5.20	1.12-2	2.53 0	-2.79-2	-2.61 0
22.4830	24.4612	0.64	5.40	1.20-2	2.74 0	-2.86-2	-2.82 0
22.6081	24.5146	0.64	5.60	1.28-2	2.96 0	-2.94-2	-3.05 0
22.7275	24.5674	0.64	5.80	1.36-2	3.19 0	-3.01-2	-3.28 0
22.8415	24.6196	0.64	6.00	1.44-2	3.43 0	-3.09-2	-3.53 0
22.9507	24.6712	0.64	6.20	1.52-2	3.68 0	-3.17-2	-3.78 0
22.0123	25.1662	0.62	3.40	4.22-3	1.00 0	-1.97-2	-1.05 0
22.1376	25.1939	0.62	3.50	4.60-3	1.07 0	-2.01-2	-1.12 0
22.2574	25.2222	0.62	3.60	4.98-3	1.14 0	-2.04-2	-1.19 0
22.3722	25.2510	0.62	3.70	5.36-3	1.22 0	-2.08-2	-1.27 0
22.4823	25.2801	0.62	3.80	5.74-3	1.29 0	-2.11-2	-1.35 0
22.5880	25.3096	0.62	3.90	6.12-3	1.37 0	-2.15-2	-1.43 0
22.6898	25.3392	0.62	4.00	6.50-3	1.45 0	-2.19-2	-1.51 0
22.8825	25.3988	0.62	4.20	7.26-3	1.62 0	-2.26-2	-1.68 0
22.1565	26.3257	0.60	2.60	1.53-3	5.48-1	-1.58-2	-5.81-1
22.3532	26.3468	0.60	2.70	1.89-3	6.00-1	-1.61-2	-6.34-1
22.5378	26.3703	0.60	2.80	2.26-3	6.54-1	-1.64-2	-6.90-1
22.7115	26.3958	0.60	2.90	2.62-3	7.10-1	-1.68-2	-7.47-1
22.8754	26.4228	0.60	3.00	2.98-3	7.68-1	-1.71-2	-8.08-1
22.4897	27.7356	0.58	2.10	1.18-4	3.32-1	-1.31-2	-3.57-1
22.1714	27.7371	0.58	2.00	-2.31-4	2.94-1	-1.28-2	-3.17-1
22.0004	27.7414	0.58	1.95	-4.07-4	2.76-1	-1.27-2	-2.98-1
22.7804	27.7420	0.58	2.20	4.65-4	3.73-1	-1.34-2	-3.99-1
22.9554	29.3822	0.56	1.75	-6.71-4	2.13-1	-1.11-2	-2.32-1
22.7290	29.3977	0.56	1.70	-8.39-4	1.98-1	-1.10-2	-2.16-1
22.4884	29.4181	0.56	1.65	-1.01-3	1.83-1	-1.08-2	-2.00-1
22.2321	29.4441	0.56	1.60	-1.18-3	1.68-1	-1.07-2	-1.85-1
22.9416	31.3579	0.54	1.40	-1.39-3	1.20-1	-9.29-3	-1.34-1
22.5696	31.4173	0.54	1.35	-1.56-3	1.08-1	-9.17-3	-1.21-1
22.1649	31.4902	0.54	1.30	-1.72-3	9.75-2	-9.05-3	-1.10-1
22.8701	33.7133	0.52	1.15	-1.75-3	7.02-2	-7.88-3	-8.01-2
22.2695	33.8536	0.52	1.10	-1.91-3	6.15-2	-7.78-3	-7.08-2
22.9643	36.4289	0.50	0.98	-1.84-3	4.44-2	-6.78-3	-5.21-2
22.6131	36.5259	0.50	0.96	-1.90-3	4.16-2	-6.75-3	-4.90-2
22.2421	36.6323	0.50	0.94	-1.96-3	3.89-2	-6.71-3	-4.61-2
22.8238	39.6517	0.48	0.84	-1.83-3	2.79-2	-5.84-3	-3.38-2
22.2866	39.8236	0.48	0.82	-1.90-3	2.58-2	-5.81-3	-3.14-2
22.9372	43.2968	0.46	0.74	-1.72-3	1.88-2	-5.06-3	-2.35-2
22.1590	43.5670	0.46	0.72	-1.78-3	1.70-2	-5.04-3	-2.16-2
22.0243	47.8879	0.44	0.64	-1.63-3	1.16-2	-4.36-3	-1.52-2
22.3409	52.7035	0.42	0.58	-1.43-3	8.31-3	-3.77-3	-1.13-2
22.8370	64.8787	0.38	0.48	-1.07-3	4.28-3	-2.79-3	-6.37-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
23.00	24.00						
23.0123	23.1681	0.80	83.00	6.25-1	4.76 2	-6.52-1	-4.77 2
23.0040	23.1963	0.78	68.00	4.44-1	3.49 2	-4.70-1	-3.50 2
23.0660	23.2195	0.80	84.00	6.37-1	4.85 2	-6.65-1	-4.86 2
23.0594	23.2488	0.78	69.00	4.54-1	3.57 2	-4.80-1	-3.59 2
23.1198	23.2711	0.80	85.00	6.50-1	4.93 2	-6.77-1	-4.95 2
23.0381	23.2787	0.76	54.00	3.12-1	2.37 2	-3.37-1	-2.38 2
23.1147	23.3011	0.78	70.00	4.63-1	3.66 2	-4.89-1	-3.67 2
23.1737	23.3228	0.80	86.00	6.63-1	5.02 2	-6.90-1	-5.04 2
23.0997	23.3359	0.76	55.00	3.20-1	2.45 2	-3.44-1	-2.46 2
23.1698	23.3534	0.78	71.00	4.73-1	3.75 2	-4.99-1	-3.76 2
23.0606	23.3706	0.74	41.00	2.12-1	1.45 2	-2.35-1	-1.46 2
23.2277	23.3747	0.80	87.00	6.76-1	5.11 2	-7.03-1	-5.13 2
23.1607	23.3927	0.76	56.00	3.28-1	2.52 2	-3.52-1	-2.54 2
23.2248	23.4055	0.78	72.00	4.83-1	3.84 2	-5.09-1	-3.85 2
23.2818	23.4268	0.80	88.00	6.89-1	5.20 2	-7.17-1	-5.22 2
23.1343	23.4373	0.74	42.00	2.18-1	1.52 2	-2.41-1	-1.53 2
23.2213	23.4491	0.76	57.00	3.35-1	2.61 2	-3.60-1	-2.62 2
23.2797	23.4576	0.78	73.00	4.93-1	3.92 2	-5.19-1	-3.94 2
23.3362	23.4791	0.80	89.00	7.03-1	5.29 2	-7.30-1	-5.31 2
23.0894	23.4994	0.72	30.00	1.40-1	8.17 1	-1.61-1	-8.23 1
23.2070	23.5031	0.74	43.00	2.25-1	1.59 2	-2.48-1	-1.59 2
23.2813	23.5051	0.76	58.00	3.43-1	2.69 2	-3.68-1	-2.70 2
23.3344	23.5097	0.78	74.00	5.03-1	4.01 2	-5.29-1	-4.03 2
23.3907	23.5315	0.80	90.00	7.17-1	5.38 2	-7.44-1	-5.40 2
23.3410	23.5609	0.76	59.00	3.51-1	2.77 2	-3.76-1	-2.78 2
23.3891	23.5617	0.78	75.00	5.13-1	4.10 2	-5.39-1	-4.12 2
23.2785	23.5682	0.74	44.00	2.32-1	1.65 2	-2.54-1	-1.66 2
23.1841	23.5817	0.72	31.00	1.45-1	8.70 1	-1.67-1	-8.76 1
23.4437	23.6137	0.78	76.00	5.24-1	4.19 2	-5.49-1	-4.20 2
23.4002	23.6163	0.76	60.00	3.59-1	2.85 2	-3.84-1	-2.86 2
23.3490	23.6324	0.74	45.00	2.38-1	1.72 2	-2.61-1	-1.73 2
23.0896	23.6524	0.70	21.00	8.73-2	4.16 1	-1.08-1	-4.20 1
23.2765	23.6623	0.72	32.00	1.51-1	9.24 1	-1.72-1	-9.30 1
23.4982	23.6657	0.78	77.00	5.34-1	4.28 2	-5.60-1	-4.29 2
23.4590	23.6714	0.76	61.00	3.68-1	2.93 2	-3.92-1	-2.95 2
23.4185	23.6959	0.74	46.00	2.45-1	1.80 2	-2.68-1	-1.81 2
23.5528	23.7178	0.78	78.00	5.45-1	4.37 2	-5.71-1	-4.38 2
23.5175	23.7263	0.76	62.00	3.76-1	3.02 2	-4.00-1	-3.03 2
23.3665	23.7413	0.72	33.00	1.57-1	9.80 1	-1.78-1	-9.86 1
23.4872	23.7588	0.74	47.00	2.51-1	1.87 2	-2.74-1	-1.88 2
23.2202	23.7590	0.70	22.00	9.24-2	4.55 1	-1.13-1	-4.59 1
23.6073	23.7698	0.78	79.00	5.56-1	4.46 2	-5.82-1	-4.47 2
23.5756	23.7809	0.76	63.00	3.84-1	3.10 2	-4.08-1	-3.12 2
23.4545	23.8189	0.72	34.00	1.62-1	1.04 2	-1.84-1	-1.04 2
23.5549	23.8209	0.74	48.00	2.58-1	1.94 2	-2.81-1	-1.95 2
23.6618	23.8220	0.78	80.00	5.67-1	4.55 2	-5.93-1	-4.56 2
23.6334	23.8354	0.76	64.00	3.93-1	3.19 2	-4.17-1	-3.20 2
23.0270	23.8366	0.68	14.00	5.09-2	1.89 1	-6.99-2	-1.92 1
23.3456	23.8625	0.70	23.00	9.75-2	4.97 1	-1.18-1	-5.01 1
23.7163	23.8741	0.78	81.00	5.79-1	4.64 2	-6.04-1	-4.66 2
23.6218	23.8825	0.74	49.00	2.65-1	2.02 2	-2.88-1	-2.03 2
23.6909	23.8896	0.76	65.00	4.01-1	3.27 2	-4.25-1	-3.29 2
23.5406	23.8951	0.72	35.00	1.68-1	1.10 2	-1.89-1	-1.10 2
23.1261	23.9093	0.68	14.50	5.32-2	2.03 1	-7.22-2	-2.06 1
23.7708	23.9264	0.78	82.00	5.90-1	4.73 2	-6.16-1	-4.75 2
23.6879	23.9435	0.74	50.00	2.72-1	2.09 2	-2.95-1	-2.10 2
23.7481	23.9436	0.76	66.00	4.10-1	3.36 2	-4.34-1	-3.37 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
23.4662	23.9629	0.70	24.00	1.03-1	5.39 1	-1.23-1	-5.44 1
23.6248	23.9699	0.72	36.00	1.74-1	1.16 2	-1.95-1	-1.16 2
23.8254	23.9788	0.78	83.00	6.02-1	4.82 2	-6.27-1	-4.84 2
23.2218	23.9803	0.68	15.00	5.56-2	2.17 1	-7.45-2	-2.20 1
23.8051	23.9974	0.76	67.00	4.19-1	3.45 2	-4.43-1	-3.46 2
23.7534	24.0039	0.74	51.00	2.79-1	2.17 2	-3.02-1	-2.18 2
23.8801	24.0312	0.78	84.00	6.14-1	4.91 2	-6.39-1	-4.93 2
23.7073	24.0435	0.72	37.00	1.80-1	1.22 2	-2.01-1	-1.22 2
23.3144	24.0498	0.68	15.50	5.79-2	2.32 1	-7.68-2	-2.35 1
23.8618	24.0511	0.76	68.00	4.28-1	3.54 2	-4.52-1	-3.55 2
23.5826	24.0606	0.70	25.00	1.08-1	5.84 1	-1.28-1	-6.89 1
23.8181	24.0638	0.74	52.00	2.86-1	2.24 2	-3.09-1	-2.25 2
23.9349	24.0838	0.78	85.00	6.26-1	5.00 2	-6.52-1	-5.02 2
23.9184	24.1047	0.76	69.00	4.37-1	3.62 2	-4.61-1	-3.64 2
23.7882	24.1160	0.72	38.00	1.86-1	1.28 2	-2.07-1	-1.29 2
23.4041	24.1178	0.68	16.00	6.02-2	2.47 1	-7.91-2	-2.50 1
23.8821	24.1233	0.74	53.00	2.93-1	2.32 2	-3.16-1	-2.33 2
23.9897	24.1366	0.78	86.00	6.38-1	5.09 2	-6.64-1	-5.11 2
23.6949	24.1557	0.70	26.00	1.13-1	6.30 1	-1.33-1	-6.35 1
23.9747	24.1581	0.76	70.00	4.46-1	3.71 2	-4.70-1	-3.73 2
23.9456	24.1822	0.74	54.00	3.01-1	2.40 2	-3.23-1	-2.41 2
23.4911	24.1844	0.68	16.50	6.26-2	2.63 1	-8.14-2	-2.66 1
23.0224	24.1861	0.66	9.40	2.91-2	8.60 0	-4.68-2	-8.76 0
23.8676	24.1874	0.72	39.00	1.92-1	1.34 2	-2.13-1	-1.35 2
23.0850	24.2252	0.66	9.60	2.99-2	8.98 0	-4.76-2	-9.14 0
23.8037	24.2484	0.70	27.00	1.18-1	6.78 1	-1.38-1	-6.83 1
23.5756	24.2496	0.68	17.00	6.49-2	2.79 1	-8.37-2	-2.82 1
23.9456	24.2577	0.72	40.00	1.98-1	1.41 2	-2.19-1	-1.42 2
23.1461	24.2639	0.66	9.80	3.08-2	9.37 0	-4.85-2	-9.53 0
23.2059	24.3020	0.66	10.00	3.17-2	9.76 0	-4.93-2	-9.93 0
23.6576	24.3135	0.68	17.50	6.73-2	2.95 1	-8.60-2	-2.98 1
23.9091	24.3389	0.70	28.00	1.24-1	7.27 1	-1.43-1	-7.32 1
23.7375	24.3763	0.68	18.00	6.97-2	3.12 1	-8.84-2	-3.15 1
23.3496	24.3955	0.66	10.50	3.38-2	1.08 1	-5.14-2	-1.10 1
23.8153	24.4378	0.68	18.50	7.20-2	3.29 1	-9.07-2	-3.33 1
23.4861	24.4862	0.66	11.00	3.60-2	1.19 1	-5.35-2	-1.20 1
23.8911	24.4982	0.68	19.00	7.44-2	3.47 1	-9.31-2	-3.51 1
23.9651	24.5576	0.68	19.50	7.68-2	3.65 1	-9.54-2	-3.69 1
23.6160	24.5744	0.66	11.50	3.82-2	1.30 1	-5.57-2	-1.32 1
23.7399	24.6601	0.66	12.00	4.03-2	1.41 1	-5.78-2	-1.43 1
23.0555	24.7221	0.64	6.40	1.60-2	3.94 0	-3.25-2	-4.04 0
23.8585	24.7436	0.66	12.50	4.25-2	1.53 1	-6.00-2	-1.56 1
23.1562	24.7724	0.64	6.60	1.68-2	4.20 0	-3.32-2	-4.31 0
23.2531	24.8220	0.64	6.80	1.76-2	4.47 0	-3.40-2	-4.58 0
23.9723	24.8249	0.66	13.00	4.47-2	1.66 1	-6.21-2	-1.68 1
23.3466	24.8709	0.64	7.00	1.84-2	4.75 0	-3.48-2	-4.87 0
23.4368	24.9191	0.64	7.20	1.92-2	5.04 0	-3.56-2	-5.16 0
23.5240	24.9667	0.64	7.40	2.00-2	5.34 0	-3.64-2	-5.46 0
23.6083	25.0136	0.64	7.60	2.08-2	5.65 0	-3.71-2	-5.77 0
23.6901	25.0598	0.64	7.80	2.17-2	5.96 0	-3.79-2	-6.08 0
23.7693	25.1055	0.64	8.00	2.25-2	6.28 0	-3.87-2	-6.41 0
23.8463	25.1505	0.64	8.20	2.33-2	6.61 0	-3.95-2	-6.74 0
23.9211	25.1949	0.64	8.40	2.41-2	6.95 0	-4.03-2	-7.08 0
23.9938	25.2386	0.64	8.60	2.49-2	7.29 0	-4.11-2	-7.43 0
23.0622	25.4587	0.62	4.40	8.02-3	1.79 0	-2.33-2	-1.85 0
23.2305	25.5185	0.62	4.60	8.78-3	1.97 0	-2.40-2	-2.04 0
23.3888	25.5780	0.62	4.80	9.54-3	2.17 0	-2.47-2	-2.24 0
23.5381	25.6371	0.62	5.00	1.03-2	2.37 0	-2.54-2	-2.44 0
23.6794	25.6956	0.62	5.20	1.11-2	2.58 0	-2.62-2	-2.65 0
23.8136	25.7535	0.62	5.40	1.18-2	2.79 0	-2.69-2	-2.87 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
23.9413	25.8107	0.62	5.60	1.26-2	3.02 0	-2.76-2	-3.10 0
23.0306	26.4512	0.60	3.10	3.34-3	8.29-1	-1.74-2	-8.70-1
23.1778	26.4807	0.60	3.20	3.70-3	8.92-1	-1.77-2	-9.35-1
23.3178	26.5111	0.60	3.30	4.06-3	9.57-1	-1.81-2	-1.00 0
23.4511	26.5421	0.60	3.40	4.42-3	1.02 0	-1.84-2	-1.07 0
23.5785	26.5736	0.60	3.50	4.78-3	1.09 0	-1.87-2	-1.14 0
23.7003	26.6056	0.60	3.60	5.15-3	1.17 0	-1.91-2	-1.22 0
23.8170	26.6379	0.60	3.70	5.51-3	1.24 0	-1.94-2	-1.29 0
23.9291	26.6704	0.60	3.80	5.87-3	1.32 0	-1.97-2	-1.37 0
23.0476	27.7545	0.58	2.30	8.12-4	4.16-1	-1.37-2	-4.44-1
23.2943	27.7719	0.58	2.40	1.16-3	4.62-1	-1.40-2	-4.91-1
23.5232	27.7934	0.58	2.50	1.50-3	5.10-1	-1.43-2	-5.40-1
23.7365	27.8180	0.58	2.60	1.85-3	5.60-1	-1.46-2	-5.92-1
23.9360	27.8452	0.58	2.70	2.19-3	6.12-1	-1.49-2	-6.46-1
23.7441	29.3577	0.56	1.95	-6.67-6	2.82-1	-1.17-2	-3.04-1
23.9169	29.3588	0.56	2.00	1.58-4	3.01-1	-1.18-2	-3.23-1
23.5624	29.3591	0.56	1.90	-1.72-4	2.64-1	-1.15-2	-2.85-1
23.3710	29.3634	0.56	1.85	-3.38-4	2.47-1	-1.14-2	-2.67-1
23.1690	29.3710	0.56	1.80	-5.04-4	2.30-1	-1.12-2	-2.49-1
23.8994	31.2404	0.54	1.55	-9.09-4	1.59-1	-9.66-3	-1.74-1
23.6033	31.2710	0.54	1.50	-1.07-3	1.45-1	-9.54-3	-1.60-1
23.2850	31.3096	0.54	1.45	-1.23-3	1.32-1	-9.41-3	-1.46-1
23.8993	33.5077	0.52	1.25	-1.43-3	8.95-2	-8.10-3	-1.01-1
23.4103	33.5996	0.52	1.20	-1.59-3	7.95-2	-7.99-3	-9.01-2
23.2973	36.3405	0.50	1.00	-1.77-3	4.73-2	-6.82-3	-5.52-2
23.7978	39.3576	0.48	0.88	-1.71-3	3.25-2	-5.90-3	-3.89-2
23.3264	39.4970	0.48	0.86	-1.77-3	3.02-2	-5.87-3	-3.63-2
23.6560	43.0572	0.46	0.76	-1.66-3	2.06-2	-5.08-3	-2.55-2
23.1306	47.4834	0.44	0.66	-1.57-3	1.30-2	-4.38-3	-1.68-2
23.8422	52.1451	0.42	0.60	-1.37-3	9.48-3	-3.78-3	-1.27-2
23.9662	57.8051	0.40	0.54	-1.21-3	6.58-3	-3.25-3	-9.19-3
23.4098	72.4263	0.36	0.44	-8.96-4	3.13-3	-2.38-3	-4.89-3
23.0474	81.6691	0.34	0.40	-7.51-4	2.18-3	-2.03-3	-3.66-3
24.00	25.00						
24.0447	24.1895	0.78	87.00	6.51-1	5.18 2	-6.77-1	-5.20 2
24.0309	24.2115	0.76	71.00	4.55-1	3.80 2	-4.79-1	-3.81 2
24.0084	24.2407	0.74	55.00	3.08-1	2.48 2	-3.30-1	-2.49 2
24.0999	24.2425	0.78	88.00	6.64-1	5.28 2	-6.89-1	-5.29 2
24.0870	24.2647	0.76	72.00	4.65-1	3.89 2	-4.89-1	-3.90 2
24.1552	24.2958	0.78	89.00	6.77-1	5.37 2	-7.02-1	-5.38 2
24.0707	24.2988	0.74	56.00	3.15-1	2.56 2	-3.38-1	-2.57 2
24.1429	24.3179	0.76	73.00	4.74-1	3.98 2	-4.98-1	-3.99 2
24.0222	24.3270	0.72	41.00	2.04-1	1.47 2	-2.25-1	-1.48 2
24.2106	24.3493	0.78	90.00	6.90-1	5.46 2	-7.16-1	-5.47 2
24.1325	24.3565	0.74	57.00	3.23-1	2.64 2	-3.45-1	-2.66 2
24.1987	24.3710	0.76	74.00	4.84-1	4.07 2	-5.08-1	-4.08 2
24.0976	24.3954	0.72	42.00	2.10-1	1.54 2	-2.31-1	-1.55 2
24.1938	24.4139	0.74	58.00	3.30-1	2.73 2	-3.53-1	-2.74 2
24.2544	24.4242	0.76	75.00	4.94-1	4.16 2	-5.18-1	-4.17 2
24.0114	24.4273	0.70	29.00	1.29-1	7.78 1	-1.49-1	-7.83 1
24.1718	24.4629	0.72	43.00	2.16-1	1.61 2	-2.38-1	-1.62 2
24.2547	24.4709	0.74	59.00	3.38-1	2.81 2	-3.60-1	-2.82 2
24.3100	24.4772	0.76	76.00	5.04-1	4.25 2	-5.28-1	-4.27 2
24.1109	24.5137	0.70	30.00	1.34-1	8.30 1	-1.54-1	-8.36 1
24.3151	24.5275	0.74	60.00	3.46-1	2.89 2	-3.68-1	-2.91 2
24.2449	24.5295	0.72	44.00	2.23-1	1.68 2	-2.44-1	-1.69 2
24.3656	24.5303	0.76	77.00	5.14-1	4.34 2	-5.38-1	-4.36 2
24.4211	24.5834	0.76	78.00	5.25-1	4.43 2	-5.49-1	-4.45 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
24.3751	24.5839	0.74	61.00	3.54-1	2.98 2	-3.76-1	-2.99 2
24.3169	24.5954	0.72	45.00	2.29-1	1.75 2	-2.50-1	-1.76 2
24.2078	24.5983	0.70	31.00	1.40-1	8.84 1	-1.59-1	-8.89 1
24.0373	24.6159	0.68	20.00	7.92-2	3.84 1	-9.78-2	-3.88 1
24.4766	24.6366	0.76	79.00	5.35-1	4.53 2	-5.59-1	-4.54 2
24.4347	24.6400	0.74	62.00	3.61-1	3.06 2	-3.84-1	-3.08 2
24.3879	24.6605	0.72	46.00	2.35-1	1.82 2	-2.56-1	-1.83 2
24.3022	24.6812	0.70	32.00	1.45-1	9.39 1	-1.65-1	-9.45 1
24.5322	24.6897	0.76	80.00	5.46-1	4.62 2	-5.70-1	-4.63 2
24.4940	24.6959	0.74	63.00	3.70-1	3.15 2	-3.92-1	-3.16 2
24.4580	24.7249	0.72	47.00	2.42-1	1.90 2	-2.63-1	-1.91 2
24.1769	24.7296	0.68	21.00	8.40-2	4.23 1	-1.03-1	-4.27 1
24.5877	24.7430	0.76	81.00	5.57-1	4.71 2	-5.81-1	-4.72 2
24.5530	24.7515	0.74	64.00	3.78-1	3.24 2	-4.00-1	-3.25 2
24.3943	24.7625	0.70	33.00	1.51-1	9.95 1	-1.70-1	-1.00 2
24.5272	24.7886	0.72	48.00	2.48-1	1.97 2	-2.69-1	-1.98 2
24.6433	24.7963	0.76	82.00	5.68-1	4.80 2	-5.92-1	-4.81 2
24.6116	24.8069	0.74	65.00	3.86-1	3.32 2	-4.08-1	-3.34 2
24.3106	24.8397	0.68	22.00	8.89-2	4.63 1	-1.07-1	-4.67 1
24.4842	24.8422	0.70	34.00	1.56-1	1.05 2	-1.76-1	-1.06 2
24.6989	24.8497	0.76	83.00	5.79-1	4.89 2	-6.03-1	-4.91 2
24.5955	24.8517	0.72	49.00	2.55-1	2.05 2	-2.76-1	-2.06 2
24.6700	24.8621	0.74	66.00	3.94-1	3.41 2	-4.17-1	-3.42 2
24.7546	24.9032	0.76	84.00	5.91-1	4.99 2	-6.14-1	-5.00 2
24.0816	24.9041	0.66	13.50	4.69-2	1.79 1	-6.43-2	-1.82 1
24.6631	24.9142	0.72	50.00	2.62-1	2.12 2	-2.83-1	-2.13 2
24.7281	24.9172	0.74	67.00	4.03-1	3.50 2	-4.25-1	-3.51 2
24.5722	24.9204	0.70	35.00	1.62-1	1.11 2	-1.81-1	-1.12 2
24.4389	24.9464	0.68	23.00	9.38-2	5.05 1	-1.12-1	-5.09 1
24.8104	24.9568	0.76	85.00	6.02-1	5.08 2	-6.26-1	-5.09 2
24.7860	24.9720	0.74	68.00	4.11-1	3.59 2	-4.34-1	-3.60 2
24.7299	24.9761	0.72	51.00	2.68-1	2.20 2	-2.89-1	-2.21 2
24.1868	24.9814	0.66	14.00	4.91-2	1.93 1	-6.65-2	-1.95 1
24.6583	24.9973	0.70	36.00	1.67-1	1.17 2	-1.87-1	-1.18 2
24.8662	25.0106	0.76	86.00	6.14-1	5.17 2	-6.38-1	-5.18 2
24.8436	25.0267	0.74	69.00	4.20-1	3.68 2	-4.42-1	-3.69 2
24.7959	25.0374	0.72	52.00	2.75-1	2.28 2	-2.96-1	-2.29 2
24.5624	25.0500	0.68	24.00	9.87-2	5.48 1	-1.17-1	-5.53 1
24.2882	25.0569	0.66	14.50	5.13-2	2.07 1	-6.86-2	-2.09 1
24.9222	25.0646	0.76	87.00	6.26-1	5.26 2	-6.50-1	-5.28 2
24.7427	25.0730	0.70	37.00	1.73-1	1.24 2	-1.93-1	-1.24 2
24.9011	25.0813	0.74	70.00	4.29-1	3.77 2	-4.51-1	-3.78 2
24.8614	25.0983	0.72	53.00	2.82-1	2.36 2	-3.03-1	-2.37 2
24.9784	25.1187	0.76	88.00	6.39-1	5.35 2	-6.63-1	-5.37 2
24.3862	25.1306	0.66	15.00	5.36-2	2.21 1	-7.08-2	-2.24 1
24.9584	25.1358	0.74	71.00	4.38-1	3.86 2	-4.60-1	-3.87 2
24.8254	25.1474	0.70	38.00	1.79-1	1.30 2	-1.98-1	-1.31 2
24.6814	25.1507	0.68	25.00	1.04-1	5.94 1	-1.22-1	-5.98 1
24.9261	25.1586	0.72	54.00	2.89-1	2.44 2	-3.10-1	-2.45 2
24.4810	25.2027	0.66	15.50	5.58-2	2.36 1	-7.30-2	-2.39 1
24.9903	25.2185	0.72	55.00	2.96-1	2.52 2	-3.17-1	-2.53 2
24.9066	25.2206	0.70	39.00	1.84-1	1.36 2	-2.04-1	-1.37 2
24.7964	25.2487	0.68	26.00	1.09-1	6.41 1	-1.27-1	-6.45 1
24.5729	25.2732	0.66	16.00	5.80-2	2.51 1	-7.52-2	-2.54 1
24.0646	25.2818	0.64	8.80	2.57-2	7.65 0	-4.19-2	-7.79 0
24.9863	25.2928	0.70	40.00	1.90-1	1.43 2	-2.10-1	-1.44 2
24.1336	25.3245	0.64	9.00	2.65-2	8.01 0	-4.27-2	-8.16 0
24.6619	25.3422	0.66	16.50	6.03-2	2.67 1	-7.74-2	-2.70 1
24.9077	25.3443	0.68	27.00	1.14-1	6.89 1	-1.32-1	-6.94 1
24.2008	25.3665	0.64	9.20	2.74-2	8.38 0	-4.35-2	-8.53 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
24.2664	25.4080	0.64	9.40	2.82-2	8.76 0	-4.43-2	-8.91 0
24.7484	25.4098	0.66	17.00	6.25-2	2.84 1	-7.97-2	-2.87 1
24.3304	25.4490	0.64	9.60	2.90-2	9.14 0	-4.51-2	-9.30 0
24.8324	25.4760	0.66	17.50	6.48-2	3.00 1	-8.19-2	-3.04 1
24.3930	25.4894	0.64	9.80	2.98-2	9.54 0	-4.59-2	-9.70 0
24.4541	25.5294	0.64	10.00	3.06-2	9.94 0	-4.67-2	-1.01 1
24.9142	25.5409	0.66	18.00	6.70-2	3.18 1	-8.41-2	-3.21 1
24.9939	25.6046	0.66	18.50	6.93-2	3.35 1	-8.64-2	-3.39 1
24.6013	25.6270	0.64	10.50	3.27-2	1.10 1	-4.87-2	-1.12 1
24.7409	25.7218	0.64	11.00	3.48-2	1.21 1	-5.07-2	-1.23 1
24.8739	25.8137	0.64	11.50	3.69-2	1.32 1	-5.28-2	-1.34 1
24.0631	25.8671	0.62	5.80	1.34-2	3.26 0	-2.84-2	-3.34 0
24.1795	25.9228	0.62	6.00	1.41-2	3.50 0	-2.91-2	-3.59 0
24.2910	25.9777	0.62	6.20	1.49-2	3.75 0	-2.98-2	-3.85 0
24.3980	26.0318	0.62	6.40	1.57-2	4.01 0	-3.06-2	-4.11 0
24.5009	26.0851	0.62	6.60	1.64-2	4.28 0	-3.13-2	-4.38 0
24.5999	26.1376	0.62	6.80	1.72-2	4.56 0	-3.20-2	-4.66 0
24.6954	26.1894	0.62	7.00	1.80-2	4.85 0	-3.28-2	-4.95 0
24.7876	26.2404	0.62	7.20	1.87-2	5.14 0	-3.35-2	-5.25 0
24.8767	26.2906	0.62	7.40	1.95-2	5.44 0	-3.43-2	-5.56 0
24.9630	26.3401	0.62	7.60	2.03-2	5.75 0	-3.50-2	-5.87 0
24.0367	26.7031	0.60	3.90	6.23-3	1.40 0	-2.01-2	-1.45 0
24.1403	26.7359	0.60	4.00	6.59-3	1.48 0	-2.04-2	-1.53 0
24.3365	26.8015	0.60	4.20	7.31-3	1.65 0	-2.11-2	-1.71 0
24.5196	26.8670	0.60	4.40	8.03-3	1.83 0	-2.18-2	-1.89 0
24.6911	26.9320	0.60	4.60	8.75-3	2.01 0	-2.25-2	-2.08 0
24.8525	26.9965	0.60	4.80	9.48-3	2.21 0	-2.32-2	-2.28 0
24.1233	27.8745	0.58	2.80	2.53-3	6.67-1	-1.52-2	-7.03-1
24.2996	27.9054	0.58	2.90	2.88-3	7.25-1	-1.56-2	-7.62-1
24.4661	27.9377	0.58	3.00	3.22-3	7.85-1	-1.59-2	-8.23-1
24.6237	27.9710	0.58	3.10	3.56-3	8.47-1	-1.62-2	-8.87-1
24.7733	28.0051	0.58	3.20	3.90-3	9.11-1	-1.65-2	-9.53-1
24.9156	28.0399	0.58	3.30	4.24-3	9.78-1	-1.68-2	-1.02 0
24.2389	29.3675	0.56	2.10	4.87-4	3.40-1	-1.21-2	-3.64-1
24.5333	29.3831	0.56	2.20	8.15-4	3.82-1	-1.24-2	-4.07-1
24.8038	29.4042	0.56	2.30	1.14-3	4.26-1	-1.27-2	-4.53-1
24.9060	31.1786	0.54	1.75	-2.77-4	2.19-1	-1.02-2	-2.37-1
24.6773	31.1866	0.54	1.70	-4.34-4	2.03-1	-1.00-2	-2.20-1
24.4344	31.1991	0.54	1.65	-5.92-4	1.87-1	-9.91-3	-2.04-1
24.1757	31.2168	0.54	1.60	-7.50-4	1.73-1	-9.79-3	-1.89-1
24.7522	33.3744	0.52	1.35	-1.12-3	1.11-1	-8.33-3	-1.24-1
24.3446	33.4336	0.52	1.30	-1.28-3	1.00-1	-8.21-3	-1.12-1
24.7347	36.0021	0.50	1.10	-1.47-3	6.33-2	-7.01-3	-7.24-2
24.0592	36.1521	0.50	1.05	-1.62-3	5.50-2	-6.91-3	-6.34-2
24.6582	39.1182	0.48	0.92	-1.59-3	3.76-2	-5.97-3	-4.43-2
24.2409	39.2318	0.48	0.90	-1.65-3	3.50-2	-5.94-3	-4.15-2
24.9404	42.6546	0.46	0.80	-1.54-3	2.46-2	-5.13-3	-2.99-2
24.3218	42.8443	0.46	0.78	-1.60-3	2.25-2	-5.11-3	-2.76-2
24.1381	47.1305	0.44	0.68	-1.51-3	1.45-2	-4.39-3	-1.85-2
24.0511	137.691	0.26	0.28	-3.00-4	5.66-4	-1.02-3	-1.34-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
25.00	26.00						
25.0347	25.1730	0.76	89.00	6.51-1	5.45 2	-6.75-1	-5.46 2
25.0155	25.1902	0.74	72.00	4.47-1	3.95 2	-4.69-1	-3.96 2
25.0912	25.2275	0.76	90.00	6.64-1	5.54 2	-6.88-1	-5.55 2
25.0725	25.2446	0.74	73.00	4.56-1	4.04 2	-4.78-1	-4.05 2
25.0539	25.2780	0.72	56.00	3.03-1	2.60 2	-3.24-1	-2.61 2
25.1294	25.2988	0.74	74.00	4.66-1	4.13 2	-4.88-1	-4.15 2
25.1170	25.3371	0.72	57.00	3.10-1	2.69 2	-3.31-1	-2.70 2
25.1862	25.3531	0.74	75.00	4.75-1	4.23 2	-4.97-1	-4.24 2
25.0647	25.3640	0.70	41.00	1.96-1	1.50 2	-2.16-1	-1.51 2
25.1796	25.3957	0.72	58.00	3.17-1	2.77 2	-3.38-1	-2.78 2
25.2429	25.4073	0.74	76.00	4.85-1	4.32 2	-5.07-1	-4.33 2
25.1417	25.4341	0.70	42.00	2.02-1	1.57 2	-2.21-1	-1.58 2
25.0156	25.4375	0.68	28.00	1.19-1	7.39 1	-1.37-1	-7.44 1
25.2417	25.4541	0.72	59.00	3.25-1	2.86 2	-3.46-1	-2.87 2
25.2996	25.4615	0.74	77.00	4.94-1	4.41 2	-5.17-1	-4.42 2
25.2176	25.5034	0.70	43.00	2.08-1	1.64 2	-2.27-1	-1.65 2
25.3034	25.5121	0.72	60.00	3.32-1	2.94 2	-3.53-1	-2.95 2
25.3562	25.5157	0.74	78.00	5.04-1	4.50 2	-5.27-1	-4.52 2
25.1203	25.5285	0.68	29.00	1.24-1	7.91 1	-1.42-1	-7.96 1
25.3646	25.5698	0.72	61.00	3.40-1	3.03 2	-3.60-1	-3.04 2
25.4128	25.5699	0.74	79.00	5.15-1	4.60 2	-5.37-1	-4.61 2
25.2923	25.5718	0.70	44.00	2.14-1	1.71 2	-2.33-1	-1.72 2
25.2221	25.6175	0.68	30.00	1.29-1	8.44 1	-1.47-1	-8.50 1
25.4694	25.6242	0.74	80.00	5.25-1	4.69 2	-5.47-1	-4.70 2
25.4255	25.6272	0.72	62.00	3.47-1	3.11 2	-3.68-1	-3.12 2
25.3659	25.6393	0.70	45.00	2.20-1	1.78 2	-2.39-1	-1.79 2
25.0715	25.6671	0.66	19.00	7.16-2	3.53 1	-8.86-2	-3.57 1
25.5260	25.6785	0.74	81.00	5.35-1	4.78 2	-5.57-1	-4.80 2
25.4860	25.6843	0.72	63.00	3.55-1	3.20 2	-3.76-1	-3.21 2
25.3212	25.7045	0.68	31.00	1.34-1	8.99 1	-1.52-1	-9.05 1
25.4385	25.7061	0.70	46.00	2.26-1	1.85 2	-2.45-1	-1.86 2
25.1473	25.7285	0.66	19.50	7.39-2	3.72 1	-9.09-2	-3.75 1
25.5826	25.7329	0.74	82.00	5.46-1	4.88 2	-5.68-1	-4.89 2
25.5462	25.7412	0.72	64.00	3.63-1	3.29 2	-3.84-1	-3.30 2
25.5101	25.7721	0.70	47.00	2.32-1	1.93 2	-2.52-1	-1.94 2
25.6393	25.7874	0.74	83.00	5.57-1	4.97 2	-5.79-1	-4.98 2
25.2212	25.7888	0.66	20.00	7.62-2	3.91 1	-9.32-2	-3.95 1
25.4178	25.7898	0.68	32.00	1.39-1	9.55 1	-1.57-1	-9.61 1
25.6060	25.7978	0.72	65.00	3.71-1	3.38 2	-3.91-1	-3.39 2
25.5808	25.8375	0.70	48.00	2.38-1	2.00 2	-2.58-1	-2.01 2
25.6960	25.8420	0.74	84.00	5.68-1	5.06 2	-5.90-1	-5.08 2
25.6656	25.8543	0.72	66.00	3.79-1	3.47 2	-3.99-1	-3.48 2
25.5121	25.8734	0.68	33.00	1.45-1	1.01 2	-1.63-1	-1.02 2
25.7529	25.8968	0.74	85.00	5.79-1	5.16 2	-6.01-1	-5.17 2
25.6506	25.9021	0.70	49.00	2.45-1	2.08 2	-2.64-1	-2.09 2
25.0008	25.9031	0.64	12.00	3.89-2	1.44 1	-5.48-2	-1.46 1
25.3642	25.9063	0.66	21.00	8.08-2	4.30 1	-9.77-2	-4.34 1
25.7249	25.9105	0.72	67.00	3.87-1	3.56 2	-4.08-1	-3.57 2
25.8098	25.9516	0.74	86.00	5.91-1	5.25 2	-6.13-1	-5.26 2
25.6041	25.9553	0.68	34.00	1.50-1	1.07 2	-1.68-1	-1.08 2
25.7197	25.9661	0.70	50.00	2.51-1	2.16 2	-2.71-1	-2.17 2
25.7839	25.9666	0.72	68.00	3.95-1	3.65 2	-4.16-1	-3.66 2
25.1222	25.9900	0.64	12.50	4.10-2	1.56 1	-5.69-2	-1.58 1
25.8669	26.0067	0.74	87.00	6.02-1	5.34 2	-6.24-1	-5.36 2
25.5011	26.0200	0.66	22.00	8.54-2	4.71 1	-1.02-1	-4.75 1
25.8428	26.0226	0.72	69.00	4.04-1	3.74 2	-4.24-1	-3.75 2
25.7879	26.0296	0.70	51.00	2.58-1	2.24 2	-2.77-1	-2.25 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
25.6942	26.0358	0.68	35.00	1.55-1	1.13 2	-1.73-1	-1.14 2
25.9241	26.0619	0.74	88.00	6.14-1	5.44 2	-6.36-1	-5.45 2
25.2387	26.0746	0.64	13.00	4.31-2	1.69 1	-5.89-2	-1.71 1
25.9014	26.0784	0.72	70.00	4.12-1	3.83 2	-4.33-1	-3.84 2
25.8554	26.0924	0.70	52.00	2.64-1	2.32 2	-2.83-1	-2.33 2
25.7823	26.1149	0.68	36.00	1.61-1	1.19 2	-1.79-1	-1.20 2
25.9814	26.1173	0.74	89.00	6.26-1	5.53 2	-6.48-1	-5.54 2
25.6325	26.1302	0.66	23.00	9.01-2	5.14 1	-1.07-1	-5.18 1
25.9598	26.1341	0.72	71.00	4.21-1	3.92 2	-4.41-1	-3.94 2
25.9222	26.1548	0.70	53.00	2.71-1	2.40 2	-2.90-1	-2.41 2
25.3506	26.1570	0.64	13.50	4.52-2	1.82 1	-6.10-2	-1.85 1
25.8686	26.1926	0.68	37.00	1.66-1	1.26 2	-1.84-1	-1.26 2
25.9884	26.2166	0.70	54.00	2.77-1	2.48 2	-2.97-1	-2.49 2
25.7589	26.2371	0.66	24.00	9.48-2	5.58 1	-1.12-1	-5.63 1
25.4584	26.2374	0.64	14.00	4.73-2	1.96 1	-6.31-2	-1.99 1
25.9532	26.2690	0.68	38.00	1.71-1	1.32 2	-1.89-1	-1.33 2
25.5623	26.3158	0.64	14.50	4.94-2	2.11 1	-6.52-2	-2.13 1
25.8809	26.3410	0.66	25.00	9.95-2	6.04 1	-1.16-1	-6.09 1
25.0466	26.3888	0.62	7.80	2.10-2	6.07 0	-3.58-2	-6.20 0
25.6627	26.3923	0.64	15.00	5.16-2	2.25 1	-6.73-2	-2.28 1
25.1277	26.4369	0.62	8.00	2.18-2	6.40 0	-3.65-2	-6.53 0
25.9986	26.4421	0.66	26.00	1.04-1	6.52 1	-1.21-1	-6.57 1
25.7599	26.4671	0.64	15.50	5.37-2	2.41 1	-6.94-2	-2.43 1
25.2064	26.4842	0.62	8.20	2.26-2	6.74 0	-3.73-2	-6.87 0
25.2829	26.5309	0.62	8.40	2.34-2	7.08 0	-3.81-2	-7.22 0
25.8540	26.5403	0.64	16.00	5.58-2	2.56 1	-7.15-2	-2.59 1
25.3573	26.5769	0.62	8.60	2.42-2	7.44 0	-3.88-2	-7.57 0
25.9452	26.6118	0.64	16.50	5.80-2	2.72 1	-7.36-2	-2.75 1
25.4298	26.6223	0.62	8.80	2.49-2	7.80 0	-3.96-2	-7.94 0
25.5003	26.6670	0.62	9.00	2.57-2	8.17 0	-4.03-2	-8.31 0
25.5692	26.7111	0.62	9.20	2.65-2	8.54 0	-4.11-2	-8.69 0
25.6363	26.7546	0.62	9.40	2.73-2	8.93 0	-4.19-2	-9.08 0
25.7019	26.7975	0.62	9.60	2.81-2	9.32 0	-4.26-2	-9.48 0
25.7659	26.8399	0.62	9.80	2.88-2	9.72 0	-4.34-2	-9.88 0
25.8285	26.8816	0.62	10.00	2.96-2	1.01 1	-4.42-2	-1.03 1
25.9792	26.9838	0.62	10.50	3.16-2	1.12 1	-4.61-2	-1.14 1
25.0049	27.0602	0.60	5.00	1.02-2	2.41 0	-2.38-2	-2.49 0
25.1491	27.1232	0.60	5.20	1.09-2	2.63 0	-2.45-2	-2.70 0
25.2860	27.1853	0.60	5.40	1.16-2	2.85 0	-2.52-2	-2.93 0
25.4164	27.2465	0.60	5.60	1.24-2	3.08 0	-2.59-2	-3.16 0
25.5408	27.3068	0.60	5.80	1.31-2	3.32 0	-2.66-2	-3.41 0
25.6597	27.3661	0.60	6.00	1.38-2	3.57 0	-2.73-2	-3.66 0
25.7737	27.4246	0.60	6.20	1.46-2	3.83 0	-2.80-2	-3.92 0
25.8831	27.4821	0.60	6.40	1.53-2	4.09 0	-2.87-2	-4.19 0
25.9882	27.5386	0.60	6.60	1.60-2	4.37 0	-2.94-2	-4.47 0
25.0513	28.0752	0.58	3.40	4.59-3	1.05 0	-1.71-2	-1.09 0
25.1808	28.1108	0.58	3.50	4.93-3	1.12 0	-1.74-2	-1.16 0
25.3048	28.1467	0.58	3.60	5.27-3	1.19 0	-1.78-2	-1.24 0
25.4236	28.1828	0.58	3.70	5.61-3	1.27 0	-1.81-2	-1.32 0
25.5377	28.2189	0.58	3.80	5.95-3	1.35 0	-1.84-2	-1.40 0
25.6473	28.2551	0.58	3.90	6.30-3	1.43 0	-1.87-2	-1.48 0
25.7529	28.2912	0.58	4.00	6.64-3	1.51 0	-1.91-2	-1.56 0
25.9529	28.3632	0.58	4.20	7.32-3	1.68 0	-1.97-2	-1.74 0
25.0539	29.4296	0.56	2.40	1.47-3	4.72-1	-1.29-2	-5.01-1
25.2860	29.4585	0.56	2.50	1.79-3	5.21-1	-1.32-2	-5.51-1
25.5024	29.4901	0.56	2.60	2.12-3	5.73-1	-1.35-2	-6.04-1
25.7049	29.5239	0.56	2.70	2.44-3	6.27-1	-1.38-2	-6.59-1
25.8950	29.5593	0.56	2.80	2.77-3	6.83-1	-1.41-2	-7.17-1
25.3259	31.1735	0.54	1.85	3.66-5	2.53-1	-1.04-2	-2.72-1
25.1218	31.1744	0.54	1.80	-1.20-4	2.35-1	-1.03-2	-2.54-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
25.5194	31.1756	0.54	1.90	1.93-4	2.71-1	-1.06-2	-2.91-1
25.7032	31.1803	0.54	1.95	3.48-4	2.89-1	-1.07-2	-3.10-1
25.8781	31.1872	0.54	2.00	5.03-4	3.08-1	-1.08-2	-3.30-1
25.7940	33.2631	0.52	1.50	-6.70-4	1.49-1	-8.68-3	-1.63-1
25.4731	33.2909	0.52	1.45	-8.20-4	1.36-1	-8.56-3	-1.50-1
25.1269	33.3275	0.52	1.40	-9.72-4	1.23-1	-8.44-3	-1.36-1
25.8817	35.7882	0.50	1.20	-1.17-3	8.19-2	-7.21-3	-9.21-2
25.3384	35.8828	0.50	1.15	-1.32-3	7.22-2	-7.11-3	-8.19-2
25.7765	38.8386	0.48	0.98	-1.42-3	4.59-2	-6.07-3	-5.33-2
25.4241	38.9226	0.48	0.96	-1.47-3	4.30-2	-6.04-3	-5.02-2
25.0519	39.0155	0.48	0.94	-1.53-3	4.02-2	-6.00-3	-4.72-2
25.5165	42.4854	0.46	0.82	-1.48-3	2.67-2	-5.16-3	-3.22-2
25.9045	46.5509	0.44	0.72	-1.39-3	1.77-2	-4.44-3	-2.21-2
25.0592	46.8217	0.44	0.70	-1.45-3	1.61-2	-4.42-3	-2.02-2
25.1910	51.6662	0.42	0.62	-1.32-3	1.07-2	-3.80-3	-1.41-2
25.8497	57.1230	0.40	0.56	-1.15-3	7.62-3	-3.26-3	-1.04-2
25.6119	63.8443	0.38	0.50	-1.01-3	5.09-3	-2.79-3	-7.32-3
25.9261	104.100	0.30	0.34	-4.79-4	1.21-3	-1.45-3	-2.29-3
26.00	27.00						
26.0389	26.1729	0.74	90.00	6.38-1	5.62 2	-6.60-1	-5.64 2
26.0181	26.1897	0.72	72.00	4.29-1	4.02 2	-4.50-1	-4.03 2
26.0763	26.2452	0.72	73.00	4.38-1	4.11 2	-4.59-1	-4.12 2
26.0540	26.2780	0.70	55.00	2.84-1	2.56 2	-3.03-1	-2.57 2
26.1343	26.3006	0.72	74.00	4.47-1	4.20 2	-4.68-1	-4.21 2
26.1190	26.3389	0.70	56.00	2.91-1	2.65 2	-3.10-1	-2.66 2
26.0362	26.3443	0.68	39.00	1.77-1	1.39 2	-1.95-1	-1.40 2
26.1922	26.3560	0.72	75.00	4.56-1	4.29 2	-4.77-1	-4.31 2
26.1834	26.3994	0.70	57.00	2.98-1	2.73 2	-3.17-1	-2.74 2
26.2501	26.4114	0.72	76.00	4.65-1	4.39 2	-4.86-1	-4.40 2
26.1178	26.4184	0.68	40.00	1.82-1	1.46 2	-2.00-1	-1.46 2
26.2473	26.4594	0.70	58.00	3.05-1	2.82 2	-3.24-1	-2.83 2
26.3078	26.4668	0.72	77.00	4.75-1	4.48 2	-4.95-1	-4.50 2
26.1979	26.4915	0.68	41.00	1.88-1	1.52 2	-2.06-1	-1.53 2
26.3108	26.5192	0.70	59.00	3.12-1	2.90 2	-3.31-1	-2.91 2
26.3656	26.5221	0.72	78.00	4.84-1	4.58 2	-5.05-1	-4.59 2
26.1126	26.5406	0.66	27.00	1.09-1	7.02 1	-1.26-1	-7.07 1
26.2767	26.5635	0.68	42.00	1.94-1	1.59 2	-2.12-1	-1.60 2
26.4233	26.5775	0.72	79.00	4.94-1	4.67 2	-5.15-1	-4.68 2
26.3737	26.5785	0.70	60.00	3.19-1	2.99 2	-3.38-1	-3.00 2
26.4810	26.6330	0.72	80.00	5.04-1	4.77 2	-5.25-1	-4.78 2
26.3543	26.6346	0.68	43.00	1.99-1	1.67 2	-2.17-1	-1.67 2
26.2231	26.6367	0.66	28.00	1.14-1	7.53 1	-1.31-1	-7.58 1
26.4363	26.6376	0.70	61.00	3.26-1	3.08 2	-3.45-1	-3.09 2
26.0338	26.6819	0.64	17.00	6.01-2	2.89 1	-7.57-2	-2.92 1
26.5387	26.6884	0.72	81.00	5.14-1	4.86 2	-5.35-1	-4.87 2
26.4984	26.6963	0.70	62.00	3.33-1	3.17 2	-3.52-1	-3.18 2
26.4307	26.7048	0.68	44.00	2.05-1	1.74 2	-2.23-1	-1.75 2
26.3303	26.7305	0.66	29.00	1.19-1	8.05 1	-1.35-1	-8.11 1
26.5964	26.7440	0.72	82.00	5.24-1	4.96 2	-5.45-1	-4.97 2
26.1199	26.7505	0.64	17.50	6.23-2	3.06 1	-7.79-2	-3.09 1
26.5602	26.7548	0.70	63.00	3.41-1	3.26 2	-3.60-1	-3.27 2
26.5060	26.7741	0.68	45.00	2.11-1	1.81 2	-2.29-1	-1.82 2
26.6542	26.7996	0.72	83.00	5.35-1	5.05 2	-5.55-1	-5.06 2
26.6217	26.8130	0.70	64.00	3.48-1	3.35 2	-3.67-1	-3.36 2
26.2037	26.8178	0.64	18.00	6.44-2	3.24 1	-8.00-2	-3.27 1
26.4346	26.8221	0.66	30.00	1.24-1	8.60 1	-1.40-1	-8.65 1
26.5802	26.8427	0.68	46.00	2.17-1	1.89 2	-2.35-1	-1.90 2
26.7121	26.8554	0.72	84.00	5.45-1	5.15 2	-5.66-1	-5.16 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
26.6828	26.8710	0.70	65.00	3.56-1	3.44 2	-3.75-1	-3.45 2
26.2853	26.8837	0.64	18.50	6.66-2	3.42 1	-8.22-2	-3.45 1
26.6534	26.9104	0.68	47.00	2.23-1	1.96 2	-2.41-1	-1.97 2
26.7700	26.9112	0.72	85.00	5.56-1	5.24 2	-5.76-1	-5.26 2
26.5361	26.9118	0.66	31.00	1.29-1	9.15 1	-1.45-1	-9.21 1
26.7436	26.9287	0.70	66.00	3.63-1	3.53 2	-3.83-1	-3.54 2
26.3649	26.9484	0.64	19.00	6.88-2	3.60 1	-8.43-2	-3.63 1
26.8280	26.9672	0.72	86.00	5.67-1	5.34 2	-5.87-1	-5.35 2
26.7257	26.9774	0.68	48.00	2.29-1	2.04 2	-2.47-1	-2.05 2
26.8041	26.9863	0.70	67.00	3.71-1	3.62 2	-3.90-1	-3.63 2
26.6350	26.9995	0.66	32.00	1.34-1	9.73 1	-1.50-1	-9.78 1
26.4425	27.0119	0.64	19.50	7.10-2	3.79 1	-8.65-2	-3.82 1
26.8862	27.0234	0.72	87.00	5.78-1	5.43 2	-5.99-1	-5.45 2
26.8644	27.0436	0.70	68.00	3.79-1	3.71 2	-3.98-1	-3.72 2
26.7971	27.0437	0.68	49.00	2.35-1	2.12 2	-2.53-1	-2.13 2
26.5183	27.0743	0.64	20.00	7.32-2	3.98 1	-8.86-2	-4.02 1
26.9445	27.0797	0.72	88.00	5.90-1	5.53 2	-6.10-1	-5.54 2
26.1223	27.0828	0.62	11.00	3.36-2	1.23 1	-4.80-2	-1.25 1
26.7315	27.0855	0.66	33.00	1.39-1	1.03 2	-1.55-1	-1.04 2
26.9244	27.1008	0.70	69.00	3.87-1	3.80 2	-4.06-1	-3.82 2
26.8677	27.1094	0.68	50.00	2.41-1	2.20 2	-2.59-1	-2.21 2
26.9843	27.1579	0.70	70.00	3.95-1	3.90 2	-4.14-1	-3.91 2
26.8257	27.1699	0.66	34.00	1.44-1	1.09 2	-1.60-1	-1.10 2
26.9375	27.1744	0.68	51.00	2.47-1	2.28 2	-2.65-1	-2.29 2
26.2585	27.1788	0.62	11.50	3.55-2	1.35 1	-5.00-2	-1.37 1
26.6649	27.1959	0.64	21.00	7.76-2	4.38 1	-9.30-2	-4.42 1
26.9179	27.2527	0.66	35.00	1.49-1	1.15 2	-1.65-1	-1.16 2
26.3885	27.2720	0.62	12.00	3.75-2	1.47 1	-5.19-2	-1.49 1
26.8051	27.3134	0.64	22.00	8.20-2	4.80 1	-9.74-2	-4.84 1
26.5129	27.3625	0.62	12.50	3.95-2	1.59 1	-5.39-2	-1.61 1
26.9398	27.4272	0.64	23.00	8.64-2	5.24 1	-1.02-1	-5.28 1
26.6323	27.4506	0.62	13.00	4.15-2	1.73 1	-5.59-2	-1.75 1
26.7471	27.5364	0.62	13.50	4.35-2	1.86 1	-5.78-2	-1.88 1
26.0895	27.5943	0.60	6.80	1.68-2	4.65 0	-3.02-2	-4.76 0
26.8575	27.6200	0.62	14.00	4.55-2	2.00 1	-5.98-2	-2.03 1
26.1872	27.6491	0.60	7.00	1.75-2	4.95 0	-3.09-2	-5.05 0
26.9641	27.7015	0.62	14.50	4.75-2	2.15 1	-6.18-2	-2.17 1
26.2815	27.7030	0.60	7.20	1.82-2	5.25 0	-3.16-2	-5.36 0
26.3727	27.7560	0.60	7.40	1.89-2	5.56 0	-3.23-2	-5.67 0
26.4610	27.8083	0.60	7.60	1.97-2	5.87 0	-3.30-2	-5.99 0
26.5465	27.8597	0.60	7.80	2.04-2	6.20 0	-3.37-2	-6.32 0
26.6295	27.9103	0.60	8.00	2.12-2	6.54 0	-3.44-2	-6.66 0
26.7101	27.9601	0.60	8.20	2.19-2	6.88 0	-3.52-2	-7.01 0
26.7885	28.0092	0.60	8.40	2.26-2	7.23 0	-3.59-2	-7.36 0
26.8647	28.0576	0.60	8.60	2.34-2	7.59 0	-3.66-2	-7.72 0
26.9389	28.1052	0.60	8.80	2.41-2	7.96 0	-3.73-2	-8.10 0
26.1395	28.4346	0.58	4.40	8.01-3	1.87 0	-2.03-2	-1.93 0
26.3145	28.5053	0.58	4.60	8.69-3	2.06 0	-2.10-2	-2.12 0
26.4792	28.5750	0.58	4.80	9.38-3	2.26 0	-2.17-2	-2.32 0
26.6347	28.6438	0.58	5.00	1.01-2	2.47 0	-2.23-2	-2.54 0
26.7821	28.7115	0.58	5.20	1.08-2	2.69 0	-2.30-2	-2.76 0
26.9220	28.7781	0.58	5.40	1.14-2	2.91 0	-2.36-2	-2.99 0
26.0741	29.5961	0.56	2.90	3.09-3	7.42-1	-1.44-2	-7.77-1
26.2433	29.6339	0.56	3.00	3.42-3	8.03-1	-1.47-2	-8.40-1
26.4036	29.6725	0.56	3.10	3.74-3	8.66-1	-1.50-2	-9.05-1
26.5557	29.7116	0.56	3.20	4.06-3	9.32-1	-1.53-2	-9.73-1
26.7005	29.7512	0.56	3.30	4.39-3	1.00 0	-1.56-2	-1.04 0
26.8386	29.7911	0.56	3.40	4.71-3	1.07 0	-1.59-2	-1.11 0
26.9705	29.8311	0.56	3.50	5.03-3	1.14 0	-1.62-2	-1.19 0
26.2041	31.2067	0.54	2.10	8.13-4	3.48-1	-1.11-2	-3.72-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
26.5022	31.2323	0.54	2.20	1.12-3	3.91-1	-1.14-2	-4.16-1
26.7765	31.2626	0.54	2.30	1.43-3	4.36-1	-1.16-2	-4.63-1
26.8782	33.2160	0.52	1.70	-7.45-5	2.08-1	-9.16-3	-2.25-1
26.6329	33.2201	0.52	1.65	-2.22-4	1.92-1	-9.04-3	-2.09-1
26.3716	33.2287	0.52	1.60	-3.71-4	1.77-1	-8.92-3	-1.93-1
26.0927	33.2428	0.52	1.55	-5.20-4	1.63-1	-8.80-3	-1.78-1
26.8221	35.6555	0.50	1.30	-8.82-4	1.03-1	-7.43-3	-1.15-1
26.3738	35.7136	0.50	1.25	-1.03-3	9.21-2	-7.32-3	-1.03-1
26.8758	38.6023	0.48	1.05	-1.22-3	5.68-2	-6.20-3	-6.50-2
26.1107	38.7625	0.48	1.00	-1.36-3	4.89-2	-6.11-3	-5.65-2
26.5581	42.1992	0.46	0.86	-1.37-3	3.13-2	-5.22-3	-3.72-2
26.0545	42.3343	0.46	0.84	-1.43-3	2.89-2	-5.19-3	-3.47-2
26.6828	46.3126	0.44	0.74	-1.33-3	1.95-2	-4.46-3	-2.41-2
26.4089	51.2541	0.42	0.64	-1.26-3	1.21-2	-3.81-3	-1.56-2
27.00	28.50						
27.0029	27.1362	0.72	89.00	6.01-1	5.62 2	-6.21-1	-5.64 2
27.0615	27.1930	0.72	90.00	6.13-1	5.72 2	-6.33-1	-5.73 2
27.0439	27.2148	0.70	71.00	4.04-1	3.99 2	-4.23-1	-4.00 2
27.0065	27.2389	0.68	52.00	2.53-1	2.36 2	-2.71-1	-2.37 2
27.1034	27.2717	0.70	72.00	4.12-1	4.08 2	-4.31-1	-4.10 2
27.0748	27.3028	0.68	53.00	2.60-1	2.44 2	-2.77-1	-2.45 2
27.1628	27.3284	0.70	73.00	4.20-1	4.18 2	-4.39-1	-4.19 2
27.0081	27.3340	0.66	36.00	1.54-1	1.22 2	-1.70-1	-1.22 2
27.1425	27.3661	0.68	54.00	2.66-1	2.53 2	-2.84-1	-2.54 2
27.2220	27.3851	0.70	74.00	4.29-1	4.27 2	-4.48-1	-4.29 2
27.0964	27.4139	0.66	37.00	1.59-1	1.28 2	-1.76-1	-1.29 2
27.2095	27.4290	0.68	55.00	2.72-1	2.61 2	-2.90-1	-2.62 2
27.2811	27.4418	0.70	75.00	4.38-1	4.37 2	-4.57-1	-4.38 2
27.2759	27.4914	0.68	56.00	2.79-1	2.70 2	-2.97-1	-2.71 2
27.1831	27.4925	0.66	38.00	1.64-1	1.35 2	-1.81-1	-1.35 2
27.3401	27.4983	0.70	76.00	4.47-1	4.47 2	-4.65-1	-4.48 2
27.0694	27.5377	0.64	24.00	9.09-2	5.69 1	-1.06-1	-5.73 1
27.3417	27.5534	0.68	57.00	2.85-1	2.78 2	-3.03-1	-2.79 2
27.3991	27.5549	0.70	77.00	4.56-1	4.56 2	-4.74-1	-4.57 2
27.2681	27.5699	0.66	39.00	1.70-1	1.41 2	-1.86-1	-1.42 2
27.4580	27.6115	0.70	78.00	4.65-1	4.66 2	-4.84-1	-4.67 2
27.4070	27.6150	0.68	58.00	2.92-1	2.87 2	-3.10-1	-2.88 2
27.1943	27.6449	0.64	25.00	9.55-2	6.16 1	-1.11-1	-6.21 1
27.3515	27.6460	0.66	40.00	1.75-1	1.48 2	-1.91-1	-1.49 2
27.5168	27.6681	0.70	79.00	4.74-1	4.75 2	-4.93-1	-4.77 2
27.4719	27.6761	0.68	59.00	2.99-1	2.96 2	-3.16-1	-2.97 2
27.4335	27.7211	0.66	41.00	1.80-1	1.55 2	-1.97-1	-1.56 2
27.5757	27.7247	0.70	80.00	4.83-1	4.85 2	-5.02-1	-4.86 2
27.5362	27.7369	0.68	60.00	3.06-1	3.05 2	-3.23-1	-3.06 2
27.3150	27.7493	0.64	26.00	1.00-1	6.65 1	-1.15-1	-6.70 1
27.0670	27.7810	0.62	15.00	4.96-2	2.30 1	-6.38-2	-2.32 1
27.6345	27.7814	0.70	81.00	4.93-1	4.95 2	-5.12-1	-4.96 2
27.5142	27.7951	0.66	42.00	1.86-1	1.63 2	-2.02-1	-1.63 2
27.6001	27.7974	0.68	61.00	3.13-1	3.13 2	-3.30-1	-3.15 2
27.6934	27.8381	0.70	82.00	5.03-1	5.04 2	-5.22-1	-5.06 2
27.4318	27.8509	0.64	27.00	1.05-1	7.15 1	-1.20-1	-7.20 1
27.6636	27.8575	0.68	62.00	3.20-1	3.22 2	-3.37-1	-3.24 2
27.1666	27.8587	0.62	15.50	5.16-2	2.45 1	-6.58-2	-2.48 1
27.5936	27.8682	0.66	43.00	1.91-1	1.70 2	-2.07-1	-1.71 2
27.7524	27.8950	0.70	83.00	5.13-1	5.14 2	-5.32-1	-5.15 2
27.7267	27.9174	0.68	63.00	3.27-1	3.32 2	-3.44-1	-3.33 2
27.2631	27.9346	0.62	16.00	5.36-2	2.61 1	-6.78-2	-2.64 1
27.6718	27.9402	0.66	44.00	1.97-1	1.77 2	-2.13-1	-1.78 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
27.5450	27.9499	0.64	28.00	1.09-1	7.67 1	-1.24-1	-7.72 1
27.8114	27.9519	0.70	84.00	5.23-1	5.24 2	-5.42-1	-5.25 2
27.7895	27.9770	0.68	64.00	3.34-1	3.41 2	-3.51-1	-3.42 2
27.3566	28.0089	0.62	16.50	5.57-2	2.78 1	-6.99-2	-2.81 1
27.8704	28.0089	0.70	85.00	5.33-1	5.33 2	-5.52-1	-5.35 2
27.7488	28.0114	0.66	45.00	2.02-1	1.85 2	-2.19-1	-1.85 2
27.8519	28.0363	0.68	65.00	3.41-1	3.50 2	-3.59-1	-3.51 2
27.6549	28.0466	0.64	29.00	1.14-1	8.21 1	-1.29-1	-8.26 1
27.9296	28.0661	0.70	86.00	5.44-1	5.43 2	-5.63-1	-5.44 2
27.4475	28.0816	0.62	17.00	5.77-2	2.95 1	-7.19-2	-2.98 1
27.8247	28.0818	0.66	46.00	2.08-1	1.92 2	-2.24-1	-1.93 2
27.9140	28.0954	0.68	66.00	3.48-1	3.59 2	-3.66-1	-3.60 2
27.9889	28.1234	0.70	87.00	5.54-1	5.53 2	-5.73-1	-5.54 2
27.7618	28.1411	0.64	30.00	1.19-1	8.76 1	-1.34-1	-8.82 1
27.8997	28.1513	0.66	47.00	2.13-1	2.00 2	-2.30-1	-2.01 2
27.0112	28.1522	0.60	9.00	2.49-2	8.34 0	-3.81-2	-8.48 0
27.5358	28.1527	0.62	17.50	5.98-2	3.12 1	-7.39-2	-3.15 1
27.9759	28.1543	0.68	67.00	3.56-1	3.69 2	-3.73-1	-3.70 2
28.0484	28.1809	0.70	88.00	5.65-1	5.63 2	-5.84-1	-5.64 2
27.0817	28.1984	0.60	9.20	2.56-2	8.72 0	-3.88-2	-8.87 0
28.0374	28.2130	0.68	68.00	3.63-1	3.78 2	-3.81-1	-3.79 2
27.9736	28.2201	0.66	48.00	2.19-1	2.08 2	-2.35-1	-2.09 2
27.6217	28.2224	0.62	18.00	6.18-2	3.30 1	-7.60-2	-3.33 1
27.8657	28.2334	0.64	31.00	1.23-1	9.33 1	-1.38-1	-9.39 1
28.1079	28.2386	0.70	89.00	5.76-1	5.72 2	-5.95-1	-5.74 2
27.1505	28.2441	0.60	9.40	2.63-2	9.12 0	-3.95-2	-9.26 0
28.0987	28.2716	0.68	69.00	3.71-1	3.87 2	-3.89-1	-3.89 2
28.0467	28.2881	0.66	49.00	2.25-1	2.16 2	-2.41-1	-2.17 2
27.2176	28.2891	0.60	9.60	2.71-2	9.52 0	-4.03-2	-9.67 0
27.7054	28.2908	0.62	18.50	6.39-2	3.49 1	-7.80-2	-3.52 1
28.1677	28.2965	0.70	90.00	5.88-1	5.82 2	-6.07-1	-5.83 2
27.9671	28.3238	0.64	32.00	1.28-1	9.92 1	-1.43-1	-9.98 1
28.1598	28.3300	0.68	70.00	3.79-1	3.97 2	-3.96-1	-3.98 2
27.2833	28.3334	0.60	9.80	2.78-2	9.93 0	-4.10-2	-1.01 1
28.1188	28.3555	0.66	50.00	2.31-1	2.24 2	-2.47-1	-2.25 2
27.7870	28.3578	0.62	19.00	6.60-2	3.67 1	-8.01-2	-3.71 1
27.3474	28.3772	0.60	10.00	2.86-2	1.03 1	-4.17-2	-1.05 1
28.2208	28.3882	0.68	71.00	3.87-1	4.06 2	-4.04-1	-4.08 2
28.0659	28.4124	0.64	33.00	1.33-1	1.05 2	-1.48-1	-1.06 2
28.1902	28.4222	0.66	51.00	2.37-1	2.32 2	-2.53-1	-2.33 2
27.8666	28.4236	0.62	19.50	6.81-2	3.87 1	-8.21-2	-3.90 1
28.2815	28.4463	0.68	72.00	3.95-1	4.16 2	-4.12-1	-4.17 2
27.5019	28.4841	0.60	10.50	3.05-2	1.14 1	-4.36-2	-1.16 1
27.9444	28.4881	0.62	20.00	7.01-2	4.07 1	-8.42-2	-4.10 1
28.2608	28.4883	0.66	52.00	2.43-1	2.41 2	-2.59-1	-2.41 2
28.1625	28.4993	0.64	34.00	1.38-1	1.11 2	-1.53-1	-1.12 2
28.3421	28.5044	0.68	73.00	4.03-1	4.26 2	-4.20-1	-4.27 2
28.3307	28.5538	0.66	53.00	2.49-1	2.49 2	-2.65-1	-2.50 2
28.4025	28.5624	0.68	74.00	4.11-1	4.35 2	-4.28-1	-4.37 2
28.2569	28.5845	0.64	35.00	1.42-1	1.18 2	-1.58-1	-1.18 2
27.6485	28.5875	0.60	11.00	3.23-2	1.26 1	-4.54-2	-1.27 1
28.0946	28.6139	0.62	21.00	7.43-2	4.48 1	-8.84-2	-4.51 1
28.3998	28.6188	0.66	54.00	2.55-1	2.57 2	-2.71-1	-2.58 2
28.4629	28.6203	0.68	75.00	4.19-1	4.45 2	-4.37-1	-4.46 2
28.3493	28.6681	0.64	36.00	1.47-1	1.24 2	-1.62-1	-1.25 2
28.4684	28.6833	0.66	55.00	2.61-1	2.66 2	-2.77-1	-2.67 2
27.7882	28.6878	0.60	11.50	3.42-2	1.38 1	-4.73-2	-1.39 1
28.2385	28.7355	0.62	22.00	7.86-2	4.90 1	-9.26-2	-4.94 1
28.4398	28.7504	0.64	37.00	1.52-1	1.31 2	-1.67-1	-1.31 2
27.9215	28.7850	0.60	12.00	3.61-2	1.50 1	-4.91-2	-1.52 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
27.0552	28.8436	0.58	5.60	1.21-2	3.15 0	-2.43-2	-3.23 0
28.3766	28.8532	0.62	23.00	8.28-2	5.35 1	-9.68-2	-5.39 1
28.0491	28.8795	0.60	12.50	3.80-2	1.63 1	-5.10-2	-1.65 1
27.1823	28.9080	0.58	5.80	1.28-2	3.40 0	-2.50-2	-3.48 0
27.3040	28.9712	0.58	6.00	1.35-2	3.65 0	-2.56-2	-3.74 0
28.1716	28.9713	0.60	13.00	3.99-2	1.76 1	-5.29-2	-1.78 1
27.4205	29.0334	0.58	6.20	1.42-2	3.91 0	-2.63-2	-4.00 0
28.2893	29.0606	0.60	13.50	4.18-2	1.90 1	-5.48-2	-1.92 1
27.5324	29.0945	0.58	6.40	1.49-2	4.19 0	-2.70-2	-4.28 0
28.4026	29.1476	0.60	14.00	4.37-2	2.05 1	-5.67-2	-2.07 1
27.6400	29.1546	0.58	6.60	1.56-2	4.47 0	-2.77-2	-4.56 0
27.7437	29.2136	0.58	6.80	1.63-2	4.76 0	-2.83-2	-4.86 0
27.8437	29.2716	0.58	7.00	1.70-2	5.06 0	-2.90-2	-5.16 0
27.9402	29.3286	0.58	7.20	1.77-2	5.36 0	-2.97-2	-5.47 0
28.0336	29.3846	0.58	7.40	1.84-2	5.68 0	-3.04-2	-5.79 0
28.1240	29.4398	0.58	7.60	1.91-2	6.01 0	-3.11-2	-6.12 0
28.2117	29.4940	0.58	7.80	1.98-2	6.34 0	-3.17-2	-6.46 0
28.2967	29.5473	0.58	8.00	2.05-2	6.68 0	-3.24-2	-6.80 0
28.3793	29.5998	0.58	8.20	2.12-2	7.03 0	-3.31-2	-7.16 0
28.4596	29.6515	0.58	8.40	2.19-2	7.40 0	-3.38-2	-7.52 0
27.0968	29.8711	0.56	3.60	5.36-3	1.22 0	-1.65-2	-1.27 0
27.2178	29.9112	0.56	3.70	5.68-3	1.30 0	-1.68-2	-1.35 0
27.3341	29.9512	0.56	3.80	6.00-3	1.38 0	-1.71-2	-1.43 0
27.4459	29.9911	0.56	3.90	6.33-3	1.46 0	-1.74-2	-1.51 0
27.5535	30.0308	0.56	4.00	6.65-3	1.55 0	-1.77-2	-1.60 0
27.7575	30.1096	0.56	4.20	7.30-3	1.72 0	-1.84-2	-1.78 0
27.9480	30.1874	0.56	4.40	7.95-3	1.91 0	-1.90-2	-1.97 0
28.1267	30.2640	0.56	4.60	8.60-3	2.11 0	-1.96-2	-2.17 0
28.2949	30.3394	0.56	4.80	9.25-3	2.31 0	-2.02-2	-2.38 0
28.4538	30.4135	0.56	5.00	9.90-3	2.53 0	-2.09-2	-2.59 0
27.0300	31.2967	0.54	2.40	1.74-3	4.84-1	-1.19-2	-5.12-1
27.2656	31.3336	0.54	2.50	2.04-3	5.34-1	-1.22-2	-5.63-1
27.4853	31.3727	0.54	2.60	2.35-3	5.87-1	-1.25-2	-6.18-1
27.6909	31.4134	0.54	2.70	2.66-3	6.42-1	-1.28-2	-6.74-1
27.8842	31.4555	0.54	2.80	2.96-3	7.00-1	-1.30-2	-7.34-1
28.0663	31.4986	0.54	2.90	3.27-3	7.60-1	-1.33-2	-7.95-1
28.2383	31.5423	0.54	3.00	3.57-3	8.23-1	-1.36-2	-8.60-1
28.4014	31.5865	0.54	3.10	3.88-3	8.88-1	-1.39-2	-9.26-1
27.1093	33.2160	0.52	1.75	7.30-5	2.25-1	-9.29-3	-2.43-1
27.3275	33.2194	0.52	1.80	2.20-4	2.42-1	-9.41-3	-2.60-1
27.5339	33.2258	0.52	1.85	3.67-4	2.60-1	-9.54-3	-2.79-1
27.7297	33.2347	0.52	1.90	5.13-4	2.78-1	-9.66-3	-2.98-1
27.9157	33.2459	0.52	1.95	6.59-4	2.97-1	-9.79-3	-3.18-1
28.0928	33.2591	0.52	2.00	8.05-4	3.17-1	-9.92-3	-3.38-1
28.4230	33.2902	0.52	2.10	1.10-3	3.58-1	-1.02-2	-3.81-1
28.2832	35.5377	0.50	1.50	-3.16-4	1.53-1	-7.88-3	-1.68-1
27.9594	35.5538	0.50	1.45	-4.56-4	1.40-1	-7.76-3	-1.53-1
27.6104	35.5777	0.50	1.40	-5.97-4	1.27-1	-7.65-3	-1.40-1
27.2326	35.6110	0.50	1.35	-7.39-4	1.15-1	-7.54-3	-1.27-1
28.1614	38.3812	0.48	1.15	-9.38-4	7.46-2	-6.39-3	-8.40-2
27.5545	38.4777	0.48	1.10	-1.08-3	6.54-2	-6.30-3	-7.42-2
28.2879	41.7855	0.46	0.94	-1.15-3	4.17-2	-5.35-3	-4.85-2
27.8931	41.8726	0.46	0.92	-1.20-3	3.89-2	-5.32-3	-4.55-2
27.4747	41.9698	0.46	0.90	-1.26-3	3.63-2	-5.29-3	-4.26-2
27.0305	42.0782	0.46	0.88	-1.31-3	3.37-2	-5.25-3	-3.99-2
28.0679	45.9174	0.44	0.78	-1.22-3	2.35-2	-4.51-3	-2.84-2
27.4017	46.1027	0.44	0.76	-1.28-3	2.15-2	-4.49-3	-2.62-2
27.5135	50.8981	0.42	0.66	-1.20-3	1.36-2	-3.83-3	-1.73-2
27.5239	56.5477	0.40	0.58	-1.09-3	8.75-3	-3.27-3	-1.17-2
28.0295	62.9936	0.38	0.52	-9.54-4	5.99-3	-2.80-3	-8.37-3

Part 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
27.1301	71.0698	0.36	0.46	-8.39-4	3.81-3	-2.38-3	-5.71-3
28.2157	79.8224	0.34	0.42	-6.94-4	2.74-3	-2.02-3	-4.34-3
28.2449	90.5877	0.32	0.38	-5.75-4	1.88-3	-1.71-3	-3.20-3
28.50	30.00						
28.5231	28.6781	0.68	76.00	4.28-1	4.55 2	-4.45-1	-4.56 2
28.5833	28.7360	0.68	77.00	4.36-1	4.65 2	-4.54-1	-4.66 2
28.5363	28.7473	0.66	56.00	2.67-1	2.75 2	-2.83-1	-2.76 2
28.6434	28.7938	0.68	78.00	4.45-1	4.74 2	-4.63-1	-4.76 2
28.6036	28.8108	0.66	57.00	2.73-1	2.84 2	-2.90-1	-2.85 2
28.5285	28.8312	0.64	38.00	1.57-1	1.37 2	-1.72-1	-1.38 2
28.7035	28.8516	0.68	79.00	4.54-1	4.84 2	-4.72-1	-4.85 2
28.6704	28.8739	0.66	58.00	2.80-1	2.92 2	-2.96-1	-2.93 2
28.7635	28.9095	0.68	80.00	4.63-1	4.94 2	-4.81-1	-4.95 2
28.6155	28.9108	0.64	39.00	1.62-1	1.44 2	-1.77-1	-1.45 2
28.7366	28.9366	0.66	59.00	2.86-1	3.01 2	-3.02-1	-3.02 2
28.5095	28.9673	0.62	24.00	8.71-2	5.81 1	-1.01-1	-5.85 1
28.8236	28.9674	0.68	81.00	4.72-1	5.04 2	-4.90-1	-5.05 2
28.7010	28.9891	0.64	40.00	1.67-1	1.51 2	-1.82-1	-1.52 2
28.8024	28.9989	0.66	60.00	2.93-1	3.10 2	-3.09-1	-3.11 2
28.8837	29.0254	0.68	82.00	4.82-1	5.14 2	-4.99-1	-5.15 2
28.8677	29.0608	0.66	61.00	2.99-1	3.20 2	-3.15-1	-3.21 2
28.7850	29.0663	0.64	41.00	1.73-1	1.59 2	-1.88-1	-1.59 2
28.6376	29.0781	0.62	25.00	9.14-2	6.29 1	-1.05-1	-6.33 1
28.9438	29.0835	0.68	83.00	4.91-1	5.24 2	-5.09-1	-5.25 2
28.9327	29.1224	0.66	62.00	3.06-1	3.29 2	-3.22-1	-3.30 2
29.0040	29.1416	0.68	84.00	5.01-1	5.34 2	-5.18-1	-5.35 2
28.8676	29.1424	0.64	42.00	1.78-1	1.66 2	-1.93-1	-1.67 2
28.9972	29.1838	0.66	63.00	3.13-1	3.38 2	-3.29-1	-3.39 2
28.7614	29.1858	0.62	26.00	9.57-2	6.79 1	-1.10-1	-6.83 1
29.0643	29.1999	0.68	85.00	5.11-1	5.43 2	-5.28-1	-5.45 2
28.9489	29.2174	0.64	43.00	1.83-1	1.73 2	-1.98-1	-1.74 2
28.5119	29.2324	0.60	14.50	4.56-2	2.19 1	-5.85-2	-2.22 1
29.0613	29.2448	0.66	64.00	3.20-1	3.47 2	-3.36-1	-3.48 2
29.1247	29.2583	0.68	86.00	5.21-1	5.53 2	-5.38-1	-5.55 2
28.8811	29.2907	0.62	27.00	1.00-1	7.30 1	-1.14-1	-7.35 1
29.0289	29.2915	0.64	44.00	1.88-1	1.81 2	-2.03-1	-1.82 2
29.1251	29.3055	0.66	65.00	3.26-1	3.57 2	-3.43-1	-3.58 2
28.6175	29.3151	0.60	15.00	4.76-2	2.35 1	-6.05-2	-2.37 1
29.1852	29.3169	0.68	87.00	5.31-1	5.63 2	-5.48-1	-5.65 2
29.1078	29.3646	0.64	45.00	1.93-1	1.88 2	-2.08-1	-1.89 2
29.1886	29.3661	0.66	66.00	3.33-1	3.66 2	-3.50-1	-3.67 2
29.2458	29.3756	0.68	88.00	5.42-1	5.73 2	-5.59-1	-5.75 2
28.9972	29.3929	0.62	28.00	1.05-1	7.84 1	-1.18-1	-7.89 1
28.7197	29.3958	0.60	15.50	4.95-2	2.51 1	-6.24-2	-2.53 1
29.2517	29.4264	0.66	67.00	3.41-1	3.76 2	-3.57-1	-3.77 2
29.3065	29.4345	0.68	89.00	5.52-1	5.83 2	-5.69-1	-5.84 2
29.1855	29.4369	0.64	46.00	1.99-1	1.96 2	-2.14-1	-1.97 2
28.8187	29.4747	0.60	16.00	5.14-2	2.67 1	-6.43-2	-2.70 1
29.3146	29.4865	0.66	68.00	3.48-1	3.85 2	-3.64-1	-3.87 2
29.1099	29.4927	0.62	29.00	1.09-1	8.39 1	-1.23-1	-8.44 1
29.3675	29.4936	0.68	90.00	5.63-1	5.93 2	-5.80-1	-5.94 2
29.2622	29.5083	0.64	47.00	2.04-1	2.04 2	-2.19-1	-2.05 2
29.3773	29.5464	0.66	69.00	3.55-1	3.95 2	-3.71-1	-3.96 2
28.9147	29.5518	0.60	16.50	5.34-2	2.84 1	-6.62-2	-2.87 1
29.3379	29.5789	0.64	48.00	2.10-1	2.12 2	-2.25-1	-2.13 2
29.2194	29.5901	0.62	30.00	1.13-1	8.95 1	-1.27-1	-9.00 1
29.4397	29.6061	0.66	70.00	3.63-1	4.05 2	-3.79-1	-4.06 2
29.0079	29.6272	0.60	17.00	5.53-2	3.01 1	-6.81-2	-3.04 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
29.4127	29.6488	0.64	49.00	2.15-1	2.20 2	-2.30-1	-2.21 2
29.5019	29.6658	0.66	71.00	3.70-1	4.14 2	-3.86-1	-4.16 2
29.3260	29.6853	0.62	31.00	1.18-1	9.53 1	-1.32-1	-9.59 1
29.0985	29.7010	0.60	17.50	5.73-2	3.19 1	-7.01-2	-3.22 1
28.5377	29.7023	0.58	8.60	2.26-2	7.76 0	-3.45-2	-7.89 0
29.4865	29.7179	0.64	50.00	2.21-1	2.29 2	-2.36-1	-2.30 2
29.5640	29.7253	0.66	72.00	3.78-1	4.24 2	-3.94-1	-4.25 2
28.6138	29.7524	0.58	8.80	2.33-2	8.14 0	-3.52-2	-8.28 0
29.1867	29.7733	0.60	18.00	5.92-2	3.38 1	-7.20-2	-3.41 1
29.4299	29.7785	0.62	32.00	1.22-1	1.01 2	-1.36-1	-1.02 2
29.6259	29.7846	0.66	73.00	3.85-1	4.34 2	-4.01-1	-4.35 2
29.5596	29.7864	0.64	51.00	2.26-1	2.37 2	-2.41-1	-2.38 2
28.6879	29.8017	0.58	9.00	2.40-2	8.53 0	-3.59-2	-8.67 0
29.6876	29.8439	0.66	74.00	3.93-1	4.44 2	-4.09-1	-4.45 2
29.2726	29.8442	0.60	18.50	6.12-2	3.56 1	-7.40-2	-3.59 1
28.7602	29.8503	0.58	9.20	2.47-2	8.92 0	-3.66-2	-9.06 0
29.6318	29.8542	0.64	52.00	2.32-1	2.46 2	-2.47-1	-2.46 2
29.5312	29.8698	0.62	33.00	1.27-1	1.07 2	-1.41-1	-1.08 2
28.8307	29.8982	0.58	9.40	2.54-2	9.33 0	-3.73-2	-9.47 0
29.7492	29.9032	0.66	75.00	4.01-1	4.54 2	-4.17-1	-4.55 2
29.3563	29.9137	0.60	19.00	6.32-2	3.76 1	-7.59-2	-3.79 1
29.7033	29.9215	0.64	53.00	2.38-1	2.54 2	-2.53-1	-2.55 2
28.8996	29.9453	0.58	9.60	2.61-2	9.74 0	-3.80-2	-9.89 0
29.6302	29.9592	0.62	34.00	1.32-1	1.14 2	-1.45-1	-1.14 2
29.8107	29.9624	0.66	76.00	4.09-1	4.64 2	-4.25-1	-4.65 2
29.4380	29.9818	0.60	19.50	6.52-2	3.95 1	-7.79-2	-3.99 1
29.7741	29.9881	0.64	54.00	2.44-1	2.63 2	-2.58-1	-2.64 2
28.9669	29.9919	0.58	9.80	2.68-2	1.02 1	-3.87-2	-1.03 1
29.8722	30.0215	0.66	77.00	4.18-1	4.74 2	-4.34-1	-4.75 2
29.0327	30.0377	0.58	10.00	2.75-2	1.06 1	-3.93-2	-1.07 1
29.7270	30.0470	0.62	35.00	1.36-1	1.20 2	-1.50-1	-1.21 2
29.5178	30.0487	0.60	20.00	6.72-2	4.16 1	-7.99-2	-4.19 1
29.8442	30.0543	0.64	55.00	2.49-1	2.72 2	-2.64-1	-2.73 2
29.9336	30.0807	0.66	78.00	4.26-1	4.84 2	-4.42-1	-4.85 2
29.9136	30.1199	0.64	56.00	2.55-1	2.80 2	-2.70-1	-2.81 2
29.8216	30.1331	0.62	36.00	1.41-1	1.27 2	-1.55-1	-1.27 2
29.9949	30.1398	0.66	79.00	4.35-1	4.94 2	-4.50-1	-4.95 2
29.1911	30.1496	0.58	10.50	2.93-2	1.17 1	-4.11-2	-1.19 1
29.6720	30.1790	0.60	21.00	7.12-2	4.58 1	-8.39-2	-4.61 1
29.9825	30.1850	0.64	57.00	2.61-1	2.89 2	-2.76-1	-2.90 2
29.9144	30.2178	0.62	37.00	1.46-1	1.34 2	-1.59-1	-1.34 2
29.3416	30.2578	0.58	11.00	3.11-2	1.29 1	-4.29-2	-1.30 1
29.8196	30.3048	0.60	22.00	7.52-2	5.01 1	-8.79-2	-5.05 1
29.4848	30.3626	0.58	11.50	3.29-2	1.41 1	-4.46-2	-1.43 1
29.9614	30.4265	0.60	23.00	7.92-2	5.47 1	-9.19-2	-5.51 1
29.6217	30.4641	0.58	12.00	3.47-2	1.53 1	-4.64-2	-1.55 1
28.6044	30.4862	0.56	5.20	1.06-2	2.75 0	-2.15-2	-2.82 0
28.7474	30.5576	0.56	5.40	1.12-2	2.98 0	-2.21-2	-3.06 0
29.7527	30.5627	0.58	12.50	3.65-2	1.67 1	-4.82-2	-1.69 1
28.8837	30.6277	0.56	5.60	1.19-2	3.23 0	-2.27-2	-3.30 0
29.8784	30.6584	0.58	13.00	3.83-2	1.80 1	-5.00-2	-1.82 1
29.0138	30.6964	0.56	5.80	1.25-2	3.48 0	-2.34-2	-3.56 0
29.9992	30.7515	0.58	13.50	4.01-2	1.95 1	-5.18-2	-1.97 1
29.1382	30.7639	0.56	6.00	1.32-2	3.74 0	-2.40-2	-3.82 0
29.2576	30.8301	0.56	6.20	1.38-2	4.01 0	-2.47-2	-4.10 0
29.3721	30.8950	0.56	6.40	1.45-2	4.29 0	-2.53-2	-4.38 0
29.4823	30.9587	0.56	6.60	1.51-2	4.58 0	-2.59-2	-4.67 0
29.5885	31.0213	0.56	6.80	1.58-2	4.87 0	-2.66-2	-4.97 0
29.6910	31.0827	0.56	7.00	1.65-2	5.18 0	-2.72-2	-5.28 0
29.7899	31.1430	0.56	7.20	1.71-2	5.50 0	-2.79-2	-5.60 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
29.8856	31.2023	0.56	7.40	1.78-2	5.82 0	-2.85-2	-5.93 0
29.9783	31.2605	0.56	7.60	1.84-2	6.15 0	-2.92-2	-6.26 0
28.5563	31.6310	0.54	3.20	4.19-3	9.56-1	-1.42-2	-9.95-1
28.7037	31.6757	0.54	3.30	4.49-3	1.03 0	-1.45-2	-1.07 0
28.8444	31.7204	0.54	3.40	4.80-3	1.10 0	-1.47-2	-1.14 0
28.9788	31.7651	0.54	3.50	5.10-3	1.17 0	-1.50-2	-1.22 0
29.1075	31.8096	0.54	3.60	5.41-3	1.25 0	-1.53-2	-1.30 0
29.2309	31.8540	0.54	3.70	5.72-3	1.33 0	-1.56-2	-1.38 0
29.3495	31.8981	0.54	3.80	6.02-3	1.41 0	-1.59-2	-1.46 0
29.4635	31.9420	0.54	3.90	6.33-3	1.50 0	-1.62-2	-1.55 0
29.5734	31.9855	0.54	4.00	6.63-3	1.59 0	-1.65-2	-1.64 0
29.7816	32.0716	0.54	4.20	7.25-3	1.77 0	-1.71-2	-1.82 0
29.9762	32.1562	0.54	4.40	7.86-3	1.96 0	-1.77-2	-2.02 0
28.7252	33.3266	0.52	2.20	1.39-3	4.02-1	-1.04-2	-4.26-1
29.0033	33.3668	0.52	2.30	1.68-3	4.48-1	-1.07-2	-4.74-1
29.2606	33.4101	0.52	2.40	1.97-3	4.98-1	-1.10-2	-5.24-1
29.4998	33.4555	0.52	2.50	2.25-3	5.49-1	-1.12-2	-5.78-1
29.7230	33.5027	0.52	2.60	2.54-3	6.04-1	-1.15-2	-6.33-1
29.9321	33.5510	0.52	2.70	2.83-3	6.60-1	-1.18-2	-6.91-1
28.8662	35.5246	0.50	1.60	-3.63-5	1.83-1	-8.11-3	-1.98-1
29.1301	35.5257	0.50	1.65	1.03-4	1.98-1	-8.22-3	-2.14-1
28.5846	35.5284	0.50	1.55	-1.76-4	1.68-1	-7.99-3	-1.82-1
29.3781	35.5308	0.50	1.70	2.41-4	2.15-1	-8.34-3	-2.31-1
29.6117	35.5394	0.50	1.75	3.79-4	2.31-1	-8.46-3	-2.49-1
29.8324	35.5510	0.50	1.80	5.17-4	2.49-1	-8.58-3	-2.67-1
29.6547	38.2107	0.48	1.30	-5.33-4	1.06-1	-6.70-3	-1.18-1
29.2032	38.2516	0.48	1.25	-6.67-4	9.52-2	-6.60-3	-1.06-1
28.7079	38.3072	0.48	1.20	-8.02-4	8.46-2	-6.49-3	-9.46-2
29.3503	41.5746	0.46	1.00	-9.90-4	5.06-2	-5.46-3	-5.81-2
29.0148	41.6374	0.46	0.98	-1.04-3	4.76-2	-5.42-3	-5.48-2
28.6612	41.7074	0.46	0.96	-1.10-3	4.46-2	-5.39-3	-5.16-2
29.8022	45.4802	0.44	0.84	-1.07-3	3.01-2	-4.60-3	-3.57-2
29.2636	45.6086	0.44	0.82	-1.12-3	2.78-2	-4.57-3	-3.32-2
28.6869	45.7536	0.44	0.80	-1.17-3	2.56-2	-4.54-3	-3.07-2
29.4396	50.3220	0.42	0.70	-1.10-3	1.68-2	-3.87-3	-2.09-2
28.5196	50.5898	0.42	0.68	-1.15-3	1.51-2	-3.85-3	-1.90-2
29.0203	56.0603	0.40	0.60	-1.04-3	9.98-3	-3.29-3	-1.31-2
30.00	31.50						
30.0562	30.1990	0.66	80.00	4.43-1	5.04 2	-4.59-1	-5.05 2
30.0508	30.2497	0.64	58.00	2.67-1	2.99 2	-2.82-1	-2.99 2
30.1175	30.2582	0.66	81.00	4.52-1	5.14 2	-4.68-1	-5.15 2
30.0053	30.3010	0.62	38.00	1.50-1	1.40 2	-1.64-1	-1.41 2
30.1186	30.3140	0.64	59.00	2.74-1	3.08 2	-2.88-1	-3.09 2
30.1789	30.3175	0.66	82.00	4.61-1	5.24 2	-4.77-1	-5.25 2
30.2403	30.3768	0.66	83.00	4.70-1	5.34 2	-4.86-1	-5.35 2
30.1859	30.3779	0.64	60.00	2.80-1	3.17 2	-2.95-1	-3.18 2
30.0945	30.3829	0.62	39.00	1.55-1	1.47 2	-1.69-1	-1.48 2
30.3017	30.4363	0.66	84.00	4.79-1	5.44 2	-4.95-1	-5.46 2
30.2527	30.4414	0.64	61.00	2.86-1	3.26 2	-3.01-1	-3.27 2
30.1821	30.4634	0.62	40.00	1.60-1	1.55 2	-1.74-1	-1.55 2
30.3632	30.4958	0.66	85.00	4.89-1	5.54 2	-5.05-1	-5.56 2
30.3191	30.5045	0.64	62.00	2.92-1	3.36 2	-3.07-1	-3.37 2
30.2681	30.5428	0.62	41.00	1.65-1	1.62 2	-1.79-1	-1.63 2
30.0977	30.5445	0.60	24.00	8.33-2	5.94 1	-9.59-2	-5.98 1
30.4248	30.5555	0.66	86.00	4.98-1	5.65 2	-5.14-1	-5.66 2
30.3850	30.5674	0.64	63.00	2.99-1	3.45 2	-3.14-1	-3.46 2
30.4865	30.6153	0.66	87.00	5.08-1	5.75 2	-5.24-1	-5.76 2
30.3527	30.6211	0.62	42.00	1.70-1	1.69 2	-1.83-1	-1.70 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
30.4506	30.6299	0.64	64.00	3.05-1	3.55 2	-3.20-1	-3.56 2
30.2292	30.6591	0.60	25.00	8.74-2	6.43 1	-1.00-1	-6.48 1
30.5484	30.6753	0.66	88.00	5.18-1	5.85 2	-5.34-1	-5.86 2
30.5158	30.6921	0.64	65.00	3.12-1	3.64 2	-3.27-1	-3.65 2
30.4360	30.6982	0.62	43.00	1.75-1	1.77 2	-1.88-1	-1.78 2
30.6104	30.7355	0.66	89.00	5.28-1	5.95 2	-5.44-1	-5.96 2
30.5807	30.7541	0.64	66.00	3.19-1	3.74 2	-3.33-1	-3.75 2
30.3562	30.7704	0.60	26.00	9.15-2	6.94 1	-1.04-1	-6.99 1
30.5180	30.7744	0.62	44.00	1.80-1	1.85 2	-1.93-1	-1.85 2
30.6726	30.7959	0.66	90.00	5.39-1	6.05 2	-5.54-1	-6.06 2
30.6453	30.8159	0.64	67.00	3.26-1	3.84 2	-3.40-1	-3.85 2
30.1155	30.8421	0.58	14.00	4.19-2	2.09 1	-5.36-2	-2.12 1
30.5987	30.8495	0.62	45.00	1.85-1	1.93 2	-1.98-1	-1.93 2
30.7096	30.8775	0.64	68.00	3.32-1	3.94 2	-3.47-1	-3.95 2
30.4790	30.8787	0.60	27.00	9.57-2	7.47 1	-1.08-1	-7.52 1
30.6784	30.9238	0.62	46.00	1.90-1	2.01 2	-2.04-1	-2.01 2
30.2277	30.9303	0.58	14.50	4.37-2	2.25 1	-5.54-2	-2.27 1
30.7736	30.9388	0.64	69.00	3.39-1	4.03 2	-3.54-1	-4.05 2
30.5981	30.9842	0.60	28.00	9.99-2	8.02 1	-1.12-1	-8.06 1
30.7569	30.9972	0.62	47.00	1.95-1	2.09 2	-2.09-1	-2.09 2
30.8374	31.0000	0.64	70.00	3.47-1	4.13 2	-3.61-1	-4.14 2
30.3362	31.0164	0.58	15.00	4.56-2	2.40 1	-5.72-2	-2.43 1
30.9010	31.0610	0.64	71.00	3.54-1	4.23 2	-3.68-1	-4.24 2
30.8344	31.0697	0.62	48.00	2.00-1	2.17 2	-2.14-1	-2.18 2
30.7137	31.0872	0.60	29.00	1.04-1	8.58 1	-1.17-1	-8.63 1
30.4411	31.1003	0.58	15.50	4.74-2	2.57 1	-5.90-2	-2.59 1
30.9644	31.1219	0.64	72.00	3.61-1	4.33 2	-3.76-1	-4.34 2
30.9110	31.1415	0.62	49.00	2.06-1	2.25 2	-2.19-1	-2.26 2
30.5427	31.1823	0.58	16.00	4.93-2	2.74 1	-6.08-2	-2.76 1
31.0276	31.1827	0.64	73.00	3.68-1	4.43 2	-3.83-1	-4.45 2
30.8261	31.1877	0.60	30.00	1.08-1	9.16 1	-1.21-1	-9.21 1
30.9866	31.2125	0.62	50.00	2.11-1	2.34 2	-2.24-1	-2.35 2
31.0907	31.2434	0.64	74.00	3.76-1	4.53 2	-3.91-1	-4.55 2
30.6413	31.2624	0.58	16.50	5.11-2	2.91 1	-6.27-2	-2.93 1
31.0614	31.2828	0.62	51.00	2.16-1	2.42 2	-2.30-1	-2.43 2
30.9354	31.2859	0.60	31.00	1.13-1	9.75 1	-1.25-1	-9.80 1
31.1537	31.3041	0.64	75.00	3.84-1	4.64 2	-3.98-1	-4.65 2
30.0682	31.3177	0.56	7.80	1.91-2	6.50 0	-2.98-2	-6.61 0
30.7370	31.3407	0.58	17.00	5.30-2	3.09 1	-6.45-2	-3.11 1
31.1354	31.3525	0.62	52.00	2.22-1	2.51 2	-2.35-1	-2.52 2
31.2165	31.3646	0.64	76.00	3.91-1	4.74 2	-4.06-1	-4.75 2
30.1553	31.3739	0.56	8.00	1.98-2	6.85 0	-3.05-2	-6.97 0
31.0420	31.3820	0.60	32.00	1.17-1	1.04 2	-1.29-1	-1.04 2
30.8300	31.4174	0.58	17.50	5.48-2	3.27 1	-6.63-2	-3.30 1
31.2085	31.4215	0.62	53.00	2.27-1	2.60 2	-2.41-1	-2.61 2
31.2793	31.4251	0.64	77.00	3.99-1	4.84 2	-4.14-1	-4.85 2
30.2400	31.4292	0.56	8.20	2.04-2	7.21 0	-3.11-2	-7.33 0
31.1459	31.4761	0.60	33.00	1.21-1	1.10 2	-1.34-1	-1.10 2
30.3224	31.4836	0.56	8.40	2.11-2	7.58 0	-3.18-2	-7.70 0
31.3420	31.4857	0.64	78.00	4.07-1	4.94 2	-4.22-1	-4.95 2
31.2810	31.4899	0.62	54.00	2.33-1	2.69 2	-2.46-1	-2.70 2
30.9206	31.4924	0.58	18.00	5.67-2	3.46 1	-6.82-2	-3.49 1
30.4025	31.5371	0.56	8.60	2.18-2	7.96 0	-3.24-2	-8.08 0
31.4046	31.5462	0.64	79.00	4.15-1	5.04 2	-4.30-1	-5.06 2
31.3527	31.5578	0.62	55.00	2.38-1	2.78 2	-2.52-1	-2.79 2
31.0088	31.5659	0.58	18.50	5.86-2	3.65 1	-7.01-2	-3.68 1
31.2474	31.5683	0.60	34.00	1.26-1	1.16 2	-1.38-1	-1.17 2
30.4805	31.5897	0.56	8.80	2.24-2	8.34 0	-3.31-2	-8.47 0
31.4672	31.6067	0.64	80.00	4.23-1	5.15 2	-4.38-1	-5.16 2
31.4238	31.6251	0.62	56.00	2.44-1	2.87 2	-2.57-1	-2.88 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
31.0948	31.6380	0.58	19.00	8.04-2	3.85 1	-7.19-2	-3.88 1
30.5566	31.6416	0.56	9.00	2.31-2	8.74 0	-3.37-2	-8.87 0
31.3466	31.6587	0.60	35.00	1.30-1	1.23 2	-1.43-1	-1.24 2
31.4943	31.6919	0.62	57.00	2.50-1	2.96 2	-2.63-1	-2.97 2
30.6307	31.6926	0.56	9.20	2.38-2	9.15 0	-3.44-2	-9.28 0
31.1787	31.7086	0.58	19.50	6.23-2	4.05 1	-7.38-2	-4.08 1
30.7031	31.7428	0.56	9.40	2.45-2	9.56 0	-3.51-2	-9.70 0
31.4437	31.7475	0.60	36.00	1.35-1	1.30 2	-1.47-1	-1.30 2
31.2606	31.7780	0.58	20.00	6.42-2	4.26 1	-7.57-2	-4.29 1
30.7738	31.7923	0.56	9.60	2.51-2	9.98 0	-3.57-2	-1.01 1
30.8429	31.8411	0.56	9.80	2.58-2	1.04 1	-3.64-2	-1.06 1
30.9104	31.8892	0.56	10.00	2.65-2	1.09 1	-3.71-2	-1.10 1
31.4189	31.9129	0.58	21.00	6.80-2	4.69 1	-7.95-2	-4.72 1
31.0730	32.0064	0.56	10.50	2.82-2	1.20 1	-3.87-2	-1.22 1
31.2275	32.1196	0.56	11.00	2.98-2	1.32 1	-4.04-2	-1.34 1
31.3746	32.2291	0.56	11.50	3.15-2	1.44 1	-4.21-2	-1.46 1
30.1588	32.2392	0.54	4.60	8.48-3	2.16 0	-1.83-2	-2.22 0
30.3307	32.3206	0.54	4.80	9.09-3	2.37 0	-1.89-2	-2.44 0
30.4932	32.4003	0.54	5.00	9.71-3	2.59 0	-1.95-2	-2.66 0
30.6473	32.4784	0.54	5.20	1.03-2	2.82 0	-2.00-2	-2.89 0
30.7937	32.5549	0.54	5.40	1.09-2	3.06 0	-2.06-2	-3.14 0
30.9332	32.6298	0.54	5.60	1.16-2	3.31 0	-2.12-2	-3.39 0
31.0664	32.7032	0.54	5.80	1.22-2	3.57 0	-2.19-2	-3.65 0
31.1939	32.7751	0.54	6.00	1.28-2	3.84 0	-2.25-2	-3.92 0
31.3161	32.8455	0.54	6.20	1.34-2	4.12 0	-2.31-2	-4.20 0
31.4335	32.9145	0.54	6.40	1.40-2	4.40 0	-2.37-2	-4.49 0
30.1286	33.6002	0.52	2.80	3.12-3	7.20-1	-1.20-2	-7.52-1
30.3138	33.6499	0.52	2.90	3.41-3	7.82-1	-1.23-2	-8.16-1
30.4890	33.7000	0.52	3.00	3.70-3	8.46-1	-1.26-2	-8.82-1
30.6550	33.7502	0.52	3.10	3.99-3	9.13-1	-1.28-2	-9.50-1
30.8128	33.8005	0.52	3.20	4.27-3	9.83-1	-1.31-2	-1.02 0
30.9630	33.8506	0.52	3.30	4.56-3	1.06 0	-1.34-2	-1.10 0
31.1064	33.9005	0.52	3.40	4.85-3	1.13 0	-1.37-2	-1.17 0
31.2435	33.9502	0.52	3.50	5.14-3	1.21 0	-1.39-2	-1.25 0
31.3748	33.9995	0.52	3.60	5.43-3	1.29 0	-1.42-2	-1.33 0
30.0413	35.5651	0.50	1.85	6.54-4	2.67-1	-8.70-3	-2.86-1
30.2395	35.5814	0.50	1.90	7.92-4	2.86-1	-8.82-3	-3.06-1
30.4278	35.5997	0.50	1.95	9.29-4	3.06-1	-8.94-3	-3.26-1
30.6072	35.6195	0.50	2.00	1.07-3	3.26-1	-9.06-3	-3.47-1
30.9419	35.6633	0.50	2.10	1.34-3	3.69-1	-9.31-3	-3.91-1
31.2483	35.7111	0.50	2.20	1.61-3	4.14-1	-9.55-3	-4.38-1
31.1278	38.1499	0.48	1.50	-5.32-6	1.59-1	-7.13-3	-1.72-1
31.4322	38.1524	0.48	1.55	1.25-4	1.73-1	-7.24-3	-1.88-1
30.8011	38.1532	0.48	1.45	-1.36-4	1.44-1	-7.02-3	-1.58-1
30.4491	38.1635	0.48	1.40	-2.68-4	1.31-1	-6.91-3	-1.44-1
30.0683	38.1821	0.48	1.35	-4.00-4	1.18-1	-6.81-3	-1.30-1
31.4104	41.2764	0.46	1.15	-6.04-4	7.74-2	-5.73-3	-8.65-2
30.8003	41.3481	0.46	1.10	-7.31-4	6.78-2	-5.64-3	-7.63-2
30.1184	41.4453	0.46	1.05	-8.60-4	5.89-2	-5.55-3	-6.69-2
31.2247	45.1761	0.44	0.90	-9.14-4	3.78-2	-4.69-3	-4.40-2
30.7797	45.2655	0.44	0.88	-9.65-4	3.51-2	-4.66-3	-4.11-2
30.3065	45.3664	0.44	0.86	-1.02-3	3.26-2	-4.63-3	-3.83-2
31.0617	49.8859	0.42	0.74	-9.96-4	2.05-2	-3.92-3	-2.49-2
30.2840	50.0890	0.42	0.72	-1.05-3	1.86-2	-3.90-3	-2.28-2
30.3650	55.6459	0.40	0.62	-9.90-4	1.13-2	-3.30-3	-1.46-2
30.1509	62.2900	0.38	0.54	-9.02-4	6.99-3	-2.80-3	-9.52-3
30.3182	69.9811	0.36	0.48	-7.86-4	4.58-3	-2.38-3	-6.62-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
31.50	33.00						
31.5299	31.6672	0.64	81.00	4.32-1	5.25 2	-4.46-1	-5.26 2
31.5925	31.7279	0.64	82.00	4.40-1	5.35 2	-4.55-1	-5.37 2
31.5642	31.7583	0.62	58.00	2.55-1	3.05 2	-2.69-1	-3.06 2
31.6552	31.7885	0.64	83.00	4.49-1	5.46 2	-4.64-1	-5.47 2
31.6336	31.8242	0.62	59.00	2.61-1	3.15 2	-2.75-1	-3.16 2
31.5388	31.8346	0.60	37.00	1.39-1	1.37 2	-1.51-1	-1.37 2
31.7179	31.8493	0.64	84.00	4.58-1	5.56 2	-4.72-1	-5.57 2
31.7024	31.8897	0.62	60.00	2.67-1	3.24 2	-2.81-1	-3.25 2
31.7807	31.9102	0.64	85.00	4.67-1	5.66 2	-4.81-1	-5.68 2
31.6320	31.9203	0.60	38.00	1.44-1	1.44 2	-1.56-1	-1.44 2
31.7707	31.9549	0.62	61.00	2.73-1	3.34 2	-2.87-1	-3.35 2
31.8436	31.9712	0.64	86.00	4.76-1	5.77 2	-4.91-1	-5.78 2
31.7235	32.0046	0.60	39.00	1.48-1	1.51 2	-1.61-1	-1.52 2
31.8386	32.0196	0.62	62.00	2.79-1	3.43 2	-2.93-1	-3.44 2
31.9066	32.0324	0.64	87.00	4.85-1	5.87 2	-5.00-1	-5.88 2
31.5705	32.0432	0.58	22.00	7.18-2	5.13 1	-8.33-2	-5.17 1
31.9061	32.0840	0.62	63.00	2.85-1	3.53 2	-2.99-1	-3.54 2
31.8133	32.0876	0.60	40.00	1.53-1	1.58 2	-1.65-1	-1.59 2
31.9697	32.0937	0.64	88.00	4.95-1	5.97 2	-5.09-1	-5.99 2
31.9732	32.1481	0.62	64.00	2.92-1	3.63 2	-3.05-1	-3.64 2
32.0330	32.1552	0.64	89.00	5.05-1	6.08 2	-5.19-1	-6.09 2
31.7160	32.1692	0.58	23.00	7.57-2	5.60 1	-8.71-2	-5.64 1
31.9015	32.1693	0.60	41.00	1.57-1	1.66 2	-1.70-1	-1.66 2
32.0399	32.2119	0.62	65.00	2.98-1	3.73 2	-3.11-1	-3.74 2
32.0965	32.2169	0.64	90.00	5.14-1	6.18 2	-5.29-1	-6.19 2
31.9882	32.2498	0.60	42.00	1.62-1	1.73 2	-1.74-1	-1.74 2
32.1062	32.2755	0.62	66.00	3.04-1	3.82 2	-3.18-1	-3.84 2
31.8560	32.2913	0.58	24.00	7.96-2	6.09 1	-9.09-2	-6.13 1
32.0735	32.3291	0.60	43.00	1.67-1	1.81 2	-1.79-1	-1.82 2
31.5152	32.3352	0.56	12.00	3.33-2	1.57 1	-4.38-2	-1.59 1
32.1723	32.3387	0.62	67.00	3.11-1	3.92 2	-3.24-1	-3.93 2
32.2380	32.4018	0.62	68.00	3.17-1	4.02 2	-3.31-1	-4.04 2
32.1575	32.4074	0.60	44.00	1.72-1	1.89 2	-1.84-1	-1.90 2
31.9910	32.4097	0.58	25.00	8.35-2	6.59 1	-9.48-2	-6.63 1
31.6497	32.4381	0.56	12.50	3.50-2	1.71 1	-4.54-2	-1.73 1
32.3035	32.4647	0.62	69.00	3.24-1	4.13 2	-3.37-1	-4.14 2
32.2403	32.4847	0.60	45.00	1.76-1	1.97 2	-1.89-1	-1.98 2
32.1214	32.5248	0.58	26.00	8.74-2	7.12 1	-9.87-2	-7.16 1
32.3687	32.5273	0.62	70.00	3.31-1	4.23 2	-3.44-1	-4.24 2
31.7788	32.5380	0.56	13.00	3.67-2	1.85 1	-4.71-2	-1.87 1
32.3219	32.5611	0.60	46.00	1.81-1	2.05 2	-1.94-1	-2.06 2
32.4338	32.5898	0.62	71.00	3.38-1	4.33 2	-3.51-1	-4.34 2
31.9029	32.6350	0.56	13.50	3.84-2	2.00 1	-4.89-2	-2.02 1
32.4024	32.6365	0.60	47.00	1.86-1	2.14 2	-1.98-1	-2.14 2
32.2475	32.6367	0.58	27.00	9.13-2	7.66 1	-1.03-1	-7.70 1
32.4986	32.6522	0.62	72.00	3.45-1	4.43 2	-3.58-1	-4.44 2
32.4818	32.7110	0.60	48.00	1.91-1	2.22 2	-2.03-1	-2.23 2
32.5632	32.7145	0.62	73.00	3.52-1	4.54 2	-3.65-1	-4.55 2
32.0224	32.7294	0.56	14.00	4.01-2	2.15 1	-5.06-2	-2.17 1
32.3698	32.7457	0.58	28.00	9.53-2	8.21 1	-1.07-1	-8.26 1
32.6277	32.7766	0.62	74.00	3.59-1	4.64 2	-3.72-1	-4.65 2
32.5602	32.7848	0.60	49.00	1.96-1	2.31 2	-2.08-1	-2.31 2
32.1377	32.8213	0.56	14.50	4.19-2	2.30 1	-5.23-2	-2.33 1
32.6920	32.8387	0.62	75.00	3.66-1	4.74 2	-3.79-1	-4.75 2
32.4884	32.8520	0.58	29.00	9.93-2	8.79 1	-1.11-1	-8.84 1
32.6377	32.8578	0.60	50.00	2.01-1	2.39 2	-2.13-1	-2.40 2
32.7562	32.9007	0.62	76.00	3.73-1	4.85 2	-3.87-1	-4.86 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
32.2491	32.9109	0.56	15.00	4.36-2	2.47 1	-5.40-2	-2.49 1
32.7143	32.9300	0.60	51.00	2.06-1	2.48 2	-2.18-1	-2.49 2
32.6037	32.9558	0.58	30.00	1.03-1	9.39 1	-1.15-1	-9.43 1
32.8204	32.9626	0.62	77.00	3.81-1	4.95 2	-3.94-1	-4.96 2
31.5465	32.9822	0.54	6.60	1.47-2	4.70 0	-2.43-2	-4.79 0
32.3568	32.9982	0.56	15.50	4.53-2	2.63 1	-5.57-2	-2.66 1
32.7900	33.0015	0.60	52.00	2.11-1	2.57 2	-2.24-1	-2.58 2
32.8844	33.0245	0.62	78.00	3.88-1	5.06 2	-4.02-1	-5.07 2
31.6553	33.0485	0.54	6.80	1.53-2	5.00 0	-2.49-2	-5.10 0
32.7160	33.0571	0.58	31.00	1.07-1	1.00 2	-1.19-1	-1.00 2
32.8650	33.0724	0.60	53.00	2.17-1	2.66 2	-2.29-1	-2.67 2
32.4613	33.0835	0.56	16.00	4.71-2	2.81 1	-5.75-2	-2.83 1
32.9484	33.0865	0.62	79.00	3.96-1	5.16 2	-4.09-1	-5.17 2
31.7603	33.1135	0.54	7.00	1.59-2	5.32 0	-2.55-2	-5.42 0
32.9391	33.1427	0.60	54.00	2.22-1	2.75 2	-2.34-1	-2.76 2
32.8253	33.1563	0.58	32.00	1.12-1	1.06 2	-1.23-1	-1.07 2
32.5625	33.1667	0.56	16.50	4.88-2	2.98 1	-5.92-2	-3.01 1
31.8618	33.1773	0.54	7.20	1.65-2	5.64 0	-2.61-2	-5.75 0
31.9600	33.2400	0.54	7.40	1.72-2	5.98 0	-2.67-2	-6.08 0
32.6609	33.2481	0.56	17.00	5.06-2	3.17 1	-6.10-2	-3.19 1
32.9320	33.2533	0.58	33.00	1.16-1	1.13 2	-1.27-1	-1.13 2
32.0550	33.3015	0.54	7.60	1.78-2	6.32 0	-2.74-2	-6.43 0
32.7565	33.3277	0.56	17.50	5.24-2	3.35 1	-6.27-2	-3.38 1
32.1472	33.3618	0.54	7.80	1.84-2	6.67 0	-2.80-2	-6.78 0
32.8495	33.4056	0.56	18.00	5.41-2	3.55 1	-6.45-2	-3.58 1
32.2367	33.4211	0.54	8.00	1.91-2	7.03 0	-2.86-2	-7.15 0
32.3236	33.4794	0.54	8.20	1.97-2	7.41 0	-2.92-2	-7.52 0
32.9402	33.4819	0.56	18.50	5.59-2	3.75 1	-6.62-2	-3.77 1
32.4081	33.5367	0.54	8.40	2.03-2	7.79 0	-2.98-2	-7.91 0
32.4904	33.5930	0.54	8.60	2.10-2	8.17 0	-3.05-2	-8.30 0
32.5705	33.6483	0.54	8.80	2.16-2	8.57 0	-3.11-2	-8.70 0
32.6485	33.7028	0.54	9.00	2.22-2	8.98 0	-3.17-2	-9.11 0
32.7247	33.7564	0.54	9.20	2.29-2	9.40 0	-3.23-2	-9.53 0
32.7990	33.8092	0.54	9.40	2.35-2	9.82 0	-3.30-2	-9.96 0
32.8716	33.8612	0.54	9.60	2.41-2	1.03 1	-3.36-2	-1.04 1
32.9426	33.9123	0.54	9.80	2.48-2	1.07 1	-3.42-2	-1.08 1
31.5007	34.0485	0.52	3.70	5.72-3	1.37 0	-1.45-2	-1.41 0
31.6217	34.0970	0.52	3.80	6.01-3	1.45 0	-1.48-2	-1.50 0
31.7382	34.1451	0.52	3.90	6.30-3	1.54 0	-1.50-2	-1.59 0
31.8504	34.1927	0.52	4.00	6.59-3	1.63 0	-1.53-2	-1.68 0
32.0631	34.2866	0.52	4.20	7.17-3	1.82 0	-1.59-2	-1.87 0
32.2620	34.3784	0.52	4.40	7.75-3	2.02 0	-1.64-2	-2.07 0
32.4487	34.4682	0.52	4.60	8.33-3	2.22 0	-1.70-2	-2.28 0
32.6246	34.5559	0.52	4.80	8.91-3	2.44 0	-1.75-2	-2.50 0
32.7910	34.6417	0.52	5.00	9.49-3	2.67 0	-1.81-2	-2.73 0
32.9487	34.7256	0.52	5.20	1.01-2	2.90 0	-1.87-2	-2.97 0
31.5306	35.7620	0.50	2.30	1.88-3	4.62-1	-9.80-3	-4.87-1
31.7919	35.8152	0.50	2.40	2.16-3	5.13-1	-1.01-2	-5.39-1
32.0349	35.8698	0.50	2.50	2.43-3	5.66-1	-1.03-2	-5.94-1
32.2618	35.9256	0.50	2.60	2.70-3	6.22-1	-1.06-2	-6.51-1
32.4745	35.9820	0.50	2.70	2.97-3	6.81-1	-1.08-2	-7.11-1
32.6744	36.0387	0.50	2.80	3.24-3	7.42-1	-1.11-2	-7.74-1
32.8630	36.0957	0.50	2.90	3.51-3	8.06-1	-1.13-2	-8.39-1
31.7166	38.1598	0.48	1.60	2.55-4	1.89-1	-7.35-3	-2.04-1
31.9833	38.1713	0.48	1.65	3.85-4	2.05-1	-7.46-3	-2.20-1
32.2340	38.1862	0.48	1.70	5.15-4	2.22-1	-7.58-3	-2.38-1
32.4703	38.2042	0.48	1.75	6.44-4	2.39-1	-7.69-3	-2.56-1
32.6936	38.2245	0.48	1.80	7.73-4	2.57-1	-7.80-3	-2.75-1
32.9050	38.2470	0.48	1.85	9.01-4	2.76-1	-7.92-3	-2.95-1
32.9133	41.1675	0.46	1.30	-2.28-4	1.10-1	-6.03-3	-1.21-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
32.4587	41.1896	0.46	1.25	-3.52-4	9.87-2	-5.93-3	-1.09-1
31.9601	41.2249	0.46	1.20	-4.77-4	8.77-2	-5.83-3	-9.74-2
32.7689	44.9100	0.44	0.98	-7.17-4	4.95-2	-4.83-3	-5.66-2
32.4142	44.9647	0.44	0.96	-7.66-4	4.64-2	-4.79-3	-5.32-2
32.0399	45.0267	0.44	0.94	-8.15-4	4.34-2	-4.76-3	-5.00-2
31.6440	45.0968	0.44	0.92	-8.65-4	4.05-2	-4.73-3	-4.69-2
32.4461	49.5535	0.42	0.78	-8.98-4	2.45-2	-3.98-3	-2.94-2
31.7802	49.7085	0.42	0.76	-9.46-4	2.24-2	-3.95-3	-2.71-2
32.6805	54.9899	0.40	0.66	-8.91-4	1.43-2	-3.34-3	-1.79-2
31.5791	55.2924	0.40	0.64	-9.40-4	1.27-2	-3.32-3	-1.62-2
32.0248	61.7052	0.38	0.56	-8.52-4	8.08-3	-2.82-3	-1.08-2
32.5576	78.3836	0.34	0.44	-6.43-4	3.39-3	-2.02-3	-5.11-3
32.8579	117.098	0.28	0.32	-3.53-4	1.01-3	-1.21-3	-1.97-3
31.7959	157.030	0.24	0.26	-2.14-4	4.49-4	-8.51-4	-1.14-3
33.00	35.00						
33.0124	33.1484	0.62	80.00	4.04-1	5.27 2	-4.17-1	-5.28 2
33.0764	33.2103	0.62	81.00	4.12-1	5.37 2	-4.25-1	-5.38 2
33.0126	33.2124	0.60	55.00	2.27-1	2.84 2	-2.39-1	-2.85 2
33.1404	33.2723	0.62	82.00	4.20-1	5.48 2	-4.33-1	-5.49 2
33.0854	33.2815	0.60	56.00	2.33-1	2.94 2	-2.45-1	-2.95 2
33.2044	33.3344	0.62	83.00	4.28-1	5.58 2	-4.42-1	-5.60 2
33.0361	33.3484	0.58	34.00	1.20-1	1.19 2	-1.31-1	-1.20 2
33.1576	33.3501	0.60	57.00	2.38-1	3.03 2	-2.50-1	-3.04 2
33.2685	33.3966	0.62	84.00	4.37-1	5.69 2	-4.50-1	-5.70 2
33.2291	33.4182	0.60	58.00	2.44-1	3.13 2	-2.56-1	-3.14 2
33.1379	33.4416	0.58	35.00	1.24-1	1.26 2	-1.35-1	-1.27 2
33.3326	33.4588	0.62	85.00	4.45-1	5.80 2	-4.59-1	-5.81 2
33.3001	33.4858	0.60	59.00	2.49-1	3.22 2	-2.61-1	-3.23 2
33.3968	33.5212	0.62	86.00	4.54-1	5.90 2	-4.67-1	-5.91 2
33.2375	33.5331	0.58	36.00	1.28-1	1.33 2	-1.39-1	-1.34 2
33.3706	33.5530	0.60	60.00	2.55-1	3.32 2	-2.67-1	-3.33 2
33.0285	33.5567	0.56	19.00	5.77-2	3.95 1	-6.80-2	-3.98 1
33.4611	33.5837	0.62	87.00	4.63-1	6.01 2	-4.76-1	-6.02 2
33.4405	33.6198	0.60	61.00	2.60-1	3.42 2	-2.73-1	-3.43 2
33.3351	33.6229	0.58	37.00	1.33-1	1.40 2	-1.44-1	-1.41 2
33.1147	33.6300	0.56	19.50	5.95-2	4.16 1	-6.98-2	-4.19 1
33.5256	33.6464	0.62	88.00	4.72-1	6.11 2	-4.85-1	-6.13 2
33.5100	33.6862	0.60	62.00	2.66-1	3.52 2	-2.78-1	-3.53 2
33.1989	33.7019	0.56	20.00	6.13-2	4.37 1	-7.16-2	-4.40 1
33.5902	33.7093	0.62	89.00	4.81-1	6.22 2	-4.95-1	-6.23 2
33.4307	33.7112	0.58	38.00	1.37-1	1.47 2	-1.48-1	-1.48 2
33.5791	33.7523	0.60	63.00	2.72-1	3.62 2	-2.84-1	-3.63 2
33.6550	33.7724	0.62	90.00	4.91-1	6.33 2	-5.04-1	-6.34 2
33.5245	33.7980	0.58	39.00	1.41-1	1.55 2	-1.52-1	-1.55 2
33.6477	33.8180	0.60	64.00	2.78-1	3.72 2	-2.90-1	-3.73 2
33.3615	33.8418	0.56	21.00	6.49-2	4.81 1	-7.52-2	-4.84 1
33.6165	33.8834	0.58	40.00	1.46-1	1.62 2	-1.57-1	-1.63 2
33.7159	33.8834	0.60	65.00	2.84-1	3.82 2	-2.96-1	-3.83 2
33.7838	33.9486	0.60	66.00	2.90-1	3.92 2	-3.02-1	-3.93 2
33.0119	33.9627	0.54	10.00	2.54-2	1.12 1	-3.48-2	-1.13 1
33.7070	33.9675	0.58	41.00	1.50-1	1.70 2	-1.61-1	-1.71 2
33.5173	33.9767	0.56	22.00	6.85-2	5.27 1	-7.88-2	-5.31 1
33.8514	34.0134	0.60	67.00	2.96-1	4.02 2	-3.08-1	-4.03 2
33.7959	34.0504	0.58	42.00	1.54-1	1.78 2	-1.66-1	-1.79 2
33.9186	34.0781	0.60	68.00	3.02-1	4.12 2	-3.15-1	-4.13 2
33.1790	34.0855	0.54	10.50	2.70-2	1.23 1	-3.64-2	-1.25 1
33.6668	34.1072	0.56	23.00	7.22-2	5.75 1	-8.24-2	-5.79 1
33.8834	34.1321	0.58	43.00	1.59-1	1.86 2	-1.70-1	-1.87 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
33.9856	34.1425	0.60	69.00	3.09-1	4.23 2	-3.21-1	-4.24 2
33.3377	34.2041	0.54	11.00	2.86-2	1.36 1	-3.80-2	-1.37 1
34.0523	34.2067	0.60	70.00	3.15-1	4.33 2	-3.27-1	-4.34 2
33.9696	34.2126	0.58	44.00	1.63-1	1.94 2	-1.75-1	-1.95 2
33.8106	34.2336	0.56	24.00	7.59-2	6.25 1	-8.61-2	-6.29 1
34.1188	34.2708	0.60	71.00	3.22-1	4.44 2	-3.34-1	-4.45 2
34.0544	34.2921	0.58	45.00	1.68-1	2.02 2	-1.79-1	-2.03 2
33.4888	34.3187	0.54	11.50	3.02-2	1.48 1	-3.96-2	-1.50 1
34.1851	34.3346	0.60	72.00	3.28-1	4.54 2	-3.40-1	-4.55 2
33.9493	34.3561	0.56	25.00	7.96-2	6.77 1	-8.98-2	-6.81 1
34.1380	34.3706	0.58	46.00	1.73-1	2.11 2	-1.84-1	-2.11 2
34.2511	34.3984	0.60	73.00	3.35-1	4.65 2	-3.47-1	-4.66 2
33.6332	34.4295	0.54	12.00	3.18-2	1.62 1	-4.12-2	-1.64 1
34.2205	34.4482	0.58	47.00	1.77-1	2.19 2	-1.88-1	-2.20 2
34.3171	34.4620	0.60	74.00	3.42-1	4.75 2	-3.54-1	-4.76 2
34.0832	34.4751	0.56	26.00	8.33-2	7.31 1	-9.35-2	-7.35 1
34.3019	34.5249	0.58	48.00	1.82-1	2.28 2	-1.93-1	-2.29 2
34.3828	34.5256	0.60	75.00	3.49-1	4.86 2	-3.61-1	-4.87 2
33.7715	34.5370	0.54	12.50	3.35-2	1.76 1	-4.28-2	-1.78 1
34.4485	34.5891	0.60	76.00	3.56-1	4.97 2	-3.68-1	-4.98 2
34.2127	34.5908	0.56	27.00	8.70-2	7.86 1	-9.72-2	-7.91 1
34.3823	34.6007	0.58	49.00	1.87-1	2.37 2	-1.98-1	-2.37 2
33.9042	34.6412	0.54	13.00	3.51-2	1.90 1	-4.44-2	-1.92 1
34.5141	34.6525	0.60	77.00	3.63-1	5.07 2	-3.75-1	-5.09 2
34.4617	34.6757	0.58	50.00	1.92-1	2.46 2	-2.03-1	-2.46 2
34.3383	34.7035	0.56	28.00	9.08-2	8.44 1	-1.01-1	-8.48 1
34.5795	34.7159	0.60	78.00	3.70-1	5.18 2	-3.82-1	-5.19 2
34.0317	34.7424	0.54	13.50	3.67-2	2.05 1	-4.60-2	-2.07 1
34.5402	34.7499	0.58	51.00	1.96-1	2.55 2	-2.07-1	-2.55 2
34.6450	34.7793	0.60	79.00	3.78-1	5.29 2	-3.90-1	-5.30 2
33.0986	34.8075	0.52	5.40	1.07-2	3.15 0	-1.93-2	-3.22 0
34.4601	34.8133	0.56	29.00	9.46-2	9.03 1	-1.05-1	-9.08 1
34.6178	34.8234	0.58	52.00	2.01-1	2.64 2	-2.12-1	-2.65 2
34.1546	34.8408	0.54	14.00	3.83-2	2.21 1	-4.77-2	-2.23 1
34.7103	34.8427	0.60	80.00	3.85-1	5.40 2	-3.97-1	-5.41 2
33.2415	34.8876	0.52	5.60	1.12-2	3.41 0	-1.98-2	-3.48 0
34.6945	34.8962	0.58	53.00	2.06-1	2.73 2	-2.17-1	-2.74 2
34.7757	34.9061	0.60	81.00	3.93-1	5.51 2	-4.05-1	-5.52 2
34.5785	34.9205	0.56	30.00	9.85-2	9.64 1	-1.09-1	-9.69 1
34.2731	34.9366	0.54	14.50	4.00-2	2.37 1	-4.93-2	-2.39 1
33.3780	34.9659	0.52	5.80	1.18-2	3.67 0	-2.04-2	-3.75 0
34.7705	34.9684	0.58	54.00	2.11-1	2.82 2	-2.22-1	-2.83 2
34.8411	34.9695	0.60	82.00	4.00-1	5.62 2	-4.12-1	-5.63 2
34.6937	35.0251	0.56	31.00	1.02-1	1.03 2	-1.12-1	-1.03 2
34.3876	35.0298	0.54	15.00	4.16-2	2.54 1	-5.09-2	-2.56 1
34.9065	35.0330	0.60	83.00	4.08-1	5.72 2	-4.20-1	-5.74 2
34.8458	35.0399	0.58	55.00	2.16-1	2.92 2	-2.27-1	-2.93 2
33.5086	35.0424	0.52	6.00	1.24-2	3.95 0	-2.10-2	-4.03 0
34.9719	35.0966	0.60	84.00	4.16-1	5.83 2	-4.28-1	-5.84 2
34.9203	35.1109	0.58	56.00	2.21-1	3.01 2	-2.32-1	-3.02 2
33.6340	35.1174	0.52	6.20	1.30-2	4.24 0	-2.15-2	-4.32 0
34.4984	35.1207	0.54	15.50	4.33-2	2.71 1	-5.26-2	-2.73 1
34.8060	35.1274	0.56	32.00	1.06-1	1.09 2	-1.16-1	-1.10 2
34.9942	35.1813	0.58	57.00	2.27-1	3.11 2	-2.38-1	-3.12 2
33.7544	35.1907	0.52	6.40	1.36-2	4.53 0	-2.21-2	-4.62 0
34.6057	35.2094	0.54	16.00	4.49-2	2.89 1	-5.42-2	-2.91 1
34.9155	35.2276	0.56	33.00	1.10-1	1.16 2	-1.20-1	-1.16 2
33.8702	35.2625	0.52	6.60	1.42-2	4.84 0	-2.27-2	-4.93 0
34.7098	35.2960	0.54	16.50	4.66-2	3.07 1	-5.59-2	-3.09 1
33.9819	35.3328	0.52	6.80	1.48-2	5.15 0	-2.33-2	-5.25 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
34.8109	35.3806	0.54	17.00	4.83-2	3.26 1	-5.75-2	-3.28 1
34.0896	35.4017	0.52	7.00	1.54-2	5.48 0	-2.39-2	-5.57 0
34.9092	35.4633	0.54	17.50	5.00-2	3.45 1	-5.92-2	-3.48 1
34.1938	35.4692	0.52	7.20	1.60-2	5.81 0	-2.44-2	-5.91 0
34.2945	35.5354	0.52	7.40	1.65-2	6.16 0	-2.50-2	-6.26 0
34.3921	35.6003	0.52	7.60	1.71-2	6.51 0	-2.56-2	-6.61 0
34.4867	35.6641	0.52	7.80	1.77-2	6.87 0	-2.62-2	-6.98 0
34.5786	35.7266	0.52	8.00	1.83-2	7.24 0	-2.68-2	-7.36 0
34.6679	35.7880	0.52	8.20	1.89-2	7.63 0	-2.74-2	-7.74 0
34.7546	35.8483	0.52	8.40	1.95-2	8.02 0	-2.80-2	-8.14 0
34.8391	35.9076	0.52	8.60	2.01-2	8.42 0	-2.85-2	-8.54 0
34.9214	35.9659	0.52	8.80	2.07-2	8.83 0	-2.91-2	-8.95 0
33.0414	36.1525	0.50	3.00	3.79-3	8.73-1	-1.16-2	-9.07-1
33.2106	36.2092	0.50	3.10	4.06-3	9.42-1	-1.18-2	-9.78-1
33.3714	36.2655	0.50	3.20	4.33-3	1.01 0	-1.21-2	-1.05 0
33.5247	36.3215	0.50	3.30	4.60-3	1.09 0	-1.24-2	-1.13 0
33.6709	36.3770	0.50	3.40	4.87-3	1.17 0	-1.26-2	-1.21 0
33.8108	36.4320	0.50	3.50	5.15-3	1.24 0	-1.29-2	-1.29 0
33.9448	36.4864	0.50	3.60	5.42-3	1.33 0	-1.31-2	-1.37 0
34.0734	36.5403	0.50	3.70	5.69-3	1.41 0	-1.34-2	-1.46 0
34.1970	36.5935	0.50	3.80	5.96-3	1.50 0	-1.37-2	-1.55 0
34.3160	36.6461	0.50	3.90	6.24-3	1.59 0	-1.39-2	-1.64 0
34.4306	36.6981	0.50	4.00	6.51-3	1.68 0	-1.42-2	-1.73 0
34.6481	36.8001	0.50	4.20	7.05-3	1.88 0	-1.47-2	-1.93 0
34.8515	36.8997	0.50	4.40	7.60-3	2.08 0	-1.52-2	-2.13 0
33.1057	38.2713	0.48	1.90	1.03-3	2.96-1	-8.03-3	-3.15-1
33.2965	38.2971	0.48	1.95	1.16-3	3.16-1	-8.15-3	-3.36-1
33.4783	38.3242	0.48	2.00	1.29-3	3.37-1	-8.26-3	-3.57-1
33.8177	38.3814	0.48	2.10	1.54-3	3.81-1	-8.50-3	-4.03-1
34.1286	38.4416	0.48	2.20	1.80-3	4.28-1	-8.73-3	-4.51-1
34.4152	38.5040	0.48	2.30	2.05-3	4.78-1	-8.97-3	-5.02-1
34.6807	38.5677	0.48	2.40	2.31-3	5.30-1	-9.20-3	-5.56-1
34.9277	38.6322	0.48	2.50	2.56-3	5.85-1	-9.44-3	-6.12-1
33.7140	41.1533	0.46	1.40	1.87-5	1.36-1	-6.23-3	-1.48-1
33.3301	41.1560	0.46	1.35	-1.04-4	1.23-1	-6.13-3	-1.34-1
34.0691	41.1578	0.46	1.45	1.41-4	1.50-1	-6.34-3	-1.63-1
34.3988	41.1682	0.46	1.50	2.63-4	1.64-1	-6.44-3	-1.78-1
34.7061	41.1835	0.46	1.55	3.85-4	1.80-1	-6.55-3	-1.94-1
34.9935	41.2028	0.46	1.60	5.06-4	1.96-1	-6.65-3	-2.10-1
34.5613	44.6986	0.44	1.10	-4.30-4	7.06-2	-5.04-3	-7.89-2
33.8764	44.7659	0.44	1.05	-5.49-4	6.13-2	-4.95-3	-6.91-2
33.1054	44.8618	0.44	1.00	-6.69-4	5.27-2	-4.86-3	-6.00-2
34.6852	49.1053	0.42	0.86	-7.08-4	3.41-2	-4.09-3	-3.97-2
34.1806	49.1958	0.42	0.84	-7.55-4	3.15-2	-4.06-3	-3.69-2
33.6418	49.2995	0.42	0.82	-8.02-4	2.91-2	-4.03-3	-3.43-2
33.0650	49.4180	0.42	0.80	-8.49-4	2.68-2	-4.00-3	-3.18-2
34.6014	54.5079	0.40	0.70	-7.96-4	1.77-2	-3.39-3	-2.17-2
33.6838	54.7306	0.40	0.68	-8.43-4	1.59-2	-3.37-3	-1.97-2
33.6901	61.2171	0.38	0.58	-8.03-4	9.28-3	-2.83-3	-1.21-2
33.0730	69.1017	0.36	0.50	-7.36-4	5.45-3	-2.39-3	-7.63-3
34.3931	88.6067	0.32	0.40	-5.24-4	2.40-3	-1.70-3	-3.84-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
35.00	37.00						
35.0374	35.1603	0.60	85.00	4.24-1	5.94 2	-4.36-1	-5.95 2
35.1030	35.2241	0.60	86.00	4.33-1	6.05 2	-4.45-1	-6.06 2
35.0675	35.2513	0.58	58.00	2.32-1	3.21 2	-2.43-1	-3.22 2
35.1687	35.2880	0.60	87.00	4.41-1	6.16 2	-4.53-1	-6.17 2
35.1402	35.3207	0.58	59.00	2.37-1	3.31 2	-2.48-1	-3.32 2
35.0224	35.3256	0.56	34.00	1.14-1	1.23 2	-1.24-1	-1.23 2
35.2346	35.3521	0.60	88.00	4.50-1	6.27 2	-4.62-1	-6.28 2
35.2123	35.3896	0.58	60.00	2.43-1	3.41 2	-2.54-1	-3.42 2
35.3005	35.4164	0.60	89.00	4.59-1	6.38 2	-4.71-1	-6.39 2
35.1269	35.4218	0.56	35.00	1.18-1	1.30 2	-1.28-1	-1.30 2
35.2839	35.4582	0.58	61.00	2.48-1	3.51 2	-2.59-1	-3.52 2
35.3667	35.4809	0.60	90.00	4.67-1	6.49 2	-4.79-1	-6.50 2
35.2291	35.5161	0.56	36.00	1.22-1	1.37 2	-1.32-1	-1.37 2
35.3551	35.5263	0.58	62.00	2.53-1	3.61 2	-2.64-1	-3.62 2
35.0048	35.5443	0.54	18.00	5.16-2	3.65 1	-6.09-2	-3.68 1
35.4257	35.5941	0.58	63.00	2.59-1	3.71 2	-2.70-1	-3.72 2
35.3292	35.6087	0.56	37.00	1.26-1	1.44 2	-1.36-1	-1.45 2
35.0980	35.6235	0.54	18.50	5.33-2	3.85 1	-6.25-2	-3.88 1
35.4960	35.6615	0.58	64.00	2.65-1	3.81 2	-2.76-1	-3.82 2
35.4273	35.6996	0.56	38.00	1.30-1	1.51 2	-1.40-1	-1.52 2
35.1888	35.7011	0.54	19.00	5.50-2	4.06 1	-6.42-2	-4.09 1
35.5658	35.7286	0.58	65.00	2.70-1	3.92 2	-2.81-1	-3.93 2
35.2774	35.7772	0.54	19.50	5.67-2	4.28 1	-6.59-2	-4.31 1
35.5236	35.7891	0.56	39.00	1.34-1	1.59 2	-1.44-1	-1.60 2
35.6353	35.7954	0.58	66.00	2.76-1	4.02 2	-2.87-1	-4.03 2
35.3639	35.8518	0.54	20.00	5.84-2	4.50 1	-6.76-2	-4.53 1
35.7044	35.8619	0.58	67.00	2.82-1	4.13 2	-2.93-1	-4.14 2
35.6180	35.8770	0.56	40.00	1.39-1	1.67 2	-1.49-1	-1.67 2
35.7732	35.9281	0.58	68.00	2.88-1	4.23 2	-2.99-1	-4.24 2
35.7108	35.9636	0.56	41.00	1.43-1	1.75 2	-1.53-1	-1.75 2
35.8418	35.9942	0.58	69.00	2.94-1	4.34 2	-3.05-1	-4.35 2
35.5311	35.9968	0.54	21.00	6.18-2	4.95 1	-7.10-2	-4.98 1
35.0016	36.0232	0.52	9.00	2.13-2	9.25 0	-2.97-2	-9.38 0
35.8020	36.0490	0.56	42.00	1.47-1	1.83 2	-1.57-1	-1.83 2
35.9100	36.0600	0.58	70.00	3.00-1	4.45 2	-3.11-1	-4.46 2
35.0798	36.0795	0.52	9.20	2.19-2	9.68 0	-3.03-2	-9.81 0
35.9780	36.1256	0.58	71.00	3.06-1	4.56 2	-3.17-1	-4.57 2
35.8918	36.1330	0.56	43.00	1.51-1	1.91 2	-1.61-1	-1.92 2
35.1562	36.1349	0.52	9.40	2.25-2	1.01 1	-3.09-2	-1.03 1
35.6912	36.1367	0.54	22.00	6.53-2	5.42 1	-7.44-2	-5.46 1
35.2308	36.1895	0.52	9.60	2.31-2	1.06 1	-3.15-2	-1.07 1
36.0458	36.1911	0.58	72.00	3.12-1	4.66 2	-3.23-1	-4.67 2
35.9801	36.2160	0.56	44.00	1.55-1	1.99 2	-1.65-1	-2.00 2
35.3037	36.2432	0.52	9.80	2.37-2	1.10 1	-3.21-2	-1.12 1
36.1134	36.2564	0.58	73.00	3.19-1	4.77 2	-3.30-1	-4.78 2
35.8449	36.2719	0.54	23.00	6.87-2	5.92 1	-7.79-2	-5.95 1
35.3750	36.2960	0.52	10.00	2.43-2	1.15 1	-3.27-2	-1.16 1
36.0671	36.2978	0.56	45.00	1.60-1	2.08 2	-1.70-1	-2.09 2
36.1808	36.3216	0.58	74.00	3.25-1	4.88 2	-3.36-1	-4.89 2
36.1529	36.3785	0.56	46.00	1.64-1	2.17 2	-1.74-1	-2.17 2
36.2481	36.3867	0.58	75.00	3.32-1	4.99 2	-3.43-1	-5.00 2
35.9927	36.4027	0.54	24.00	7.22-2	6.43 1	-8.14-2	-6.47 1
35.5467	36.4248	0.52	10.50	2.58-2	1.27 1	-3.42-2	-1.29 1
36.3152	36.4517	0.58	76.00	3.39-1	5.10 2	-3.49-1	-5.11 2
36.2374	36.4583	0.56	47.00	1.69-1	2.25 2	-1.79-1	-2.26 2
36.3822	36.5167	0.58	77.00	3.45-1	5.21 2	-3.56-1	-5.22 2
36.1352	36.5295	0.54	25.00	7.57-2	6.97 1	-8.49-2	-7.01 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
36.3209	36.5372	0.56	48.00	1.73-1	2.34 2	-1.83-1	-2.35 2
35.7098	36.5489	0.52	11.00	2.74-2	1.40 1	-3.57-2	-1.41 1
36.4491	36.5816	0.58	78.00	3.52-1	5.32 2	-3.63-1	-5.33 2
36.4033	36.6151	0.56	49.00	1.78-1	2.43 2	-1.88-1	-2.44 2
36.5160	36.6465	0.58	79.00	3.59-1	5.43 2	-3.70-1	-5.44 2
36.2728	36.6526	0.54	26.00	7.93-2	7.52 1	-8.84-2	-7.56 1
35.8652	36.6688	0.52	11.50	2.89-2	1.53 1	-3.72-2	-1.55 1
36.4846	36.6922	0.56	50.00	1.82-1	2.52 2	-1.92-1	-2.53 2
36.5829	36.7113	0.58	80.00	3.66-1	5.54 2	-3.77-1	-5.56 2
36.5651	36.7685	0.56	51.00	1.87-1	2.62 2	-1.97-1	-2.63 2
36.4059	36.7723	0.54	27.00	8.28-2	8.09 1	-9.19-2	-8.14 1
36.6497	36.7762	0.58	81.00	3.74-1	5.66 2	-3.84-1	-5.67 2
36.0137	36.7847	0.52	12.00	3.04-2	1.67 1	-3.87-2	-1.68 1
36.7165	36.8412	0.58	82.00	3.81-1	5.77 2	-3.92-1	-5.78 2
36.6446	36.8441	0.56	52.00	1.91-1	2.71 2	-2.01-1	-2.72 2
36.5348	36.8887	0.54	28.00	8.64-2	8.69 1	-9.55-2	-8.73 1
36.1558	36.8969	0.52	12.50	3.20-2	1.81 1	-4.03-2	-1.83 1
36.7833	36.9061	0.58	83.00	3.88-1	5.88 2	-3.99-1	-5.89 2
36.7233	36.9189	0.56	53.00	1.96-1	2.81 2	-2.06-1	-2.82 2
36.8502	36.9712	0.58	84.00	3.96-1	5.99 2	-4.07-1	-6.00 2
36.8011	36.9930	0.56	54.00	2.01-1	2.90 2	-2.11-1	-2.91 2
35.0426	36.9967	0.50	4.60	8.15-3	2.29 0	-1.58-2	-2.35 0
36.6600	37.0022	0.54	29.00	9.00-2	9.30 1	-9.91-2	-9.34 1
36.2923	37.0057	0.52	13.00	3.35-2	1.96 1	-4.18-2	-1.98 1
36.9171	37.0364	0.58	85.00	4.04-1	6.10 2	-4.15-1	-6.11 2
36.8782	37.0665	0.56	55.00	2.06-1	3.00 2	-2.16-1	-3.01 2
35.2227	37.0912	0.50	4.80	8.70-3	2.52 0	-1.63-2	-2.58 0
36.9841	37.1016	0.58	86.00	4.12-1	6.22 2	-4.22-1	-6.23 2
36.4234	37.1113	0.52	13.50	3.50-2	2.12 1	-4.33-2	-2.14 1
36.7816	37.1129	0.54	30.00	9.37-2	9.93 1	-1.03-1	-9.97 1
36.9546	37.1394	0.56	56.00	2.11-1	3.10 2	-2.20-1	-3.11 2
35.3930	37.1834	0.50	5.00	9.25-3	2.75 0	-1.68-2	-2.82 0
36.5497	37.2139	0.52	14.00	3.66-2	2.28 1	-4.49-2	-2.30 1
36.9000	37.2210	0.54	31.00	9.73-2	1.06 2	-1.06-1	-1.06 2
35.5546	37.2733	0.50	5.20	9.80-3	3.00 0	-1.74-2	-3.06 0
36.6716	37.3137	0.52	14.50	3.81-2	2.44 1	-4.64-2	-2.46 1
35.7082	37.3610	0.50	5.40	1.04-2	3.25 0	-1.79-2	-3.32 0
36.7894	37.4108	0.52	15.00	3.97-2	2.62 1	-4.79-2	-2.64 1
35.8547	37.4465	0.50	5.60	1.09-2	3.52 0	-1.85-2	-3.59 0
36.9033	37.5055	0.52	15.50	4.13-2	2.79 1	-4.95-2	-2.82 1
35.9946	37.5301	0.50	5.80	1.15-2	3.79 0	-1.90-2	-3.87 0
36.1286	37.6116	0.50	6.00	1.20-2	4.08 0	-1.95-2	-4.16 0
36.2572	37.6913	0.50	6.20	1.26-2	4.37 0	-2.01-2	-4.46 0
36.3807	37.7692	0.50	6.40	1.31-2	4.68 0	-2.06-2	-4.76 0
36.4996	37.8454	0.50	6.60	1.37-2	5.00 0	-2.12-2	-5.08 0
36.6142	37.9199	0.50	6.80	1.42-2	5.32 0	-2.17-2	-5.41 0
36.7248	37.9928	0.50	7.00	1.48-2	5.66 0	-2.23-2	-5.75 0
36.8317	38.0643	0.50	7.20	1.54-2	6.00 0	-2.28-2	-6.10 0
36.9352	38.1343	0.50	7.40	1.59-2	6.36 0	-2.34-2	-6.46 0
35.1585	38.6971	0.48	2.60	2.82-3	6.43-1	-9.68-3	-6.72-1
35.3749	38.7621	0.48	2.70	3.08-3	7.04-1	-9.92-3	-7.34-1
35.5785	38.8270	0.48	2.80	3.33-3	7.68-1	-1.02-2	-7.99-1
35.7706	38.8916	0.48	2.90	3.59-3	8.34-1	-1.04-2	-8.66-1
35.9524	38.9557	0.48	3.00	3.84-3	9.03-1	-1.07-2	-9.36-1
36.1249	39.0192	0.48	3.10	4.10-3	9.74-1	-1.09-2	-1.01 0
36.2889	39.0821	0.48	3.20	4.35-3	1.05 0	-1.11-2	-1.09 0
36.4452	39.1443	0.48	3.30	4.61-3	1.13 0	-1.14-2	-1.16 0
36.5944	39.2057	0.48	3.40	4.86-3	1.21 0	-1.16-2	-1.25 0
36.7373	39.2664	0.48	3.50	5.12-3	1.29 0	-1.19-2	-1.33 0
36.8741	39.3262	0.48	3.60	5.38-3	1.37 0	-1.21-2	-1.42 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
35.2630	41.2256	0.46	1.65	6.27-4	2.13-1	-6.76-3	-2.28-1
35.5165	41.2512	0.46	1.70	7.48-4	2.30-1	-6.87-3	-2.46-1
35.7556	41.2791	0.46	1.75	8.69-4	2.48-1	-6.97-3	-2.65-1
35.9815	41.3089	0.46	1.80	9.90-4	2.67-1	-7.08-3	-2.84-1
36.1956	41.3404	0.46	1.85	1.11-3	2.87-1	-7.19-3	-3.05-1
36.3989	41.3732	0.46	1.90	1.23-3	3.07-1	-7.30-3	-3.26-1
36.5922	41.4071	0.46	1.95	1.35-3	3.28-1	-7.41-3	-3.47-1
36.7765	41.4419	0.46	2.00	1.47-3	3.50-1	-7.52-3	-3.70-1
36.6866	44.6114	0.44	1.30	3.58-5	1.15-1	-5.41-3	-1.26-1
36.2289	44.6133	0.44	1.25	-7.95-5	1.03-1	-5.32-3	-1.13-1
35.7273	44.6265	0.44	1.20	-1.95-4	9.13-2	-5.22-3	-1.01-1
35.1744	44.6537	0.44	1.15	-3.12-4	8.06-2	-5.13-3	-8.95-2
36.7959	48.8017	0.42	0.96	-4.80-4	4.86-2	-4.25-3	-5.52-2
36.4208	48.8462	0.42	0.94	-5.25-4	4.54-2	-4.22-3	-5.19-2
36.0243	48.8979	0.42	0.92	-5.70-4	4.24-2	-4.19-3	-4.87-2
35.6044	48.9576	0.42	0.90	-6.16-4	3.95-2	-4.15-3	-4.55-2
35.1589	49.0263	0.42	0.88	-6.62-4	3.67-2	-4.12-3	-4.26-2
36.9368	54.0100	0.40	0.76	-6.60-4	2.36-2	-3.47-3	-2.82-2
36.2197	54.1517	0.40	0.74	-7.05-4	2.15-2	-3.44-3	-2.59-2
35.4438	54.3164	0.40	0.72	-7.50-4	1.96-2	-3.41-3	-2.37-2
36.5162	60.4648	0.38	0.62	-7.11-4	1.20-2	-2.87-3	-1.52-2
35.1787	60.8082	0.38	0.60	-7.56-4	1.06-2	-2.85-3	-1.36-2
35.4720	68.3876	0.36	0.52	-6.88-4	6.41-3	-2.40-3	-8.74-3
36.2408	77.2546	0.34	0.46	-5.95-4	4.12-3	-2.02-3	-5.98-3
35.0536	101.223	0.30	0.36	-4.27-4	1.61-3	-1.43-3	-2.80-3
37.00	39.00						
37.0512	37.1670	0.58	87.00	4.20-1	6.33 2	-4.30-1	-6.34 2
37.0303	37.2117	0.56	57.00	2.15-1	3.20 2	-2.25-1	-3.21 2
37.1185	37.2326	0.58	88.00	4.28-1	6.44 2	-4.39-1	-6.45 2
37.1054	37.2835	0.56	58.00	2.20-1	3.30 2	-2.30-1	-3.31 2
37.1858	37.2983	0.58	89.00	4.36-1	6.55 2	-4.47-1	-6.56 2
37.0153	37.3266	0.54	32.00	1.01-1	1.12 2	-1.10-1	-1.13 2
37.1798	37.3548	0.56	59.00	2.25-1	3.40 2	-2.35-1	-3.41 2
37.2534	37.3642	0.58	90.00	4.45-1	6.66 2	-4.55-1	-6.67 2
37.2537	37.4256	0.56	60.00	2.31-1	3.50 2	-2.40-1	-3.51 2
37.1277	37.4299	0.54	33.00	1.05-1	1.19 2	-1.14-1	-1.20 2
37.3270	37.4959	0.56	61.00	2.36-1	3.61 2	-2.46-1	-3.62 2
37.2375	37.5311	0.54	34.00	1.08-1	1.26 2	-1.18-1	-1.27 2
37.3998	37.5659	0.56	62.00	2.41-1	3.71 2	-2.51-1	-3.72 2
37.0137	37.5978	0.52	16.00	4.28-2	2.98 1	-5.11-2	-3.00 1
37.3447	37.6303	0.54	35.00	1.12-1	1.33 2	-1.21-1	-1.34 2
37.4722	37.6354	0.56	63.00	2.46-1	3.82 2	-2.56-1	-3.83 2
37.1208	37.6879	0.52	16.50	4.44-2	3.17 1	-5.26-2	-3.19 1
37.5441	37.7045	0.56	64.00	2.51-1	3.92 2	-2.61-1	-3.93 2
37.4497	37.7275	0.54	36.00	1.16-1	1.41 2	-1.25-1	-1.41 2
37.6156	37.7733	0.56	65.00	2.57-1	4.03 2	-2.67-1	-4.04 2
37.2247	37.7758	0.52	17.00	4.60-2	3.36 1	-5.42-2	-3.38 1
37.5524	37.8230	0.54	37.00	1.20-1	1.48 2	-1.29-1	-1.49 2
37.6867	37.8418	0.56	66.00	2.62-1	4.14 2	-2.72-1	-4.15 2
37.3258	37.8618	0.52	17.50	4.76-2	3.56 1	-5.58-2	-3.59 1
37.7574	37.9100	0.56	67.00	2.68-1	4.25 2	-2.78-1	-4.26 2
37.6531	37.9168	0.54	38.00	1.24-1	1.56 2	-1.33-1	-1.57 2
37.4242	37.9459	0.52	18.00	4.92-2	3.76 1	-5.74-2	-3.79 1
37.8278	37.9780	0.56	68.00	2.74-1	4.36 2	-2.83-1	-4.37 2
37.7519	38.0089	0.54	39.00	1.28-1	1.64 2	-1.37-1	-1.64 2
37.5200	38.0282	0.52	18.50	5.08-2	3.97 1	-5.89-2	-4.00 1
37.8980	38.0457	0.56	69.00	2.79-1	4.47 2	-2.89-1	-4.48 2
37.8488	38.0996	0.54	40.00	1.32-1	1.72 2	-1.41-1	-1.73 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
37.6133	38.1087	0.52	19.00	5.23-2	4.19 1	-6.05-2	-4.22 1
37.9678	38.1131	0.56	70.00	2.85-1	4.58 2	-2.95-1	-4.59 2
38.0374	38.1804	0.56	71.00	2.91-1	4.69 2	-3.01-1	-4.70 2
37.7045	38.1877	0.52	19.50	5.40-2	4.41 1	-6.21-2	-4.44 1
37.9440	38.1888	0.54	41.00	1.36-1	1.80 2	-1.45-1	-1.81 2
37.0354	38.2028	0.50	7.60	1.65-2	6.72 0	-2.39-2	-6.83 0
38.1067	38.2475	0.56	72.00	2.97-1	4.80 2	-3.07-1	-4.81 2
37.7934	38.2651	0.52	20.00	5.56-2	4.64 1	-6.37-2	-4.67 1
37.1326	38.2701	0.50	7.80	1.70-2	7.10 0	-2.45-2	-7.20 0
38.0376	38.2766	0.54	42.00	1.40-1	1.88 2	-1.49-1	-1.89 2
38.1758	38.3144	0.56	73.00	3.03-1	4.91 2	-3.13-1	-4.92 2
37.2270	38.3361	0.50	8.00	1.76-2	7.48 0	-2.50-2	-7.59 0
38.1297	38.3632	0.54	43.00	1.44-1	1.97 2	-1.53-1	-1.98 2
38.2448	38.3812	0.56	74.00	3.09-1	5.02 2	-3.19-1	-5.03 2
37.3187	38.4008	0.50	8.20	1.82-2	7.88 0	-2.56-2	-7.99 0
37.9653	38.4155	0.52	21.00	5.88-2	5.11 1	-6.70-2	-5.14 1
38.3136	38.4479	0.56	75.00	3.15-1	5.14 2	-3.25-1	-5.15 2
38.2203	38.4485	0.54	44.00	1.48-1	2.06 2	-1.57-1	-2.06 2
37.4079	38.4643	0.50	8.40	1.87-2	8.28 0	-2.62-2	-8.40 0
38.3822	38.5145	0.56	76.00	3.22-1	5.25 2	-3.31-1	-5.26 2
37.4947	38.5267	0.50	8.60	1.93-2	8.70 0	-2.67-2	-8.82 0
38.3095	38.5327	0.54	45.00	1.52-1	2.14 2	-1.61-1	-2.15 2
38.1299	38.5605	0.52	22.00	6.21-2	5.60 1	-7.02-2	-5.63 1
38.4507	38.5810	0.56	77.00	3.28-1	5.36 2	-3.38-1	-5.37 2
37.5792	38.5880	0.50	8.80	1.99-2	9.12 0	-2.73-2	-9.25 0
38.3975	38.6158	0.54	46.00	1.56-1	2.23 2	-1.65-1	-2.24 2
38.5192	38.6475	0.56	78.00	3.35-1	5.48 2	-3.44-1	-5.49 2
37.6617	38.6482	0.50	9.00	2.04-2	9.56 0	-2.78-2	-9.68 0
38.4842	38.6979	0.54	47.00	1.60-1	2.32 2	-1.69-1	-2.33 2
38.2879	38.7006	0.52	23.00	6.53-2	6.11 1	-7.35-2	-6.14 1
37.7421	38.7074	0.50	9.20	2.10-2	1.00 1	-2.84-2	-1.01 1
38.5875	38.7139	0.56	79.00	3.41-1	5.59 2	-3.51-1	-5.60 2
37.8206	38.7657	0.50	9.40	2.16-2	1.05 1	-2.90-2	-1.06 1
38.5698	38.7790	0.54	48.00	1.64-1	2.41 2	-1.73-1	-2.42 2
38.6559	38.7803	0.56	80.00	3.48-1	5.71 2	-3.58-1	-5.72 2
37.8973	38.8229	0.50	9.60	2.21-2	1.09 1	-2.95-2	-1.11 1
38.4398	38.8361	0.52	24.00	6.86-2	6.64 1	-7.68-2	-6.68 1
38.7241	38.8467	0.56	81.00	3.55-1	5.82 2	-3.65-1	-5.83 2
38.6542	38.8592	0.54	49.00	1.69-1	2.51 2	-1.78-1	-2.52 2
37.9722	38.8793	0.50	9.80	2.27-2	1.14 1	-3.01-2	-1.15 1
38.7924	38.9132	0.56	82.00	3.62-1	5.94 2	-3.72-1	-5.95 2
38.0455	38.9347	0.50	10.00	2.33-2	1.19 1	-3.07-2	-1.20 1
38.7376	38.9384	0.54	50.00	1.73-1	2.60 2	-1.82-1	-2.61 2
38.5863	38.9673	0.52	25.00	7.20-2	7.19 1	-8.01-2	-7.23 1
38.8607	38.9797	0.56	83.00	3.69-1	6.05 2	-3.79-1	-6.06 2
38.8201	39.0169	0.54	51.00	1.77-1	2.70 2	-1.86-1	-2.71 2
38.9290	39.0463	0.56	84.00	3.76-1	6.17 2	-3.86-1	-6.18 2
38.2220	39.0697	0.50	10.50	2.47-2	1.31 1	-3.21-2	-1.33 1
38.9016	39.0945	0.54	52.00	1.82-1	2.80 2	-1.91-1	-2.80 2
38.7277	39.0947	0.52	26.00	7.53-2	7.77 1	-8.34-2	-7.80 1
38.9974	39.1129	0.56	85.00	3.83-1	6.28 2	-3.93-1	-6.29 2
38.9822	39.1714	0.54	53.00	1.86-1	2.89 2	-1.95-1	-2.90 2
38.3898	39.1997	0.50	11.00	2.61-2	1.44 1	-3.35-2	-1.46 1
38.8645	39.2185	0.52	27.00	7.87-2	8.36 1	-8.68-2	-8.40 1
38.5496	39.3251	0.50	11.50	2.76-2	1.58 1	-3.49-2	-1.60 1
38.9970	39.3389	0.52	28.00	8.21-2	8.97 1	-9.02-2	-9.01 1
37.0055	39.3852	0.48	3.70	5.63-3	1.46 0	-1.24-2	-1.51 0
37.1318	39.4435	0.48	3.80	5.89-3	1.55 0	-1.26-2	-1.60 0
38.7023	39.4463	0.50	12.00	2.90-2	1.72 1	-3.64-2	-1.74 1
37.2534	39.5009	0.48	3.90	6.15-3	1.65 0	-1.29-2	-1.69 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
37.3706	39.5575	0.48	4.00	6.40-3	1.74 0	-1.31-2	-1.79 0
38.8485	39.5635	0.50	12.50	3.05-2	1.87 1	-3.78-2	-1.89 1
37.5931	39.6683	0.48	4.20	6.92-3	1.94 0	-1.36-2	-1.99 0
38.9888	39.6771	0.50	13.00	3.19-2	2.03 1	-3.92-2	-2.05 1
37.8013	39.7759	0.48	4.40	7.43-3	2.15 0	-1.41-2	-2.21 0
37.9969	39.8806	0.48	4.60	7.95-3	2.38 0	-1.46-2	-2.43 0
38.1813	39.9823	0.48	4.80	8.47-3	2.61 0	-1.51-2	-2.67 0
38.3558	40.0813	0.48	5.00	8.98-3	2.85 0	-1.56-2	-2.91 0
38.5213	40.1776	0.48	5.20	9.50-3	3.11 0	-1.61-2	-3.17 0
38.6788	40.2713	0.48	5.40	1.00-2	3.37 0	-1.67-2	-3.44 0
38.8290	40.3627	0.48	5.60	1.05-2	3.64 0	-1.72-2	-3.72 0
38.9726	40.4517	0.48	5.80	1.11-2	3.93 0	-1.77-2	-4.00 0
37.1207	41.5135	0.46	2.10	1.71-3	3.96-1	-7.74-3	-4.17-1
37.4363	41.5870	0.46	2.20	1.95-3	4.45-1	-7.96-3	-4.67-1
37.7274	41.6616	0.46	2.30	2.19-3	4.96-1	-8.19-3	-5.20-1
37.9971	41.7365	0.46	2.40	2.43-3	5.51-1	-8.41-3	-5.75-1
38.2483	41.8116	0.46	2.50	2.67-3	6.08-1	-8.64-3	-6.34-1
38.4831	41.8863	0.46	2.60	2.91-3	6.68-1	-8.87-3	-6.96-1
38.7033	41.9605	0.46	2.70	3.15-3	7.31-1	-9.09-3	-7.60-1
38.9107	42.0341	0.46	2.80	3.39-3	7.97-1	-9.32-3	-8.27-1
37.1065	44.6185	0.44	1.35	1.51-4	1.28-1	-5.51-3	-1.39-1
37.4935	44.6329	0.44	1.40	2.65-4	1.42-1	-5.61-3	-1.54-1
37.8516	44.6532	0.44	1.45	3.79-4	1.56-1	-5.71-3	-1.69-1
38.1843	44.6783	0.44	1.50	4.92-4	1.71-1	-5.81-3	-1.84-1
38.4946	44.7074	0.44	1.55	6.06-4	1.87-1	-5.91-3	-2.01-1
38.7848	44.7396	0.44	1.60	7.19-4	2.04-1	-6.01-3	-2.18-1
38.9494	48.6366	0.42	1.10	-1.70-4	7.39-2	-4.49-3	-8.20-2
38.2621	48.6716	0.42	1.05	-2.80-4	6.42-2	-4.40-3	-7.18-2
37.4887	48.7312	0.42	1.00	-3.90-4	5.52-2	-4.32-3	-6.23-2
37.1514	48.7636	0.42	0.98	-4.35-4	5.18-2	-4.28-3	-5.87-2
38.7955	53.6937	0.40	0.82	-5.29-4	3.06-2	-3.55-3	-3.57-2
38.2195	53.7834	0.40	0.80	-5.72-4	2.82-2	-3.52-3	-3.31-2
37.6015	53.8881	0.40	0.78	-6.16-4	2.58-2	-3.49-3	-3.06-2
38.8199	59.9320	0.38	0.66	-6.23-4	1.51-2	-2.91-3	-1.87-2
37.7241	60.1757	0.38	0.64	-6.66-4	1.35-2	-2.89-3	-1.69-2
37.5764	67.8048	0.36	0.54	-6.43-4	7.48-3	-2.41-3	-9.95-3
39.00	42.00						
39.0659	39.1797	0.56	86.00	3.91-1	6.40 2	-4.01-1	-6.41 2
39.1345	39.2466	0.56	87.00	3.99-1	6.52 2	-4.08-1	-6.53 2
39.0620	39.2476	0.54	54.00	1.91-1	2.99 2	-2.00-1	-3.00 2
39.2031	39.3137	0.56	88.00	4.06-1	6.63 2	-4.16-1	-6.64 2
39.1410	39.3231	0.54	55.00	1.95-1	3.09 2	-2.04-1	-3.10 2
39.2720	39.3809	0.56	89.00	4.14-1	6.75 2	-4.24-1	-6.76 2
39.2193	39.3980	0.54	56.00	2.00-1	3.20 2	-2.09-1	-3.20 2
39.3409	39.4483	0.56	90.00	4.22-1	6.86 2	-4.32-1	-6.87 2
39.1256	39.4561	0.52	29.00	8.55-2	9.60 1	-9.36-2	-9.65 1
39.2968	39.4723	0.54	57.00	2.04-1	3.30 2	-2.13-1	-3.31 2
39.3737	39.5460	0.54	58.00	2.09-1	3.40 2	-2.18-1	-3.41 2
39.2506	39.5705	0.52	30.00	8.89-2	1.03 2	-9.70-2	-1.03 2
39.4499	39.6191	0.54	59.00	2.14-1	3.51 2	-2.23-1	-3.52 2
39.3721	39.6821	0.52	31.00	9.24-2	1.09 2	-1.00-1	-1.10 2
39.5256	39.6918	0.54	60.00	2.19-1	3.61 2	-2.28-1	-3.62 2
39.6007	39.7640	0.54	61.00	2.24-1	3.72 2	-2.33-1	-3.73 2
39.1237	39.7873	0.50	13.50	3.34-2	2.19 1	-4.07-2	-2.21 1
39.4906	39.7912	0.52	32.00	9.59-2	1.16 2	-1.04-1	-1.17 2
39.6753	39.8358	0.54	62.00	2.29-1	3.83 2	-2.37-1	-3.84 2
39.2537	39.8943	0.50	14.00	3.48-2	2.36 1	-4.21-2	-2.38 1
39.6060	39.8979	0.52	33.00	9.94-2	1.23 2	-1.07-1	-1.24 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
39.7493	39.9071	0.54	63.00	2.34-1	3.94 2	-2.42-1	-3.95 2
39.8229	39.9780	0.54	64.00	2.39-1	4.05 2	-2.48-1	-4.06 2
39.3790	39.9983	0.50	14.50	3.63-2	2.53 1	-4.36-2	-2.55 1
39.7188	40.0023	0.52	34.00	1.03-1	1.30 2	-1.11-1	-1.31 2
39.8961	40.0486	0.54	65.00	2.44-1	4.16 2	-2.53-1	-4.17 2
39.5002	40.0995	0.50	15.00	3.78-2	2.71 1	-4.51-2	-2.73 1
39.8289	40.1046	0.52	35.00	1.07-1	1.38 2	-1.15-1	-1.38 2
39.9689	40.1189	0.54	66.00	2.49-1	4.27 2	-2.58-1	-4.28 2
40.0413	40.1888	0.54	67.00	2.54-1	4.38 2	-2.63-1	-4.39 2
39.6174	40.1980	0.50	15.50	3.93-2	2.89 1	-4.65-2	-2.91 1
39.9367	40.2049	0.52	36.00	1.10-1	1.45 2	-1.18-1	-1.46 2
40.1134	40.2585	0.54	68.00	2.60-1	4.49 2	-2.68-1	-4.50 2
39.7309	40.2941	0.50	16.00	4.07-2	3.08 1	-4.80-2	-3.10 1
40.0421	40.3033	0.52	37.00	1.14-1	1.53 2	-1.22-1	-1.54 2
40.1851	40.3279	0.54	69.00	2.65-1	4.61 2	-2.74-1	-4.62 2
39.8410	40.3878	0.50	16.50	4.22-2	3.28 1	-4.95-2	-3.30 1
40.2566	40.3970	0.54	70.00	2.70-1	4.72 2	-2.79-1	-4.73 2
40.1455	40.3999	0.52	38.00	1.17-1	1.61 2	-1.25-1	-1.62 2
40.3277	40.4660	0.54	71.00	2.76-1	4.84 2	-2.85-1	-4.85 2
39.9480	40.4792	0.50	17.00	4.37-2	3.48 1	-5.10-2	-3.50 1
40.2469	40.4949	0.52	39.00	1.21-1	1.69 2	-1.29-1	-1.70 2
40.3987	40.5347	0.54	72.00	2.82-1	4.95 2	-2.91-1	-4.96 2
39.1101	40.5385	0.48	6.00	1.16-2	4.23 0	-1.82-2	-4.30 0
40.0520	40.5686	0.50	17.50	4.52-2	3.68 1	-5.25-2	-3.71 1
40.3463	40.5883	0.52	40.00	1.25-1	1.78 2	-1.33-1	-1.78 2
40.4694	40.6033	0.54	73.00	2.87-1	5.07 2	-2.96-1	-5.08 2
39.2420	40.6232	0.48	6.20	1.21-2	4.53 0	-1.87-2	-4.61 0
40.1531	40.6560	0.50	18.00	4.67-2	3.90 1	-5.40-2	-3.92 1
40.5399	40.6717	0.54	74.00	2.93-1	5.18 2	-3.02-1	-5.19 2
40.4440	40.6802	0.52	41.00	1.29-1	1.86 2	-1.37-1	-1.87 2
39.3687	40.7059	0.48	6.40	1.26-2	4.85 0	-1.92-2	-4.93 0
40.6102	40.7400	0.54	75.00	2.99-1	5.30 2	-3.08-1	-5.31 2
40.2516	40.7414	0.50	18.50	4.82-2	4.11 1	-5.55-2	-4.14 1
40.5401	40.7707	0.52	42.00	1.32-1	1.95 2	-1.40-1	-1.95 2
39.4908	40.7867	0.48	6.60	1.32-2	5.18 0	-1.97-2	-5.26 0
40.6804	40.8082	0.54	76.00	3.05-1	5.42 2	-3.14-1	-5.43 2
40.3477	40.8251	0.50	19.00	4.97-2	4.34 1	-5.70-2	-4.37 1
40.6345	40.8598	0.52	43.00	1.36-1	2.03 2	-1.44-1	-2.04 2
39.6085	40.8657	0.48	6.80	1.37-2	5.52 0	-2.03-2	-5.60 0
40.7505	40.8764	0.54	77.00	3.11-1	5.54 2	-3.20-1	-5.55 2
40.4414	40.9071	0.50	19.50	5.13-2	4.57 1	-5.85-2	-4.60 1
39.7221	40.9429	0.48	7.00	1.42-2	5.86 0	-2.08-2	-5.95 0
40.8205	40.9444	0.54	78.00	3.17-1	5.65 2	-3.26-1	-5.66 2
40.7274	40.9476	0.52	44.00	1.40-1	2.12 2	-1.48-1	-2.13 2
40.5329	40.9874	0.50	20.00	5.28-2	4.80 1	-6.00-2	-4.83 1
40.8904	41.0124	0.54	79.00	3.24-1	5.77 2	-3.32-1	-5.78 2
39.8319	41.0184	0.48	7.20	1.47-2	6.22 0	-2.13-2	-6.32 0
40.8190	41.0343	0.52	45.00	1.44-1	2.22 2	-1.52-1	-2.22 2
40.9602	41.0804	0.54	80.00	3.30-1	5.89 2	-3.39-1	-5.90 2
39.9381	41.0924	0.48	7.40	1.53-2	6.59 0	-2.18-2	-6.69 0
40.9092	41.1198	0.52	46.00	1.48-1	2.31 2	-1.56-1	-2.31 2
40.7097	41.1434	0.50	21.00	5.58-2	5.29 1	-6.31-2	-5.32 1
41.0300	41.1484	0.54	81.00	3.36-1	6.01 2	-3.45-1	-6.02 2
40.0411	41.1648	0.48	7.60	1.58-2	6.97 0	-2.23-2	-7.07 0
40.9981	41.2042	0.52	47.00	1.52-1	2.40 2	-1.60-1	-2.41 2
41.0998	41.2164	0.54	82.00	3.43-1	6.13 2	-3.52-1	-6.14 2
40.1410	41.2357	0.48	7.80	1.63-2	7.36 0	-2.29-2	-7.46 0
41.1695	41.2845	0.54	83.00	3.50-1	6.25 2	-3.59-1	-6.26 2
41.0858	41.2876	0.52	48.00	1.56-1	2.50 2	-1.64-1	-2.50 2
40.8789	41.2937	0.50	22.00	5.89-2	5.80 1	-6.61-2	-5.83 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
40.2379	41.3053	0.48	8.00	1.69-2	7.76 0	-2.34-2	-7.87 0
41.2394	41.3526	0.54	84.00	3.57-1	6.37 2	-3.65-1	-6.38 2
41.1724	41.3701	0.52	49.00	1.60-1	2.59 2	-1.68-1	-2.60 2
40.3322	41.3735	0.48	8.20	1.74-2	8.17 0	-2.39-2	-8.28 0
41.3092	41.4208	0.54	85.00	3.64-1	6.49 2	-3.72-1	-6.50 2
41.0413	41.4388	0.50	23.00	6.20-2	6.33 1	-6.92-2	-6.36 1
40.4238	41.4404	0.48	8.40	1.79-2	8.59 0	-2.44-2	-8.70 0
41.2579	41.4516	0.52	50.00	1.64-1	2.69 2	-1.72-1	-2.70 2
41.3792	41.4891	0.54	86.00	3.71-1	6.61 2	-3.79-1	-6.62 2
40.5130	41.5060	0.48	8.60	1.85-2	9.02 0	-2.50-2	-9.14 0
41.3424	41.5322	0.52	51.00	1.68-1	2.79 2	-1.76-1	-2.80 2
41.4492	41.5575	0.54	87.00	3.78-1	6.73 2	-3.87-1	-6.74 2
40.6000	41.5705	0.48	8.80	1.90-2	9.46 0	-2.55-2	-9.58 0
41.1975	41.5791	0.50	24.00	6.51-2	6.88 1	-7.23-2	-6.91 1
41.4260	41.6120	0.52	52.00	1.72-1	2.89 2	-1.80-1	-2.90 2
41.5193	41.6261	0.54	88.00	3.85-1	6.85 2	-3.94-1	-6.86 2
40.6847	41.6338	0.48	9.00	1.95-2	9.91 0	-2.60-2	-1.00 1
41.5086	41.6910	0.52	53.00	1.76-1	2.99 2	-1.84-1	-3.00 2
41.5896	41.6948	0.54	89.00	3.93-1	6.97 2	-4.01-1	-6.98 2
40.7674	41.6960	0.48	9.20	2.01-2	1.04 1	-2.66-2	-1.05 1
41.3481	41.7150	0.50	25.00	6.83-2	7.45 1	-7.55-2	-7.49 1
40.8481	41.7572	0.48	9.40	2.06-2	1.08 1	-2.71-2	-1.10 1
41.6601	41.7637	0.54	90.00	4.00-1	7.08 2	-4.09-1	-7.10 2
41.5904	41.7693	0.52	54.00	1.81-1	3.10 2	-1.89-1	-3.10 2
40.9269	41.8173	0.48	9.60	2.11-2	1.13 1	-2.76-2	-1.15 1
41.4934	41.8468	0.50	26.00	7.14-2	8.04 1	-7.86-2	-8.08 1
41.6713	41.8469	0.52	55.00	1.85-1	3.20 2	-1.93-1	-3.21 2
41.0040	41.8764	0.48	9.80	2.17-2	1.18 1	-2.82-2	-1.20 1
41.7515	41.9238	0.52	56.00	1.89-1	3.31 2	-1.97-1	-3.31 2
41.0794	41.9345	0.48	10.00	2.22-2	1.23 1	-2.87-2	-1.25 1
41.6340	41.9748	0.50	27.00	7.46-2	8.66 1	-8.18-2	-8.70 1
41.8309	42.0001	0.52	57.00	1.94-1	3.41 2	-2.02-1	-3.42 2
41.9096	42.0757	0.52	58.00	1.98-1	3.52 2	-2.06-1	-3.53 2
41.2609	42.0760	0.48	10.50	2.36-2	1.36 1	-3.00-2	-1.38 1
41.7702	42.0992	0.50	28.00	7.78-2	9.29 1	-8.50-2	-9.33 1
39.1064	42.1068	0.46	2.90	3.63-3	8.66-1	-9.55-3	-8.98-1
41.9877	42.1508	0.52	59.00	2.03-1	3.63 2	-2.11-1	-3.64 2
39.2917	42.1786	0.46	3.00	3.87-3	9.38-1	-9.78-3	-9.71-1
41.4334	42.2121	0.48	11.00	2.49-2	1.50 1	-3.14-2	-1.51 1
41.9023	42.2204	0.50	29.00	8.10-2	9.95 1	-8.82-2	-9.99 1
39.4676	42.2494	0.46	3.10	4.11-3	1.01 0	-1.00-2	-1.05 0
39.6349	42.3192	0.46	3.20	4.35-3	1.09 0	-1.02-2	-1.13 0
41.5978	42.3433	0.48	11.50	2.63-2	1.64 1	-3.27-2	-1.66 1
39.7944	42.3879	0.46	3.30	4.59-3	1.17 0	-1.05-2	-1.21 0
39.9468	42.4556	0.46	3.40	4.83-3	1.25 0	-1.07-2	-1.29 0
41.7548	42.4699	0.48	12.00	2.76-2	1.79 1	-3.41-2	-1.81 1
40.0926	42.5223	0.46	3.50	5.07-3	1.34 0	-1.09-2	-1.38 0
40.2324	42.5879	0.46	3.60	5.31-3	1.43 0	-1.12-2	-1.47 0
41.9052	42.5924	0.48	12.50	2.90-2	1.94 1	-3.54-2	-1.96 1
40.3667	42.6524	0.46	3.70	5.55-3	1.52 0	-1.14-2	-1.56 0
40.4958	42.7159	0.46	3.80	5.79-3	1.61 0	-1.16-2	-1.66 0
40.6201	42.7784	0.46	3.90	6.03-3	1.71 0	-1.19-2	-1.76 0
40.7400	42.8399	0.46	4.00	6.27-3	1.81 0	-1.21-2	-1.86 0
40.9675	42.9599	0.46	4.20	6.76-3	2.02 0	-1.26-2	-2.07 0
41.1806	43.0762	0.46	4.40	7.24-3	2.24 0	-1.31-2	-2.29 0
41.3809	43.1889	0.46	4.60	7.73-3	2.47 0	-1.35-2	-2.53 0
41.5698	43.2982	0.46	4.80	8.22-3	2.71 0	-1.40-2	-2.77 0
41.7486	43.4042	0.46	5.00	8.70-3	2.97 0	-1.45-2	-3.03 0
41.9183	43.5073	0.46	5.20	9.19-3	3.23 0	-1.50-2	-3.29 0
39.0572	44.7744	0.44	1.65	8.32-4	2.22-1	-6.11-3	-2.36-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
42.00	45.00						
42.0652	42.2254	0.52	60.00	2.07-1	3.74 2	-2.15-1	-3.75 2
42.1421	42.2995	0.52	61.00	2.12-1	3.85 2	-2.20-1	-3.86 2
42.0307	42.3386	0.50	30.00	8.43-2	1.06 2	-9.14-2	-1.07 2
42.2185	42.3731	0.52	62.00	2.17-1	3.96 2	-2.25-1	-3.97 2
42.2943	42.4463	0.52	63.00	2.21-1	4.07 2	-2.29-1	-4.08 2
42.1555	42.4538	0.50	31.00	8.76-2	1.13 2	-9.47-2	-1.14 2
42.3696	42.5191	0.52	64.00	2.26-1	4.19 2	-2.34-1	-4.20 2
42.2772	42.5664	0.50	32.00	9.09-2	1.20 2	-9.80-2	-1.21 2
42.4445	42.5915	0.52	65.00	2.31-1	4.30 2	-2.39-1	-4.31 2
42.5190	42.6635	0.52	66.00	2.36-1	4.42 2	-2.44-1	-4.43 2
42.3957	42.6765	0.50	33.00	9.42-2	1.28 2	-1.01-1	-1.28 2
42.0496	42.7110	0.48	13.00	3.04-2	2.10 1	-3.68-2	-2.12 1
42.5931	42.7352	0.52	67.00	2.41-1	4.53 2	-2.49-1	-4.54 2
42.5115	42.7843	0.50	34.00	9.75-2	1.35 2	-1.05-1	-1.36 2
42.6668	42.8067	0.52	68.00	2.46-1	4.65 2	-2.54-1	-4.66 2
42.1884	42.8260	0.48	13.50	3.17-2	2.27 1	-3.82-2	-2.29 1
42.7402	42.8778	0.52	69.00	2.51-1	4.77 2	-2.59-1	-4.78 2
42.6246	42.8898	0.50	35.00	1.01-1	1.43 2	-1.08-1	-1.43 2
42.3220	42.9375	0.48	14.00	3.31-2	2.45 1	-3.95-2	-2.46 1
42.8133	42.9487	0.52	70.00	2.56-1	4.89 2	-2.64-1	-4.90 2
42.7352	42.9932	0.50	36.00	1.04-1	1.51 2	-1.11-1	-1.51 2
42.8861	43.0193	0.52	71.00	2.61-1	5.01 2	-2.69-1	-5.02 2
42.4510	43.0459	0.48	14.50	3.45-2	2.62 1	-4.09-2	-2.64 1
42.9587	43.0897	0.52	72.00	2.67-1	5.13 2	-2.75-1	-5.13 2
42.8435	43.0946	0.50	37.00	1.08-1	1.59 2	-1.15-1	-1.59 2
42.5756	43.1513	0.48	15.00	3.59-2	2.81 1	-4.23-2	-2.83 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
43.0310	43.1600	0.52	73.00	2.72-1	5.25 2	-2.80-1	-5.26 2
42.9495	43.1942	0.50	38.00	1.11-1	1.67 2	-1.18-1	-1.68 2
43.1031	43.2301	0.52	74.00	2.78-1	5.37 2	-2.86-1	-5.38 2
42.6961	43.2538	0.48	15.50	3.73-2	3.00 1	-4.37-2	-3.02 1
43.0536	43.2921	0.50	39.00	1.15-1	1.76 2	-1.22-1	-1.76 2
43.1750	43.3000	0.52	75.00	2.83-1	5.49 2	-2.91-1	-5.50 2
42.8129	43.3538	0.48	16.00	3.87-2	3.20 1	-4.51-2	-3.22 1
43.2468	43.3699	0.52	76.00	2.89-1	5.61 2	-2.97-1	-5.62 2
43.1556	43.3883	0.50	40.00	1.18-1	1.84 2	-1.25-1	-1.85 2
43.3184	43.4396	0.52	77.00	2.95-1	5.73 2	-3.03-1	-5.74 2
42.9262	43.4512	0.48	16.50	4.01-2	3.40 1	-4.65-2	-3.43 1
43.2559	43.4829	0.50	41.00	1.22-1	1.93 2	-1.29-1	-1.94 2
43.3899	43.5093	0.52	78.00	3.00-1	5.85 2	-3.08-1	-5.86 2
43.0362	43.5463	0.48	17.00	4.15-2	3.61 1	-4.79-2	-3.64 1
43.3544	43.5761	0.50	42.00	1.25-1	2.02 2	-1.32-1	-2.03 2
43.4614	43.5789	0.52	79.00	3.06-1	5.98 2	-3.14-1	-5.99 2
42.0798	43.6074	0.46	5.40	9.68-3	3.51 0	-1.55-2	-3.57 0
43.1431	43.6392	0.48	17.50	4.29-2	3.83 1	-4.93-2	-3.85 1
43.5327	43.6485	0.52	80.00	3.12-1	6.10 2	-3.20-1	-6.11 2
43.4512	43.6678	0.50	43.00	1.29-1	2.11 2	-1.36-1	-2.12 2
42.2338	43.7048	0.46	5.60	1.02-2	3.79 0	-1.59-2	-3.86 0
43.6040	43.7181	0.52	81.00	3.19-1	6.22 2	-3.26-1	-6.23 2
43.2472	43.7299	0.48	18.00	4.43-2	4.05 1	-5.07-2	-4.07 1
43.5466	43.7582	0.50	44.00	1.33-1	2.20 2	-1.40-1	-2.21 2
43.6753	43.7877	0.52	82.00	3.25-1	6.35 2	-3.33-1	-6.36 2
42.3811	43.7996	0.46	5.80	1.07-2	4.09 0	-1.64-2	-4.16 0
43.3485	43.8187	0.48	18.50	4.57-2	4.27 1	-5.21-2	-4.30 1
43.6404	43.8474	0.50	45.00	1.36-1	2.30 2	-1.43-1	-2.30 2
43.7466	43.8573	0.52	83.00	3.31-1	6.47 2	-3.39-1	-6.48 2
42.5221	43.8919	0.46	6.00	1.12-2	4.40 0	-1.69-2	-4.47 0
43.4473	43.9055	0.48	19.00	4.72-2	4.51 1	-5.35-2	-4.53 1
43.8179	43.9269	0.52	84.00	3.38-1	6.59 2	-3.46-1	-6.60 2
43.7329	43.9354	0.50	46.00	1.40-1	2.39 2	-1.47-1	-2.40 2
42.6575	43.9818	0.46	6.20	1.16-2	4.72 0	-1.74-2	-4.80 0
43.5436	43.9906	0.48	19.50	4.86-2	4.75 1	-5.50-2	-4.77 1
43.8893	43.9967	0.52	85.00	3.44-1	6.72 2	-3.52-1	-6.73 2
43.8241	44.0222	0.50	47.00	1.44-1	2.49 2	-1.51-1	-2.50 2
43.9607	44.0665	0.52	86.00	3.51-1	6.84 2	-3.59-1	-6.85 2
42.7876	44.0696	0.46	6.40	1.21-2	5.05 0	-1.79-2	-5.13 0
43.6377	44.0739	0.48	20.00	5.00-2	4.99 1	-5.64-2	-5.02 1
43.9140	44.1080	0.50	48.00	1.47-1	2.59 2	-1.55-1	-2.60 2
44.0322	44.1365	0.52	87.00	3.58-1	6.97 2	-3.66-1	-6.98 2
42.9129	44.1552	0.46	6.60	1.26-2	5.39 0	-1.84-2	-5.47 0
44.0028	44.1927	0.50	49.00	1.51-1	2.69 2	-1.58-1	-2.70 2
44.1038	44.2066	0.52	88.00	3.65-1	7.09 2	-3.73-1	-7.10 2
43.8195	44.2356	0.48	21.00	5.29-2	5.50 1	-5.93-2	-5.53 1
43.0337	44.2388	0.46	6.80	1.31-2	5.74 0	-1.89-2	-5.83 0
44.0904	44.2765	0.50	50.00	1.55-1	2.79 2	-1.62-1	-2.80 2
44.1756	44.2768	0.52	89.00	3.72-1	7.21 2	-3.80-1	-7.22 2
43.1504	44.3204	0.46	7.00	1.36-2	6.10 0	-1.93-2	-6.19 0
44.2475	44.3473	0.52	90.00	3.79-1	7.34 2	-3.87-1	-7.35 2
44.1770	44.3593	0.50	51.00	1.59-1	2.90 2	-1.66-1	-2.90 2
43.9935	44.3914	0.48	22.00	5.58-2	6.03 1	-6.22-2	-6.06 1
43.2631	44.4003	0.46	7.20	1.41-2	6.48 0	-1.98-2	-6.57 0
44.2626	44.4413	0.50	52.00	1.63-1	3.00 2	-1.70-1	-3.01 2
43.3723	44.4783	0.46	7.40	1.46-2	6.86 0	-2.03-2	-6.96 0
44.3472	44.5225	0.50	53.00	1.67-1	3.11 2	-1.74-1	-3.11 2
44.1604	44.5417	0.48	23.00	5.88-2	6.58 1	-6.51-2	-6.61 1
43.4781	44.5547	0.46	7.60	1.51-2	7.26 0	-2.08-2	-7.36 0
44.4310	44.6029	0.50	54.00	1.71-1	3.21 2	-1.78-1	-3.22 2

Part 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
43.5807	44.6295	0.46	7.80	1.56-2	7.67 0	-2.13-2	-7.77 0
44.5139	44.6826	0.50	55.00	1.75-1	3.32 2	-1.82-1	-3.33 2
44.3209	44.6869	0.48	24.00	6.17-2	7.15 1	-6.80-2	-7.19 1
43.6803	44.7028	0.46	8.00	1.61-2	8.08 0	-2.18-2	-8.19 0
44.5960	44.7615	0.50	56.00	1.79-1	3.43 2	-1.86-1	-3.44 2
43.7771	44.7746	0.46	8.20	1.66-2	8.51 0	-2.23-2	-8.62 0
44.4756	44.8275	0.48	25.00	6.47-2	7.75 1	-7.10-2	-7.78 1
44.6773	44.8398	0.50	57.00	1.83-1	3.54 2	-1.90-1	-3.55 2
43.8713	44.8450	0.46	8.40	1.71-2	8.95 0	-2.28-2	-9.06 0
43.9630	44.9141	0.46	8.60	1.76-2	9.40 0	-2.33-2	-9.51 0
44.7580	44.9175	0.50	58.00	1.88-1	3.65 2	-1.95-1	-3.66 2
44.6250	44.9638	0.48	26.00	6.76-2	8.36 1	-7.40-2	-8.40 1
44.0524	44.9818	0.46	8.80	1.81-2	9.86 0	-2.38-2	-9.97 0
44.8379	44.9946	0.50	59.00	1.92-1	3.77 2	-1.99-1	-3.78 2
44.1394	45.0484	0.46	9.00	1.86-2	1.03 1	-2.43-2	-1.04 1
44.9172	45.0711	0.50	60.00	1.96-1	3.88 2	-2.03-1	-3.89 2
44.7694	45.0962	0.48	27.00	7.06-2	9.00 1	-7.70-2	-9.04 1
44.2244	45.1137	0.46	9.20	1.91-2	1.08 1	-2.48-2	-1.09 1
44.9959	45.1471	0.50	61.00	2.00-1	4.00 2	-2.07-1	-4.00 2
44.3074	45.1778	0.46	9.40	1.96-2	1.13 1	-2.53-2	-1.14 1
44.9093	45.2248	0.48	28.00	7.37-2	9.67 1	-8.00-2	-9.71 1
44.3884	45.2409	0.46	9.60	2.01-2	1.18 1	-2.58-2	-1.19 1
44.4677	45.3029	0.46	9.80	2.06-2	1.23 1	-2.63-2	-1.24 1
44.5452	45.3638	0.46	10.00	2.11-2	1.28 1	-2.68-2	-1.30 1
42.0837	45.4938	0.44	2.50	2.74-3	6.34-1	-7.89-3	-6.60-1
44.7318	45.5120	0.46	10.50	2.24-2	1.42 1	-2.81-2	-1.43 1
42.3225	45.5790	0.44	2.60	2.97-3	6.97-1	-8.11-3	-7.24-1
44.9092	45.6544	0.46	11.00	2.37-2	1.56 1	-2.93-2	-1.58 1
42.5467	45.6629	0.44	2.70	3.19-3	7.63-1	-8.32-3	-7.91-1
42.7578	45.7456	0.44	2.80	3.41-3	8.32-1	-8.54-3	-8.62-1
42.9572	45.8269	0.44	2.90	3.64-3	9.04-1	-8.75-3	-9.35-1
43.1461	45.9068	0.44	3.00	3.86-3	9.79-1	-8.97-3	-1.01 0
43.3254	45.9853	0.44	3.10	4.09-3	1.06 0	-9.19-3	-1.09 0
43.4961	46.0624	0.44	3.20	4.31-3	1.14 0	-9.41-3	-1.17 0
43.6588	46.1381	0.44	3.30	4.54-3	1.22 0	-9.63-3	-1.26 0
43.8144	46.2124	0.44	3.40	4.77-3	1.31 0	-9.85-3	-1.35 0
43.9633	46.2854	0.44	3.50	4.99-3	1.40 0	-1.01-2	-1.44 0
44.1061	46.3570	0.44	3.60	5.22-3	1.49 0	-1.03-2	-1.53 0
44.2432	46.4273	0.44	3.70	5.44-3	1.59 0	-1.05-2	-1.63 0
44.3752	46.4963	0.44	3.80	5.67-3	1.69 0	-1.07-2	-1.73 0
44.5022	46.5641	0.44	3.90	5.90-3	1.79 0	-1.10-2	-1.83 0
44.6248	46.6307	0.44	4.00	6.12-3	1.89 0	-1.12-2	-1.94 0
44.8576	46.7604	0.44	4.20	6.58-3	2.11 0	-1.16-2	-2.16 0
42.2592	48.7471	0.42	1.45	5.79-4	1.64-1	-5.13-3	-1.76-1
42.5948	48.7880	0.42	1.50	6.85-4	1.80-1	-5.23-3	-1.92-1
42.9079	48.8317	0.42	1.55	7.90-4	1.96-1	-5.32-3	-2.10-1
43.2009	48.8777	0.42	1.60	8.96-4	2.14-1	-5.42-3	-2.28-1
43.4760	48.9254	0.42	1.65	1.00-3	2.32-1	-5.51-3	-2.47-1
43.7349	48.9744	0.42	1.70	1.11-3	2.51-1	-5.61-3	-2.66-1
43.9794	49.0244	0.42	1.75	1.21-3	2.71-1	-5.71-3	-2.87-1
44.2107	49.0752	0.42	1.80	1.32-3	2.92-1	-5.80-3	-3.08-1
44.4300	49.1265	0.42	1.85	1.42-3	3.14-1	-5.90-3	-3.30-1
44.6383	49.1780	0.42	1.90	1.53-3	3.36-1	-6.00-3	-3.53-1
44.8367	49.2298	0.42	1.95	1.63-3	3.59-1	-6.10-3	-3.77-1
44.1059	53.2983	0.40	1.10	5.02-5	7.79-2	-3.99-3	-8.58-2
43.4170	53.2985	0.40	1.05	-5.08-5	6.76-2	-3.91-3	-7.50-2
44.7235	53.3135	0.40	1.15	1.50-4	8.89-2	-4.08-3	-9.74-2
42.6424	53.3191	0.40	1.00	-1.52-4	5.82-2	-3.83-3	-6.51-2
42.3046	53.3344	0.40	0.98	-1.93-4	5.46-2	-3.80-3	-6.13-2
44.9081	58.9653	0.38	0.82	-2.96-4	3.25-2	-3.12-3	-3.75-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
44.3341	59.0238	0.38	0.80	-3.36-4	2.99-2	-3.09-3	-3.47-2
43.7184	59.0950	0.38	0.78	-3.75-4	2.74-2	-3.06-3	-3.20-2
43.0563	59.1810	0.38	0.76	-4.15-4	2.51-2	-3.04-3	-2.95-2
42.3423	59.2840	0.38	0.74	-4.56-4	2.28-2	-3.01-3	-2.71-2
43.8879	66.3472	0.36	0.62	-4.75-4	1.28-2	-2.48-3	-1.59-2
42.5618	66.6129	0.36	0.60	-5.15-4	1.13-2	-2.46-3	-1.43-2
44.4858	75.0920	0.34	0.52	-4.66-4	6.94-3	-2.06-3	-9.21-3
42.1164	75.6556	0.34	0.50	-5.07-4	5.90-3	-2.04-3	-8.03-3
43.7700	85.9614	0.32	0.44	-4.35-4	3.72-3	-1.71-3	-5.41-3
42.4252	99.1358	0.30	0.38	-3.82-4	2.10-3	-1.43-3	-3.40-3
44.0858	114.013	0.28	0.34	-3.07-4	1.38-3	-1.20-3	-2.45-3
42.2759	132.737	0.26	0.30	-2.51-4	8.37-4	-1.00-3	-1.70-3
42.8295	180.333	0.22	0.24	-1.46-4	3.55-4	-7.06-4	-9.65-4
45.00	48.00						
45.0741	45.2226	0.50	62.00	2.05-1	4.11 2	-2.12-1	-4.12 2
45.1517	45.2977	0.50	63.00	2.09-1	4.23 2	-2.16-1	-4.24 2
45.0450	45.3500	0.48	29.00	7.67-2	1.03 2	-8.30-2	-1.04 2
45.2288	45.3723	0.50	64.00	2.14-1	4.35 2	-2.21-1	-4.36 2
45.3054	45.4465	0.50	65.00	2.18-1	4.47 2	-2.25-1	-4.48 2
45.1769	45.4720	0.48	30.00	7.98-2	1.11 2	-8.61-2	-1.11 2
45.3816	45.5203	0.50	66.00	2.23-1	4.59 2	-2.30-1	-4.60 2
45.3051	45.5910	0.48	31.00	8.29-2	1.18 2	-8.92-2	-1.18 2
45.4574	45.5938	0.50	67.00	2.28-1	4.71 2	-2.35-1	-4.72 2
45.5328	45.6670	0.50	68.00	2.33-1	4.83 2	-2.40-1	-4.84 2
45.4299	45.7072	0.48	32.00	8.60-2	1.25 2	-9.23-2	-1.26 2
45.6079	45.7399	0.50	69.00	2.37-1	4.95 2	-2.44-1	-4.96 2
45.0782	45.7916	0.46	11.50	2.50-2	1.71 1	-3.06-2	-1.73 1
45.6826	45.8125	0.50	70.00	2.42-1	5.08 2	-2.49-1	-5.08 2
45.5517	45.8207	0.48	33.00	8.91-2	1.33 2	-9.54-2	-1.33 2
45.7570	45.8848	0.50	71.00	2.47-1	5.20 2	-2.54-1	-5.21 2
45.2397	45.9239	0.46	12.00	2.63-2	1.87 1	-3.19-2	-1.88 1
45.6705	45.9318	0.48	34.00	9.23-2	1.41 2	9.86-2	-1.41 2
45.8312	45.9570	0.50	72.00	2.52-1	5.32 2	-2.59-1	-5.33 2
45.9051	46.0289	0.50	73.00	2.57-1	5.45 2	-2.64-1	-5.46 2
45.7866	46.0406	0.48	35.00	9.55-2	1.49 2	-1.02-1	-1.49 2
45.3944	46.0518	0.46	12.50	2.75-2	2.03 1	-3.32-2	-2.04 1
45.9788	46.1007	0.50	74.00	2.63-1	5.57 2	-2.70-1	-5.58 2
45.9001	46.1472	0.48	36.00	9.87-2	1.57 2	-1.05-1	-1.57 2
46.0523	46.1723	0.50	75.00	2.68-1	5.70 2	-2.75-1	-5.71 2
45.5428	46.1755	0.46	13.00	2.88-2	2.19 1	-3.45-2	-2.21 1
46.1256	46.2438	0.50	76.00	2.73-1	5.83 2	-2.80-1	-5.84 2
46.0111	46.2517	0.48	37.00	1.02-1	1.65 2	-1.08-1	-1.66 2
45.6855	46.2953	0.46	13.50	3.01-2	2.37 1	-3.58-2	-2.39 1
46.1988	46.3151	0.50	77.00	2.79-1	5.95 2	-2.86-1	-5.96 2
46.1200	46.3543	0.48	38.00	1.05-1	1.74 2	-1.11-1	-1.75 2
46.2719	46.3864	0.50	78.00	2.84-1	6.08 2	-2.91-1	-6.09 2
45.8230	46.4115	0.46	14.00	3.14-2	2.55 1	-3.70-2	-2.57 1
46.2267	46.4551	0.48	39.00	1.08-1	1.83 2	-1.15-1	-1.83 2
46.3449	46.4576	0.50	79.00	2.90-1	6.21 2	-2.97-1	-6.22 2
45.9556	46.5244	0.46	14.50	3.27-2	2.74 1	-3.83-2	-2.76 1
46.4177	46.5288	0.50	80.00	2.95-1	6.34 2	-3.02-1	-6.35 2
46.3313	46.5541	0.48	40.00	1.12-1	1.92 2	-1.18-1	-1.92 2
46.4906	46.6000	0.50	81.00	3.01-1	6.46 2	-3.08-1	-6.47 2
46.0837	46.6341	0.46	15.00	3.40-2	2.93 1	-3.97-2	-2.95 1
46.4341	46.6515	0.48	41.00	1.15-1	2.01 2	-1.21-1	-2.01 2
46.5634	46.6711	0.50	82.00	3.07-1	6.59 2	-3.14-1	-6.60 2
46.2076	46.7408	0.46	15.50	3.54-2	3.13 1	-4.10-2	-3.15 1
46.6362	46.7423	0.50	83.00	3.13-1	6.72 2	-3.20-1	-6.73 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
46.5351	46.7474	0.48	42.00	1.18-1	2.10 2	-1.25-1	-2.11 2
46.7090	46.8136	0.50	84.00	3.19-1	6.85 2	-3.26-1	-6.86 2
46.6344	46.8418	0.48	43.00	1.22-1	2.20 2	-1.28-1	-2.20 2
46.3277	46.8447	0.46	16.00	3.67-2	3.34 1	-4.23-2	-3.36 1
46.7818	46.8849	0.50	85.00	3.25-1	6.98 2	-3.32-1	-6.99 2
45.0756	46.8857	0.44	4.40	7.03-3	2.34 0	-1.21-2	-2.39 0
46.7321	46.9348	0.48	44.00	1.25-1	2.29 2	-1.32-1	-2.30 2
46.4442	46.9460	0.46	16.50	3.80-2	3.55 1	-4.36-2	-3.57 1
46.8547	46.9562	0.50	86.00	3.32-1	7.11 2	-3.39-1	-7.12 2
45.2806	47.0068	0.44	4.60	7.49-3	2.58 0	-1.25-2	-2.64 0
46.8283	47.0265	0.48	45.00	1.29-1	2.39 2	-1.35-1	-2.40 2
46.9277	47.0277	0.50	87.00	3.38-1	7.24 2	-3.45-1	-7.25 2
46.5573	47.0448	0.46	17.00	3.93-2	3.77 1	-4.49-2	-3.79 1
47.0008	47.0993	0.50	88.00	3.45-1	7.37 2	-3.52-1	-7.38 2
46.9231	47.1169	0.48	46.00	1.32-1	2.49 2	-1.39-1	-2.50 2
45.4741	47.1240	0.44	4.80	7.95-3	2.84 0	-1.30-2	-2.89 0
46.6672	47.1412	0.46	17.50	4.07-2	3.99 1	-4.62-2	-4.02 1
47.0740	47.1711	0.50	89.00	3.51-1	7.50 2	-3.58-1	-7.51 2
47.0165	47.2062	0.48	47.00	1.36-1	2.59 2	-1.42-1	-2.60 2
46.7742	47.2354	0.46	18.00	4.20-2	4.22 1	-4.76-2	-4.25 1
45.6573	47.2375	0.44	5.00	8.41-3	3.10 0	-1.34-2	-3.16 0
47.1474	47.2431	0.50	90.00	3.58-1	7.63 2	-3.65-1	-7.64 2
47.1087	47.2943	0.48	48.00	1.39-1	2.70 2	-1.46-1	-2.70 2
46.8783	47.3275	0.46	18.50	4.33-2	4.46 1	-4.89-2	-4.49 1
45.8311	47.3475	0.44	5.20	8.87-3	3.38 0	-1.39-2	-3.44 0
47.1996	47.3814	0.48	49.00	1.43-1	2.80 2	-1.49-1	-2.81 2
46.9798	47.4176	0.46	19.00	4.47-2	4.70 1	-5.02-2	-4.73 1
45.9966	47.4542	0.44	5.40	9.32-3	3.67 0	-1.43-2	-3.73 0
47.2894	47.4674	0.48	50.00	1.47-1	2.91 2	-1.53-1	-2.92 2
47.0789	47.5058	0.46	19.50	4.60-2	4.95 1	-5.16-2	-4.98 1
47.3780	47.5525	0.48	51.00	1.50-1	3.02 2	-1.57-1	-3.02 2
46.1545	47.5579	0.44	5.60	9.79-3	3.97 0	-1.48-2	-4.03 0
47.1755	47.5921	0.46	20.00	4.74-2	5.21 1	-5.29-2	-5.24 1
47.4657	47.6367	0.48	52.00	1.54-1	3.13 2	-1.60-1	-3.13 2
46.3055	47.6587	0.44	5.80	1.02-2	4.28 0	-1.52-2	-4.35 0
47.5524	47.7201	0.48	53.00	1.58-1	3.24 2	-1.64-1	-3.24 2
46.4502	47.7567	0.44	6.00	1.07-2	4.60 0	-1.57-2	-4.67 0
47.3623	47.7598	0.46	21.00	5.01-2	5.74 1	-5.57-2	-5.77 1
47.6381	47.8026	0.48	54.00	1.62-1	3.35 2	-1.68-1	-3.36 2
46.5891	47.8521	0.44	6.20	1.12-2	4.94 0	-1.62-2	-5.01 0
47.7230	47.8843	0.48	55.00	1.65-1	3.46 2	-1.72-1	-3.47 2
47.5411	47.9211	0.46	22.00	5.28-2	6.29 1	-5.84-2	-6.32 1
46.7226	47.9450	0.44	6.40	1.16-2	5.28 0	-1.66-2	-5.36 0
47.8070	47.9653	0.48	56.00	1.69-1	3.58 2	-1.75-1	-3.58 2
46.8511	48.0356	0.44	6.60	1.21-2	5.64 0	-1.71-2	-5.72 0
47.8902	48.0456	0.48	57.00	1.73-1	3.69 2	-1.79-1	-3.70 2
47.7126	48.0766	0.46	23.00	5.56-2	6.87 1	-6.11-2	-6.90 1
46.9751	48.1240	0.44	6.80	1.26-2	6.01 0	-1.75-2	-6.09 0
47.9727	48.1253	0.48	58.00	1.77-1	3.81 2	-1.83-1	-3.82 2
47.0949	48.2103	0.44	7.00	1.30-2	6.39 0	-1.80-2	-6.47 0
47.8775	48.2269	0.46	24.00	5.83-2	7.47 1	-6.39-2	-7.50 1
47.2106	48.2945	0.44	7.20	1.35-2	6.78 0	-1.85-2	-6.87 0
47.3227	48.3769	0.44	7.40	1.40-2	7.18 0	-1.89-2	-7.28 0
47.4313	48.4574	0.44	7.60	1.44-2	7.60 0	-1.94-2	-7.69 0
47.5367	48.5362	0.44	7.80	1.49-2	8.02 0	-1.99-2	-8.12 0
47.6390	48.6133	0.44	8.00	1.54-2	8.46 0	-2.03-2	-8.56 0
47.7384	48.6888	0.44	8.20	1.58-2	8.91 0	-2.08-2	-9.01 0
47.8352	48.7628	0.44	8.40	1.63-2	9.37 0	-2.13-2	-9.48 0
47.9294	48.8353	0.44	8.60	1.68-2	9.84 0	-2.17-2	-9.95 0
45.0259	49.2816	0.42	2.00	1.74-3	3.83-1	-6.20-3	-4.02-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
45.3797	49.3849	0.42	2.10	1.95-3	4.33-1	-6.40-3	-4.53-1
45.7046	49.4873	0.42	2.20	2.16-3	4.87-1	-6.60-3	-5.08-1
46.0046	49.5885	0.42	2.30	2.36-3	5.43-1	-6.80-3	-5.66-1
46.2830	49.6882	0.42	2.40	2.57-3	6.03-1	-7.00-3	-6.27-1
46.5424	49.7861	0.42	2.50	2.78-3	6.66-1	-7.20-3	-6.91-1
46.7853	49.8821	0.42	2.60	2.99-3	7.32-1	-7.40-3	-7.58-1
47.0133	49.9763	0.42	2.70	3.21-3	8.01-1	-7.61-3	-8.29-1
47.2281	50.0686	0.42	2.80	3.42-3	8.74-1	-7.81-3	-9.03-1
47.4311	50.1589	0.42	2.90	3.63-3	9.49-1	-8.01-3	-9.79-1
47.6235	50.2473	0.42	3.00	3.84-3	1.03 0	-8.22-3	-1.06 0
47.8062	50.3339	0.42	3.10	4.05-3	1.11 0	-8.42-3	-1.14 0
47.9802	50.4186	0.42	3.20	4.26-3	1.20 0	-8.63-3	-1.23 0
45.2811	53.3405	0.40	1.20	2.50-4	1.01-1	-4.16-3	-1.10-1
45.7877	53.3765	0.40	1.25	3.50-4	1.14-1	-4.25-3	-1.23-1
46.2505	53.4194	0.40	1.30	4.49-4	1.27-1	-4.34-3	-1.37-1
46.6756	53.4676	0.40	1.35	5.48-4	1.41-1	-4.43-3	-1.52-1
47.0677	53.5199	0.40	1.40	6.46-4	1.57-1	-4.52-3	-1.68-1
47.4311	53.5753	0.40	1.45	7.45-4	1.73-1	-4.61-3	-1.84-1
47.7691	53.6329	0.40	1.50	8.43-4	1.89-1	-4.70-3	-2.02-1
47.6788	58.8023	0.38	0.94	-6.53-5	5.08-2	-3.30-3	-5.70-2
47.2829	58.8125	0.38	0.92	-1.03-4	4.74-2	-3.27-3	-5.34-2
46.8639	58.8283	0.38	0.90	-1.42-4	4.42-2	-3.24-3	-4.99-2
46.4195	58.8505	0.38	0.88	-1.80-4	4.11-2	-3.21-3	-4.66-2
45.9474	58.8800	0.38	0.86	-2.19-4	3.81-2	-3.18-3	-4.34-2
45.4446	58.9179	0.38	0.84	-2.57-4	3.52-2	-3.15-3	-4.04-2
47.1619	65.8014	0.36	0.68	-3.59-4	1.81-2	-2.55-3	-2.17-2
46.1719	65.9487	0.36	0.66	-3.97-4	1.62-2	-2.53-3	-1.97-2
45.0854	66.1285	0.36	0.64	-4.36-4	1.45-2	-2.51-3	-1.77-2
46.5632	74.6419	0.34	0.54	-4.27-4	8.10-3	-2.07-3	-1.05-2
47.3921	85.0841	0.32	0.46	-3.94-4	4.53-3	-1.72-3	-6.35-3
48.00	52.00						
48.0545	48.2044	0.48	59.00	1.81-1	3.93 2	-1.87-1	-3.93 2
48.1357	48.2828	0.48	60.00	1.85-1	4.05 2	-1.91-1	-4.05 2
48.2162	48.3607	0.48	61.00	1.89-1	4.17 2	-1.96-1	-4.17 2
48.0364	48.3722	0.46	25.00	6.11-2	8.09 1	-6.67-2	-8.13 1
48.2961	48.4381	0.48	62.00	1.93-1	4.29 2	-2.00-1	-4.30 2
48.1897	48.5131	0.46	26.00	6.39-2	8.74 1	-6.95-2	-8.77 1
48.3755	48.5150	0.48	63.00	1.98-1	4.41 2	-2.04-1	-4.42 2
48.4543	48.5915	0.48	64.00	2.02-1	4.53 2	-2.08-1	-4.54 2
48.3380	48.6498	0.46	27.00	6.68-2	9.41 1	-7.23-2	-9.45 1
48.5326	48.6675	0.48	65.00	2.06-1	4.66 2	-2.12-1	-4.67 2
48.6105	48.7432	0.48	66.00	2.11-1	4.78 2	-2.17-1	-4.79 2
48.4816	48.7826	0.46	28.00	6.96-2	1.01 2	-7.52-2	-1.01 2
48.6880	48.8184	0.48	67.00	2.15-1	4.91 2	-2.21-1	-4.92 2
48.7651	48.8934	0.48	68.00	2.20-1	5.04 2	-2.26-1	-5.04 2
48.0211	48.9065	0.44	8.80	1.73-2	1.03 1	-2.22-2	-1.04 1
48.6209	48.9118	0.46	29.00	7.25-2	1.08 2	-7.80-2	-1.09 2
48.8418	48.9680	0.48	69.00	2.24-1	5.16 2	-2.30-1	-5.17 2
48.1106	48.9763	0.44	9.00	1.77-2	1.08 1	-2.27-2	-1.09 1
48.7562	49.0377	0.46	30.00	7.54-2	1.15 2	-8.09-2	-1.16 2
48.9181	49.0423	0.48	70.00	2.29-1	5.29 2	-2.35-1	-5.30 2
48.1979	49.0448	0.44	9.20	1.82-2	1.13 1	-2.31-2	-1.14 1
48.2831	49.1120	0.44	9.40	1.87-2	1.18 1	-2.36-2	-1.20 1
48.9942	49.1163	0.48	71.00	2.33-1	5.42 2	-2.40-1	-5.43 2
48.8878	49.1604	0.46	31.00	7.83-2	1.23 2	-8.38-2	-1.23 2
48.3664	49.1781	0.44	9.60	1.92-2	1.24 1	-2.41-2	-1.25 1
49.0699	49.1902	0.48	72.00	2.38-1	5.55 2	-2.44-1	-5.56 2
48.4478	49.2430	0.44	9.80	1.96-2	1.29 1	-2.46-2	-1.30 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
49.1454	49.2638	0.48	73.00	2.43-1	5.68 2	-2.49-1	-5.69 2
49.0159	49.2802	0.46	32.00	8.12-2	1.31 2	-8.67-2	-1.31 2
48.5274	49.3069	0.44	10.00	2.01-2	1.35 1	-2.50-2	-1.36 1
49.2207	49.3372	0.48	74.00	2.48-1	5.81 2	-2.54-1	-5.82 2
49.1408	49.3973	0.46	33.00	8.42-2	1.39 2	-8.97-2	-1.39 2
49.2958	49.4104	0.48	75.00	2.53-1	5.94 2	-2.59-1	-5.95 2
48.7192	49.4618	0.44	10.50	2.13-2	1.49 1	-2.62-2	-1.50 1
49.3706	49.4835	0.48	76.00	2.58-1	6.08 2	-2.64-1	-6.09 2
49.2626	49.5118	0.46	34.00	8.71-2	1.47 2	-9.27-2	-1.48 2
49.4454	49.5565	0.48	77.00	2.63-1	6.21 2	-2.69-1	-6.22 2
48.9014	49.6107	0.44	11.00	2.25-2	1.64 1	-2.74-2	-1.65 1
49.3816	49.6238	0.46	35.00	9.01-2	1.55 2	-9.57-2	-1.56 2
49.5199	49.6294	0.48	78.00	2.68-1	6.34 2	-2.74-1	-6.35 2
49.5944	49.7022	0.48	79.00	2.73-1	6.48 2	-2.80-1	-6.49 2
49.4980	49.7336	0.46	36.00	9.32-2	1.64 2	-9.87-2	-1.65 2
49.0751	49.7539	0.44	11.50	2.37-2	1.79 1	-2.86-2	-1.81 1
49.6688	49.7749	0.48	80.00	2.79-1	6.61 2	-2.85-1	-6.62 2
49.6119	49.8412	0.46	37.00	9.62-2	1.73 2	-1.02-1	-1.73 2
49.7431	49.8476	0.48	81.00	2.84-1	6.74 2	-2.90-1	-6.75 2
49.2411	49.8920	0.44	12.00	2.49-2	1.95 1	-2.98-2	-1.97 1
49.8174	49.9203	0.48	82.00	2.90-1	6.88 2	-2.96-1	-6.89 2
49.7234	49.9468	0.46	38.00	9.93-2	1.82 2	-1.05-1	-1.82 2
49.8917	49.9931	0.48	83.00	2.95-1	7.01 2	-3.02-1	-7.02 2
49.4000	50.0254	0.44	12.50	2.61-2	2.12 1	-3.10-2	-2.14 1
49.8328	50.0505	0.46	39.00	1.02-1	1.91 2	-1.08-1	-1.92 2
49.9659	50.0658	0.48	84.00	3.01-1	7.15 2	-3.07-1	-7.16 2
50.0402	50.1386	0.48	85.00	3.07-1	7.28 2	-3.13-1	-7.29 2
49.9400	50.1523	0.46	40.00	1.05-1	2.01 2	-1.11-1	-2.01 2
49.5525	50.1543	0.44	13.00	2.73-2	2.30 1	-3.22-2	-2.32 1
50.1146	50.2115	0.48	86.00	3.13-1	7.42 2	-3.19-1	-7.43 2
50.0453	50.2525	0.46	41.00	1.09-1	2.10 2	-1.14-1	-2.11 2
49.6991	50.2791	0.44	13.50	2.86-2	2.48 1	-3.34-2	-2.50 1
50.1890	50.2845	0.48	87.00	3.19-1	7.55 2	-3.25-1	-7.56 2
50.1488	50.3510	0.46	42.00	1.12-1	2.20 2	-1.17-1	-2.21 2
50.2635	50.3576	0.48	88.00	3.25-1	7.69 2	-3.31-1	-7.70 2
49.8403	50.4000	0.44	14.00	2.98-2	2.67 1	-3.47-2	-2.69 1
50.3382	50.4309	0.48	89.00	3.31-1	7.82 2	-3.38-1	-7.83 2
50.2505	50.4481	0.46	43.00	1.15-1	2.30 2	-1.21-1	-2.30 2
48.1462	50.5015	0.42	3.30	4.47-3	1.28 0	-8.84-3	-1.32 0
50.4130	50.5043	0.48	90.00	3.38-1	7.96 2	-3.44-1	-7.97 2
49.9766	50.5174	0.44	14.50	3.10-2	2.87 1	-3.59-2	-2.89 1
50.3506	50.5436	0.46	44.00	1.18-1	2.40 2	-1.24-1	-2.41 2
48.3048	50.5827	0.42	3.40	4.68-3	1.38 0	-9.04-3	-1.41 0
50.1082	50.6315	0.44	15.00	3.22-2	3.07 1	-3.71-2	-3.09 1
50.4491	50.6378	0.46	45.00	1.22-1	2.50 2	-1.27-1	-2.51 2
48.4567	50.6622	0.42	3.50	4.89-3	1.47 0	-9.25-3	-1.51 0
50.5461	50.7307	0.46	46.00	1.25-1	2.61 2	-1.30-1	-2.61 2
48.6025	50.7401	0.42	3.60	5.11-3	1.57 0	-9.46-3	-1.61 0
50.2355	50.7423	0.44	15.50	3.35-2	3.28 1	-3.83-2	-3.30 1
48.7425	50.8164	0.42	3.70	5.32-3	1.67 0	-9.67-3	-1.71 0
50.6417	50.8223	0.46	47.00	1.28-1	2.71 2	-1.34-1	-2.72 2
50.3589	50.8503	0.44	16.00	3.47-2	3.50 1	-3.96-2	-3.52 1
48.8772	50.8912	0.42	3.80	5.53-3	1.77 0	-9.88-3	-1.81 0
50.7360	50.9128	0.46	48.00	1.31-1	2.82 2	-1.37-1	-2.83 2
50.4785	50.9554	0.44	16.50	3.60-2	3.72 1	-4.08-2	-3.75 1
49.0071	50.9645	0.42	3.90	5.74-3	1.88 0	-1.01-2	-1.92 0
50.8291	51.0022	0.46	49.00	1.35-1	2.93 2	-1.40-1	-2.94 2
49.1323	51.0364	0.42	4.00	5.96-3	1.99 0	-1.03-2	-2.03 0
50.5947	51.0579	0.44	17.00	3.72-2	3.95 1	-4.21-2	-3.98 1
50.9210	51.0905	0.46	50.00	1.38-1	3.04 2	-1.44-1	-3.05 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
50.7076	51.1580	0.44	17.50	3.85-2	4.19 1	-4.33-2	-4.21 1
49.3702	51.1761	0.42	4.20	6.38-3	2.22 0	-1.07-2	-2.27 0
51.0117	51.1778	0.46	51.00	1.42-1	3.16 2	-1.47-1	-3.16 2
50.8174	51.2556	0.44	18.00	3.97-2	4.43 1	-4.46-2	-4.46 1
51.1013	51.2642	0.46	52.00	1.45-1	3.27 2	-1.51-1	-3.28 2
49.5931	51.3106	0.42	4.40	6.81-3	2.46 0	-1.11-2	-2.51 0
51.1900	51.3496	0.46	53.00	1.49-1	3.39 2	-1.54-1	-3.39 2
50.9244	51.3511	0.44	18.50	4.10-2	4.68 1	-4.58-2	-4.71 1
51.2777	51.4342	0.46	54.00	1.52-1	3.50 2	-1.58-1	-3.51 2
49.8028	51.4404	0.42	4.60	7.24-3	2.72 0	-1.16-2	-2.77 0
51.0286	51.4444	0.44	19.00	4.22-2	4.94 1	-4.71-2	-4.96 1
51.3645	51.5180	0.46	55.00	1.56-1	3.62 2	-1.61-1	-3.63 2
51.1303	51.5358	0.44	19.50	4.35-2	5.20 1	-4.84-2	-5.23 1
50.0008	51.5657	0.42	4.80	7.67-3	2.98 0	-1.20-2	-3.04 0
51.4504	51.6011	0.46	56.00	1.60-1	3.74 2	-1.65-1	-3.75 2
51.2295	51.6252	0.44	20.00	4.48-2	5.47 1	-4.96-2	-5.49 1
51.5355	51.6834	0.46	57.00	1.63-1	3.86 2	-1.69-1	-3.87 2
50.1882	51.6869	0.42	5.00	8.10-3	3.26 0	-1.24-2	-3.32 0
51.6198	51.7650	0.46	58.00	1.67-1	3.99 2	-1.73-1	-3.99 2
51.4213	51.7987	0.44	21.00	4.73-2	6.02 1	-5.22-2	-6.05 1
50.3662	51.8041	0.42	5.20	8.53-3	3.55 0	-1.28-2	-3.61 0
51.7034	51.8460	0.46	59.00	1.71-1	4.11 2	-1.76-1	-4.12 2
50.5357	51.9177	0.42	5.40	8.96-3	3.86 0	-1.33-2	-3.92 0
51.7863	51.9263	0.46	60.00	1.75-1	4.24 2	-1.80-1	-4.24 2
51.6047	51.9655	0.44	22.00	4.99-2	6.60 1	-5.47-2	-6.63 1
51.8686	52.0061	0.46	61.00	1.78-1	4.36 2	-1.84-1	-4.37 2
50.6974	52.0278	0.42	5.60	9.39-3	4.17 0	-1.37-2	-4.24 0
51.9502	52.0853	0.46	62.00	1.82-1	4.49 2	-1.88-1	-4.50 2
51.7807	52.1263	0.44	23.00	5.25-2	7.21 1	-5.73-2	-7.24 1
50.8521	52.1347	0.42	5.80	9.83-3	4.50 0	-1.41-2	-4.57 0
51.0003	52.2385	0.42	6.00	1.03-2	4.84 0	-1.45-2	-4.91 0
51.9499	52.2815	0.44	24.00	5.51-2	7.84 1	-5.99-2	-7.88 1
51.1426	52.3395	0.42	6.20	1.07-2	5.19 0	-1.50-2	-5.27 0
51.2795	52.4377	0.42	6.40	1.11-2	5.56 0	-1.54-2	-5.64 0
51.4113	52.5334	0.42	6.60	1.16-2	5.94 0	-1.58-2	-6.02 0
51.5384	52.6267	0.42	6.80	1.20-2	6.33 0	-1.63-2	-6.41 0
51.6611	52.7176	0.42	7.00	1.24-2	6.73 0	-1.67-2	-6.81 0
51.7798	52.8064	0.42	7.20	1.29-2	7.14 0	-1.71-2	-7.23 0
51.8948	52.8930	0.42	7.40	1.33-2	7.56 0	-1.76-2	-7.65 0
48.0845	53.6923	0.40	1.55	9.41-4	2.07-1	-4.79-3	-2.20-1
48.3800	53.7528	0.40	1.60	1.04-3	2.26-1	-4.88-3	-2.39-1
48.6575	53.8141	0.40	1.65	1.14-3	2.45-1	-4.97-3	-2.59-1
48.9188	53.8759	0.40	1.70	1.24-3	2.65-1	-5.06-3	-2.80-1
49.1656	53.9379	0.40	1.75	1.33-3	2.86-1	-5.15-3	-3.02-1
49.3992	54.0000	0.40	1.80	1.43-3	3.08-1	-5.24-3	-3.24-1
49.6208	54.0620	0.40	1.85	1.53-3	3.31-1	-5.34-3	-3.48-1
49.8315	54.1237	0.40	1.90	1.63-3	3.55-1	-5.43-3	-3.72-1
50.0321	54.1851	0.40	1.95	1.72-3	3.79-1	-5.52-3	-3.97-1
50.2235	54.2461	0.40	2.00	1.82-3	4.04-1	-5.62-3	-4.23-1
50.5816	54.3664	0.40	2.10	2.02-3	4.58-1	-5.80-3	-4.77-1
50.9107	54.4845	0.40	2.20	2.21-3	5.14-1	-5.99-3	-5.35-1
51.2148	54.5999	0.40	2.30	2.41-3	5.74-1	-6.18-3	-5.96-1
51.4972	54.7127	0.40	2.40	2.61-3	6.37-1	-6.37-3	-6.60-1
51.7605	54.8229	0.40	2.50	2.80-3	7.04-1	-6.56-3	-7.28-1
48.4088	58.7961	0.38	0.98	1.03-5	5.80-2	-3.36-3	-6.45-2
48.0535	58.7970	0.38	0.96	-2.75-5	5.43-2	-3.33-3	-6.07-2
48.7462	58.7989	0.38	1.00	4.80-5	6.18-2	-3.39-3	-6.85-2
49.5203	58.8201	0.38	1.05	1.42-4	7.18-2	-3.47-3	-7.91-2
50.2093	58.8569	0.38	1.10	2.35-4	8.27-2	-3.55-3	-9.05-2
50.8274	58.9051	0.38	1.15	3.27-4	9.45-2	-3.63-3	-1.03-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
51.3858	58.9618	0.38	1.20	4.20-4	1.07-1	-3.71-3	-1.16-1
51.8934	59.0248	0.38	1.25	5.12-4	1.21-1	-3.79-3	-1.30-1
51.6424	65.3626	0.36	0.80	-1.38-4	3.20-2	-2.71-3	-3.67-2
51.0313	65.3979	0.36	0.78	-1.74-4	2.94-2	-2.68-3	-3.39-2
50.3741	65.4452	0.36	0.76	-2.10-4	2.69-2	-2.65-3	-3.12-2
49.6656	65.5065	0.36	0.74	-2.47-4	2.45-2	-2.63-3	-2.86-2
48.8992	65.5843	0.36	0.72	-2.83-4	2.22-2	-2.60-3	-2.62-2
48.0675	65.6814	0.36	0.70	-3.21-4	2.01-2	-2.58-3	-2.39-2
51.4820	73.7656	0.34	0.60	-3.15-4	1.23-2	-2.13-3	-1.52-2
50.0262	73.9946	0.34	0.58	-3.51-4	1.08-2	-2.11-3	-1.35-2
48.3970	74.2821	0.34	0.56	-3.89-4	9.37-3	-2.09-3	-1.19-2
50.4891	84.4093	0.32	0.48	-3.56-4	5.45-3	-1.73-3	-7.40-3
48.4513	97.6112	0.30	0.40	-3.41-4	2.69-3	-1.43-3	-4.10-3
52.00	56.00						
52.0313	52.1641	0.46	63.00	1.86-1	4.62 2	-1.92-1	-4.63 2
52.1118	52.2423	0.46	64.00	1.90-1	4.75 2	-1.96-1	-4.76 2
52.1918	52.3201	0.46	65.00	1.94-1	4.88 2	-2.00-1	-4.89 2
52.2713	52.3975	0.46	66.00	1.99-1	5.01 2	-2.04-1	-5.02 2
52.1129	52.4316	0.44	25.00	5.77-2	8.50 1	-6.25-2	-8.53 1
52.3504	52.4745	0.46	67.00	2.03-1	5.14 2	-2.08-1	-5.15 2
52.4291	52.5511	0.46	68.00	2.07-1	5.28 2	-2.12-1	-5.28 2
52.2702	52.5770	0.44	26.00	6.04-2	9.18 1	-6.52-2	-9.21 1
52.5074	52.6274	0.46	69.00	2.11-1	5.41 2	-2.17-1	-5.42 2
52.5853	52.7034	0.46	70.00	2.16-1	5.54 2	-2.21-1	-5.55 2
52.4222	52.7180	0.44	27.00	6.30-2	9.88 1	-6.78-2	-9.92 1
52.6629	52.7791	0.46	71.00	2.20-1	5.68 2	-2.25-1	-5.69 2
52.7402	52.8545	0.46	72.00	2.24-1	5.82 2	-2.30-1	-5.83 2
52.5695	52.8550	0.44	28.00	6.57-2	1.06 2	-7.05-2	-1.06 2
52.8172	52.9297	0.46	73.00	2.29-1	5.95 2	-2.34-1	-5.96 2
52.0062	52.9777	0.42	7.60	1.38-2	8.00 0	-1.80-2	-8.09 0
52.7123	52.9882	0.44	29.00	6.84-2	1.14 2	-7.32-2	-1.14 2
52.8940	53.0047	0.46	74.00	2.34-1	6.09 2	-2.39-1	-6.10 2
52.1142	53.0605	0.42	7.80	1.42-2	8.45 0	-1.85-2	-8.55 0
52.9706	53.0796	0.46	75.00	2.38-1	6.23 2	-2.44-1	-6.24 2
52.8509	53.1179	0.44	30.00	7.11-2	1.21 2	-7.59-2	-1.22 2
52.2192	53.1415	0.42	8.00	1.46-2	8.91 0	-1.89-2	-9.01 0
53.0469	53.1542	0.46	76.00	2.43-1	6.37 2	-2.48-1	-6.38 2
52.3212	53.2208	0.42	8.20	1.51-2	9.39 0	-1.93-2	-9.49 0
53.1231	53.2287	0.46	77.00	2.48-1	6.51 2	-2.53-1	-6.52 2
52.9857	53.2443	0.44	31.00	7.38-2	1.29 2	-7.87-2	-1.30 2
52.4204	53.2984	0.42	8.40	1.55-2	9.87 0	-1.98-2	-9.97 0
53.1992	53.3032	0.46	78.00	2.53-1	6.65 2	-2.58-1	-6.66 2
53.1170	53.3677	0.44	32.00	7.66-2	1.38 2	-8.14-2	-1.38 2
52.5170	53.3745	0.42	8.60	1.60-2	1.04 1	-2.02-2	-1.05 1
53.2751	53.3775	0.46	79.00	2.58-1	6.79 2	-2.63-1	-6.80 2
52.6112	53.4490	0.42	8.80	1.64-2	1.09 1	-2.07-2	-1.10 1
53.3509	53.4517	0.46	80.00	2.63-1	6.93 2	-2.68-1	-6.94 2
53.2449	53.4881	0.44	33.00	7.94-2	1.46 2	-8.42-2	-1.46 2
52.7030	53.5221	0.42	9.00	1.69-2	1.14 1	-2.11-2	-1.15 1
53.4266	53.5260	0.46	81.00	2.68-1	7.07 2	-2.73-1	-7.08 2
52.7925	53.5938	0.42	9.20	1.73-2	1.19 1	-2.15-2	-1.20 1
53.5023	53.6002	0.46	82.00	2.73-1	7.21 2	-2.78-1	-7.22 2
53.3697	53.6059	0.44	34.00	8.22-2	1.55 2	-8.70-2	-1.55 2
52.8800	53.6642	0.42	9.40	1.77-2	1.25 1	-2.20-2	-1.26 1
53.5780	53.6743	0.46	83.00	2.78-1	7.35 2	-2.84-1	-7.36 2
53.4916	53.7212	0.44	35.00	8.50-2	1.63 2	-8.98-2	-1.64 2
52.9654	53.7333	0.42	9.60	1.82-2	1.30 1	-2.24-2	-1.32 1
53.6537	53.7486	0.46	84.00	2.84-1	7.49 2	-2.89-1	-7.50 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
53.0490	53.8012	0.42	9.80	1.86-2	1.36 1	-2.29-2	-1.37 1
53.7293	53.8228	0.46	85.00	2.89-1	7.64 2	-2.95-1	-7.65 2
53.6107	53.8340	0.44	36.00	8.78-2	1.73 2	-9.26-2	-1.73 2
53.1306	53.8679	0.42	10.00	1.91-2	1.42 1	-2.33-2	-1.43 1
53.8051	53.8972	0.46	86.00	2.95-1	7.78 2	-3.00-1	-7.79 2
53.7273	53.9446	0.44	37.00	9.07-2	1.82 2	-9.55-2	-1.82 2
53.8809	53.9716	0.46	87.00	3.00-1	7.92 2	-3.06-1	-7.93 2
53.3274	54.0297	0.42	10.50	2.02-2	1.57 1	-2.44-2	-1.58 1
53.9567	54.0461	0.46	88.00	3.06-1	8.06 2	-3.12-1	-8.07 2
53.8415	54.0532	0.44	38.00	9.36-2	1.91 2	-9.84-2	-1.92 2
54.0327	54.1208	0.46	89.00	3.12-1	8.20 2	-3.18-1	-8.21 2
53.9534	54.1597	0.44	39.00	9.65-2	2.01 2	-1.01-1	-2.02 2
53.5144	54.1850	0.42	11.00	2.13-2	1.73 1	-2.56-2	-1.74 1
54.1089	54.1956	0.46	90.00	3.18-1	8.35 2	-3.24-1	-8.36 2
54.0631	54.2643	0.44	40.00	9.94-2	2.11 2	-1.04-1	-2.11 2
53.6926	54.3344	0.42	11.50	2.25-2	1.89 1	-2.67-2	-1.90 1
54.1709	54.3671	0.44	41.00	1.02-1	2.21 2	-1.07-1	-2.22 2
54.2767	54.4683	0.44	42.00	1.05-1	2.31 2	-1.10-1	-2.32 2
53.8629	54.4782	0.42	12.00	2.36-2	2.06 1	-2.78-2	-2.08 1
54.3807	54.5678	0.44	43.00	1.08-1	2.42 2	-1.13-1	-2.42 2
54.0260	54.6170	0.42	12.50	2.47-2	2.24 1	-2.90-2	-2.26 1
54.4831	54.6659	0.44	44.00	1.11-1	2.52 2	-1.16-1	-2.53 2
54.1824	54.7511	0.42	13.00	2.59-2	2.43 1	-3.01-2	-2.44 1
54.5838	54.7625	0.44	45.00	1.14-1	2.63 2	-1.19-1	-2.64 2
54.6830	54.8577	0.44	46.00	1.18-1	2.74 2	-1.22-1	-2.75 2
54.3328	54.8808	0.42	13.50	2.70-2	2.62 1	-3.12-2	-2.64 1
52.0070	54.9303	0.40	2.60	3.00-3	7.74-1	-6.75-3	-8.00-1
54.7807	54.9517	0.44	47.00	1.21-1	2.86 2	-1.26-1	-2.86 2
54.4777	55.0064	0.42	14.00	2.82-2	2.82 1	-3.24-2	-2.84 1
52.2386	55.0350	0.40	2.70	3.20-3	8.47-1	-6.94-3	-8.74-1
54.8771	55.0444	0.44	48.00	1.24-1	2.97 2	-1.29-1	-2.98 2
54.6175	55.1283	0.42	14.50	2.93-2	3.03 1	-3.35-2	-3.05 1
54.9722	55.1360	0.44	49.00	1.27-1	3.09 2	-1.32-1	-3.09 2
52.4570	55.1372	0.40	2.80	3.39-3	9.24-1	-7.14-3	-9.52-1
55.0660	55.2265	0.44	50.00	1.30-1	3.20 2	-1.35-1	-3.21 2
52.6634	55.2368	0.40	2.90	3.59-3	1.00 0	-7.33-3	-1.03 0
54.7525	55.2466	0.42	15.00	3.05-2	3.24 1	-3.47-2	-3.26 1
55.1587	55.3159	0.44	51.00	1.34-1	3.32 2	-1.38-1	-3.33 2
52.8590	55.3340	0.40	3.00	3.79-3	1.09 0	-7.52-3	-1.12 0
54.8831	55.3616	0.42	15.50	3.16-2	3.47 1	-3.59-2	-3.49 1
55.2503	55.4044	0.44	52.00	1.37-1	3.44 2	-1.42-1	-3.45 2
53.0449	55.4288	0.40	3.10	3.99-3	1.17 0	-7.72-3	-1.21 0
55.0096	55.4735	0.42	16.00	3.28-2	3.69 1	-3.70-2	-3.72 1
55.3408	55.4919	0.44	53.00	1.40-1	3.57 2	-1.45-1	-3.57 2
53.2220	55.5214	0.40	3.20	4.18-3	1.26 0	-7.91-3	-1.30 0
55.4303	55.5785	0.44	54.00	1.43-1	3.69 2	-1.48-1	-3.70 2
55.1322	55.5825	0.42	16.50	3.40-2	3.93 1	-3.82-2	-3.95 1
53.3910	55.6117	0.40	3.30	4.38-3	1.36 0	-8.11-3	-1.39 0
55.5189	55.6642	0.44	55.00	1.47-1	3.81 2	-1.52-1	-3.82 2
55.2513	55.6886	0.42	17.00	3.51-2	4.17 1	-3.94-2	-4.20 1
53.5526	55.7000	0.40	3.40	4.58-3	1.46 0	-8.30-3	-1.49 0
55.6066	55.7492	0.44	56.00	1.50-1	3.94 2	-1.55-1	-3.95 2
53.7074	55.7862	0.40	3.50	4.78-3	1.56 0	-8.50-3	-1.59 0
55.3671	55.7922	0.42	17.50	3.63-2	4.42 1	-4.05-2	-4.45 1
55.6935	55.8334	0.44	57.00	1.54-1	4.07 2	-1.59-1	-4.08 2
53.8559	55.8705	0.40	3.60	4.98-3	1.66 0	-8.69-3	-1.70 0
55.4797	55.8933	0.42	18.00	3.75-2	4.68 1	-4.17-2	-4.70 1
55.7795	55.9169	0.44	58.00	1.57-1	4.20 2	-1.62-1	-4.21 2
53.9986	55.9530	0.40	3.70	5.18-3	1.77 0	-8.89-3	-1.81 0
55.5893	55.9920	0.42	18.50	3.87-2	4.94 1	-4.29-2	-4.97 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
55.8648	55.9997	0.44	59.00	1.61-1	4.33 2	-1.66-1	-4.34 2
54.1360	56.0336	0.40	3.80	5.38-3	1.88 0	-9.08-3	-1.92 0
55.9494	56.0818	0.44	60.00	1.64-1	4.46 2	-1.69-1	-4.47 2
55.6962	56.0886	0.42	19.00	3.99-2	5.21 1	-4.41-2	-5.24 1
54.2684	56.1126	0.40	3.90	5.57-3	1.99 0	-9.28-3	-2.03 0
55.8004	56.1830	0.42	19.50	4.11-2	5.49 1	-4.53-2	-5.52 1
54.3961	56.1898	0.40	4.00	5.77-3	2.11 0	-9.48-3	-2.15 0
55.9021	56.2754	0.42	20.00	4.23-2	5.78 1	-4.64-2	-5.80 1
54.6389	56.3397	0.40	4.20	6.17-3	2.35 0	-9.87-3	-2.40 0
54.8664	56.4837	0.40	4.40	6.57-3	2.61 0	-1.03-2	-2.66 0
55.0805	56.6223	0.40	4.60	6.98-3	2.88 0	-1.07-2	-2.93 0
55.2827	56.7558	0.40	4.80	7.38-3	3.16 0	-1.11-2	-3.21 0
55.4742	56.8847	0.40	5.00	7.78-3	3.46 0	-1.15-2	-3.51 0
55.6561	57.0091	0.40	5.20	8.19-3	3.77 0	-1.19-2	-3.82 0
55.8294	57.1295	0.40	5.40	8.59-3	4.09 0	-1.23-2	-4.15 0
55.9947	57.2461	0.40	5.60	9.00-3	4.42 0	-1.27-2	-4.49 0
52.3574	59.0922	0.38	1.30	6.04-4	1.35-1	-3.88-3	-1.45-1
52.7839	59.1628	0.38	1.35	6.96-4	1.50-1	-3.96-3	-1.61-1
53.1775	59.2356	0.38	1.40	7.87-4	1.67-1	-4.05-3	-1.78-1
53.5425	59.3099	0.38	1.45	8.79-4	1.84-1	-4.13-3	-1.95-1
53.8821	59.3851	0.38	1.50	9.70-4	2.02-1	-4.22-3	-2.14-1
54.1993	59.4607	0.38	1.55	1.06-3	2.21-1	-4.30-3	-2.33-1
54.4965	59.5364	0.38	1.60	1.15-3	2.40-1	-4.39-3	-2.54-1
54.7758	59.6119	0.38	1.65	1.24-3	2.61-1	-4.47-3	-2.75-1
55.0389	59.6870	0.38	1.70	1.34-3	2.83-1	-4.56-3	-2.97-1
55.2875	59.7615	0.38	1.75	1.43-3	3.05-1	-4.65-3	-3.20-1
55.5230	59.8354	0.38	1.80	1.52-3	3.28-1	-4.74-3	-3.44-1
55.7464	59.9084	0.38	1.85	1.61-3	3.53-1	-4.82-3	-3.69-1
55.9588	59.9807	0.38	1.90	1.70-3	3.78-1	-4.91-3	-3.95-1
53.7140	65.3103	0.36	0.88	4.72-6	4.40-2	-2.82-3	-4.95-2
53.2448	65.3125	0.36	0.86	-3.06-5	4.08-2	-2.79-3	-4.61-2
54.1557	65.3137	0.36	0.90	3.99-5	4.74-2	-2.85-3	-5.30-2
52.7454	65.3212	0.36	0.84	-6.61-5	3.78-2	-2.76-3	-4.28-2
54.5723	65.3220	0.36	0.92	7.50-5	5.09-2	-2.88-3	-5.67-2
54.9660	65.3346	0.36	0.94	1.10-4	5.45-2	-2.91-3	-6.05-2
52.2124	65.3375	0.36	0.82	-1.02-4	3.48-2	-2.74-3	-3.97-2
55.3388	65.3508	0.36	0.96	1.45-4	5.83-2	-2.94-3	-6.45-2
55.6923	65.3702	0.36	0.98	1.79-4	6.22-2	-2.97-3	-6.86-2
55.0427	73.3299	0.34	0.66	-2.09-4	1.76-2	-2.20-3	-2.10-2
53.9711	73.4410	0.34	0.64	-2.44-4	1.57-2	-2.17-3	-1.89-2
52.7900	73.5839	0.34	0.62	-2.79-4	1.39-2	-2.15-3	-1.70-2
55.4835	83.4892	0.32	0.52	-2.84-4	7.63-3	-1.76-3	-9.86-3
53.1604	83.8894	0.32	0.50	-3.19-4	6.48-3	-1.74-3	-8.57-3
53.4358	96.4923	0.30	0.42	-3.02-4	3.37-3	-1.44-3	-4.90-3
52.9861	111.876	0.28	0.36	-2.66-4	1.85-3	-1.20-3	-3.02-3
55.2527	151.678	0.24	0.28	-1.70-4	6.96-4	-8.35-4	-1.47-3
56.00	60.00						
56.0333	56.1634	0.44	61.00	1.68-1	4.59 2	-1.73-1	-4.60 2
56.1166	56.2444	0.44	62.00	1.72-1	4.73 2	-1.76-1	-4.74 2
56.1992	56.3248	0.44	63.00	1.75-1	4.86 2	-1.80-1	-4.87 2
56.2813	56.4047	0.44	64.00	1.79-1	5.00 2	-1.84-1	-5.01 2
56.0986	56.4545	0.42	21.00	4.47-2	6.36 1	-4.88-2	-6.39 1
56.3629	56.4842	0.44	65.00	1.83-1	5.14 2	-1.88-1	-5.15 2
56.4440	56.5632	0.44	66.00	1.87-1	5.28 2	-1.92-1	-5.29 2
56.2865	56.6267	0.42	22.00	4.71-2	6.98 1	-5.13-2	-7.01 1
56.5246	56.6418	0.44	67.00	1.91-1	5.42 2	-1.96-1	-5.43 2
56.6047	56.7201	0.44	68.00	1.95-1	5.56 2	-1.99-1	-5.57 2
56.4668	56.7926	0.42	23.00	4.95-2	7.62 1	-5.37-2	-7.65 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
56.6845	56.7979	0.44	69.00	1.99-1	5.70 2	-2.04-1	-5.71 2
56.7639	56.8755	0.44	70.00	2.03-1	5.84 2	-2.08-1	-5.85 2
56.6400	56.9526	0.42	24.00	5.19-2	8.29 1	-5.61-2	-8.32 1
56.8429	56.9527	0.44	71.00	2.07-1	5.99 2	-2.12-1	-5.99 2
56.9216	57.0297	0.44	72.00	2.11-1	6.13 2	-2.16-1	-6.14 2
57.0001	57.1064	0.44	73.00	2.15-1	6.27 2	-2.20-1	-6.28 2
56.8069	57.1073	0.42	25.00	5.44-2	8.98 1	-5.86-2	-9.02 1
57.0783	57.1829	0.44	74.00	2.20-1	6.42 2	-2.24-1	-6.43 2
56.9679	57.2571	0.42	26.00	5.69-2	9.70 1	-6.11-2	-9.74 1
57.1562	57.2592	0.44	75.00	2.24-1	6.57 2	-2.29-1	-6.57 2
57.2339	57.3353	0.44	76.00	2.29-1	6.71 2	-2.33-1	-6.72 2
56.1529	57.3592	0.40	5.80	9.40-3	4.77 0	-1.31-2	-4.84 0
57.1235	57.4023	0.42	27.00	5.94-2	1.04 2	-6.36-2	-1.05 2
57.3115	57.4113	0.44	77.00	2.33-1	6.86 2	-2.38-1	-6.87 2
56.3045	57.4688	0.40	6.00	9.81-3	5.13 0	-1.35-2	-5.20 0
57.3888	57.4871	0.44	78.00	2.38-1	7.01 2	-2.42-1	-7.02 2
57.2742	57.5432	0.42	28.00	6.19-2	1.12 2	-6.61-2	-1.13 2
57.4661	57.5628	0.44	79.00	2.42-1	7.16 2	-2.47-1	-7.16 2
56.4500	57.5754	0.40	6.20	1.02-2	5.51 0	-1.39-2	-5.58 0
57.5432	57.6385	0.44	80.00	2.47-1	7.30 2	-2.52-1	-7.31 2
56.5900	57.6789	0.40	6.40	1.06-2	5.90 0	-1.43-2	-5.97 0
57.4203	57.6802	0.42	29.00	6.44-2	1.20 2	-6.86-2	-1.21 2
57.6203	57.7141	0.44	81.00	2.52-1	7.45 2	-2.57-1	-7.46 2
56.7248	57.7796	0.40	6.60	1.10-2	6.30 0	-1.47-2	-6.37 0
57.6973	57.7897	0.44	82.00	2.57-1	7.60 2	-2.61-1	-7.61 2
57.5621	57.8136	0.42	30.00	6.70-2	1.28 2	-7.12-2	-1.29 2
57.7742	57.8652	0.44	83.00	2.62-1	7.75 2	-2.66-1	-7.76 2
56.8549	57.8777	0.40	6.80	1.14-2	6.71 0	-1.51-2	-6.79 0
57.8511	57.9408	0.44	84.00	2.67-1	7.90 2	-2.72-1	-7.91 2
57.7000	57.9435	0.42	31.00	6.96-2	1.37 2	-7.37-2	-1.37 2
56.9805	57.9733	0.40	7.00	1.19-2	7.14 0	-1.55-2	-7.22 0
57.9281	58.0164	0.44	85.00	2.72-1	8.05 2	-2.77-1	-8.06 2
57.1020	58.0665	0.40	7.20	1.23-2	7.57 0	-1.59-2	-7.66 0
57.8342	58.0702	0.42	32.00	7.21-2	1.45 2	-7.63-2	-1.46 2
58.0051	58.0920	0.44	86.00	2.77-1	8.20 2	-2.82-1	-8.21 2
57.2196	58.1575	0.40	7.40	1.27-2	8.03 0	-1.63-2	-8.11 0
58.0821	58.1678	0.44	87.00	2.82-1	8.35 2	-2.87-1	-8.36 2
57.9649	58.1939	0.42	33.00	7.47-2	1.54 2	-7.89-2	-1.55 2
58.1592	58.2436	0.44	88.00	2.88-1	8.50 2	-2.93-1	-8.51 2
57.3336	58.2463	0.40	7.60	1.31-2	8.49 0	-1.67-2	-8.58 0
58.0925	58.3149	0.42	34.00	7.74-2	1.64 2	-8.15-2	-1.64 2
58.2364	58.3196	0.44	89.00	2.93-1	8.65 2	-2.98-1	-8.66 2
57.4442	58.3331	0.40	7.80	1.35-2	8.97 0	-1.72-2	-9.06 0
58.3138	58.3957	0.44	90.00	2.99-1	8.80 2	-3.04-1	-8.81 2
57.5516	58.4179	0.40	8.00	1.39-2	9.46 0	-1.76-2	-9.56 0
58.2170	58.4331	0.42	35.00	8.00-2	1.73 2	-8.42-2	-1.73 2
57.6560	58.5009	0.40	8.20	1.43-2	9.96 0	-1.80-2	-1.01 1
58.3388	58.5489	0.42	36.00	8.27-2	1.83 2	-8.69-2	-1.83 2
57.7576	58.5821	0.40	8.40	1.47-2	1.05 1	-1.84-2	-1.06 1
57.8565	58.6616	0.40	8.60	1.52-2	1.10 1	-1.88-2	-1.11 1
58.4579	58.6624	0.42	37.00	8.54-2	1.92 2	-8.95-2	-1.93 2
57.9529	58.7395	0.40	8.80	1.56-2	1.15 1	-1.92-2	-1.17 1
58.5745	58.7736	0.42	38.00	8.81-2	2.02 2	-9.23-2	-2.03 2
58.0468	58.8159	0.40	9.00	1.60-2	1.21 1	-1.96-2	-1.22 1
58.6887	58.8828	0.42	39.00	9.08-2	2.13 2	-9.50-2	-2.13 2
58.1385	58.8907	0.40	9.20	1.64-2	1.27 1	-2.01-2	-1.28 1
58.2281	58.9642	0.40	9.40	1.68-2	1.32 1	-2.05-2	-1.34 1
58.8008	58.9900	0.42	40.00	9.36-2	2.23 2	-9.77-2	-2.24 2
58.3155	59.0362	0.40	9.60	1.73-2	1.38 1	-2.09-2	-1.40 1
58.9108	59.0954	0.42	41.00	9.63-2	2.34 2	-1.01-1	-2.35 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
58.4010	59.1070	0.40	9.80	1.77-2	1.44 1	-2.13-2	-1.46 1
58.4847	59.1765	0.40	10.00	1.81-2	1.51 1	-2.17-2	-1.52 1
59.0188	59.1990	0.42	42.00	9.92-2	2.45 2	-1.03-1	-2.45 2
59.1249	59.3009	0.42	43.00	1.02-1	2.56 2	-1.06-1	-2.57 2
58.6861	59.3450	0.40	10.50	1.91-2	1.67 1	-2.28-2	-1.68 1
59.2293	59.4013	0.42	44.00	1.05-1	2.67 2	-1.09-1	-2.68 2
59.3321	59.5001	0.42	45.00	1.08-1	2.79 2	-1.12-1	-2.80 2
58.8775	59.5066	0.40	11.00	2.02-2	1.83 1	-2.38-2	-1.85 1
59.4332	59.5976	0.42	46.00	1.11-1	2.91 2	-1.15-1	-2.91 2
59.0600	59.6618	0.40	11.50	2.13-2	2.01 1	-2.49-2	-2.02 1
59.5329	59.6937	0.42	47.00	1.14-1	3.03 2	-1.18-1	-3.03 2
59.6312	59.7885	0.42	48.00	1.17-1	3.15 2	-1.21-1	-3.15 2
59.2342	59.8112	0.40	12.00	2.23-2	2.19 1	-2.60-2	-2.21 1
59.7281	59.8821	0.42	49.00	1.19-1	3.27 2	-1.24-1	-3.28 2
59.4011	59.9552	0.40	12.50	2.34-2	2.38 1	-2.70-2	-2.40 1
59.8237	59.9746	0.42	50.00	1.23-1	3.39 2	-1.27-1	-3.40 2
56.1613	60.0520	0.38	1.95	1.79-3	4.04-1	-5.00-3	-4.21-1
59.9182	60.0660	0.42	51.00	1.26-1	3.52 2	-1.30-1	-3.53 2
59.5613	60.0943	0.40	13.00	2.45-2	2.58 1	-2.81-2	-2.60 1
56.3545	60.1224	0.38	2.00	1.88-3	4.31-1	-5.09-3	-4.49-1
59.7152	60.2287	0.40	13.50	2.55-2	2.79 1	-2.92-2	-2.80 1
56.7161	60.2603	0.38	2.10	2.07-3	4.88-1	-5.26-3	-5.07-1
59.8634	60.3589	0.40	14.00	2.66-2	3.00 1	-3.02-2	-3.02 1
57.0487	60.3943	0.38	2.20	2.25-3	5.48-1	-5.44-3	-5.68-1
57.3561	60.5244	0.38	2.30	2.43-3	6.12-1	-5.62-3	-6.33-1
57.6418	60.6507	0.38	2.40	2.62-3	6.80-1	-5.80-3	-7.02-1
57.9083	60.7732	0.38	2.50	2.80-3	7.51-1	-5.98-3	-7.75-1
58.1580	60.8922	0.38	2.60	2.98-3	8.26-1	-6.16-3	-8.51-1
58.3927	61.0077	0.38	2.70	3.17-3	9.04-1	-6.34-3	-9.30-1
58.6140	61.1199	0.38	2.80	3.35-3	9.86-1	-6.52-3	-1.01 0
58.8234	61.2289	0.38	2.90	3.54-3	1.07 0	-6.70-3	-1.10 0
59.0218	61.3350	0.38	3.00	3.72-3	1.16 0	-6.88-3	-1.19 0
59.2105	61.4381	0.38	3.10	3.91-3	1.25 0	-7.06-3	-1.28 0
59.3903	61.5386	0.38	3.20	4.09-3	1.35 0	-7.25-3	-1.38 0
59.5619	61.6364	0.38	3.30	4.28-3	1.45 0	-7.43-3	-1.48 0
59.7260	61.7317	0.38	3.40	4.46-3	1.55 0	-7.61-3	-1.59 0
59.8833	61.8247	0.38	3.50	4.65-3	1.66 0	-7.80-3	-1.70 0
56.0282	65.3923	0.36	1.00	2.14-4	6.63-2	-3.00-3	-7.29-2
56.7990	65.4574	0.36	1.05	3.01-4	7.71-2	-3.07-3	-8.42-2
57.4856	65.5330	0.36	1.10	3.87-4	8.88-2	-3.15-3	-9.65-2
58.1019	65.6159	0.36	1.15	4.72-4	1.02-1	-3.23-3	-1.10-1
58.6590	65.7036	0.36	1.20	5.58-4	1.15-1	-3.31-3	-1.24-1
59.1658	65.7944	0.36	1.25	6.43-4	1.30-1	-3.39-3	-1.39-1
59.6294	65.8872	0.36	1.30	7.29-4	1.45-1	-3.46-3	-1.55-1
59.8375	73.0836	0.34	0.78	-6.60-6	3.19-2	-2.35-3	-3.63-2
59.1888	73.0901	0.34	0.76	-3.97-5	2.91-2	-2.32-3	-3.34-2
58.4895	73.1073	0.34	0.74	-7.30-5	2.65-2	-2.30-3	-3.06-2
57.7332	73.1371	0.34	0.72	-1.06-4	2.41-2	-2.27-3	-2.80-2
56.9127	73.1820	0.34	0.70	-1.40-4	2.18-2	-2.24-3	-2.55-2
56.0192	73.2451	0.34	0.68	-1.74-4	1.96-2	-2.22-3	-2.32-2
59.3150	82.9486	0.32	0.56	-2.16-4	1.03-2	-1.80-3	-1.28-2
57.5190	83.1823	0.32	0.54	-2.49-4	8.90-3	-1.78-3	-1.13-2
57.6052	95.6693	0.30	0.44	-2.66-4	4.16-3	-1.45-3	-5.82-3
56.2134	129.522	0.26	0.32	-2.10-4	1.19-3	-9.97-4	-2.14-3
58.8558	208.545	0.20	0.22	-9.50-5	2.80-4	-5.85-4	-8.18-4

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
60.00	65.00						
60.0115	60.1563	0.42	52.00	1.29-1	3.65 2	-1.33-1	-3.65 2
60.1037	60.2457	0.42	53.00	1.32-1	3.78 2	-1.36-1	-3.78 2
60.1949	60.3341	0.42	54.00	1.35-1	3.91 2	-1.39-1	-3.92 2
60.2851	60.4217	0.42	55.00	1.38-1	4.04 2	-1.42-1	-4.05 2
60.0064	60.4851	0.40	14.50	2.77-2	3.22 1	-3.13-2	-3.24 1
60.3744	60.5084	0.42	56.00	1.41-1	4.18 2	-1.45-1	-4.18 2
60.4629	60.5943	0.42	57.00	1.45-1	4.31 2	-1.49-1	-4.32 2
60.1445	60.6075	0.40	15.00	2.88-2	3.45 1	-3.24-2	-3.47 1
60.5505	60.6795	0.42	58.00	1.48-1	4.45 2	-1.52-1	-4.46 2
60.2781	60.7264	0.40	15.50	2.99-2	3.69 1	-3.35-2	-3.71 1
60.6373	60.7639	0.42	59.00	1.51-1	4.59 2	-1.55-1	-4.60 2
60.4075	60.8421	0.40	16.00	3.10-2	3.93 1	-3.46-2	-3.95 1
60.7233	60.8477	0.42	60.00	1.55-1	4.73 2	-1.59-1	-4.74 2
60.8087	60.9309	0.42	61.00	1.58-1	4.87 2	-1.62-1	-4.88 2
60.5330	60.9546	0.40	16.50	3.21-2	4.18 1	-3.57-2	-4.20 1
60.8934	61.0134	0.42	62.00	1.61-1	5.01 2	-1.66-1	-5.02 2
60.6548	61.0643	0.40	17.00	3.32-2	4.44 1	-3.68-2	-4.46 1
60.9775	61.0954	0.42	63.00	1.65-1	5.16 2	-1.69-1	-5.17 2
60.7731	61.1712	0.40	17.50	3.43-2	4.71 1	-3.79-2	-4.73 1
61.0610	61.1769	0.42	64.00	1.68-1	5.30 2	-1.73-1	-5.31 2
61.1440	61.2579	0.42	65.00	1.72-1	5.45 2	-1.76-1	-5.46 2
60.8883	61.2755	0.40	18.00	3.54-2	4.98 1	-3.90-2	-5.00 1
61.2264	61.3384	0.42	66.00	1.76-1	5.60 2	-1.80-1	-5.60 2
61.0004	61.3773	0.40	18.50	3.65-2	5.26 1	-4.01-2	-5.28 1
61.3083	61.4184	0.42	67.00	1.79-1	5.74 2	-1.83-1	-5.75 2
61.1096	61.4768	0.40	19.00	3.76-2	5.55 1	-4.12-2	-5.57 1
61.3898	61.4981	0.42	68.00	1.83-1	5.89 2	-1.87-1	-5.90 2
61.2161	61.5741	0.40	19.50	3.87-2	5.84 1	-4.23-2	-5.87 1
61.4709	61.5774	0.42	69.00	1.87-1	6.05 2	-1.91-1	-6.05 2
61.5515	61.6563	0.42	70.00	1.91-1	6.20 2	-1.95-1	-6.20 2
61.3200	61.6693	0.40	20.00	3.98-2	6.15 1	-4.34-2	-6.17 1
61.6319	61.7349	0.42	71.00	1.94-1	6.35 2	-1.99-1	-6.36 2
61.7118	61.8132	0.42	72.00	1.98-1	6.50 2	-2.02-1	-6.51 2
61.5208	61.8538	0.40	21.00	4.21-2	6.78 1	-4.57-2	-6.80 1
61.7915	61.8913	0.42	73.00	2.02-1	6.66 2	-2.06-1	-6.66 2
60.0342	61.9154	0.38	3.60	4.83-3	1.77 0	-7.98-3	-1.81 0
61.8709	61.9691	0.42	74.00	2.06-1	6.81 2	-2.11-1	-6.82 2
60.1793	62.0039	0.38	3.70	5.02-3	1.89 0	-8.17-3	-1.92 0
61.7128	62.0310	0.40	22.00	4.43-2	7.43 1	-4.79-2	-7.46 1
61.9500	62.0467	0.42	75.00	2.10-1	6.97 2	-2.15-1	-6.97 2
60.3190	62.0904	0.38	3.80	5.21-3	2.00 0	-8.35-3	-2.04 0
62.0289	62.1240	0.42	76.00	2.15-1	7.12 2	-2.19-1	-7.13 2
60.4536	62.1749	0.38	3.90	5.39-3	2.13 0	-8.54-3	-2.17 0
62.1076	62.2013	0.42	77.00	2.19-1	7.28 2	-2.23-1	-7.29 2
61.8969	62.2016	0.40	23.00	4.66-2	8.12 1	-5.02-2	-8.15 1
60.5835	62.2576	0.38	4.00	5.58-3	2.25 0	-8.72-3	-2.29 0
62.1862	62.2784	0.42	78.00	2.23-1	7.44 2	-2.27-1	-7.44 2
62.2646	62.3553	0.42	79.00	2.28-1	7.59 2	-2.32-1	-7.60 2
62.0738	62.3661	0.40	24.00	4.89-2	8.83 1	-5.25-2	-8.86 1
60.8305	62.4175	0.38	4.20	5.96-3	2.51 0	-9.09-3	-2.56 0
62.3428	62.4322	0.42	80.00	2.32-1	7.75 2	-2.36-1	-7.76 2
62.4210	62.5090	0.42	81.00	2.36-1	7.91 2	-2.41-1	-7.92 2
62.2441	62.5250	0.40	25.00	5.12-2	9.57 1	-5.48-2	-9.60 1
61.0622	62.5708	0.38	4.40	6.33-3	2.79 0	-9.46-3	-2.83 0
62.4991	62.5858	0.42	82.00	2.41-1	8.07 2	-2.45-1	-8.08 2
62.5771	62.6625	0.42	83.00	2.46-1	8.23 2	-2.50-1	-8.24 2
62.4085	62.6788	0.40	26.00	5.36-2	1.03 2	-5.72-2	-1.04 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
61.2802	62.7180	0.38	4.60	6.71-3	3.08 0	-9.84-3	-3.13 0
62.6552	62.7392	0.42	84.00	2.50-1	8.39 2	-2.55-1	-8.40 2
62.7332	62.8160	0.42	85.00	2.55-1	8.55 2	-2.59-1	-8.56 2
62.5673	62.8278	0.40	27.00	5.59-2	1.11 2	-5.95-2	-1.12 2
61.4861	62.8596	0.38	4.80	7.08-3	3.38 0	-1.02-2	-3.43 0
62.8112	62.8928	0.42	86.00	2.60-1	8.71 2	-2.64-1	-8.72 2
62.8893	62.9696	0.42	87.00	2.65-1	8.87 2	-2.69-1	-8.88 2
62.7210	62.9723	0.40	28.00	5.83-2	1.20 2	-6.19-2	-1.20 2
61.6811	62.9960	0.38	5.00	7.46-3	3.70 0	-1.06-2	-3.75 0
62.9674	63.0466	0.42	88.00	2.70-1	9.03 2	-2.74-1	-9.04 2
62.8700	63.1128	0.40	29.00	6.06-2	1.28 2	-6.42-2	-1.28 2
63.0457	63.1237	0.42	89.00	2.76-1	9.19 2	-2.80-1	-9.20 2
61.8665	63.1276	0.38	5.20	7.84-3	4.03 0	-1.10-2	-4.09 0
63.1241	63.2009	0.42	90.00	2.81-1	9.35 2	-2.85-1	-9.36 2
63.0146	63.2495	0.40	30.00	6.30-2	1.37 2	-6.66-2	-1.37 2
62.0430	63.2547	0.38	5.40	8.22-3	4.37 0	-1.13-2	-4.43 0
62.2115	63.3776	0.38	5.60	8.60-3	4.73 0	-1.17-2	-4.80 0
63.1552	63.3826	0.40	31.00	6.54-2	1.46 2	-6.90-2	-1.46 2
62.3727	63.4965	0.38	5.80	8.98-3	5.11 0	-1.21-2	-5.17 0
63.2920	63.5124	0.40	32.00	6.79-2	1.55 2	-7.15-2	-1.56 2
62.5273	63.6118	0.38	6.00	9.36-3	5.49 0	-1.25-2	-5.56 0
63.4252	63.6390	0.40	33.00	7.03-2	1.65 2	-7.39-2	-1.65 2
62.6756	63.7237	0.38	6.20	9.74-3	5.89 0	-1.29-2	-5.97 0
63.5552	63.7628	0.40	34.00	7.28-2	1.74 2	-7.64-2	-1.75 2
62.8184	63.8324	0.38	6.40	1.01-2	6.31 0	-1.32-2	-6.38 0
63.6821	63.8838	0.40	35.00	7.52-2	1.84 2	-7.88-2	-1.85 2
62.9559	63.9380	0.38	6.60	1.05-2	6.74 0	-1.36-2	-6.82 0
63.8060	64.0022	0.40	36.00	7.77-2	1.95 2	-8.13-2	-1.95 2
63.0885	64.0407	0.38	6.80	1.09-2	7.18 0	-1.40-2	-7.26 0
63.9273	64.1182	0.40	37.00	8.03-2	2.05 2	-8.39-2	-2.06 2
63.2166	64.1408	0.38	7.00	1.13-2	7.64 0	-1.44-2	-7.72 0
64.0460	64.2319	0.40	38.00	8.28-2	2.16 2	-8.64-2	-2.17 2
63.3405	64.2383	0.38	7.20	1.17-2	8.11 0	-1.48-2	-8.19 0
63.4605	64.3333	0.38	7.40	1.21-2	8.60 0	-1.52-2	-8.68 0
64.1623	64.3434	0.40	39.00	8.54-2	2.27 2	-8.90-2	-2.28 2
63.5768	64.4260	0.38	7.60	1.24-2	9.09 0	-1.55-2	-9.18 0
64.2764	64.4529	0.40	40.00	8.79-2	2.38 2	-9.15-2	-2.39 2
63.6896	64.5166	0.38	7.80	1.28-2	9.61 0	-1.59-2	-9.70 0
64.3883	64.5605	0.40	41.00	9.05-2	2.50 2	-9.41-2	-2.50 2
63.7992	64.6051	0.38	8.00	1.32-2	1.01 1	-1.63-2	-1.02 1
64.4981	64.6662	0.40	42.00	9.32-2	2.61 2	-9.68-2	-2.62 2
63.9057	64.6915	0.38	8.20	1.36-2	1.07 1	-1.67-2	-1.08 1
64.6061	64.7702	0.40	43.00	9.58-2	2.73 2	-9.94-2	-2.74 2
64.0093	64.7761	0.38	8.40	1.40-2	1.12 1	-1.71-2	-1.13 1
64.1102	64.8589	0.38	8.60	1.44-2	1.18 1	-1.75-2	-1.19 1
64.7123	64.8726	0.40	44.00	9.85-2	2.85 2	-1.02-1	-2.86 2
64.2085	64.9400	0.38	8.80	1.48-2	1.24 1	-1.79-2	-1.25 1
64.8157	64.9734	0.40	45.00	1.01-1	2.98 2	-1.05-1	-2.98 2
64.3044	65.0194	0.38	9.00	1.52-2	1.30 1	-1.83-2	-1.31 1
64.9196	65.0728	0.40	46.00	1.04-1	3.10 2	-1.08-1	-3.11 2
64.3979	65.0972	0.38	9.20	1.56-2	1.36 1	-1.87-2	-1.37 1
64.4892	65.1735	0.38	9.40	1.59-2	1.42 1	-1.90-2	-1.43 1
64.5785	65.2484	0.38	9.60	1.63-2	1.48 1	-1.94-2	-1.49 1
64.6657	65.3218	0.38	9.80	1.67-2	1.55 1	-1.98-2	-1.56 1
64.7510	65.3939	0.38	10.00	1.71-2	1.61 1	-2.02-2	-1.63 1
64.9564	65.5686	0.38	10.50	1.81-2	1.79 1	-2.12-2	-1.80 1
60.0556	65.9810	0.36	1.35	8.14-4	1.62-1	-3.54-3	-1.72-1
60.4493	66.0750	0.36	1.40	8.99-4	1.79-1	-3.62-3	-1.90-1
60.8145	66.1688	0.36	1.45	9.84-4	1.97-1	-3.70-3	-2.09-1
61.1546	66.2619	0.36	1.50	1.07-3	2.17-1	-3.79-3	-2.29-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
61.4723	66.3542	0.36	1.55	1.15-3	2.37-1	-3.87-3	-2.50-1
61.7701	66.4454	0.36	1.60	1.24-3	2.58-1	-3.95-3	-2.72-1
62.0501	66.5354	0.36	1.65	1.32-3	2.81-1	-4.03-3	-2.94-1
62.3141	66.6240	0.36	1.70	1.41-3	3.04-1	-4.11-3	-3.18-1
62.5636	66.7112	0.36	1.75	1.49-3	3.28-1	-4.19-3	-3.43-1
62.7999	66.7970	0.36	1.80	1.58-3	3.53-1	-4.28-3	-3.69-1
63.0243	66.8813	0.36	1.85	1.67-3	3.80-1	-4.36-3	-3.96-1
63.2377	66.9642	0.36	1.90	1.75-3	4.07-1	-4.44-3	-4.23-1
63.4412	67.0455	0.36	1.95	1.84-3	4.35-1	-4.52-3	-4.52-1
63.6355	67.1254	0.36	2.00	1.92-3	4.64-1	-4.61-3	-4.82-1
63.9992	67.2809	0.36	2.10	2.09-3	5.25-1	-4.77-3	-5.44-1
64.3339	67.4309	0.36	2.20	2.26-3	5.90-1	-4.94-3	-6.10-1
64.6436	67.5756	0.36	2.30	2.43-3	6.60-1	-5.11-3	-6.81-1
64.9315	67.7152	0.36	2.40	2.61-3	7.32-1	-5.28-3	-7.55-1
60.4409	73.0861	0.34	0.80	2.63-5	3.48-2	-2.37-3	-3.94-2
61.0038	73.0961	0.34	0.82	5.91-5	3.78-2	-2.40-3	-4.26-2
61.5302	73.1125	0.34	0.84	9.17-5	4.10-2	-2.43-3	-4.60-2
62.0237	73.1343	0.34	0.86	1.24-4	4.43-2	-2.46-3	-4.95-2
62.4874	73.1606	0.34	0.88	1.57-4	4.78-2	-2.48-3	-5.32-2
62.9240	73.1908	0.34	0.90	1.89-4	5.15-2	-2.51-3	-5.70-2
63.3359	73.2243	0.34	0.92	2.21-4	5.53-2	-2.54-3	-6.10-2
63.7253	73.2604	0.34	0.94	2.53-4	5.92-2	-2.57-3	-6.52-2
64.0941	73.2989	0.34	0.96	2.86-4	6.33-2	-2.60-3	-6.95-2
64.4439	73.3393	0.34	0.98	3.18-4	6.76-2	-2.63-3	-7.39-2
64.7763	73.3813	0.34	1.00	3.50-4	7.21-2	-2.65-3	-7.86-2
64.7707	82.4875	0.32	0.64	-8.60-5	1.73-2	-1.89-3	-2.04-2
63.6149	82.5506	0.32	0.62	-1.18-4	1.53-2	-1.86-3	-1.83-2
62.3349	82.6433	0.32	0.60	-1.50-4	1.35-2	-1.84-3	-1.63-2
60.9100	82.7729	0.32	0.58	-1.82-4	1.18-2	-1.82-3	-1.45-2
64.1388	94.6219	0.30	0.48	-1.99-4	6.10-3	-1.48-3	-8.02-3
61.1298	95.0644	0.30	0.45	-2.32-4	5.07-3	-1.46-3	-6.86-3
60.1353	110.392	0.28	0.38	-2.30-4	2.41-3	-1.20-3	-3.69-3
65.00	70.00						
65.0209	65.1707	0.40	47.00	1.07-1	3.23 2	-1.10-1	-3.24 2
65.1207	65.2674	0.40	48.00	1.09-1	3.36 2	-1.13-1	-3.37 2
65.2192	65.3628	0.40	49.00	1.12-1	3.49 2	-1.16-1	-3.50 2
65.3164	65.4569	0.40	50.00	1.15-1	3.62 2	-1.19-1	-3.63 2
65.4123	65.5500	0.40	51.00	1.18-1	3.76 2	-1.22-1	-3.77 2
65.5070	65.6420	0.40	52.00	1.21-1	3.90 2	-1.24-1	-3.90 2
65.6007	65.7329	0.40	53.00	1.24-1	4.04 2	-1.27-1	-4.04 2
65.1517	65.7360	0.38	11.00	1.91-2	1.97 1	-2.22-2	-1.98 1
65.6932	65.8229	0.40	54.00	1.27-1	4.18 2	-1.30-1	-4.18 2
65.3377	65.8967	0.38	11.50	2.01-2	2.15 1	-2.32-2	-2.17 1
65.7848	65.9120	0.40	55.00	1.30-1	4.32 2	-1.33-1	-4.33 2
65.8754	66.0002	0.40	56.00	1.33-1	4.46 2	-1.36-1	-4.47 2
65.5155	66.0512	0.38	12.00	2.11-2	2.35 1	-2.42-2	-2.37 1
65.9652	66.0876	0.40	57.00	1.36-1	4.61 2	-1.39-1	-4.61 2
66.0540	66.1742	0.40	58.00	1.39-1	4.75 2	-1.42-1	-4.76 2
65.6856	66.2001	0.38	12.50	2.21-2	2.56 1	-2.52-2	-2.57 1
66.1421	66.2600	0.40	59.00	1.42-1	4.90 2	-1.45-1	-4.91 2
65.8489	66.3437	0.38	13.00	2.31-2	2.77 1	-2.62-2	-2.78 1
66.2294	66.3452	0.40	60.00	1.45-1	5.05 2	-1.49-1	-5.06 2
66.3159	66.4297	0.40	61.00	1.48-1	5.21 2	-1.52-1	-5.21 2
66.0058	66.4824	0.38	13.50	2.41-2	2.99 1	-2.72-2	-3.01 1
66.4018	66.5135	0.40	62.00	1.51-1	5.36 2	-1.55-1	-5.37 2
66.4870	66.5968	0.40	63.00	1.55-1	5.51 2	-1.58-1	-5.52 2
66.1569	66.6167	0.38	14.00	2.51-2	3.22 1	-2.82-2	-3.24 1
66.5716	66.6795	0.40	64.00	1.58-1	5.67 2	-1.62-1	-5.68 2

TABLE B

R_1	R_2	ψ_1	ψ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
66.3027	66.7467	0.38	14.50	2.61-2	3.46 1	-2.92-2	-3.48 1
66.6557	66.7617	0.40	65.00	1.61-1	5.82 2	-1.65-1	-5.83 2
66.7392	66.8434	0.40	66.00	1.65-1	5.98 2	-1.68-1	-5.99 2
66.4434	66.8729	0.38	15.00	2.71-2	3.70 1	-3.02-2	-3.72 1
66.8222	66.9247	0.40	67.00	1.68-1	6.14 2	-1.72-1	-6.15 2
66.5795	66.9953	0.38	15.50	2.82-2	3.96 1	-3.13-2	-3.98 1
66.9047	67.0055	0.40	68.00	1.72-1	6.30 2	-1.75-1	-6.31 2
66.9868	67.0859	0.40	69.00	1.75-1	6.46 2	-1.79-1	-6.47 2
66.7114	67.1143	0.38	16.00	2.92-2	4.22 1	-3.23-2	-4.24 1
67.0685	67.1660	0.40	70.00	1.79-1	6.63 2	-1.82-1	-6.63 2
66.8392	67.2301	0.38	16.50	3.02-2	4.49 1	-3.33-2	-4.51 1
67.1498	67.2457	0.40	71.00	1.82-1	6.79 2	-1.86-1	-6.80 2
67.2307	67.3251	0.40	72.00	1.86-1	6.95 2	-1.90-1	-6.96 2
66.9632	67.3429	0.38	17.00	3.13-2	4.77 1	-3.43-2	-4.79 1
67.3114	67.4042	0.40	73.00	1.90-1	7.12 2	-1.93-1	-7.13 2
67.0838	67.4527	0.38	17.50	3.23-2	5.06 1	-3.54-2	-5.08 1
67.3917	67.4830	0.40	74.00	1.94-1	7.28 2	-1.97-1	-7.29 2
67.2010	67.5599	0.38	18.00	3.33-2	5.35 1	-3.64-2	-5.37 1
67.4718	67.5616	0.40	75.00	1.97-1	7.45 2	-2.01-1	-7.46 2
67.5516	67.6400	0.40	76.00	2.01-1	7.62 2	-2.05-1	-7.63 2
67.3151	67.6645	0.38	18.50	3.44-2	5.65 1	-3.74-2	-5.68 1
67.6312	67.7183	0.40	77.00	2.05-1	7.79 2	-2.09-1	-7.79 2
67.4263	67.7666	0.38	19.00	3.54-2	5.96 1	-3.85-2	-5.99 1
67.7106	67.7963	0.40	78.00	2.09-1	7.95 2	-2.13-1	-7.96 2
65.2002	67.8500	0.36	2.50	2.78-3	8.09-1	-5.45-3	-8.33-1
67.5347	67.8664	0.38	19.50	3.65-2	6.28 1	-3.95-2	-6.31 1
67.7899	67.8743	0.40	79.00	2.13-1	8.12 2	-2.17-1	-8.13 2
67.8690	67.9521	0.40	80.00	2.18-1	8.29 2	-2.21-1	-8.30 2
67.6405	67.9641	0.38	20.00	3.75-2	6.61 1	-4.06-2	-6.63 1
65.4520	67.9803	0.36	2.60	2.95-3	8.90-1	-5.62-3	-9.15-1
67.9480	68.0298	0.40	81.00	2.22-1	8.46 2	-2.25-1	-8.47 2
65.6888	68.1064	0.36	2.70	3.12-3	9.75-1	-5.79-3	-1.00 0
68.0269	68.1075	0.40	82.00	2.26-1	8.63 2	-2.30-1	-8.64 2
67.8448	68.1532	0.38	21.00	3.96-2	7.28 1	-4.27-2	-7.31 1
68.1058	68.1851	0.40	83.00	2.30-1	8.80 2	-2.34-1	-8.81 2
65.9122	68.2285	0.36	2.80	3.29-3	1.06 0	-5.96-3	-1.09 0
68.1846	68.2627	0.40	84.00	2.35-1	8.97 2	-2.38-1	-8.98 2
68.0401	68.3348	0.38	22.00	4.17-2	7.99 1	-4.48-2	-8.02 1
68.2634	68.3403	0.40	85.00	2.39-1	9.15 2	-2.43-1	-9.16 2
66.1236	68.3467	0.36	2.90	3.47-3	1.16 0	-6.13-3	-1.18 0
68.3422	68.4180	0.40	86.00	2.44-1	9.32 2	-2.48-1	-9.33 2
66.3241	68.4613	0.36	3.00	3.64-3	1.25 0	-6.30-3	-1.28 0
68.4210	68.4957	0.40	87.00	2.49-1	9.49 2	-2.52-1	-9.50 2
68.2274	68.5095	0.38	23.00	4.39-2	8.73 1	-4.70-2	-8.76 1
66.5148	68.5726	0.36	3.10	3.81-3	1.35 0	-6.47-3	-1.38 0
68.5000	68.5735	0.40	88.00	2.53-1	9.66 2	-2.57-1	-9.67 2
68.5789	68.6514	0.40	89.00	2.58-1	9.83 2	-2.62-1	-9.84 2
68.4072	68.6778	0.38	24.00	4.60-2	9.49 1	-4.91-2	-9.52 1
66.6965	68.6807	0.36	3.20	3.99-3	1.46 0	-6.64-3	-1.49 0
68.6580	68.7294	0.40	90.00	2.63-1	1.00 3	-2.67-1	-1.00 3
66.8700	68.7857	0.36	3.30	4.16-3	1.57 0	-6.81-3	-1.60 0
68.5804	68.8403	0.38	25.00	4.82-2	1.03 2	-5.13-2	-1.03 2
67.0360	68.8879	0.36	3.40	4.33-3	1.68 0	-6.99-3	-1.71 0
67.1951	68.9873	0.36	3.50	4.51-3	1.79 0	-7.16-3	-1.83 0
68.7474	68.9975	0.38	26.00	5.04-2	1.11 2	-5.34-2	-1.12 2
67.3478	69.0842	0.36	3.60	4.68-3	1.91 0	-7.33-3	-1.95 0
68.9087	69.1497	0.38	27.00	5.26-2	1.20 2	-5.56-2	-1.20 2
67.4946	69.1786	0.36	3.70	4.86-3	2.04 0	-7.51-3	-2.08 0
67.6360	69.2706	0.36	3.80	5.03-3	2.16 0	-7.68-3	-2.20 0
69.0648	69.2973	0.38	28.00	5.48-2	1.29 2	-5.78-2	-1.29 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
67.7723	69.3405	0.36	3.90	5.21-3	2.30 0	-7.85-3	-2.34 0
69.2162	69.4407	0.38	29.00	5.70-2	1.38 2	-6.01-2	-1.38 2
67.9039	69.4482	0.36	4.00	5.38-3	2.43 0	-8.03-3	-2.47 0
69.3630	69.5802	0.38	30.00	5.92-2	1.47 2	-6.23-2	-1.48 2
68.1541	69.6177	0.36	4.20	5.73-3	2.71 0	-8.38-3	-2.76 0
69.5057	69.7159	0.38	31.00	6.15-2	1.57 2	-6.46-2	-1.57 2
68.3887	69.7798	0.36	4.40	6.08-3	3.01 0	-8.73-3	-3.06 0
69.6445	69.8482	0.38	32.00	6.38-2	1.67 2	-6.68-2	-1.67 2
68.6097	69.9351	0.36	4.60	6.44-3	3.32 0	-9.08-3	-3.37 0
69.7797	69.9773	0.38	33.00	6.60-2	1.77 2	-6.91-2	-1.78 2
68.8184	70.0843	0.36	4.80	6.79-3	3.65 0	-9.43-3	-3.70 0
69.9115	70.1033	0.38	34.00	6.84-2	1.88 2	-7.14-2	-1.88 2
69.0161	70.2277	0.36	5.00	7.14-3	4.00 0	-9.78-3	-4.05 0
69.2040	70.3658	0.36	5.20	7.50-3	4.36 0	-1.01-2	-4.41 0
69.3831	70.4991	0.36	5.40	7.85-3	4.73 0	-1.05-2	-4.79 0
69.5540	70.6278	0.36	5.60	8.21-3	5.12 0	-1.08-2	-5.18 0
69.7175	70.7522	0.36	5.80	8.57-3	5.52 0	-1.12-2	-5.59 0
69.8743	70.8727	0.36	6.00	8.92-3	5.94 0	-1.16-2	-6.01 0
65.5396	73.4916	0.34	1.05	4.30-4	8.38-2	-2.73-3	-9.08-2
66.2199	73.6070	0.34	1.10	5.09-4	9.66-2	-2.80-3	-1.04-1
66.8309	73.7251	0.34	1.15	5.89-4	1.10-1	-2.87-3	-1.18-1
67.3836	73.8443	0.34	1.20	6.68-4	1.25-1	-2.95-3	-1.34-1
67.8866	73.9635	0.34	1.25	7.48-4	1.41-1	-3.02-3	-1.50-1
68.3470	74.0818	0.34	1.30	8.27-4	1.58-1	-3.10-3	-1.68-1
68.7706	74.1988	0.34	1.35	9.06-4	1.76-1	-3.17-3	-1.86-1
69.1621	74.3140	0.34	1.40	9.86-4	1.95-1	-3.25-3	-2.06-1
69.5254	74.4273	0.34	1.45	1.06-3	2.15-1	-3.33-3	-2.26-1
69.8638	74.5383	0.34	1.50	1.14-3	2.36-1	-3.40-3	-2.48-1
67.6489	82.4253	0.32	0.70	7.49-6	2.40-2	-1.96-3	-2.77-2
66.7746	82.4290	0.32	0.68	-2.34-5	2.16-2	-1.93-3	-2.51-2
68.4518	82.4345	0.32	0.72	3.82-5	2.66-2	-1.98-3	-3.04-2
65.8192	82.4485	0.32	0.66	-5.46-5	1.94-2	-1.91-3	-2.27-2
69.1919	82.4543	0.32	0.74	6.88-5	2.93-2	-2.01-3	-3.33-2
69.8765	82.4827	0.32	0.76	9.92-5	3.21-2	-2.03-3	-3.63-2
68.9828	94.0739	0.30	0.52	-1.36-4	8.54-3	-1.51-3	-1.08-2
66.7309	94.3016	0.30	0.50	-1.67-4	7.25-3	-1.49-3	-9.32-3
65.9537	109.362	0.28	0.40	-1.96-4	3.08-3	-1.21-3	-4.48-3
67.0120	127.439	0.26	0.34	-1.74-4	1.63-3	-9.98-4	-2.69-3
70.00	77.00						
70.0402	70.2265	0.38	35.00	7.07-2	1.99 2	-7.38-2	-1.99 2
70.1659	70.3471	0.38	36.00	7.30-2	2.10 2	-7.61-2	-2.10 2
70.2888	70.4651	0.38	37.00	7.54-2	2.21 2	-7.85-2	-2.22 2
70.4091	70.5807	0.38	38.00	7.78-2	2.33 2	-8.08-2	-2.33 2
70.5269	70.6942	0.38	39.00	8.02-2	2.45 2	-8.32-2	-2.45 2
70.6424	70.8055	0.38	40.00	8.26-2	2.57 2	-8.57-2	-2.57 2
70.7558	70.9148	0.38	41.00	8.50-2	2.69 2	-8.81-2	-2.70 2
70.0248	70.9895	0.36	6.20	9.28-3	6.38 0	-1.19-2	-6.45 0
70.8670	71.0222	0.38	42.00	8.75-2	2.82 2	-9.05-2	-2.82 2
70.1696	71.1028	0.36	6.40	9.64-3	6.83 0	-1.23-2	-6.90 0
70.9763	71.1278	0.38	43.00	8.99-2	2.95 2	-9.30-2	-2.95 2
70.3091	71.2128	0.36	6.60	1.00-2	7.30 0	-1.26-2	-7.37 0
71.0838	71.2318	0.38	44.00	9.24-2	3.08 2	-9.55-2	-3.08 2
70.4437	71.3198	0.36	6.80	1.04-2	7.78 0	-1.30-2	-7.85 0
71.1895	71.3341	0.38	45.00	9.50-2	3.21 2	-9.81-2	-3.21 2
70.5737	71.4238	0.36	7.00	1.07-2	8.27 0	-1.33-2	-8.35 0
71.2935	71.4349	0.38	46.00	9.75-2	3.34 2	-1.01-1	-3.35 2
70.6994	71.5251	0.36	7.20	1.11-2	8.78 0	-1.37-2	-8.87 0
71.3960	71.5343	0.38	47.00	1.00-1	3.48 2	-1.03-1	-3.49 2

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
70.8212	71.6238	0.36	7.40	1.14-2	9.31 0	-1.41-2	-9.39 0
71.4970	71.6323	0.38	48.00	1.03-1	3.62 2	-1.06-1	-3.63 2
70.9392	71.7201	0.36	7.60	1.18-2	9.85 0	-1.44-2	-9.94 0
71.5966	71.7290	0.38	49.00	1.05-1	3.76 2	-1.08-1	-3.77 2
71.0537	71.8140	0.36	7.80	1.22-2	1.04 1	-1.48-2	-1.05 1
71.6948	71.8245	0.38	50.00	1.08-1	3.91 2	-1.11-1	-3.91 2
71.1649	71.9057	0.36	8.00	1.25-2	1.10 1	-1.52-2	-1.11 1
71.7918	71.9188	0.38	51.00	1.11-1	4.05 2	-1.14-1	-4.06 2
71.2730	71.9953	0.36	8.20	1.29-2	1.16 1	-1.55-2	-1.17 1
71.8875	72.0120	0.38	52.00	1.13-1	4.20 2	-1.16-1	-4.21 2
71.3781	72.0829	0.36	8.40	1.33-2	1.22 1	-1.59-2	-1.23 1
71.9821	72.1041	0.38	53.00	1.16-1	4.35 2	-1.19-1	-4.36 2
71.4805	72.1685	0.36	8.60	1.36-2	1.28 1	-1.63-2	-1.29 1
72.0757	72.1952	0.38	54.00	1.19-1	4.50 2	-1.22-1	-4.51 2
71.5803	72.2523	0.36	8.80	1.40-2	1.34 1	-1.66-2	-1.35 1
72.1681	72.2854	0.38	55.00	1.22-1	4.66 2	-1.25-1	-4.66 2
71.6775	72.3344	0.36	9.00	1.44-2	1.41 1	-1.70-2	-1.42 1
72.2597	72.3747	0.38	56.00	1.24-1	4.81 2	-1.27-1	-4.82 2
71.7724	72.4148	0.36	9.20	1.47-2	1.47 1	-1.74-2	-1.48 1
72.3502	72.4631	0.38	57.00	1.27-1	4.97 2	-1.30-1	-4.98 2
71.8651	72.4936	0.36	9.40	1.51-2	1.54 1	-1.77-2	-1.55 1
72.4400	72.5507	0.38	58.00	1.30-1	5.13 2	-1.33-1	-5.14 2
71.9556	72.5709	0.36	9.60	1.55-2	1.61 1	-1.81-2	-1.62 1
72.5288	72.6375	0.38	59.00	1.33-1	5.29 2	-1.36-1	-5.30 2
72.0441	72.6466	0.36	9.80	1.58-2	1.68 1	-1.85-2	-1.69 1
72.1307	72.7210	0.36	10.00	1.62-2	1.75 1	-1.88-2	-1.76 1
72.6169	72.7236	0.38	60.00	1.36-1	5.45 2	-1.39-1	-5.46 2
72.7042	72.8090	0.38	61.00	1.39-1	5.62 2	-1.42-1	-5.62 2
72.7909	72.8938	0.38	62.00	1.42-1	5.78 2	-1.45-1	-5.79 2
72.3391	72.9011	0.36	10.50	1.71-2	1.94 1	-1.97-2	-1.95 1
72.8768	72.9780	0.38	63.00	1.45-1	5.95 2	-1.48-1	-5.96 2
72.9622	73.0615	0.38	64.00	1.48-1	6.12 2	-1.51-1	-6.12 2
72.5371	73.0734	0.36	11.00	1.81-2	2.13 1	-2.07-2	-2.15 1
73.0469	73.1446	0.38	65.00	1.51-1	6.29 2	-1.54-1	-6.29 2
73.1311	73.2271	0.38	66.00	1.54-1	6.46 2	-1.58-1	-6.47 2
72.7258	73.2387	0.36	11.50	1.90-2	2.34 1	-2.16-2	-2.35 1
73.2148	73.3091	0.38	67.00	1.58-1	6.63 2	-1.61-1	-6.64 2
73.2979	73.3907	0.38	68.00	1.61-1	6.80 2	-1.64-1	-6.81 2
72.9061	73.3976	0.36	12.00	1.99-2	2.55 1	-2.25-2	-2.56 1
73.3806	73.4719	0.38	69.00	1.64-1	6.98 2	-1.67-1	-6.99 2
73.0786	73.5505	0.36	12.50	2.09-2	2.77 1	-2.35-2	-2.79 1
73.4629	73.5526	0.38	70.00	1.68-1	7.15 2	-1.71-1	-7.16 2
73.5448	73.6331	0.38	71.00	1.71-1	7.33 2	-1.74-1	-7.34 2
73.2441	73.6979	0.36	13.00	2.18-2	3.00 1	-2.44-2	-3.02 1
73.6263	73.7131	0.38	72.00	1.74-1	7.51 2	-1.77-1	-7.52 2
73.7075	73.7929	0.38	73.00	1.78-1	7.69 2	-1.81-1	-7.69 2
73.4032	73.8402	0.36	13.50	2.27-2	3.25 1	-2.54-2	-3.26 1
73.7884	73.8724	0.38	74.00	1.81-1	7.87 2	-1.84-1	-7.87 2
73.8690	73.9517	0.38	75.00	1.85-1	8.05 2	-1.88-1	-8.05 2
73.5563	73.9778	0.36	14.00	2.37-2	3.50 1	-2.63-2	-3.51 1
73.9493	74.0307	0.38	76.00	1.89-1	8.23 2	-1.92-1	-8.24 2
74.0294	74.1095	0.38	77.00	1.92-1	8.41 2	-1.95-1	-8.42 2
73.7040	74.1110	0.36	14.50	2.46-2	3.75 1	-2.73-2	-3.77 1
74.1093	74.1882	0.38	78.00	1.96-1	8.59 2	-1.99-1	-8.60 2
73.8466	74.2402	0.36	15.00	2.56-2	4.02 1	-2.82-2	-4.04 1
74.1890	74.2667	0.38	79.00	2.00-1	8.77 2	-2.03-1	-8.78 2
74.2686	74.3450	0.38	80.00	2.04-1	8.96 2	-2.07-1	-8.97 2
73.9845	74.3655	0.36	15.50	2.65-2	4.30 1	-2.92-2	-4.32 1
74.3481	74.4233	0.38	81.00	2.08-1	9.14 2	-2.11-1	-9.15 2
74.1181	74.4872	0.36	16.00	2.75-2	4.58 1	-3.01-2	-4.60 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
74.4274	74.5015	0.38	82.00	2.12-1	9.33 2	-2.15-1	-9.34 2
74.5067	74.5796	0.38	83.00	2.16-1	9.51 2	-2.19-1	-9.52 2
74.2475	74.6056	0.36	16.50	2.85-2	4.88 1	-3.11-2	-4.90 1
70.1802	74.6472	0.34	1.55	1.22-3	2.59-1	-3.48-3	-2.71-1
74.5859	74.6577	0.38	84.00	2.20-1	9.70 2	-2.23-1	-9.71 2
74.3731	74.7208	0.36	17.00	2.94-2	5.18 1	-3.21-2	-5.20 1
74.6651	74.7358	0.38	85.00	2.24-1	9.88 2	-2.27-1	-9.89 2
70.4769	74.7537	0.34	1.60	1.30-3	2.82-1	-3.56-3	-2.95-1
74.7443	74.8140	0.38	86.00	2.28-1	1.01 3	-2.32-1	-1.01 3
74.4952	74.8330	0.36	17.50	3.04-2	5.49 1	-3.30-2	-5.52 1
70.7559	74.8579	0.34	1.65	1.38-3	3.06-1	-3.63-3	-3.20-1
74.8235	74.8921	0.38	87.00	2.33-1	1.03 3	-2.36-1	-1.03 3
74.6138	74.9424	0.36	18.00	3.14-2	5.81 1	-3.40-2	-5.84 1
71.0191	74.9598	0.34	1.70	1.46-3	3.32-1	-3.71-3	-3.46-1
74.9027	74.9703	0.38	88.00	2.37-1	1.04 3	-2.40-1	-1.04 3
74.9821	75.0486	0.38	89.00	2.42-1	1.06 3	-2.45-1	-1.06 3
74.7293	75.0491	0.36	18.50	3.23-2	6.14 1	-3.50-2	-6.17 1
71.2680	75.0594	0.34	1.75	1.54-3	3.58-1	-3.79-3	-3.73-1
75.0615	75.1271	0.38	90.00	2.46-1	1.08 3	-2.50-1	-1.08 3
74.8419	75.1533	0.36	19.00	3.33-2	6.48 1	-3.59-2	-6.50 1
71.5038	75.1568	0.34	1.80	1.62-3	3.86-1	-3.87-3	-4.01-1
71.7278	75.2521	0.34	1.85	1.70-3	4.14-1	-3.94-3	-4.30-1
74.9516	75.2551	0.36	19.50	3.43-2	6.83 1	-3.69-2	-6.85 1
71.9409	75.3452	0.34	1.90	1.78-3	4.44-1	-4.02-3	-4.60-1
75.0586	75.3547	0.36	20.00	3.53-2	7.18 1	-3.79-2	-7.21 1
72.1441	75.4363	0.34	1.95	1.86-3	4.75-1	-4.10-3	-4.92-1
72.3383	75.5253	0.34	2.00	1.94-3	5.07-1	-4.18-3	-5.24-1
75.2652	75.5474	0.36	21.00	3.73-2	7.92 1	-3.99-2	-7.95 1
72.7019	75.6978	0.34	2.10	2.10-3	5.74-1	-4.34-3	-5.92-1
75.4627	75.7322	0.36	22.00	3.93-2	8.69 1	-4.19-2	-8.72 1
73.0367	75.8630	0.34	2.20	2.26-3	6.45-1	-4.49-3	-6.65-1
75.6520	75.9099	0.36	23.00	4.13-2	9.49 1	-4.39-2	-9.52 1
73.3466	76.0215	0.34	2.30	2.42-3	7.21-1	-4.65-3	-7.41-1
75.8337	76.0811	0.36	24.00	4.33-2	1.03 2	-4.59-2	-1.04 2
73.6348	76.1738	0.34	2.40	2.58-3	8.00-1	-4.81-3	-8.22-1
76.0087	76.2462	0.36	25.00	4.53-2	1.12 2	-4.79-2	-1.12 2
73.9040	76.3202	0.34	2.50	2.74-3	8.85-1	-4.97-3	-9.08-1
76.1773	76.4059	0.36	26.00	4.73-2	1.21 2	-5.00-2	-1.21 2
74.1564	76.4612	0.34	2.60	2.90-3	9.73-1	-5.13-3	-9.98-1
76.3402	76.5604	0.36	27.00	4.94-2	1.30 2	-5.20-2	-1.31 2
74.3938	76.5971	0.34	2.70	3.06-3	1.07 0	-5.29-3	-1.09 0
76.4978	76.7102	0.36	28.00	5.15-2	1.40 2	-5.41-2	-1.40 2
74.6179	76.7283	0.34	2.80	3.22-3	1.16 0	-5.45-3	-1.19 0
74.8299	76.8550	0.34	2.90	3.39-3	1.26 0	-5.61-3	-1.29 0
76.6505	76.8556	0.36	29.00	5.35-2	1.50 2	-5.62-2	-1.50 2
75.0311	76.9776	0.34	3.00	3.55-3	1.37 0	-5.77-3	-1.40 0
76.7986	76.9970	0.36	30.00	5.56-2	1.60 2	-5.83-2	-1.61 2
75.2225	77.0963	0.34	3.10	3.71-3	1.48 0	-5.93-3	-1.51 0
76.9425	77.1345	0.36	31.00	5.77-2	1.71 2	-6.04-2	-1.71 2
75.4050	77.2114	0.34	3.20	3.87-3	1.59 0	-6.09-3	-1.63 0
75.5792	77.3230	0.34	3.30	4.04-3	1.71 0	-6.26-3	-1.75 0
75.7460	77.4313	0.34	3.40	4.20-3	1.84 0	-6.42-3	-1.87 0
75.9058	77.5366	0.34	3.50	4.36-3	1.96 0	-6.58-3	-2.00 0
76.0593	77.6389	0.34	3.60	4.53-3	2.10 0	-6.74-3	-2.13 0
76.2069	77.7386	0.34	3.70	4.69-3	2.23 0	-6.91-3	-2.27 0
76.3490	77.8356	0.34	3.80	4.85-3	2.37 0	-7.07-3	-2.41 0
76.4861	77.9302	0.34	3.90	5.02-3	2.52 0	-7.23-3	-2.56 0
76.6184	78.0224	0.34	4.00	5.18-3	2.66 0	-7.40-3	-2.70 0
76.8700	78.2003	0.34	4.20	5.51-3	2.97 0	-7.72-3	-3.02 0
70.5115	82.5182	0.32	0.78	1.30-4	3.52-2	-2.06-3	-3.95-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
71.1023	82.5594	0.32	0.80	1.60-4	3.84-2	-2.08-3	-4.29-2
71.6536	82.6053	0.32	0.82	1.90-4	4.17-2	-2.11-3	-4.65-2
72.1692	82.6550	0.32	0.84	2.20-4	4.52-2	-2.14-3	-5.02-2
72.6527	82.7077	0.32	0.86	2.50-4	4.89-2	-2.16-3	-5.40-2
73.1070	82.7630	0.32	0.88	2.80-4	5.28-2	-2.19-3	-5.81-2
73.5349	82.8201	0.32	0.90	3.10-4	5.68-2	-2.22-3	-6.23-2
73.9388	82.8789	0.32	0.92	3.39-4	6.10-2	-2.24-3	-6.67-2
74.3206	82.9387	0.32	0.94	3.69-4	6.54-2	-2.27-3	-7.13-2
74.6823	82.9995	0.32	0.96	3.99-4	7.00-2	-2.30-3	-7.60-2
75.0255	83.0609	0.32	0.98	4.29-4	7.47-2	-2.33-3	-8.10-2
75.3516	83.1227	0.32	1.00	4.58-4	7.96-2	-2.35-3	-8.61-2
76.1009	83.2778	0.32	1.05	5.33-4	9.27-2	-2.42-3	-9.96-2
76.7691	83.4324	0.32	1.10	6.07-4	1.07-1	-2.49-3	-1.14-1
76.8518	93.7257	0.30	0.62	1.25-5	1.72-2	-1.62-3	-2.02-2
75.6142	93.7274	0.30	0.60	-1.65-5	1.52-2	-1.60-3	-1.80-2
74.2361	93.7547	0.30	0.58	-4.58-5	1.33-2	-1.57-3	-1.59-2
72.6930	93.8148	0.30	0.56	-7.54-5	1.15-2	-1.55-3	-1.41-2
70.9544	93.9171	0.30	0.54	-1.05-4	9.97-3	-1.53-3	-1.23-2
74.7491	108.167	0.28	0.44	-1.33-4	4.77-3	-1.23-3	-6.42-3
70.7493	108.651	0.28	0.42	-1.64-4	3.86-3	-1.22-3	-5.38-3
75.5016	126.096	0.26	0.36	-1.42-4	2.18-3	-1.00-3	-3.35-3
72.6729	148.488	0.24	0.30	-1.34-4	1.03-3	-8.31-4	-1.89-3
73.3692	174.771	0.22	0.26	-1.08-4	5.82-4	-6.94-4	-1.27-3
77.00	84.00						
77.0825	77.2685	0.36	32.00	5.99-2	1.82 2	-6.25-2	-1.82 2
77.2188	77.3992	0.36	33.00	6.20-2	1.93 2	-6.46-2	-1.94 2
77.3517	77.5267	0.36	34.00	6.42-2	2.05 2	-6.68-2	-2.05 2
77.4813	77.6514	0.36	35.00	6.63-2	2.16 2	-6.90-2	-2.17 2
77.6079	77.7732	0.36	36.00	6.85-2	2.29 2	-7.12-2	-2.29 2
77.7317	77.8925	0.36	37.00	7.07-2	2.41 2	-7.34-2	-2.41 2
77.8529	78.0094	0.36	38.00	7.30-2	2.54 2	-7.56-2	-2.54 2
77.9715	78.1240	0.36	39.00	7.52-2	2.67 2	-7.78-2	-2.67 2
78.0878	78.2364	0.36	40.00	7.75-2	2.80 2	-8.01-2	-2.80 2
78.2018	78.3467	0.36	41.00	7.98-2	2.93 2	-8.24-2	-2.94 2
77.1061	78.3701	0.34	4.40	5.84-3	3.30 0	-8.05-3	-3.35 0
78.3137	78.4551	0.36	42.00	8.21-2	3.07 2	-8.47-2	-3.08 2
77.3284	78.5325	0.34	4.60	6.17-3	3.64 0	-8.38-3	-3.69 0
78.4236	78.5617	0.36	43.00	8.44-2	3.21 2	-8.70-2	-3.22 2
78.5317	78.6665	0.36	44.00	8.67-2	3.35 2	-8.93-2	-3.36 2
77.5384	78.6881	0.34	4.80	6.50-3	4.01 0	-8.71-3	-4.06 0
78.6379	78.7697	0.36	45.00	8.91-2	3.50 2	-9.17-2	-3.51 2
77.7375	78.8376	0.34	5.00	6.83-3	4.38 0	-9.04-3	-4.44 0
78.7425	78.8713	0.36	46.00	9.15-2	3.65 2	-9.41-2	-3.65 2
78.8455	78.9714	0.36	47.00	9.39-2	3.80 2	-9.65-2	-3.80 2
77.9266	78.9813	0.34	5.20	7.16-3	4.78 0	-9.37-3	-4.83 0
78.9470	79.0702	0.36	48.00	9.63-2	3.95 2	-9.89-2	-3.96 2
78.1068	79.1198	0.34	5.40	7.50-3	5.19 0	-9.71-3	-5.25 0
79.0470	79.1675	0.36	49.00	9.87-2	4.11 2	-1.01-1	-4.11 2
78.2789	79.2534	0.34	5.60	7.83-3	5.62 0	-1.00-2	-5.68 0
79.1456	79.2637	0.36	50.00	1.01-1	4.26 2	-1.04-1	-4.27 2
79.2430	79.3586	0.36	51.00	1.04-1	4.42 2	-1.06-1	-4.43 2
78.4436	79.3824	0.34	5.80	8.17-3	6.06 0	-1.04-2	-6.13 0
79.3391	79.4524	0.36	52.00	1.06-1	4.59 2	-1.09-1	-4.59 2
78.6014	79.5071	0.34	6.00	8.50-3	6.52 0	-1.07-2	-6.59 0
79.4341	79.5450	0.36	53.00	1.09-1	4.75 2	-1.11-1	-4.76 2
78.7530	79.6279	0.34	6.20	8.84-3	7.00 0	-1.10-2	-7.07 0
79.5279	79.6367	0.36	54.00	1.11-1	4.92 2	-1.14-1	-4.92 2
79.6207	79.7274	0.36	55.00	1.14-1	5.08 2	-1.17-1	-5.09 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
78.8989	79.7450	0.34	6.40	9.17-3	7.50 0	-1.14-2	-7.57 0
79.7125	79.8171	0.36	56.00	1.17-1	5.25 2	-1.19-1	-5.26 2
79.0394	79.8587	0.34	6.60	9.51-3	8.01 0	-1.17-2	-8.08 0
79.8034	79.9060	0.36	57.00	1.19-1	5.43 2	-1.22-1	-5.43 2
79.1749	79.9690	0.34	6.80	9.85-3	8.54 0	-1.21-2	-8.62 0
79.8933	79.9940	0.36	58.00	1.22-1	5.60 2	-1.25-1	-5.61 2
79.3058	80.0763	0.34	7.00	1.02-2	9.09 0	-1.24-2	-9.16 0
79.9824	80.0812	0.36	59.00	1.25-1	5.78 2	-1.27-1	-5.78 2
80.0707	80.1677	0.36	60.00	1.27-1	5.95 2	-1.30-1	-5.96 2
79.4324	80.1806	0.34	7.20	1.05-2	9.65 0	-1.27-2	-9.73 0
80.1582	80.2535	0.36	61.00	1.30-1	6.13 2	-1.33-1	-6.14 2
79.5550	80.2823	0.34	7.40	1.09-2	1.02 1	-1.31-2	-1.03 1
80.2450	80.3386	0.36	62.00	1.33-1	6.31 2	-1.36-1	-6.32 2
79.6738	80.3813	0.34	7.60	1.12-2	1.08 1	-1.34-2	-1.09 1
80.3311	80.4230	0.36	63.00	1.36-1	6.50 2	-1.38-1	-6.50 2
79.7891	80.4778	0.34	7.80	1.15-2	1.14 1	-1.38-2	-1.15 1
80.4166	80.5069	0.36	64.00	1.39-1	6.68 2	-1.41-1	-6.69 2
79.9011	80.5720	0.34	8.00	1.19-2	1.21 1	-1.41-2	-1.22 1
80.5014	80.5902	0.36	65.00	1.42-1	6.87 2	-1.44-1	-6.87 2
80.0099	80.6640	0.34	8.20	1.22-2	1.27 1	-1.44-2	-1.28 1
80.5857	80.6729	0.36	66.00	1.45-1	7.05 2	-1.47-1	-7.06 2
80.1158	80.7539	0.34	8.40	1.26-2	1.34 1	-1.48-2	-1.35 1
80.6695	80.7552	0.36	67.00	1.48-1	7.24 2	-1.50-1	-7.25 2
80.7527	80.8370	0.36	68.00	1.51-1	7.43 2	-1.53-1	-7.44 2
80.2189	80.8418	0.34	8.60	1.29-2	1.40 1	-1.51-2	-1.41 1
80.8355	80.9183	0.36	69.00	1.54-1	7.62 2	-1.56-1	-7.63 2
80.3193	80.9277	0.34	8.80	1.33-2	1.47 1	-1.55-2	-1.48 1
80.9178	80.9993	0.36	70.00	1.57-1	7.82 2	-1.59-1	-7.82 2
80.4173	81.0118	0.34	9.00	1.36-2	1.55 1	-1.58-2	-1.56 1
80.9997	81.0799	0.36	71.00	1.60-1	8.01 2	-1.63-1	-8.02 2
80.5128	81.0941	0.34	9.20	1.39-2	1.62 1	-1.61-2	-1.63 1
81.0812	81.1601	0.36	72.00	1.63-1	8.20 2	-1.66-1	-8.21 2
80.6061	81.1748	0.34	9.40	1.43-2	1.69 1	-1.65-2	-1.70 1
81.1624	81.2400	0.36	73.00	1.66-1	8.40 2	-1.69-1	-8.41 2
80.6972	81.2538	0.34	9.60	1.46-2	1.77 1	-1.68-2	-1.78 1
81.2433	81.3196	0.36	74.00	1.70-1	8.60 2	-1.72-1	-8.60 2
80.7863	81.3314	0.34	9.80	1.50-2	1.85 1	-1.72-2	-1.86 1
81.3238	81.3989	0.36	75.00	1.73-1	8.79 2	-1.76-1	-8.80 2
80.8734	81.4074	0.34	10.00	1.53-2	1.93 1	-1.75-2	-1.94 1
81.4041	81.4780	0.36	76.00	1.77-1	8.99 2	-1.79-1	-9.00 2
81.4841	81.5569	0.36	77.00	1.80-1	9.19 2	-1.83-1	-9.20 2
81.0831	81.5914	0.34	10.50	1.62-2	2.13 1	-1.84-2	-2.14 1
81.5640	81.6355	0.36	78.00	1.83-1	9.39 2	-1.86-1	-9.40 2
81.6436	81.7141	0.36	79.00	1.87-1	9.59 2	-1.90-1	-9.60 2
81.2824	81.7673	0.34	11.00	1.71-2	2.35 1	-1.93-2	-2.36 1
81.7231	81.7924	0.36	80.00	1.91-1	9.79 2	-1.93-1	-9.80 2
81.8024	81.8707	0.36	81.00	1.94-1	1.00 3	-1.97-1	-1.00 3
81.4723	81.9359	0.34	11.50	1.79-2	2.57 1	-2.01-2	-2.59 1
81.8816	81.9488	0.36	82.00	1.98-1	1.02 3	-2.01-1	-1.02 3
81.9608	82.0269	0.36	83.00	2.02-1	1.04 3	-2.05-1	-1.04 3
81.6536	82.0977	0.34	12.00	1.88-2	2.81 1	-2.10-2	-2.82 1
82.0398	82.1050	0.36	84.00	2.06-1	1.06 3	-2.08-1	-1.06 3
82.1188	82.1830	0.36	85.00	2.10-1	1.08 3	-2.12-1	-1.08 3
81.8271	82.2534	0.34	12.50	1.97-2	3.05 1	-2.19-2	-3.07 1
82.1978	82.2610	0.36	86.00	2.14-1	1.10 3	-2.16-1	-1.10 3
82.2769	82.3391	0.36	87.00	2.18-1	1.12 3	-2.20-1	-1.12 3
81.9935	82.4034	0.34	13.00	2.06-2	3.31 1	-2.28-2	-3.32 1
82.3559	82.4172	0.36	88.00	2.22-1	1.14 3	-2.25-1	-1.14 3
82.4350	82.4954	0.36	89.00	2.26-1	1.16 3	-2.29-1	-1.16 3
82.1535	82.5481	0.34	13.50	2.15-2	3.57 1	-2.37-2	-3.59 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
82.5142	82.5736	0.36	90.00	2.30-1	1.18 3	-2.33-1	-1.18 3
82.3074	82.6879	0.34	14.00	2.23-2	3.85 1	-2.45-2	-3.87 1
82.4558	82.8232	0.34	14.50	2.32-2	4.14 1	-2.54-2	-4.15 1
82.5991	82.9543	0.34	15.00	2.41-2	4.43 1	-2.63-2	-4.45 1
82.7377	83.0814	0.34	15.50	2.50-2	4.74 1	-2.72-2	-4.76 1
82.8718	83.2048	0.34	16.00	2.59-2	5.05 1	-2.81-2	-5.07 1
83.0018	83.3248	0.34	16.50	2.68-2	5.38 1	-2.90-2	-5.40 1
83.1279	83.4414	0.34	17.00	2.77-2	5.71 1	-2.99-2	-5.73 1
83.2504	83.5550	0.34	17.50	2.86-2	6.06 1	-3.08-2	-6.08 1
77.3696	83.5851	0.32	1.15	6.81-4	1.22-1	-2.56-3	-1.30-1
83.3695	83.6657	0.34	18.00	2.95-2	6.41 1	-3.17-2	-6.43 1
77.9131	83.7350	0.32	1.20	7.55-4	1.39-1	-2.63-3	-1.47-1
83.4854	83.7737	0.34	18.50	3.04-2	6.77 1	-3.27-2	-6.80 1
83.5983	83.8791	0.34	19.00	3.14-2	7.15 1	-3.36-2	-7.17 1
78.4080	83.8816	0.32	1.25	8.29-4	1.56-1	-2.71-3	-1.65-1
83.7084	83.9820	0.34	19.50	3.23-2	7.53 1	-3.45-2	-7.55 1
78.8612	84.0246	0.32	1.30	9.03-4	1.75-1	-2.78-3	-1.85-1
83.8157	84.0825	0.34	20.00	3.32-2	7.92 1	-3.54-2	-7.95 1
79.2784	84.1639	0.32	1.35	9.77-4	1.95-1	-2.85-3	-2.05-1
79.6641	84.2994	0.32	1.40	1.05-3	2.16-1	-2.92-3	-2.27-1
80.0223	84.4311	0.32	1.45	1.12-3	2.39-1	-2.99-3	-2.50-1
80.3560	84.5590	0.32	1.50	1.20-3	2.62-1	-3.07-3	-2.74-1
80.6682	84.6834	0.32	1.55	1.27-3	2.87-1	-3.14-3	-2.99-1
80.9611	84.8042	0.32	1.60	1.35-3	3.13-1	-3.21-3	-3.25-1
81.2367	84.9216	0.32	1.65	1.42-3	3.40-1	-3.28-3	-3.53-1
81.4967	85.0358	0.32	1.70	1.50-3	3.68-1	-3.36-3	-3.82-1
81.7426	85.1469	0.32	1.75	1.57-3	3.97-1	-3.43-3	-4.12-1
81.9757	85.2550	0.32	1.80	1.64-3	4.28-1	-3.50-3	-4.43-1
82.1972	85.3602	0.32	1.85	1.72-3	4.60-1	-3.58-3	-4.76-1
82.4081	85.4627	0.32	1.90	1.79-3	4.93-1	-3.65-3	-5.09-1
82.6092	85.5625	0.32	1.95	1.87-3	5.27-1	-3.73-3	-5.44-1
82.8013	85.6599	0.32	2.00	1.94-3	5.63-1	-3.80-3	-5.80-1
83.1614	85.8474	0.32	2.10	2.09-3	6.37-1	-3.95-3	-6.56-1
83.4931	86.0262	0.32	2.20	2.24-3	7.17-1	-4.10-3	-7.36-1
83.8003	86.1969	0.32	2.30	2.39-3	8.01-1	-4.25-3	-8.22-1
77.9690	93.7439	0.30	0.64	4.13-5	1.94-2	-1.64-3	-2.25-2
78.9824	93.7779	0.30	0.66	7.00-5	2.17-2	-1.67-3	-2.51-2
79.9058	93.8241	0.30	0.68	9.84-5	2.43-2	-1.69-3	-2.78-2
80.7507	93.8799	0.30	0.70	1.27-4	2.70-2	-1.71-3	-3.06-2
81.5267	93.9432	0.30	0.72	1.55-4	2.99-2	-1.74-3	-3.37-2
82.2420	94.0122	0.30	0.74	1.83-4	3.29-2	-1.76-3	-3.69-2
82.9037	94.0855	0.30	0.76	2.11-4	3.62-2	-1.79-3	-4.03-2
83.5175	94.1623	0.30	0.78	2.39-4	3.96-2	-1.81-3	-4.39-2
83.4690	107.525	0.28	0.50	-4.59-5	8.33-3	-1.29-3	-1.04-2
80.9967	107.642	0.28	0.48	-7.42-5	7.00-3	-1.27-3	-8.92-3
78.1224	107.845	0.28	0.46	-1.03-4	5.81-3	-1.25-3	-7.60-3
82.2758	125.245	0.26	0.38	-1.11-4	2.84-3	-1.02-3	-4.13-3
82.6238	242.945	0.18	0.20	-5.68-5	2.22-4	-4.82-4	-6.94-4
84.00	92.00						
84.0229	84.2771	0.34	21.00	3.51-2	8.74 1	-3.73-2	-8.76 1
84.2209	84.4636	0.34	22.00	3.69-2	9.59 1	-3.91-2	-9.61 1
84.4106	84.6428	0.34	23.00	3.88-2	1.05 2	-4.10-2	-1.05 2
84.5927	84.8153	0.34	24.00	4.07-2	1.14 2	-4.29-2	-1.14 2
84.7679	84.9816	0.34	25.00	4.26-2	1.24 2	-4.48-2	-1.24 2
84.9367	85.1423	0.34	26.00	4.45-2	1.34 2	-4.67-2	-1.34 2
85.0998	85.2978	0.34	27.00	4.64-2	1.44 2	-4.86-2	-1.44 2
85.2575	85.4484	0.34	28.00	4.83-2	1.55 2	-5.06-2	-1.55 2
85.4102	85.5946	0.34	29.00	5.03-2	1.66 2	-5.25-2	-1.66 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
85.5583	85.7365	0.34	30.00	5.22-2	1.77 2	-5.45-2	-1.78 2
85.7022	85.8746	0.34	31.00	5.42-2	1.89 2	-5.64-2	-1.89 2
85.8420	86.0091	0.34	32.00	5.62-2	2.01 2	-5.84-2	-2.01 2
85.9782	86.1402	0.34	33.00	5.82-2	2.13 2	-6.04-2	-2.14 2
86.1109	86.2681	0.34	34.00	6.02-2	2.26 2	-6.25-2	-2.27 2
84.0861	86.3601	0.32	2.40	2.54-3	8.90-1	-4.40-3	-9.12-1
86.2404	86.3931	0.34	35.00	6.23-2	2.39 2	-6.45-2	-2.40 2
86.3668	86.5152	0.34	36.00	6.43-2	2.53 2	-6.65-2	-2.53 2
84.3531	86.5166	0.32	2.50	2.69-3	9.84-1	-4.54-3	-1.01 0
86.4904	86.6347	0.34	37.00	6.64-2	2.66 2	-6.86-2	-2.67 2
84.6036	86.6667	0.32	2.60	2.85-3	1.08 0	-4.70-3	-1.11 0
86.6112	86.7517	0.34	38.00	6.85-2	2.80 2	-7.07-2	-2.81 2
84.8393	86.8110	0.32	2.70	3.00-3	1.19 0	-4.85-3	-1.21 0
86.7296	86.8664	0.34	39.00	7.06-2	2.95 2	-7.28-2	-2.95 2
85.0618	86.9499	0.32	2.80	3.15-3	1.29 0	-5.00-3	-1.32 0
86.8455	86.9788	0.34	40.00	7.27-2	3.10 2	-7.49-2	-3.10 2
85.2724	87.0838	0.32	2.90	3.30-3	1.41 0	-5.15-3	-1.44 0
86.9592	87.0892	0.34	41.00	7.48-2	3.24 2	-7.70-2	-3.25 2
87.0708	87.1976	0.34	42.00	7.69-2	3.40 2	-7.92-2	-3.40 2
85.4723	87.2130	0.32	3.00	3.45-3	1.53 0	-5.30-3	-1.55 0
87.1804	87.3041	0.34	43.00	7.91-2	3.55 2	-8.13-2	-3.56 2
85.6625	87.3378	0.32	3.10	3.60-3	1.65 0	-5.45-3	-1.68 0
87.2880	87.4089	0.34	44.00	8.13-2	3.71 2	-8.35-2	-3.72 2
85.8438	87.4585	0.32	3.20	3.76-3	1.78 0	-5.60-3	-1.81 0
87.3939	87.5119	0.34	45.00	8.35-2	3.87 2	-8.57-2	-3.88 2
86.0171	87.5754	0.32	3.30	3.91-3	1.91 0	-5.76-3	-1.94 0
87.4980	87.6134	0.34	46.00	8.57-2	4.04 2	-8.80-2	-4.04 2
86.1829	87.6888	0.32	3.40	4.06-3	2.05 0	-5.91-3	-2.08 0
87.6005	87.7134	0.34	47.00	8.80-2	4.20 2	-9.02-2	-4.21 2
86.3419	87.7987	0.32	3.50	4.21-3	2.19 0	-6.06-3	2.22 0
87.7015	87.8119	0.34	48.00	9.02-2	4.37 2	-9.25-2	-4.38 2
86.4945	87.9054	0.32	3.60	4.37-3	2.33 0	-6.21-3	-2.37 0
87.8011	87.9091	0.34	49.00	9.25-2	4.55 2	-9.48-2	-4.55 2
87.8992	88.0050	0.34	50.00	9.48-2	4.72 2	-9.71-2	-4.73 2
86.6414	88.0092	0.32	3.70	4.52-3	2.49 0	-6.37-3	-2.52 0
87.9961	88.0996	0.34	51.00	9.72-2	4.90 2	-9.94-2	-4.90 2
86.7828	88.1101	0.32	3.80	4.68-3	2.64 0	-6.52-3	-2.68 0
88.0917	88.1931	0.34	52.00	9.95-2	5.08 2	-1.02-1	-5.08 2
86.9192	88.2083	0.32	3.90	4.83-3	2.80 0	-6.67-3	-2.84 0
88.1861	88.2855	0.34	53.00	1.02-1	5.26 2	-1.04-1	-5.27 2
87.0508	88.3040	0.32	4.00	4.98-3	2.97 0	-6.83-3	-3.01 0
88.2794	88.3768	0.34	54.00	1.04-1	5.44 2	-1.07-1	-5.45 2
88.3717	88.4671	0.34	55.00	1.07-1	5.63 2	-1.09-1	-5.64 2
87.3013	88.4883	0.32	4.20	5.29-3	3.32 0	-7.14-3	-3.36 0
88.4629	88.5565	0.34	56.00	1.09-1	5.82 2	-1.11-1	-5.83 2
88.5532	88.6450	0.34	57.00	1.12-1	6.01 2	-1.14-1	-6.02 2
87.5363	88.6638	0.32	4.40	5.60-3	3.68 0	-7.44-3	-3.73 0
88.6425	88.7326	0.34	58.00	1.14-1	6.20 2	-1.16-1	-6.21 2
88.7310	88.8194	0.34	59.00	1.17-1	6.40 2	-1.19-1	-6.41 2
87.7576	88.8314	0.32	4.60	5.91-3	4.07 0	-7.75-3	-4.11 0
88.8187	88.9054	0.34	60.00	1.19-1	6.60 2	-1.22-1	-6.60 2
88.9055	88.9907	0.34	61.00	1.22-1	6.80 2	-1.24-1	-6.80 2
87.9667	88.9918	0.32	4.80	6.22-3	4.47 0	-8.07-3	-4.52 0
88.9917	89.0753	0.34	62.00	1.25-1	7.00 2	-1.27-1	-7.00 2
88.1650	89.1455	0.32	5.00	6.53-3	4.89 0	-8.38-3	-4.95 0
89.0772	89.1593	0.34	63.00	1.27-1	7.20 2	-1.29-1	-7.21 2
89.1620	89.2427	0.34	64.00	1.30-1	7.40 2	-1.32-1	-7.41 2
88.3534	89.2932	0.32	5.20	6.84-3	5.33 0	-8.69-3	-5.39 0
89.2461	89.3254	0.34	65.00	1.33-1	7.61 2	-1.35-1	-7.62 2
89.3297	89.4076	0.34	66.00	1.35-1	7.82 2	-1.38-1	-7.83 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
88.5328	89.4353	0.32	5.40	7.16-3	5.79 0	-9.00-3	-5.85 0
89.4128	89.4893	0.34	67.00	1.38-1	8.03 2	-1.40-1	-8.04 2
89.4953	89.5706	0.34	68.00	1.41-1	8.24 2	-1.43-1	-8.25 2
88.7042	89.5722	0.32	5.60	7.47-3	6.27 0	-9.31-3	-6.33 0
89.5773	89.6513	0.34	69.00	1.44-1	8.45 2	-1.46-1	-8.46 2
88.8682	89.7042	0.32	5.80	7.78-3	6.77 0	-9.63-3	-6.84 0
89.6589	89.7317	0.34	70.00	1.47-1	8.66 2	-1.49-1	-8.67 2
89.7401	89.8116	0.34	71.00	1.50-1	8.88 2	-1.52-1	-8.89 2
89.0255	89.8318	0.32	6.00	8.10-3	7.29 0	-9.94-3	-7.36 0
89.8209	89.8912	0.34	72.00	1.53-1	9.10 2	-1.55-1	-9.10 2
89.1765	89.9552	0.32	6.20	8.41-3	7.83 0	-1.03-2	-7.89 0
89.9013	89.9705	0.34	73.00	1.56-1	9.31 2	-1.58-1	-9.32 2
89.9813	90.0494	0.34	74.00	1.59-1	9.53 2	-1.61-1	-9.54 2
89.3217	90.0748	0.32	6.40	8.73-3	8.38 0	-1.06-2	-8.45 0
90.0611	90.1281	0.34	75.00	1.62-1	9.75 2	-1.64-1	-9.76 2
89.4616	90.1906	0.32	6.60	9.05-3	8.95 0	-1.09-2	-9.03 0
90.1406	90.2065	0.34	76.00	1.65-1	9.97 2	-1.67-1	-9.98 2
90.2198	90.2846	0.34	77.00	1.68-1	1.02 3	-1.71-1	-1.02 3
89.5966	90.3031	0.32	6.80	9.36-3	9.55 0	-1.12-2	-9.62 0
90.2988	90.3626	0.34	78.00	1.72-1	1.04 3	-1.74-1	-1.04 3
89.7270	90.4123	0.32	7.00	9.68-3	1.02 1	-1.15-2	-1.02 1
90.3776	90.4404	0.34	79.00	1.75-1	1.06 3	-1.77-1	-1.06 3
90.4562	90.5180	0.34	80.00	1.78-1	1.09 3	-1.81-1	-1.09 3
89.8531	90.5185	0.32	7.20	1.00-2	1.08 1	-1.18-2	-1.09 1
90.5346	90.5955	0.34	81.00	1.82-1	1.11 3	-1.84-1	-1.11 3
89.9752	90.6218	0.32	7.40	1.03-2	1.14 1	-1.22-2	-1.15 1
90.6130	90.6729	0.34	82.00	1.85-1	1.13 3	-1.87-1	-1.13 3
90.0935	90.7224	0.32	7.60	1.06-2	1.21 1	-1.25-2	-1.22 1
90.6912	90.7502	0.34	83.00	1.89-1	1.15 3	-1.91-1	-1.15 3
90.2083	90.8205	0.32	7.80	1.10-2	1.28 1	-1.28-2	-1.29 1
90.7694	90.8274	0.34	84.00	1.92-1	1.18 3	-1.95-1	-1.18 3
90.8474	90.9046	0.34	85.00	1.96-1	1.20 3	-1.98-1	-1.20 3
90.3198	90.9161	0.32	8.00	1.13-2	1.35 1	-1.31-2	-1.36 1
90.9255	90.9818	0.34	86.00	2.00-1	1.22 3	-2.02-1	-1.22 3
90.4282	91.0094	0.32	8.20	1.16-2	1.42 1	-1.34-2	-1.43 1
91.0036	91.0590	0.34	87.00	2.03-1	1.24 3	-2.06-1	-1.25 3
90.5336	91.1005	0.32	8.40	1.19-2	1.50 1	-1.38-2	-1.51 1
91.0816	91.1362	0.34	88.00	2.07-1	1.27 3	-2.10-1	-1.27 3
90.6362	91.1895	0.32	8.60	1.22-2	1.57 1	-1.41-2	-1.58 1
91.1598	91.2135	0.34	89.00	2.11-1	1.29 3	-2.14-1	-1.29 3
90.7362	91.2765	0.32	8.80	1.26-2	1.65 1	-1.44-2	-1.66 1
91.2379	91.2909	0.34	90.00	2.15-1	1.31 3	-2.18-1	-1.31 3
90.8336	91.3616	0.32	9.00	1.29-2	1.73 1	-1.47-2	-1.74 1
90.9287	91.4449	0.32	9.20	1.32-2	1.81 1	-1.50-2	-1.82 1
91.0216	91.5265	0.32	9.40	1.35-2	1.89 1	-1.54-2	-1.91 1
91.1123	91.6064	0.32	9.60	1.38-2	1.98 1	-1.57-2	-1.99 1
91.2009	91.6847	0.32	9.80	1.42-2	2.07 1	-1.60-2	-2.08 1
91.2876	91.7615	0.32	10.00	1.45-2	2.16 1	-1.63-2	-2.17 1
91.4962	91.9472	0.32	10.50	1.53-2	2.39 1	-1.72-2	-2.40 1
91.6945	92.1245	0.32	11.00	1.61-2	2.63 1	-1.80-2	-2.64 1
91.8832	92.2943	0.32	11.50	1.69-2	2.88 1	-1.88-2	-2.90 1
84.0887	94.2414	0.30	0.80	2.67-4	4.32-2	-1.84-3	-4.77-2
84.6217	94.3223	0.30	0.82	2.95-4	4.70-2	-1.86-3	-5.17-2
85.1204	94.4043	0.30	0.84	3.23-4	5.10-2	-1.89-3	-5.59-2
85.5880	94.4870	0.30	0.86	3.50-4	5.52-2	-1.91-3	-6.03-2
86.0275	94.5701	0.30	0.88	3.78-4	5.95-2	-1.94-3	-6.48-2
86.4415	94.6531	0.30	0.90	4.06-4	6.41-2	-1.97-3	-6.96-2
86.8323	94.7360	0.30	0.92	4.34-4	6.89-2	-1.99-3	-7.45-2
87.2019	94.8184	0.30	0.94	4.61-4	7.38-2	-2.02-3	-7.97-2
87.5521	94.9003	0.30	0.96	4.89-4	7.90-2	-2.04-3	-8.50-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
87.8844	94.9815	0.30	0.98	5.17-4	8.44-2	-2.07-3	-9.06-2
88.2002	95.0619	0.30	1.00	5.44-4	8.99-2	-2.10-3	-9.63-2
88.9262	95.2590	0.30	1.05	6.13-4	1.05-1	-2.16-3	-1.12-1
89.5739	95.4499	0.30	1.10	6.83-4	1.21-1	-2.23-3	-1.28-1
90.1562	95.6343	0.30	1.15	7.52-4	1.38-1	-2.30-3	-1.46-1
90.6836	95.8121	0.30	1.20	8.21-4	1.57-1	-2.36-3	-1.65-1
91.1640	95.9834	0.30	1.25	8.90-4	1.77-1	-2.43-3	-1.86-1
91.6042	96.1484	0.30	1.30	9.60-4	1.98-1	-2.50-3	-2.08-1
87.4903	107.465	0.28	0.54	9.33-6	1.15-2	-1.33-3	-1.38-2
85.6141	107.472	0.28	0.52	-1.81-5	9.82-3	-1.31-3	-1.20-2
89.1433	107.493	0.28	0.56	3.65-5	1.33-2	-1.35-3	-1.58-2
90.6095	107.546	0.28	0.58	6.34-5	1.53-2	-1.37-3	-1.80-2
91.9183	107.619	0.28	0.60	9.01-5	1.75-2	-1.39-3	-2.03-2
87.7600	124.723	0.26	0.40	-8.24-5	3.64-3	-1.03-3	-5.04-3
85.7851	146.621	0.24	0.32	-1.02-4	1.46-3	-8.34-4	-2.42-3
92.00	100.00						
92.0635	92.4572	0.32	12.00	1.78-2	3.15 1	-1.96-2	-3.16 1
92.2360	92.6138	0.32	12.50	1.86-2	3.42 1	-2.04-2	-3.44 1
92.4014	92.7645	0.32	13.00	1.94-2	3.71 1	-2.13-2	-3.73 1
92.5603	92.9098	0.32	13.50	2.02-2	4.01 1	-2.21-2	-4.02 1
92.7132	93.0502	0.32	14.00	2.11-2	4.32 1	-2.29-2	-4.33 1
92.8606	93.1859	0.32	14.50	2.19-2	4.64 1	-2.38-2	-4.66 1
93.0029	93.3173	0.32	15.00	2.28-2	4.97 1	-2.46-2	-4.99 1
93.1405	93.4447	0.32	15.50	2.36-2	5.31 1	-2.54-2	-5.33 1
93.2736	93.5683	0.32	16.00	2.44-2	5.67 1	-2.63-2	-5.69 1
93.4026	93.6883	0.32	16.50	2.53-2	6.03 1	-2.71-2	-6.05 1
93.5278	93.8050	0.32	17.00	2.61-2	6.41 1	-2.80-2	-6.43 1
93.6493	93.9186	0.32	17.50	2.70-2	6.80 1	-2.88-2	-6.82 1
93.7674	94.0293	0.32	18.00	2.78-2	7.20 1	-2.97-2	-7.22 1
93.8823	94.1371	0.32	18.50	2.87-2	7.61 1	-3.05-2	-7.63 1
93.9943	94.2423	0.32	19.00	2.95-2	8.03 1	-3.14-2	-8.05 1
94.1033	94.3451	0.32	19.50	3.04-2	8.46 1	-3.23-2	-8.48 1
94.2097	94.4454	0.32	20.00	3.13-2	8.90 1	-3.31-2	-8.92 1
94.4150	94.6394	0.32	21.00	3.30-2	9.81 1	-3.49-2	-9.84 1
94.6111	94.8253	0.32	22.00	3.47-2	1.08 2	-3.66-2	-1.08 2
94.7988	95.0037	0.32	23.00	3.65-2	1.18 2	-3.83-2	-1.18 2
94.9790	95.1754	0.32	24.00	3.83-2	1.28 2	-4.01-2	-1.28 2
95.1523	95.3409	0.32	25.00	4.00-2	1.39 2	-4.19-2	-1.39 2
95.3193	95.5006	0.32	26.00	4.18-2	1.50 2	-4.37-2	-1.51 2
95.4805	95.6550	0.32	27.00	4.36-2	1.62 2	-4.55-2	-1.62 2
95.6364	95.8046	0.32	28.00	4.54-2	1.74 2	-4.73-2	-1.74 2
95.7872	95.9497	0.32	29.00	4.73-2	1.86 2	-4.91-2	-1.87 2
95.9335	96.0905	0.32	30.00	4.91-2	1.99 2	-5.10-2	-2.00 2
96.0756	96.2274	0.32	31.00	5.09-2	2.13 2	-5.28-2	-2.13 2
92.0095	96.3073	0.30	1.35	1.03-3	2.21-1	-2.57-3	-2.31-1
96.2137	96.3607	0.32	32.00	5.28-2	2.26 2	-5.47-2	-2.27 2
92.3845	96.4605	0.30	1.40	1.10-3	2.45-1	-2.64-3	-2.55-1
96.3480	96.4906	0.32	33.00	5.47-2	2.40 2	-5.65-2	-2.41 2
92.7328	96.6083	0.30	1.45	1.17-3	2.70-1	-2.70-3	-2.81-1
96.4789	96.6172	0.32	34.00	5.66-2	2.55 2	-5.84-2	-2.55 2
96.6066	96.7409	0.32	35.00	5.85-2	2.69 2	-6.03-2	-2.70 2
93.0575	96.7508	0.30	1.50	1.24-3	2.97-1	-2.77-3	-3.09-1
96.7313	96.8617	0.32	36.00	6.04-2	2.85 2	-6.22-2	-2.85 2
93.3613	96.8884	0.30	1.55	1.31-3	3.25-1	-2.84-3	-3.37-1
96.8530	96.9799	0.32	37.00	6.23-2	3.00 2	-6.42-2	-3.00 2
93.6464	97.0213	0.30	1.60	1.38-3	3.54-1	-2.91-3	-3.67-1
96.9721	97.0956	0.32	38.00	6.42-2	3.16 2	-6.61-2	-3.16 2
93.9148	97.1499	0.30	1.65	1.45-3	3.85-1	-2.98-3	-3.99-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
97.0887	97.2089	0.32	39.00	6.62-2	3.32 2	-6.81-2	-3.33 2
94.1681	97.2743	0.30	1.70	1.52-3	4.17-1	-3.05-3	-4.31-1
97.2029	97.3200	0.32	40.00	6.82-2	3.49 2	-7.01-2	-3.49 2
94.4078	97.3948	0.30	1.75	1.59-3	4.51-1	-3.12-3	-4.65-1
97.3149	97.4290	0.32	41.00	7.02-2	3.66 2	-7.20-2	-3.66 2
94.6351	97.5116	0.30	1.80	1.66-3	4.86-1	-3.19-3	-5.01-1
97.4247	97.5360	0.32	42.00	7.22-2	3.83 2	-7.41-2	-3.83 2
94.8510	97.6249	0.30	1.85	1.73-3	5.22-1	-3.26-3	-5.38-1
97.5325	97.6411	0.32	43.00	7.42-2	4.00 2	-7.61-2	-4.01 2
95.0567	97.7349	0.30	1.90	1.80-3	5.60-1	-3.33-3	-5.76-1
97.6384	97.7445	0.32	44.00	7.62-2	4.18 2	-7.81-2	-4.19 2
95.2529	97.8417	0.30	1.95	1.87-3	5.99-1	-3.40-3	-6.15-1
97.7425	97.8461	0.32	45.00	7.83-2	4.36 2	-8.02-2	-4.37 2
95.4404	97.9456	0.30	2.00	1.94-3	6.39-1	-3.47-3	-6.56-1
97.8450	97.9462	0.32	46.00	8.04-2	4.55 2	-8.23-2	-4.56 2
97.9458	98.0447	0.32	47.00	8.25-2	4.74 2	-8.44-2	-4.74 2
98.0450	98.1418	0.32	48.00	8.46-2	4.93 2	-8.65-2	-4.94 2
95.7919	98.1449	0.30	2.10	2.08-3	7.24-1	-3.61-3	-7.43-1
98.1429	98.2375	0.32	49.00	8.67-2	5.12 2	-8.86-2	-5.13 2
98.2393	98.3319	0.32	50.00	8.89-2	5.32 2	-9.08-2	-5.33 2
96.1159	98.3341	0.30	2.20	2.22-3	8.15-1	-3.75-3	-8.34-1
98.3344	98.4251	0.32	51.00	9.11-2	5.52 2	-9.30-2	-5.53 2
96.4160	98.5139	0.30	2.30	2.36-3	9.11-1	-3.89-3	-9.31-1
98.4283	98.5171	0.32	52.00	9.33-2	5.73 2	-9.52-2	-5.73 2
98.5210	98.6080	0.32	53.00	9.55-2	5.93 2	-9.74-2	-5.94 2
96.6954	98.6853	0.30	2.40	2.50-3	1.01 0	-4.03-3	-1.03 0
98.6126	98.6979	0.32	54.00	9.77-2	6.14 2	-9.96-2	-6.15 2
98.7031	98.7867	0.32	55.00	1.00-1	6.35 2	-1.02-1	-6.36 2
96.9565	98.8490	0.30	2.50	2.64-3	1.12 0	-4.17-3	-1.14 0
98.7926	98.8745	0.32	56.00	1.02-1	6.56 2	-1.04-1	-6.57 2
98.8812	98.9615	0.32	57.00	1.05-1	6.78 2	-1.06-1	-6.79 2
97.2014	99.0056	0.30	2.60	2.78-3	1.23 0	-4.31-3	-1.26 0
98.9688	99.0476	0.32	58.00	1.07-1	7.00 2	-1.09-1	-7.01 2
99.0555	99.1329	0.32	59.00	1.09-1	7.22 2	-1.11-1	-7.23 2
97.4320	99.1558	0.30	2.70	2.93-3	1.35 0	-4.46-3	-1.38 0
99.1415	99.2174	0.32	60.00	1.12-1	7.44 2	-1.14-1	-7.45 2
97.6497	99.2999	0.30	2.80	3.07-3	1.47 0	-4.60-3	-1.50 0
99.2266	99.3011	0.32	61.00	1.14-1	7.67 2	-1.16-1	-7.67 2
99.3111	99.3842	0.32	62.00	1.17-1	7.89 2	-1.18-1	-7.90 2
97.8558	99.4386	0.30	2.90	3.21-3	1.60 0	-4.74-3	-1.63 0
99.3948	99.4666	0.32	63.00	1.19-1	8.12 2	-1.21-1	-8.13 2
99.4778	99.5484	0.32	64.00	1.22-1	8.36 2	-1.23-1	-8.36 2
98.0515	99.5721	0.30	3.00	3.35-3	1.74 0	-4.88-3	-1.77 0
99.5603	99.6295	0.32	65.00	1.24-1	8.59 2	-1.26-1	-8.60 2
98.2378	99.7008	0.30	3.10	3.50-3	1.88 0	-5.03-3	-1.91 0
99.6421	99.7102	0.32	66.00	1.27-1	8.82 2	-1.29-1	-8.83 2
99.7234	99.7903	0.32	67.00	1.29-1	9.06 2	-1.31-1	-9.07 2
98.4153	99.8252	0.30	3.20	3.64-3	2.02 0	-5.17-3	-2.05 0
99.8042	99.8699	0.32	68.00	1.32-1	9.30 2	-1.34-1	-9.31 2
98.5850	99.9453	0.30	3.30	3.78-3	2.17 0	-5.31-3	-2.21 0
99.8845	99.9490	0.32	69.00	1.35-1	9.54 2	-1.36-1	-9.55 2
99.9643	100.028	0.32	70.00	1.37-1	9.78 2	-1.39-1	-9.79 2
98.7474	100.062	0.30	3.40	3.93-3	2.33 0	-5.46-3	-2.37 0
98.9032	100.174	0.30	3.50	4.07-3	2.49 0	-5.60-3	-2.53 0
99.0528	100.284	0.30	3.60	4.22-3	2.66 0	-5.75-3	-2.70 0
99.1967	100.390	0.30	3.70	4.36-3	2.83 0	-5.89-3	-2.87 0
99.3352	100.493	0.30	3.80	4.51-3	3.01 0	-6.03-3	-3.05 0
99.4689	100.593	0.30	3.90	4.65-3	3.20 0	-6.18-3	-3.24 0
99.5980	100.690	0.30	4.00	4.79-3	3.39 0	-6.32-3	-3.43 0
99.8435	100.878	0.30	4.20	5.09-3	3.78 0	-6.61-3	-3.83 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
97.0887	97.2089	0.32	39.00	6.62-2	3.32 2	-6.81-2	-3.33 2
94.1681	97.2743	0.30	1.70	1.52-3	4.17-1	-3.05-3	-4.31-1
97.2029	97.3200	0.32	40.00	6.82-2	3.49 2	-7.01-2	-3.49 2
94.4078	97.3948	0.30	1.75	1.59-3	4.51-1	-3.12-3	-4.65-1
97.3149	97.4290	0.32	41.00	7.02-2	3.66 2	-7.20-2	-3.66 2
94.6351	97.5116	0.30	1.80	1.66-3	4.86-1	-3.19-3	-5.01-1
97.4247	97.5360	0.32	42.00	7.22-2	3.83 2	-7.41-2	-3.83 2
94.8510	97.6249	0.30	1.85	1.73-3	5.22-1	-3.26-3	-5.38-1
97.5325	97.6411	0.32	43.00	7.42-2	4.00 2	-7.61-2	-4.01 2
95.0567	97.7349	0.30	1.90	1.80-3	5.60-1	-3.33-3	-5.76-1
97.6384	97.7445	0.32	44.00	7.62-2	4.18 2	-7.81-2	-4.19 2
95.2529	97.8417	0.30	1.95	1.87-3	5.99-1	-3.40-3	-6.15-1
97.7425	97.8461	0.32	45.00	7.83-2	4.36 2	-8.02-2	-4.37 2
95.4404	97.9456	0.30	2.00	1.94-3	6.39-1	-3.47-3	-6.56-1
97.8450	97.9462	0.32	46.00	8.04-2	4.55 2	-8.23-2	-4.56 2
97.9458	98.0447	0.32	47.00	8.25-2	4.74 2	-8.44-2	-4.74 2
98.0450	98.1418	0.32	48.00	8.46-2	4.93 2	-8.65-2	-4.94 2
95.7919	98.1449	0.30	2.10	2.08-3	7.24-1	-3.61-3	-7.43-1
98.1429	98.2375	0.32	49.00	8.67-2	5.12 2	-8.86-2	-5.13 2
98.2393	98.3319	0.32	50.00	8.89-2	5.32 2	-9.08-2	-5.33 2
96.1159	98.3341	0.30	2.20	2.22-3	8.15-1	-3.75-3	-8.34-1
98.3344	98.4251	0.32	51.00	9.11-2	5.52 2	-9.30-2	-5.53 2
96.4160	98.5139	0.30	2.30	2.36-3	9.11-1	-3.89-3	-9.31-1
98.4283	98.5171	0.32	52.00	9.33-2	5.73 2	-9.52-2	-5.73 2
98.5210	98.6080	0.32	53.00	9.55-2	5.93 2	-9.74-2	-5.94 2
96.6954	98.6853	0.30	2.40	2.50-3	1.01 0	-4.03-3	-1.03 0
98.6126	98.6979	0.32	54.00	9.77-2	6.14 2	-9.96-2	-6.15 2
98.7031	98.7867	0.32	55.00	1.00-1	6.35 2	-1.02-1	-6.36 2
96.9565	98.8490	0.30	2.50	2.64-3	1.12 0	-4.17-3	-1.14 0
98.7926	98.8745	0.32	56.00	1.02-1	6.56 2	-1.04-1	-6.57 2
98.8812	98.9615	0.32	57.00	1.05-1	6.78 2	-1.06-1	-6.79 2
97.2014	99.0056	0.30	2.60	2.78-3	1.23 0	-4.31-3	-1.26 0
98.9688	99.0476	0.32	58.00	1.07-1	7.00 2	-1.09-1	-7.01 2
99.0555	99.1329	0.32	59.00	1.09-1	7.22 2	-1.11-1	-7.23 2
97.4320	99.1558	0.30	2.70	2.93-3	1.35 0	-4.46-3	-1.38 0
99.1415	99.2174	0.32	60.00	1.12-1	7.44 2	-1.14-1	-7.45 2
97.6497	99.2999	0.30	2.80	3.07-3	1.47 0	-4.60-3	-1.50 0
99.2266	99.3011	0.32	61.00	1.14-1	7.67 2	-1.16-1	-7.67 2
99.3111	99.3842	0.32	62.00	1.17-1	7.89 2	-1.18-1	-7.90 2
97.8558	99.4386	0.30	2.90	3.21-3	1.60 0	-4.74-3	-1.63 0
99.3948	99.4666	0.32	63.00	1.19-1	8.12 2	-1.21-1	-8.13 2
99.4778	99.5484	0.32	64.00	1.22-1	8.36 2	-1.23-1	-8.36 2
98.0515	99.5721	0.30	3.00	3.35-3	1.74 0	-4.88-3	-1.77 0
99.5603	99.6295	0.32	65.00	1.24-1	8.59 2	-1.26-1	-8.60 2
98.2378	99.7008	0.30	3.10	3.50-3	1.88 0	-5.03-3	-1.91 0
99.6421	99.7102	0.32	66.00	1.27-1	8.82 2	-1.29-1	-8.83 2
99.7234	99.7903	0.32	67.00	1.29-1	9.06 2	-1.31-1	-9.07 2
98.4153	99.8252	0.30	3.20	3.64-3	2.02 0	-5.17-3	-2.05 0
99.8042	99.8699	0.32	68.00	1.32-1	9.30 2	-1.34-1	-9.31 2
98.5850	99.9453	0.30	3.30	3.78-3	2.17 0	-5.31-3	-2.21 0
99.8845	99.9490	0.32	69.00	1.35-1	9.54 2	-1.36-1	-9.55 2
99.9643	100.028	0.32	70.00	1.37-1	9.78 2	-1.39-1	-9.79 2
98.7474	100.062	0.30	3.40	3.93-3	2.33 0	-5.46-3	-2.37 0
98.9032	100.174	0.30	3.50	4.07-3	2.49 0	-5.60-3	-2.53 0
99.0528	100.284	0.30	3.60	4.22-3	2.66 0	-5.75-3	-2.70 0
99.1967	100.390	0.30	3.70	4.36-3	2.83 0	-5.89-3	-2.87 0
99.3352	100.493	0.30	3.80	4.51-3	3.01 0	-6.03-3	-3.05 0
99.4689	100.593	0.30	3.90	4.65-3	3.20 0	-6.18-3	-3.24 0
99.5980	100.690	0.30	4.00	4.79-3	3.39 0	-6.32-3	-3.43 0
99.8435	100.878	0.30	4.20	5.09-3	3.78 0	-6.61-3	-3.83 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
93.0931	107.705	0.28	0.62	1.17-4	1.98-2	-1.42-3	-2.28-2
94.1533	107.802	0.28	0.64	1.43-4	2.24-2	-1.44-3	-2.55-2
95.1148	107.905	0.28	0.66	1.69-4	2.51-2	-1.46-3	-2.84-2
95.9908	108.013	0.28	0.68	1.96-4	2.81-2	-1.49-3	-3.15-2
96.7921	108.125	0.28	0.70	2.22-4	3.12-2	-1.51-3	-3.49-2
97.5281	108.239	0.28	0.72	2.48-4	3.45-2	-1.53-3	-3.84-2
98.2065	108.353	0.28	0.74	2.74-4	3.81-2	-1.56-3	-4.21-2
98.8340	108.468	0.28	0.76	3.00-4	4.19-2	-1.58-3	-4.61-2
99.4162	108.583	0.28	0.78	3.26-4	4.58-2	-1.61-3	-5.02-2
99.9579	108.696	0.28	0.80	3.52-4	5.00-2	-1.63-3	-5.46-2
99.1480	124.231	0.26	0.46	-1.58-6	6.90-3	-1.08-3	-8.70-3
96.0018	124.275	0.26	0.44	-2.79-5	5.66-3	-1.06-3	-7.32-3
92.2608	124.424	0.26	0.42	-5.48-5	4.57-3	-1.04-3	-6.10-3
95.8181	145.566	0.24	0.34	-7.32-5	2.00-3	-8.43-4	-3.08-3
95.1925	171.867	0.22	0.28	-7.57-5	9.01-4	-6.93-4	-1.68-3
98.9435	203.134	0.20	0.24	-6.08-5	4.94-4	-5.77-4	-1.11-3
100.00	112.00						
100.044	100.106	0.32	71.00	1.40-1	1.00 3	-1.42-1	-1.00 3
100.123	100.184	0.32	72.00	1.43-1	1.03 3	-1.45-1	-1.03 3
100.201	100.262	0.32	73.00	1.46-1	1.05 3	-1.48-1	-1.05 3
100.280	100.339	0.32	74.00	1.49-1	1.08 3	-1.50-1	-1.08 3
100.357	100.416	0.32	75.00	1.51-1	1.10 3	-1.53-1	-1.10 3
100.435	100.493	0.32	76.00	1.54-1	1.13 3	-1.56-1	-1.13 3
100.513	100.569	0.32	77.00	1.57-1	1.15 3	-1.59-1	-1.15 3
100.590	100.645	0.32	78.00	1.60-1	1.18 3	-1.62-1	-1.18 3
100.667	100.721	0.32	79.00	1.63-1	1.20 3	-1.65-1	-1.20 3
100.743	100.797	0.32	80.00	1.67-1	1.23 3	-1.69-1	-1.23 3
100.820	100.873	0.32	81.00	1.70-1	1.25 3	-1.72-1	-1.25 3
100.896	100.949	0.32	82.00	1.73-1	1.28 3	-1.75-1	-1.28 3
100.973	101.024	0.32	83.00	1.76-1	1.30 3	-1.78-1	-1.30 3
100.074	101.056	0.30	4.40	5.38-3	4.20 0	-6.91-3	-4.25 0
101.049	101.100	0.32	84.00	1.80-1	1.33 3	-1.82-1	-1.33 3
101.125	101.175	0.32	85.00	1.83-1	1.35 3	-1.85-1	-1.36 3
100.291	101.226	0.30	4.60	5.67-3	4.64 0	-7.20-3	-4.69 0
101.201	101.250	0.32	86.00	1.87-1	1.38 3	-1.88-1	-1.38 3
101.277	101.326	0.32	87.00	1.90-1	1.41 3	-1.92-1	-1.41 3
100.496	101.388	0.30	4.80	5.96-3	5.10 0	-7.49-3	-5.15 0
101.354	101.401	0.32	88.00	1.94-1	1.43 3	-1.96-1	-1.43 3
101.430	101.476	0.32	89.00	1.97-1	1.46 3	-1.99-1	-1.46 3
100.690	101.544	0.30	5.00	6.25-3	5.59 0	-7.78-3	-5.64 0
101.506	101.552	0.32	90.00	2.01-1	1.48 3	-2.03-1	-1.48 3
100.875	101.693	0.30	5.20	6.55-3	6.09 0	-8.08-3	-6.15 0
101.051	101.836	0.30	5.40	6.84-3	6.62 0	-8.37-3	-6.68 0
101.219	101.974	0.30	5.60	7.13-3	7.17 0	-8.67-3	-7.23 0
101.380	102.107	0.30	5.80	7.43-3	7.74 0	-8.96-3	-7.80 0
101.534	102.235	0.30	6.00	7.73-3	8.33 0	-9.26-3	-8.40 0
101.682	102.359	0.30	6.20	8.02-3	8.95 0	-9.55-3	-9.01 0
101.824	102.479	0.30	6.40	8.32-3	9.58 0	-9.85-3	-9.65 0
101.961	102.595	0.30	6.60	8.62-3	1.02 1	-1.01-2	-1.03 1
102.094	102.707	0.30	6.80	8.91-3	1.09 1	-1.04-2	-1.10 1
102.222	102.817	0.30	7.00	9.21-3	1.16 1	-1.07-2	-1.17 1
102.345	102.923	0.30	7.20	9.51-3	1.23 1	-1.10-2	-1.24 1
102.465	103.026	0.30	7.40	9.81-3	1.31 1	-1.13-2	-1.32 1
102.581	103.126	0.30	7.60	1.01-2	1.39 1	-1.16-2	-1.39 1
102.693	103.224	0.30	7.80	1.04-2	1.46 1	-1.19-2	-1.47 1
102.802	103.320	0.30	8.00	1.07-2	1.54 1	-1.22-2	-1.55 1
102.909	103.413	0.30	8.20	1.10-2	1.63 1	-1.25-2	-1.64 1
103.012	103.503	0.30	8.40	1.13-2	1.71 1	-1.28-2	-1.72 1

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
103.112	103.592	0.30	8.60	1.16-2	1.80 1	-1.32-2	-1.81 1
103.210	103.679	0.30	8.80	1.19-2	1.89 1	-1.35-2	-1.90 1
103.306	103.763	0.30	9.00	1.22-2	1.98 1	-1.38-2	-1.99 1
103.399	103.846	0.30	9.20	1.25-2	2.07 1	-1.41-2	-2.09 1
103.490	103.927	0.30	9.40	1.28-2	2.17 1	-1.44-2	-2.18 1
103.579	104.007	0.30	9.60	1.31-2	2.27 1	-1.47-2	-2.28 1
103.665	104.084	0.30	9.80	1.34-2	2.37 1	-1.50-2	-2.38 1
103.750	104.161	0.30	10.00	1.37-2	2.47 1	-1.53-2	-2.48 1
103.954	104.345	0.30	10.50	1.45-2	2.74 1	-1.60-2	-2.75 1
104.148	104.521	0.30	11.00	1.53-2	3.01 1	-1.68-2	-3.03 1
104.333	104.689	0.30	11.50	1.60-2	3.30 1	-1.76-2	-3.32 1
104.509	104.850	0.30	12.00	1.68-2	3.61 1	-1.84-2	-3.62 1
104.678	105.005	0.30	12.50	1.76-2	3.93 1	-1.91-2	-3.94 1
104.840	105.153	0.30	13.00	1.84-2	4.26 1	-1.99-2	-4.27 1
104.995	105.297	0.30	13.50	1.91-2	4.60 1	-2.07-2	-4.62 1
105.144	105.435	0.30	14.00	1.99-2	4.96 1	-2.15-2	-4.97 1
105.288	105.569	0.30	14.50	2.07-2	5.32 1	-2.22-2	-5.34 1
105.427	105.699	0.30	15.00	2.15-2	5.71 1	-2.30-2	-5.72 1
105.562	105.824	0.30	15.50	2.23-2	6.10 1	-2.38-2	-6.12 1
105.692	105.946	0.30	16.00	2.31-2	6.51 1	-2.46-2	-6.53 1
105.817	106.064	0.30	16.50	2.39-2	6.93 1	-2.54-2	-6.95 1
105.939	106.179	0.30	17.00	2.47-2	7.36 1	-2.62-2	-7.38 1
106.058	106.290	0.30	17.50	2.55-2	7.81 1	-2.70-2	-7.83 1
106.173	106.399	0.30	18.00	2.63-2	8.27 1	-2.78-2	-8.29 1
106.285	106.505	0.30	18.50	2.71-2	8.74 1	-2.86-2	-8.76 1
106.394	106.608	0.30	19.00	2.79-2	9.22 1	-2.94-2	-9.25 1
106.501	106.709	0.30	19.50	2.87-2	9.72 1	-3.02-2	-9.74 1
106.604	106.807	0.30	20.00	2.95-2	1.02 2	-3.10-2	-1.03 2
106.804	106.997	0.30	21.00	3.11-2	1.13 2	-3.27-2	-1.13 2
106.995	107.179	0.30	22.00	3.27-2	1.24 2	-3.43-2	-1.24 2
107.178	107.354	0.30	23.00	3.44-2	1.35 2	-3.59-2	-1.36 2
107.353	107.522	0.30	24.00	3.60-2	1.47 2	-3.76-2	-1.48 2
107.522	107.684	0.30	25.00	3.77-2	1.60 2	-3.93-2	-1.60 2
107.684	107.840	0.30	26.00	3.94-2	1.73 2	-4.09-2	-1.73 2
107.841	107.991	0.30	27.00	4.11-2	1.86 2	-4.26-2	-1.87 2
107.992	108.136	0.30	28.00	4.28-2	2.00 2	-4.43-2	-2.01 2
108.139	108.278	0.30	29.00	4.45-2	2.15 2	-4.60-2	-2.15 2
108.281	108.415	0.30	30.00	4.62-2	2.29 2	-4.77-2	-2.30 2
108.419	108.549	0.30	31.00	4.79-2	2.45 2	-4.95-2	-2.45 2
108.553	108.678	0.30	32.00	4.96-2	2.60 2	-5.12-2	-2.61 2
108.683	108.805	0.30	33.00	5.14-2	2.77 2	-5.30-2	-2.77 2
100.464	108.808	0.28	0.82	3.78-4	5.45-2	-1.65-3	-5.92-2
100.937	108.919	0.28	0.84	4.04-4	5.91-2	-1.68-3	-6.40-2
108.810	108.928	0.30	34.00	5.32-2	2.93 2	-5.47-2	-2.94 2
101.380	109.029	0.28	0.86	4.30-4	6.40-2	-1.70-3	-6.91-2
108.934	109.048	0.30	35.00	5.49-2	3.10 2	-5.65-2	-3.11 2
101.797	109.136	0.28	0.88	4.56-4	6.90-2	-1.73-3	-7.43-2
109.054	109.166	0.30	36.00	5.67-2	3.28 2	-5.83-2	-3.28 2
102.190	109.242	0.28	0.90	4.82-4	7.44-2	-1.75-3	-7.99-2
109.172	109.281	0.30	37.00	5.85-2	3.46 2	-6.01-2	-3.46 2
102.561	109.346	0.28	0.92	5.08-4	7.99-2	-1.78-3	-8.56-2
109.288	109.393	0.30	38.00	6.04-2	3.64 2	-6.19-2	-3.64 2
102.912	109.448	0.28	0.94	5.34-4	8.57-2	-1.80-3	-9.16-2
109.400	109.503	0.30	39.00	6.22-2	3.83 2	-6.38-2	-3.83 2
103.244	109.548	0.28	0.96	5.60-4	9.17-2	-1.83-3	-9.78-2
109.511	109.611	0.30	40.00	6.40-2	4.02 2	-6.56-2	-4.02 2
103.560	109.646	0.28	0.98	5.86-4	9.80-2	-1.85-3	-1.04-1
109.619	109.717	0.30	41.00	6.59-2	4.21 2	-6.75-2	-4.22 2
103.860	109.742	0.28	1.00	6.12-4	1.04-1	-1.88-3	-1.11-1
109.726	109.821	0.30	42.00	6.78-2	4.41 2	-6.93-2	-4.42 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
109.830	109.923	0.30	43.00	6.97-2	4.62 2	-7.12-2	-4.62 2
104.549	109.975	0.28	1.05	6.77-4	1.22-1	-1.94-3	-1.29-1
109.932	110.023	0.30	44.00	7.16-2	4.82 2	-7.32-2	-4.83 2
110.033	110.121	0.30	45.00	7.35-2	5.03 2	-7.51-2	-5.04 2
105.165	110.196	0.28	1.10	7.42-4	1.40-1	-2.01-3	-1.48-1
110.132	110.218	0.30	46.00	7.54-2	5.25 2	-7.70-2	-5.25 2
110.229	110.314	0.30	47.00	7.74-2	5.46 2	-7.90-2	-5.47 2
105.719	110.406	0.28	1.15	8.07-4	1.61-1	-2.07-3	-1.69-1
110.325	110.408	0.30	48.00	7.94-2	5.69 2	-8.10-2	-5.69 2
110.420	110.500	0.30	49.00	8.14-2	5.91 2	-8.29-2	-5.92 2
110.513	110.592	0.30	50.00	8.34-2	6.14 2	-8.50-2	-6.14 2
106.220	110.606	0.28	1.20	8.72-4	1.83-1	-2.14-3	-1.91-1
110.604	110.682	0.30	51.00	8.54-2	6.37 2	-8.70-2	-6.38 2
110.695	110.771	0.30	52.00	8.75-2	6.61 2	-8.90-2	-6.61 2
106.677	110.796	0.28	1.25	9.37-4	2.06-1	-2.20-3	-2.15-1
110.785	110.859	0.30	53.00	8.95-2	6.84 2	-9.11-2	-6.85 2
110.873	110.945	0.30	54.00	9.16-2	7.08 2	-9.32-2	-7.09 2
107.096	110.978	0.28	1.30	1.00-3	2.31-1	-2.26-3	-2.40-1
110.960	111.031	0.30	55.00	9.38-2	7.33 2	-9.53-2	-7.33 2
111.046	111.116	0.30	56.00	9.59-2	7.57 2	-9.75-2	-7.58 2
107.482	111.152	0.28	1.35	1.07-3	2.57-1	-2.33-3	-2.67-1
111.132	111.200	0.30	57.00	9.80-2	7.82 2	-9.96-2	-7.83 2
111.216	111.283	0.30	58.00	1.00-1	8.08 2	-1.02-1	-8.08 2
107.840	111.318	0.28	1.40	1.13-3	2.85-1	-2.39-3	-2.96-1
111.300	111.365	0.30	59.00	1.02-1	8.33 2	-1.04-1	-8.34 2
111.383	111.447	0.30	60.00	1.05-1	8.59 2	-1.06-1	-8.60 2
108.171	111.478	0.28	1.45	1.20-3	3.15-1	-2.46-3	-3.26-1
111.465	111.528	0.30	61.00	1.07-1	8.85 2	-1.09-1	-8.86 2
111.546	111.608	0.30	62.00	1.09-1	9.11 2	-1.11-1	-9.12 2
108.481	111.631	0.28	1.50	1.26-3	3.46-1	-2.52-3	-3.58-1
111.626	111.687	0.30	63.00	1.12-1	9.38 2	-1.13-1	-9.39 2
111.706	111.766	0.30	64.00	1.14-1	9.65 2	-1.15-1	-9.65 2
108.771	111.778	0.28	1.55	1.33-3	3.79-1	-2.59-3	-3.91-1
111.786	111.844	0.30	65.00	1.16-1	9.92 2	-1.18-1	-9.92 2
109.043	111.919	0.28	1.60	1.40-3	4.14-1	-2.66-3	-4.27-1
111.864	111.922	0.30	66.00	1.19-1	1.02 3	-1.20-1	-1.02 3
111.943	111.999	0.30	67.00	1.21-1	1.05 3	-1.23-1	-1.05 3
109.299	112.055	0.28	1.65	1.46-3	4.50-1	-2.72-3	-4.63-1
109.540	112.186	0.28	1.70	1.53-3	4.87-1	-2.79-3	-5.01-1
109.769	112.312	0.28	1.75	1.59-3	5.27-1	-2.85-3	-5.41-1
109.986	112.435	0.28	1.80	1.66-3	5.68-1	-2.92-3	-5.83-1
110.192	112.553	0.28	1.85	1.73-3	6.10-1	-2.98-3	-6.26-1
110.389	112.667	0.28	1.90	1.79-3	6.54-1	-3.05-3	-6.70-1
110.576	112.778	0.28	1.95	1.86-3	7.00-1	-3.12-3	-7.17-1
110.756	112.886	0.28	2.00	1.92-3	7.47-1	-3.18-3	-7.65-1
111.092	113.092	0.28	2.10	2.06-3	8.47-1	-3.32-3	-8.65-1
111.401	113.286	0.28	2.20	2.19-3	9.53-1	-3.45-3	-9.73-1
111.689	113.470	0.28	2.30	2.32-3	1.07 0	-3.58-3	-1.09 0
111.956	113.645	0.28	2.40	2.46-3	1.18 0	-3.72-3	-1.21 0
101.823	124.258	0.26	0.48	2.43-5	8.32-3	-1.10-3	-1.03-2
104.119	124.334	0.26	0.50	4.98-5	9.91-3	-1.12-3	-1.20-2
106.108	124.444	0.26	0.52	7.51-5	1.17-2	-1.14-3	-1.39-2
107.846	124.576	0.26	0.54	1.00-4	1.37-2	-1.16-3	-1.61-2
109.376	124.722	0.26	0.56	1.25-4	1.59-2	-1.18-3	-1.84-2
110.731	124.878	0.26	0.58	1.50-4	1.83-2	-1.20-3	-2.10-2
111.940	125.040	0.26	0.60	1.75-4	2.09-2	-1.23-3	-2.37-2
109.813	144.773	0.24	0.38	-2.01-5	3.51-3	-8.71-4	-4.82-3
103.629	145.013	0.24	0.36	-4.61-5	2.68-3	-8.56-4	-3.87-3
111.007	170.455	0.22	0.30	-4.76-5	1.33-3	-7.00-4	-2.21-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
112.00	124.00						
112.020	112.076	0.30	68.00	1.23-1	1.07 3	-1.25-1	-1.07 3
112.097	112.152	0.30	69.00	1.26-1	1.10 3	-1.28-1	-1.10 3
112.174	112.228	0.30	70.00	1.29-1	1.13 3	-1.30-1	-1.13 3
112.250	112.303	0.30	71.00	1.31-1	1.16 3	-1.33-1	-1.16 3
112.326	112.378	0.30	72.00	1.34-1	1.19 3	-1.35-1	-1.19 3
112.402	112.453	0.30	73.00	1.36-1	1.21 3	-1.38-1	-1.22 3
112.477	112.527	0.30	74.00	1.39-1	1.24 3	-1.41-1	-1.24 3
112.552	112.601	0.30	75.00	1.42-1	1.27 3	-1.43-1	-1.27 3
112.626	112.675	0.30	76.00	1.44-1	1.30 3	-1.46-1	-1.30 3
112.701	112.748	0.30	77.00	1.47-1	1.33 3	-1.49-1	-1.33 3
112.775	112.822	0.30	78.00	1.50-1	1.36 3	-1.52-1	-1.36 3
112.849	112.895	0.30	79.00	1.53-1	1.39 3	-1.54-1	-1.39 3
112.922	112.968	0.30	80.00	1.56-1	1.42 3	-1.57-1	-1.42 3
112.996	113.040	0.30	81.00	1.59-1	1.45 3	-1.60-1	-1.45 3
113.069	113.113	0.30	82.00	1.62-1	1.48 3	-1.63-1	-1.48 3
113.142	113.185	0.30	83.00	1.65-1	1.51 3	-1.66-1	-1.51 3
113.215	113.258	0.30	84.00	1.68-1	1.54 3	-1.70-1	-1.54 3
113.288	113.330	0.30	85.00	1.71-1	1.57 3	-1.73-1	-1.57 3
113.361	113.402	0.30	86.00	1.74-1	1.59 3	-1.76-1	-1.60 3
113.434	113.474	0.30	87.00	1.78-1	1.62 3	-1.79-1	-1.63 3
113.507	113.547	0.30	88.00	1.81-1	1.65 3	-1.82-1	-1.66 3
113.580	113.619	0.30	89.00	1.84-1	1.68 3	-1.86-1	-1.68 3
113.653	113.691	0.30	90.00	1.88-1	1.71 3	-1.89-1	-1.71 3
112.206	113.812	0.28	2.50	2.59-3	1.31 0	-3.85-3	-1.33 0
112.440	113.971	0.28	2.60	2.72-3	1.44 0	-3.99-3	-1.47 0
112.661	114.123	0.28	2.70	2.86-3	1.58 0	-4.12-3	-1.61 0
112.870	114.269	0.28	2.80	2.99-3	1.73 0	-4.25-3	-1.75 0
113.067	114.408	0.28	2.90	3.13-3	1.88 0	-4.39-3	-1.91 0
113.255	114.543	0.28	3.00	3.26-3	2.04 0	-4.52-3	-2.07 0
113.433	114.672	0.28	3.10	3.40-3	2.20 0	-4.66-3	-2.23 0
113.603	114.797	0.28	3.20	3.53-3	2.37 0	-4.80-3	-2.40 0
113.766	114.917	0.28	3.30	3.67-3	2.55 0	-4.93-3	-2.58 0
113.921	115.034	0.28	3.40	3.80-3	2.74 0	-5.07-3	-2.77 0
114.071	115.146	0.28	3.50	3.94-3	2.93 0	-5.20-3	-2.96 0
114.214	115.255	0.28	3.60	4.08-3	3.12 0	-5.34-3	-3.16 0
114.352	115.361	0.28	3.70	4.21-3	3.33 0	-5.48-3	-3.37 0
114.485	115.464	0.28	3.80	4.35-3	3.54 0	-5.61-3	-3.58 0
114.613	115.563	0.28	3.90	4.49-3	3.76 0	-5.75-3	-3.80 0
114.737	115.660	0.28	4.00	4.62-3	3.98 0	-5.89-3	-4.02 0
114.972	115.846	0.28	4.20	4.90-3	4.45 0	-6.16-3	-4.49 0
115.193	116.022	0.28	4.40	5.17-3	4.94 0	-6.44-3	-4.98 0
115.401	116.190	0.28	4.60	5.45-3	5.46 0	-6.71-3	-5.50 0
115.598	116.351	0.28	4.80	5.72-3	6.00 0	-6.99-3	-6.05 0
115.784	116.504	0.28	5.00	6.00-3	6.57 0	-7.26-3	-6.62 0
115.961	116.651	0.28	5.20	6.27-3	7.17 0	-7.54-3	-7.22 0
116.130	116.792	0.28	5.40	6.55-3	7.79 0	-7.82-3	-7.85 0
116.291	116.927	0.28	5.60	6.83-3	8.44 0	-8.10-3	-8.50 0
116.445	117.057	0.28	5.80	7.11-3	9.11 0	-8.38-3	-9.17 0
116.593	117.183	0.28	6.00	7.39-3	9.81 0	-8.66-3	-9.87 0
116.735	117.304	0.28	6.20	7.67-3	1.05 1	-8.94-3	-1.06 1
116.871	117.422	0.28	6.40	7.95-3	1.13 1	-9.22-3	-1.14 1
117.003	117.535	0.28	6.60	8.23-3	1.21 1	-9.50-3	-1.21 1
117.129	117.645	0.28	6.80	8.51-3	1.29 1	-9.78-3	-1.29 1
117.252	117.752	0.28	7.00	8.79-3	1.37 1	-1.01-2	-1.38 1
117.370	117.856	0.28	7.20	9.07-3	1.45 1	-1.03-2	-1.46 1
117.485	117.957	0.28	7.40	9.35-3	1.54 1	-1.06-2	-1.55 1
117.596	118.054	0.28	7.60	9.64-3	1.63 1	-1.09-2	-1.64 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
117.703	118.150	0.28	7.80	9.92-3	1.73 1	-1.12-2	-1.73 1
117.808	118.243	0.28	8.00	1.02-2	1.82 1	-1.15-2	-1.83 1
117.910	118.333	0.28	8.20	1.05-2	1.92 1	-1.18-2	-1.93 1
118.009	118.421	0.28	8.40	1.08-2	2.02 1	-1.20-2	-2.03 1
118.105	118.508	0.28	8.60	1.11-2	2.12 1	-1.23-2	-2.13 1
118.199	118.592	0.28	8.80	1.13-2	2.23 1	-1.26-2	-2.24 1
118.290	118.674	0.28	9.00	1.16-2	2.34 1	-1.29-2	-2.35 1
118.379	118.754	0.28	9.20	1.19-2	2.45 1	-1.32-2	-2.46 1
118.466	118.833	0.28	9.40	1.22-2	2.56 1	-1.35-2	-2.57 1
118.551	118.910	0.28	9.60	1.25-2	2.68 1	-1.38-2	-2.69 1
118.634	118.985	0.28	9.80	1.28-2	2.79 1	-1.40-2	-2.81 1
118.715	119.059	0.28	10.00	1.31-2	2.92 1	-1.43-2	-2.93 1
118.910	119.237	0.28	10.50	1.38-2	3.23 1	-1.51-2	-3.24 1
119.096	119.407	0.28	11.00	1.45-2	3.56 1	-1.58-2	-3.57 1
119.272	119.570	0.28	11.50	1.52-2	3.90 1	-1.65-2	-3.91 1
119.441	119.726	0.28	12.00	1.59-2	4.26 1	-1.72-2	-4.28 1
119.602	119.875	0.28	12.50	1.67-2	4.64 1	-1.80-2	-4.65 1
119.756	120.019	0.28	13.00	1.74-2	5.03 1	-1.87-2	-5.04 1
119.904	120.157	0.28	13.50	1.81-2	5.43 1	-1.94-2	-5.45 1
120.047	120.290	0.28	14.00	1.89-2	5.86 1	-2.02-2	-5.87 1
120.184	120.419	0.28	14.50	1.96-2	6.29 1	-2.09-2	-6.31 1
120.317	120.543	0.28	15.00	2.04-2	6.75 1	-2.16-2	-6.76 1
120.445	120.664	0.28	15.50	2.11-2	7.21 1	-2.24-2	-7.23 1
120.569	120.781	0.28	16.00	2.18-2	7.70 1	-2.31-2	-7.72 1
120.689	120.894	0.28	16.50	2.26-2	8.20 1	-2.39-2	-8.22 1
120.805	121.004	0.28	17.00	2.33-2	8.71 1	-2.46-2	-8.73 1
120.918	121.112	0.28	17.50	2.41-2	9.24 1	-2.54-2	-9.26 1
121.028	121.216	0.28	18.00	2.48-2	9.78 1	-2.61-2	-9.80 1
121.135	121.317	0.28	18.50	2.56-2	1.03 2	-2.69-2	-1.04 2
121.238	121.416	0.28	19.00	2.63-2	1.09 2	-2.76-2	-1.09 2
121.340	121.513	0.28	19.50	2.71-2	1.15 2	-2.84-2	-1.15 2
121.438	121.607	0.28	20.00	2.79-2	1.21 2	-2.91-2	-1.21 2
121.628	121.789	0.28	21.00	2.94-2	1.34 2	-3.07-2	-1.34 2
121.810	121.963	0.28	22.00	3.09-2	1.47 2	-3.22-2	-1.47 2
121.984	122.130	0.28	23.00	3.25-2	1.60 2	-3.38-2	-1.61 2
122.150	122.290	0.28	24.00	3.40-2	1.75 2	-3.53-2	-1.75 2
122.310	122.444	0.28	25.00	3.56-2	1.89 2	-3.69-2	-1.90 2
122.464	122.593	0.28	26.00	3.71-2	2.05 2	-3.84-2	-2.05 2
122.613	122.737	0.28	27.00	3.87-2	2.21 2	-4.00-2	-2.21 2
122.757	122.876	0.28	28.00	4.03-2	2.37 2	-4.16-2	-2.38 2
122.896	123.011	0.28	29.00	4.19-2	2.54 2	-4.32-2	-2.55 2
123.030	123.141	0.28	30.00	4.35-2	2.72 2	-4.48-2	-2.72 2
123.161	123.268	0.28	31.00	4.51-2	2.90 2	-4.64-2	-2.91 2
123.288	123.392	0.28	32.00	4.68-2	3.09 2	-4.81-2	-3.09 2
123.411	123.512	0.28	33.00	4.84-2	3.28 2	-4.97-2	-3.28 2
123.531	123.629	0.28	34.00	5.01-2	3.48 2	-5.14-2	-3.48 2
123.648	123.743	0.28	35.00	5.17-2	3.68 2	-5.30-2	-3.69 2
123.763	123.855	0.28	36.00	5.34-2	3.89 2	-5.47-2	-3.89 2
123.874	123.964	0.28	37.00	5.51-2	4.10 2	-5.64-2	-4.11 2
123.983	124.070	0.28	38.00	5.68-2	4.32 2	-5.81-2	-4.32 2
113.025	125.203	0.26	0.62	1.99-4	2.37-2	-1.25-3	-2.67-2
114.004	125.368	0.26	0.64	2.24-4	2.68-2	-1.27-3	-3.00-2
114.891	125.531	0.26	0.66	2.49-4	3.01-2	-1.30-3	-3.34-2
115.699	125.692	0.26	0.68	2.73-4	3.36-2	-1.32-3	-3.72-2
116.438	125.850	0.26	0.70	2.98-4	3.74-2	-1.34-3	-4.11-2
117.116	126.006	0.26	0.72	3.22-4	4.14-2	-1.36-3	-4.53-2
117.742	126.158	0.26	0.74	3.47-4	4.57-2	-1.39-3	-4.98-2
118.320	126.306	0.26	0.76	3.71-4	5.03-2	-1.41-3	-5.45-2
118.857	126.450	0.26	0.78	3.96-4	5.51-2	-1.44-3	-5.95-2
119.356	126.591	0.26	0.80	4.20-4	6.01-2	-1.46-3	-6.48-2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
119.822	126.728	0.26	0.82	4.45-4	6.55-2	-1.48-3	-7.03-2
120.258	126.861	0.26	0.84	4.69-4	7.11-2	-1.51-3	-7.61-2
120.667	126.991	0.26	0.86	4.94-4	7.69-2	-1.53-3	-8.21-2
121.052	127.117	0.26	0.88	5.18-4	8.31-2	-1.56-3	-8.85-2
121.414	127.239	0.26	0.90	5.43-4	8.95-2	-1.58-3	-9.51-2
121.756	127.358	0.26	0.92	5.67-4	9.62-2	-1.60-3	-1.02-1
122.080	127.474	0.26	0.94	5.92-4	1.03-1	-1.63-3	-1.09-1
122.386	127.587	0.26	0.96	6.16-4	1.10-1	-1.65-3	-1.17-1
122.677	127.697	0.26	0.98	6.41-4	1.18-1	-1.68-3	-1.24-1
122.954	127.804	0.26	1.00	6.65-4	1.26-1	-1.70-3	-1.33-1
123.590	128.060	0.26	1.05	7.27-4	1.47-1	-1.76-3	-1.54-1
114.789	144.728	0.24	0.40	5.12-6	4.50-3	-8.88-4	-5.93-3
118.852	144.805	0.24	0.42	2.98-5	5.67-3	-9.06-4	-7.23-3
122.217	144.958	0.24	0.44	5.40-5	7.02-3	-9.25-4	-8.73-3
122.690	169.873	0.22	0.32	-2.17-5	1.90-3	-7.12-4	-2.89-3
118.672	285.461	0.16	0.18	-2.95-5	1.78-4	-3.93-4	-5.87-4
124.00	140.00						
124.090	124.174	0.28	39.00	5.85-2	4.54 2	-5.98-2	-4.55 2
124.194	124.277	0.28	40.00	6.03-2	4.77 2	-6.16-2	-4.77 2
124.297	124.377	0.28	41.00	6.20-2	5.00 2	-6.33-2	-5.01 2
124.397	124.475	0.28	42.00	6.37-2	5.24 2	-6.51-2	-5.24 2
124.496	124.572	0.28	43.00	6.55-2	5.48 2	-6.68-2	-5.48 2
124.592	124.666	0.28	44.00	6.73-2	5.73 2	-6.86-2	-5.73 2
124.687	124.760	0.28	45.00	6.91-2	5.98 2	-7.04-2	-5.98 2
124.781	124.851	0.28	46.00	7.09-2	6.23 2	-7.22-2	-6.24 2
124.872	124.941	0.28	47.00	7.27-2	6.49 2	-7.41-2	-6.49 2
124.963	125.030	0.28	48.00	7.46-2	6.75 2	-7.59-2	-6.76 2
125.052	125.118	0.28	49.00	7.64-2	7.02 2	-7.78-2	-7.02 2
125.140	125.204	0.28	50.00	7.83-2	7.29 2	-7.96-2	-7.30 2
125.226	125.289	0.28	51.00	8.02-2	7.57 2	-8.15-2	-7.57 2
125.312	125.373	0.28	52.00	8.21-2	7.85 2	-8.35-2	-7.85 2
125.396	125.456	0.28	53.00	8.41-2	8.13 2	-8.54-2	-8.13 2
125.479	125.538	0.28	54.00	8.60-2	8.41 2	-8.73-2	-8.42 2
125.561	125.619	0.28	55.00	8.80-2	8.70 2	-8.93-2	-8.71 2
125.642	125.699	0.28	56.00	9.00-2	9.00 2	-9.13-2	-9.00 2
125.723	125.778	0.28	57.00	9.20-2	9.30 2	-9.33-2	-9.30 2
125.802	125.856	0.28	58.00	9.40-2	9.60 2	-9.54-2	-9.60 2
125.881	125.934	0.28	59.00	9.61-2	9.90 2	-9.74-2	-9.91 2
125.958	126.011	0.28	60.00	9.82-2	1.02 3	-9.95-2	-1.02 3
126.036	126.087	0.28	61.00	1.00-1	1.05 3	-1.02-1	-1.05 3
126.112	126.162	0.28	62.00	1.02-1	1.08 3	-1.04-1	-1.08 3
126.188	126.237	0.28	63.00	1.05-1	1.11 3	-1.06-1	-1.12 3
126.263	126.311	0.28	64.00	1.07-1	1.15 3	-1.08-1	-1.15 3
126.337	126.385	0.28	65.00	1.09-1	1.18 3	-1.10-1	-1.18 3
126.411	126.458	0.28	66.00	1.11-1	1.21 3	-1.12-1	-1.21 3
126.485	126.530	0.28	67.00	1.13-1	1.24 3	-1.15-1	-1.24 3
126.557	126.602	0.28	68.00	1.16-1	1.28 3	-1.17-1	-1.28 3
126.630	126.674	0.28	69.00	1.18-1	1.31 3	-1.19-1	-1.31 3
126.702	126.745	0.28	70.00	1.20-1	1.34 3	-1.22-1	-1.34 3
126.773	126.816	0.28	71.00	1.23-1	1.38 3	-1.24-1	-1.38 3
126.845	126.886	0.28	72.00	1.25-1	1.41 3	-1.26-1	-1.41 3
126.915	126.956	0.28	73.00	1.28-1	1.44 3	-1.29-1	-1.44 3
126.986	127.026	0.28	74.00	1.30-1	1.48 3	-1.31-1	-1.48 3
127.056	127.096	0.28	75.00	1.33-1	1.51 3	-1.34-1	-1.51 3
127.126	127.165	0.28	76.00	1.35-1	1.55 3	-1.36-1	-1.55 3
127.195	127.234	0.28	77.00	1.38-1	1.58 3	-1.39-1	-1.58 3
127.265	127.302	0.28	78.00	1.40-1	1.62 3	-1.42-1	-1.62 3
127.334	127.371	0.28	79.00	1.43-1	1.65 3	-1.44-1	-1.65 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
127.403	127.439	0.28	80.00	1.46-1	1.68 3	-1.47-1	-1.69 3
127.472	127.507	0.28	81.00	1.48-1	1.72 3	-1.50-1	-1.72 3
127.540	127.575	0.28	82.00	1.51-1	1.75 3	-1.53-1	-1.76 3
127.609	127.643	0.28	83.00	1.54-1	1.79 3	-1.55-1	-1.79 3
127.677	127.711	0.28	84.00	1.57-1	1.83 3	-1.58-1	-1.83 3
127.745	127.779	0.28	85.00	1.60-1	1.86 3	-1.61-1	-1.86 3
127.814	127.846	0.28	86.00	1.63-1	1.90 3	-1.64-1	-1.90 3
127.882	127.914	0.28	87.00	1.66-1	1.93 3	-1.67-1	-1.93 3
127.950	127.982	0.28	88.00	1.69-1	1.97 3	-1.70-1	-1.97 3
128.018	128.049	0.28	89.00	1.72-1	2.00 3	-1.73-1	-2.00 3
128.086	128.117	0.28	90.00	1.75-1	2.04 3	-1.77-1	-2.04 3
124.158	128.300	0.26	1.10	7.88-4	1.70-1	-1.82-3	-1.77-1
124.670	128.526	0.26	1.15	8.50-4	1.94-1	-1.88-3	-2.02-1
125.133	128.739	0.26	1.20	9.12-4	2.21-1	-1.95-3	-2.29-1
125.555	128.940	0.26	1.25	9.73-4	2.49-1	-2.01-3	-2.58-1
125.942	129.131	0.26	1.30	1.04-3	2.79-1	-2.07-3	-2.89-1
126.299	129.312	0.26	1.35	1.10-3	3.11-1	-2.13-3	-3.22-1
126.630	129.484	0.26	1.40	1.16-3	3.46-1	-2.19-3	-3.56-1
126.936	129.648	0.26	1.45	1.22-3	3.82-1	-2.26-3	-3.93-1
127.223	129.805	0.26	1.50	1.28-3	4.20-1	-2.32-3	-4.32-1
127.491	129.955	0.26	1.55	1.35-3	4.59-1	-2.38-3	-4.72-1
127.743	130.099	0.26	1.60	1.41-3	5.01-1	-2.44-3	-5.14-1
127.980	130.237	0.26	1.65	1.47-3	5.45-1	-2.51-3	-5.59-1
128.204	130.369	0.26	1.70	1.53-3	5.91-1	-2.57-3	-6.05-1
128.415	130.497	0.26	1.75	1.60-3	6.39-1	-2.63-3	-6.54-1
128.617	130.620	0.26	1.80	1.66-3	6.89-1	-2.69-3	-7.04-1
128.808	130.738	0.26	1.85	1.72-3	7.40-1	-2.76-3	-7.56-1
128.990	130.853	0.26	1.90	1.78-3	7.94-1	-2.82-3	-8.11-1
129.164	130.963	0.26	1.95	1.85-3	8.50-1	-2.88-3	-8.67-1
129.330	131.070	0.26	2.00	1.91-3	9.08-1	-2.95-3	-9.25-1
129.641	131.274	0.26	2.10	2.04-3	1.03 0	-3.07-3	-1.05 0
129.929	131.467	0.26	2.20	2.16-3	1.16 0	-3.20-3	-1.18 0
130.195	131.648	0.26	2.30	2.29-3	1.30 0	-3.33-3	-1.32 0
130.443	131.821	0.26	2.40	2.42-3	1.44 0	-3.45-3	-1.46 0
130.675	131.984	0.26	2.50	2.54-3	1.59 0	-3.58-3	-1.62 0
130.893	132.140	0.26	2.60	2.67-3	1.76 0	-3.71-3	-1.78 0
131.097	132.288	0.26	2.70	2.80-3	1.93 0	-3.84-3	-1.95 0
131.291	132.430	0.26	2.80	2.93-3	2.10 0	-3.96-3	-2.13 0
131.474	132.566	0.26	2.90	3.05-3	2.29 0	-4.09-3	-2.32 0
131.648	132.697	0.26	3.00	3.18-3	2.48 0	-4.22-3	-2.51 0
131.814	132.822	0.26	3.10	3.31-3	2.68 0	-4.35-3	-2.71 0
131.972	132.943	0.26	3.20	3.44-3	2.89 0	-4.48-3	-2.92 0
132.123	133.059	0.26	3.30	3.57-3	3.11 0	-4.61-3	-3.14 0
132.268	133.172	0.26	3.40	3.69-3	3.33 0	-4.74-3	-3.37 0
132.407	133.280	0.26	3.50	3.82-3	3.57 0	-4.87-3	-3.60 0
132.540	133.385	0.26	3.60	3.95-3	3.81 0	-5.00-3	-3.85 0
132.668	133.487	0.26	3.70	4.08-3	4.06 0	-5.12-3	-4.10 0
132.791	133.586	0.26	3.80	4.21-3	4.32 0	-5.25-3	-4.36 0
132.910	133.681	0.26	3.90	4.34-3	4.58 0	-5.38-3	-4.62 0
133.025	133.774	0.26	4.00	4.47-3	4.86 0	-5.51-3	-4.90 0
133.244	133.952	0.26	4.20	4.73-3	5.43 0	-5.77-3	-5.47 0
133.449	134.121	0.26	4.40	4.99-3	6.03 0	-6.04-3	-6.08 0
133.642	134.282	0.26	4.60	5.25-3	6.66 0	-6.30-3	-6.71 0
133.825	134.435	0.26	4.80	5.51-3	7.33 0	-6.56-3	-7.38 0
133.998	134.581	0.26	5.00	5.77-3	8.03 0	-6.82-3	-8.08 0
134.162	134.720	0.26	5.20	6.04-3	8.76 0	-7.08-3	-8.81 0
134.319	134.854	0.26	5.40	6.30-3	9.52 0	-7.35-3	-9.58 0
134.469	134.983	0.26	5.60	6.56-3	1.03 1	-7.61-3	-1.04 1
134.612	135.107	0.26	5.80	6.83-3	1.11 1	-7.88-3	-1.12 1
134.749	135.226	0.26	6.00	7.09-3	1.20 1	-8.14-3	-1.21 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
134.881	135.341	0.26	6.20	7.36-3	1.29 1	-8.41-3	-1.30 1
135.007	135.452	0.26	6.40	7.62-3	1.38 1	-8.67-3	-1.39 1
135.129	135.559	0.26	6.60	7.89-3	1.48 1	-8.94-3	-1.48 1
135.247	135.663	0.26	6.80	8.15-3	1.57 1	-9.20-3	-1.58 1
135.360	135.764	0.26	7.00	8.42-3	1.68 1	-9.47-3	-1.68 1
135.470	135.862	0.26	7.20	8.69-3	1.78 1	-9.74-3	-1.79 1
135.577	135.957	0.26	7.40	8.95-3	1.89 1	-1.00-2	-1.90 1
135.680	136.049	0.26	7.60	9.22-3	2.00 1	-1.03-2	-2.01 1
135.779	136.139	0.26	7.80	9.49-3	2.11 1	-1.05-2	-2.12 1
135.876	136.226	0.26	8.00	9.76-3	2.23 1	-1.08-2	-2.24 1
135.971	136.311	0.26	8.20	1.00-2	2.35 1	-1.11-2	-2.36 1
136.062	136.394	0.26	8.40	1.03-2	2.47 1	-1.13-2	-2.48 1
136.151	136.475	0.26	8.60	1.06-2	2.60 1	-1.16-2	-2.61 1
136.238	136.554	0.26	8.80	1.08-2	2.73 1	-1.19-2	-2.74 1
136.323	136.631	0.26	9.00	1.11-2	2.86 1	-1.22-2	-2.87 1
136.405	136.707	0.26	9.20	1.14-2	3.00 1	-1.24-2	-3.01 1
136.486	136.781	0.26	9.40	1.16-2	3.14 1	-1.27-2	-3.15 1
136.565	136.853	0.26	9.60	1.19-2	3.28 1	-1.30-2	-3.29 1
136.641	136.924	0.26	9.80	1.22-2	3.43 1	-1.32-2	-3.44 1
136.717	136.993	0.26	10.00	1.25-2	3.57 1	-1.35-2	-3.59 1
136.897	137.160	0.26	10.50	1.31-2	3.96 1	-1.42-2	-3.97 1
137.069	137.319	0.26	11.00	1.38-2	4.36 1	-1.49-2	-4.38 1
137.232	137.471	0.26	11.50	1.45-2	4.79 1	-1.56-2	-4.80 1
137.388	137.616	0.26	12.00	1.52-2	5.23 1	-1.62-2	-5.24 1
137.537	137.755	0.26	12.50	1.59-2	5.69 1	-1.69-2	-5.71 1
137.680	137.889	0.26	13.00	1.66-2	6.17 1	-1.76-2	-6.19 1
137.817	138.018	0.26	13.50	1.73-2	6.67 1	-1.83-2	-6.69 1
137.948	138.142	0.26	14.00	1.79-2	7.19 1	-1.90-2	-7.21 1
138.075	138.262	0.26	14.50	1.86-2	7.73 1	-1.97-2	-7.75 1
138.198	138.378	0.26	15.00	1.93-2	8.29 1	-2.04-2	-8.30 1
138.316	138.490	0.26	15.50	2.00-2	8.86 1	-2.11-2	-8.88 1
138.430	138.599	0.26	16.00	2.07-2	9.46 1	-2.18-2	-9.48 1
138.541	138.704	0.26	16.50	2.14-2	1.01 2	-2.25-2	-1.01 2
138.648	138.806	0.26	17.00	2.21-2	1.07 2	-2.32-2	-1.07 2
138.752	138.906	0.26	17.50	2.29-2	1.14 2	-2.39-2	-1.14 2
138.853	139.003	0.26	18.00	2.36-2	1.20 2	-2.46-2	-1.20 2
138.952	139.097	0.26	18.50	2.43-2	1.27 2	-2.53-2	-1.27 2
139.047	139.188	0.26	19.00	2.50-2	1.34 2	-2.61-2	-1.34 2
139.141	139.278	0.26	19.50	2.57-2	1.41 2	-2.68-2	-1.42 2
139.231	139.365	0.26	20.00	2.64-2	1.49 2	-2.75-2	-1.49 2
139.406	139.533	0.26	21.00	2.78-2	1.64 2	-2.89-2	-1.65 2
139.573	139.694	0.26	22.00	2.93-2	1.80 2	-3.04-2	-1.81 2
139.733	139.849	0.26	23.00	3.07-2	1.97 2	-3.18-2	-1.98 2
139.886	139.997	0.26	24.00	3.22-2	2.15 2	-3.33-2	-2.15 2
125.037	145.156	0.24	0.46	7.80-5	8.59-3	-9.45-4	-1.04-2
127.428	145.380	0.24	0.48	1.02-4	1.04-2	-9.65-4	-1.24-2
129.476	145.618	0.24	0.50	1.25-4	1.24-2	-9.86-4	-1.45-2
131.248	145.861	0.24	0.52	1.49-4	1.46-2	-1.01-3	-1.69-2
132.793	146.104	0.24	0.54	1.72-4	1.71-2	-1.03-3	-1.96-2
134.152	146.344	0.24	0.56	1.96-4	1.99-2	-1.05-3	-2.25-2
135.355	146.579	0.24	0.58	2.19-4	2.29-2	-1.07-3	-2.57-2
136.427	146.807	0.24	0.60	2.42-4	2.62-2	-1.10-3	-2.91-2
137.388	147.027	0.24	0.62	2.66-4	2.98-2	-1.12-3	-3.29-2
138.254	147.240	0.24	0.64	2.89-4	3.36-2	-1.14-3	-3.69-2
139.039	147.445	0.24	0.66	3.12-4	3.78-2	-1.16-3	-4.13-2
139.754	147.642	0.24	0.68	3.35-4	4.23-2	-1.19-3	-4.60-2
131.502	169.752	0.22	0.34	2.99-6	2.62-3	-7.27-4	-3.72-3
138.286	169.885	0.22	0.36	2.68-5	3.52-3	-7.44-4	-4.74-3
126.109	200.912	0.20	0.26	-3.26-5	8.11-4	-5.81-4	-1.52-3
135.313	238.295	0.18	0.22	-2.69-5	4.29-4	-4.80-4	-9.82-4

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
140.00	160.00						
140.033	140.139	0.26	25.00	3.37-2	2.33 2	-3.48-2	-2.33 2
140.175	140.276	0.26	26.00	3.52-2	2.52 2	-3.62-2	-2.52 2
140.312	140.409	0.26	27.00	3.66-2	2.72 2	-3.77-2	-2.72 2
140.443	140.537	0.26	28.00	3.81-2	2.92 2	-3.92-2	-2.93 2
140.571	140.661	0.26	29.00	3.96-2	3.13 2	-4.07-2	-3.14 2
140.694	140.781	0.26	30.00	4.11-2	3.35 2	-4.22-2	-3.35 2
140.814	140.898	0.26	31.00	4.27-2	3.57 2	-4.37-2	-3.58 2
140.930	141.012	0.26	32.00	4.42-2	3.80 2	-4.53-2	-3.81 2
141.044	141.122	0.26	33.00	4.57-2	4.04 2	-4.68-2	-4.04 2
141.154	141.230	0.26	34.00	4.73-2	4.28 2	-4.84-2	-4.29 2
141.261	141.335	0.26	35.00	4.88-2	4.53 2	-4.99-2	-4.54 2
141.365	141.437	0.26	36.00	5.04-2	4.79 2	-5.15-2	-4.79 2
141.468	141.537	0.26	37.00	5.20-2	5.05 2	-5.31-2	-5.06 2
141.567	141.635	0.26	38.00	5.36-2	5.32 2	-5.47-2	-5.33 2
141.665	141.730	0.26	39.00	5.52-2	5.60 2	-5.63-2	-5.60 2
141.760	141.824	0.26	40.00	5.68-2	5.88 2	-5.79-2	-5.88 2
141.854	141.916	0.26	41.00	5.84-2	6.16 2	-5.95-2	-6.17 2
141.946	142.006	0.26	42.00	6.01-2	6.45 2	-6.12-2	-6.46 2
142.036	142.094	0.26	43.00	6.17-2	6.75 2	-6.28-2	-6.76 2
142.124	142.181	0.26	44.00	6.34-2	7.06 2	-6.45-2	-7.06 2
142.211	142.266	0.26	45.00	6.51-2	7.36 2	-6.62-2	-7.37 2
142.296	142.350	0.26	46.00	6.68-2	7.68 2	-6.79-2	-7.68 2
142.380	142.433	0.26	47.00	6.85-2	8.00 2	-6.96-2	-8.00 2
142.462	142.514	0.26	48.00	7.02-2	8.32 2	-7.13-2	-8.33 2
142.543	142.594	0.26	49.00	7.19-2	8.65 2	-7.30-2	-8.66 2
142.623	142.673	0.26	50.00	7.37-2	8.99 2	-7.48-2	-8.99 2
142.702	142.750	0.26	51.00	7.55-2	9.33 2	-7.66-2	-9.33 2
142.780	142.827	0.26	52.00	7.73-2	9.67 2	-7.83-2	-9.68 2
142.857	142.903	0.26	53.00	7.91-2	1.00 3	-8.02-2	-1.00 3
142.933	142.978	0.26	54.00	8.09-2	1.04 3	-8.20-2	-1.04 3
143.007	143.051	0.26	55.00	8.27-2	1.07 3	-8.38-2	-1.07 3
143.081	143.124	0.26	56.00	8.46-2	1.11 3	-8.57-2	-1.11 3
143.155	143.197	0.26	57.00	8.64-2	1.15 3	-8.75-2	-1.15 3
143.227	143.268	0.26	58.00	8.83-2	1.18 3	-8.94-2	-1.18 3
143.298	143.339	0.26	59.00	9.03-2	1.22 3	-9.14-2	-1.22 3
143.369	143.409	0.26	60.00	9.22-2	1.26 3	-9.33-2	-1.26 3
143.439	143.478	0.26	61.00	9.41-2	1.30 3	-9.52-2	-1.30 3
143.509	143.547	0.26	62.00	9.61-2	1.33 3	-9.72-2	-1.34 3
143.578	143.615	0.26	63.00	9.81-2	1.37 3	-9.92-2	-1.37 3
143.646	143.682	0.26	64.00	1.00-1	1.41 3	-1.01-1	-1.41 3
143.714	143.749	0.26	65.00	1.02-1	1.45 3	-1.03-1	-1.45 3
143.781	143.816	0.26	66.00	1.04-1	1.49 3	-1.05-1	-1.49 3
143.847	143.882	0.26	67.00	1.06-1	1.53 3	-1.07-1	-1.53 3
143.914	143.947	0.26	68.00	1.08-1	1.57 3	-1.10-1	-1.57 3
143.979	144.012	0.26	69.00	1.11-1	1.61 3	-1.12-1	-1.61 3
144.045	144.077	0.26	70.00	1.13-1	1.65 3	-1.14-1	-1.66 3
144.110	144.141	0.26	71.00	1.15-1	1.70 3	-1.16-1	-1.70 3
144.174	144.205	0.26	72.00	1.17-1	1.74 3	-1.18-1	-1.74 3
144.238	144.269	0.26	73.00	1.19-1	1.78 3	-1.21-1	-1.78 3
144.302	144.332	0.26	74.00	1.22-1	1.82 3	-1.23-1	-1.82 3
144.366	144.395	0.26	75.00	1.24-1	1.86 3	-1.25-1	-1.86 3
144.429	144.458	0.26	76.00	1.26-1	1.91 3	-1.28-1	-1.91 3
144.492	144.521	0.26	77.00	1.29-1	1.95 3	-1.30-1	-1.95 3
144.555	144.583	0.26	78.00	1.31-1	1.99 3	-1.32-1	-1.99 3
144.618	144.645	0.26	79.00	1.34-1	2.03 3	-1.35-1	-2.03 3
144.680	144.707	0.26	80.00	1.36-1	2.08 3	-1.37-1	-2.08 3
144.743	144.769	0.26	81.00	1.39-1	2.12 3	-1.40-1	-2.12 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
144.805	144.830	0.26	82.00	1.41-1	2.16 3	-1.42-1	-2.16 3
144.867	144.892	0.26	83.00	1.44-1	2.21 3	-1.45-1	-2.21 3
144.929	144.953	0.26	84.00	1.47-1	2.25 3	-1.48-1	-2.25 3
144.990	145.015	0.26	85.00	1.49-1	2.29 3	-1.50-1	-2.29 3
145.052	145.076	0.26	86.00	1.52-1	2.34 3	-1.53-1	-2.34 3
145.114	145.137	0.26	87.00	1.55-1	2.38 3	-1.56-1	-2.38 3
145.176	145.198	0.26	88.00	1.58-1	2.42 3	-1.59-1	-2.42 3
145.237	145.260	0.26	89.00	1.61-1	2.47 3	-1.62-1	-2.47 3
145.299	145.321	0.26	90.00	1.64-1	2.51 3	-1.65-1	-2.51 3
140.408	147.831	0.24	0.70	3.59-4	4.71-2	-1.21-3	-5.09-2
141.008	148.013	0.24	0.72	3.82-4	5.22-2	-1.23-3	-5.62-2
141.561	148.188	0.24	0.74	4.05-4	5.76-2	-1.25-3	-6.18-2
142.072	148.357	0.24	0.76	4.29-4	6.34-2	-1.28-3	-6.78-2
142.547	148.519	0.24	0.78	4.52-4	6.95-2	-1.30-3	-7.41-2
142.988	148.675	0.24	0.80	4.75-4	7.59-2	-1.32-3	-8.07-2
143.400	148.825	0.24	0.82	4.99-4	8.27-2	-1.35-3	-8.77-2
143.785	148.970	0.24	0.84	5.22-4	8.98-2	-1.37-3	-9.50-2
144.147	149.109	0.24	0.86	5.45-4	9.73-2	-1.39-3	-1.03-1
144.487	149.244	0.24	0.88	5.69-4	1.05-1	-1.42-3	-1.11-1
144.807	149.374	0.24	0.90	5.92-4	1.13-1	-1.44-3	-1.19-1
145.109	149.500	0.24	0.92	6.15-4	1.22-1	-1.46-3	-1.28-1
145.395	149.621	0.24	0.94	6.39-4	1.31-1	-1.49-3	-1.37-1
145.666	149.739	0.24	0.96	6.62-4	1.40-1	-1.51-3	-1.46-1
145.924	149.853	0.24	0.98	6.86-4	1.50-1	-1.53-3	-1.56-1
146.168	149.963	0.24	1.00	7.09-4	1.60-1	-1.56-3	-1.66-1
146.731	150.225	0.24	1.05	7.68-4	1.86-1	-1.62-3	-1.94-1
147.233	150.468	0.24	1.10	8.27-4	2.15-1	-1.67-3	-2.23-1
147.685	150.695	0.24	1.15	8.86-4	2.47-1	-1.73-3	-2.55-1
148.095	150.908	0.24	1.20	9.45-4	2.80-1	-1.79-3	-2.89-1
148.469	151.108	0.24	1.25	1.00-3	3.16-1	-1.85-3	-3.26-1
148.812	151.296	0.24	1.30	1.06-3	3.55-1	-1.91-3	-3.65-1
149.128	151.474	0.24	1.35	1.12-3	3.96-1	-1.97-3	-4.07-1
149.420	151.642	0.24	1.40	1.18-3	4.40-1	-2.03-3	-4.51-1
149.692	151.802	0.24	1.45	1.24-3	4.86-1	-2.09-3	-4.98-1
149.946	151.954	0.24	1.50	1.30-3	5.34-1	-2.15-3	-5.47-1
150.183	152.099	0.24	1.55	1.36-3	5.85-1	-2.21-3	-5.98-1
150.407	152.237	0.24	1.60	1.42-3	6.39-1	-2.27-3	-6.53-1
150.617	152.369	0.24	1.65	1.48-3	6.95-1	-2.33-3	-7.09-1
150.815	152.496	0.24	1.70	1.54-3	7.54-1	-2.39-3	-7.68-1
151.003	152.618	0.24	1.75	1.60-3	8.15-1	-2.45-3	-8.30-1
151.181	152.735	0.24	1.80	1.66-3	8.79-1	-2.51-3	-8.95-1
151.351	152.848	0.24	1.85	1.72-3	9.45-1	-2.57-3	-9.61-1
151.512	152.956	0.24	1.90	1.78-3	1.01 0	-2.63-3	-1.03 0
151.667	153.061	0.24	1.95	1.84-3	1.09 0	-2.69-3	-1.10 0
151.814	153.162	0.24	2.00	1.90-3	1.16 0	-2.75-3	-1.18 0
152.091	153.355	0.24	2.10	2.02-3	1.31 0	-2.87-3	-1.33 0
152.346	153.536	0.24	2.20	2.14-3	1.48 0	-3.00-3	-1.50 0
152.582	153.706	0.24	2.30	2.26-3	1.66 0	-3.12-3	-1.68 0
152.802	153.867	0.24	2.40	2.38-3	1.84 0	-3.24-3	-1.87 0
153.008	154.019	0.24	2.50	2.50-3	2.04 0	-3.36-3	-2.06 0
153.201	154.164	0.24	2.60	2.63-3	2.25 0	-3.48-3	-2.27 0
153.383	154.302	0.24	2.70	2.75-3	2.46 0	-3.60-3	-2.49 0
153.555	154.434	0.24	2.80	2.87-3	2.69 0	-3.73-3	-2.72 0
153.718	154.560	0.24	2.90	2.99-3	2.93 0	-3.85-3	-2.96 0
153.873	154.680	0.24	3.00	3.11-3	3.18 0	-3.97-3	-3.21 0
154.020	154.796	0.24	3.10	3.24-3	3.44 0	-4.10-3	-3.47 0
154.160	154.908	0.24	3.20	3.36-3	3.71 0	-4.22-3	-3.74 0
154.295	155.015	0.24	3.30	3.48-3	3.99 0	-4.34-3	-4.02 0
154.423	155.118	0.24	3.40	3.60-3	4.28 0	-4.46-3	-4.31 0
154.546	155.218	0.24	3.50	3.73-3	4.58 0	-4.59-3	-4.61 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
154.665	155.314	0.24	3.60	3.85-3	4.89 0	-4.71-3	-4.92 0
154.778	155.408	0.24	3.70	3.97-3	5.21 0	-4.84-3	-5.25 0
154.888	155.498	0.24	3.80	4.10-3	5.54 0	-4.96-3	-5.58 0
154.994	155.586	0.24	3.90	4.22-3	5.88 0	-5.08-3	-5.92 0
155.096	155.671	0.24	4.00	4.34-3	6.23 0	-5.21-3	-6.27 0
155.290	155.833	0.24	4.20	4.59-3	6.97 0	-5.46-3	-7.01 0
155.472	155.987	0.24	4.40	4.84-3	7.74 0	-5.70-3	-7.79 0
155.644	156.134	0.24	4.60	5.09-3	8.56 0	-5.95-3	-8.61 0
155.806	156.273	0.24	4.80	5.34-3	9.42 0	-6.20-3	-9.47 0
155.960	156.405	0.24	5.00	5.59-3	1.03 1	-6.45-3	-1.04 1
156.106	156.532	0.24	5.20	5.84-3	1.13 1	-6.70-3	-1.13 1
156.245	156.653	0.24	5.40	6.09-3	1.22 1	-6.96-3	-1.23 1
156.378	156.770	0.24	5.60	6.34-3	1.33 1	-7.21-3	-1.33 1
156.505	156.882	0.24	5.80	6.59-3	1.43 1	-7.46-3	-1.44 1
156.626	156.990	0.24	6.00	6.84-3	1.54 1	-7.71-3	-1.55 1
156.743	157.094	0.24	6.20	7.09-3	1.66 1	-7.96-3	-1.66 1
156.855	157.194	0.24	6.40	7.35-3	1.78 1	-8.22-3	-1.78 1
156.964	157.291	0.24	6.60	7.60-3	1.90 1	-8.47-3	-1.91 1
157.068	157.384	0.24	6.80	7.85-3	2.03 1	-8.72-3	-2.03 1
157.169	157.475	0.24	7.00	8.10-3	2.16 1	-8.98-3	-2.16 1
157.266	157.563	0.24	7.20	8.36-3	2.29 1	-9.23-3	-2.30 1
157.360	157.649	0.24	7.40	8.61-3	2.43 1	-9.48-3	-2.44 1
157.452	157.732	0.24	7.60	8.87-3	2.57 1	-9.74-3	-2.58 1
157.540	157.812	0.24	7.80	9.12-3	2.72 1	-9.99-3	-2.73 1
157.626	157.891	0.24	8.00	9.37-3	2.87 1	-1.02-2	-2.88 1
157.709	157.967	0.24	8.20	9.63-3	3.03 1	-1.05-2	-3.04 1
157.791	158.042	0.24	8.40	9.89-3	3.19 1	-1.08-2	-3.20 1
157.870	158.115	0.24	8.60	1.01-2	3.35 1	-1.10-2	-3.36 1
157.947	158.185	0.24	8.80	1.04-2	3.52 1	-1.13-2	-3.53 1
158.021	158.255	0.24	9.00	1.07-2	3.69 1	-1.15-2	-3.70 1
158.095	158.322	0.24	9.20	1.09-2	3.87 1	-1.18-2	-3.88 1
158.166	158.388	0.24	9.40	1.12-2	4.05 1	-1.20-2	-4.06 1
158.236	158.453	0.24	9.60	1.14-2	4.23 1	-1.23-2	-4.24 1
158.304	158.516	0.24	9.80	1.17-2	4.42 1	-1.26-2	-4.43 1
158.370	158.578	0.24	10.00	1.19-2	4.61 1	-1.28-2	-4.62 1
158.530	158.727	0.24	10.50	1.26-2	5.11 1	-1.35-2	-5.12 1
158.682	158.869	0.24	11.00	1.32-2	5.63 1	-1.41-2	-5.64 1
158.826	159.005	0.24	11.50	1.39-2	6.17 1	-1.48-2	-6.19 1
158.964	159.135	0.24	12.00	1.45-2	6.75 1	-1.54-2	-6.76 1
159.095	159.259	0.24	12.50	1.52-2	7.34 1	-1.61-2	-7.36 1
159.221	159.378	0.24	13.00	1.58-2	7.97 1	-1.67-2	-7.98 1
159.342	159.493	0.24	13.50	1.65-2	8.61 1	-1.74-2	-8.63 1
159.459	159.603	0.24	14.00	1.71-2	9.28 1	-1.80-2	-9.30 1
159.571	159.710	0.24	14.50	1.78-2	9.98 1	-1.87-2	-1.00 2
159.678	159.813	0.24	15.00	1.85-2	1.07 2	-1.93-2	-1.07 2
159.783	159.912	0.24	15.50	1.91-2	1.14 2	-2.00-2	-1.15 2
159.883	160.009	0.24	16.00	1.98-2	1.22 2	-2.07-2	-1.22 2
159.981	160.102	0.24	16.50	2.04-2	1.30 2	-2.13-2	-1.30 2
143.612	170.154	0.22	0.38	5.01-5	4.61-3	-7.62-4	-5.97-3
147.868	170.492	0.22	0.40	7.31-5	5.93-3	-7.81-4	-7.42-3
151.325	170.860	0.22	0.42	9.58-5	7.49-3	-8.01-4	-9.12-3
154.175	171.235	0.22	0.44	1.18-4	9.30-3	-8.21-4	-1.11-2
156.556	171.606	0.22	0.46	1.41-4	1.14-2	-8.42-4	-1.33-2
158.568	171.964	0.22	0.48	1.63-4	1.38-2	-8.63-4	-1.59-2
144.803	200.254	0.20	0.28	-7.41-6	1.26-3	-5.92-4	-2.07-3
157.981	200.338	0.20	0.30	1.63-5	1.87-3	-6.06-4	-2.80-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
160.00	180.00						
160.076	160.193	0.24	17.00	2.11-2	1.38 2	-2.20-2	-1.38 2
160.167	160.281	0.24	17.50	2.18-2	1.47 2	-2.27-2	-1.47 2
160.256	160.367	0.24	18.00	2.25-2	1.55 2	-2.33-2	-1.56 2
160.343	160.450	0.24	18.50	2.31-2	1.64 2	-2.40-2	-1.64 2
160.427	160.531	0.24	19.00	2.38-2	1.73 2	-2.47-2	-1.74 2
160.509	160.610	0.24	19.50	2.45-2	1.83 2	-2.54-2	-1.83 2
160.589	160.687	0.24	20.00	2.51-2	1.92 2	-2.60-2	-1.93 2
160.743	160.836	0.24	21.00	2.65-2	2.12 2	-2.74-2	-2.13 2
160.890	160.979	0.24	22.00	2.79-2	2.33 2	-2.87-2	-2.33 2
161.031	161.115	0.24	23.00	2.92-2	2.55 2	-3.01-2	-2.55 2
161.165	161.245	0.24	24.00	3.06-2	2.78 2	-3.15-2	-2.78 2
161.294	161.371	0.24	25.00	3.20-2	3.01 2	-3.29-2	-3.02 2
161.419	161.492	0.24	26.00	3.34-2	3.26 2	-3.43-2	-3.26 2
161.538	161.609	0.24	27.00	3.48-2	3.51 2	-3.57-2	-3.52 2
161.654	161.721	0.24	28.00	3.62-2	3.78 2	-3.71-2	-3.78 2
161.766	161.831	0.24	29.00	3.76-2	4.05 2	-3.85-2	-4.05 2
161.874	161.936	0.24	30.00	3.90-2	4.33 2	-3.99-2	-4.33 2
161.979	162.039	0.24	31.00	4.04-2	4.62 2	-4.13-2	-4.62 2
162.081	162.139	0.24	32.00	4.19-2	4.92 2	-4.28-2	-4.92 2
162.180	162.236	0.24	33.00	4.33-2	5.23 2	-4.42-2	-5.23 2
162.276	162.330	0.24	34.00	4.48-2	5.54 2	-4.57-2	-5.54 2
162.370	162.422	0.24	35.00	4.62-2	5.86 2	-4.71-2	-5.87 2
162.462	162.512	0.24	36.00	4.77-2	6.20 2	-4.86-2	-6.20 2
162.551	162.600	0.24	37.00	4.92-2	6.54 2	-5.01-2	-6.54 2
162.638	162.685	0.24	38.00	5.07-2	6.88 2	-5.16-2	-6.89 2
162.724	162.769	0.24	39.00	5.22-2	7.24 2	-5.31-2	-7.24 2
162.807	162.851	0.24	40.00	5.37-2	7.60 2	-5.46-2	-7.60 2
162.889	162.932	0.24	41.00	5.52-2	7.97 2	-5.61-2	-7.97 2
162.969	163.011	0.24	42.00	5.67-2	8.35 2	-5.76-2	-8.35 2
163.047	163.088	0.24	43.00	5.83-2	8.73 2	-5.92-2	-8.74 2
163.124	163.164	0.24	44.00	5.98-2	9.12 2	-6.07-2	-9.13 2
163.200	163.238	0.24	45.00	6.14-2	9.52 2	-6.23-2	-9.53 2
163.274	163.312	0.24	46.00	6.30-2	9.93 2	-6.39-2	-9.93 2
163.348	163.384	0.24	47.00	6.46-2	1.03 3	-6.55-2	-1.03 3
163.420	163.455	0.24	48.00	6.62-2	1.08 3	-6.71-2	-1.08 3
163.490	163.525	0.24	49.00	6.78-2	1.12 3	-6.87-2	-1.12 3
163.560	163.593	0.24	50.00	6.94-2	1.16 3	-7.03-2	-1.16 3
163.629	163.661	0.24	51.00	7.11-2	1.21 3	-7.20-2	-1.21 3
163.697	163.728	0.24	52.00	7.27-2	1.25 3	-7.36-2	-1.25 3
163.763	163.794	0.24	53.00	7.44-2	1.30 3	-7.53-2	-1.30 3
163.829	163.859	0.24	54.00	7.61-2	1.34 3	-7.70-2	-1.34 3
163.895	163.924	0.24	55.00	7.78-2	1.39 3	-7.87-2	-1.39 3
163.959	163.988	0.24	56.00	7.95-2	1.43 3	-8.04-2	-1.43 3
164.023	164.050	0.24	57.00	8.13-2	1.48 3	-8.22-2	-1.48 3
164.085	164.113	0.24	58.00	8.30-2	1.53 3	-8.39-2	-1.53 3
164.148	164.174	0.24	59.00	8.48-2	1.58 3	-8.57-2	-1.58 3
164.209	164.235	0.24	60.00	8.66-2	1.63 3	-8.75-2	-1.63 3
164.270	164.295	0.24	61.00	8.84-2	1.68 3	-8.93-2	-1.68 3
164.331	164.355	0.24	62.00	9.02-2	1.72 3	-9.11-2	-1.73 3
164.390	164.414	0.24	63.00	9.21-2	1.78 3	-9.30-2	-1.78 3
164.450	164.473	0.24	64.00	9.40-2	1.83 3	-9.49-2	-1.83 3
164.509	164.531	0.24	65.00	9.58-2	1.88 3	-9.68-2	-1.88 3
164.567	164.589	0.24	66.00	9.78-2	1.93 3	-9.87-2	-1.93 3
164.625	164.647	0.24	67.00	9.97-2	1.98 3	-1.01-1	-1.98 3
164.682	164.704	0.24	68.00	1.02-1	2.03 3	-1.03-1	-2.03 3
164.739	164.760	0.24	69.00	1.04-1	2.08 3	-1.05-1	-2.08 3
164.796	164.816	0.24	70.00	1.06-1	2.14 3	-1.07-1	-2.14 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
164.852	164.872	0.24	71.00	1.08-1	2.19 3	-1.09-1	-2.19 3
164.908	164.928	0.24	72.00	1.10-1	2.24 3	-1.11-1	-2.24 3
164.964	164.983	0.24	73.00	1.12-1	2.30 3	-1.13-1	-2.30 3
165.020	165.038	0.24	74.00	1.14-1	2.35 3	-1.15-1	-2.35 3
165.075	165.093	0.24	75.00	1.16-1	2.40 3	-1.17-1	-2.41 3
165.130	165.147	0.24	76.00	1.18-1	2.46 3	-1.19-1	-2.46 3
165.184	165.202	0.24	77.00	1.20-1	2.51 3	-1.21-1	-2.51 3
165.239	165.256	0.24	78.00	1.23-1	2.57 3	-1.24-1	-2.57 3
165.293	165.309	0.24	79.00	1.25-1	2.62 3	-1.26-1	-2.62 3
165.347	165.363	0.24	80.00	1.27-1	2.68 3	-1.28-1	-2.68 3
165.401	165.417	0.24	81.00	1.30-1	2.73 3	-1.30-1	-2.73 3
165.455	165.470	0.24	82.00	1.32-1	2.79 3	-1.33-1	-2.79 3
165.509	165.523	0.24	83.00	1.34-1	2.84 3	-1.35-1	-2.84 3
165.562	165.577	0.24	84.00	1.37-1	2.90 3	-1.38-1	-2.90 3
165.616	165.630	0.24	85.00	1.39-1	2.95 3	-1.40-1	-2.95 3
165.669	165.683	0.24	86.00	1.42-1	3.01 3	-1.43-1	-3.01 3
165.722	165.736	0.24	87.00	1.44-1	3.07 3	-1.45-1	-3.07 3
165.776	165.789	0.24	88.00	1.47-1	3.12 3	-1.48-1	-3.12 3
165.829	165.842	0.24	89.00	1.49-1	3.18 3	-1.50-1	-3.18 3
165.882	165.895	0.24	90.00	1.52-1	3.23 3	-1.53-1	-3.23 3
160.289	172.307	0.22	0.50	1.86-4	1.65-2	-8.84-4	-1.87-2
161.774	172.634	0.22	0.52	2.08-4	1.95-2	-9.06-4	-2.19-2
163.068	172.942	0.22	0.54	2.30-4	2.28-2	-9.28-4	-2.54-2
164.203	173.234	0.22	0.56	2.53-4	2.66-2	-9.50-4	-2.93-2
165.208	173.510	0.22	0.58	2.75-4	3.06-2	-9.72-4	-3.36-2
166.102	173.770	0.22	0.60	2.97-4	3.51-2	-9.94-4	-3.82-2
166.903	174.016	0.22	0.62	3.20-4	3.99-2	-1.02-3	-4.32-2
167.625	174.249	0.22	0.64	3.42-4	4.52-2	-1.04-3	-4.86-2
168.279	174.469	0.22	0.66	3.64-4	5.08-2	-1.06-3	-5.45-2
168.874	174.677	0.22	0.68	3.87-4	5.69-2	-1.08-3	-6.07-2
169.418	174.875	0.22	0.70	4.09-4	6.34-2	-1.11-3	-6.74-2
169.918	175.063	0.22	0.72	4.32-4	7.03-2	-1.13-3	-7.45-2
170.378	175.242	0.22	0.74	4.54-4	7.77-2	-1.15-3	-8.21-2
170.803	175.412	0.22	0.76	4.77-4	8.55-2	-1.17-3	-9.01-2
171.197	175.575	0.22	0.78	4.99-4	9.37-2	-1.20-3	-9.86-2
171.564	175.730	0.22	0.80	5.22-4	1.02-1	-1.22-3	-1.08-1
171.907	175.878	0.22	0.82	5.44-4	1.12-1	-1.24-3	-1.17-1
172.227	176.020	0.22	0.84	5.67-4	1.21-1	-1.26-3	-1.27-1
172.528	176.156	0.22	0.86	5.89-4	1.31-1	-1.29-3	-1.37-1
172.810	176.287	0.22	0.88	6.12-4	1.42-1	-1.31-3	-1.48-1
173.076	176.413	0.22	0.90	6.34-4	1.53-1	-1.33-3	-1.59-1
173.328	176.533	0.22	0.92	6.57-4	1.65-1	-1.35-3	-1.71-1
173.565	176.650	0.22	0.94	6.79-4	1.77-1	-1.38-3	-1.83-1
173.791	176.762	0.22	0.96	7.02-4	1.90-1	-1.40-3	-1.96-1
174.005	176.870	0.22	0.98	7.25-4	2.03-1	-1.42-3	-2.10-1
174.208	176.974	0.22	1.00	7.47-4	2.16-1	-1.45-3	-2.23-1
174.676	177.220	0.22	1.05	8.04-4	2.53-1	-1.50-3	-2.60-1
175.094	177.447	0.22	1.10	8.61-4	2.92-1	-1.56-3	-3.00-1
175.470	177.658	0.22	1.15	9.18-4	3.35-1	-1.62-3	-3.44-1
175.811	177.854	0.22	1.20	9.75-4	3.81-1	-1.67-3	-3.90-1
176.122	178.037	0.22	1.25	1.03-3	4.30-1	-1.73-3	-4.40-1
176.407	178.209	0.22	1.30	1.09-3	4.83-1	-1.79-3	-4.94-1
176.670	178.370	0.22	1.35	1.15-3	5.39-1	-1.85-3	-5.50-1
176.913	178.523	0.22	1.40	1.20-3	5.99-1	-1.90-3	-6.11-1
177.140	178.667	0.22	1.45	1.26-3	6.62-1	-1.96-3	-6.74-1
177.351	178.804	0.22	1.50	1.32-3	7.28-1	-2.02-3	-7.41-1
177.549	178.934	0.22	1.55	1.38-3	7.98-1	-2.08-3	-8.12-1
177.735	179.057	0.22	1.60	1.43-3	8.71-1	-2.14-3	-8.86-1
177.910	179.176	0.22	1.65	1.49-3	9.48-1	-2.19-3	-9.63-1
178.075	179.289	0.22	1.70	1.55-3	1.03 0	-2.25-3	-1.04 0

TABLE 8

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
178.232	179.397	0.22	1.75	1.61-3	1.11 0	-2.31-3	-1.13 0
178.380	179.501	0.22	1.80	1.66-3	1.20 0	-2.37-3	-1.22 0
178.522	179.600	0.22	1.85	1.72-3	1.29 0	-2.43-3	-1.31 0
178.656	179.696	0.22	1.90	1.78-3	1.38 0	-2.48-3	-1.40 0
178.785	179.789	0.22	1.95	1.84-3	1.48 0	-2.54-3	-1.50 0
178.908	179.878	0.22	2.00	1.89-3	1.58 0	-2.60-3	-1.60 0
179.138	180.047	0.22	2.10	2.01-3	1.80 0	-2.72-3	-1.82 0
179.351	180.206	0.22	2.20	2.13-3	2.02 0	-2.83-3	-2.05 0
179.548	180.355	0.22	2.30	2.24-3	2.27 0	-2.95-3	-2.29 0
179.732	180.495	0.22	2.40	2.36-3	2.52 0	-3.07-3	-2.55 0
179.904	180.628	0.22	2.50	2.48-3	2.79 0	-3.19-3	-2.82 0
167.519	200.758	0.20	0.32	3.90-5	2.69-3	-6.23-4	-3.73-3
174.606	201.315	0.20	0.34	6.14-5	3.73-3	-6.42-4	-4.89-3
179.999	201.910	0.20	0.36	8.34-5	5.03-3	-6.61-4	-6.33-3
168.382	237.267	0.18	0.24	-1.76-6	7.61-4	-4.89-4	-1.41-3
174.596	339.324	0.14	0.16	-1.11-5	1.47-4	-3.14-4	-4.92-4
180.00	200.00						
180.065	180.754	0.22	2.60	2.59-3	3.08 0	-3.30-3	-3.10 0
180.217	180.874	0.22	2.70	2.71-3	3.37 0	-3.42-3	-3.40 0
180.360	180.988	0.22	2.80	2.83-3	3.69 0	-3.54-3	-3.72 0
180.496	181.097	0.22	2.90	2.95-3	4.01 0	-3.66-3	-4.05 0
180.625	181.202	0.22	3.00	3.06-3	4.36 0	-3.77-3	-4.39 0
180.748	181.302	0.22	3.10	3.18-3	4.71 0	-3.89-3	-4.74 0
180.865	181.398	0.22	3.20	3.30-3	5.08 0	-4.01-3	-5.12 0
180.977	181.490	0.22	3.30	3.42-3	5.47 0	-4.13-3	-5.50 0
181.084	181.579	0.22	3.40	3.53-3	5.86 0	-4.25-3	-5.90 0
181.187	181.665	0.22	3.50	3.65-3	6.28 0	-4.36-3	-6.31 0
181.286	181.747	0.22	3.60	3.77-3	6.70 0	-4.48-3	-6.74 0
181.381	181.827	0.22	3.70	3.89-3	7.14 0	-4.60-3	-7.19 0
181.472	181.905	0.22	3.80	4.01-3	7.60 0	-4.72-3	-7.64 0
181.560	181.980	0.22	3.90	4.13-3	8.07 0	-4.84-3	-8.11 0
181.645	182.053	0.22	4.00	4.24-3	8.55 0	-4.96-3	-8.60 0
181.807	182.192	0.22	4.20	4.48-3	9.56 0	-5.20-3	-9.61 0
181.959	182.323	0.22	4.40	4.72-3	1.06 1	-5.44-3	-1.07 1
182.103	182.448	0.22	4.60	4.96-3	1.18 1	-5.67-3	-1.18 1
182.238	182.567	0.22	4.80	5.20-3	1.29 1	-5.91-3	-1.30 1
182.366	182.679	0.22	5.00	5.44-3	1.42 1	-6.15-3	-1.42 1
182.488	182.787	0.22	5.20	5.67-3	1.55 1	-6.39-3	-1.55 1
182.604	182.890	0.22	5.40	5.91-3	1.68 1	-6.63-3	-1.69 1
182.714	182.989	0.22	5.60	6.15-3	1.82 1	-6.87-3	-1.83 1
182.820	183.084	0.22	5.80	6.39-3	1.97 1	-7.11-3	-1.98 1
182.921	183.176	0.22	6.00	6.64-3	2.12 1	-7.35-3	-2.13 1
183.019	183.264	0.22	6.20	6.88-3	2.28 1	-7.60-3	-2.29 1
183.112	183.348	0.22	6.40	7.12-3	2.44 1	-7.84-3	-2.45 1
183.202	183.430	0.22	6.60	7.36-3	2.61 1	-8.08-3	-2.62 1
183.289	183.510	0.22	6.80	7.60-3	2.79 1	-8.32-3	-2.80 1
183.373	183.586	0.22	7.00	7.84-3	2.97 1	-8.56-3	-2.98 1
183.454	183.661	0.22	7.20	8.08-3	3.15 1	-8.81-3	-3.16 1
183.533	183.733	0.22	7.40	8.33-3	3.35 1	-9.05-3	-3.35 1
183.609	183.803	0.22	7.60	8.57-3	3.54 1	-9.29-3	-3.55 1
183.682	183.871	0.22	7.80	8.81-3	3.75 1	-9.53-3	-3.76 1
183.754	183.937	0.22	8.00	9.05-3	3.96 1	-9.78-3	-3.96 1
183.823	184.001	0.22	8.20	9.30-3	4.17 1	-1.00-2	-4.18 1
183.891	184.064	0.22	8.40	9.54-3	4.39 1	-1.03-2	-4.40 1
183.956	184.125	0.22	8.60	9.78-3	4.62 1	-1.05-2	-4.63 1
184.020	184.185	0.22	8.80	1.00-2	4.85 1	-1.08-2	-4.86 1
184.083	184.243	0.22	9.00	1.03-2	5.08 1	-1.10-2	-5.09 1
184.143	184.299	0.22	9.20	1.05-2	5.33 1	-1.12-2	-5.34 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
184.203	184.355	0.22	9.40	1.08-2	5.57 1	-1.15-2	-5.58 1
184.261	184.409	0.22	9.60	1.10-2	5.83 1	-1.17-2	-5.84 1
184.317	184.462	0.22	9.80	1.13-2	6.09 1	-1.20-2	-6.10 1
184.372	184.514	0.22	10.00	1.15-2	6.35 1	-1.22-2	-6.36 1
184.505	184.639	0.22	10.50	1.21-2	7.04 1	-1.28-2	-7.05 1
184.631	184.758	0.22	11.00	1.27-2	7.76 1	-1.35-2	-7.77 1
184.751	184.872	0.22	11.50	1.33-2	8.51 1	-1.41-2	-8.52 1
184.865	184.980	0.22	12.00	1.40-2	9.30 1	-1.47-2	-9.31 1
184.974	185.084	0.22	12.50	1.46-2	1.01 2	-1.53-2	-1.01 2
185.079	185.184	0.22	13.00	1.52-2	1.10 2	-1.59-2	-1.1[illegible] 2
185.179	185.280	0.22	13.50	1.58-2	1.19 2	-1.65-2	-1.19 2
185.276	185.372	0.22	14.00	1.64-2	1.28 2	-1.72-2	-1.28 2
185.368	185.461	0.22	14.50	1.71-2	1.38 2	-1.78-2	-1.38 2
185.458	185.547	0.22	15.00	1.77-2	1.48 2	-1.84-2	-1.48 2
185.544	185.630	0.22	15.50	1.83-2	1.58 2	-1.90-2	-1.58 2
185.628	185.710	0.22	16.00	1.89-2	1.68 2	-1.97-2	-1.69 2
185.709	185.788	0.22	16.50	1.96-2	1.79 2	-2.03-2	-1.80 2
185.787	185.863	0.22	17.00	2.02-2	1.91 2	-2.09-2	-1.91 2
185.863	185.937	0.22	17.50	2.08-2	2.02 2	-2.16-2	-2.03 2
185.936	186.008	0.22	18.00	2.15-2	2.14 2	-2.22-2	-2.14 2
186.008	186.077	0.22	18.50	2.21-2	2.27 2	-2.28-2	-2.27 2
186.078	186.144	0.22	19.00	2.27-2	2.39 2	-2.35-2	-2.39 2
186.145	186.210	0.22	19.50	2.34-2	2.52 2	-2.41-2	-2.52 2
186.212	186.274	0.22	20.00	2.40-2	2.65 2	-2.47-2	-2.66 2
186.339	186.398	0.22	21.00	2.53-2	2.93 2	-2.60-2	-2.93 2
186.460	186.516	0.22	22.00	2.66-2	3.22 2	-2.73-2	-3.22 2
186.576	186.629	0.22	23.00	2.79-2	3.52 2	-2.86-2	-3.52 2
186.687	186.737	0.22	24.00	2.91-2	3.83 2	-2.99-2	-3.83 2
186.794	186.841	0.22	25.00	3.04-2	4.16 2	-3.12-2	-4.16 2
186.896	186.941	0.22	26.00	3.18-2	4.50 2	-3.25-2	-4.50 2
186.995	187.038	0.22	27.00	3.31-2	4.85 2	-3.38-2	-4.85 2
187.090	187.131	0.22	28.00	3.44-2	5.21 2	-3.51-2	-5.21 2
187.182	187.221	0.22	29.00	3.57-2	5.59 2	-3.64-2	-5.59 2
187.271	187.308	0.22	30.00	3.70-2	5.97 2	-3.78-2	-5.98 2
187.358	187.393	0.22	31.00	3.84-2	6.37 2	-3.91-2	-6.37 2
187.442	187.476	0.22	32.00	3.97-2	6.78 2	-4.04-2	-6.78 2
187.523	187.556	0.22	33.00	4.11-2	7.20 2	-4.18-2	-7.21 2
187.603	187.633	0.22	34.00	4.24-2	7.64 2	-4.32-2	-7.64 2
187.680	187.709	0.22	35.00	4.38-2	8.08 2	-4.45-2	-8.09 2
187.755	187.783	0.22	36.00	4.52-2	8.54 2	-4.59-2	-8.54 2
187.828	187.856	0.22	37.00	4.65-2	9.00 2	-4.73-2	-9.01 2
187.900	187.926	0.22	38.00	4.79-2	9.48 2	-4.87-2	-9.48 2
187.970	187.995	0.22	39.00	4.93-2	9.97 2	-5.01-2	-9.97 2
188.039	188.063	0.22	40.00	5.07-2	1.05 3	-5.15-2	-1.05 3
188.106	188.129	0.22	41.00	5.21-2	1.10 3	-5.29-2	-1.10 3
188.171	188.194	0.22	42.00	5.36-2	1.15 3	-5.43-2	-1.15 3
188.236	188.257	0.22	43.00	5.50-2	1.20 3	-5.57-2	-1.20 3
188.299	188.320	0.22	44.00	5.64-2	1.26 3	-5.72-2	-1.26 3
188.361	188.381	0.22	45.00	5.79-2	1.31 3	-5.86-2	-1.31 3
188.422	188.441	0.22	46.00	5.94-2	1.37 3	-6.01-2	-1.37 3
188.482	188.500	0.22	47.00	6.08-2	1.42 3	-6.16-2	-1.42 3
188.541	188.559	0.22	48.00	6.23-2	1.48 3	-6.31-2	-1.48 3
188.599	188.616	0.22	49.00	6.38-2	1.54 3	-6.46-2	-1.54 3
188.656	188.672	0.22	50.00	6.53-2	1.60 3	-6.61-2	-1.60 3
188.713	188.728	0.22	51.00	6.68-2	1.66 3	-6.76-2	-1.66 3
188.768	188.783	0.22	52.00	6.84-2	1.72 3	-6.91-2	-1.72 3
188.823	188.837	0.22	53.00	6.99-2	1.78 3	-7.07-2	-1.78 3
188.877	188.891	0.22	54.00	7.15-2	1.84 3	-7.22-2	-1.84 3
188.930	188.943	0.22	55.00	7.30-2	1.91 3	-7.38-2	-1.91 3
188.983	188.996	0.22	56.00	7.46-2	1.97 3	-7.54-2	-1.97 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
189.035	189.047	0.22	57.00	7.62-2	2.03 3	-7.70-2	-2.03 3
189.086	189.098	0.22	58.00	7.78-2	2.10 3	-7.86-2	-2.10 3
189.137	189.148	0.22	59.00	7.95-2	2.17 3	-8.02-2	-2.17 3
189.188	189.198	0.22	60.00	8.11-2	2.23 3	-8.19-2	-2.23 3
189.237	189.248	0.22	61.00	8.28-2	2.30 3	-8.35-2	-2.30 3
189.287	189.297	0.22	62.00	8.44-2	2.37 3	-8.52-2	-2.37 3
189.336	189.345	0.22	63.00	8.61-2	2.43 3	-8.69-2	-2.44 3
189.384	189.393	0.22	64.00	8.78-2	2.50 3	-8.86-2	-2.50 3
189.432	189.441	0.22	65.00	8.96-2	2.57 3	-9.03-2	-2.57 3
189.480	189.488	0.22	66.00	9.13-2	2.64 3	-9.21-2	-2.64 3
189.527	189.535	0.22	67.00	9.31-2	2.71 3	-9.38-2	-2.71 3
189.574	189.581	0.22	68.00	9.49-2	2.78 3	-9.56-2	-2.78 3
189.620	189.628	0.22	69.00	9.67-2	2.85 3	-9.74-2	-2.85 3
189.667	189.674	0.22	70.00	9.85-2	2.93 3	-9.92-2	-2.93 3
189.713	189.719	0.22	71.00	1.00-1	3.00 3	-1.01-1	-3.00 3
189.758	189.765	0.22	72.00	1.02-1	3.07 3	-1.03-1	-3.07 3
189.804	189.810	0.22	73.00	1.04-1	3.14 3	-1.05-1	-3.14 3
189.849	189.855	0.22	74.00	1.06-1	3.22 3	-1.07-1	-3.22 3
189.894	189.899	0.22	75.00	1.08-1	3.29 3	-1.09-1	-3.29 3
189.939	189.944	0.22	76.00	1.10-1	3.36 3	-1.11-1	-3.36 3
189.983	189.988	0.22	77.00	1.12-1	3.44 3	-1.13-1	-3.44 3
190.028	190.032	0.22	78.00	1.14-1	3.51 3	-1.15-1	-3.51 3
190.072	190.076	0.22	79.00	1.16-1	3.58 3	-1.17-1	-3.58 3
190.116	190.120	0.22	80.00	1.18-1	3.66 3	-1.19-1	-3.66 3
190.160	190.163	0.22	81.00	1.20-1	3.73 3	-1.21-1	-3.73 3
190.204	190.207	0.22	82.00	1.22-1	3.81 3	-1.23-1	-3.81 3
190.247	190.250	0.22	83.00	1.24-1	3.88 3	-1.25-1	-3.88 3
190.291	190.294	0.22	84.00	1.27-1	3.95 3	-1.27-1	-3.95 3
190.335	190.337	0.22	85.00	1.29-1	4.03 3	-1.30-1	-4.03 3
190.378	190.380	0.22	86.00	1.31-1	4.10 3	-1.32-1	-4.10 3
190.421	190.423	0.22	87.00	1.33-1	4.18 3	-1.34-1	-4.18 3
190.465	190.466	0.22	88.00	1.36-1	4.25 3	-1.36-1	-4.25 3
190.508	190.510	0.22	89.00	1.38-1	4.32 3	-1.39-1	-4.32 3
190.551	190.553	0.22	90.00	1.40-1	4.40 3	-1.41-1	-4.40 3
184.196	202.497	0.20	0.38	1.05-4	6.62-3	-6.81-4	-8.07-3
187.528	203.054	0.20	0.40	1.27-4	8.54-3	-7.02-4	-1.01-2
190.219	203.574	0.20	0.42	1.49-4	1.08-2	-7.23-4	-1.26-2
192.429	204.053	0.20	0.44	1.70-4	1.35-2	-7.44-4	-1.54-2
194.268	204.494	0.20	0.46	1.92-4	1.65-2	-7.66-4	-1.86-2
195.820	204.898	0.20	0.48	2.14-4	2.00-2	-7.87-4	-2.23-2
197.142	205.270	0.20	0.50	2.35-4	2.40-2	-8.09-4	-2.64-2
198.282	205.612	0.20	0.52	2.57-4	2.85-2	-8.30-4	-3.10-2
199.274	205.927	0.20	0.54	2.79-4	3.34-2	-8.52-4	-3.62-2
189.548	237.651	0.18	0.26	2.12-5	1.26-3	-5.04-4	-2.01-3
187.067	282.473	0.16	0.20	-3.37-6	3.90-4	-3.98-4	-8.82-4
200.00	230.00						
200.143	206.219	0.20	0.56	3.00-4	3.89-2	-8.74-4	-4.18-2
200.911	206.488	0.20	0.58	3.22-4	4.49-2	-8.96-4	-4.80-2
201.595	206.739	0.20	0.60	3.44-4	5.15-2	-9.18-4	-5.48-2
202.206	206.973	0.20	0.62	3.65-4	5.87-2	-9.40-4	-6.22-2
202.758	207.191	0.20	0.64	3.87-4	6.64-2	-9.62-4	-7.01-2
203.256	207.395	0.20	0.66	4.09-4	7.48-2	-9.84-4	-7.87-2
203.710	207.586	0.20	0.68	4.31-4	8.38-2	-1.01-3	-8.79-2
204.125	207.766	0.20	0.70	4.52-4	9.34-2	-1.03-3	-9.78-2
204.505	207.936	0.20	0.72	4.74-4	1.04-1	-1.05-3	-1.08-1
204.856	208.096	0.20	0.74	4.96-4	1.15-1	-1.07-3	-1.19-1
205.180	208.248	0.20	0.76	5.18-4	1.26-1	-1.09-3	-1.31-1
205.481	208.392	0.20	0.78	5.40-4	1.39-1	-1.12-3	-1.44-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
205.760	208.528	0.20	0.80	5.62-4	1.52-1	-1.14-3	-1.57-1
206.021	208.658	0.20	0.82	5.84-4	1.65-1	-1.16-3	-1.71-1
206.265	208.782	0.20	0.84	6.06-4	1.80-1	-1.18-3	-1.85-1
206.494	208.901	0.20	0.86	6.28-4	1.95-1	-1.20-3	-2.01-1
206.709	209.014	0.20	0.88	6.49-4	2.11-1	-1.23-3	-2.17-1
206.912	209.122	0.20	0.90	6.71-4	2.27-1	-1.25-3	-2.34-1
207.103	209.225	0.20	0.92	6.93-4	2.45-1	-1.27-3	-2.51-1
207.284	209.325	0.20	0.94	7.15-4	2.63-1	-1.29-3	-2.70-1
207.456	209.420	0.20	0.96	7.37-4	2.81-1	-1.32-3	-2.89-1
207.619	209.512	0.20	0.98	7.59-4	3.01-1	-1.34-3	-3.08-1
207.774	209.601	0.20	1.00	7.81-4	3.21-1	-1.36-3	-3.29-1
208.130	209.809	0.20	1.05	8.37-4	3.75-1	-1.42-3	-3.84-1
208.449	209.999	0.20	1.10	8.92-4	4.34-1	-1.47-3	-4.43-1
208.735	210.175	0.20	1.15	9.47-4	4.98-1	-1.53-3	-5.08-1
208.995	210.338	0.20	1.20	1.00-3	5.67-1	-1.58-3	-5.77-1
209.232	210.489	0.20	1.25	1.06-3	6.41-1	-1.64-3	-6.52-1
209.450	210.631	0.20	1.30	1.11-3	7.20-1	-1.69-3	-7.31-1
209.650	210.764	0.20	1.35	1.17-3	8.04-1	-1.75-3	-8.16-1
209.836	210.889	0.20	1.40	1.22-3	8.93-1	-1.81-3	-9.06-1
210.009	211.007	0.20	1.45	1.28-3	9.88-1	-1.86-3	-1.00 0
210.170	211.118	0.20	1.50	1.34-3	1.09 0	-1.92-3	-1.10 0
210.321	211.224	0.20	1.55	1.39-3	1.19 0	-1.97-3	-1.21 0
210.463	211.324	0.20	1.60	1.45-3	1.30 0	-2.03-3	-1.32 0
210.596	211.420	0.20	1.65	1.50-3	1.42 0	-2.09-3	-1.43 0
210.723	211.512	0.20	1.70	1.56-3	1.54 0	-2.14-3	-1.55 0
210.842	211.599	0.20	1.75	1.61-3	1.66 0	-2.20-3	-1.68 0
210.956	211.683	0.20	1.80	1.67-3	1.79 0	-2.26-3	-1.81 0
211.064	211.763	0.20	1.85	1.73-3	1.93 0	-2.31-3	-1.95 0
211.166	211.840	0.20	1.90	1.78-3	2.07 0	-2.37-3	-2.09 0
211.265	211.914	0.20	1.95	1.84-3	2.22 0	-2.42-3	-2.24 0
211.358	211.986	0.20	2.00	1.90-3	2.37 0	-2.48-3	-2.39 0
211.535	212.121	0.20	2.10	2.01-3	2.69 0	-2.59-3	-2.71 0
211.697	212.248	0.20	2.20	2.12-3	3.03 0	-2.71-3	-3.05 0
211.848	212.366	0.20	2.30	2.23-3	3.40 0	-2.82-3	-3.42 0
211.988	212.478	0.20	2.40	2.35-3	3.78 0	-2.93-3	-3.80 0
212.119	212.583	0.20	2.50	2.46-3	4.19 0	-3.05-3	-4.21 0
212.243	212.683	0.20	2.60	2.57-3	4.61 0	-3.16-3	-4.64 0
212.359	212.778	0.20	2.70	2.68-3	5.06 0	-3.27-3	-5.09 0
212.468	212.868	0.20	2.80	2.80-3	5.53 0	-3.39-3	-5.56 0
212.572	212.954	0.20	2.90	2.91-3	6.02 0	-3.50-3	-6.06 0
212.671	213.037	0.20	3.00	3.02-3	6.54 0	-3.61-3	-6.57 0
212.765	213.115	0.20	3.10	3.14-3	7.07 0	-3.73-3	-7.11 0
212.854	213.191	0.20	3.20	3.25-3	7.63 0	-3.84-3	-7.66 0
212.940	213.264	0.20	3.30	3.36-3	8.21 0	-3.96-3	-8.24 0
213.022	213.333	0.20	3.40	3.48-3	8.81 0	-4.07-3	-8.84 0
213.100	213.401	0.20	3.50	3.59-3	9.43 0	-4.18-3	-9.47 0
213.176	213.466	0.20	3.60	3.71-3	1.01 1	-4.30-3	-1.01 1
213.248	213.528	0.20	3.70	3.82-3	1.07 1	-4.41-3	-1.08 1
213.318	213.589	0.20	3.80	3.93-3	1.14 1	-4.53-3	-1.15 1
213.386	213.648	0.20	3.90	4.05-3	1.21 1	-4.64-3	-1.22 1
213.451	213.705	0.20	4.00	4.16-3	1.29 1	-4.75-3	-1.29 1
213.574	213.813	0.20	4.20	4.39-3	1.44 1	-4.98-3	-1.44 1
213.691	213.916	0.20	4.40	4.62-3	1.60 1	-5.21-3	-1.60 1
213.800	214.013	0.20	4.60	4.85-3	1.77 1	-5.44-3	-1.77 1
213.903	214.105	0.20	4.80	5.08-3	1.95 1	-5.67-3	-1.95 1
214.001	214.193	0.20	5.00	5.31-3	2.13 1	-5.90-3	-2.14 1
214.094	214.277	0.20	5.20	5.54-3	2.33 1	-6.13-3	-2.33 1
214.183	214.357	0.20	5.40	5.77-3	2.53 1	-6.36-3	-2.54 1
214.267	214.434	0.20	5.60	6.00-3	2.74 1	-6.59-3	-2.75 1
214.348	214.507	0.20	5.80	6.23-3	2.96 1	-6.82-3	-2.97 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
214.425	214.578	0.20	6.00	6.46-3	3.19 1	-7.05-3	-3.20 1
214.500	214.646	0.20	6.20	6.69-3	3.43 1	-7.28-3	-3.44 1
214.571	214.712	0.20	6.40	6.92-3	3.68 1	-7.51-3	-3.68 1
214.640	214.775	0.20	6.60	7.15-3	3.93 1	-7.75-3	-3.94 1
214.706	214.837	0.20	6.80	7.38-3	4.20 1	-7.98-3	-4.20 1
214.770	214.896	0.20	7.00	7.61-3	4.47 1	-8.21-3	-4.48 1
214.832	214.953	0.20	7.20	7.84-3	4.75 1	-8.44-3	-4.76 1
214.892	215.009	0.20	7.40	8.07-3	5.04 1	-8.67-3	-5.05 1
214.950	215.063	0.20	7.60	8.31-3	5.33 1	-8.90-3	-5.34 1
215.006	215.115	0.20	7.80	8.54-3	5.64 1	-9.14-3	-5.65 1
215.060	215.166	0.20	8.00	8.77-3	5.96 1	-9.37-3	-5.96 1
215.113	215.216	0.20	8.20	9.00-3	6.28 1	-9.60-3	-6.29 1
215.165	215.264	0.20	8.40	9.23-3	6.61 1	-9.83-3	-6.62 1
215.215	215.311	0.20	8.60	9.47-3	6.95 1	-1.01-2	-6.96 1
215.264	215.357	0.20	8.80	9.70-3	7.30 1	-1.03-2	-7.31 1
215.311	215.402	0.20	9.00	9.93-3	7.65 1	-1.05-2	-7.66 1
215.357	215.446	0.20	9.20	1.02-2	8.02 1	-1.08-2	-8.03 1
215.403	215.488	0.20	9.40	1.04-2	8.39 1	-1.10-2	-8.40 1
215.447	215.530	0.20	9.60	1.06-2	8.77 1	-1.12-2	-8.78 1
215.490	215.571	0.20	9.80	1.09-2	9.16 1	-1.15-2	-9.17 1
215.532	215.611	0.20	10.00	1.11-2	9.56 1	-1.17-2	-9.57 1
215.633	215.707	0.20	10.50	1.17-2	1.06 2	-1.23-2	-1.06 2
215.729	215.798	0.20	11.00	1.23-2	1.17 2	-1.29-2	-1.17 2
215.820	215.885	0.20	11.50	1.28-2	1.28 2	-1.35-2	-1.28 2
215.907	215.968	0.20	12.00	1.34-2	1.40 2	-1.40-2	-1.40 2
215.990	216.048	0.20	12.50	1.40-2	1.52 2	-1.46-2	-1.53 2
216.070	216.124	0.20	13.00	1.46-2	1.65 2	-1.52-2	-1.65 2
216.146	216.197	0.20	13.50	1.52-2	1.79 2	-1.58-2	-1.79 2
216.219	216.268	0.20	14.00	1.58-2	1.93 2	-1.64-2	-1.93 2
216.290	216.336	0.20	14.50	1.64-2	2.07 2	-1.70-2	-2.07 2
216.358	216.401	0.20	15.00	1.70-2	2.22 2	-1.76-2	-2.22 2
216.423	216.465	0.20	15.50	1.76-2	2.38 2	-1.82-2	-2.38 2
216.486	216.526	0.20	16.00	1.81-2	2.53 2	-1.87-2	-2.54 2
216.548	216.586	0.20	16.50	1.87-2	2.70 2	-1.93-2	-2.70 2
216.607	216.643	0.20	17.00	1.93-2	2.87 2	-1.99-2	-2.87 2
216.665	216.699	0.20	17.50	1.99-2	3.04 2	-2.05-2	-3.05 2
216.721	216.753	0.20	18.00	2.05-2	3.22 2	-2.11-2	-3.22 2
216.775	216.806	0.20	18.50	2.11-2	3.41 2	-2.17-2	-3.41 2
216.828	216.857	0.20	19.00	2.17-2	3.60 2	-2.23-2	-3.60 2
216.879	216.908	0.20	19.50	2.23-2	3.79 2	-2.29-2	-3.79 2
216.929	216.956	0.20	20.00	2.29-2	3.99 2	-2.35-2	-3.99 2
217.026	217.050	0.20	21.00	2.41-2	4.40 2	-2.47-2	-4.40 2
217.118	217.140	0.20	22.00	2.53-2	4.83 2	-2.59-2	-4.84 2
217.206	217.226	0.20	23.00	2.65-2	5.28 2	-2.71-2	-5.29 2
217.290	217.308	0.20	24.00	2.77-2	5.75 2	-2.83-2	-5.76 2
217.370	217.387	0.20	25.00	2.89-2	6.24 2	-2.95-2	-6.24 2
217.448	217.463	0.20	26.00	3.01-2	6.75 2	-3.07-2	-6.75 2
217.523	217.536	0.20	27.00	3.14-2	7.27 2	-3.20-2	-7.27 2
217.595	217.607	0.20	28.00	3.26-2	7.82 2	-3.32-2	-7.82 2
217.664	217.676	0.20	29.00	3.38-2	8.38 2	-3.44-2	-8.38 2
217.732	217.742	0.20	30.00	3.50-2	8.95 2	-3.56-2	-8.95 2
217.797	217.806	0.20	31.00	3.63-2	9.55 2	-3.69-2	-9.55 2
217.860	217.868	0.20	32.00	3.75-2	1.02 3	-3.81-2	-1.02 3
217.922	217.929	0.20	33.00	3.88-2	1.08 3	-3.94-2	-1.08 3
217.982	217.988	0.20	34.00	4.00-2	1.14 3	-4.06-2	-1.14 3
218.040	218.045	0.20	35.00	4.13-2	1.21 3	-4.19-2	-1.21 3
218.097	218.101	0.20	36.00	4.25-2	1.28 3	-4.31-2	-1.28 3
218.152	218.156	0.20	37.00	4.38-2	1.35 3	-4.44-2	-1.35 3
218.206	218.209	0.20	38.00	4.51-2	1.42 3	-4.57-2	-1.42 3
218.259	218.261	0.20	39.00	4.64-2	1.49 3	-4.70-2	-1.49 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
218.311	218.312	0.20	40.00	4.76-2	1.56 3	-4.82-2	-1.56 3
218.361	218.362	0.20	41.00	4.89-2	1.64 3	-4.95-2	-1.64 3
218.411	218.411	0.20	42.00	5.02-2	1.72 3	-5.08-2	-1.72 3
218.459	218.459	0.20	43.00	5.15-2	1.79 3	-5.21-2	-1.79 3
218.507	218.506	0.20	44.00	5.29-2	1.87 3	-5.35-2	-1.87 3
218.554	218.553	0.20	45.00	5.42-2	1.95 3	-5.48-2	-1.95 3
218.600	218.598	0.20	46.00	5.55-2	2.04 3	-5.61-2	-2.04 3
218.645	218.643	0.20	47.00	5.69-2	2.12 3	-5.75-2	-2.12 3
218.689	218.687	0.20	48.00	5.82-2	2.20 3	-5.88-2	-2.20 3
218.733	218.730	0.20	49.00	5.96-2	2.29 3	-6.02-2	-2.29 3
218.776	218.772	0.20	50.00	6.09-2	2.38 3	-6.15-2	-2.38 3
218.818	218.814	0.20	51.00	6.23-2	2.47 3	-6.29-2	-2.46 3
218.860	218.856	0.20	52.00	6.37-2	2.55 3	-6.43-2	-2.55 3
218.901	218.896	0.20	53.00	6.51-2	2.64 3	-6.57-2	-2.64 3
218.942	218.937	0.20	54.00	6.65-2	2.74 3	-6.71-2	-2.74 3
218.982	218.976	0.20	55.00	6.79-2	2.83 3	-6.85-2	-2.83 3
219.022	219.016	0.20	56.00	6.93-2	2.92 3	-6.99-2	-2.92 3
219.061	219.054	0.20	57.00	7.07-2	3.02 3	-7.13-2	-3.02 3
219.099	219.093	0.20	58.00	7.22-2	3.11 3	-7.28-2	-3.11 3
219.137	219.131	0.20	59.00	7.36-2	3.21 3	-7.42-2	-3.21 3
219.175	219.168	0.20	60.00	7.51-2	3.30 3	-7.57-2	-3.30 3
219.213	219.205	0.20	61.00	7.66-2	3.40 3	-7.72-2	-3.40 3
219.250	219.242	0.20	62.00	7.81-2	3.50 3	-7.87-2	-3.50 3
219.286	219.278	0.20	63.00	7.96-2	3.60 3	-8.02-2	-3.60 3
219.323	219.315	0.20	64.00	8.11-2	3.70 3	-8.17-2	-3.70 3
219.359	219.350	0.20	65.00	8.26-2	3.80 3	-8.32-2	-3.80 3
219.395	219.386	0.20	66.00	8.42-2	3.90 3	-8.48-2	-3.90 3
219.430	219.421	0.20	67.00	8.57-2	4.00 3	-8.63-2	-4.00 3
219.465	219.456	0.20	68.00	8.73-2	4.10 3	-8.79-2	-4.10 3
219.500	219.491	0.20	69.00	8.89-2	4.21 3	-8.95-2	-4.21 3
219.535	219.525	0.20	70.00	9.05-2	4.31 3	-9.11-2	-4.31 3
219.569	219.559	0.20	71.00	9.21-2	4.41 3	-9.27-2	-4.41 3
219.604	219.593	0.20	72.00	9.38-2	4.52 3	-9.44-2	-4.52 3
219.638	219.627	0.20	73.00	9.54-2	4.62 3	-9.60-2	-4.62 3
219.672	219.661	0.20	74.00	9.71-2	4.73 3	-9.77-2	-4.72 3
219.705	219.694	0.20	75.00	9.88-2	4.83 3	-9.94-2	-4.83 3
219.739	219.728	0.20	76.00	1.01-1	4.93 3	-1.01-1	-4.93 3
219.772	219.761	0.20	77.00	1.02-1	5.04 3	-1.03-1	-5.04 3
219.805	219.794	0.20	78.00	1.04-1	5.14 3	-1.05-1	-5.14 3
219.839	219.827	0.20	79.00	1.06-1	5.25 3	-1.06-1	-5.25 3
219.872	219.860	0.20	80.00	1.08-1	5.35 3	-1.08-1	-5.35 3
219.904	219.892	0.20	81.00	1.09-1	5.46 3	-1.10-1	-5.46 3
219.937	219.925	0.20	82.00	1.11-1	5.56 3	-1.12-1	-5.56 3
219.970	219.958	0.20	83.00	1.13-1	5.67 3	-1.14-1	-5.67 3
220.003	219.990	0.20	84.00	1.15-1	5.77 3	-1.16-1	-5.77 3
220.035	220.022	0.20	85.00	1.17-1	5.88 3	-1.17-1	-5.88 3
220.068	220.055	0.20	86.00	1.19-1	5.98 3	-1.19-1	-5.98 3
220.100	220.087	0.20	87.00	1.21-1	6.09 3	-1.21-1	-6.08 3
220.132	220.119	0.20	88.00	1.23-1	6.19 3	-1.23-1	-6.19 3
220.165	220.152	0.20	89.00	1.25-1	6.29 3	-1.25-1	-6.29 3
220.197	220.184	0.20	90.00	1.27-1	6.40 3	-1.27-1	-6.39 3
203.551	238.514	0.18	0.28	4.33-5	1.98-3	-5.21-4	-2.85-3
213.154	239.481	0.18	0.30	6.48-5	2.97-3	-5.40-4	-3.97-3
219.971	240.410	0.18	0.32	8.61-5	4.29-3	-5.60-4	-5.42-3
224.964	241.253	0.18	0.34	1.07-4	5.99-3	-5.81-4	-7.26-3
228.725	242.000	0.18	0.36	1.28-4	8.13-3	-6.01-4	-9.54-3
225.326	283.136	0.16	0.22	1.92-5	7.66-4	-4.12-4	-1.36-3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
230.00	260.00						
231.629	242.658	0.18	0.38	1.50-4	1.08-2	-6.23-4	-1.23-2
233.920	243.236	0.18	0.40	1.71-4	1.39-2	-6.44-4	-1.57-2
235.763	243.746	0.18	0.42	1.92-4	1.77-2	-6.65-4	-1.96-2
237.270	244.197	0.18	0.44	2.13-4	2.21-2	-6.86-4	-2.42-2
238.522	244.597	0.18	0.46	2.34-4	2.72-2	-7.08-4	-2.95-2
239.575	244.955	0.18	0.48	2.55-4	3.31-2	-7.29-4	-3.55-2
240.471	245.277	0.18	0.50	2.76-4	3.97-2	-7.51-4	-4.23-2
241.243	245.568	0.18	0.52	2.98-4	4.71-2	-7.72-4	-4.99-2
241.913	245.831	0.18	0.54	3.19-4	5.54-2	-7.94-4	-5.84-2
242.500	246.071	0.18	0.56	3.40-4	6.46-2	-8.15-4	-6.78-2
243.018	246.291	0.18	0.58	3.61-4	7.47-2	-8.37-4	-7.81-2
243.479	246.493	0.18	0.60	3.82-4	8.57-2	-8.58-4	-8.93-2
243.892	246.680	0.18	0.62	4.04-4	9.78-2	-8.80-4	-1.02-1
244.263	246.852	0.18	0.64	4.25-4	1.11-1	-9.02-4	-1.15-1
244.599	247.013	0.18	0.66	4.46-4	1.25-1	-9.23-4	-1.29-1
244.905	247.162	0.18	0.68	4.68-4	1.40-1	-9.45-4	-1.44-1
245.184	247.302	0.18	0.70	4.89-4	1.56-1	-9.66-4	-1.61-1
245.440	247.433	0.18	0.72	5.10-4	1.74-1	-9.88-4	-1.78-1
245.676	247.556	0.18	0.74	5.32-4	1.92-1	-1.01-3	-1.97-1
245.895	247.672	0.18	0.76	5.53-4	2.12-1	-1.03-3	-2.17-1
246.097	247.781	0.18	0.78	5.74-4	2.32-1	-1.05-3	-2.38-1
246.285	247.885	0.18	0.80	5.96-4	2.54-1	-1.07-3	-2.60-1
246.461	247.983	0.18	0.82	6.17-4	2.77-1	-1.10-3	-2.83-1
246.625	248.076	0.18	0.84	6.38-4	3.02-1	-1.12-3	-3.08-1
246.779	248.165	0.18	0.86	6.60-4	3.27-1	-1.14-3	-3.34-1
246.924	248.249	0.18	0.88	6.81-4	3.54-1	-1.16-3	-3.61-1
247.061	248.330	0.18	0.90	7.03-4	3.82-1	-1.18-3	-3.89-1
247.190	248.407	0.18	0.92	7.24-4	4.11-1	-1.20-3	-4.18-1
247.312	248.481	0.18	0.94	7.46-4	4.42-1	-1.23-3	-4.49-1
247.427	248.552	0.18	0.96	7.67-4	4.73-1	-1.25-3	-4.81-1
247.537	248.619	0.18	0.98	7.89-4	5.07-1	-1.27-3	-5.14-1
247.641	248.685	0.18	1.00	8.10-4	5.41-1	-1.29-3	-5.49-1
247.882	248.837	0.18	1.05	8.64-4	6.33-1	-1.34-3	-6.41-1
248.096	248.976	0.18	1.10	9.17-4	7.32-1	-1.40-3	-7.42-1
248.289	249.104	0.18	1.15	9.71-4	8.41-1	-1.45-3	-8.51-1
248.465	249.223	0.18	1.20	1.03-3	9.57-1	-1.51-3	-9.68-1
248.625	249.332	0.18	1.25	1.08-3	1.08 0	-1.56-3	-1.09 0
248.771	249.434	0.18	1.30	1.13-3	1.22 0	-1.62-3	-1.23 0
248.907	249.530	0.18	1.35	1.19-3	1.36 0	-1.67-3	-1.37 0
249.032	249.620	0.18	1.40	1.24-3	1.51 0	-1.72-3	-1.52 0
249.149	249.704	0.18	1.45	1.29-3	1.67 0	-1.78-3	-1.68 0
249.257	249.784	0.18	1.50	1.35-3	1.84 0	-1.83-3	-1.85 0
249.359	249.859	0.18	1.55	1.40-3	2.02 0	-1.89-3	-2.03 0
249.455	249.931	0.18	1.60	1.46-3	2.20 0	-1.94-3	-2.22 0
249.545	249.999	0.18	1.65	1.51-3	2.40 0	-2.00-3	-2.41 0
249.631	250.064	0.18	1.70	1.57-3	2.60 0	-2.05-3	-2.62 0
249.711	250.125	0.18	1.75	1.62-3	2.82 0	-2.10-3	-2.83 0
249.788	250.185	0.18	1.80	1.67-3	3.04 0	-2.16-3	-3.06 0
249.861	250.241	0.18	1.85	1.73-3	3.27 0	-2.21-3	-3.29 0
249.931	250.296	0.18	1.90	1.78-3	3.51 0	-2.27-3	-3.53 0
249.997	250.348	0.18	1.95	1.84-3	3.76 0	-2.32-3	-3.78 0
250.060	250.398	0.18	2.00	1.89-3	4.02 0	-2.38-3	-4.04 0
250.179	250.494	0.18	2.10	2.00-3	4.56 0	-2.49-3	-4.58 0
250.289	250.583	0.18	2.20	2.11-3	5.14 0	-2.59-3	-5.17 0
250.391	250.666	0.18	2.30	2.22-3	5.76 0	-2.70-3	-5.78 0
250.486	250.744	0.18	2.40	2.33-3	6.41 0	-2.81-3	-6.44 0
250.575	250.818	0.18	2.50	2.43-3	7.10 0	-2.92-3	-7.13 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
250.658	250.887	0.18	2.60	2.54-3	7.83 0	-3.03-3	-7.86 0
250.737	250.954	0.18	2.70	2.65-3	8.59 0	-3.14-3	-8.62 0
250.811	251.016	0.18	2.80	2.76-3	9.39 0	-3.25-3	-9.42 0
250.881	251.076	0.18	2.90	2.87-3	1.02 1	-3.36-3	-1.03 1
250.948	251.134	0.18	3.00	2.98-3	1.11 1	-3.47-3	-1.11 1
251.012	251.188	0.18	3.10	3.09-3	1.20 1	-3.58-3	-1.20 1
251.072	251.241	0.18	3.20	3.20-3	1.30 1	-3.69-3	-1.30 1
251.130	251.291	0.18	3.30	3.31-3	1.39 1	-3.80-3	-1.40 1
251.186	251.339	0.18	3.40	3.42-3	1.50 1	-3.91-3	-1.50 1
251.239	251.386	0.18	3.50	3.53-3	1.60 1	-4.02-3	-1.61 1
251.290	251.431	0.18	3.60	3.64-3	1.71 1	-4.12-3	-1.71 1
251.339	251.474	0.18	3.70	3.74-3	1.82 1	-4.23-3	-1.83 1
251.386	251.516	0.18	3.80	3.85-3	1.94 1	-4.34-3	-1.94 1
251.432	251.557	0.18	3.90	3.96-3	2.06 1	-4.45-3	-2.06 1
251.476	251.596	0.18	4.00	4.07-3	2.18 1	-4.56-3	-2.19 1
251.560	251.671	0.18	4.20	4.29-3	2.44 1	-4.78-3	-2.45 1
251.638	251.742	0.18	4.40	4.51-3	2.72 1	-5.00-3	-2.72 1
251.712	251.809	0.18	4.60	4.73-3	3.00 1	-5.22-3	-3.01 1
251.782	251.872	0.18	4.80	4.95-3	3.31 1	-5.44-3	-3.31 1
251.849	251.933	0.18	5.00	5.17-3	3.62 1	-5.66-3	-3.63 1
251.911	251.990	0.18	5.20	5.39-3	3.96 1	-5.88-3	-3.96 1
251.971	252.045	0.18	5.40	5.61-3	4.30 1	-6.10-3	-4.31 1
252.029	252.098	0.18	5.60	5.83-3	4.66 1	-6.32-3	-4.67 1
252.083	252.148	0.18	5.80	6.05-3	5.04 1	-6.54-3	-5.04 1
252.136	252.197	0.18	6.00	6.27-3	5.43 1	-6.76-3	-5.43 1
252.186	252.244	0.18	6.20	6.48-3	5.83 1	-6.98-3	-5.84 1
252.234	252.289	0.18	6.40	6.70-3	6.25 1	-7.20-3	-6.25 1
252.281	252.332	0.18	6.60	6.92-3	6.68 1	-7.42-3	-6.69 1
252.325	252.374	0.18	6.80	7.14-3	7.13 1	-7.63-3	-7.13 1
252.369	252.414	0.18	7.00	7.36-3	7.59 1	-7.85-3	-7.60 1
252.411	252.454	0.18	7.20	7.58-3	8.07 1	-8.07-3	-8.07 1
252.451	252.492	0.18	7.40	7.80-3	8.56 1	-8.29-3	-8.56 1
252.490	252.528	0.18	7.60	8.02-3	9.06 1	-8.51-3	-9.07 1
252.528	252.564	0.18	7.80	8.24-3	9.58 1	-8.73-3	-9.58 1
252.565	252.599	0.18	8.00	8.46-3	1.01 2	-8.95-3	-1.01 2
252.601	252.633	0.18	8.20	8.68-3	1.07 2	-9.17-3	-1.07 2
252.636	252.666	0.18	8.40	8.90-3	1.12 2	-9.39-3	-1.12 2
252.669	252.698	0.18	8.60	9.12-3	1.18 2	-9.61-3	-1.18 2
252.702	252.729	0.18	8.80	9.34-3	1.24 2	-9.83-3	-1.24 2
252.734	252.760	0.18	9.00	9.56-3	1.30 2	-1.01-2	-1.30 2
252.766	252.789	0.18	9.20	9.78-3	1.36 2	-1.03-2	-1.36 2
252.796	252.819	0.18	9.40	1.00-2	1.42 2	-1.05-2	-1.42 2
252.826	252.847	0.18	9.60	1.02-2	1.49 2	-1.07-2	-1.49 2
252.855	252.875	0.18	9.80	1.04-2	1.55 2	-1.09-2	-1.56 2
252.883	252.902	0.18	10.00	1.07-2	1.62 2	-1.11-2	-1.62 2
252.952	252.967	0.18	10.50	1.12-2	1.80 2	-1.17-2	-1.80 2
253.017	253.029	0.18	11.00	1.18-2	1.98 2	-1.22-2	-1.98 2
253.078	253.088	0.18	11.50	1.23-2	2.17 2	-1.28-2	-2.17 2
253.137	253.145	0.18	12.00	1.29-2	2.37 2	-1.33-2	-2.37 2
253.193	253.199	0.18	12.50	1.34-2	2.58 2	-1.39-2	-2.58 2
253.246	253.251	0.18	13.00	1.39-2	2.80 2	-1.44-2	-2.80 2
253.298	253.300	0.18	13.50	1.45-2	3.03 2	-1.50-2	-3.03 2
253.347	253.348	0.18	14.00	1.50-2	3.26 2	-1.55-2	-3.26 2
253.395	253.394	0.18	14.50	1.56-2	3.50 2	-1.61-2	-3.50 2
253.441	253.439	0.18	15.00	1.61-2	3.76 2	-1.66-2	-3.76 2
253.485	253.482	0.18	15.50	1.67-2	4.02 2	-1.72-2	-4.01 2
253.528	253.523	0.18	16.00	1.72-2	4.28 2	-1.77-2	-4.28 2
253.569	253.563	0.18	16.50	1.78-2	4.56 2	-1.83-2	-4.56 2
253.609	253.602	0.18	17.00	1.83-2	4.84 2	-1.88-2	-4.84 2
253.648	253.640	0.18	17.50	1.89-2	5.14 2	-1.94-2	-5.14 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
253.685	253.677	0.18	18.00	1.94-2	5.44 2	-1.99-2	-5.44 2
253.722	253.712	0.18	18.50	2.00-2	5.75 2	-2.05-2	-5.75 2
253.758	253.747	0.18	19.00	2.05-2	6.06 2	-2.10-2	-6.06 2
253.792	253.781	0.18	19.50	2.11-2	6.39 2	-2.16-2	-6.39 2
253.826	253.814	0.18	20.00	2.16-2	6.72 2	-2.21-2	-6.72 2
253.891	253.877	0.18	21.00	2.27-2	7.41 2	-2.32-2	-7.41 2
253.953	253.938	0.18	22.00	2.38-2	8.13 2	-2.43-2	-8.13 2
254.012	253.996	0.18	23.00	2.49-2	8.88 2	-2.54-2	-8.88 2
254.068	254.051	0.18	24.00	2.60-2	9.66 2	-2.65-2	-9.66 2
254.122	254.105	0.18	25.00	2.71-2	1.05 3	-2.76-2	-1.05 3
254.175	254.156	0.18	26.00	2.82-2	1.13 3	-2.87-2	-1.13 3
254.225	254.205	0.18	27.00	2.93-2	1.22 3	-2.98-2	-1.22 3
254.273	254.253	0.18	28.00	3.04-2	1.31 3	-3.09-2	-1.31 3
254.320	254.299	0.18	29.00	3.15-2	1.40 3	-3.20-2	-1.40 3
254.365	254.343	0.18	30.00	3.26-2	1.50 3	-3.31-2	-1.50 3
254.409	254.387	0.18	31.00	3.38-2	1.59 3	-3.42-2	-1.59 3
254.452	254.429	0.18	32.00	3.49-2	1.69 3	-3.53-2	-1.69 3
254.493	254.469	0.18	33.00	3.60-2	1.80 3	-3.65-2	-1.80 3
254.533	254.509	0.18	34.00	3.71-2	1.90 3	-3.76-2	-1.90 3
254.572	254.548	0.18	35.00	3.82-2	2.01 3	-3.87-2	-2.01 3
254.610	254.585	0.18	36.00	3.93-2	2.12 3	-3.98-2	-2.12 3
254.647	254.622	0.18	37.00	4.04-2	2.24 3	-4.09-2	-2.23 3
254.684	254.658	0.18	38.00	4.16-2	2.35 3	-4.21-2	-2.35 3
254.719	254.693	0.18	39.00	4.27-2	2.47 3	-4.32-2	-2.47 3
254.754	254.727	0.18	40.00	4.38-2	2.59 3	-4.43-2	-2.59 3
254.787	254.760	0.18	41.00	4.50-2	2.71 3	-4.54-2	-2.71 3
254.821	254.793	0.18	42.00	4.61-2	2.84 3	-4.66-2	-2.83 3
254.853	254.826	0.18	43.00	4.72-2	2.96 3	-4.77-2	-2.96 3
254.885	254.857	0.18	44.00	4.84-2	3.09 3	-4.89-2	-3.09 3
254.916	254.888	0.18	45.00	4.95-2	3.22 3	-5.00-2	-3.22 3
254.947	254.919	0.18	46.00	5.07-2	3.35 3	-5.12-2	-3.35 3
254.977	254.949	0.18	47.00	5.19-2	3.49 3	-5.23-2	-3.49 3
255.007	254.978	0.18	48.00	5.30-2	3.62 3	-5.35-2	-3.62 3
255.036	255.007	0.18	49.00	5.42-2	3.76 3	-5.47-2	-3.76 3
255.065	255.035	0.18	50.00	5.54-2	3.90 3	-5.58-2	-3.90 3
255.093	255.064	0.18	51.00	5.65-2	4.04 3	-5.70-2	-4.04 3
255.121	255.091	0.18	52.00	5.77-2	4.18 3	-5.82-2	-4.18 3
255.149	255.119	0.18	53.00	5.89-2	4.33 3	-5.94-2	-4.32 3
255.176	255.145	0.18	54.00	6.01-2	4.47 3	-6.06-2	-4.47 3
255.203	255.172	0.18	55.00	6.13-2	4.62 3	-6.18-2	-4.61 3
255.229	255.198	0.18	56.00	6.25-2	4.76 3	-6.30-2	-4.76 3
255.255	255.224	0.18	57.00	6.37-2	4.91 3	-6.42-2	-4.91 3
255.281	255.250	0.18	58.00	6.49-2	5.06 3	-6.54-2	-5.06 3
255.307	255.275	0.18	59.00	6.61-2	5.21 3	-6.66-2	-5.21 3
255.332	255.300	0.18	60.00	6.74-2	5.37 3	-6.78-2	-5.36 3
255.357	255.325	0.18	61.00	6.86-2	5.52 3	-6.91-2	-5.52 3
255.382	255.350	0.18	62.00	6.99-2	5.67 3	-7.03-2	-5.67 3
255.406	255.374	0.18	63.00	7.11-2	5.83 3	-7.16-2	-5.82 3
255.431	255.398	0.18	64.00	7.24-2	5.98 3	-7.29-2	-5.98 3
255.455	255.422	0.18	65.00	7.37-2	6.14 3	-7.41-2	-6.13 3
255.478	255.446	0.18	66.00	7.49-2	6.29 3	-7.54-2	-6.29 3
255.502	255.469	0.18	67.00	7.62-2	6.45 3	-7.67-2	-6.45 3
255.526	255.493	0.18	68.00	7.75-2	6.61 3	-7.80-2	-6.60 3
255.549	255.516	0.18	69.00	7.88-2	6.77 3	-7.93-2	-6.76 3
255.572	255.539	0.18	70.00	8.01-2	6.92 3	-8.06-2	-6.92 3
255.595	255.562	0.18	71.00	8.15-2	7.08 3	-8.19-2	-7.08 3
255.618	255.585	0.18	72.00	8.28-2	7.24 3	-8.33-2	-7.24 3
255.641	255.607	0.18	73.00	8.42-2	7.40 3	-8.46-2	-7.39 3
255.663	255.630	0.18	74.00	8.55-2	7.56 3	-8.60-2	-7.55 3
255.686	255.652	0.18	75.00	8.69-2	7.71 3	-8.73-2	-7.71 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
255.708	255.674	0.18	76.00	8.83-2	7.87 3	-8.87-2	-7.87 3
255.730	255.696	0.18	77.00	8.97-2	8.03 3	-9.01-2	-8.02 3
255.753	255.718	0.18	78.00	9.11-2	8.19 3	-9.15-2	-8.18 3
255.775	255.740	0.18	79.00	9.25-2	8.34 3	-9.29-2	-8.34 3
255.797	255.762	0.18	80.00	9.39-2	8.50 3	-9.44-2	-8.49 3
255.818	255.784	0.18	81.00	9.54-2	8.65 3	-9.58-2	-8.65 3
255.840	255.806	0.18	82.00	9.68-2	8.81 3	-9.73-2	-8.80 3
255.862	255.828	0.18	83.00	9.83-2	8.96 3	-9.87-2	-8.96 3
255.884	255.849	0.18	84.00	9.98-2	9.12 3	-1.00-1	-9.11 3
255.906	255.871	0.18	85.00	1.01-1	9.27 3	-1.02-1	-9.26 3
255.927	255.892	0.18	86.00	1.03-1	9.42 3	-1.03-1	-9.42 3
255.949	255.914	0.18	87.00	1.04-1	9.57 3	-1.05-1	-9.57 3
255.970	255.935	0.18	88.00	1.06-1	9.72 3	-1.06-1	-9.72 3
255.992	255.957	0.18	89.00	1.07-1	9.87 3	-1.08-1	-9.86 3
256.014	255.978	0.18	90.00	1.09-1	1.00 4	-1.09-1	-1.00 4
247.412	284.662	0.16	0.24	4.06-5	1.38-3	-4.30-4	-2.08-3
259.920	339.108	0.14	0.18	1.17-5	3.82-4	-3.25-4	-8.14-4
260.00	300.00						
260.820	286.196	0.16	0.26	6.14-5	2.33-3	-4.49-4	-3.15-3
269.392	287.523	0.16	0.28	8.21-5	3.70-3	-4.69-4	-4.66-3
275.139	288.623	0.16	0.30	1.03-4	5.62-3	-4.90-4	-6.71-3
279.156	289.526	0.16	0.32	1.23-4	8.18-3	-5.11-4	-9.41-3
282.067	290.268	0.16	0.34	1.44-4	1.15-2	-5.32-4	-1.29-2
284.242	290.884	0.16	0.36	1.64-4	1.57-2	-5.53-4	-1.72-2
285.913	291.401	0.16	0.38	1.85-4	2.09-2	-5.74-4	-2.26-2
287.225	291.838	0.16	0.40	2.05-4	2.71-2	-5.95-4	-2.90-2
288.277	292.213	0.16	0.42	2.26-4	3.46-2	-6.16-4	-3.66-2
289.136	292.536	0.16	0.44	2.46-4	4.33-2	-6.37-4	-4.56-2
289.848	292.818	0.16	0.46	2.67-4	5.34-2	-6.58-4	-5.59-2
290.446	293.066	0.16	0.48	2.88-4	6.51-2	-6.79-4	-6.77-2
290.955	293.286	0.16	0.50	3.08-4	7.82-2	-6.99-4	-8.10-2
291.392	293.482	0.16	0.52	3.29-4	9.30-2	-7.20-4	-9.60-2
291.772	293.658	0.16	0.54	3.49-4	1.10-1	-7.41-4	-1.13-1
292.104	293.817	0.16	0.56	3.70-4	1.28-1	-7.62-4	-1.31-1
292.398	293.962	0.16	0.58	3.91-4	1.48-1	-7.83-4	-1.52-1
292.659	294.094	0.16	0.60	4.11-4	1.70-1	-8.04-4	-1.74-1
292.892	294.214	0.16	0.62	4.32-4	1.94-1	-8.25-4	-1.98-1
293.102	294.326	0.16	0.64	4.53-4	2.20-1	-8.46-4	-2.25-1
293.292	294.429	0.16	0.66	4.73-4	2.49-1	-8.66-4	-2.53-1
293.465	294.524	0.16	0.68	4.94-4	2.79-1	-8.87-4	-2.84-1
293.624	294.613	0.16	0.70	5.15-4	3.11-1	-9.08-4	-3.16-1
293.769	294.696	0.16	0.72	5.35-4	3.46-1	-9.29-4	-3.51-1
293.902	294.773	0.16	0.74	5.56-4	3.83-1	-9.50-4	-3.88-1
294.026	294.846	0.16	0.76	5.77-4	4.22-1	-9.71-4	-4.28-1
294.140	294.915	0.16	0.78	5.97-4	4.64-1	-9.91-4	-4.70-1
294.247	294.979	0.16	0.80	6.18-4	5.08-1	-1.01-3	-5.14-1
294.347	295.040	0.16	0.82	6.39-4	5.54-1	-1.03-3	-5.61-1
294.440	295.098	0.16	0.84	6.59-4	6.03-1	-1.05-3	-6.10-1
294.527	295.153	0.16	0.86	6.80-4	6.55-1	-1.07-3	-6.61-1
294.609	295.206	0.16	0.88	7.01-4	7.08-1	-1.10-3	-7.15-1
294.687	295.255	0.16	0.90	7.21-4	7.65-1	-1.12-3	-7.72-1
294.760	295.303	0.16	0.92	7.42-4	8.23-1	-1.14-3	-8.31-1
294.829	295.348	0.16	0.94	7.63-4	8.85-1	-1.16-3	-8.92-1
294.894	295.392	0.16	0.96	7.84-4	9.49-1	-1.18-3	-9.56-1
294.957	295.433	0.16	0.98	8.04-4	1.02 0	-1.20-3	-1.02 0
295.016	295.473	0.16	1.00	8.25-4	1.08 0	-1.22-3	-1.09 0
295.152	295.566	0.16	1.05	8.77-4	1.27 0	-1.27-3	-1.28 0
295.274	295.651	0.16	1.10	9.29-4	1.47 0	-1.32-3	-1.48 0

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
295.384	295.728	0.16	1.15	9.80-4	1.69 0	-1.38-3	-1.70 0
295.483	295.800	0.16	1.20	1.03-3	1.92 0	-1.43-3	-1.93 0
295.574	295.866	0.16	1.25	1.08-3	2.18 0	-1.48-3	-2.19 0
295.658	295.927	0.16	1.30	1.14-3	2.45 0	-1.53-3	-2.46 0
295.735	295.985	0.16	1.35	1.19-3	2.73 0	-1.58-3	-2.74 0
295.806	296.039	0.16	1.40	1.24-3	3.04 0	-1.64-3	-3.05 0
295.872	296.089	0.16	1.45	1.29-3	3.36 0	-1.69-3	-3.37 0
295.934	296.137	0.16	1.50	1.34-3	3.70 0	-1.74-3	-3.71 0
295.992	296.182	0.16	1.55	1.40-3	4.06 0	-1.79-3	-4.07 0
296.047	296.224	0.16	1.60	1.45-3	4.43 0	-1.84-3	-4.45 0
296.098	296.265	0.16	1.65	1.50-3	4.83 0	-1.90-3	-4.84 0
296.147	296.303	0.16	1.70	1.55-3	5.24 0	-1.95-3	-5.25 0
296.193	296.340	0.16	1.75	1.60-3	5.67 0	-2.00-3	-5.68 0
296.237	296.375	0.16	1.80	1.65-3	6.12 0	-2.05-3	-6.13 0
296.278	296.409	0.16	1.85	1.71-3	6.58 0	-2.10-3	-6.60 0
296.318	296.441	0.16	1.90	1.76-3	7.07 0	-2.16-3	-7.08 0
296.356	296.472	0.16	1.95	1.81-3	7.57 0	-2.21-3	-7.59 0
296.392	296.502	0.16	2.00	1.86-3	8.09 0	-2.26-3	-8.11 0
296.460	296.558	0.16	2.10	1.97-3	9.19 0	-2.36-3	-9.20 0
296.523	296.610	0.16	2.20	2.07-3	1.04 1	-2.47-3	-1.04 1
296.581	296.659	0.16	2.30	2.17-3	1.16 1	-2.57-3	-1.16 1
296.635	296.705	0.16	2.40	2.28-3	1.29 1	-2.67-3	-1.29 1
296.686	296.749	0.16	2.50	2.38-3	1.43 1	-2.78-3	-1.43 1
296.733	296.790	0.16	2.60	2.48-3	1.58 1	-2.88-3	-1.58 1
296.778	296.828	0.16	2.70	2.59-3	1.73 1	-2.99-3	-1.73 1
296.820	296.865	0.16	2.80	2.69-3	1.89 1	-3.09-3	-1.89 1
296.861	296.900	0.16	2.90	2.79-3	2.06 1	-3.19-3	-2.06 1
296.899	296.934	0.16	3.00	2.90-3	2.24 1	-3.30-3	-2.24 1
296.935	296.966	0.16	3.10	3.00-3	2.42 1	-3.40-3	-2.42 1
296.970	296.996	0.16	3.20	3.10-3	2.61 1	-3.50-3	-2.61 1
297.003	297.026	0.16	3.30	3.21-3	2.81 1	-3.61-3	-2.81 1
297.034	297.054	0.16	3.40	3.31-3	3.01 1	-3.71-3	-3.01 1
297.065	297.081	0.16	3.50	3.41-3	3.22 1	-3.81-3	-3.23 1
297.094	297.107	0.16	3.60	3.52-3	3.44 1	-3.92-3	-3.44 1
297.122	297.133	0.16	3.70	3.62-3	3.67 1	-4.02-3	-3.67 1
297.149	297.157	0.16	3.80	3.72-3	3.91 1	-4.12-3	-3.91 1
297.175	297.181	0.16	3.90	3.83-3	4.15 1	-4.23-3	-4.15 1
297.200	297.203	0.16	4.00	3.93-3	4.40 1	-4.33-3	-4.40 1
297.248	297.247	0.16	4.20	4.14-3	4.91 1	-4.53-3	-4.91 1
297.293	297.288	0.16	4.40	4.34-3	5.46 1	-4.74-3	-5.46 1
297.336	297.327	0.16	4.60	4.55-3	6.04 1	-4.95-3	-6.04 1
297.376	297.364	0.16	4.80	4.75-3	6.65 1	-5.15-3	-6.65 1
297.413	297.399	0.16	5.00	4.96-3	7.28 1	-5.36-3	-7.28 1
297.449	297.432	0.16	5.20	5.16-3	7.95 1	-5.56-3	-7.94 1
297.484	297.464	0.16	5.40	5.37-3	8.64 1	-5.77-3	-8.64 1
297.516	297.494	0.16	5.60	5.57-3	9.36 1	-5.97-3	-9.36 1
297.548	297.524	0.16	5.80	5.78-3	1.01 2	-6.17-3	-1.01 2
297.578	297.552	0.16	6.00	5.98-3	1.09 2	-6.38-3	-1.09 2
297.606	297.579	0.16	6.20	6.19-3	1.17 2	-6.58-3	-1.17 2
297.634	297.605	0.16	6.40	6.39-3	1.25 2	-6.79-3	-1.25 2
297.660	297.630	0.16	6.60	6.59-3	1.34 2	-6.99-3	-1.34 2
297.686	297.654	0.16	6.80	6.80-3	1.43 2	-7.19-3	-1.43 2
297.711	297.677	0.16	7.00	7.00-3	1.52 2	-7.40-3	-1.52 2
297.735	297.700	0.16	7.20	7.20-3	1.62 2	-7.60-3	-1.61 2
297.758	297.722	0.16	7.40	7.41-3	1.71 2	-7.80-3	-1.71 2
297.780	297.743	0.16	7.60	7.61-3	1.81 2	-8.00-3	-1.81 2
297.802	297.764	0.16	7.80	7.81-3	1.92 2	-8.21-3	-1.91 2
297.823	297.784	0.16	8.00	8.01-3	2.02 2	-8.41-3	-2.02 2
297.843	297.803	0.16	8.20	8.21-3	2.13 2	-8.61-3	-2.13 2
297.863	297.822	0.16	8.40	8.42-3	2.24 2	-8.81-3	-2.24 2

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
297.883	297.841	0.16	8.60	8.62-3	2.36 2	-9.01-3	-2.35 2
297.902	297.859	0.16	8.80	8.82-3	2.47 2	-9.21-3	-2.47 2
297.920	297.876	0.16	9.00	9.02-3	2.59 2	-9.41-3	-2.59 2
297.938	297.894	0.16	9.20	9.22-3	2.71 2	-9.61-3	-2.71 2
297.955	297.910	0.16	9.40	9.42-3	2.84 2	-9.82-3	-2.84 2
297.972	297.927	0.16	9.60	9.62-3	2.97 2	-1.00-2	-2.97 2
297.989	297.943	0.16	9.80	9.82-3	3.10 2	-1.02-2	-3.10 2
298.005	297.958	0.16	10.00	1.00-2	3.23 2	-1.04-2	-3.23 2
298.044	297.996	0.16	10.50	1.05-2	3.58 2	-1.09-2	-3.57 2
298.081	298.031	0.16	11.00	1.10-2	3.94 2	-1.14-2	-3.93 2
298.116	298.065	0.16	11.50	1.15-2	4.31 2	-1.19-2	-4.31 2
298.150	298.098	0.16	12.00	1.20-2	4.71 2	-1.24-2	-4.70 2
298.182	298.129	0.16	12.50	1.25-2	5.12 2	-1.29-2	-5.11 2
298.212	298.159	0.16	13.00	1.30-2	5.55 2	-1.34-2	-5.54 2
298.242	298.187	0.16	13.50	1.35-2	5.99 2	-1.39-2	-5.98 2
298.270	298.215	0.16	14.00	1.40-2	6.45 2	-1.44-2	-6.44 2
298.297	298.241	0.16	14.50	1.45-2	6.92 2	-1.49-2	-6.91 2
298.323	298.266	0.16	15.00	1.50-2	7.41 2	-1.53-2	-7.40 2
298.348	298.291	0.16	15.50	1.54-2	7.92 2	-1.58-2	-7.91 2
298.373	298.315	0.16	16.00	1.59-2	8.44 2	-1.63-2	-8.43 2
298.396	298.338	0.16	16.50	1.64-2	8.97 2	-1.68-2	-8.96 2
298.419	298.360	0.16	17.00	1.69-2	9.52 2	-1.73-2	-9.51 2
298.441	298.382	0.16	17.50	1.74-2	1.01 3	-1.78-2	-1.01 3
298.463	298.403	0.16	18.00	1.79-2	1.07 3	-1.82-2	-1.07 3
298.484	298.423	0.16	18.50	1.83-2	1.13 3	-1.87-2	-1.13 3
298.504	298.443	0.16	19.00	1.88-2	1.19 3	-1.92-2	-1.19 3
298.524	298.462	0.16	19.50	1.93-2	1.25 3	-1.97-2	-1.25 3
298.543	298.481	0.16	20.00	1.98-2	1.31 3	-2.02-2	-1.31 3
298.580	298.518	0.16	21.00	2.07-2	1.45 3	-2.11-2	-1.44 3
298.615	298.552	0.16	22.00	2.17-2	1.58 3	-2.21-2	-1.58 3
298.649	298.585	0.16	23.00	2.26-2	1.73 3	-2.30-2	-1.72 3
298.681	298.617	0.16	24.00	2.36-2	1.87 3	-2.39-2	-1.87 3
298.712	298.647	0.16	25.00	2.45-2	2.03 3	-2.49-2	-2.02 3
298.742	298.677	0.16	26.00	2.54-2	2.18 3	-2.58-2	-2.18 3
298.770	298.705	0.16	27.00	2.64-2	2.35 3	-2.67-2	-2.35 3
298.798	298.732	0.16	28.00	2.73-2	2.52 3	-2.77-2	-2.51 3
298.824	298.758	0.16	29.00	2.82-2	2.69 3	-2.86-2	-2.69 3
298.850	298.784	0.16	30.00	2.91-2	2.87 3	-2.95-2	-2.86 3
298.875	298.808	0.16	31.00	3.00-2	3.05 3	-3.04-2	-3.04 3
298.899	298.832	0.16	32.00	3.10-2	3.23 3	-3.13-2	-3.23 3
298.923	298.855	0.16	33.00	3.19-2	3.42 3	-3.22-2	-3.42 3
298.946	298.878	0.16	34.00	3.28-2	3.62 3	-3.32-2	-3.61 3
298.968	298.900	0.16	35.00	3.37-2	3.82 3	-3.41-2	-3.81 3
298.989	298.921	0.16	36.00	3.46-2	4.02 3	-3.50-2	-4.02 3
299.011	298.942	0.16	37.00	3.55-2	4.23 3	-3.59-2	-4.22 3
299.031	298.963	0.16	38.00	3.64-2	4.44 3	-3.68-2	-4.43 3
299.051	298.983	0.16	39.00	3.73-2	4.65 3	-3.77-2	-4.64 3
299.071	299.002	0.16	40.00	3.82-2	4.86 3	-3.86-2	-4.86 3
299.090	299.021	0.16	41.00	3.91-2	5.08 3	-3.95-2	-5.08 3
299.109	299.040	0.16	42.00	4.00-2	5.31 3	-4.04-2	-5.30 3
299.128	299.058	0.16	43.00	4.09-2	5.53 3	-4.13-2	-5.53 3
299.146	299.076	0.16	44.00	4.18-2	5.76 3	-4.22-2	-5.75 3
299.164	299.094	0.16	45.00	4.27-2	5.99 3	-4.31-2	-5.98 3
299.181	299.111	0.16	46.00	4.36-2	6.23 3	-4.40-2	-6.22 3
299.198	299.128	0.16	47.00	4.45-2	6.46 3	-4.49-2	-6.45 3
299.215	299.145	0.16	48.00	4.54-2	6.70 3	-4.58-2	-6.69 3
299.232	299.162	0.16	49.00	4.63-2	6.94 3	-4.66-2	-6.93 3
299.248	299.178	0.16	50.00	4.72-2	7.18 3	-4.75-2	-7.17 3
299.264	299.194	0.16	51.00	4.81-2	7.43 3	-4.84-2	-7.42 3
299.280	299.209	0.16	52.00	4.90-2	7.67 3	-4.93-2	-7.66 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
299.296	299.225	0.16	53.00	4.99-2	7.92 3	-5.02-2	-7.91 3
299.311	299.240	0.16	54.00	5.08-2	8.17 3	-5.11-2	-8.16 3
299.326	299.255	0.16	55.00	5.17-2	8.42 3	-5.20-2	-8.41 3
299.341	299.270	0.16	56.00	5.26-2	8.67 3	-5.29-2	-8.66 3
299.356	299.285	0.16	57.00	5.35-2	8.92 3	-5.38-2	-8.91 3
299.371	299.300	0.16	58.00	5.44-2	9.18 3	-5.47-2	-9.16 3
299.385	299.314	0.16	59.00	5.53-2	9.43 3	-5.56-2	-9.42 3
299.400	299.328	0.16	60.00	5.62-2	9.68 3	-5.65-2	-9.67 3
299.414	299.342	0.16	61.00	5.71-2	9.94 3	-5.74-2	-9.93 3
299.428	299.356	0.16	62.00	5.80-2	1.02 4	-5.83-2	-1.02 4
299.442	299.370	0.16	63.00	5.89-2	1.05 4	-5.92-2	-1.04 4
299.455	299.384	0.16	64.00	5.98-2	1.07 4	-6.01-2	-1.07 4
299.469	299.397	0.16	65.00	6.07-2	1.10 4	-6.10-2	-1.09 4
299.483	299.411	0.16	66.00	6.16-2	1.12 4	-6.19-2	-1.12 4
299.496	299.424	0.16	67.00	6.25-2	1.15 4	-6.28-2	-1.15 4
299.509	299.438	0.16	68.00	6.34-2	1.17 4	-6.38-2	-1.17 4
299.523	299.451	0.16	69.00	6.43-2	1.20 4	-6.47-2	-1.20 4
299.536	299.464	0.16	70.00	6.53-2	1.22 4	-6.56-2	-1.22 4
299.549	299.477	0.16	71.00	6.62-2	1.25 4	-6.65-2	-1.25 4
299.562	299.490	0.16	72.00	6.71-2	1.27 4	-6.74-2	-1.27 4
299.575	299.502	0.16	73.00	6.80-2	1.30 4	-6.84-2	-1.30 4
299.587	299.515	0.16	74.00	6.90-2	1.32 4	-6.93-2	-1.32 4
299.600	299.528	0.16	75.00	6.99-2	1.35 4	-7.02-2	-1.35 4
299.613	299.540	0.16	76.00	7.09-2	1.37 4	-7.12-2	-1.37 4
299.625	299.553	0.16	77.00	7.18-2	1.40 4	-7.21-2	-1.40 4
299.638	299.565	0.16	78.00	7.27-2	1.42 4	-7.31-2	-1.42 4
299.651	299.578	0.16	79.00	7.37-2	1.44 4	-7.40-2	-1.44 4
299.663	299.590	0.16	80.00	7.47-2	1.47 4	-7.50-2	-1.47 4
299.675	299.603	0.16	81.00	7.56-2	1.49 4	-7.59-2	-1.49 4
299.688	299.615	0.16	82.00	7.66-2	1.52 4	-7.69-2	-1.51 4
299.700	299.627	0.16	83.00	7.75-2	1.54 4	-7.79-2	-1.54 4
299.712	299.640	0.16	84.00	7.85-2	1.56 4	-7.88-2	-1.56 4
299.725	299.652	0.16	85.00	7.95-2	1.58 4	-7.98-2	-1.58 4
299.737	299.664	0.16	86.00	8.05-2	1.60 4	-8.08-2	-1.60 4
299.749	299.676	0.16	87.00	8.15-2	1.63 4	-8.18-2	-1.62 4
299.761	299.688	0.16	88.00	8.25-2	1.65 4	-8.28-2	-1.65 4
299.774	299.701	0.16	89.00	8.35-2	1.67 4	-8.38-2	-1.67 4
299.786	299.713	0.16	90.00	8.45-2	1.69 4	-8.48-2	-1.69 4
299.906	341.602	0.14	0.20	3.22-5	8.64-4	-3.42-4	-1.40-3
262.834	410.416	0.12	0.14	4.15-7	1.28-4	-2.41-4	-4.08-4
300.00	400.00						
319.841	343.932	0.14	0.22	5.21-5	1.75-3	-3.62-4	-2.39-3
330.635	345.705	0.14	0.24	7.18-5	3.23-3	-3.82-4	-4.00-3
336.949	347.008	0.14	0.26	9.14-5	5.55-3	-4.02-4	-6.44-3
340.896	347.971	0.14	0.28	1.11-4	8.95-3	-4.22-4	-9.99-3
343.506	348.697	0.14	0.30	1.31-4	1.37-2	-4.42-4	-1.49-2
345.313	349.255	0.14	0.32	1.50-4	2.01-2	-4.62-4	-2.15-2
346.614	349.695	0.14	0.34	1.70-4	2.85-2	-4.82-4	-3.00-2
347.583	350.047	0.14	0.36	1.89-4	3.91-2	-5.02-4	-4.07-2
348.325	350.335	0.14	0.38	2.09-4	5.22-2	-5.22-4	-5.40-2
348.907	350.574	0.14	0.40	2.28-4	6.81-2	-5.42-4	-7.01-2
349.373	350.775	0.14	0.42	2.48-4	8.71-2	-5.61-4	-8.92-2
349.753	350.946	0.14	0.44	2.67-4	1.09-1	-5.81-4	-1.12-1
350.067	351.093	0.14	0.46	2.87-4	1.35-1	-6.01-4	-1.38-1
350.332	351.222	0.14	0.48	3.06-4	1.65-1	-6.20-4	-1.68-1
350.556	351.334	0.14	0.50	3.26-4	1.99-1	-6.40-4	-2.01-1
350.750	351.434	0.14	0.52	3.45-4	2.37-1	-6.60-4	-2.39-1
350.918	351.523	0.14	0.54	3.65-4	2.79-1	-6.79-4	-2.82-1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
351.065	351.603	0.14	0.56	3.84-4	3.26-1	-6.99-4	-3.29-1
351.194	351.675	0.14	0.58	4.04-4	3.78-1	-7.19-4	-3.81-1
351.310	351.740	0.14	0.60	4.23-4	4.34-1	-7.38-4	-4.38-1
351.413	351.800	0.14	0.62	4.43-4	4.96-1	-7.58-4	-5.00-1
351.506	351.855	0.14	0.64	4.62-4	5.63-1	-7.77-4	-5.67-1
351.590	351.906	0.14	0.66	4.82-4	6.36-1	-7.97-4	-6.39-1
351.667	351.952	0.14	0.68	5.01-4	7.14-1	-8.16-4	-7.17-1
351.737	351.996	0.14	0.70	5.21-4	7.97-1	-8.36-4	-8.01-1
351.801	352.036	0.14	0.72	5.40-4	8.87-1	-8.55-4	-8.90-1
351.860	352.074	0.14	0.74	5.60-4	9.82-1	-8.75-4	-9.85-1
351.915	352.109	0.14	0.76	5.79-4	1.08 0	-8.94-4	-1.09 0
351.966	352.142	0.14	0.78	5.99-4	1.19 0	-9.14-4	-1.19 0
352.013	352.173	0.14	0.80	6.18-4	1.30 0	-9.33-4	-1.31 0
352.058	352.203	0.14	0.82	6.38-4	1.42 0	-9.53-4	-1.43 0
352.099	352.230	0.14	0.84	6.57-4	1.55 0	-9.72-4	-1.55 0
352.138	352.257	0.14	0.86	6.76-4	1.68 0	-9.92-4	-1.68 0
352.174	352.282	0.14	0.88	6.96-4	1.82 0	-1.01-3	-1.82 0
352.209	352.305	0.14	0.90	7.15-4	1.96 0	-1.03-3	-1.97 0
352.241	352.328	0.14	0.92	7.35-4	2.12 0	-1.05-3	-2.12 0
352.272	352.350	0.14	0.94	7.54-4	2.27 0	-1.07-3	-2.28 0
352.301	352.370	0.14	0.96	7.74-4	2.44 0	-1.09-3	-2.44 0
352.329	352.390	0.14	0.98	7.93-4	2.61 0	-1.11-3	-2.61 0
352.355	352.409	0.14	1.00	8.12-4	2.79 0	-1.13-3	-2.79 0
352.416	352.453	0.14	1.05	8.61-4	3.26 0	-1.18-3	-3.26 0
352.470	352.493	0.14	1.10	9.09-4	3.78 0	-1.22-3	-3.78 0
352.519	352.530	0.14	1.15	9.58-4	4.34 0	-1.27-3	-4.34 0
352.563	352.563	0.14	1.20	1.01-3	4.94 0	-1.32-3	-4.94 0
352.604	352.594	0.14	1.25	1.05-3	5.59 0	-1.37-3	-5.59 0
352.641	352.623	0.14	1.30	1.10-3	6.29 0	-1.42-3	-6.29 0
352.676	352.650	0.14	1.35	1.15-3	7.03 0	-1.47-3	-7.02 0
352.707	352.675	0.14	1.40	1.20-3	7.81 0	-1.51-3	-7.80 0
352.737	352.699	0.14	1.45	1.25-3	8.64 0	-1.56-3	-8.63 0
352.765	352.721	0.14	1.50	1.30-3	9.51 0	-1.61-3	-9.50 0
352.791	352.742	0.14	1.55	1.34-3	1.04 1	-1.66-3	-1.04 1
352.815	352.762	0.14	1.60	1.39-3	1.14 1	-1.71-3	-1.14 1
352.838	352.781	0.14	1.65	1.44-3	1.24 1	-1.75-3	-1.24 1
352.860	352.798	0.14	1.70	1.49-3	1.35 1	-1.80-3	-1.35 1
352.881	352.816	0.14	1.75	1.54-3	1.46 1	-1.85-3	-1.46 1
352.900	352.832	0.14	1.80	1.58-3	1.57 1	-1.90-3	-1.57 1
352.919	352.847	0.14	1.85	1.63-3	1.69 1	-1.95-3	-1.69 1
352.937	352.862	0.14	1.90	1.68-3	1.82 1	-1.99-3	-1.81 1
352.953	352.877	0.14	1.95	1.73-3	1.94 1	-2.04-3	-1.94 1
352.970	352.890	0.14	2.00	1.78-3	2.08 1	-2.09-3	-2.08 1
353.000	352.916	0.14	2.10	1.87-3	2.36 1	-2.19-3	-2.36 1
353.028	352.941	0.14	2.20	1.97-3	2.66 1	-2.28-3	-2.65 1
353.054	352.963	0.14	2.30	2.06-3	2.98 1	-2.38-3	-2.97 1
353.079	352.984	0.14	2.40	2.16-3	3.31 1	-2.47-3	-3.31 1
353.101	353.004	0.14	2.50	2.25-3	3.67 1	-2.57-3	-3.66 1
353.123	353.023	0.14	2.60	2.35-3	4.04 1	-2.66-3	-4.03 1
353.143	353.041	0.14	2.70	2.44-3	4.43 1	-2.75-3	-4.42 1
353.162	353.058	0.14	2.80	2.54-3	4.84 1	-2.85-3	-4.83 1
353.180	353.074	0.14	2.90	2.63-3	5.27 1	-2.94-3	-5.26 1
353.197	353.089	0.14	3.00	2.72-3	5.72 1	-3.04-3	-5.71 1
353.214	353.104	0.14	3.10	2.82-3	6.18 1	-3.13-3	-6.17 1
353.229	353.118	0.14	3.20	2.91-3	6.67 1	-3.22-3	-6.65 1
353.244	353.131	0.14	3.30	3.01-3	7.17 1	-3.32-3	-7.16 1
353.258	353.144	0.14	3.40	3.10-3	7.69 1	-3.41-3	-7.67 1
353.272	353.157	0.14	3.50	3.19-3	8.23 1	-3.50-3	-8.21 1
353.285	353.169	0.14	3.60	3.29-3	8.78 1	-3.60-3	-8.77 1
353.298	353.180	0.14	3.70	3.38-3	9.36 1	-3.69-3	-9.34 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
353.310	353.191	0.14	3.80	3.47-3	9.95 1	-3.78-3	-9.93 1
353.322	353.202	0.14	3.90	3.56-3	1.06 2	-3.87-3	-1.05 2
353.333	353.213	0.14	4.00	3.66-3	1.12 2	-3.97-3	-1.12 2
353.354	353.233	0.14	4.20	3.84-3	1.25 2	-4.15-3	-1.25 2
353.375	353.251	0.14	4.40	4.03-3	1.39 2	-4.33-3	-1.39 2
353.394	353.269	0.14	4.60	4.21-3	1.53 2	-4.52-3	-1.53 2
353.412	353.286	0.14	4.80	4.39-3	1.69 2	-4.70-3	-1.68 2
353.429	353.302	0.14	5.00	4.57-3	1.85 2	-4.88-3	-1.84 2
353.445	353.317	0.14	5.20	4.76-3	2.01 2	-5.06-3	-2.01 2
353.460	353.331	0.14	5.40	4.94-3	2.18 2	-5.24-3	-2.18 2
353.475	353.345	0.14	5.60	5.12-3	2.36 2	-5.42-3	-2.36 2
353.489	353.359	0.14	5.80	5.30-3	2.55 2	-5.60-3	-2.55 2
353.503	353.371	0.14	6.00	5.48-3	2.75 2	-5.78-3	-2.74 2
353.516	353.384	0.14	6.20	5.65-3	2.95 2	-5.96-3	-2.94 2
353.528	353.395	0.14	6.40	5.83-3	3.15 2	-6.14-3	-3.15 2
353.540	353.407	0.14	6.60	6.01-3	3.37 2	-6.31-3	-3.36 2
353.552	353.418	0.14	6.80	6.19-3	3.59 2	-6.49-3	-3.58 2
353.563	353.428	0.14	7.00	6.36-3	3.81 2	-6.67-3	-3.80 2
353.573	353.439	0.14	7.20	6.54-3	4.05 2	-6.84-3	-4.04 2
353.584	353.449	0.14	7.40	6.71-3	4.29 2	-7.02-3	-4.28 2
353.594	353.458	0.14	7.60	6.89-3	4.53 2	-7.19-3	-4.52 2
353.604	353.468	0.14	7.80	7.05-3	4.79 2	-7.36-3	-4.78 2
353.613	353.477	0.14	8.00	7.24-3	5.05 2	-7.54-3	-5.04 2
353.622	353.486	0.14	8.20	7.41-3	5.31 2	-7.71-3	-5.30 2
353.631	353.494	0.14	8.40	7.58-3	5.59 2	-7.88-3	-5.57 2
353.640	353.503	0.14	8.60	7.75-3	5.86 2	-8.05-3	-5.85 2
353.649	353.511	0.14	8.80	7.92-3	6.15 2	-8.22-3	-6.13 2
353.657	353.519	0.14	9.00	8.09-3	6.44 2	-8.39-3	-6.42 2
353.665	353.527	0.14	9.20	8.26-3	6.74 2	-8.56-3	-6.72 2
353.673	353.534	0.14	9.40	8.43-3	7.04 2	-8.73-3	-7.02 2
353.680	353.542	0.14	9.60	8.60-3	7.35 2	-8.90-3	-7.33 2
353.688	353.549	0.14	9.80	8.77-3	7.67 2	-9.07-3	-7.65 2
353.695	353.556	0.14	10.00	8.94-3	7.99 2	-9.24-3	-7.97 2
353.713	353.573	0.14	10.50	9.36-3	8.82 2	-9.65-3	-8.80 2
353.729	353.589	0.14	11.00	9.77-3	9.68 2	-1.01-2	-9.66 2
353.745	353.604	0.14	11.50	1.02-2	1.06 3	-1.05-2	-1.06 3
353.760	353.619	0.14	12.00	1.06-2	1.15 3	-1.09-2	-1.15 3
353.775	353.633	0.14	12.50	1.10-2	1.25 3	-1.13-2	-1.25 3
353.789	353.647	0.14	13.00	1.14-2	1.35 3	-1.17-2	-1.35 3
353.802	353.659	0.14	13.50	1.18-2	1.46 3	-1.21-2	-1.45 3
353.814	353.672	0.14	14.00	1.22-2	1.56 3	-1.25-2	-1.56 3
353.827	353.684	0.14	14.50	1.26-2	1.67 3	-1.29-2	-1.67 3
353.838	353.695	0.14	15.00	1.30-2	1.79 3	-1.33-2	-1.78 3
353.850	353.706	0.14	15.50	1.34-2	1.91 3	-1.36-2	-1.90 3
353.861	353.717	0.14	16.00	1.37-2	2.03 3	-1.40-2	-2.02 3
353.871	353.728	0.14	16.50	1.41-2	2.15 3	-1.44-2	-2.14 3
353.882	353.738	0.14	17.00	1.45-2	2.28 3	-1.48-2	-2.27 3
353.892	353.747	0.14	17.50	1.49-2	2.41 3	-1.52-2	-2.40 3
353.901	353.757	0.14	18.00	1.52-2	2.54 3	-1.55-2	-2.53 3
353.911	353.766	0.14	18.50	1.56-2	2.67 3	-1.59-2	-2.67 3
353.920	353.775	0.14	19.00	1.60-2	2.81 3	-1.63-2	-2.81 3
353.929	353.784	0.14	19.50	1.63-2	2.95 3	-1.66-2	-2.95 3
353.937	353.792	0.14	20.00	1.67-2	3.10 3	-1.70-2	-3.09 3
353.954	353.809	0.14	21.00	1.74-2	3.39 3	-1.77-2	-3.38 3
353.970	353.824	0.14	22.00	1.81-2	3.70 3	-1.84-2	-3.69 3
353.985	353.839	0.14	23.00	1.88-2	4.02 3	-1.91-2	-4.00 3
354.000	353.854	0.14	24.00	1.95-2	4.34 3	-1.98-2	-4.33 3
354.013	353.867	0.14	25.00	2.02-2	4.68 3	-2.05-2	-4.66 3
354.027	353.880	0.14	26.00	2.09-2	5.02 3	-2.11-2	-5.01 3
354.040	353.893	0.14	27.00	2.15-2	5.37 3	-2.18-2	-5.36 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
354.052	353.905	0.14	28.00	2.22-2	5.73 3	-2.25-2	-5.72 3
354.064	353.917	0.14	29.00	2.28-2	6.10 3	-2.31-2	-6.08 3
354.076	353.929	0.14	30.00	2.35-2	6.47 3	-2.37-2	-6.46 3
354.087	353.940	0.14	31.00	2.41-2	6.86 3	-2.44-2	-6.84 3
354.098	353.951	0.14	32.00	2.47-2	7.25 3	-2.50-2	-7.23 3
354.108	353.961	0.14	33.00	2.54-2	7.64 3	-2.56-2	-7.62 3
354.119	353.971	0.14	34.00	2.60-2	8.04 3	-2.62-2	-8.02 3
354.129	353.981	0.14	35.00	2.66-2	8.45 3	-2.68-2	-8.43 3
354.138	353.991	0.14	36.00	2.72-2	8.86 3	-2.74-2	-8.84 3
354.148	354.000	0.14	37.00	2.78-2	9.28 3	-2.80-2	-9.25 3
354.157	354.009	0.14	38.00	2.84-2	9.70 3	-2.86-2	-9.67 3
354.166	354.018	0.14	39.00	2.89-2	1.01 4	-2.92-2	-1.01 4
354.175	354.027	0.14	40.00	2.95-2	1.06 4	-2.98-2	-1.05 4
354.184	354.036	0.14	41.00	3.01-2	1.10 4	-3.03-2	-1.10 4
354.192	354.044	0.14	42.00	3.07-2	1.14 4	-3.09-2	-1.14 4
354.200	354.052	0.14	43.00	3.12-2	1.19 4	-3.15-2	-1.18 4
354.209	354.060	0.14	44.00	3.18-2	1.23 4	-3.20-2	-1.23 4
354.217	354.068	0.14	45.00	3.23-2	1.28 4	-3.26-2	-1.27 4
354.224	354.076	0.14	46.00	3.29-2	1.32 4	-3.31-2	-1.32 4
354.232	354.084	0.14	47.00	3.34-2	1.36 4	-3.36-2	-1.36 4
354.240	354.091	0.14	48.00	3.40-2	1.41 4	-3.42-2	-1.41 4
354.247	354.099	0.14	49.00	3.45-2	1.45 4	-3.47-2	-1.45 4
354.255	354.106	0.14	50.00	3.50-2	1.50 4	-3.52-2	-1.50 4
354.262	354.113	0.14	51.00	3.55-2	1.55 4	-3.58-2	-1.54 4
354.269	354.120	0.14	52.00	3.61-2	1.59 4	-3.63-2	-1.59 4
354.276	354.127	0.14	53.00	3.66-2	1.64 4	-3.68-2	-1.63 4
354.283	354.134	0.14	54.00	3.71-2	1.68 4	-3.73-2	-1.68 4
354.290	354.141	0.14	55.00	3.76-2	1.73 4	-3.78-2	-1.72 4
354.296	354.148	0.14	56.00	3.81-2	1.77 4	-3.83-2	-1.77 4
354.303	354.154	0.14	57.00	3.86-2	1.82 4	-3.88-2	-1.81 4
354.310	354.161	0.14	58.00	3.91-2	1.86 4	-3.93-2	-1.86 4
354.316	354.167	0.14	59.00	3.96-2	1.91 4	-3.98-2	-1.90 4
354.323	354.174	0.14	60.00	4.01-2	1.95 4	-4.03-2	-1.94 4
354.329	354.180	0.14	61.00	4.06-2	1.99 4	-4.08-2	-1.99 4
354.335	354.186	0.14	62.00	4.11-2	2.04 4	-4.13-2	-2.03 4
354.342	354.193	0.14	63.00	4.16-2	2.08 4	-4.18-2	-2.08 4
354.348	354.199	0.14	64.00	4.21-2	2.13 4	-4.23-2	-2.12 4
354.354	354.205	0.14	65.00	4.25-2	2.17 4	-4.27-2	-2.16 4
354.360	354.211	0.14	66.00	4.30-2	2.21 4	-4.32-2	-2.20 4
354.366	354.217	0.14	67.00	4.35-2	2.25 4	-4.37-2	-2.25 4
354.372	354.223	0.14	68.00	4.40-2	2.29 4	-4.44-2	-2.29 4
354.378	354.229	0.14	69.00	4.44-2	2.34 4	-4.46-2	-2.33 4
354.384	354.235	0.14	70.00	4.49-2	2.38 4	-4.51-2	-2.37 4
354.390	354.240	0.14	71.00	4.54-2	2.42 4	-4.56-2	-2.41 4
354.395	354.246	0.14	72.00	4.58-2	2.46 4	-4.60-2	-2.45 4
354.401	354.252	0.14	73.00	4.63-2	2.50 4	-4.65-2	-2.49 4
354.407	354.258	0.14	74.00	4.68-2	2.53 4	-4.70-2	-2.53 4
354.413	354.263	0.14	75.00	4.72-2	2.57 4	-4.74-2	-2.57 4
354.418	354.269	0.14	76.00	4.77-2	2.61 4	-4.79-2	-2.60 4
354.424	354.275	0.14	77.00	4.81-2	2.65 4	-4.83-2	-2.64 4
354.430	354.280	0.14	78.00	4.86-2	2.68 4	-4.88-2	-2.68 4
354.435	354.286	0.14	79.00	4.90-2	2.72 4	-4.92-2	-2.71 4
354.441	354.291	0.14	80.00	4.95-2	2.75 4	-4.97-2	-2.75 4
354.446	354.297	0.14	81.00	4.99-2	2.79 4	-5.01-2	-2.78 4
354.452	354.303	0.14	82.00	5.04-2	2.82 4	-5.06-2	-2.81 4
354.457	354.308	0.14	83.00	5.08-2	2.85 4	-5.10-2	-2.85 4
354.463	354.314	0.14	84.00	5.13-2	2.88 4	-5.15-2	-2.88 4
354.468	354.319	0.14	85.00	5.17-2	2.92 4	-5.19-2	-2.91 4
354.474	354.325	0.14	86.00	5.22-2	2.95 4	-5.24-2	-2.94 4
354.479	354.330	0.14	87.00	5.26-2	2.97 4	-5.28-2	-2.97 4

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
354.485	354.335	0.14	88.00	5.31-2	3.00 4	-5.33-2	-3.00 4
354.490	354.341	0.14	89.00	5.35-2	3.03 4	-5.37-2	-3.02 4
354.496	354.346	0.14	90.00	5.40-2	3.06 4	-5.41-2	-3.05 4
359.620	413.792	0.12	0.16	1.99-5	4.30-4	-2.56-4	-7.96-4
394.114	417.395	0.12	0.18	3.82-5	1.19-3	-2.75-4	-1.66-3
400.00	450.00						
408.140	419.675	0.12	0.20	5.62-5	2.83-3	-2.93-4	-3.40-3
414.690	421.068	0.12	0.22	7.42-5	5.94-3	-3.12-4	-6.61-3
418.124	421.950	0.12	0.24	9.21-5	1.12-2	-3.30-4	-1.20-2
420.098	422.534	0.12	0.26	1.10-4	1.96-2	-3.48-4	-2.05-2
421.321	422.939	0.12	0.28	1.28-4	3.20-2	-3.66-4	-3.29-2
422.126	423.231	0.12	0.30	1.46-4	4.94-2	-3.84-4	-5.04-2
422.681	423.449	0.12	0.32	1.63-4	7.30-2	-4.02-4	-7.40-2
423.080	423.616	0.12	0.34	1.81-4	1.04-1	-4.20-4	-1.05-1
423.377	423.747	0.12	0.36	1.99-4	1.43-1	-4.38-4	-1.44-1
423.605	423.853	0.12	0.38	2.16-4	1.91-1	-4.55-4	-1.92-1
423.783	423.940	0.12	0.40	2.34-4	2.50-1	-4.73-4	-2.51-1
423.926	424.012	0.12	0.42	2.52-4	3.20-1	-4.91-4	-3.21-1
424.042	424.072	0.12	0.44	2.69-4	4.03-1	-5.08-4	-4.03-1
424.139	424.124	0.12	0.46	2.87-4	4.99-1	-5.26-4	-4.99-1
424.220	424.169	0.12	0.48	3.05-4	6.09-1	-5.43-4	-6.08-1
424.289	424.208	0.12	0.50	3.22-4	7.34-1	-5.61-4	-7.33-1
424.349	424.243	0.12	0.52	3.40-4	8.74-1	-5.78-4	-8.73-1
424.401	424.274	0.12	0.54	3.57-4	1.03 0	-5.96-4	-1.03 0
424.446	424.301	0.12	0.56	3.75-4	1.21 0	-6.13-4	-1.20 0
424.486	424.326	0.12	0.58	3.92-4	1.40 0	-6.31-4	-1.39 0
424.521	424.348	0.12	0.60	4.10-4	1.61 0	-6.48-4	-1.60 0
424.553	424.368	0.12	0.62	4.27-4	1.84 0	-6.66-4	-1.83 0
424.582	424.387	0.12	0.64	4.45-4	2.09 0	-6.83-4	-2.08 0
424.608	424.404	0.12	0.66	4.62-4	2.35 0	-7.00-4	-2.35 0
424.632	424.420	0.12	0.68	4.80-4	2.64 0	-7.18-4	-2.63 0
424.653	424.434	0.12	0.70	4.97-4	2.95 0	-7.35-4	-2.94 0
424.673	424.448	0.12	0.72	5.15-4	3.28 0	-7.52-4	-3.27 0
424.692	424.461	0.12	0.74	5.32-4	3.64 0	-7.70-4	-3.62 0
424.709	424.472	0.12	0.76	5.49-4	4.01 0	-7.87-4	-3.99 0
424.724	424.483	0.12	0.78	5.67-4	4.41 0	-8.04-4	-4.39 0
424.739	424.494	0.12	0.80	5.84-4	4.83 0	-8.21-4	-4.80 0
424.753	424.504	0.12	0.82	6.01-4	5.27 0	-8.39-4	-5.24 0
424.766	424.513	0.12	0.84	6.19-4	5.73 0	-8.56-4	-5.70 0
424.778	424.522	0.12	0.86	6.36-4	6.22 0	-8.73-4	-6.19 0
424.789	424.530	0.12	0.88	6.53-4	6.73 0	-8.90-4	-6.70 0
424.800	424.538	0.12	0.90	6.70-4	7.27 0	-9.07-4	-7.23 0
424.810	424.545	0.12	0.92	6.88-4	7.83 0	-9.25-4	-7.79 0
424.819	424.552	0.12	0.94	7.05-4	8.41 0	-9.42-4	-8.37 0
424.828	424.559	0.12	0.96	7.22-4	9.02 0	-9.59-4	-8.97 0
424.837	424.566	0.12	0.98	7.39-4	9.65 0	-9.76-4	-9.60 0
424.845	424.572	0.12	1.00	7.56-4	1.03 1	-9.93-4	-1.03 1
424.864	424.586	0.12	1.05	7.99-4	1.21 1	-1.04-3	-1.20 1
424.881	424.600	0.12	1.10	8.42-4	1.40 1	-1.08-3	-1.39 1
424.896	424.612	0.12	1.15	8.85-4	1.60 1	-1.12-3	-1.59 1
424.910	424.623	0.12	1.20	9.27-4	1.82 1	-1.16-3	-1.81 1
424.923	424.633	0.12	1.25	9.69-4	2.06 1	-1.20-3	-2.05 1
424.935	424.642	0.12	1.30	1.01-3	2.32 1	-1.25-3	-2.30 1
424.945	424.651	0.12	1.35	1.05-3	2.59 1	-1.29-3	-2.57 1
424.955	424.659	0.12	1.40	1.10-3	2.87 1	-1.33-3	-2.86 1
424.965	424.667	0.12	1.45	1.14-3	3.18 1	-1.37-3	-3.16 1
424.973	424.674	0.12	1.50	1.18-3	3.50 1	-1.41-3	-3.48 1
424.981	424.681	0.12	1.55	1.22-3	3.83 1	-1.46-3	-3.81 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
424.989	424.687	0.12	1.60	1.26-3	4.18 1	-1.50-3	-4.16 1
424.996	424.693	0.12	1.65	1.31-3	4.55 1	-1.54-3	-4.53 1
425.003	424.699	0.12	1.70	1.35-3	4.94 1	-1.58-3	-4.91 1
425.010	424.705	0.12	1.75	1.39-3	5.34 1	-1.62-3	-5.31 1
425.016	424.710	0.12	1.80	1.43-3	5.76 1	-1.66-3	-5.72 1
425.022	424.715	0.12	1.85	1.47-3	6.19 1	-1.70-3	-6.15 1
425.027	424.720	0.12	1.90	1.51-3	6.64 1	-1.74-3	-6.60 1
425.032	424.724	0.12	1.95	1.55-3	7.10 1	-1.78-3	-7.06 1
425.038	424.729	0.12	2.00	1.59-3	7.59 1	-1.83-3	-7.54 1
425.047	424.737	0.12	2.10	1.67-3	8.60 1	-1.91-3	-8.55 1
425.056	424.745	0.12	2.20	1.76-3	9.68 1	-1.99-3	-9.62 1
425.064	424.752	0.12	2.30	1.84-3	1.08 2	-2.07-3	-1.08 2
425.072	424.759	0.12	2.40	1.92-3	1.20 2	-2.15-3	-1.20 2
425.079	424.765	0.12	2.50	2.00-3	1.33 2	-2.23-3	-1.32 2
425.086	424.772	0.12	2.60	2.08-3	1.46 2	-2.31-3	-1.45 2
425.092	424.777	0.12	2.70	2.16-3	1.60 2	-2.38-3	-1.59 2
425.098	424.783	0.12	2.80	2.23-3	1.75 2	-2.46-3	-1.74 2
425.104	424.788	0.12	2.90	2.31-3	1.90 2	-2.54-3	-1.89 2
425.109	424.793	0.12	3.00	2.39-3	2.06 2	-2.62-3	-2.05 2
425.114	424.798	0.12	3.10	2.47-3	2.22 2	-2.70-3	-2.21 2
425.119	424.802	0.12	3.20	2.55-3	2.39 2	-2.77-3	-2.38 2
425.124	424.806	0.12	3.30	2.62-3	2.57 2	-2.85-3	-2.55 2
425.128	424.810	0.12	3.40	2.70-3	2.75 2	-2.92-3	-2.74 2
425.133	424.814	0.12	3.50	2.78-3	2.94 2	-3.00-3	-2.92 2
425.137	424.818	0.12	3.60	2.85-3	3.14 2	-3.08-3	-3.12 2
425.141	424.822	0.12	3.70	2.93-3	3.34 2	-3.15-3	-3.32 2
425.145	424.826	0.12	3.80	3.00-3	3.54 2	-3.23-3	-3.52 2
425.148	424.829	0.12	3.90	3.08-3	3.75 2	-3.30-3	-3.73 2
425.152	424.832	0.12	4.00	3.15-3	3.97 2	-3.37-3	-3.95 2
425.159	424.839	0.12	4.20	3.30-3	4.42 2	-3.52-3	-4.40 2
425.165	424.845	0.12	4.40	3.45-3	4.90 2	-3.67-3	-4.87 2
425.171	424.850	0.12	4.60	3.59-3	5.40 2	-3.81-3	-5.36 2
425.177	424.856	0.12	4.80	3.73-3	5.92 2	-3.95-3	-5.88 2
425.182	424.861	0.12	5.00	3.88-3	6.46 2	-4.10-3	-6.42 2
425.187	424.866	0.12	5.20	4.02-3	7.02 2	-4.24-3	-6.98 2
425.192	424.870	0.12	5.40	4.16-3	7.61 2	-4.37-3	-7.56 2
425.197	424.875	0.12	5.60	4.30-3	8.21 2	-4.51-3	-8.16 2
425.201	424.879	0.12	5.80	4.43-3	8.84 2	-4.65-3	-8.78 2
425.206	424.883	0.12	6.00	4.57-3	9.48 2	-4.78-3	-9.42 2
425.210	424.887	0.12	6.20	4.71-3	1.01 3	-4.92-3	-1.01 3
425.214	424.891	0.12	6.40	4.84-3	1.08 3	-5.05-3	-1.08 3
425.217	424.894	0.12	6.60	4.97-3	1.15 3	-5.18-3	-1.15 3
425.221	424.898	0.12	6.80	5.10-3	1.23 3	-5.31-3	-1.22 3
425.225	424.901	0.12	7.00	5.23-3	1.30 3	-5.44-3	-1.29 3
425.228	424.905	0.12	7.20	5.36-3	1.38 3	-5.57-3	-1.37 3
425.231	424.908	0.12	7.40	5.49-3	1.45 3	-5.70-3	-1.45 3
425.235	424.911	0.12	7.60	5.62-3	1.53 3	-5.83-3	-1.52 3
425.238	424.914	0.12	7.80	5.75-3	1.62 3	-5.95-3	-1.61 3
425.241	424.917	0.12	8.00	5.87-3	1.70 3	-6.08-3	-1.69 3
425.244	424.919	0.12	8.20	5.99-3	1.78 3	-6.20-3	-1.77 3
425.246	424.922	0.12	8.40	6.12-3	1.87 3	-6.32-3	-1.86 3
425.249	424.925	0.12	8.60	6.24-3	1.96 3	-6.44-3	-1.95 3
425.252	424.928	0.12	8.80	6.36-3	2.05 3	-6.56-3	-2.04 3
425.254	424.930	0.12	9.00	6.48-3	2.14 3	-6.68-3	-2.13 3
425.257	424.933	0.12	9.20	6.60-3	2.23 3	-6.80-3	-2.22 3
425.259	424.935	0.12	9.40	6.72-3	2.33 3	-6.92-3	-2.32 3
425.262	424.937	0.12	9.60	6.83-3	2.43 3	-7.03-3	-2.41 3
425.264	424.940	0.12	9.80	6.95-3	2.52 3	-7.15-3	-2.51 3
425.267	424.942	0.12	10.00	7.06-3	2.62 3	-7.26-3	-2.61 3
425.272	424.947	0.12	10.50	7.35-3	2.88 3	-7.54-3	-2.86 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
425.277	424.952	0.12	11.00	7.63-3	3.14 3	-7.82-3	-3.12 3
425.282	424.957	0.12	11.50	7.90-3	3.42 3	-8.09-3	-3.40 3
425.287	424.962	0.12	12.00	8.17-3	3.70 3	-8.36-3	-3.68 3
425.292	424.966	0.12	12.50	8.43-3	3.99 3	-8.62-3	-3.97 3
425.296	424.971	0.12	13.00	8.69-3	4.29 3	-8.87-3	-4.26 3
425.300	424.975	0.12	13.50	8.94-3	4.60 3	-9.13-3	-4.57 3
425.304	424.979	0.12	14.00	9.19-3	4.91 3	-9.37-3	-4.88 3
425.308	424.983	0.12	14.50	9.43-3	5.23 3	-9.61-3	-5.20 3
425.312	424.986	0.12	15.00	9.67-3	5.56 3	-9.85-3	-5.52 3
425.316	424.990	0.12	15.50	9.90-3	5.89 3	-1.01-2	-5.86 3
425.319	424.993	0.12	16.00	1.01-2	6.23 3	-1.03-2	-6.19 3
425.322	424.996	0.12	16.50	1.04-2	6.58 3	-1.05-2	-6.54 3
425.326	425.000	0.12	17.00	1.06-2	6.93 3	-1.08-2	-6.89 3
425.329	425.003	0.12	17.50	1.08-2	7.29 3	-1.10-2	-7.25 3
425.332	425.006	0.12	18.00	1.10-2	7.66 3	-1.12-2	-7.61 3
425.335	425.009	0.12	18.50	1.12-2	8.03 3	-1.14-2	-7.98 3
425.338	425.012	0.12	19.00	1.14-2	8.40 3	-1.16-2	-8.35 3
425.341	425.014	0.12	19.50	1.16-2	8.78 3	-1.18-2	-8.73 3
425.343	425.017	0.12	20.00	1.18-2	9.17 3	-1.20-2	-9.11 3
425.349	425.022	0.12	21.00	1.22-2	9.95 3	-1.24-2	-9.89 3
425.354	425.027	0.12	22.00	1.26-2	1.08 4	-1.28-2	-1.07 4
425.358	425.032	0.12	23.00	1.30-2	1.16 4	-1.32-2	-1.15 4
425.363	425.036	0.12	24.00	1.33-2	1.24 4	-1.35-2	-1.23 4
425.367	425.041	0.12	25.00	1.37-2	1.33 4	-1.39-2	-1.32 4
425.372	425.045	0.12	26.00	1.40-2	1.41 4	-1.42-2	-1.40 4
425.376	425.049	0.12	27.00	1.44-2	1.50 4	-1.45-2	-1.49 4
425.380	425.053	0.12	28.00	1.47-2	1.59 4	-1.48-2	-1.58 4
425.383	425.057	0.12	29.00	1.50-2	1.68 4	-1.51-2	-1.66 4
425.387	425.060	0.12	30.00	1.53-2	1.76 4	-1.54-2	-1.75 4
425.391	425.064	0.12	31.00	1.56-2	1.86 4	-1.57-2	-1.84 4
425.394	425.067	0.12	32.00	1.59-2	1.95 4	-1.60-2	-1.93 4
425.397	425.071	0.12	33.00	1.62-2	2.04 4	-1.63-2	-2.03 4
425.401	425.074	0.12	34.00	1.64-2	2.13 4	-1.66-2	-2.12 4
425.404	425.077	0.12	35.00	1.67-2	2.22 4	-1.68-2	-2.21 4
425.407	425.080	0.12	36.00	1.70-2	2.32 4	-1.71-2	-2.30 4
425.410	425.083	0.12	37.00	1.72-2	2.41 4	-1.73-2	-2.39 4
425.413	425.086	0.12	38.00	1.75-2	2.50 4	-1.76-2	-2.49 4
425.416	425.089	0.12	39.00	1.77-2	2.59 4	-1.78-2	-2.58 4
425.418	425.091	0.12	40.00	1.79-2	2.69 4	-1.81-2	-2.67 4
425.421	425.094	0.12	41.00	1.82-2	2.78 4	-1.83-2	-2.76 4
425.424	425.097	0.12	42.00	1.84-2	2.87 4	-1.85-2	-2.86 4
425.427	425.099	0.12	43.00	1.86-2	2.97 4	-1.87-2	-2.95 4
425.429	425.102	0.12	44.00	1.88-2	3.06 4	-1.90-2	-3.04 4
425.432	425.105	0.12	45.00	1.90-2	3.15 4	-1.92-2	-3.13 4
425.434	425.107	0.12	46.00	1.93-2	3.24 4	-1.94-2	-3.22 4
425.437	425.109	0.12	47.00	1.95-2	3.33 4	-1.96-2	-3.31 4
425.439	425.112	0.12	48.00	1.97-2	3.43 4	-1.98-2	-3.40 4
425.441	425.114	0.12	49.00	1.99-2	3.52 4	-2.00-2	-3.49 4
425.444	425.116	0.12	50.00	2.00-2	3.61 4	-2.02-2	-3.58 4
425.446	425.119	0.12	51.00	2.02-2	3.69 4	-2.04-2	-3.67 4
425.448	425.121	0.12	52.00	2.04-2	3.78 4	-2.05-2	-3.76 4
425.450	425.123	0.12	53.00	2.06-2	3.87 4	-2.07-2	-3.85 4
425.453	425.125	0.12	54.00	2.08-2	3.96 4	-2.09-2	-3.93 4
425.455	425.128	0.12	55.00	2.10-2	4.04 4	-2.11-2	-4.02 4
425.457	425.130	0.12	56.00	2.11-2	4.13 4	-2.12-2	-4.10 4
425.459	425.132	0.12	57.00	2.13-2	4.21 4	-2.14-2	-4.18 4
425.461	425.134	0.12	58.00	2.15-2	4.29 4	-2.16-2	-4.27 4
425.463	425.136	0.12	59.00	2.16-2	4.37 4	-2.17-2	-4.35 4
425.465	425.138	0.12	60.00	2.18-2	4.45 4	-2.19-2	-4.43 4
425.467	425.140	0.12	61.00	2.20-2	4.53 4	-2.21-2	-4.51 4

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
425.469	425.142	0.12	62.00	2.21-2	4.61 4	-2.22-2	-4.58 4
425.471	425.144	0.12	63.00	2.23-2	4.69 4	-2.24-2	-4.66 4
425.473	425.146	0.12	64.00	2.24-2	4.76 4	-2.25-2	-4.73 4
425.475	425.148	0.12	65.00	2.26-2	4.84 4	-2.27-2	-4.81 4
425.477	425.150	0.12	66.00	2.27-2	4.91 4	-2.28-2	-4.88 4
425.479	425.152	0.12	67.00	2.29-2	4.98 4	-2.30-2	-4.95 4
425.481	425.153	0.12	68.00	2.30-2	5.05 4	-2.31-2	-5.02 4
425.483	425.155	0.12	69.00	2.32-2	5.12 4	-2.33-2	-5.09 4
425.485	425.157	0.12	70.00	2.33-2	5.19 4	-2.34-2	-5.16 4
425.486	425.159	0.12	71.00	2.34-2	5.25 4	-2.35-2	-5.22 4
425.488	425.161	0.12	72.00	2.36-2	5.32 4	-2.37-2	-5.28 4
425.490	425.163	0.12	73.00	2.37-2	5.38 4	-2.38-2	-5.34 4
425.492	425.164	0.12	74.00	2.39-2	5.44 4	-2.39-2	-5.41 4
425.494	425.166	0.12	75.00	2.40-2	5.50 4	-2.41-2	-5.46 4
425.495	425.168	0.12	76.00	2.41-2	5.55 4	-2.42-2	-5.52 4
425.497	425.170	0.12	77.00	2.42-2	5.61 4	-2.43-2	-5.57 4
425.499	425.172	0.12	78.00	2.44-2	5.66 4	-2.45-2	-5.63 4
425.501	425.173	0.12	79.00	2.45-2	5.72 4	-2.46-2	-5.68 4
425.503	425.175	0.12	80.00	2.46-2	5.77 4	-2.47-2	-5.73 4
425.504	425.177	0.12	81.00	2.47-2	5.81 4	-2.48-2	-5.78 4
425.506	425.179	0.12	82.00	2.49-2	5.86 4	-2.50-2	-5.82 4
425.508	425.180	0.12	83.00	2.50-2	5.90 4	-2.51-2	-5.87 4
425.510	425.182	0.12	84.00	2.51-2	5.95 4	-2.52-2	-5.91 4
425.511	425.184	0.12	85.00	2.52-2	5.99 4	-2.53-2	-5.95 4
425.513	425.186	0.12	86.00	2.53-2	6.02 4	-2.54-2	-5.99 4
425.515	425.187	0.12	87.00	2.55-2	6.06 4	-2.55-2	-6.02 4
425.517	425.189	0.12	88.00	2.56-2	6.09 4	-2.57-2	-6.06 4
425.518	425.191	0.12	89.00	2.57-2	6.13 4	-2.58-2	-6.09 4
425.520	425.192	0.12	90.00	2.58-2	6.16 4	-2.59-2	-6.12 4
401.406	509.802	0.10	0.12	6.40-6	1.25-4	-1.74-4	-3.40-4
450.00	550.00						
490.311	515.984	0.10	0.14	2.25-5	6.40-4	-1.90-4	-9.28-4
511.142	519.026	0.10	0.16	3.81-5	2.42-3	-2.06-4	-2.77-3
517.568	520.371	0.10	0.18	5.35-5	7.19-3	-2.21-4	-7.57-3
520.053	521.026	0.10	0.20	6.88-5	1.77-2	-2.37-4	-1.81-2
521.192	521.380	0.10	0.22	8.41-5	3.80-2	-2.52-4	-3.81-2
521.784	521.588	0.10	0.24	9.93-5	7.28-2	-2.67-4	-7.25-2
522.124	521.720	0.10	0.26	1.14-4	1.28-1	-2.82-4	-1.27-1
522.334	521.808	0.10	0.28	1.30-4	2.10-1	-2.97-4	-2.08-1
522.473	521.870	0.10	0.30	1.45-4	3.25-1	-3.12-4	-3.21-1
522.568	521.916	0.10	0.32	1.60-4	4.81-1	-3.26-4	-4.75-1
522.637	521.950	0.10	0.34	1.74-4	6.85-1	-3.41-4	-6.76-1
522.688	521.977	0.10	0.36	1.89-4	9.44-1	-3.56-4	-9.31-1
522.728	521.998	0.10	0.38	2.04-4	1.26 0	-3.70-4	-1.25 0
522.759	522.015	0.10	0.40	2.19-4	1.65 0	-3.85-4	-1.63 0
522.783	522.030	0.10	0.42	2.34-4	2.12 0	-4.00-4	-2.09 0
522.804	522.042	0.10	0.44	2.48-4	2.66 0	-4.14-4	-2.62 0
522.821	522.052	0.10	0.46	2.63-4	3.29 0	-4.28-4	-3.24 0
522.835	522.061	0.10	0.48	2.78-4	4.02 0	-4.43-4	-3.96 0
522.847	522.068	0.10	0.50	2.92-4	4.84 0	-4.57-4	-4.77 0
522.857	522.075	0.10	0.52	3.07-4	5.76 0	-4.71-4	-5.68 0
522.866	522.081	0.10	0.54	3.21-4	6.80 0	-4.86-4	-6.69 0
522.874	522.086	0.10	0.56	3.36-4	7.94 0	-5.00-4	-7.81 0
522.881	522.091	0.10	0.58	3.50-4	9.19 0	-5.14-4	-9.05 0
522.887	522.095	0.10	0.60	3.64-4	1.06 1	-5.28-4	-1.04 1
522.893	522.099	0.10	0.62	3.79-4	1.21 1	-5.42-4	-1.19 1
522.898	522.103	0.10	0.64	3.93-4	1.37 1	-5.56-4	-1.35 1
522.902	522.106	0.10	0.66	4.07-4	1.54 1	-5.70-4	-1.52 1

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
522.907	522.109	0.10	0.68	4.21-4	1.73 1	-5.84-4	-1.70 1
522.910	522.112	0.10	0.70	4.35-4	1.93 1	-5.98-4	-1.90 1
522.914	522.114	0.10	0.72	4.49-4	2.15 1	-6.12-4	-2.11 1
522.917	522.116	0.10	0.74	4.63-4	2.38 1	-6.26-4	-2.34 1
522.920	522.119	0.10	0.76	4.77-4	2.62 1	-6.39-4	-2.58 1
522.923	522.121	0.10	0.78	4.91-4	2.87 1	-6.53-4	-2.83 1
522.926	522.123	0.10	0.80	5.05-4	3.14 1	-6.67-4	-3.09 1
522.928	522.125	0.10	0.82	5.19-4	3.43 1	-6.80-4	-3.37 1
522.930	522.126	0.10	0.84	5.33-4	3.73 1	-6.94-4	-3.67 1
522.932	522.128	0.10	0.86	5.47-4	4.04 1	-7.08-4	-3.98 1
522.934	522.130	0.10	0.88	5.60-4	4.37 1	-7.21-4	-4.30 1
522.936	522.131	0.10	0.90	5.74-4	4.71 1	-7.35-4	-4.64 1
522.938	522.132	0.10	0.92	5.88-4	5.07 1	-7.48-4	-4.99 1
522.940	522.134	0.10	0.94	6.01-4	5.44 1	-7.61-4	-5.36 1
522.941	522.135	0.10	0.96	6.15-4	5.83 1	-7.75-4	-5.74 1
522.943	522.136	0.10	0.98	6.29-4	6.23 1	-7.88-4	-6.14 1
522.944	522.137	0.10	1.00	6.42-4	6.65 1	-8.01-4	-6.55 1
522.948	522.140	0.10	1.05	6.76-4	7.76 1	-8.34-4	-7.64 1
522.951	522.143	0.10	1.10	7.09-4	8.97 1	-8.67-4	-8.83 1
522.953	522.145	0.10	1.15	7.42-4	1.03 2	-9.00-4	-1.01 2
522.956	522.147	0.10	1.20	7.75-4	1.17 2	-9.32-4	-1.15 2
522.958	522.149	0.10	1.25	8.07-4	1.32 2	-9.64-4	-1.30 2
522.960	522.150	0.10	1.30	8.40-4	1.47 2	-9.96-4	-1.45 2
522.962	522.152	0.10	1.35	8.72-4	1.64 2	-1.03-3	-1.62 2
522.964	522.154	0.10	1.40	9.04-4	1.82 2	-1.06-3	-1.79 2
522.966	522.155	0.10	1.45	9.35-4	2.01 2	-1.09-3	-1.98 2
522.967	522.156	0.10	1.50	9.67-4	2.21 2	-1.12-3	-2.17 2
522.969	522.158	0.10	1.55	9.98-4	2.41 2	-1.15-3	-2.37 2
522.970	522.159	0.10	1.60	1.03-3	2.63 2	-1.18-3	-2.58 2
522.971	522.160	0.10	1.65	1.06-3	2.85 2	-1.21-3	-2.81 2
522.972	522.161	0.10	1.70	1.09-3	3.09 2	-1.24-3	-3.04 2
522.974	522.162	0.10	1.75	1.12-3	3.33 2	-1.27-3	-3.27 2
522.975	522.163	0.10	1.80	1.15-3	3.58 2	-1.30-3	-3.52 2
522.976	522.164	0.10	1.85	1.18-3	3.84 2	-1.33-3	-3.78 2
522.977	522.165	0.10	1.90	1.21-3	4.11 2	-1.36-3	-4.05 2
522.978	522.166	0.10	1.95	1.24-3	4.39 2	-1.39-3	-4.32 2
522.979	522.166	0.10	2.00	1.27-3	4.68 2	-1.42-3	-4.60 2
522.980	522.168	0.10	2.10	1.33-3	5.28 2	-1.48-3	-5.19 2
522.982	522.169	0.10	2.20	1.38-3	5.91 2	-1.53-3	-5.82 2
522.983	522.171	0.10	2.30	1.44-3	6.58 2	-1.59-3	-6.48 2
522.985	522.172	0.10	2.40	1.50-3	7.29 2	-1.64-3	-7.17 2
522.986	522.173	0.10	2.50	1.55-3	8.02 2	-1.70-3	-7.89 2
522.987	522.174	0.10	2.60	1.60-3	8.79 2	-1.75-3	-8.65 2
522.988	522.175	0.10	2.70	1.66-3	9.59 2	-1.80-3	-9.43 2
522.989	522.176	0.10	2.80	1.71-3	1.04 3	-1.85-3	-1.02 3
522.990	522.177	0.10	2.90	1.76-3	1.13 3	-1.90-3	-1.11 3
522.991	522.178	0.10	3.00	1.81-3	1.22 3	-1.95-3	-1.20 3
522.992	522.179	0.10	3.10	1.86-3	1.31 3	-2.00-3	-1.29 3
522.993	522.180	0.10	3.20	1.91-3	1.40 3	-2.05-3	-1.38 3
522.994	522.181	0.10	3.30	1.96-3	1.50 3	-2.10-3	-1.48 3
522.995	522.181	0.10	3.40	2.01-3	1.60 3	-2.15-3	-1.57 3
522.996	522.182	0.10	3.50	2.06-3	1.70 3	-2.20-3	-1.68 3
522.996	522.183	0.10	3.60	2.11-3	1.81 3	-2.24-3	-1.78 3
522.997	522.183	0.10	3.70	2.16-3	1.92 3	-2.29-3	-1.89 3
522.998	522.184	0.10	3.80	2.20-3	2.03 3	-2.34-3	-2.00 3
522.998	522.185	0.10	3.90	2.25-3	2.14 3	-2.38-3	-2.11 3
522.999	522.185	0.10	4.00	2.29-3	2.26 3	-2.43-3	-2.22 3
523.000	522.186	0.10	4.20	2.38-3	2.50 3	-2.51-3	-2.46 3
523.002	522.188	0.10	4.40	2.47-3	2.74 3	-2.60-3	-2.70 3
523.003	522.189	0.10	4.60	2.55-3	3.00 3	-2.68-3	-2.95 3

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
523.004	522.190	0.10	4.80	2.64-3	3.27 3	-2.76-3	-3.21 3
523.005	522.190	0.10	5.00	2.72-3	3.54 3	-2.84-3	-3.48 3
523.006	522.191	0.10	5.20	2.80-3	3.82 3	-2.92-3	-3.76 3
523.006	522.192	0.10	5.40	2.87-3	4.11 3	-3.00-3	-4.05 3
523.007	522.193	0.10	5.60	2.95-3	4.41 3	-3.07-3	-4.34 3
523.008	522.194	0.10	5.80	3.02-3	4.72 3	-3.14-3	-4.64 3
523.009	522.195	0.10	6.00	3.09-3	5.03 3	-3.21-3	-4.95 3
523.010	522.195	0.10	6.20	3.16-3	5.35 3	-3.28-3	-5.26 3
523.010	522.196	0.10	6.40	3.23-3	5.67 3	-3.35-3	-5.58 3
523.011	522.197	0.10	6.60	3.30-3	6.00 3	-3.42-3	-5.91 3
523.012	522.197	0.10	6.80	3.37-3	6.34 3	-3.48-3	-6.24 3
523.012	522.198	0.10	7.00	3.43-3	6.69 3	-3.55-3	-6.58 3
523.013	522.198	0.10	7.20	3.50-3	7.04 3	-3.61-3	-6.92 3
523.013	522.199	0.10	7.40	3.56-3	7.39 3	-3.67-3	-7.27 3
523.014	522.200	0.10	7.60	3.62-3	7.75 3	-3.73-3	-7.63 3
523.015	522.200	0.10	7.80	3.68-3	8.12 3	-3.79-3	-7.99 3
523.015	522.201	0.10	8.00	3.74-3	8.49 3	-3.85-3	-8.36 3
523.016	522.201	0.10	8.20	3.80-3	8.87 3	-3.90-3	-8.73 3
523.016	522.202	0.10	8.40	3.85-3	9.25 3	-3.96-3	-9.10 3
523.017	522.202	0.10	8.60	3.91-3	9.64 3	-4.02-3	-9.48 3
523.017	522.203	0.10	8.80	3.96-3	1.00 4	-4.07-3	-9.86 3
523.018	522.203	0.10	9.00	4.02-3	1.04 4	-4.12-3	-1.03 4
523.018	522.204	0.10	9.20	4.07-3	1.08 4	-4.17-3	-1.06 4
523.019	522.204	0.10	9.40	4.12-3	1.12 4	-4.22-3	-1.10 4
523.019	522.204	0.10	9.60	4.17-3	1.16 4	-4.27-3	-1.14 4
523.019	522.205	0.10	9.80	4.22-3	1.20 4	-4.32-3	-1.18 4
523.020	522.205	0.10	10.00	4.27-3	1.25 4	-4.37-3	-1.23 4
523.021	522.206	0.10	10.50	4.39-3	1.35 4	-4.49-3	-1.33 4
523.022	522.207	0.10	11.00	4.50-3	1.46 4	-4.60-3	-1.43 4
523.023	522.208	0.10	11.50	4.61-3	1.57 4	-4.70-3	-1.54 4
523.024	522.209	0.10	12.00	4.71-3	1.68 4	-4.81-3	-1.65 4
523.024	522.210	0.10	12.50	4.81-3	1.79 4	-4.90-3	-1.76 4
523.025	522.210	0.10	13.00	4.91-3	1.91 4	-5.00-3	-1.88 4
523.026	522.211	0.10	13.50	5.00-3	2.02 4	-5.09-3	-1.99 4
523.027	522.212	0.10	14.00	5.09-3	2.14 4	-5.18-3	-2.11 4
523.027	522.213	0.10	14.50	5.18-3	2.26 4	-5.26-3	-2.22 4
523.028	522.213	0.10	15.00	5.26-3	2.38 4	-5.34-3	-2.34 4
523.029	522.214	0.10	15.50	5.34-3	2.50 4	-5.42-3	-2.46 4
523.029	522.214	0.10	16.00	5.41-3	2.62 4	-5.50-3	-2.58 4
523.030	522.215	0.10	16.50	5.49-3	2.74 4	-5.57-3	-2.70 4
523.030	522.216	0.10	17.00	5.56-3	2.87 4	-5.64-3	-2.82 4
523.031	522.216	0.10	17.50	5.63-3	2.99 4	-5.71-3	-2.94 4
523.032	522.217	0.10	18.00	5.70-3	3.12 4	-5.77-3	-3.07 4
523.032	522.217	0.10	18.50	5.76-3	3.24 4	-5.84-3	-3.19 4
523.033	522.218	0.10	19.00	5.82-3	3.37 4	-5.90-3	-3.32 4
523.033	522.218	0.10	19.50	5.89-3	3.50 4	-5.96-3	-3.44 4
523.034	522.219	0.10	20.00	5.95-3	3.63 4	-6.02-3	-3.57 4
523.035	522.220	0.10	21.00	6.06-3	3.88 4	-6.13-3	-3.82 4
523.036	522.221	0.10	22.00	6.17-3	4.14 4	-6.24-3	-4.07 4
523.036	522.222	0.10	23.00	6.27-3	4.40 4	-6.34-3	-4.33 4
523.037	522.222	0.10	24.00	6.36-3	4.66 4	-6.43-3	-4.59 4
523.038	522.223	0.10	25.00	6.45-3	4.92 4	-6.52-3	-4.84 4
523.039	522.224	0.10	26.00	6.54-3	5.18 4	-6.60-3	-5.10 4
523.040	522.225	0.10	27.00	6.62-3	5.44 4	-6.68-3	-5.36 4
523.040	522.225	0.10	28.00	6.70-3	5.71 4	-6.76-3	-5.61 4
523.041	522.226	0.10	29.00	6.77-3	5.97 4	-6.83-3	-5.87 4
523.042	522.227	0.10	30.00	6.84-3	6.23 4	-6.90-3	-6.13 4
523.042	522.227	0.10	31.00	6.91-3	6.49 4	-6.97-3	-6.38 4
523.043	522.228	0.10	32.00	6.98-3	6.75 4	-7.03-3	-6.64 4
523.043	522.229	0.10	33.00	7.04-3	7.00 4	-7.09-3	-6.89 4

TABLE B

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
523.044	522.229	0.10	34.00	7.10-3	7.26 4	-7.15-3	-7.14 4
523.045	522.230	0.10	35.00	7.15-3	7.52 4	-7.21-3	-7.39 4
523.045	522.230	0.10	36.00	7.21-3	7.77 4	-7.26-3	-7.64 4
523.046	522.231	0.10	37.00	7.26-3	8.02 4	-7.32-3	-7.89 4
523.046	522.231	0.10	38.00	7.31-3	8.27 4	-7.37-3	-8.14 4
523.047	522.232	0.10	39.00	7.36-3	8.52 4	-7.41-3	-8.38 4
523.047	522.232	0.10	40.00	7.41-3	8.77 4	-7.46-3	-8.62 4
523.048	522.233	0.10	41.00	7.46-3	9.01 4	-7.51-3	-8.86 4
523.048	522.233	0.10	42.00	7.50-3	9.25 4	-7.55-3	-9.10 4
523.049	522.234	0.10	43.00	7.54-3	9.49 4	-7.59-3	-9.34 4
523.049	522.234	0.10	44.00	7.58-3	9.73 4	-7.63-3	-9.57 4
523.050	522.235	0.10	45.00	7.62-3	9.96 4	-7.67-3	-9.80 4
523.050	522.235	0.10	46.00	7.66-3	1.02 5	-7.71-3	-1.00 5
523.051	522.236	0.10	47.00	7.70-3	1.04 5	-7.75-3	-1.03 5
523.051	522.236	0.10	48.00	7.74-3	1.06 5	-7.78-3	-1.05 5
523.051	522.236	0.10	49.00	7.77-3	1.09 5	-7.82-3	-1.07 5
523.052	522.237	0.10	50.00	7.80-3	1.11 5	-7.85-3	-1.09 5
523.052	522.237	0.10	51.00	7.84-3	1.13 5	-7.88-3	-1.11 5
523.053	522.238	0.10	52.00	7.87-3	1.15 5	-7.91-3	-1.13 5
523.053	522.238	0.10	53.00	7.90-3	1.17 5	-7.94-3	-1.15 5
523.053	522.238	0.10	54.00	7.93-3	1.19 5	-7.97-3	-1.17 5
523.054	522.239	0.10	55.00	7.96-3	1.21 5	-8.00-3	-1.19 5
523.054	522.239	0.10	56.00	7.99-3	1.23 5	-8.03-3	-1.21 5
523.055	522.240	0.10	57.00	8.02-3	1.25 5	-8.06-3	-1.23 5
523.055	522.240	0.10	58.00	8.05-3	1.27 5	-8.09-3	-1.25 5
523.055	522.240	0.10	59.00	8.07-3	1.29 5	-8.11-3	-1.27 5
523.056	522.241	0.10	60.00	8.10-3	1.31 5	-8.14-3	-1.29 5
523.056	522.241	0.10	61.00	8.13-3	1.33 5	-8.16-3	-1.30 5
523.056	522.241	0.10	62.00	8.15-3	1.34 5	-8.19-3	-1.32 5
523.057	522.242	0.10	63.00	8.18-3	1.36 5	-8.21-3	-1.34 5
523.057	522.242	0.10	64.00	8.20-3	1.38 5	-8.24-3	-1.35 5
523.057	522.242	0.10	65.00	8.22-3	1.39 5	-8.26-3	-1.37 5
523.058	522.243	0.10	66.00	8.25-3	1.41 5	-8.28-3	-1.39 5
523.058	522.243	0.10	67.00	8.27-3	1.42 5	-8.30-3	-1.40 5
523.059	522.243	0.10	68.00	8.29-3	1.44 5	-8.33-3	-1.41 5
523.059	522.244	0.10	69.00	8.31-3	1.45 5	-8.35-3	-1.43 5
523.059	522.244	0.10	70.00	8.33-3	1.47 5	-8.37-3	-1.44 5
523.060	522.244	0.10	71.00	8.35-3	1.48 5	-8.39-3	-1.46 5
523.060	522.245	0.10	72.00	8.37-3	1.49 5	-8.41-3	-1.47 5
523.060	522.245	0.10	73.00	8.39-3	1.50 5	-8.43-3	-1.48 5
523.061	522.245	0.10	74.00	8.41-3	1.52 5	-8.45-3	-1.49 5
523.061	522.246	0.10	75.00	8.43-3	1.53 5	-8.47-3	-1.50 5
523.061	522.246	0.10	76.00	8.45-3	1.54 5	-8.48-3	-1.51 5
523.062	522.246	0.10	77.00	8.47-3	1.55 5	-8.50-3	-1.52 5
523.062	522.247	0.10	78.00	8.49-3	1.56 5	-8.52-3	-1.53 5
523.062	522.247	0.10	79.00	8.50-3	1.57 5	-8.54-3	-1.54 5
523.062	522.247	0.10	80.00	8.52-3	1.58 5	-8.55-3	-1.55 5
523.063	522.248	0.10	81.00	8.54-3	1.59 5	-8.57-3	-1.56 5
523.063	522.248	0.10	82.00	8.56-3	1.59 5	-8.59-3	-1.57 5
523.063	522.248	0.10	83.00	8.57-3	1.60 5	-8.60-3	-1.58 5
523.064	522.249	0.10	84.00	8.59-3	1.61 5	-8.62-3	-1.58 5
523.064	522.249	0.10	85.00	8.60-3	1.61 5	-8.64-3	-1.59 5
523.064	522.249	0.10	86.00	8.62-3	1.62 5	-8.65-3	-1.59 5
523.065	522.250	0.10	87.00	8.64-3	1.63 5	-8.67-3	-1.60 5
523.065	522.250	0.10	88.00	8.65-3	1.63 5	-8.68-3	-1.60 5
523.065	522.250	0.10	89.00	8.67-3	1.63 5	-8.70-3	-1.61 5
523.066	522.251	0.10	90.00	8.68-3	1.64 5	-8.71-3	-1.61 5

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.	0.20						
0.008728	0.99986	89.00	90.00	-3.70 1	-7.76 1	-2.33 3	2.33 3
0.017461	1.00017	88.00	90.00	7.00 1	-1.85 2	-7.29 3	7.30 3
0.026203	1.00045	87.00	90.00	1.08 2	-2.23 2	-6.31 3	6.33 3
0.026188	1.00047	88.00	89.00	-1.98 2	8.34 1	5.37 3	-5.38 3
0.034930	1.00074	87.00	89.00	1.67 3	-1.79 3	-4.96 4	4.97 4
0.034958	1.00078	86.00	90.00	1.01 2	-2.16 2	-4.53 3	4.55 3
0.043664	1.00101	87.00	88.00	-1.20 3	1.09 3	2.62 4	-2.62 4
0.043686	1.00109	86.00	89.00	2.53 2	-3.69 2	-7.11 3	7.14 3
0.043731	1.00122	85.00	90.00	1.02 2	-2.17 2	-3.63 3	3.66 3
0.052421	1.00139	86.00	88.00	3.35 2	-4.50 2	-7.48 3	7.51 3
0.052460	1.00156	85.00	89.00	1.91 2	-3.06 2	-4.73 3	4.75 3
0.061166	1.00177	86.00	87.00	1.72 2	-2.86 2	-3.75 3	3.75 3
0.052524	1.00180	84.00	90.00	1.07 2	-2.23 2	-3.13 3	3.15 3
0.061196	1.00193	85.00	88.00	2.60 2	-3.76 2	-5.19 3	5.22 3
0.061255	1.00218	84.00	89.00	1.79 2	-2.95 2	-3.86 3	3.89 3
0.069943	1.00238	85.00	87.00	2.71 2	-3.86 2	-4.69 3	4.71 3
0.061344	1.00247	83.00	90.00	1.10 2	-2.25 2	-2.72 3	2.75 3
0.069993	1.00261	84.00	88.00	2.54 2	-3.70 2	-4.45 3	4.49 3
0.070076	1.00291	83.00	89.00	1.69 2	-2.86 2	-3.23 3	3.27 3
0.078706	1.00299	85.00	86.00	2.24 2	-3.39 2	-3.58 3	3.59 3
0.078743	1.00314	84.00	87.00	3.38 2	-4.55 2	-5.03 3	5.06 3
0.070192	1.00327	82.00	90.00	1.13 2	-2.29 2	-2.42 3	2.46 3
0.078817	1.00339	83.00	88.00	2.36 2	-3.53 2	-3.73 3	3.77 3
0.078927	1.00375	82.00	89.00	1.65 2	-2.82 2	-2.82 3	2.86 3
0.087509	1.00382	84.00	86.00	5.24 2	-6.40 2	-6.66 3	6.69 3
0.087570	1.00398	83.00	87.00	3.24 2	-4.42 2	-4.37 3	4.41 3
0.079075	1.00417	81.00	90.00	1.14 2	-2.31 2	-2.16 3	2.20 3
0.087671	1.00430	82.00	88.00	2.27 2	-3.45 2	-3.25 3	3.30 3
0.096295	1.00466	84.00	85.00	6.42 3	-6.55 3	-6.76 4	6.78 4
0.087813	1.00470	81.00	89.00	1.60 2	-2.78 2	-2.48 3	2.52 3
0.096339	1.00472	83.00	86.00	5.01 2	-6.18 2	-5.81 3	5.86 3
0.096427	1.00495	82.00	87.00	3.14 2	-4.32 2	-3.86 3	3.91 3
0.087996	1.00512	80.00	90.00	1.12 2	-2.29 2	-1.91 3	1.96 3
0.096560	1.00530	81.00	88.00	2.15 2	-3.33 2	-2.83 3	2.88 3
0.105128	1.00558	83.00	85.00	1.15 3	-1.27 3	-1.15 4	1.16 4
0.096737	1.00570	80.00	89.00	1.50 2	-2.68 2	-2.14 3	2.19 3
0.105200	1.00574	82.00	86.00	4.80 2	-5.99 2	-5.13 3	5.18 3
0.105320	1.00601	81.00	87.00	2.91 2	-4.09 2	-3.31 3	3.37 3
0.096959	1.00623	79.00	90.00	1.12 2	-2.30 2	-1.74 3	1.79 3
0.105488	1.00635	80.00	88.00	1.95 2	-3.13 2	-2.39 3	2.45 3
0.113942	1.00650	83.00	84.00	4.50 3	-4.63 3	-4.02 4	4.04 4
0.113994	1.00666	82.00	85.00	9.72 2	-1.09 3	-9.08 3	9.16 3
0.114097	1.00686	81.00	86.00	4.19 2	-5.39 2	-4.20 3	4.26 3
0.105704	1.00687	79.00	89.00	1.47 2	-2.65 2	-1.93 3	1.99 3
0.114252	1.00711	80.00	87.00	2.52 2	-3.71 2	-2.71 3	2.77 3
0.105969	1.00743	78.00	90.00	1.11 2	-2.29 2	-1.59 3	1.64 3
0.114459	1.00757	79.00	88.00	1.87 2	-3.06 2	-2.14 3	2.20 3
0.122812	1.00765	82.00	84.00	9.25 3	-9.42 3	-7.63 4	7.68 4
0.122895	1.00782	81.00	85.00	6.99 2	-8.22 2	-6.19 3	6.27 3
0.123034	1.00799	80.00	86.00	3.34 2	-4.54 2	-3.19 3	3.26 3
0.114719	1.00811	78.00	89.00	1.42 2	-2.61 2	-1.74 3	1.80 3
0.123228	1.00838	79.00	87.00	2.38 2	-3.58 2	-2.40 3	2.46 3
0.115032	1.00875	77.00	90.00	1.11 2	-2.29 2	-1.46 3	1.51 3
0.131660	1.00881	82.00	83.00	-5.23 2	4.12 2	3.58 3	-3.59 3
0.131719	1.00887	81.00	84.00	1.59 3	-1.72 3	-1.26 4	1.27 4
0.123478	1.00887	78.00	88.00	1.78 2	-2.98 2	-1.91 3	1.97 3
0.131837	1.00899	80.00	85.00	4.60 2	-5.81 2	-3.95 3	4.02 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.132015	1.00932	79.00	86.00	3.08 2	-4.29 2	-2.78 3	2.85 3
0.123786	1.00948	77.00	89.00	1.39 2	-2.58 2	-1.58 3	1.64 3
0.132253	1.00973	78.00	87.00	2.21 2	-3.42 2	-2.11 3	2.18 3
0.140572	1.01004	81.00	83.00	-2.41 3	2.32 3	1.69 4	-1.71 4
0.140667	1.01006	80.00	84.00	6.39 2	-7.61 2	-4.99 3	5.06 3
0.124150	1.01020	76.00	90.00	1.11 2	-2.30 2	-1.35 3	1.41 3
0.132551	1.01029	77.00	88.00	1.71 2	-2.91 2	-1.72 3	1.79 3
0.140824	1.01036	79.00	85.00	4.09 2	-5.32 2	-3.34 3	3.41 3
0.141046	1.01072	78.00	86.00	2.78 2	-4.00 2	-2.39 3	2.46 3
0.132909	1.01098	76.00	89.00	1.37 2	-2.57 2	-1.46 3	1.52 3
0.141331	1.01120	77.00	87.00	2.09 2	-3.30 2	-1.89 3	1.96 3
0.149526	1.01124	80.00	83.00	9.51 2	-1.07 3	-6.81 3	6.89 3
0.149459	1.01128	81.00	82.00	-6.15 2	5.05 2	3.78 3	-3.80 3
0.149660	1.01150	79.00	84.00	5.51 2	-6.75 2	-4.10 3	4.18 3
0.133330	1.01175	75.00	90.00	1.10 2	-2.30 2	-1.25 3	1.32 3
0.149861	1.01181	78.00	85.00	3.54 2	-4.77 2	-2.77 3	2.84 3
0.141680	1.01184	76.00	88.00	1.66 2	-2.87 2	-1.58 3	1.65 3
0.150130	1.01224	77.00	86.00	2.57 2	-3.80 2	-2.11 3	2.18 3
0.158420	1.01246	80.00	82.00	8.78 2	-9.97 2	-5.97 3	6.01 3
0.142095	1.01259	75.00	89.00	1.34 2	-2.55 2	-1.35 3	1.42 3
0.158526	1.01274	79.00	83.00	7.92 2	-9.17 2	-5.41 3	5.50 3
0.150466	1.01281	76.00	87.00	2.01 2	-3.23 2	-1.72 3	1.79 3
0.158703	1.01299	78.00	84.00	4.52 2	-5.76 2	-3.24 3	3.32 3
0.158952	1.01338	77.00	85.00	3.19 2	-4.43 2	-2.39 3	2.46 3
0.142576	1.01342	74.00	90.00	1.10 2	-2.30 2	-1.17 3	1.24 3
0.150872	1.01350	75.00	88.00	1.61 2	-2.83 2	-1.45 3	1.52 3
0.167352	1.01363	80.00	81.00	2.09 2	-3.22 2	-1.61 3	1.61 3
0.159272	1.01390	76.00	86.00	2.44 2	-3.67 2	-1.90 3	1.98 3
0.167427	1.01404	79.00	82.00	1.03 3	-1.16 3	-6.58 3	6.66 3
0.167576	1.01428	78.00	83.00	5.91 2	-7.16 2	-3.91 3	3.99 3
0.151347	1.01431	74.00	89.00	1.32 2	-2.54 2	-1.25 3	1.32 3
0.159665	1.01453	75.00	87.00	1.93 2	-3.16 2	-1.57 3	1.65 3
0.167801	1.01461	77.00	84.00	3.95 2	-5.20 2	-2.72 3	2.80 3
0.168101	1.01510	76.00	85.00	2.98 2	-4.23 2	-2.13 3	2.21 3
0.151893	1.01520	73.00	90.00	1.09 2	-2.30 2	-1.09 3	1.16 3
0.160131	1.01528	74.00	88.00	1.57 2	-2.80 2	-1.34 3	1.42 3
0.176367	1.01541	79.00	81.00	9.40 2	-1.06 3	-5.73 3	5.78 3
0.176485	1.01563	78.00	82.00	7.29 2	-8.54 2	-4.51 3	4.59 3
0.168478	1.01567	75.00	86.00	2.31 2	-3.55 2	-1.72 3	1.80 3
0.176682	1.01595	77.00	83.00	4.96 2	-6.22 2	-3.17 3	3.26 3
0.160671	1.01614	73.00	89.00	1.30 2	-2.52 2	-1.16 3	1.24 3
0.168931	1.01636	74.00	87.00	1.86 2	-3.09 2	-1.44 3	1.52 3
0.176958	1.01639	76.00	84.00	3.65 2	-4.90 2	-2.41 3	2.50 3
0.177314	1.01692	75.00	85.00	2.78 2	-4.03 2	-1.90 3	1.99 3
0.185432	1.01708	78.00	81.00	7.94 2	-9.16 2	-4.66 3	4.72 3
0.161287	1.01712	72.00	90.00	1.08 2	-2.30 2	-1.02 3	1.10 3
0.169462	1.01717	73.00	88.00	1.52 2	-2.76 2	-1.24 3	1.32 3
0.185350	1.01719	79.00	80.00	-8.31 2	7.24 2	4.26 3	-4.28 3
0.185598	1.01736	77.00	82.00	6.05 2	-7.30 2	-3.61 3	3.70 3
0.177752	1.01756	74.00	86.00	2.20 2	-3.45 2	-1.57 3	1.65 3
0.185847	1.01778	76.00	83.00	4.52 2	-5.79 2	-2.77 3	2.86 3
0.170073	1.01811	72.00	89.00	1.28 2	-2.51 2	-1.08 3	1.16 3
0.186179	1.01826	75.00	84.00	3.34 2	-4.61 2	-2.12 3	2.21 3
0.178270	1.01830	73.00	87.00	1.78 2	-3.03 2	-1.33 3	1.41 3
0.194424	1.01879	78.00	80.00	2.00 3	-2.13 3	-1.07 4	1.09 4
0.186597	1.01886	74.00	85.00	2.61 2	-3.67 2	-1.72 3	1.81 3
0.194554	1.01887	77.00	81.00	7.02 2	-8.27 2	-3.96 3	4.04 3
0.170764	1.01916	71.00	90.00	1.08 2	-2.31 2	-9.60 2	1.04 3
0.178872	1.01919	72.00	88.00	1.49 2	-2.73 2	-1.15 3	1.24 3
0.194772	1.01926	76.00	82.00	5.53 2	-6.81 2	-3.18 3	3.27 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.187099	1.01954	73.00	86.00	2.09 2	-3.35 2	-1.43 3	1.52 3
0.195077	1.01971	75.00	83.00	4.05 2	-5.33 2	-2.40 3	2.50 3
0.179557	1.02021	71.00	89.00	1.26 2	-2.50 2	-1.02 3	1.10 3
0.195470	1.02025	74.00	84.00	3.10 2	-4.37 2	-1.90 3	1.99 3
0.187688	1.02037	72.00	87.00	1.73 2	-2.98 2	-1.23 3	1.32 3
0.195953	1.02090	73.00	85.00	2.45 2	-3.72 2	-1.56 3	1.65 3
0.188364	1.02134	71.00	88.00	1.45 2	-2.71 2	-1.08 3	1.16 3
0.180328	1.02134	70.00	90.00	1.07 2	-2.31 2	-9.06 2	9.89 2
0.196525	1.02167	72.00	86.00	2.00 2	-3.27 2	-1.32 3	1.41 3
0.189130	1.02244	70.00	89.00	1.24 2	-2.49 2	-9.55 2	1.04 3
0.197189	1.02258	71.00	87.00	1.67 2	-2.94 2	-1.14 3	1.24 3
0.197946	1.02363	70.00	88.00	1.42 2	-2.69 2	-1.01 3	1.10 3
0.189986	1.02365	69.00	90.00	1.07 2	-2.31 2	-8.55 2	9.43 2
0.198797	1.02481	69.00	89.00	1.22 2	-2.48 2	-9.00 2	9.92 2
0.199744	1.02609	68.00	90.00	1.06 2	-2.31 2	-8.08 2	9.00 2
0.20	0.30						
0.203464	1.02038	78.00	79.00	6.23 2	-7.36 2	-3.40 3	3.42 3
0.203555	1.02060	77.00	80.00	1.12 3	-1.25 3	-5.89 3	5.97 3
0.203737	1.02084	76.00	81.00	6.74 2	-8.03 2	-3.65 3	3.74 3
0.204011	1.02124	75.00	82.00	4.89 2	-6.18 2	-2.72 3	2.82 3
0.204377	1.02175	74.00	83.00	3.70 2	-4.99 2	-2.12 3	2.22 3
0.212604	1.02230	77.00	79.00	9.58 2	-1.08 3	-4.87 3	4.92 3
0.204835	1.02234	73.00	84.00	2.87 2	-4.15 2	-1.70 3	1.79 3
0.212747	1.02262	76.00	80.00	1.03 3	-1.16 3	-5.22 3	5.33 3
0.212986	1.02288	75.00	81.00	5.91 2	-7.21 2	-3.10 3	3.20 3
0.205388	1.02308	72.00	85.00	2.33 2	-3.61 2	-1.42 3	1.52 3
0.213320	1.02335	74.00	82.00	4.41 2	-5.71 2	-2.37 3	2.47 3
0.213752	1.02390	73.00	83.00	3.37 2	-4.67 2	-1.87 3	1.97 3
0.206036	1.02393	71.00	86.00	1.93 2	-3.21 2	-1.22 3	1.32 3
0.221707	1.02421	77.00	78.00	9.60 2	-1.07 3	-4.69 3	4.71 3
0.221807	1.02442	76.00	79.00	1.33 3	-1.46 3	-6.39 3	6.49 3
0.214281	1.02458	72.00	84.00	2.70 2	-3.99 2	-1.54 3	1.64 3
0.222006	1.02471	75.00	80.00	8.16 2	-9.49 2	-4.01 3	4.13 3
0.206780	1.02493	70.00	87.00	1.63 2	-2.91 2	-1.07 3	1.16 3
0.222305	1.02505	74.00	81.00	5.27 2	-6.59 2	-2.68 3	2.78 3
0.214909	1.02539	71.00	85.00	2.22 2	-3.52 2	-1.31 3	1.41 3
0.222705	1.02554	73.00	82.00	3.95 2	-5.26 2	-2.06 3	2.17 3
0.207622	1.02606	69.00	88.00	1.40 2	-2.67 2	-9.48 2	1.04 3
0.223207	1.02619	72.00	83.00	3.14 2	-4.45 2	-1.69 3	1.79 3
0.215637	1.02634	70.00	86.00	1.87 2	-3.16 2	-1.14 3	1.24 3
0.230920	1.02643	76.00	78.00	5.22 3	-5.38 3	-2.34 4	2.37 4
0.231076	1.02657	75.00	79.00	1.04 3	-1.17 3	-4.86 3	4.97 3
0.231336	1.02692	74.00	80.00	6.86 2	-8.20 2	-3.28 3	3.40 3
0.223811	1.02695	71.00	84.00	2.55 2	-3.86 2	-1.41 3	1.52 3
0.231701	1.02730	73.00	81.00	4.64 2	-5.96 2	-2.29 3	2.40 3
0.208564	1.02730	68.00	89.00	1.21 2	-2.47 2	-8.48 2	9.44 2
0.216466	1.02741	69.00	87.00	1.59 2	-2.88 2	-1.00 3	1.10 3
0.224520	1.02785	70.00	85.00	2.13 2	-3.44 2	-1.22 3	1.32 3
0.232171	1.02789	72.00	82.00	3.64 2	-4.96 2	-1.85 3	1.95 3
0.217400	1.02860	68.00	88.00	1.37 2	-2.65 2	-8.91 2	9.91 2
0.232748	1.02861	71.00	83.00	2.94 2	-4.27 2	-1.53 3	1.64 3
0.240201	1.02861	75.00	78.00	1.86 3	-2.00 3	-8.20 3	8.34 3
0.240093	1.02863	76.00	77.00	-7.11 2	6.06 2	2.81 3	-2.83 3
0.209608	1.02869	67.00	90.00	1.05 2	-2.31 2	-7.67 2	8.62 2
0.240418	1.02884	74.00	79.00	8.57 2	-9.93 2	-3.90 3	4.01 3
0.225333	1.02887	69.00	86.00	1.81 2	-3.11 2	-1.06 3	1.17 3
0.240743	1.02922	73.00	80.00	5.74 2	-7.08 2	-2.68 3	2.79 3
0.233433	1.02946	70.00	84.00	2.44 2	-3.76 2	-1.30 3	1.41 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.241178	1.02970	72.00	81.00	4.23 2	-5.57 2	-2.03 3	2.14 3
0.218439	1.02996	67.00	89.00	1.19 2	-2.47 2	-8.03 2	9.02 2
0.226254	1.03001	68.00	87.00	1.55 2	-2.84 2	-9.39 2	1.04 3
0.241724	1.03037	71.00	82.00	3.38 2	-4.72 2	-1.67 3	1.78 3
0.234227	1.03044	69.00	85.00	2.05 2	-3.37 2	-1.13 3	1.24 3
0.249385	1.03080	75.00	77.00	-1.55 4	1.56 4	6.37 4	-6.45 4
0.249554	1.03093	74.00	78.00	1.27 3	-1.41 3	-5.46 3	5.59 3
0.242382	1.03118	70.00	83.00	2.79 2	-4.12 2	-1.41 3	1.52 3
0.249836	1.03119	73.00	79.00	6.88 2	-8.24 2	-3.06 3	3.17 3
0.227285	1.03132	67.00	88.00	1.34 2	-2.64 2	-8.42 2	9.45 2
0.219586	1.03142	66.00	90.00	1.04 2	-2.31 2	-7.27 2	8.26 2
0.235133	1.03153	68.00	86.00	1.75 2	-3.06 2	-9.92 2	1.10 3
0.250232	1.03167	72.00	80.00	5.10 2	-6.46 2	-2.32 3	2.44 3
0.243152	1.03211	69.00	84.00	2.33 2	-3.66 2	-1.21 3	1.32 3
0.250743	1.03224	71.00	81.00	3.90 2	-5.25 2	-1.82 3	1.94 3
0.228427	1.03274	66.00	89.00	1.17 2	-2.46 2	-7.60 2	8.63 2
0.236151	1.03278	67.00	87.00	1.51 2	-2.82 2	-8.85 2	9.92 2
0.258633	1.03295	75.00	76.00	-1.10 4	1.10 4	4.39 4	-4.42 4
0.251369	1.03300	70.00	82.00	3.18 2	-4.53 2	-1.52 3	1.64 3
0.244038	1.03315	68.00	85.00	1.97 2	-3.30 2	-1.05 3	1.16 3
0.258750	1.03315	74.00	77.00	2.73 3	-2.89 3	-1.11 4	1.13 4
0.258985	1.03332	73.00	78.00	8.89 2	-1.03 3	-3.76 3	3.88 3
0.259337	1.03370	72.00	79.00	6.03 2	-7.40 2	-2.61 3	2.73 3
0.252113	1.03388	69.00	83.00	2.64 2	-3.99 2	-1.30 3	1.41 3
0.237284	1.03416	66.00	88.00	1.32 2	-2.62 2	-7.95 2	9.02 2
0.259809	1.03426	71.00	80.00	4.62 2	-5.99 2	-2.05 3	2.17 3
0.229683	1.03431	65.00	90.00	1.03 2	-2.32 2	-6.91 2	7.93 2
0.245041	1.03435	67.00	86.00	1.70 2	-3.03 2	-9.33 2	1.04 3
0.252975	1.03488	68.00	84.00	2.22 2	-3.57 2	-1.12 3	1.23 3
0.260400	1.03493	70.00	81.00	3.64 2	-5.01 2	-1.65 3	1.77 3
0.268011	1.03540	74.00	76.00	4.79 3	-4.96 3	-1.87 4	1.90 4
0.268193	1.03557	73.00	77.00	1.23 3	-1.37 3	-4.95 3	5.08 3
0.246162	1.03568	66.00	87.00	1.48 2	-2.80 2	-8.33 2	9.44 2
0.238536	1.03569	65.00	89.00	1.16 2	-2.46 2	-7.21 2	8.27 2
0.261113	1.03576	69.00	82.00	3.00 2	-4.36 2	-1.39 3	1.51 3
0.268499	1.03589	72.00	78.00	7.48 2	-8.87 2	-3.09 3	3.21 3
0.253958	1.03604	67.00	85.00	1.91 2	-3.25 2	-9.86 2	1.10 3
0.268927	1.03635	71.00	79.00	5.40 2	-6.78 2	-2.28 3	2.40 3
0.261948	1.03671	68.00	83.00	2.51 2	-3.87 2	-1.20 3	1.31 3
0.269479	1.03700	70.00	80.00	4.26 2	-5.64 2	-1.84 3	1.96 3
0.247405	1.03716	65.00	88.00	1.29 2	-2.61 2	-7.53 2	8.63 2
0.255064	1.03731	66.00	86.00	1.65 2	-2.99 2	-8.77 2	9.91 2
0.239908	1.03736	64.00	90.00	1.02 2	-2.32 2	-6.57 2	7.63 2
0.270157	1.03774	69.00	81.00	3.41 2	-4.79 2	-1.51 3	1.63 3
0.262908	1.03782	67.00	84.00	2.14 2	-3.50 2	-1.05 3	1.17 3
0.277341	1.03783	74.00	75.00	-3.37 3	3.29 3	1.24 4	-1.25 4
0.277467	1.03786	73.00	76.00	1.39 3	-1.53 3	-5.40 3	5.51 3
0.277721	1.03819	72.00	77.00	9.61 2	-1.10 3	-3.79 3	3.92 3
0.278102	1.03859	71.00	78.00	6.52 2	-7.92 2	-2.63 3	2.76 3
0.270961	1.03864	68.00	82.00	2.83 2	-4.20 2	-1.28 3	1.40 3
0.256295	1.03874	65.00	87.00	1.44 2	-2.78 2	-7.88 2	9.02 2
0.248773	1.03879	64.00	89.00	1.14 2	-2.45 2	-6.84 2	7.95 2
0.263994	1.03905	66.00	85.00	1.84 2	-3.20 2	-9.24 2	1.04 3
0.278611	1.03915	70.00	79.00	4.93 2	-6.33 2	-2.03 3	2.16 3
0.271894	1.03971	67.00	83.00	2.40 2	-3.78 2	-1.11 3	1.24 3
0.279249	1.03987	69.00	80.00	3.94 2	-5.34 2	-1.66 3	1.79 3
0.286812	1.04030	73.00	75.00	1.46 3	-1.59 3	-5.49 3	5.57 3
0.257655	1.04032	64.00	88.00	1.27 2	-2.60 2	-7.14 2	8.28 2
0.265210	1.04043	65.00	86.00	1.61 2	-2.96 2	-8.26 2	9.45 2
0.287009	1.04055	72.00	76.00	1.13 3	-1.27 3	-4.29 3	4.41 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.250268	1.04056	63.00	90.00	1.01 2	-2.32 2	-6.25 2	7.35 2
0.280019	1.04068	68.00	81.00	3.19 2	-4.58 2	-1.37 3	1.50 3
0.272958	1.04088	66.00	84.00	2.06 2	-3.43 2	-9.77 2	1.10 3
0.287338	1.04095	71.00	77.00	8.06 2	-9.48 2	-3.11 3	3.24 3
0.287800	1.04145	70.00	78.00	5.86 2	-7.28 2	-2.31 3	2.44 3
0.280921	1.04169	67.00	82.00	2.69 2	-4.09 2	-1.19 3	1.31 3
0.266558	1.04196	64.00	87.00	1.41 2	-2.76 2	-7.45 2	8.64 2
0.259145	1.04206	63.00	89.00	1.13 2	-2.45 2	-6.51 2	7.65 2
0.288395	1.04208	69.00	79.00	4.52 2	-5.94 2	-1.82 3	1.95 3
0.274154	1.04222	65.00	85.00	1.79 2	-3.16 2	-8.69 2	9.92 2
0.296231	1.04275	73.00	74.00	5.31 2	-6.40 2	-2.05 3	2.07 3
0.281957	1.04283	66.00	83.00	2.30 2	-3.69 2	-1.04 3	1.16 3
0.289126	1.04286	68.00	80.00	3.64 2	-5.06 2	-1.50 3	1.63 3
0.296367	1.04305	72.00	75.00	1.35 3	-1.49 3	-4.95 3	5.06 3
0.296640	1.04337	71.00	76.00	9.54 2	-1.10 3	-3.54 3	3.67 3
0.268041	1.04365	63.00	88.00	1.25 2	-2.59 2	-6.77 2	7.95 2
0.275486	1.04371	64.00	86.00	1.57 2	-2.93 2	-7.80 2	9.03 2
0.289993	1.04379	67.00	81.00	3.02 2	-4.43 2	-1.27 3	1.40 3
0.297050	1.04386	70.00	77.00	7.09 2	-8.53 2	-2.67 3	2.81 3
0.260771	1.04394	62.00	90.00	1.00 2	-2.32 2	-5.96 2	7.10 2
0.283131	1.04412	65.00	84.00	1.99 2	-3.37 2	-9.16 2	1.04 3
0.297598	1.04443	69.00	78.00	5.29 2	-6.73 2	-2.04 3	2.17 3
0.290999	1.04488	66.00	82.00	2.56 2	-3.97 2	-1.10 3	1.23 3
0.298286	1.04513	68.00	79.00	4.14 2	-5.57 2	-1.63 3	1.76 3
0.276958	1.04534	63.00	87.00	1.38 2	-2.74 2	-7.06 2	8.28 2
0.269662	1.04549	62.00	89.00	1.11 2	-2.45 2	-6.19 2	7.37 2
0.284444	1.04556	64.00	85.00	1.74 2	-3.12 2	-8.19 2	9.45 2
0.299114	1.04604	67.00	80.00	3.43 2	-4.86 2	-1.38 3	1.51 3
0.292145	1.04612	65.00	83.00	2.21 2	-3.61 2	-9.68 2	1.10 3
0.278571	1.04714	62.00	88.00	1.23 2	-2.58 2	-6.44 2	7.65 2
0.285900	1.04715	63.00	86.00	1.53 2	-2.91 2	-7.38 2	8.64 2
0.271426	1.04748	61.00	90.00	9.94 1	-2.32 2	-5.68 2	6.86 2
0.293436	1.04751	64.00	84.00	1.92 2	-3.32 2	-8.61 2	9.91 2
0.287502	1.04889	62.00	87.00	1.35 2	-2.73 2	-6.70 2	7.96 2
0.294873	1.04906	63.00	85.00	1.69 2	-3.08 2	-7.73 2	9.03 2
0.280331	1.04910	61.00	89.00	1.10 2	-2.45 2	-5.89 2	7.11 2
0.296460	1.05076	62.00	86.00	1.49 2	-2.88 2	-6.99 2	8.29 2
0.289255	1.05081	61.00	88.00	1.21 2	-2.57 2	-6.12 2	7.37 2
0.282241	1.05121	60.00	90.00	9.84 1	-2.33 2	-5.42 2	6.63 2
0.298201	1.05262	61.00	87.00	1.33 2	-2.71 2	-6.36 2	7.66 2
0.291161	1.05289	60.00	89.00	1.08 2	-2.44 2	-5.62 2	6.87 2
0.293226	1.05514	59.00	90.00	9.74 1	-2.33 2	-5.18 2	6.42 2
0.30	0.40						
0.305802	1.04564	72.00	74.00	1.20 3	-1.33 3	-4.30 3	4.36 3
0.306014	1.04594	71.00	75.00	1.17 3	-1.31 3	-4.17 3	4.29 3
0.306368	1.04635	70.00	76.00	8.41 2	-9.86 2	-3.05 3	3.19 3
0.306864	1.04690	69.00	77.00	6.28 2	-7.74 2	-2.32 3	2.46 3
0.300085	1.04703	66.00	81.00	2.86 2	-4.28 2	-1.17 3	1.31 3
0.307504	1.04753	68.00	78.00	4.77 2	-6.22 2	-1.80 3	1.94 3
0.301202	1.04823	65.00	82.00	2.45 2	-3.87 2	-1.03 3	1.16 3
0.308290	1.04836	67.00	79.00	3.87 2	-5.32 2	-1.49 3	1.63 3
0.315318	1.04851	72.00	73.00	2.41 3	-2.53 3	-8.19 3	8.25 3
0.315464	1.04861	71.00	74.00	1.32 3	-1.46 3	-4.56 3	4.67 3
0.315757	1.04899	70.00	75.00	1.03 3	-1.18 3	-3.61 3	3.75 3
0.309222	1.04933	66.00	80.00	3.22 2	-4.66 2	-1.26 3	1.40 3
0.316197	1.04946	69.00	76.00	7.36 2	-8.84 2	-2.61 3	2.76 3
0.302466	1.04958	64.00	83.00	2.12 2	-3.54 2	-9.08 2	1.04 3
0.316786	1.05006	68.00	77.00	5.55 2	-7.01 2	-2.01 3	2.15 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.310304	1.05044	65.00	81.00	2.72 2	-4.16 2	-1.09 3	1.23 3
0.317524	1.05083	67.00	78.00	4.43 2	-5.89 2	-1.63 3	1.77 3
0.303880	1.05107	63.00	84.00	1.86 2	-3.27 2	-8.11 2	9.45 2
0.324996	1.05152	71.00	73.00	2.36 3	-2.50 3	-7.79 3	7.91 3
0.318414	1.05172	66.00	79.00	3.61 2	-5.07 2	-1.36 3	1.50 3
0.325223	1.05174	70.00	74.00	1.27 3	-1.42 3	-4.27 3	4.41 3
0.311537	1.05174	64.00	82.00	2.35 2	-3.79 2	-9.58 2	1.10 3
0.325603	1.05215	69.00	75.00	8.90 2	-1.04 3	-3.04 3	3.19 3
0.326135	1.05267	68.00	76.00	6.40 2	-7.88 2	-2.23 3	2.37 3
0.305448	1.05273	62.00	85.00	1.64 2	-3.05 2	-7.31 2	8.64 2
0.319457	1.05280	65.00	80.00	3.04 2	-4.51 2	-1.17 3	1.31 3
0.312925	1.05320	63.00	83.00	2.05 2	-3.48 2	-8.53 2	9.91 2
0.326822	1.05341	67.00	77.00	5.10 2	-6.58 2	-1.80 3	1.95 3
0.320656	1.05402	64.00	81.00	2.60 2	-4.06 2	-1.01 3	1.16 3
0.327665	1.05424	66.00	78.00	4.08 2	-5.57 2	-1.47 3	1.62 3
0.334615	1.05450	71.00	72.00	4.61 3	-4.75 3	-1.47 4	1.48 4
0.307175	1.05454	61.00	86.00	1.46 2	-2.86 2	-6.63 2	7.96 2
0.300100	1.05466	60.00	88.00	1.19 2	-2.57 2	-5.83 2	7.11 2
0.334772	1.05470	70.00	73.00	2.15 3	-2.30 3	-6.92 3	7.09 3
0.314471	1.05480	62.00	84.00	1.80 2	-3.23 2	-7.65 2	9.03 2
0.335086	1.05497	69.00	74.00	1.09 3	-1.24 3	-3.58 3	3.73 3
0.328665	1.05525	65.00	79.00	3.40 2	-4.88 2	-1.25 3	1.39 3
0.335558	1.05542	68.00	75.00	7.51 2	-9.01 2	-2.52 3	2.67 3
0.322014	1.05542	63.00	82.00	2.26 2	-3.71 2	-8.98 2	1.04 3
0.336189	1.05609	67.00	76.00	5.84 2	-7.35 2	-1.99 3	2.14 3
0.329826	1.05643	64.00	80.00	2.89 2	-4.37 2	-1.08 3	1.23 3
0.309062	1.05653	60.00	87.00	1.30 2	-2.70 2	-6.05 2	7.38 2
0.316179	1.05658	61.00	85.00	1.60 2	-3.02 2	-6.92 2	8.29 2
0.302162	1.05687	59.00	89.00	1.07 2	-2.44 2	-5.36 2	6.64 2
0.336980	1.05688	66.00	77.00	4.65 2	-6.15 2	-1.61 3	1.76 3
0.323533	1.05699	62.00	83.00	1.98 2	-3.43 2	-8.03 2	9.44 2
0.344409	1.05776	70.00	72.00	6.39 3	-6.60 3	-1.98 4	2.01 4
0.331149	1.05776	63.00	81.00	2.49 2	-3.96 2	-9.48 2	1.09 3
0.337933	1.05783	65.00	78.00	3.82 2	-5.32 2	-1.35 3	1.50 3
0.344653	1.05798	69.00	73.00	1.57 3	-1.73 3	-4.98 3	5.15 3
0.345059	1.05829	68.00	74.00	8.86 2	-1.04 3	-2.87 3	3.02 3
0.318052	1.05852	60.00	86.00	1.42 2	-2.84 2	-6.29 2	7.66 2
0.311117	1.05870	59.00	88.00	1.17 2	-2.56 2	-5.55 2	6.88 2
0.325219	1.05871	61.00	84.00	1.75 2	-3.19 2	-7.23 2	8.64 2
0.345629	1.05890	67.00	75.00	6.81 2	-8.33 2	-2.24 3	2.39 3
0.339051	1.05894	64.00	79.00	3.21 2	-4.71 2	-1.15 3	1.30 3
0.304391	1.05924	58.00	90.00	9.63 1	-2.33 2	-4.95 2	6.23 2
0.332639	1.05927	62.00	82.00	2.17 2	-3.64 2	-8.43 2	9.89 2
0.346364	1.05962	66.00	76.00	5.27 2	-6.79 2	-1.76 3	1.92 3
0.340337	1.06024	63.00	80.00	2.75 2	-4.25 2	-1.01 3	1.16 3
0.347266	1.06053	65.00	77.00	4.31 2	-5.83 2	-1.46 3	1.62 3
0.327074	1.06061	60.00	85.00	1.55 2	-2.99 2	-6.56 2	7.96 2
0.320096	1.06064	59.00	87.00	1.27 2	-2.69 2	-5.76 2	7.12 2
0.334298	1.06095	61.00	83.00	1.91 2	-3.38 2	-7.57 2	9.02 2
0.354140	1.06099	70.00	71.00	-1.81 3	1.73 3	5.28 3	-5.32 3
0.313343	1.06104	58.00	89.00	1.05 2	-2.44 2	-5.11 2	6.43 2
0.354308	1.06109	69.00	72.00	2.63 3	-2.80 3	-8.03 3	8.24 3
0.354643	1.06134	68.00	73.00	1.13 3	-1.28 3	-3.54 3	3.69 3
0.348337	1.06158	64.00	78.00	3.58 2	-5.10 2	-1.24 3	1.39 3
0.341792	1.06167	62.00	81.00	2.38 2	-3.87 2	-8.88 2	1.04 3
0.355148	1.06184	67.00	74.00	8.00 2	-9.54 2	-2.54 3	2.70 3
0.355823	1.06249	66.00	75.00	6.05 2	-7.59 2	-1.95 3	2.11 3
0.329103	1.06269	59.00	86.00	1.39 2	-2.83 2	-5.98 2	7.39 2
0.349580	1.06280	63.00	79.00	3.04 2	-4.56 2	-1.07 3	1.22 3
0.336131	1.06281	60.00	84.00	1.70 2	-3.16 2	-6.84 2	8.29 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.322315	1.06293	58.00	88.00	1.15 2	-2.56 2	-5.29 2	6.65 2
0.343422	1.06330	61.00	82.00	2.09 2	-3.58 2	-7.93 2	9.42 2
0.356669	1.06333	65.00	76.00	4.85 2	-6.39 2	-1.59 3	1.75 3
0.315746	1.06356	57.00	90.00	9.52 1	-2.33 2	-4.73 2	6.04 2
0.350998	1.06421	62.00	80.00	2.63 2	-4.14 2	-9.40 2	1.09 3
0.357689	1.06434	64.00	77.00	4.02 2	-5.55 2	-1.34 3	1.50 3
0.364057	1.06435	69.00	71.00	1.90 4	-1.95 4	-5.58 4	5.68 4
0.364317	1.06450	68.00	72.00	1.46 3	-1.61 3	-4.40 3	4.56 3
0.338143	1.06484	59.00	85.00	1.51 2	-2.97 2	-6.22 2	7.67 2
0.331312	1.06493	58.00	87.00	1.25 2	-2.68 2	-5.48 2	6.88 2
0.364752	1.06495	67.00	73.00	9.99 2	-1.16 3	-3.06 3	3.23 3
0.345229	1.06511	60.00	83.00	1.85 2	-3.33 2	-7.15 2	8.63 2
0.324716	1.06542	57.00	89.00	1.04 2	-2.44 2	-4.88 2	6.24 2
0.365361	1.06549	66.00	74.00	6.99 2	-8.55 2	-2.18 3	2.34 3
0.358885	1.06550	63.00	78.00	3.38 2	-4.91 2	-1.14 3	1.30 3
0.352593	1.06576	61.00	81.00	2.29 2	-3.79 2	-8.34 2	9.86 2
0.366147	1.06626	65.00	75.00	5.52 2	-7.08 2	-1.75 3	1.91 3
0.360260	1.06683	62.00	79.00	2.89 2	-4.42 2	-9.96 2	1.15 3
0.340338	1.06704	58.00	86.00	1.36 2	-2.81 2	-5.69 2	7.13 2
0.347219	1.06710	59.00	84.00	1.65 2	-3.13 2	-6.48 2	7.97 2
0.367111	1.06720	64.00	76.00	4.49 2	-6.05 2	-1.45 3	1.61 3
0.333706	1.06738	57.00	88.00	1.13 2	-2.55 2	-5.05 2	6.44 2
0.354371	1.06752	60.00	82.00	2.02 2	-3.52 2	-7.48 2	9.00 2
0.373907	1.06769	69.00	70.00	-5.41 3	5.36 3	1.53 4	-1.54 4
0.374087	1.06779	68.00	71.00	1.94 3	-2.10 3	-5.69 3	5.84 3
0.327303	1.06810	56.00	90.00	9.40 1	-2.33 2	-4.52 2	5.87 2
0.374445	1.06818	67.00	72.00	1.27 3	-1.43 3	-3.77 3	3.95 3
0.368256	1.06832	63.00	77.00	3.76 2	-5.32 2	-1.23 3	1.39 3
0.361818	1.06836	61.00	80.00	2.51 2	-4.04 2	-8.80 2	1.04 3
0.374984	1.06865	66.00	73.00	8.39 2	-9.97 2	-2.53 3	2.70 3
0.349396	1.06926	58.00	85.00	1.48 2	-2.95 2	-5.91 2	7.39 2
0.375704	1.06932	65.00	74.00	6.31 2	-7.89 2	-1.93 3	2.10 3
0.342721	1.06944	57.00	87.00	1.22 2	-2.67 2	-5.22 2	6.66 2
0.356335	1.06947	59.00	83.00	1.79 2	-3.29 2	-6.76 2	8.29 2
0.369585	1.06960	62.00	78.00	3.19 2	-4.75 2	-1.06 3	1.22 3
0.336291	1.07002	56.00	89.00	1.02 2	-2.44 2	-4.66 2	6.06 2
0.363562	1.07004	60.00	81.00	2.20 2	-3.72 2	-7.84 2	9.40 2
0.376608	1.07020	64.00	75.00	5.07 2	-6.65 2	-1.58 3	1.74 3
0.371100	1.07105	61.00	79.00	2.75 2	-4.30 2	-9.29 2	1.09 3
0.383957	1.07115	68.00	70.00	1.79 3	-1.93 3	-5.14 3	5.23 3
0.377698	1.07125	63.00	76.00	4.19 2	-5.76 2	-1.32 3	1.49 3
0.384235	1.07154	67.00	71.00	1.73 3	-1.90 3	-4.96 3	5.15 3
0.358491	1.07158	58.00	84.00	1.60 2	-3.10 2	-6.15 2	7.66 2
0.351765	1.07162	57.00	86.00	1.33 2	-2.79 2	-5.41 2	6.89 2
0.384698	1.07193	66.00	72.00	1.01 3	-1.17 3	-2.96 3	3.13 3
0.365497	1.07194	59.00	82.00	1.95 2	-3.47 2	-7.06 2	8.63 2
0.345300	1.07204	56.00	88.00	1.11 2	-2.55 2	-4.82 2	6.25 2
0.378976	1.07248	62.00	77.00	3.54 2	-5.11 2	-1.13 3	1.30 3
0.385348	1.07255	65.00	73.00	7.43 2	-9.03 2	-2.20 3	2.37 3
0.372807	1.07270	60.00	80.00	2.41 2	-3.95 2	-8.25 2	9.86 2
0.339074	1.07284	55.00	90.00	9.28 1	-2.34 2	-4.32 2	5.71 2
0.386187	1.07332	64.00	74.00	5.75 2	-7.35 2	-1.73 3	1.90 3
0.380445	1.07387	61.00	78.00	3.03 2	-4.60 2	-9.86 2	1.15 3
0.360843	1.07390	57.00	85.00	1.44 2	-2.93 2	-5.62 2	7.13 2
0.367627	1.07401	58.00	83.00	1.74 2	-3.25 2	-6.40 2	7.96 2
0.354334	1.07417	56.00	87.00	1.20 2	-2.66 2	-4.98 2	6.45 2
0.387216	1.07431	63.00	75.00	4.69 2	-6.29 2	-1.43 3	1.60 3
0.374708	1.07453	59.00	81.00	2.12 2	-3.66 2	-7.39 2	8.99 2
0.393935	1.07458	68.00	69.00	6.69 2	-7.75 2	-1.96 3	1.98 3
0.348081	1.07483	55.00	89.00	1.01 2	-2.44 2	-4.46 2	5.88 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.394126	1.07500	67.00	70.00	2.28 3	-2.45 3	-6.36 3	6.55 3
0.394508	1.07534	66.00	71.00	1.26 3	-1.42 3	-3.56 3	3.73 3
0.382109	1.07546	60.00	79.00	2.63 2	-4.20 2	-8.70 2	1.03 3
0.388438	1.07547	62.00	76.00	3.91 2	-5.51 2	-1.21 3	1.38 3
0.395083	1.07589	65.00	72.00	8.79 2	-1.04 3	-2.53 3	2.70 3
0.369958	1.07628	57.00	84.00	1.56 2	-3.07 2	-5.83 2	7.39 2
0.363399	1.07641	56.00	86.00	1.30 2	-2.78 2	-5.16 2	6.67 2
0.376809	1.07655	58.00	82.00	1.89 2	-3.42 2	-6.68 2	8.27 2
0.395851	1.07661	64.00	73.00	6.67 2	-8.29 2	-1.94 3	2.12 3
0.389857	1.07682	61.00	77.00	3.34 2	-4.93 2	-1.05 3	1.22 3
0.357109	1.07692	55.00	88.00	1.09 2	-2.54 2	-4.60 2	6.06 2
0.383973	1.07725	59.00	80.00	2.31 2	-3.88 2	-7.76 2	9.41 2
0.396816	1.07750	63.00	74.00	5.28 2	-6.90 2	-1.56 3	1.73 3
0.351071	1.07783	54.00	90.00	9.16 1	-2.34 2	-4.13 2	5.55 2
0.391475	1.07834	60.00	78.00	2.88 2	-4.47 2	-9.20 2	1.09 3
0.397978	1.07859	62.00	75.00	4.36 2	-5.97 2	-1.31 3	1.48 3
0.372496	1.07875	56.00	85.00	1.40 2	-2.91 2	-5.34 2	6.89 2
0.379115	1.07878	57.00	83.00	1.69 2	-3.22 2	-6.07 2	7.66 2
0.366164	1.07911	55.00	87.00	1.18 2	-2.65 2	-4.75 2	6.25 2
0.386041	1.07920	58.00	81.00	2.04 2	-3.60 2	-6.97 2	8.61 2
0.399341	1.07987	61.00	76.00	3.68 2	-5.29 2	-1.12 3	1.29 3
0.360097	1.07989	54.00	89.00	9.91 1	-2.44 2	-4.26 2	5.72 2
0.393297	1.08007	59.00	79.00	2.52 2	-4.10 2	-8.16 2	9.84 2
0.381633	1.08120	56.00	84.00	1.52 2	-3.04 2	-5.54 2	7.13 2
0.388318	1.08138	57.00	82.00	1.82 2	-3.38 2	-6.32 2	7.95 2
0.375249	1.08141	55.00	86.00	1.27 2	-2.77 2	-4.91 2	6.46 2
0.395328	1.08199	58.00	80.00	2.22 2	-3.80 2	-7.31 2	8.98 2
0.369146	1.08204	54.00	88.00	1.07 2	-2.54 2	-4.39 2	5.89 2
0.363307	1.08306	53.00	90.00	9.04 1	-2.34 2	-3.95 2	5.41 2
0.390811	1.08377	56.00	83.00	1.64 2	-3.19 2	-5.76 2	7.39 2
0.384368	1.08383	55.00	85.00	1.37 2	-2.89 2	-5.08 2	6.67 2
0.397572	1.08410	57.00	81.00	1.97 2	-3.55 2	-6.59 2	8.26 2
0.378222	1.08430	54.00	87.00	1.15 2	-2.65 2	-4.53 2	6.07 2
0.372354	1.08518	53.00	89.00	9.75 1	-2.44 2	-4.07 2	5.56 2
0.393526	1.08634	55.00	84.00	1.48 2	-3.02 2	-5.27 2	6.89 2
0.387329	1.08667	54.00	86.00	1.24 2	-2.76 2	-4.68 2	6.26 2
0.381425	1.08740	53.00	88.00	1.05 2	-2.54 2	-4.19 2	5.73 2
0.375797	1.08854	52.00	90.00	8.91 1	-2.35 2	-3.78 2	5.27 2
0.396471	1.08915	54.00	85.00	1.34 2	-2.88 2	-4.84 2	6.46 2
0.390523	1.08973	53.00	87.00	1.13 2	-2.64 2	-4.33 2	5.90 2
0.384867	1.09073	52.00	89.00	9.59 1	-2.44 2	-3.89 2	5.42 2
0.399653	1.09217	53.00	86.00	1.21 2	-2.75 2	-4.46 2	6.08 2
0.393960	1.09302	52.00	88.00	1.03 2	-2.53 2	-4.01 2	5.57 2
0.388556	1.09430	51.00	90.00	8.78 1	-2.35 2	-3.62 2	5.14 2
0.397649	1.09656	51.00	89.00	9.44 1	-2.44 2	-3.72 2	5.28 2
0.40	0.50						
0.404126	1.07862	67.00	69.00	3.07 3	-3.22 3	-8.31 3	8.47 3
0.404421	1.07887	66.00	70.00	1.51 3	-1.67 3	-4.15 3	4.32 3
0.404915	1.07936	65.00	71.00	1.06 3	-1.23 3	-2.96 3	3.13 3
0.405608	1.08001	64.00	72.00	7.77 2	-9.41 2	-2.19 3	2.37 3
0.406502	1.08084	63.00	73.00	6.04 2	-7.69 2	-1.73 3	1.91 3
0.400909	1.08135	60.00	77.00	3.16 2	-4.77 2	-9.76 2	1.15 3
0.407599	1.08184	62.00	74.00	4.87 2	-6.51 2	-1.42 3	1.59 3
0.414443	1.08254	66.00	69.00	1.77 3	-1.92 3	-4.74 3	4.88 3
0.414240	1.08262	67.00	68.00	-1.12 3	1.03 3	2.79 3	-2.82 3
0.414850	1.08296	65.00	70.00	1.27 3	-1.43 3	-3.44 3	3.61 3
0.402685	1.08302	59.00	78.00	2.75 2	-4.36 2	-8.61 2	1.03 3
0.408903	1.08306	61.00	75.00	4.07 2	-5.71 2	-1.20 3	1.38 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.415463	1.08355	64.00	71.00	9.18 2	-1.09 3	-2.52 3	2.70 3
0.416281	1.08431	63.00	72.00	6.94 2	-8.61 2	-1.93 3	2.11 3
0.410415	1.08447	60.00	76.00	3.47 2	-5.10 2	-1.04 3	1.21 3
0.404674	1.08487	58.00	79.00	2.41 2	-4.02 2	-7.66 2	9.38 2
0.417309	1.08525	62.00	73.00	5.51 2	-7.18 2	-1.55 3	1.73 3
0.412141	1.08609	59.00	77.00	3.00 2	-4.64 2	-9.11 2	1.09 3
0.418547	1.08637	61.00	74.00	4.52 2	-6.18 2	-1.29 3	1.47 3
0.400037	1.08643	56.00	82.00	1.77 2	-3.34 2	-5.99 2	7.66 2
0.424580	1.08647	66.00	68.00	4.05 3	-4.23 3	-1.05 4	1.07 4
0.424895	1.08670	65.00	69.00	1.54 3	-1.70 3	-4.06 3	4.23 3
0.406882	1.08695	57.00	80.00	2.14 2	-3.74 2	-6.89 2	8.60 2
0.425421	1.08722	64.00	70.00	1.09 3	-1.25 3	-2.89 3	3.08 3
0.420000	1.08772	60.00	75.00	3.82 2	-5.48 2	-1.11 3	1.29 3
0.414085	1.08789	58.00	78.00	2.62 2	-4.25 2	-8.06 2	9.82 2
0.426159	1.08792	63.00	71.00	8.07 2	-9.77 2	-2.18 3	2.37 3
0.427111	1.08878	62.00	72.00	6.26 2	-7.95 2	-1.71 3	1.90 3
0.402727	1.08897	55.00	83.00	1.59 2	-3.16 2	-5.47 2	7.13 2
0.409314	1.08922	56.00	81.00	1.91 2	-3.50 2	-6.24 2	7.94 2
0.421671	1.08928	59.00	76.00	3.28 2	-4.94 2	-9.65 2	1.14 3
0.428280	1.08985	61.00	73.00	5.07 2	-6.75 2	-1.41 3	1.59 3
0.416251	1.08990	57.00	79.00	2.31 2	-3.94 2	-7.22 2	8.97 2
0.434840	1.09029	66.00	67.00	9.43 2	-1.05 3	-2.48 3	2.51 3
0.435056	1.09068	65.00	68.00	2.52 3	-2.69 3	-6.43 3	6.63 3
0.423565	1.09103	58.00	77.00	2.86 2	-4.51 2	-8.51 2	1.03 3
0.435490	1.09103	64.00	69.00	1.31 3	-1.48 3	-3.40 3	3.58 3
0.429668	1.09110	60.00	74.00	4.22 2	-5.90 2	-1.19 3	1.37 3
0.436142	1.09165	63.00	70.00	9.41 2	-1.11 3	-2.47 3	2.66 3
0.411976	1.09171	55.00	82.00	1.71 2	-3.30 2	-5.68 2	7.38 2
0.405652	1.09173	54.00	84.00	1.44 2	-3.00 2	-5.01 2	6.67 2
0.418647	1.09213	56.00	80.00	2.06 2	-3.68 2	-6.51 2	8.26 2
0.437013	1.09245	62.00	71.00	7.18 2	-8.89 2	-1.91 3	2.10 3
0.431280	1.09259	59.00	75.00	3.60 2	-5.28 2	-1.03 3	1.21 3
0.425686	1.09298	57.00	78.00	2.51 2	-4.16 2	-7.57 2	9.36 2
0.438107	1.09344	61.00	72.00	5.71 2	-7.41 2	-1.54 3	1.73 3
0.433119	1.09427	58.00	76.00	3.11 2	-4.79 2	-8.98 2	1.08 3
0.414876	1.09442	54.00	83.00	1.55 2	-3.13 2	-5.19 2	6.89 2
0.421277	1.09455	55.00	81.00	1.84 2	-3.46 2	-5.90 2	7.64 2
0.439426	1.09464	60.00	73.00	4.70 2	-6.40 2	-1.28 3	1.47 3
0.445341	1.09466	65.00	67.00	2.14 3	-2.29 3	-5.39 3	5.50 3
0.408818	1.09471	53.00	85.00	1.30 2	-2.86 2	-4.61 2	6.27 2
0.445676	1.09507	64.00	68.00	1.86 3	-2.03 3	-4.67 3	4.88 3
0.428040	1.09515	56.00	79.00	2.23 2	-3.87 2	-6.80 2	8.59 2
0.403081	1.09542	52.00	87.00	1.11 2	-2.63 2	-4.13 2	5.74 2
0.446236	1.09553	63.00	69.00	1.12 3	-1.29 3	-2.86 3	3.05 3
0.440973	1.09604	59.00	74.00	3.96 2	-5.66 2	-1.10 3	1.28 3
0.435190	1.09618	57.00	77.00	2.73 2	-4.40 2	-7.97 2	9.80 2
0.447021	1.09625	62.00	70.00	8.25 2	-9.98 2	-2.14 3	2.33 3
0.448034	1.09718	61.00	71.00	6.47 2	-8.20 2	-1.70 3	1.89 3
0.424149	1.09723	54.00	82.00	1.66 2	-3.27 2	-5.39 2	7.12 2
0.418023	1.09736	53.00	84.00	1.40 2	-2.98 2	-4.77 2	6.46 2
0.430634	1.09754	55.00	80.00	1.99 2	-3.63 2	-6.15 2	7.93 2
0.442752	1.09766	58.00	75.00	3.40 2	-5.10 2	-9.52 2	1.14 3
0.412234	1.09792	52.00	86.00	1.19 2	-2.74 2	-4.26 2	5.90 2
0.449278	1.09830	60.00	72.00	5.25 2	-6.98 2	-1.39 3	1.58 3
0.437499	1.09830	56.00	78.00	2.41 2	-4.08 2	-7.13 2	8.95 2
0.406766	1.09891	51.00	88.00	1.01 2	-2.53 2	-3.83 2	5.43 2
0.455755	1.09900	65.00	66.00	1.74 5	-1.76 5	-4.21 5	4.25 5
0.455986	1.09915	64.00	67.00	2.11 3	-2.28 3	-5.20 3	5.37 3
0.444769	1.09950	57.00	76.00	2.96 2	-4.66 2	-8.40 2	1.03 3
0.456447	1.09962	63.00	68.00	1.46 3	-1.64 3	-3.63 3	3.83 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.450756	1.09965	59.00	73.00	4.39 2	-6.11 2	-1.18 3	1.37 3
0.427272	1.10013	53.00	83.00	1.50 2	-3.11 2	-4.94 2	6.67 2
0.433475	1.10015	54.00	81.00	1.78 2	-3.42 2	-5.60 2	7.37 2
0.457140	1.10020	62.00	69.00	9.62 2	-1.14 3	-2.43 3	2.62 3
0.401601	1.10033	50.00	90.00	8.65 1	-2.35 2	-3.46 2	5.02 2
0.421424	1.10054	52.00	85.00	1.27 2	-2.85 2	-4.40 2	6.08 2
0.440053	1.10062	55.00	79.00	2.14 2	-3.80 2	-6.42 2	8.24 2
0.458067	1.10104	61.00	70.00	7.35 2	-9.10 2	-1.88 3	2.07 3
0.452471	1.10118	58.00	74.00	3.72 2	-5.44 2	-1.01 3	1.20 3
0.415912	1.10138	51.00	87.00	1.08 2	-2.63 2	-3.94 2	5.58 2
0.447029	1.10157	56.00	77.00	2.61 2	-4.30 2	-7.48 2	9.35 2
0.459231	1.10210	60.00	71.00	5.89 2	-7.65 2	-1.52 3	1.72 3
0.410718	1.10266	50.00	89.00	9.28 1	-2.44 2	-3.56 2	5.15 2
0.454429	1.10295	57.00	75.00	3.22 2	-4.94 2	-8.88 2	1.08 3
0.436570	1.10300	53.00	82.00	1.61 2	-3.24 2	-5.12 2	6.89 2
0.442858	1.10320	54.00	80.00	1.92 2	-3.58 2	-5.82 2	7.64 2
0.430654	1.10326	52.00	84.00	1.36 2	-2.96 2	-4.54 2	6.27 2
0.460634	1.10337	59.00	72.00	4.87 2	-6.62 2	-1.27 3	1.47 3
0.466427	1.10352	64.00	66.00	5.47 3	-5.69 3	-1.31 4	1.34 4
0.466783	1.10379	63.00	67.00	1.73 3	-1.91 3	-4.21 3	4.40 3
0.449538	1.10384	55.00	78.00	2.31 2	-4.00 2	-6.71 2	8.57 2
0.425090	1.10396	51.00	86.00	1.16 2	-2.73 2	-4.06 2	5.74 2
0.467378	1.10435	62.00	68.00	1.19 3	-1.37 3	-2.92 3	3.12 3
0.462280	1.10484	58.00	73.00	4.10 2	-5.85 2	-1.08 3	1.28 3
0.456635	1.10496	56.00	76.00	2.82 2	-4.54 2	-7.87 2	9.77 2
0.468213	1.10506	61.00	69.00	8.45 2	-1.02 3	-2.10 3	2.30 3
0.419860	1.10509	50.00	88.00	9.93 1	-2.53 2	-3.66 2	5.29 2
0.445922	1.10599	53.00	81.00	1.73 2	-3.38 2	-5.31 2	7.12 2
0.469291	1.10604	60.00	70.00	6.64 2	-8.41 2	-1.67 3	1.87 3
0.439929	1.10609	52.00	83.00	1.46 2	-3.08 2	-4.70 2	6.46 2
0.452303	1.10635	54.00	79.00	2.06 2	-3.75 2	-6.07 2	7.92 2
0.464174	1.10654	57.00	74.00	3.51 2	-5.26 2	-9.41 2	1.13 3
0.434305	1.10664	51.00	85.00	1.24 2	-2.84 2	-4.19 2	5.91 2
0.414949	1.10668	49.00	90.00	8.52 1	-2.35 2	-3.31 2	4.90 2
0.459094	1.10718	55.00	77.00	2.49 2	-4.21 2	-7.03 2	8.93 2
0.470614	1.10724	59.00	71.00	5.43 2	-7.21 2	-1.38 3	1.58 3
0.429031	1.10763	50.00	87.00	1.06 2	-2.62 2	-3.76 2	5.44 2
0.477007	1.10800	64.00	65.00	-1.21 4	1.22 4	2.80 4	-2.83 4
0.477251	1.10821	63.00	66.00	2.87 3	-3.07 3	-6.77 3	7.01 3
0.466321	1.10848	56.00	75.00	3.06 2	-4.80 2	-8.29 2	1.02 3
0.477742	1.10859	62.00	67.00	1.40 3	-1.58 3	-3.35 3	3.55 3
0.472185	1.10864	58.00	72.00	4.52 2	-6.29 2	-1.16 3	1.36 3
0.449253	1.10904	52.00	82.00	1.56 2	-3.21 2	-4.86 2	6.66 2
0.424092	1.10908	49.00	89.00	9.12 1	-2.44 2	-3.40 2	5.03 2
0.455331	1.10911	53.00	80.00	1.85 2	-3.53 2	-5.52 2	7.37 2
0.478479	1.10928	61.00	68.00	1.01 3	-1.19 3	-2.45 3	2.65 3
0.443561	1.10944	51.00	84.00	1.33 2	-2.95 2	-4.33 2	6.08 2
0.461815	1.10964	54.00	78.00	2.22 2	-3.93 2	-6.33 2	8.22 2
0.479464	1.11013	60.00	69.00	7.55 2	-9.34 2	-1.85 3	2.05 3
0.474010	1.11027	57.00	73.00	3.85 2	-5.62 2	-1.00 3	1.20 3
0.438235	1.11028	50.00	86.00	1.14 2	-2.72 2	-3.88 2	5.59 2
0.468727	1.11063	55.00	76.00	2.69 2	-4.43 2	-7.37 2	9.31 2
0.480701	1.11125	59.00	70.00	6.08 2	-7.88 2	-1.51 3	1.71 3
0.433260	1.11158	49.00	88.00	9.74 1	-2.53 2	-3.50 2	5.16 2
0.458632	1.11209	52.00	81.00	1.67 2	-3.35 2	-5.04 2	6.88 2
0.476094	1.11213	56.00	74.00	3.33 2	-5.09 2	-8.77 2	1.07 3
0.464803	1.11233	53.00	79.00	1.99 2	-3.69 2	-5.74 2	7.62 2
0.452863	1.11234	51.00	83.00	1.42 2	-3.06 2	-4.47 2	6.27 2
0.482193	1.11258	58.00	71.00	5.01 2	-6.81 2	-1.26 3	1.46 3
0.487860	1.11275	63.00	65.00	5.88 3	-6.11 3	-1.35 4	1.38 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.447477	1.11304	50.00	85.00	1.21 2	-2.82 2	-4.00 2	5.75 2
0.471398	1.11305	54.00	77.00	2.39 2	-4.12 2	-6.62 2	8.55 2
0.488238	1.11307	62.00	66.00	1.92 3	-2.11 3	-4.49 3	4.71 3
0.428619	1.11332	48.00	90.00	8.38 1	-2.36 2	-3.17 2	4.79 2
0.488870	1.11359	61.00	67.00	1.18 3	-1.36 3	-2.78 3	2.98 3
0.483944	1.11414	57.00	72.00	4.23 2	-6.02 2	-1.07 3	1.27 3
0.442457	1.11419	49.00	87.00	1.04 2	-2.62 2	-3.60 2	5.30 2
0.478441	1.11423	55.00	75.00	2.91 2	-4.67 2	-7.75 2	9.73 2
0.489758	1.11440	60.00	68.00	8.83 2	-1.07 3	-2.11 3	2.32 3
0.468069	1.11528	52.00	80.00	1.79 2	-3.49 2	-5.23 2	7.11 2
0.462215	1.11536	51.00	82.00	1.52 2	-3.19 2	-4.62 2	6.46 2
0.490903	1.11541	59.00	69.00	6.86 2	-8.68 2	-1.66 3	1.86 3
0.474343	1.11569	53.00	78.00	2.13 2	-3.86 2	-5.98 2	7.91 2
0.437788	1.11580	48.00	89.00	8.95 1	-2.44 2	-3.25 2	4.91 2
0.456761	1.11590	50.00	84.00	1.29 2	-2.93 2	-4.12 2	5.91 2
0.485958	1.11594	56.00	73.00	3.63 2	-5.42 2	-9.31 2	1.13 3
0.481059	1.11657	54.00	76.00	2.57 2	-4.33 2	-6.93 2	8.90 2
0.492309	1.11665	58.00	70.00	5.56 2	-7.38 2	-1.36 3	1.57 3
0.451689	1.11691	49.00	86.00	1.11 2	-2.71 2	-3.70 2	5.45 2
0.498615	1.11746	63.00	64.00	-3.98 4	4.02 4	8.91 4	-9.02 4
0.498875	1.11767	62.00	65.00	2.68 3	-2.87 3	-6.11 3	6.33 3
0.488243	1.11795	55.00	74.00	3.15 2	-4.94 2	-8.17 2	1.02 3
0.499396	1.11812	61.00	66.00	1.49 3	-1.68 3	-3.45 3	3.66 3
0.493980	1.11815	57.00	71.00	4.66 2	-6.48 2	-1.15 3	1.36 3
0.446984	1.11838	48.00	88.00	9.55 1	-2.53 2	-3.34 2	5.04 2
0.471622	1.11849	51.00	81.00	1.62 2	-3.31 2	-4.78 2	6.66 2
0.477570	1.11858	52.00	79.00	1.92 2	-3.64 2	-5.43 2	7.35 2
0.466091	1.11888	50.00	83.00	1.38 2	-3.04 2	-4.25 2	6.09 2
0.483956	1.11917	53.00	77.00	2.29 2	-4.05 2	-6.24 2	8.21 2
0.460959	1.11975	49.00	85.00	1.18 2	-2.81 2	-3.81 2	5.60 2
0.495921	1.11987	56.00	72.00	3.97 2	-5.79 2	-9.92 2	1.20 3
0.490803	1.12024	54.00	75.00	2.77 2	-4.56 2	-7.27 2	9.28 2
0.442632	1.12031	47.00	90.00	8.24 1	-2.36 2	-3.03 2	4.68 2
0.456210	1.12106	48.00	87.00	1.02 2	-2.62 2	-3.43 2	5.17 2
0.481088	1.12175	51.00	80.00	1.73 2	-3.45 2	-4.96 2	6.88 2
0.498137	1.12182	55.00	73.00	3.42 2	-5.24 2	-8.65 2	1.07 3
0.475472	1.12197	50.00	82.00	1.47 2	-3.16 2	-4.40 2	6.27 2
0.487139	1.12201	52.00	78.00	2.05 2	-3.80 2	-5.65 2	7.61 2
0.470271	1.12268	49.00	84.00	1.26 2	-2.92 2	-3.93 2	5.75 2
0.493646	1.12277	53.00	76.00	2.46 2	-4.24 2	-6.52 2	8.52 2
0.451829	1.12286	47.00	89.00	8.79 1	-2.44 2	-3.11 2	4.80 2
0.465470	1.12386	48.00	86.00	1.08 2	-2.71 2	-3.53 2	5.31 2
0.490618	1.12512	51.00	79.00	1.85 2	-3.60 2	-5.15 2	7.10 2
0.484908	1.12517	50.00	81.00	1.57 2	-3.28 2	-4.55 2	6.45 2
0.461053	1.12552	47.00	88.00	9.36 1	-2.53 2	-3.19 2	4.92 2
0.496781	1.12556	52.00	77.00	2.20 2	-3.98 2	-5.89 2	7.89 2
0.479630	1.12574	49.00	83.00	1.34 2	-3.03 2	-4.05 2	5.92 2
0.474769	1.12677	48.00	85.00	1.15 2	-2.80 2	-3.64 2	5.45 2
0.457009	1.12764	46.00	90.00	8.10 1	-2.37 2	-2.90 2	4.58 2
0.470308	1.12828	47.00	87.00	9.96 1	-2.61 2	-3.28 2	5.05 2
0.494404	1.12851	50.00	80.00	1.67 2	-3.42 2	-4.71 2	6.66 2
0.489041	1.12890	49.00	82.00	1.43 2	-3.14 2	-4.18 2	6.09 2
0.484111	1.12978	48.00	84.00	1.23 2	-2.90 2	-3.74 2	5.60 2
0.466236	1.13027	46.00	89.00	8.62 1	-2.44 2	-2.97 2	4.70 2
0.479599	1.13115	47.00	86.00	1.06 2	-2.70 2	-3.37 2	5.18 2
0.498508	1.13218	49.00	81.00	1.52 2	-3.26 2	-4.32 2	6.26 2
0.493501	1.13291	48.00	83.00	1.31 2	-3.01 2	-3.86 2	5.76 2
0.475490	1.13300	46.00	88.00	9.17 1	-2.53 2	-3.05 2	4.81 2
0.488928	1.13413	47.00	85.00	1.13 2	-2.80 2	-3.47 2	5.32 2
0.471775	1.13535	45.00	90.00	7.95 1	-2.37 2	-2.77 2	4.49 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.484776	1.13584	46.00	87.00	9.74 1	-2.61 2	-3.13 2	4.93 2
0.498302	1.13722	47.00	84.00	1.20 2	-2.89 2	-3.57 2	5.46 2
0.481032	1.13806	45.00	89.00	8.45 1	-2.45 2	-2.84 2	4.60 2
0.494098	1.13879	46.00	86.00	1.03 2	-2.70 2	-3.22 2	5.06 2
0.490318	1.14087	45.00	88.00	8.97 1	-2.53 2	-2.91 2	4.71 2
0.486954	1.14345	44.00	90.00	7.80 1	-2.37 2	-2.65 2	4.40 2
0.499636	1.14379	45.00	87.00	9.52 1	-2.61 2	-2.99 2	4.82 2
0.496244	1.14624	44.00	89.00	8.28 1	-2.45 2	-2.71 2	4.50 2
0.50	0.60						
0.500179	1.11879	60.00	67.00	1.02 3	-1.20 3	-2.37 3	2.58 3
0.501226	1.11976	59.00	68.00	7.91 2	-9.77 2	-1.87 3	2.08 3
0.502541	1.12088	58.00	69.00	6.22 2	-8.06 2	-1.48 3	1.69 3
0.504126	1.12230	57.00	70.00	5.14 2	-6.99 2	-1.24 3	1.45 3
0.509660	1.12244	62.00	64.00	3.84 3	-4.03 3	-8.56 3	8.77 3
0.510063	1.12280	61.00	65.00	1.90 3	-2.09 3	-4.29 3	4.50 3
0.510734	1.12339	60.00	66.00	1.24 3	-1.43 3	-2.82 3	3.04 3
0.505988	1.12395	56.00	71.00	4.35 2	-6.20 2	-1.06 3	1.27 3
0.500634	1.12403	54.00	74.00	2.99 2	-4.81 2	-7.65 2	9.69 2
0.511677	1.12422	59.00	67.00	9.04 2	-1.09 3	-2.08 3	2.30 3
0.512894	1.12530	58.00	68.00	7.07 2	-8.95 2	-1.65 3	1.86 3
0.508130	1.12583	55.00	72.00	3.73 2	-5.57 2	-9.18 2	1.13 3
0.503420	1.12650	53.00	75.00	2.65 2	-4.46 2	-6.83 2	8.87 2
0.514388	1.12660	57.00	69.00	5.71 2	-7.58 2	-1.34 3	1.56 3
0.520603	1.12738	62.00	63.00	3.48 3	-3.62 3	-7.64 3	7.73 3
0.520879	1.12764	61.00	64.00	2.46 3	-2.65 3	-5.43 3	5.63 3
0.510559	1.12798	54.00	73.00	3.24 2	-5.08 2	-8.07 2	1.02 3
0.521432	1.12814	60.00	65.00	1.52 3	-1.71 3	-3.38 3	3.59 3
0.516164	1.12817	56.00	70.00	4.78 2	-6.65 2	-1.14 3	1.35 3
0.500217	1.12862	51.00	78.00	1.98 2	-3.75 2	-5.35 2	7.34 2
0.522264	1.12889	59.00	66.00	1.08 3	-1.27 3	-2.43 3	2.65 3
0.506502	1.12923	52.00	76.00	2.36 2	-4.16 2	-6.14 2	8.18 2
0.523376	1.12983	58.00	67.00	7.99 2	-9.88 2	-1.82 3	2.03 3
0.518227	1.12998	55.00	71.00	4.07 2	-5.93 2	-9.77 2	1.19 3
0.513282	1.13037	53.00	74.00	2.85 2	-4.68 2	-7.17 2	9.24 2
0.524773	1.13108	57.00	68.00	6.43 2	-8.33 2	-1.48 3	1.69 3
0.503965	1.13195	50.00	79.00	1.78 2	-3.55 2	-4.88 2	6.87 2
0.520583	1.13206	54.00	72.00	3.52 2	-5.38 2	-8.54 2	1.07 3
0.509891	1.13224	51.00	77.00	2.11 2	-3.91 2	-5.56 2	7.60 2
0.526458	1.13255	56.00	69.00	5.28 2	-7.18 2	-1.23 3	1.44 3
0.531853	1.13266	61.00	63.00	3.01 3	-3.17 3	-6.50 3	6.66 3
0.516307	1.13304	52.00	75.00	2.53 2	-4.36 2	-6.42 2	8.50 2
0.532280	1.13306	60.00	64.00	1.89 3	-2.08 3	-4.12 3	4.33 3
0.532993	1.13372	59.00	65.00	1.30 3	-1.49 3	-2.85 3	3.08 3
0.528436	1.13427	55.00	70.00	4.44 2	-6.34 2	-1.04 3	1.26 3
0.523238	1.13439	53.00	73.00	3.08 2	-4.94 2	-7.54 2	9.66 2
0.533995	1.13458	58.00	66.00	9.30 2	-1.12 3	-2.07 3	2.29 3
0.513596	1.13553	50.00	78.00	1.90 2	-3.70 2	-5.06 2	7.09 2
0.508036	1.13559	49.00	80.00	1.62 2	-3.38 2	-4.47 2	6.45 2
0.535287	1.13569	57.00	67.00	7.21 2	-9.13 2	-1.62 3	1.84 3
0.519644	1.13599	51.00	76.00	2.26 2	-4.09 2	-5.80 2	7.86 2
0.502944	1.13615	48.00	82.00	1.39 2	-3.12 2	-3.98 2	5.92 2
0.530713	1.13628	54.00	71.00	3.82 2	-5.72 2	-9.06 2	1.12 3
0.526201	1.13698	52.00	74.00	2.72 2	-4.57 2	-6.73 2	8.84 2
0.536875	1.13711	56.00	68.00	5.89 2	-7.82 2	-1.34 3	1.56 3
0.542994	1.13789	61.00	62.00	3.53 3	-3.67 3	-7.49 3	7.59 3
0.543287	1.13815	60.00	63.00	2.39 3	-2.58 3	-5.10 3	5.31 3
0.533295	1.13854	53.00	72.00	3.33 2	-5.22 2	-7.96 2	1.01 3
0.543874	1.13872	59.00	64.00	1.61 3	-1.80 3	-3.45 3	3.68 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.538762	1.13872	55.00	69.00	4.88 2	-6.80 2	-1.12 3	1.34 3
0.517629	1.13911	49.00	79.00	1.72 2	-3.52 2	-4.63 2	6.65 2
0.523302	1.13923	50.00	77.00	2.03 2	-3.86 2	-5.26 2	7.33 2
0.544758	1.13947	58.00	65.00	1.09 3	-1.28 3	-2.37 3	2.59 3
0.512443	1.13950	48.00	81.00	1.47 2	-3.23 2	-4.11 2	6.08 2
0.529481	1.13987	51.00	75.00	2.42 2	-4.27 2	-6.05 2	8.16 2
0.507724	1.14043	47.00	83.00	1.27 2	-2.99 2	-3.68 2	5.60 2
0.545939	1.14051	57.00	66.00	8.27 2	-1.02 3	-1.82 3	2.04 3
0.540954	1.14065	54.00	70.00	4.16 2	-6.08 2	-9.63 2	1.18 3
0.536191	1.14108	52.00	73.00	2.92 2	-4.81 2	-7.06 2	9.21 2
0.547423	1.14179	56.00	67.00	6.56 2	-8.52 2	-1.46 3	1.68 3
0.503460	1.14185	46.00	85.00	1.10 2	-2.79 2	-3.31 2	5.19 2
0.527293	1.14276	49.00	78.00	1.84 2	-3.65 2	-4.80 2	6.86 2
0.543458	1.14284	53.00	71.00	3.60 2	-5.52 2	-8.42 2	1.06 3
0.522003	1.14299	48.00	80.00	1.57 2	-3.35 2	-4.25 2	6.26 2
0.533088	1.14305	50.00	76.00	2.17 2	-4.02 2	-5.47 2	7.58 2
0.549213	1.14335	55.00	68.00	5.40 2	-7.35 2	-1.21 3	1.43 3
0.554461	1.14346	60.00	62.00	3.37 3	-3.55 3	-7.04 3	7.23 3
0.517199	1.14374	47.00	82.00	1.35 2	-3.10 2	-3.79 2	5.76 2
0.539409	1.14389	51.00	74.00	2.59 2	-4.47 2	-6.32 2	8.47 2
0.554915	1.14390	59.00	63.00	2.08 3	-2.28 3	-4.37 3	4.61 3
0.555672	1.14454	58.00	64.00	1.29 3	-1.49 3	-2.75 3	2.98 3
0.512866	1.14502	46.00	84.00	1.16 2	-2.88 2	-3.40 2	5.32 2
0.551315	1.14517	54.00	69.00	4.55 2	-6.49 2	-1.03 3	1.25 3
0.546282	1.14531	52.00	72.00	3.15 2	-5.06 2	-7.43 2	9.62 2
0.556736	1.14548	57.00	65.00	9.54 2	-1.15 3	-2.05 3	2.28 3
0.537033	1.14654	49.00	77.00	1.96 2	-3.80 2	-4.98 2	7.08 2
0.531630	1.14659	48.00	79.00	1.67 2	-3.48 2	-4.39 2	6.44 2
0.558109	1.14668	56.00	66.00	7.44 2	-9.43 2	-1.61 3	1.84 3
0.508991	1.14682	45.00	86.00	1.01 2	-2.69 2	-3.07 2	4.94 2
0.542960	1.14701	50.00	75.00	2.32 2	-4.19 2	-5.70 2	7.84 2
0.526732	1.14718	47.00	81.00	1.43 2	-3.21 2	-3.91 2	5.91 2
0.553734	1.14729	53.00	70.00	3.91 2	-5.85 2	-8.92 2	1.12 3
0.549433	1.14806	51.00	73.00	2.78 2	-4.69 2	-6.63 2	8.81 2
0.559795	1.14811	55.00	67.00	5.97 2	-7.95 2	-1.31 3	1.54 3
0.522322	1.14830	46.00	83.00	1.23 2	-2.98 2	-3.50 2	5.46 2
0.565813	1.14898	60.00	61.00	6.09 3	-6.26 3	-1.24 4	1.26 4
0.505563	1.14913	44.00	88.00	8.78 1	-2.53 2	-2.78 2	4.61 2
0.566125	1.14930	59.00	62.00	3.17 3	-3.39 3	-6.53 3	6.80 3
0.556480	1.14968	52.00	71.00	3.40 2	-5.34 2	-7.84 2	1.01 3
0.566748	1.14979	58.00	63.00	1.57 3	-1.77 3	-3.28 3	3.51 3
0.561800	1.14988	54.00	68.00	5.01 2	-6.98 2	-1.11 3	1.33 3
0.518386	1.14996	45.00	85.00	1.07 2	-2.78 2	-3.15 2	5.07 2
0.541328	1.15032	48.00	78.00	1.77 2	-3.61 2	-4.55 2	6.64 2
0.546853	1.15044	49.00	76.00	2.08 2	-3.96 2	-5.18 2	7.31 2
0.567686	1.15062	57.00	64.00	1.11 3	-1.32 3	-2.34 3	2.58 3
0.536327	1.15074	47.00	80.00	1.52 2	-3.32 2	-4.04 2	6.08 2
0.552922	1.15111	50.00	74.00	2.48 2	-4.38 2	-5.95 2	8.13 2
0.531831	1.15170	46.00	82.00	1.31 2	-3.08 2	-3.61 2	5.60 2
0.568941	1.15173	56.00	65.00	8.48 2	-1.05 3	-1.80 3	2.03 3
0.564130	1.15189	53.00	69.00	4.25 2	-6.22 2	-9.49 2	1.18 3
0.502575	1.15198	43.00	90.00	7.65 1	-2.38 2	-2.53 2	4.31 2
0.514915	1.15213	44.00	87.00	9.30 1	-2.61 2	-2.85 2	4.72 2
0.559559	1.15237	51.00	72.00	2.99 2	-4.93 2	-6.96 2	9.18 2
0.570517	1.15307	55.00	66.00	6.70 2	-8.70 2	-1.44 3	1.67 3
0.527827	1.15321	45.00	84.00	1.13 2	-2.87 2	-3.24 2	5.19 2
0.551103	1.15417	48.00	77.00	1.88 2	-3.75 2	-4.72 2	6.85 2
0.566791	1.15420	52.00	70.00	3.68 2	-5.64 2	-8.28 2	1.05 3
0.545989	1.15442	47.00	79.00	1.61 2	-3.45 2	-4.17 2	6.25 2
0.556760	1.15448	49.00	75.00	2.22 2	-4.12 2	-5.39 2	7.56 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.572419	1.15472	54.00	67.00	5.51 2	-7.51 2	-1.19 3	1.42 3
0.511899	1.15485	43.00	89.00	8.11 1	-2.45 2	-2.59 2	4.41 2
0.577512	1.15491	59.00	61.00	1.14 4	-1.18 4	-2.30 4	2.36 4
0.541399	1.15521	46.00	81.00	1.38 2	-3.19 2	-3.72 2	5.75 2
0.524304	1.15524	44.00	86.00	9.85 1	-2.69 2	-2.93 2	4.83 2
0.577994	1.15526	58.00	62.00	2.03 3	-2.24 3	-4.15 3	4.38 3
0.562982	1.15535	50.00	73.00	2.65 2	-4.59 2	-6.23 2	8.44 2
0.578798	1.15596	57.00	63.00	1.33 3	-1.53 3	-2.74 3	2.97 3
0.537318	1.15657	45.00	83.00	1.20 2	-2.97 2	-3.33 2	5.33 2
0.574652	1.15667	53.00	68.00	4.66 2	-6.66 2	-1.02 3	1.25 3
0.569793	1.15682	51.00	71.00	3.22 2	-5.19 2	-7.32 2	9.58 2
0.579928	1.15695	56.00	64.00	9.77 2	-1.18 3	-2.03 3	2.27 3
0.521253	1.15782	43.00	88.00	8.59 1	-2.53 2	-2.66 2	4.51 2
0.560960	1.15815	48.00	76.00	2.00 2	-3.90 2	-4.89 2	7.06 2
0.581386	1.15820	55.00	65.00	7.53 2	-9.56 2	-1.58 3	1.82 3
0.555723	1.15823	47.00	78.00	1.71 2	-3.57 2	-4.31 2	6.44 2
0.533735	1.15846	44.00	85.00	1.04 2	-2.77 2	-3.01 2	4.95 2
0.566759	1.15865	49.00	74.00	2.37 2	-4.30 2	-5.61 2	7.82 2
0.551029	1.15886	46.00	80.00	1.47 2	-3.30 2	-3.83 2	5.91 2
0.577223	1.15888	52.00	69.00	3.99 2	-5.98 2	-8.78 2	1.11 3
0.573144	1.15974	50.00	72.00	2.85 2	-4.81 2	-6.52 2	8.78 2
0.583177	1.15975	54.00	66.00	6.12 2	-8.16 2	-1.30 3	1.53 3
0.546863	1.16005	45.00	82.00	1.27 2	-3.06 2	-3.43 2	5.46 2
0.589088	1.16079	59.00	60.00	-2.00 3	1.94 3	3.85 3	-3.90 3
0.530640	1.16091	43.00	87.00	9.08 1	-2.60 2	-2.72 2	4.62 2
0.589419	1.16093	58.00	61.00	2.91 3	-3.12 3	-5.81 3	6.06 3
0.518668	1.16095	42.00	90.00	7.50 1	-2.38 2	-2.42 2	4.23 2
0.580141	1.16142	51.00	70.00	3.47 2	-5.46 2	-7.72 2	1.00 3
0.590081	1.16150	57.00	62.00	1.65 3	-1.86 3	-3.34 3	3.58 3
0.585307	1.16159	53.00	67.00	5.09 2	-7.12 2	-1.09 3	1.32 3
0.543212	1.16179	44.00	84.00	1.10 2	-2.86 2	-3.09 2	5.07 2
0.565534	1.16217	47.00	77.00	1.81 2	-3.71 2	-4.47 2	6.63 2
0.570904	1.16227	48.00	75.00	2.13 2	-4.06 2	-5.09 2	7.29 2
0.591077	1.16237	56.00	63.00	1.14 3	-1.35 3	-2.33 3	2.57 3
0.560728	1.16261	46.00	79.00	1.55 2	-3.41 2	-3.96 2	6.07 2
0.576856	1.16298	49.00	73.00	2.53 2	-4.49 2	-5.86 2	8.11 2
0.592410	1.16350	55.00	64.00	8.54 2	-1.06 3	-1.76 3	2.00 3
0.556468	1.16365	45.00	81.00	1.34 2	-3.17 2	-3.53 2	5.60 2
0.587783	1.16374	52.00	68.00	4.34 2	-6.37 2	-9.37 2	1.17 3
0.528028	1.16391	42.00	89.00	7.94 1	-2.45 2	-2.48 2	4.32 2
0.540066	1.16410	43.00	86.00	9.60 1	-2.68 2	-2.79 2	4.73 2
0.583416	1.16427	50.00	71.00	3.05 2	-5.04 2	-6.85 2	9.14 2
0.594084	1.16495	54.00	65.00	6.83 2	-8.89 2	-1.42 3	1.66 3
0.552740	1.16524	44.00	83.00	1.16 2	-2.95 2	-3.18 2	5.20 2
0.590611	1.16618	51.00	69.00	3.75 2	-5.77 2	-8.16 2	1.05 3
0.575429	1.16622	47.00	76.00	1.93 2	-3.85 2	-4.63 2	6.83 2
0.570500	1.16650	46.00	78.00	1.65 2	-3.53 2	-4.09 2	6.25 2
0.580940	1.16652	48.00	74.00	2.27 2	-4.22 2	-5.29 2	7.53 2
0.596104	1.16670	53.00	66.00	5.63 2	-7.68 2	-1.18 3	1.42 3
0.537419	1.16696	42.00	88.00	8.39 1	-2.53 2	-2.54 2	4.42 2
0.566136	1.16737	45.00	80.00	1.42 2	-3.27 2	-3.64 2	5.75 2
0.549534	1.16741	43.00	85.00	1.01 2	-2.77 2	-2.87 2	4.84 2
0.587056	1.16744	49.00	72.00	2.71 2	-4.70 2	-6.13 2	8.42 2
0.598476	1.16873	52.00	67.00	4.73 2	-6.78 2	-9.99 2	1.24 3
0.562322	1.16880	44.00	82.00	1.23 2	-3.05 2	-3.27 2	5.33 2
0.593803	1.16895	50.00	70.00	3.28 2	-5.30 2	-7.20 2	9.53 2
0.546843	1.17013	42.00	87.00	8.87 1	-2.60 2	-2.60 2	4.53 2
0.535266	1.17040	41.00	90.00	7.35 1	-2.39 2	-2.31 2	4.15 2
0.585411	1.17042	47.00	75.00	2.05 2	-4.00 2	-4.81 2	7.04 2
0.580349	1.17052	46.00	77.00	1.75 2	-3.66 2	-4.23 2	6.43 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.559049	1.17082	43.00	84.00	1.07 2	-2.85 2	-2.94 2	4.96 2
0.591075	1.17093	48.00	73.00	2.42 2	-4.40 2	-5.52 2	7.80 2
0.575873	1.17121	45.00	79.00	1.50 2	-3.38 2	-3.76 2	5.91 2
0.597367	1.17205	49.00	71.00	2.90 2	-4.92 2	-6.42 2	8.75 2
0.571965	1.17248	44.00	81.00	1.30 2	-3.15 2	-3.36 2	5.46 2
0.556307	1.17341	42.00	86.00	9.36 1	-2.68 2	-2.66 2	4.63 2
0.544664	1.17344	41.00	89.00	7.76 1	-2.46 2	-2.36 2	4.24 2
0.568615	1.17435	43.00	83.00	1.13 2	-2.94 2	-3.02 2	5.08 2
0.590283	1.17466	46.00	76.00	1.85 2	-3.80 2	-4.38 2	6.61 2
0.595487	1.17476	47.00	74.00	2.18 2	-4.15 2	-5.00 2	7.27 2
0.585683	1.17519	45.00	78.00	1.59 2	-3.50 2	-3.88 2	6.07 2
0.581672	1.17629	44.00	80.00	1.37 2	-3.25 2	-3.46 2	5.60 2
0.554093	1.17659	41.00	88.00	8.20 1	-2.53 2	-2.42 2	4.34 2
0.565814	1.17681	42.00	85.00	9.88 1	-2.76 2	-2.73 2	4.74 2
0.578237	1.17800	43.00	82.00	1.19 2	-3.03 2	-3.11 2	5.20 2
0.595573	1.17929	45.00	77.00	1.68 2	-3.62 2	-4.01 2	6.24 2
0.563857	1.17984	41.00	87.00	8.65 1	-2.60 2	-2.48 2	4.44 2
0.591449	1.18022	44.00	79.00	1.45 2	-3.36 2	-3.57 2	5.75 2
0.575368	1.18031	42.00	84.00	1.04 2	-2.85 2	-2.80 2	4.85 2
0.552406	1.18036	40.00	90.00	7.19 1	-2.39 2	-2.20 2	4.07 2
0.587920	1.18177	43.00	81.00	1.26 2	-3.13 2	-3.20 2	5.33 2
0.573061	1.18321	41.00	86.00	9.12 1	-2.68 2	-2.54 2	4.54 2
0.561843	1.18350	40.00	89.00	7.59 1	-2.46 2	-2.25 2	4.16 2
0.584975	1.18393	42.00	83.00	1.10 2	-2.93 2	-2.88 2	4.96 2
0.597668	1.18566	43.00	80.00	1.33 2	-3.23 2	-3.29 2	5.46 2
0.582608	1.18669	41.00	85.00	9.61 1	-2.76 2	-2.60 2	4.64 2
0.571313	1.18673	40.00	88.00	8.00 1	-2.53 2	-2.31 2	4.26 2
0.594638	1.18766	42.00	82.00	1.16 2	-3.02 2	-2.96 2	5.08 2
0.580818	1.19008	40.00	87.00	8.43 1	-2.60 2	-2.36 2	4.35 2
0.592204	1.19028	41.00	84.00	1.01 2	-2.84 2	-2.67 2	4.75 2
0.570126	1.19087	39.00	90.00	7.03 1	-2.40 2	-2.10 2	4.00 2
0.590364	1.19354	40.00	86.00	8.88 1	-2.68 2	-2.42 2	4.45 2
0.579605	1.19410	39.00	89.00	7.41 1	-2.46 2	-2.15 2	4.09 2
0.599954	1.19711	40.00	85.00	9.35 1	-2.75 2	-2.48 2	4.55 2
0.589117	1.19742	39.00	88.00	7.80 1	-2.53 2	-2.20 2	4.18 2
0.598666	1.20086	39.00	87.00	8.21 1	-2.60 2	-2.25 2	4.27 2
0.588470	1.20197	38.00	90.00	6.87 1	-2.40 2	-2.00 2	3.93 2
0.597993	1.20529	38.00	89.00	7.23 1	-2.47 2	-2.05 2	4.02 2
0.60	0.70						
0.601033	1.16681	58.00	60.00	5.35 3	-5.59 3	-1.05 4	1.08 4
0.601544	1.16725	57.00	61.00	2.20 3	-2.41 3	-4.34 3	4.60 3
0.602398	1.16799	56.00	62.00	1.38 3	-1.60 3	-2.76 3	3.01 3
0.603598	1.16899	55.00	63.00	9.80 2	-1.19 3	-1.98 3	2.22 3
0.605146	1.17034	54.00	64.00	7.68 2	-9.76 2	-1.56 3	1.80 3
0.601210	1.17111	51.00	68.00	4.07 2	-6.12 2	-8.66 2	1.10 3
0.607049	1.17198	53.00	65.00	6.23 2	-8.32 2	-1.28 3	1.52 3
0.612846	1.17276	58.00	59.00	1.84 3	-1.95 3	-3.59 3	3.64 3
0.613197	1.17321	57.00	60.00	3.31 3	-3.54 3	-6.41 3	6.69 3
0.604312	1.17378	50.00	69.00	3.54 2	-5.58 2	-7.59 2	9.96 2
0.613901	1.17382	56.00	61.00	1.75 3	-1.97 3	-3.42 3	3.68 3
0.609313	1.17393	52.00	66.00	5.19 2	-7.27 2	-1.07 3	1.32 3
0.614959	1.17468	55.00	62.00	1.15 3	-1.36 3	-2.27 3	2.51 3
0.601315	1.17548	48.00	72.00	2.58 2	-4.60 2	-5.76 2	8.08 2
0.616374	1.17591	54.00	63.00	8.71 2	-1.08 3	-1.74 3	1.98 3
0.611943	1.17619	51.00	67.00	4.41 2	-6.49 2	-9.21 2	1.16 3
0.607793	1.17681	49.00	70.00	3.11 2	-5.16 2	-6.74 2	9.10 2
0.618152	1.17744	53.00	64.00	6.94 2	-9.06 2	-1.40 3	1.64 3
0.614950	1.17880	50.00	68.00	3.82 2	-5.90 2	-8.04 2	1.04 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.600305	1.17895	46.00	75.00	1.96 2	-3.94 2	-4.54 2	6.81 2
0.605662	1.17925	47.00	73.00	2.32 2	-4.32 2	-5.20 2	7.51 2
0.620299	1.17929	52.00	65.00	5.71 2	-7.82 2	-1.16 3	1.40 3
0.625052	1.17932	57.00	59.00	3.71 3	-3.90 3	-7.07 3	7.28 3
0.625595	1.17986	56.00	60.00	2.38 3	-2.61 3	-4.56 3	4.84 3
0.611666	1.18017	48.00	71.00	2.76 2	-4.80 2	-6.02 2	8.38 2
0.626502	1.18059	55.00	61.00	1.37 3	-1.59 3	-2.66 3	2.91 3
0.622820	1.18147	51.00	66.00	4.82 2	-6.93 2	-9.86 2	1.23 3
0.627776	1.18169	54.00	62.00	1.00 3	-1.22 3	-1.96 3	2.21 3
0.618344	1.18174	49.00	69.00	3.34 2	-5.42 2	-7.09 2	9.49 2
0.629422	1.18310	53.00	63.00	7.80 2	-9.93 2	-1.54 3	1.79 3
0.610422	1.18337	46.00	74.00	2.08 2	-4.09 2	-4.72 2	7.02 2
0.605547	1.18352	45.00	76.00	1.78 2	-3.75 2	-4.15 2	6.41 2
0.615943	1.18388	47.00	72.00	2.47 2	-4.50 2	-5.42 2	7.77 2
0.625726	1.18396	50.00	67.00	4.13 2	-6.23 2	-8.52 2	1.10 3
0.601301	1.18427	44.00	78.00	1.53 2	-3.47 2	-3.68 2	5.90 2
0.631444	1.18483	52.00	64.00	6.32 2	-8.45 2	-1.26 3	1.50 3
0.622135	1.18501	48.00	70.00	2.95 2	-5.02 2	-6.31 2	8.70 2
0.637119	1.18580	57.00	58.00	-7.04 3	7.06 3	1.30 4	-1.32 4
0.637492	1.18607	56.00	59.00	3.10 3	-3.33 3	-5.84 3	6.11 3
0.638239	1.18670	55.00	60.00	1.69 3	-1.91 3	-3.21 3	3.47 3
0.629024	1.18684	49.00	68.00	3.60 2	-5.71 2	-7.49 2	9.92 2
0.633849	1.18691	51.00	65.00	5.28 2	-7.41 2	-1.06 3	1.31 3
0.639362	1.18767	54.00	61.00	1.18 3	-1.39 3	-2.26 3	2.51 3
0.615611	1.18788	45.00	75.00	1.89 2	-3.89 2	-4.30 2	6.60 2
0.620639	1.18794	46.00	73.00	2.21 2	-4.25 2	-4.90 2	7.25 2
0.611232	1.18846	44.00	77.00	1.62 2	-3.59 2	-3.80 2	6.06 2
0.626336	1.18866	47.00	71.00	2.63 2	-4.70 2	-5.66 2	8.05 2
0.640866	1.18896	53.00	62.00	8.86 2	-1.10 3	-1.71 3	1.97 3
0.636645	1.18932	50.00	66.00	4.49 2	-6.62 2	-9.08 2	1.16 3
0.607487	1.18967	43.00	79.00	1.40 2	-3.33 2	-3.39 2	5.60 2
0.632727	1.19002	48.00	69.00	3.16 2	-5.26 2	-6.62 2	9.05 2
0.642756	1.19057	52.00	63.00	7.03 2	-9.19 2	-1.37 3	1.62 3
0.604363	1.19151	42.00	81.00	1.22 2	-3.11 2	-3.04 2	5.20 2
0.639842	1.19209	49.00	67.00	3.88 2	-6.02 2	-7.91 2	1.04 3
0.625771	1.19239	45.00	74.00	2.00 2	-4.03 2	-4.46 2	6.80 2
0.645037	1.19254	51.00	64.00	5.80 2	-7.96 2	-1.14 3	1.39 3
0.649602	1.19261	56.00	58.00	1.41 4	-1.46 4	-2.60 4	2.68 4
0.630963	1.19265	46.00	72.00	2.35 2	-4.42 2	-5.10 2	7.48 2
0.621249	1.19278	44.00	76.00	1.71 2	-3.71 2	-3.93 2	6.22 2
0.650178	1.19299	55.00	59.00	2.00 3	-2.21 3	-3.74 3	3.98 3
0.636848	1.19359	47.00	70.00	2.81 2	-4.90 2	-5.92 2	8.34 2
0.617381	1.19382	43.00	78.00	1.48 2	-3.44 2	-3.50 2	5.74 2
0.651142	1.19387	54.00	60.00	1.41 3	-1.63 3	-2.65 3	2.91 3
0.601853	1.19399	41.00	83.00	1.07 2	-2.92 2	-2.74 2	4.86 2
0.647717	1.19485	50.00	65.00	4.89 2	-7.05 2	-9.70 2	1.22 3
0.652496	1.19503	53.00	61.00	1.02 3	-1.24 3	-1.94 3	2.19 3
0.643451	1.19521	48.00	68.00	3.40 2	-5.53 2	-6.97 2	9.44 2
0.614154	1.19550	42.00	80.00	1.29 2	-3.21 2	-3.13 2	5.33 2
0.654244	1.19651	52.00	62.00	7.89 2	-1.01 3	-1.51 3	1.77 3
0.636032	1.19705	45.00	73.00	2.12 2	-4.18 2	-4.63 2	7.00 2
0.631357	1.19723	44.00	75.00	1.81 2	-3.84 2	-4.07 2	6.40 2
0.641400	1.19752	46.00	71.00	2.50 2	-4.60 2	-5.32 2	7.74 2
0.650806	1.19753	49.00	66.00	4.21 2	-6.37 2	-8.41 2	1.09 3
0.611560	1.19782	41.00	82.00	1.12 2	-3.01 2	-2.81 2	4.97 2
0.627356	1.19810	43.00	77.00	1.56 2	-3.55 2	-3.61 2	5.89 2
0.656393	1.19836	51.00	63.00	6.41 2	-8.60 2	-1.24 3	1.49 3
0.647485	1.19868	47.00	69.00	3.00 2	-5.12 2	-6.20 2	8.66 2
0.661937	1.19935	56.00	57.00	-4.10 3	4.08 3	7.36 3	-7.47 3
0.662333	1.19958	55.00	58.00	2.82 3	-3.04 3	-5.18 3	5.43 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.624017	1.19960	42.00	79.00	1.36 2	-3.31 2	-3.22 2	5.46 2
0.663127	1.20026	54.00	59.00	1.67 3	-1.89 3	-3.09 3	3.35 3
0.654314	1.20054	48.00	67.00	3.65 2	-5.81 2	-7.35 2	9.85 2
0.658950	1.20057	50.00	64.00	5.35 2	-7.54 2	-1.04 3	1.30 3
0.609594	1.20079	40.00	84.00	9.84 1	-2.83 2	-2.54 2	4.65 2
0.664321	1.20131	53.00	60.00	1.19 3	-1.42 3	-2.23 3	2.49 3
0.621329	1.20176	41.00	81.00	1.18 2	-3.10 2	-2.89 2	5.08 2
0.641561	1.20182	44.00	74.00	1.92 2	-3.97 2	-4.21 2	6.58 2
0.646400	1.20185	45.00	72.00	2.25 2	-4.34 2	-4.81 2	7.23 2
0.637418	1.20250	43.00	76.00	1.65 2	-3.67 2	-3.73 2	6.05 2
0.651956	1.20254	46.00	70.00	2.67 2	-4.79 2	-5.55 2	8.01 2
0.665919	1.20267	52.00	61.00	8.95 2	-1.12 3	-1.68 3	1.94 3
0.661923	1.20315	49.00	65.00	4.57 2	-6.76 2	-8.95 2	1.15 3
0.633956	1.20384	42.00	78.00	1.43 2	-3.41 2	-3.32 2	5.60 2
0.658254	1.20395	47.00	68.00	3.21 2	-5.37 2	-6.51 2	9.01 2
0.667927	1.20439	51.00	62.00	7.13 2	-9.35 2	-1.35 3	1.61 3
0.608256	1.20441	39.00	86.00	8.64 1	-2.68 2	-2.30 2	4.36 2
0.619287	1.20459	40.00	83.00	1.03 2	-2.92 2	-2.61 2	4.75 2
0.631165	1.20584	41.00	80.00	1.24 2	-3.19 2	-2.97 2	5.20 2
0.665323	1.20607	48.00	66.00	3.94 2	-6.13 2	-7.78 2	1.03 3
0.674714	1.20635	55.00	57.00	3.23 3	-3.41 3	-5.84 3	6.03 3
0.670352	1.20648	50.00	63.00	5.88 2	-8.09 2	-1.12 3	1.38 3
0.651867	1.20657	44.00	73.00	2.03 2	-4.11 2	-4.37 2	6.78 2
0.656883	1.20681	45.00	71.00	2.39 2	-4.51 2	-5.01 2	7.46 2
0.675328	1.20693	54.00	58.00	2.21 3	-2.44 3	-4.02 3	4.28 3
0.647571	1.20704	43.00	75.00	1.74 2	-3.79 2	-3.85 2	6.21 2
0.662639	1.20772	46.00	69.00	2.84 2	-4.99 2	-5.81 2	8.30 2
0.676352	1.20779	53.00	59.00	1.39 3	-1.62 3	-2.55 3	2.81 3
0.617891	1.20808	39.00	85.00	9.09 1	-2.75 2	-2.36 2	4.46 2
0.643977	1.20820	42.00	77.00	1.51 2	-3.52 2	-3.42 2	5.74 2
0.629039	1.20851	40.00	82.00	1.09 2	-3.00 2	-2.68 2	4.86 2
0.607550	1.20871	38.00	88.00	7.61 1	-2.54 2	-2.09 2	4.10 2
0.673202	1.20895	49.00	64.00	4.97 2	-7.19 2	-9.57 2	1.22 3
0.677791	1.20903	52.00	60.00	1.03 3	-1.25 3	-1.90 3	2.16 3
0.669163	1.20938	47.00	67.00	3.44 2	-5.63 2	-6.85 2	9.39 2
0.641074	1.21003	41.00	79.00	1.31 2	-3.29 2	-3.06 2	5.33 2
0.679649	1.21063	51.00	61.00	8.01 2	-1.03 3	-1.49 3	1.75 3
0.662283	1.21146	44.00	72.00	2.15 2	-4.26 2	-4.54 2	6.98 2
0.657821	1.21173	43.00	74.00	1.84 2	-3.92 2	-3.98 2	6.38 2
0.676488	1.21178	48.00	65.00	4.26 2	-6.48 2	-8.26 2	1.08 3
0.627577	1.21186	39.00	84.00	9.55 1	-2.83 2	-2.42 2	4.55 2
0.667486	1.21191	45.00	70.00	2.54 2	-4.69 2	-5.22 2	7.71 2
0.617145	1.21225	38.00	87.00	8.00 1	-2.60 2	-2.14 2	4.19 2
0.638855	1.21255	40.00	81.00	1.14 2	-3.09 2	-2.75 2	4.97 2
0.681933	1.21259	50.00	62.00	6.50 2	-8.74 2	-1.22 3	1.48 3
0.654085	1.21270	42.00	76.00	1.59 2	-3.63 2	-3.53 2	5.88 2
0.673456	1.21308	46.00	68.00	3.04 2	-5.22 2	-6.09 2	8.62 2
0.687335	1.21326	55.00	56.00	1.24 3	-1.34 3	-2.26 3	2.30 3
0.607485	1.21369	37.00	90.00	6.71 1	-2.41 2	-1.91 2	3.87 2
0.687757	1.21380	54.00	57.00	2.84 3	-3.06 3	-5.08 3	5.33 3
0.651059	1.21436	41.00	78.00	1.38 2	-3.39 2	-3.15 2	5.46 2
0.688600	1.21454	53.00	58.00	1.73 3	-1.96 3	-3.13 3	3.39 3
0.684652	1.21495	49.00	63.00	5.43 2	-7.68 2	-1.03 3	1.29 3
0.680220	1.21500	47.00	66.00	3.70 2	-5.92 2	-7.23 2	9.81 2
0.689869	1.21560	52.00	59.00	1.18 3	-1.40 3	-2.14 3	2.40 3
0.637317	1.21575	39.00	83.00	1.00 2	-2.91 2	-2.48 2	4.65 2
0.626781	1.21589	38.00	86.00	8.40 1	-2.68 2	-2.19 2	4.28 2
0.672813	1.21651	44.00	71.00	2.28 2	-4.42 2	-4.71 2	7.20 2
0.668176	1.21657	43.00	73.00	1.95 2	-4.06 2	-4.13 2	6.57 2
0.648738	1.21671	40.00	80.00	1.20 2	-3.18 2	-2.82 2	5.09 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.691569	1.21709	51.00	60.00	9.08 2	-1.14 3	-1.66 3	1.93 3
0.617055	1.21711	37.00	89.00	7.05 1	-2.47 2	-1.95 2	3.95 2
0.678217	1.21718	45.00	69.00	2.70 2	-4.88 2	-5.45 2	7.97 2
0.664285	1.21733	42.00	75.00	1.67 2	-3.75 2	-3.65 2	6.04 2
0.687815	1.21767	48.00	64.00	4.62 2	-6.87 2	-8.80 2	1.14 3
0.684413	1.21859	46.00	67.00	3.25 2	-5.46 2	-6.39 2	8.95 2
0.661128	1.21881	41.00	77.00	1.45 2	-3.49 2	-3.24 2	5.59 2
0.693704	1.21892	50.00	61.00	7.23 2	-9.51 2	-1.33 3	1.60 3
0.636464	1.21966	38.00	85.00	8.83 1	-2.75 2	-2.24 2	4.37 2
0.647117	1.21976	39.00	82.00	1.05 2	-2.99 2	-2.54 2	4.76 2
0.626660	1.22063	37.00	88.00	7.41 1	-2.54 2	-1.99 2	4.03 2
0.691433	1.22079	47.00	65.00	3.99 2	-6.24 2	-7.65 2	1.03 3
0.658695	1.22100	40.00	79.00	1.26 2	-3.27 2	-2.90 2	5.20 2
0.696282	1.22116	49.00	62.00	5.97 2	-8.26 2	-1.11 3	1.38 3
0.678639	1.22155	43.00	72.00	2.06 2	-4.20 2	-4.28 2	6.76 2
0.683465	1.22171	44.00	70.00	2.42 2	-4.59 2	-4.91 2	7.42 2
0.674585	1.22211	42.00	74.00	1.77 2	-3.87 2	-3.77 2	6.20 2
0.689082	1.22263	45.00	68.00	2.88 2	-5.09 2	-5.70 2	8.26 2
0.671285	1.22340	41.00	76.00	1.53 2	-3.60 2	-3.34 2	5.73 2
0.646198	1.22353	38.00	84.00	9.27 1	-2.82 2	-2.30 2	4.47 2
0.699314	1.22376	48.00	63.00	5.02 2	-7.30 2	-9.40 2	1.20 3
0.656981	1.22389	39.00	81.00	1.11 2	-3.07 2	-2.61 2	4.86 2
0.636303	1.22427	37.00	87.00	7.78 1	-2.61 2	-2.04 2	4.12 2
0.695519	1.22430	46.00	66.00	3.48 2	-5.73 2	-6.73 2	9.33 2
0.668730	1.22542	40.00	78.00	1.33 2	-3.36 2	-2.99 2	5.33 2
0.627225	1.22610	36.00	90.00	6.54 1	-2.41 2	-1.81 2	3.80 2
0.689219	1.22669	43.00	71.00	2.18 2	-4.35 2	-4.44 2	6.96 2
0.684988	1.22704	42.00	73.00	1.86 2	-4.00 2	-3.90 2	6.37 2
0.694245	1.22707	44.00	69.00	2.57 2	-4.77 2	-5.11 2	7.67 2
0.655988	1.22752	38.00	83.00	9.72 1	-2.90 2	-2.36 2	4.56 2
0.645988	1.22801	37.00	86.00	8.17 1	-2.68 2	-2.09 2	4.20 2
0.681535	1.22813	41.00	75.00	1.61 2	-3.71 2	-3.45 2	5.87 2
0.666914	1.22816	39.00	80.00	1.16 2	-3.16 2	-2.68 2	4.97 2
0.636844	1.22962	36.00	89.00	6.87 1	-2.48 2	-1.85 2	3.88 2
0.678848	1.22998	40.00	77.00	1.40 2	-3.46 2	-3.08 2	5.45 2
0.665837	1.23163	38.00	82.00	1.02 2	-2.98 2	-2.42 2	4.66 2
0.655721	1.23187	37.00	85.00	8.57 1	-2.75 2	-2.13 2	4.29 2
0.699922	1.23198	43.00	70.00	2.31 2	-4.51 2	-4.62 2	7.17 2
0.695503	1.23212	42.00	72.00	1.97 2	-4.14 2	-4.04 2	6.54 2
0.676921	1.23254	39.00	79.00	1.22 2	-3.25 2	-2.76 2	5.09 2
0.691885	1.23301	41.00	74.00	1.70 2	-3.83 2	-3.56 2	6.02 2
0.646499	1.23324	36.00	88.00	7.21 1	-2.54 2	-1.90 2	3.96 2
0.689056	1.23466	40.00	76.00	1.47 2	-3.57 2	-3.17 2	5.58 2
0.665506	1.23585	37.00	84.00	8.98 1	-2.82 2	-2.19 2	4.38 2
0.675752	1.23586	38.00	81.00	1.07 2	-3.06 2	-2.48 2	4.76 2
0.656193	1.23698	36.00	87.00	7.56 1	-2.61 2	-1.94 2	4.04 2
0.687007	1.23706	39.00	78.00	1.28 2	-3.34 2	-2.83 2	5.20 2
0.647747	1.23924	35.00	90.00	6.37 1	-2.42 2	-1.73 2	3.74 2
0.699359	1.23949	40.00	75.00	1.55 2	-3.67 2	-3.27 2	5.72 2
0.675347	1.23994	37.00	83.00	9.42 1	-2.89 2	-2.24 2	4.47 2
0.685737	1.24023	38.00	80.00	1.12 2	-3.15 2	-2.55 2	4.87 2
0.665930	1.24082	36.00	86.00	7.93 1	-2.68 2	-1.98 2	4.13 2
0.697178	1.24172	39.00	77.00	1.35 2	-3.44 2	-2.92 2	5.32 2
0.657419	1.24286	35.00	89.00	6.69 1	-2.48 2	-1.76 2	3.82 2
0.685249	1.24415	37.00	82.00	9.87 1	-2.97 2	-2.30 2	4.57 2
0.695797	1.24471	38.00	79.00	1.18 2	-3.23 2	-2.61 2	4.97 2
0.675715	1.24479	36.00	85.00	8.31 1	-2.75 2	-2.03 2	4.21 2
0.667126	1.24659	35.00	88.00	7.01 1	-2.54 2	-1.80 2	3.90 2
0.695218	1.24848	37.00	81.00	1.03 2	-3.05 2	-2.35 2	4.67 2
0.685554	1.24886	36.00	84.00	8.70 1	-2.82 2	-2.08 2	4.30 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.676873	1.25043	35.00	87.00	7.34 1	-2.61 2	-1.84 2	3.98 2
0.695450	1.25306	36.00	83.00	9.12 1	-2.89 2	-2.13 2	4.39 2
0.669117	1.25317	34.00	90.00	6.21 1	-2.42 2	-1.64 2	3.69 2
0.686665	1.25438	35.00	86.00	7.69 1	-2.68 2	-1.88 2	4.06 2
0.678843	1.25690	34.00	89.00	6.50 1	-2.49 2	-1.67 2	3.76 2
0.696507	1.25845	35.00	85.00	8.05 1	-2.74 2	-1.93 2	4.14 2
0.688606	1.26074	34.00	88.00	6.81 1	-2.55 2	-1.71 2	3.84 2
0.698411	1.26469	34.00	87.00	7.13 1	-2.61 2	-1.75 2	3.91 2
0.691405	1.26797	33.00	90.00	6.03 1	-2.43 2	-1.56 2	3.63 2
0.70	0.80						
0.700426	1.22090	54.00	56.00	2.96 3	-3.13 3	-5.22 3	5.40 3
0.701078	1.22151	53.00	57.00	2.15 3	-2.38 3	-3.81 3	4.07 3
0.702167	1.22244	52.00	58.00	1.41 3	-1.64 3	-2.52 3	2.78 3
0.703697	1.22375	51.00	59.00	1.03 3	-1.26 3	-1.85 3	2.12 3
0.705673	1.22547	50.00	60.00	8.11 2	-1.04 3	-1.47 3	1.74 3
0.702810	1.22678	47.00	64.00	4.31 2	-6.59 2	-8.12 2	1.08 3
0.708103	1.22758	49.00	61.00	6.61 2	-8.92 2	-1.21 3	1.48 3
0.700090	1.22824	45.00	67.00	3.07 2	-5.31 2	-5.97 2	8.57 2
0.713351	1.22843	54.00	55.00	-1.08 4	1.09 4	1.86 4	-1.89 4
0.713799	1.22871	53.00	56.00	2.55 3	-2.76 3	-4.46 3	4.69 3
0.714696	1.22950	52.00	57.00	1.68 3	-1.91 3	-2.95 3	3.21 3
0.710995	1.23006	48.00	62.00	5.49 2	-7.80 2	-1.01 3	1.28 3
0.706783	1.23019	46.00	65.00	3.74 2	-6.01 2	-7.09 2	9.73 2
0.716045	1.23068	51.00	58.00	1.20 3	-1.44 3	-2.13 3	2.40 3
0.717852	1.23223	50.00	59.00	9.12 2	-1.14 3	-1.63 3	1.90 3
0.705162	1.23261	44.00	68.00	2.73 2	-4.97 2	-5.34 2	7.93 2
0.714361	1.23296	47.00	63.00	4.67 2	-6.98 2	-8.65 2	1.13 3
0.711248	1.23404	45.00	66.00	3.29 2	-5.56 2	-6.28 2	8.91 2
0.720124	1.23422	49.00	60.00	7.36 2	-9.70 2	-1.32 3	1.59 3
0.718212	1.23626	46.00	64.00	4.03 2	-6.33 2	-7.50 2	1.02 3
0.726775	1.23629	53.00	55.00	5.54 3	-5.81 3	-9.49 3	9.82 3
0.722868	1.23657	48.00	61.00	6.04 2	-8.37 2	-1.09 3	1.36 3
0.727468	1.23680	52.00	56.00	1.97 3	-2.19 3	-3.42 3	3.66 3
0.706135	1.23735	42.00	71.00	2.08 2	-4.28 2	-4.19 2	6.73 2
0.710754	1.23744	43.00	69.00	2.45 2	-4.68 2	-4.81 2	7.39 2
0.728627	1.23783	51.00	57.00	1.41 3	-1.64 3	-2.46 3	2.73 3
0.702341	1.23803	41.00	73.00	1.79 2	-3.95 2	-3.69 2	6.18 2
0.716221	1.23832	44.00	67.00	2.91 2	-5.17 2	-5.58 2	8.21 2
0.730254	1.23925	50.00	58.00	1.05 3	-1.28 3	-1.84 3	2.11 3
0.726094	1.23935	47.00	62.00	5.08 2	-7.42 2	-9.25 2	1.20 3
0.722564	1.24003	45.00	65.00	3.52 2	-5.82 2	-6.60 2	9.27 2
0.732356	1.24107	49.00	59.00	8.22 2	-1.06 3	-1.45 3	1.73 3
0.729816	1.24254	46.00	63.00	4.35 2	-6.68 2	-7.96 2	1.07 3
0.716890	1.24274	42.00	70.00	2.20 2	-4.43 2	-4.35 2	6.93 2
0.721724	1.24308	43.00	68.00	2.60 2	-4.86 2	-5.01 2	7.64 2
0.712908	1.24321	41.00	72.00	1.88 2	-4.08 2	-3.81 2	6.35 2
0.734942	1.24331	48.00	60.00	6.67 2	-9.04 2	-1.19 3	1.46 3
0.740023	1.24404	53.00	54.00	6.52 3	-6.71 3	-1.10 4	1.12 4
0.727433	1.24421	44.00	66.00	3.10 2	-5.40 2	-5.85 2	8.52 2
0.740499	1.24444	52.00	55.00	2.80 3	-3.03 3	-4.77 3	5.02 3
0.709762	1.24446	40.00	74.00	1.63 2	-3.79 2	-3.37 2	5.86 2
0.741453	1.24524	51.00	56.00	1.66 3	-1.89 3	-2.85 3	3.11 3
0.738021	1.24596	47.00	61.00	5.55 2	-7.92 2	-9.95 2	1.27 3
0.734047	1.24620	45.00	64.00	3.78 2	-6.11 2	-6.97 2	9.67 2
0.707440	1.24650	39.00	76.00	1.41 2	-3.54 2	-3.00 2	5.45 2
0.742889	1.24650	50.00	57.00	1.21 3	-1.45 3	-2.09 3	2.36 3
0.744812	1.24819	49.00	58.00	9.35 2	-1.18 3	-1.63 3	1.91 3
0.727777	1.24830	42.00	69.00	2.33 2	-4.59 2	-4.52 2	7.14 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.723594	1.24854	41.00	71.00	1.99 2	-4.21 2	-3.95 2	6.52 2
0.732838	1.24888	43.00	67.00	2.76 2	-5.05 2	-5.23 2	7.89 2
0.741604	1.24903	46.00	62.00	4.71 2	-7.07 2	-8.48 2	1.12 3
0.705938	1.24933	38.00	78.00	1.24 2	-3.32 2	-2.69 2	5.09 2
0.720272	1.24959	40.00	73.00	1.71 2	-3.90 2	-3.48 2	6.01 2
0.747230	1.25026	48.00	59.00	7.39 2	-9.78 2	-1.29 3	1.57 3
0.738804	1.25029	44.00	65.00	3.31 2	-5.64 2	-6.15 2	8.85 2
0.717797	1.25143	39.00	75.00	1.49 2	-3.64 2	-3.09 2	5.58 2
0.753802	1.25229	52.00	54.00	3.10 3	-3.29 3	-5.21 3	5.40 3
0.745706	1.25258	45.00	63.00	4.07 2	-6.43 2	-7.37 2	1.01 3
0.750151	1.25279	47.00	60.00	6.10 2	-8.50 2	-1.07 3	1.35 3
0.705258	1.25295	37.00	80.00	1.08 2	-3.13 2	-2.41 2	4.77 2
0.754539	1.25297	51.00	55.00	2.18 3	-2.41 3	-3.67 3	3.95 3
0.755772	1.25400	50.00	56.00	1.41 3	-1.64 3	-2.39 3	2.66 3
0.734405	1.25403	41.00	70.00	2.10 2	-4.36 2	-4.10 2	6.70 2
0.738802	1.25403	42.00	68.00	2.47 2	-4.76 2	-4.71 2	7.36 2
0.716164	1.25408	38.00	77.00	1.30 2	-3.41 2	-2.76 2	5.20 2
0.730895	1.25486	40.00	72.00	1.80 2	-4.03 2	-3.60 2	6.17 2
0.744105	1.25487	43.00	66.00	2.94 2	-5.26 2	-5.48 2	8.17 2
0.757504	1.25555	49.00	57.00	1.07 3	-1.31 3	-1.83 3	2.11 3
0.753586	1.25574	46.00	61.00	5.12 2	-7.51 2	-9.07 2	1.18 3
0.728256	1.25650	39.00	74.00	1.56 2	-3.75 2	-3.19 2	5.71 2
0.750343	1.25656	44.00	64.00	3.55 2	-5.90 2	-6.47 2	9.20 2
0.705408	1.25737	36.00	82.00	9.55 1	-2.96 2	-2.18 2	4.48 2
0.759742	1.25747	48.00	58.00	8.30 2	-1.07 3	-1.43 3	1.71 3
0.715373	1.25754	37.00	79.00	1.14 2	-3.22 2	-2.48 2	4.87 2
0.726481	1.25897	38.00	76.00	1.36 2	-3.51 2	-2.84 2	5.32 2
0.757551	1.25916	45.00	62.00	4.39 2	-6.78 2	-7.83 2	1.06 3
0.745349	1.25968	41.00	69.00	2.22 2	-4.51 2	-4.25 2	6.90 2
0.762495	1.25984	47.00	59.00	6.72 2	-9.14 2	-1.16 3	1.45 3
0.749973	1.25993	42.00	67.00	2.62 2	-4.94 2	-4.91 2	7.59 2
0.741637	1.26029	40.00	71.00	1.90 2	-4.15 2	-3.73 2	6.33 2
0.767393	1.26042	52.00	53.00	2.11 3	-2.22 3	-3.53 3	3.59 3
0.767899	1.26093	51.00	54.00	2.67 3	-2.90 3	-4.45 3	4.70 3
0.755533	1.26105	43.00	65.00	3.13 2	-5.49 2	-5.74 2	8.47 2
0.738822	1.26173	39.00	73.00	1.64 2	-3.86 2	-3.29 2	5.85 2
0.715433	1.26181	36.00	81.00	1.00 2	-3.04 2	-2.23 2	4.57 2
0.768915	1.26183	50.00	55.00	1.75 3	-2.00 3	-2.93 3	3.22 3
0.725570	1.26226	37.00	78.00	1.19 2	-3.30 2	-2.55 2	4.97 2
0.706402	1.26263	35.00	84.00	8.43 1	-2.81 2	-1.97 2	4.22 2
0.765774	1.26266	46.00	60.00	5.58 2	-8.01 2	-9.74 2	1.26 3
0.762060	1.26304	44.00	63.00	3.80 2	-6.19 2	-6.83 2	9.59 2
0.770444	1.26316	49.00	56.00	1.24 3	-1.48 3	-2.09 3	2.37 3
0.736896	1.26400	38.00	75.00	1.43 2	-3.61 2	-2.93 2	5.44 2
0.772491	1.26493	48.00	57.00	9.38 2	-1.18 3	-1.59 3	1.88 3
0.756432	1.26552	41.00	68.00	2.35 2	-4.67 2	-4.42 2	7.10 2
0.752506	1.26589	40.00	70.00	2.00 2	-4.29 2	-3.86 2	6.50 2
0.769592	1.26597	45.00	61.00	4.75 2	-7.18 2	-8.34 2	1.12 3
0.761298	1.26603	42.00	66.00	2.78 2	-5.13 2	-5.13 2	7.85 2
0.725530	1.26638	36.00	80.00	1.05 2	-3.12 2	-2.29 2	4.67 2
0.716355	1.26694	35.00	83.00	8.82 1	-2.89 2	-2.02 2	4.31 2
0.749503	1.26711	39.00	72.00	1.73 2	-3.98 2	-3.40 2	6.00 2
0.735854	1.26712	37.00	77.00	1.25 2	-3.39 2	-2.62 2	5.08 2
0.775066	1.26716	47.00	58.00	7.48 2	-9.95 2	-1.28 3	1.56 3
0.767131	1.26742	43.00	64.00	3.34 2	-5.73 2	-6.03 2	8.79 2
0.708260	1.26875	34.00	86.00	7.46 1	-2.68 2	-1.79 2	3.99 2
0.747413	1.26918	38.00	74.00	1.50 2	-3.71 2	-3.02 2	5.57 2
0.781549	1.26919	51.00	53.00	3.29 3	-3.49 3	-5.41 3	5.61 3
0.773963	1.26972	44.00	62.00	4.09 2	-6.51 2	-7.22 2	1.00 3
0.778178	1.26982	46.00	59.00	6.11 2	-8.56 2	-1.05 3	1.33 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.782334	1.26989	50.00	54.00	2.14 3	-2.38 3	-3.53 3	3.81 3
0.735704	1.27108	36.00	79.00	1.10 2	-3.20 2	-2.35 2	4.77 2
0.783647	1.27108	49.00	55.00	1.51 3	-1.76 3	-2.50 3	2.80 3
0.726371	1.27136	35.00	82.00	9.22 1	-2.96 2	-2.07 2	4.40 2
0.767662	1.27152	41.00	67.00	2.48 2	-4.83 2	-4.60 2	7.32 2
0.763509	1.27164	40.00	69.00	2.11 2	-4.43 2	-4.00 2	6.68 2
0.701190	1.27181	33.00	89.00	6.32 1	-2.49 2	-1.59 2	3.70 2
0.746231	1.27211	37.00	76.00	1.31 2	-3.48 2	-2.69 2	5.19 2
0.772785	1.27231	42.00	65.00	2.96 2	-5.34 2	-5.36 2	8.12 2
0.785491	1.27264	48.00	56.00	1.07 3	-1.32 3	-1.78 3	2.07 3
0.760305	1.27264	39.00	71.00	1.82 2	-4.10 2	-3.52 2	6.15 2
0.718160	1.27293	34.00	85.00	7.80 1	-2.74 2	-1.83 2	4.07 2
0.781839	1.27300	45.00	60.00	5.16 2	-7.62 2	-8.92 2	1.18 3
0.778907	1.27400	43.00	63.00	3.57 2	-5.99 2	-6.34 2	9.14 2
0.758039	1.27451	38.00	73.00	1.57 2	-3.82 2	-3.11 2	5.70 2
0.787876	1.27472	47.00	57.00	8.37 2	-1.09 3	-1.41 3	1.70 3
0.711012	1.27576	33.00	88.00	6.61 1	-2.55 2	-1.62 2	3.78 2
0.736456	1.27590	35.00	81.00	9.65 1	-3.03 2	-2.12 2	4.49 2
0.745961	1.27591	36.00	78.00	1.15 2	-3.29 2	-2.41 2	4.87 2
0.786065	1.27663	44.00	61.00	4.41 2	-6.86 2	-7.67 2	1.05 3
0.728115	1.27722	34.00	84.00	8.15 1	-2.81 2	-1.87 2	4.15 2
0.790809	1.27723	46.00	58.00	6.75 2	-9.23 2	-1.14 3	1.43 3
0.756705	1.27725	37.00	75.00	1.37 2	-3.58 2	-2.77 2	5.31 2
0.774652	1.27759	40.00	68.00	2.23 2	-4.58 2	-4.16 2	6.87 2
0.779047	1.27772	41.00	66.00	2.63 2	-5.01 2	-4.80 2	7.55 2
0.795506	1.27784	51.00	52.00	1.02 4	-1.05 4	-1.65 4	1.68 4
0.796045	1.27827	50.00	53.00	2.75 3	-2.98 3	-4.47 3	4.73 3
0.771235	1.27834	39.00	70.00	1.91 2	-4.23 2	-3.64 2	6.31 2
0.784444	1.27879	42.00	64.00	3.15 2	-5.56 2	-5.62 2	8.41 2
0.797127	1.27926	49.00	54.00	1.85 3	-2.11 3	-3.02 3	3.33 3
0.720877	1.27982	33.00	87.00	6.91 1	-2.62 2	-1.66 2	3.85 2
0.768781	1.27999	38.00	72.00	1.65 2	-3.93 2	-3.21 2	5.84 2
0.794304	1.28026	45.00	59.00	5.62 2	-8.11 2	-9.57 2	1.24 3
0.746614	1.28059	35.00	80.00	1.01 2	-3.11 2	-2.17 2	4.58 2
0.798756	1.28066	48.00	55.00	1.26 3	-1.51 3	-2.07 3	2.37 3
0.790873	1.28079	43.00	62.00	3.83 2	-6.28 2	-6.70 2	9.53 2
0.756306	1.28088	36.00	77.00	1.20 2	-3.37 2	-2.48 2	4.97 2
0.738129	1.28164	34.00	83.00	8.52 1	-2.88 2	-1.91 2	4.23 2
0.767284	1.28253	37.00	74.00	1.44 2	-3.68 2	-2.85 2	5.43 2
0.785944	1.28370	40.00	67.00	2.36 2	-4.74 2	-4.32 2	7.07 2
0.714693	1.28370	32.00	90.00	5.86 1	-2.44 2	-1.48 2	3.58 2
0.798374	1.28377	44.00	60.00	4.77 2	-7.25 2	-8.17 2	1.10 3
0.730788	1.28399	33.00	86.00	7.22 1	-2.68 2	-1.69 2	3.93 2
0.790597	1.28411	41.00	65.00	2.79 2	-5.21 2	-5.01 2	7.80 2
0.782299	1.28420	39.00	69.00	2.02 2	-4.36 2	-3.77 2	6.47 2
0.756850	1.28539	35.00	79.00	1.06 2	-3.19 2	-2.23 2	4.67 2
0.796283	1.28547	42.00	63.00	3.36 2	-5.80 2	-5.90 2	8.73 2
0.779645	1.28564	38.00	71.00	1.74 2	-4.05 2	-3.32 2	5.98 2
0.766744	1.28598	36.00	76.00	1.26 2	-3.46 2	-2.55 2	5.08 2
0.748207	1.28617	34.00	82.00	8.91 1	-2.95 2	-1.96 2	4.32 2
0.724540	1.28766	32.00	89.00	6.13 1	-2.50 2	-1.51 2	3.65 2
0.777973	1.28797	37.00	73.00	1.51 2	-3.78 2	-2.94 2	5.56 2
0.740750	1.28829	33.00	85.00	7.54 1	-2.74 2	-1.73 2	4.00 2
0.797393	1.29000	40.00	66.00	2.50 2	-4.91 2	-4.50 2	7.29 2
0.793506	1.29025	39.00	68.00	2.13 2	-4.50 2	-3.91 2	6.65 2
0.767169	1.29033	35.00	78.00	1.10 2	-3.27 2	-2.28 2	4.77 2
0.758355	1.29083	34.00	81.00	9.31 1	-3.03 2	-2.01 2	4.40 2
0.777282	1.29122	36.00	75.00	1.32 2	-3.55 2	-2.62 2	5.19 2
0.790638	1.29144	38.00	70.00	1.83 2	-4.17 2	-3.43 2	6.13 2
0.734425	1.29172	32.00	88.00	6.40 1	-2.56 2	-1.54 2	3.72 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.750767	1.29270	33.00	84.00	7.88 1	-2.81 2	-1.77 2	4.08 2
0.788778	1.29357	37.00	72.00	1.58 2	-3.89 2	-3.03 2	5.68 2
0.777578	1.29541	35.00	77.00	1.15 2	-3.35 2	-2.35 2	4.87 2
0.768576	1.29563	34.00	80.00	9.73 1	-3.10 2	-2.06 2	4.49 2
0.744353	1.29590	32.00	87.00	6.69 1	-2.62 2	-1.57 2	3.79 2
0.787925	1.29662	36.00	74.00	1.38 2	-3.65 2	-2.70 2	5.30 2
0.760846	1.29723	33.00	83.00	8.23 1	-2.88 2	-1.81 2	4.16 2
0.799708	1.29932	37.00	71.00	1.66 2	-4.00 2	-3.13 2	5.82 2
0.754329	1.30019	32.00	86.00	6.99 1	-2.68 2	-1.61 2	3.87 2
0.739070	1.30045	31.00	90.00	5.69 1	-2.44 2	-1.40 2	3.53 2
0.778877	1.30054	34.00	79.00	1.02 2	-3.18 2	-2.11 2	4.58 2
0.788082	1.30062	35.00	76.00	1.21 2	-3.44 2	-2.41 2	4.97 2
0.770989	1.30188	33.00	82.00	8.59 1	-2.95 2	-1.86 2	4.24 2
0.798679	1.30217	36.00	73.00	1.44 2	-3.75 2	-2.78 2	5.42 2
0.748983	1.30452	31.00	89.00	5.94 1	-2.50 2	-1.43 2	3.60 2
0.764356	1.30460	32.00	85.00	7.29 1	-2.75 2	-1.64 2	3.94 2
0.789263	1.30560	34.00	78.00	1.06 2	-3.26 2	-2.16 2	4.68 2
0.798686	1.30598	35.00	75.00	1.26 2	-3.53 2	-2.48 2	5.07 2
0.781203	1.30665	33.00	81.00	8.97 1	-3.02 2	-1.90 2	4.33 2
0.758934	1.30871	31.00	88.00	6.20 1	-2.56 2	-1.46 2	3.67 2
0.774441	1.30913	32.00	84.00	7.61 1	-2.81 2	-1.68 2	4.02 2
0.799739	1.31079	34.00	77.00	1.11 2	-3.34 2	-2.22 2	4.77 2
0.791492	1.31156	33.00	80.00	9.37 1	-3.09 2	-1.95 2	4.41 2
0.768930	1.31301	31.00	87.00	6.47 1	-2.62 2	-1.49 2	3.74 2
0.784587	1.31378	32.00	83.00	7.94 1	-2.88 2	-1.72 2	4.09 2
0.778975	1.31743	31.00	86.00	6.75 1	-2.68 2	-1.52 2	3.81 2
0.764638	1.31832	30.00	90.00	5.51 1	-2.45 2	-1.32 2	3.48 2
0.794800	1.31855	32.00	82.00	8.28 1	-2.94 2	-1.76 2	4.17 2
0.789072	1.32196	31.00	85.00	7.04 1	-2.75 2	-1.55 2	3.88 2
0.774621	1.32252	30.00	89.00	5.75 1	-2.51 2	-1.35 2	3.55 2
0.799228	1.32661	31.00	84.00	7.34 1	-2.81 2	-1.59 2	3.95 2
0.784643	1.32683	30.00	88.00	6.00 1	-2.57 2	-1.38 2	3.61 2
0.794711	1.33126	30.00	87.00	6.25 1	-2.63 2	-1.41 2	3.68 2
0.791512	1.33741	29.00	90.00	5.33 1	-2.46 2	-1.25 2	3.44 2
0.80	0.90						
0.800938	1.28253	47.00	56.00	9.44 2	-1.20 3	-1.56 3	1.86 3
0.803682	1.28489	46.00	57.00	7.48 2	-9.99 2	-1.25 3	1.54 3
0.810064	1.28700	50.00	52.00	4.76 3	-5.02 3	-7.62 3	7.91 3
0.810901	1.28776	49.00	53.00	2.44 3	-2.71 3	-3.93 3	4.24 3
0.806999	1.28778	45.00	58.00	6.17 2	-8.69 2	-1.04 3	1.33 3
0.803037	1.28781	43.00	61.00	4.12 2	-6.60 2	-7.09 2	9.95 2
0.812300	1.28894	48.00	54.00	1.49 3	-1.75 3	-2.42 3	2.72 3
0.814266	1.29066	47.00	55.00	1.09 3	-1.35 3	-1.78 3	2.08 3
0.802319	1.29069	41.00	64.00	2.97 2	-5.41 2	-5.24 2	8.07 2
0.810903	1.29113	44.00	59.00	5.17 2	-7.68 2	-8.72 2	1.16 3
0.808312	1.29237	42.00	62.00	3.59 2	-6.07 2	-6.21 2	9.07 2
0.816808	1.29281	46.00	56.00	8.34 2	-1.09 3	-1.37 3	1.66 3
0.815411	1.29505	43.00	60.00	4.44 2	-6.95 2	-7.52 2	1.04 3
0.819936	1.29554	45.00	57.00	6.80 2	-9.35 2	-1.12 3	1.42 3
0.824409	1.29603	50.00	51.00	9.96 3	-1.02 4	-1.57 4	1.60 4
0.804862	1.29647	39.00	67.00	2.24 2	-4.65 2	-4.06 2	6.84 2
0.809007	1.29649	40.00	65.00	2.65 2	-5.09 2	-4.69 2	7.51 2
0.824986	1.29661	49.00	52.00	4.24 3	-4.56 3	-6.71 3	7.12 3
0.801767	1.29741	38.00	69.00	1.92 2	-4.29 2	-3.55 2	6.28 2
0.814223	1.29748	41.00	63.00	3.16 2	-5.64 2	-5.50 2	8.35 2
0.826139	1.29754	48.00	53.00	1.84 3	-2.10 3	-2.94 3	3.24 3
0.823663	1.29875	44.00	58.00	5.64 2	-8.18 2	-9.38 2	1.23 3
0.827876	1.29905	47.00	54.00	1.27 3	-1.53 3	-2.05 3	2.35 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.820542	1.29949	42.00	61.00	3.85 2	-6.36 2	-6.56 2	9.45 2
0.830202	1.30104	46.00	55.00	9.47 2	-1.20 3	-1.53 3	1.83 3
0.828006	1.30252	43.00	59.00	4.79 2	-7.33 2	-8.01 2	1.09 3
0.816377	1.30288	39.00	66.00	2.37 2	-4.81 2	-4.22 2	7.03 2
0.820795	1.30319	40.00	64.00	2.81 2	-5.28 2	-4.90 2	7.76 2
0.813040	1.30357	38.00	68.00	2.02 2	-4.43 2	-3.68 2	6.45 2
0.833129	1.30358	45.00	56.00	7.53 2	-1.01 3	-1.23 3	1.52 3
0.826319	1.30449	41.00	62.00	3.37 2	-5.88 2	-5.77 2	8.67 2
0.810767	1.30523	37.00	70.00	1.74 2	-4.11 2	-3.23 2	5.96 2
0.839398	1.30578	49.00	51.00	3.99 4	-4.16 4	-6.22 4	6.47 4
0.840291	1.30648	48.00	52.00	2.51 3	-2.79 3	-3.95 3	4.28 3
0.836667	1.30663	44.00	57.00	6.17 2	-8.74 2	-1.01 3	1.31 3
0.832983	1.30684	42.00	60.00	4.13 2	-6.67 2	-6.94 2	9.87 2
0.841783	1.30776	47.00	53.00	1.52 3	-1.79 3	-2.42 3	2.73 3
0.809552	1.30788	36.00	72.00	1.51 2	-3.85 2	-2.86 2	5.54 2
0.828059	1.30949	39.00	65.00	2.50 2	-4.98 2	-4.40 2	7.24 2
0.843880	1.30954	46.00	54.00	1.38 3	-1.34 3	-1.72 3	2.02 3
0.824464	1.30990	38.00	67.00	2.13 2	-4.57 2	-3.82 2	6.62 2
0.832767	1.31009	40.00	63.00	2.98 2	-5.49 2	-5.13 2	8.02 2
0.840834	1.31026	43.00	58.00	5.20 2	-7.78 2	-8.57 2	1.15 3
0.821964	1.31132	37.00	69.00	1.83 2	-4.23 2	-3.34 2	6.11 2
0.809396	1.31149	35.00	74.00	1.32 2	-3.62 2	-2.55 2	5.18 2
0.838617	1.31172	41.00	61.00	3.60 2	-6.14 2	-6.08 2	9.00 2
0.846591	1.31192	45.00	55.00	8.47 2	-1.11 3	-1.36 3	1.66 3
0.820549	1.31374	36.00	71.00	1.59 2	-3.95 2	-2.95 2	5.67 2
0.845647	1.31442	42.00	59.00	4.44 2	-7.02 2	-7.36 2	1.03 3
0.849929	1.31477	44.00	56.00	6.78 2	-9.38 2	-1.10 3	1.40 3
0.854160	1.31539	49.00	50.00	-1.66 3	1.63 3	2.51 3	-2.56 3
0.854773	1.31575	48.00	51.00	3.86 3	-4.17 3	-5.99 3	6.37 3
0.810312	1.31612	34.00	76.00	1.16 2	-3.42 2	-2.28 2	4.87 2
0.839916	1.31629	39.00	64.00	2.65 2	-5.15 2	-4.58 2	7.47 2
0.836048	1.31643	38.00	66.00	2.25 2	-4.72 2	-3.96 2	6.80 2
0.801862	1.31660	33.00	79.00	9.78 1	-3.17 2	-1.99 2	4.50 2
0.856004	1.31681	47.00	52.00	1.94 3	-2.22 3	-3.04 3	3.36 3
0.820220	1.31716	35.00	73.00	1.38 2	-3.71 2	-2.62 2	5.29 2
0.844932	1.31721	40.00	62.00	3.17 2	-5.71 2	-5.38 2	8.30 2
0.833306	1.31760	37.00	68.00	1.93 2	-4.36 2	-3.46 2	6.26 2
0.853908	1.31824	43.00	57.00	5.66 2	-8.27 2	-9.20 2	1.22 3
0.857857	1.31835	46.00	53.00	1.25 3	-1.52 3	-1.97 3	2.28 3
0.851128	1.31918	41.00	60.00	3.85 2	-6.42 2	-6.42 2	9.38 2
0.831678	1.31977	36.00	70.00	1.66 2	-4.06 2	-3.05 2	5.80 2
0.860340	1.32053	45.00	54.00	9.56 2	-1.22 3	-1.51 3	1.82 3
0.820986	1.32160	34.00	75.00	1.21 2	-3.50 2	-2.34 2	4.97 2
0.812318	1.32177	33.00	78.00	1.02 2	-3.24 2	-2.04 2	4.59 2
0.858546	1.32227	42.00	58.00	4.81 2	-7.41 2	-7.85 2	1.08 3
0.831163	1.32298	35.00	72.00	1.45 2	-3.81 2	-2.70 2	5.41 2
0.847800	1.32315	38.00	65.00	2.37 2	-4.88 2	-4.12 2	7.00 2
0.863463	1.32322	44.00	55.00	7.54 2	-1.02 3	-1.20 3	1.51 3
0.851959	1.32331	39.00	63.00	2.81 2	-5.35 2	-4.79 2	7.70 2
0.805084	1.32345	32.00	81.00	8.64 1	-3.01 2	-1.80 2	4.25 2
0.844801	1.32404	37.00	67.00	2.03 2	-4.49 2	-3.59 2	6.42 2
0.857302	1.32456	40.00	61.00	3.38 2	-5.95 2	-5.65 2	8.61 2
0.869606	1.32538	48.00	50.00	1.31 4	-1.37 4	-2.00 4	2.08 4
0.842946	1.32598	36.00	69.00	1.75 2	-4.18 2	-3.15 2	5.94 2
0.870558	1.32618	47.00	51.00	2.63 3	-2.93 3	-4.06 3	4.41 3
0.867242	1.32650	43.00	56.00	6.19 2	-8.83 2	-9.92 2	1.30 3
0.863864	1.32688	41.00	59.00	4.13 2	-6.73 2	-6.79 2	9.78 2
0.822865	1.32709	33.00	77.00	1.07 2	-3.32 2	-2.10 2	4.68 2
0.831768	1.32723	34.00	74.00	1.27 2	-3.59 2	-2.41 2	5.07 2
0.872150	1.32751	46.00	52.00	1.50 3	-1.77 3	-2.34 3	2.65 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.815444	1.32848	32.00	80.00	9.01 1	-3.08 2	-1.84 2	4.33 2
0.842232	1.32897	35.00	71.00	1.52 2	-3.91 2	-2.78 2	5.53 2
0.874389	1.32946	45.00	53.00	1.10 3	-1.36 3	-1.71 3	2.02 3
0.859730	1.33007	38.00	64.00	2.51 2	-5.04 2	-4.29 2	7.20 2
0.871693	1.33037	42.00	57.00	5.21 2	-7.84 2	-8.39 2	1.14 3
0.864197	1.33055	39.00	62.00	2.98 2	-5.55 2	-5.01 2	7.96 2
0.856457	1.33069	37.00	66.00	2.14 2	-4.63 2	-3.72 2	6.59 2
0.809446	1.33139	31.00	83.00	7.65 1	-2.88 2	-1.62 2	4.03 2
0.877285	1.33195	44.00	54.00	8.42 2	-1.11 3	-1.32 3	1.63 3
0.869886	1.33214	40.00	60.00	3.61 2	-6.21 2	-5.95 2	8.94 2
0.854361	1.33237	36.00	68.00	1.83 2	-4.30 2	-3.26 2	6.08 2
0.833510	1.33254	33.00	76.00	1.11 2	-3.40 2	-2.15 2	4.77 2
0.842664	1.33302	34.00	73.00	1.32 2	-3.68 2	-2.47 2	5.18 2
0.825887	1.33364	32.00	79.00	9.40 1	-3.16 2	-1.88 2	4.42 2
0.876836	1.33485	41.00	58.00	4.45 2	-7.09 2	-7.21 2	1.02 3
0.880850	1.33507	43.00	55.00	6.84 2	-9.51 2	-1.08 3	1.39 3
0.853434	1.33512	35.00	70.00	1.59 2	-4.02 2	-2.87 2	5.65 2
0.884809	1.33521	48.00	49.00	3.58 3	-3.72 3	-5.44 3	5.56 3
0.804829	1.33580	30.00	86.00	6.52 1	-2.69 2	-1.44 2	3.75 2
0.885465	1.33592	47.00	50.00	4.39 3	-4.74 3	-6.66 3	7.10 3
0.819732	1.33628	31.00	82.00	7.98 1	-2.94 2	-1.66 2	4.10 2
0.886779	1.33699	46.00	51.00	1.84 3	-2.11 3	-2.82 3	3.14 3
0.871847	1.33721	38.00	63.00	2.65 2	-5.22 2	-4.47 2	7.42 2
0.868284	1.33752	37.00	65.00	2.25 2	-4.78 2	-3.86 2	6.77 2
0.876640	1.33801	39.00	61.00	3.17 2	-5.77 2	-5.25 2	8.24 2
0.844257	1.33814	33.00	75.00	1.16 2	-3.48 2	-2.21 2	4.86 2
0.888758	1.33873	45.00	52.00	1.29 3	-1.56 3	-1.99 3	2.30 3
0.885102	1.33875	42.00	56.00	5.67 2	-8.33 2	-9.00 2	1.21 3
0.865930	1.33894	36.00	67.00	1.93 2	-4.42 2	-3.37 2	6.23 2
0.836416	1.33894	32.00	78.00	9.80 1	-3.23 2	-1.93 2	4.50 2
0.853681	1.33896	34.00	72.00	1.38 2	-3.78 2	-2.55 2	5.29 2
0.882696	1.33995	40.00	59.00	3.86 2	-6.49 2	-6.28 2	9.30 2
0.815000	1.34047	30.00	85.00	6.79 1	-2.75 2	-1.47 2	3.82 2
0.891410	1.34099	44.00	53.00	9.49 2	-1.22 3	-1.47 3	1.78 3
0.830090	1.34130	31.00	81.00	8.31 1	-3.01 2	-1.70 2	4.18 2
0.864777	1.34145	35.00	69.00	1.67 2	-4.13 2	-2.96 2	5.78 2
0.801569	1.34175	29.00	89.00	5.56 1	-2.52 2	-1.28 2	3.50 2
0.890059	1.34307	41.00	57.00	4.81 2	-7.47 2	-7.67 2	1.07 3
0.855114	1.34389	33.00	74.00	1.21 2	-3.57 2	-2.27 2	4.96 2
0.894747	1.34391	43.00	54.00	7.57 2	-1.03 3	-1.18 3	1.49 3
0.847039	1.34438	32.00	77.00	1.02 2	-3.31 2	-1.98 2	4.59 2
0.884160	1.34456	38.00	62.00	2.81 2	-5.41 2	-4.67 2	7.65 2
0.880289	1.34457	37.00	64.00	2.37 2	-4.94 2	-4.02 2	6.96 2
0.864825	1.34507	34.00	71.00	1.45 2	-3.87 2	-2.62 2	5.40 2
0.825231	1.34525	30.00	84.00	7.07 1	-2.81 2	-1.50 2	3.89 2
0.877662	1.34570	36.00	66.00	2.03 2	-4.56 2	-3.49 2	6.39 2
0.889301	1.34571	39.00	60.00	3.38 2	-6.01 2	-5.52 2	8.54 2
0.811667	1.34619	29.00	88.00	5.79 1	-2.57 2	-1.30 2	3.57 2
0.840526	1.34646	31.00	80.00	8.66 1	-3.08 2	-1.74 2	4.26 2
0.898786	1.34743	42.00	55.00	6.21 2	-8.91 2	-9.74 2	1.28 3
0.876268	1.34796	35.00	68.00	1.75 2	-4.24 2	-3.06 2	5.92 2
0.895746	1.34804	40.00	58.00	4.14 2	-6.81 2	-6.65 2	9.70 2
0.866087	1.34980	33.00	73.00	1.27 2	-3.65 2	-2.33 2	5.06 2
0.857760	1.34996	32.00	76.00	1.07 2	-3.38 2	-2.03 2	4.68 2
0.835526	1.35015	30.00	83.00	7.37 1	-2.87 2	-1.53 2	3.97 2
0.821812	1.35075	29.00	87.00	6.03 1	-2.63 2	-1.33 2	3.63 2
0.876105	1.35134	34.00	70.00	1.52 2	-3.97 2	-2.70 2	5.52 2
0.851046	1.35175	31.00	79.00	9.02 1	-3.15 2	-1.78 2	4.34 2
0.892483	1.35182	37.00	63.00	2.51 2	-5.10 2	-4.18 2	7.16 2
0.896682	1.35215	38.00	61.00	2.98 2	-5.61 2	-4.89 2	7.91 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.889566	1.35266	36.00	65.00	2.13 2	-4.69 2	-3.62 2	6.56 2
0.887915	1.35465	35.00	67.00	1.83 2	-4.36 2	-3.17 2	6.06 2
0.845889	1.35518	30.00	82.00	7.67 1	-2.94 2	-1.57 2	4.04 2
0.832007	1.35543	29.00	86.00	6.28 1	-2.69 2	-1.36 2	3.70 2
0.868586	1.35568	32.00	75.00	1.11 2	-3.46 2	-2.08 2	4.77 2
0.877182	1.35587	33.00	72.00	1.32 2	-3.74 2	-2.40 2	5.17 2
0.861653	1.35718	31.00	78.00	9.40 1	-3.22 2	-1.82 2	4.42 2
0.887526	1.35780	34.00	69.00	1.59 2	-4.08 2	-2.79 2	5.64 2
0.819822	1.35785	28.00	90.00	5.15 1	-2.47 2	-1.18 2	3.39 2
0.842257	1.36023	29.00	85.00	6.54 1	-2.75 2	-1.39 2	3.77 2
0.856326	1.36033	30.00	81.00	7.99 1	-3.01 2	-1.60 2	4.11 2
0.899727	1.36154	35.00	66.00	1.92 2	-4.48 2	-3.28 2	6.20 2
0.879522	1.36156	32.00	74.00	1.16 2	-3.54 2	-2.14 2	4.86 2
0.888406	1.36211	33.00	71.00	1.38 2	-3.84 2	-2.47 2	5.27 2
0.829958	1.36233	28.00	89.00	5.37 1	-2.53 2	-1.20 2	3.46 2
0.872356	1.36275	31.00	77.00	9.80 1	-3.29 2	-1.87 2	4.50 2
0.899097	1.36444	34.00	68.00	1.66 2	-4.19 2	-2.88 2	5.76 2
0.852568	1.36514	29.00	84.00	6.81 1	-2.81 2	-1.42 2	3.84 2
0.866843	1.36562	30.00	80.00	8.32 1	-3.07 2	-1.64 2	4.19 2
0.840137	1.36691	28.00	88.00	5.59 1	-2.58 2	-1.23 2	3.52 2
0.890576	1.36760	32.00	73.00	1.21 2	-3.63 2	-2.20 2	4.96 2
0.883158	1.36846	31.00	76.00	1.02 2	-3.37 2	-1.92 2	4.59 2
0.899767	1.36851	33.00	70.00	1.45 2	-3.93 2	-2.55 2	5.38 2
0.862944	1.37018	29.00	83.00	7.09 1	-2.88 2	-1.45 2	3.91 2
0.877444	1.37104	30.00	79.00	8.66 1	-3.14 2	-1.68 2	4.27 2
0.850363	1.37161	28.00	87.00	5.81 1	-2.64 2	-1.25 2	3.58 2
0.894066	1.37432	31.00	75.00	1.06 2	-3.44 2	-1.97 2	4.68 2
0.873390	1.37534	29.00	82.00	7.37 1	-2.94 2	-1.48 2	3.98 2
0.860641	1.37642	28.00	86.00	6.05 1	-2.70 2	-1.28 2	3.65 2
0.888134	1.37660	30.00	78.00	9.02 1	-3.21 2	-1.72 2	4.35 2
0.849715	1.37979	27.00	90.00	4.97 1	-2.48 2	-1.11 2	3.35 2
0.883911	1.38063	29.00	81.00	7.67 1	-3.00 2	-1.51 2	4.05 2
0.870975	1.38136	28.00	85.00	6.29 1	-2.76 2	-1.31 2	3.72 2
0.898921	1.38231	30.00	77.00	9.39 1	-3.28 2	-1.76 2	4.43 2
0.859936	1.38440	27.00	89.00	5.17 1	-2.53 2	-1.13 2	3.41 2
0.894513	1.38606	29.00	80.00	7.98 1	-3.07 2	-1.55 2	4.12 2
0.881371	1.38641	28.00	84.00	6.54 1	-2.82 2	-1.33 2	3.78 2
0.870201	1.38913	27.00	88.00	5.38 1	-2.59 2	-1.16 2	3.48 2
0.891834	1.39159	28.00	83.00	6.80 1	-2.88 2	-1.36 2	3.85 2
0.880514	1.39397	27.00	87.00	5.60 1	-2.65 2	-1.18 2	3.54 2
0.890881	1.39894	27.00	86.00	5.82 1	-2.70 2	-1.20 2	3.60 2
0.881362	1.40337	26.00	90.00	4.79 1	-2.49 2	-1.05 2	3.31 2
0.891674	1.40814	26.00	89.00	4.98 1	-2.54 2	-1.07 2	3.37 2
0.90	1.00						
0.900745	1.34595	47.00	49.00	5.45 3	-5.76 3	-8.20 3	8.55 3
0.901762	1.34683	46.00	50.00	2.36 3	-2.64 3	-3.57 3	3.89 3
0.903463	1.34834	45.00	51.00	1.55 3	-1.83 3	-2.35 3	2.68 3
0.905856	1.35038	44.00	52.00	1.09 3	-1.36 3	-1.67 3	1.98 3
0.903545	1.35157	41.00	56.00	5.20 2	-7.90 2	-8.20 2	1.13 3
0.908951	1.35308	43.00	53.00	8.47 2	-1.12 3	-1.30 3	1.62 3
0.902189	1.35365	39.00	59.00	3.60 2	-6.27 2	-5.81 2	8.86 2
0.909047	1.35638	40.00	57.00	4.46 2	-7.15 2	-7.05 2	1.01 3
0.912763	1.35640	42.00	54.00	6.83 2	-9.56 2	-1.06 3	1.37 3
0.916421	1.35651	47.00	48.00	-6.02 3	6.09 3	8.86 3	-9.06 3
0.917122	1.35697	46.00	49.00	2.62 3	-2.86 3	-3.92 3	4.19 3
0.918526	1.35830	45.00	50.00	1.93 3	-2.21 3	-2.89 3	3.23 3
0.904876	1.35930	37.00	62.00	2.65 2	-5.28 2	-4.36 2	7.37 2
0.901651	1.35983	36.00	64.00	2.25 2	-4.84 2	-3.76 2	6.73 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.909421	1.35997	38.00	60.00	3.17 2	-5.83 2	-5.13 2	8.18 2
0.920641	1.36010	44.00	51.00	1.26 3	-1.54 3	-1.91 3	2.23 3
0.917310	1.36037	41.00	55.00	5.67 2	-8.40 2	-8.82 2	1.19 3
0.915319	1.36186	39.00	58.00	3.86 2	-6.55 2	-6.13 2	9.22 2
0.923477	1.36259	43.00	52.00	9.60 2	-1.24 3	-1.46 3	1.78 3
0.922615	1.36500	40.00	56.00	4.81 2	-7.53 2	-7.51 2	1.06 3
0.927047	1.36569	42.00	53.00	7.57 2	-1.03 3	-1.16 3	1.47 3
0.917478	1.36701	37.00	61.00	2.81 2	-5.47 2	-4.56 2	7.60 2
0.913926	1.36721	36.00	63.00	2.37 2	-5.00 2	-3.91 2	6.91 2
0.932880	1.36758	46.00	48.00	3.30 3	-3.51 3	-4.88 3	5.10 3
0.922392	1.36804	38.00	59.00	3.37 2	-6.07 2	-5.39 2	8.47 2
0.933968	1.36860	45.00	49.00	2.32 3	-2.60 3	-3.44 3	3.76 3
0.911712	1.36863	35.00	65.00	2.02 2	-4.61 2	-3.40 2	6.36 2
0.931368	1.36946	41.00	54.00	6.20 2	-8.96 2	-9.52 2	1.27 3
0.935787	1.37018	44.00	50.00	1.50 3	-1.77 3	-2.23 3	2.55 3
0.928703	1.37033	39.00	57.00	4.13 2	-6.86 2	-6.49 2	9.60 2
0.910826	1.37125	34.00	67.00	1.74 2	-4.30 2	-2.97 2	5.89 2
0.938346	1.37244	43.00	51.00	1.10 3	-1.38 3	-1.65 3	1.97 3
0.901753	1.37380	32.00	72.00	1.26 2	-3.72 2	-2.26 2	5.06 2
0.936462	1.37393	40.00	55.00	5.22 2	-7.98 2	-8.05 2	1.12 3
0.926402	1.37482	36.00	62.00	2.50 2	-5.16 2	-4.08 2	7.11 2
0.930301	1.37496	37.00	60.00	2.98 2	-5.67 2	-4.77 2	7.85 2
0.911271	1.37509	33.00	69.00	1.51 2	-4.03 2	-2.62 2	5.50 2
0.941657	1.37533	42.00	52.00	8.48 2	-1.13 3	-1.28 3	1.60 3
0.923880	1.37592	35.00	64.00	2.13 2	-4.75 2	-3.52 2	6.52 2
0.935605	1.37637	38.00	58.00	3.60 2	-6.33 2	-5.67 2	8.79 2
0.922722	1.37827	34.00	66.00	1.83 2	-4.42 2	-3.08 2	6.03 2
0.949060	1.37847	46.00	47.00	1.35 3	-1.45 3	-2.01 3	2.06 3
0.945737	1.37888	41.00	53.00	6.82 2	-9.61 2	-1.03 3	1.35 3
0.942354	1.37908	39.00	56.00	4.44 2	-7.20 2	-6.89 2	1.00 3
0.949811	1.37936	45.00	48.00	3.34 3	-3.63 3	-4.89 3	5.23 3
0.913061	1.38017	32.00	71.00	1.32 2	-3.80 2	-2.33 2	5.16 2
0.905086	1.38033	31.00	74.00	1.11 2	-3.52 2	-2.02 2	4.77 2
0.951313	1.38061	44.00	49.00	1.73 3	-2.00 3	-2.56 3	2.86 3
0.922927	1.38186	33.00	68.00	1.58 2	-4.14 2	-2.71 2	5.62 2
0.953577	1.38265	43.00	50.00	1.28 3	-1.56 3	-1.89 3	2.22 3
0.939090	1.38266	36.00	61.00	2.64 2	-5.33 2	-4.25 2	7.32 2
0.943357	1.38316	37.00	59.00	3.16 2	-5.88 2	-5.00 2	8.11 2
0.950606	1.38316	40.00	54.00	5.67 2	-8.46 2	-8.64 2	1.18 3
0.936241	1.38343	35.00	63.00	2.24 2	-4.90 2	-3.66 2	6.69 2
0.949075	1.38497	38.00	57.00	3.85 2	-6.61 2	-5.99 2	9.13 2
0.956612	1.38530	42.00	51.00	9.57 2	-1.24 3	-1.43 3	1.75 3
0.934793	1.38549	34.00	65.00	1.92 2	-4.54 2	-3.19 2	6.18 2
0.916225	1.38650	31.00	73.00	1.16 2	-3.60 2	-2.07 2	4.86 2
0.924507	1.38671	32.00	70.00	1.38 2	-3.90 2	-2.39 2	5.26 2
0.956289	1.38814	39.00	55.00	4.80 2	-7.59 2	-7.34 2	1.05 3
0.909808	1.38815	30.00	76.00	9.77 1	-3.35 2	-1.81 2	4.51 2
0.960434	1.38865	41.00	52.00	7.57 2	-1.04 3	-1.13 3	1.46 3
0.934742	1.38881	33.00	67.00	1.66 2	-4.24 2	-2.79 2	5.74 2
0.966079	1.39049	45.00	47.00	4.28 3	-4.54 3	-6.20 3	6.49 3
0.952000	1.39074	36.00	60.00	2.80 2	-5.52 2	-4.44 2	7.54 2
0.948804	1.39117	35.00	62.00	2.36 2	-5.05 2	-3.81 2	6.87 2
0.967244	1.39148	44.00	48.00	2.14 3	-2.41 3	-3.13 3	3.43 3
0.905200	1.39162	29.00	79.00	8.30 1	-3.13 2	-1.58 2	4.20 2
0.956658	1.39163	37.00	58.00	3.36 2	-6.12 2	-5.25 2	8.40 2
0.965063	1.39271	40.00	53.00	6.21 2	-9.03 2	-9.34 2	1.26 3
0.927489	1.39284	31.00	72.00	1.21 2	-3.69 2	-2.13 2	4.95 2
0.947048	1.39292	34.00	64.00	2.01 2	-4.67 2	-3.30 2	6.33 2
0.969191	1.39322	43.00	49.00	1.48 3	-1.76 3	-2.17 3	2.49 3
0.936098	1.39342	32.00	69.00	1.44 2	-3.99 2	-2.47 2	5.37 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.962814	1.39386	38.00	56.00	4.12 2	-6.91 2	-6.34 2	9.51 2
0.920804	1.39415	30.00	75.00	1.02 2	-3.43 2	-1.85 2	4.59 2
0.971932	1.39565	42.00	50.00	1.09 3	-1.38 3	-1.61 3	1.94 3
0.946725	1.39597	33.00	66.00	1.74 2	-4.36 2	-2.89 2	5.87 2
0.902368	1.39690	28.00	82.00	7.07 1	-2.94 2	-1.39 2	3.92 2
0.915979	1.39732	29.00	78.00	8.63 1	-3.20 2	-1.62 2	4.27 2
0.970522	1.39749	39.00	54.00	5.20 2	-8.02 2	-7.85 2	1.11 3
0.975479	1.39875	41.00	51.00	8.45 2	-1.13 3	-1.25 3	1.58 3
0.965145	1.39907	36.00	59.00	2.96 2	-5.72 2	-4.65 2	7.78 2
0.961580	1.39915	35.00	61.00	2.49 2	-5.21 2	-3.97 2	7.06 2
0.938886	1.39934	31.00	71.00	1.26 2	-3.77 2	-2.19 2	5.05 2
0.931913	1.40030	30.00	74.00	1.06 2	-3.50 2	-1.90 2	4.68 2
0.947843	1.40033	32.00	68.00	1.50 2	-4.09 2	-2.54 2	5.48 2
0.970217	1.40036	37.00	57.00	3.59 2	-6.37 2	-5.53 2	8.71 2
0.959498	1.40057	34.00	63.00	2.12 2	-4.81 2	-3.43 2	6.48 2
0.982801	1.40230	45.00	46.00	-2.52 3	2.52 3	3.56 3	-3.64 3
0.912978	1.40233	28.00	81.00	7.35 1	-3.00 2	-1.42 2	3.99 2
0.979851	1.40261	40.00	52.00	6.84 2	-9.70 2	-1.02 3	1.34 3
0.983603	1.40274	44.00	47.00	2.45 3	-2.69 3	-3.54 3	3.79 3
0.976839	1.40305	38.00	55.00	4.44 2	-7.26 2	-6.73 2	9.95 2
0.926854	1.40317	29.00	77.00	8.98 1	-3.27 2	-1.66 2	4.35 2
0.958886	1.40332	33.00	65.00	1.82 2	-4.47 2	-2.99 2	6.00 2
0.901305	1.40402	27.00	85.00	6.05 1	-2.76 2	-1.23 2	3.67 2
0.985213	1.40423	43.00	48.00	1.80 3	-2.09 3	-2.61 3	2.94 3
0.950422	1.40602	31.00	70.00	1.31 2	-3.86 2	-2.25 2	5.15 2
0.987638	1.40635	42.00	49.00	1.25 3	-1.53 3	-1.82 3	2.14 3
0.943142	1.40662	30.00	73.00	1.10 2	-3.58 2	-1.95 2	4.76 2
0.985070	1.40718	39.00	53.00	5.65 2	-8.50 2	-8.44 2	1.17 3
0.974582	1.40737	35.00	60.00	2.63 2	-5.38 2	-4.14 2	7.27 2
0.959749	1.40742	32.00	67.00	1.57 2	-4.19 2	-2.62 2	5.60 2
0.978537	1.40767	36.00	58.00	3.15 2	-5.94 2	-4.87 2	8.04 2
0.923670	1.40790	28.00	80.00	7.64 1	-3.06 2	-1.46 2	4.06 2
0.972152	1.40845	34.00	62.00	2.23 2	-4.95 2	-3.56 2	6.65 2
0.937833	1.40915	29.00	76.00	9.34 1	-3.34 2	-1.70 2	4.43 2
0.911792	1.40922	27.00	84.00	6.28 1	-2.82 2	-1.26 2	3.73 2
0.990891	1.40923	41.00	50.00	9.53 2	-1.24 3	-1.39 3	1.72 3
0.984048	1.40938	37.00	56.00	3.83 2	-6.65 2	-5.84 2	9.04 2
0.971233	1.41089	33.00	64.00	1.91 2	-4.59 2	-3.09 2	6.14 2
0.991165	1.41254	38.00	54.00	4.78 2	-7.64 2	-7.18 2	1.04 3
0.994989	1.41285	40.00	51.00	7.58 2	-1.05 3	-1.11 3	1.44 3
0.962105	1.41288	31.00	69.00	1.37 2	-3.95 2	-2.32 2	5.25 2
0.902031	1.41302	26.00	88.00	5.17 1	-2.60 2	-1.09 2	3.43 2
0.954498	1.41310	30.00	72.00	1.15 2	-3.66 2	-2.00 2	4.85 2
0.934450	1.41361	28.00	79.00	7.94 1	-3.13 2	-1.49 2	4.13 2
0.922347	1.41455	27.00	83.00	6.53 1	-2.88 2	-1.28 2	3.80 2
0.971825	1.41472	32.00	66.00	1.65 2	-4.30 2	-2.71 2	5.72 2
0.948921	1.41530	29.00	75.00	9.72 1	-3.41 2	-1.74 2	4.51 2
0.987820	1.41583	35.00	59.00	2.78 2	-5.57 2	-4.32 2	7.48 2
0.992189	1.41655	36.00	57.00	3.35 2	-6.17 2	-5.12 2	8.32 2
0.985022	1.41656	34.00	61.00	2.35 2	-5.10 2	-3.70 2	6.83 2
0.999952	1.41721	39.00	52.00	6.19 2	-9.07 2	-9.13 2	1.24 3
0.912438	1.41801	26.00	87.00	5.38 1	-2.65 2	-1.11 2	3.50 2
0.983777	1.41868	33.00	63.00	2.00 2	-4.72 2	-3.21 2	6.29 2
0.998168	1.41871	37.00	55.00	4.11 2	-6.96 2	-6.19 2	9.42 2
0.945322	1.41946	28.00	78.00	8.26 1	-3.19 2	-1.52 2	4.21 2
0.965989	1.41974	30.00	71.00	1.20 2	-3.75 2	-2.06 2	4.94 2
0.973944	1.41992	31.00	68.00	1.43 2	-4.05 2	-2.39 2	5.36 2
0.932975	1.42000	27.00	82.00	6.78 1	-2.94 2	-1.31 2	3.87 2
0.960124	1.42159	29.00	74.00	1.01 2	-3.49 2	-1.79 2	4.59 2
0.984081	1.42221	32.00	65.00	1.72 2	-4.41 2	-2.80 2	5.84 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
0.922899	1.42313	26.00	86.00	5.58 1	-2.71 2	-1.13 2	3.56 2
0.998119	1.42492	34.00	60.00	2.48 2	-5.26 2	-3.86 2	7.01 2
0.956293	1.42545	28.00	77.00	8.58 1	-3.26 2	-1.56 2	4.28 2
0.943680	1.42559	27.00	81.00	7.04 1	-3.00 2	-1.34 2	3.93 2
0.977620	1.42656	30.00	70.00	1.25 2	-3.83 2	-2.12 2	5.04 2
0.996527	1.42670	33.00	62.00	2.10 2	-4.86 2	-3.33 2	6.45 2
0.985946	1.42716	31.00	67.00	1.49 2	-4.14 2	-2.46 2	5.46 2
0.971449	1.42805	29.00	73.00	1.05 2	-3.56 2	-1.83 2	4.67 2
0.933420	1.42836	26.00	85.00	5.80 1	-2.77 2	-1.16 2	3.62 2
0.914959	1.42879	25.00	90.00	4.61 1	-2.50 2	-9.83 1	3.28 2
0.996525	1.42992	32.00	64.00	1.81 2	-4.52 2	-2.90 2	5.98 2
0.954469	1.43131	27.00	80.00	7.31 1	-3.06 2	-1.37 2	4.00 2
0.967368	1.43159	28.00	76.00	8.92 1	-3.33 2	-1.60 2	4.36 2
0.989401	1.43357	30.00	69.00	1.30 2	-3.92 2	-2.18 2	5.14 2
0.925369	1.43372	25.00	89.00	4.78 1	-2.55 2	-1.00 2	3.34 2
0.944004	1.43372	26.00	84.00	6.02 1	-2.82 2	-1.18 2	3.68 2
0.998120	1.43460	31.00	66.00	1.56 2	-4.24 2	-2.54 2	5.58 2
0.982903	1.43468	29.00	72.00	1.10 2	-3.64 2	-1.88 2	4.76 2
0.965347	1.43717	27.00	79.00	7.60 1	-3.13 2	-1.40 2	4.07 2
0.978554	1.43788	28.00	75.00	9.27 1	-3.40 2	-1.64 2	4.43 2
0.935825	1.43876	25.00	88.00	4.97 1	-2.61 2	-1.02 2	3.40 2
0.954658	1.43920	26.00	83.00	6.25 1	-2.88 2	-1.20 2	3.75 2
0.994493	1.44148	29.00	71.00	1.14 2	-3.72 2	-1.93 2	4.85 2
0.976319	1.44317	27.00	78.00	7.89 1	-3.19 2	-1.43 2	4.14 2
0.946332	1.44391	25.00	87.00	5.16 1	-2.66 2	-1.04 2	3.46 2
0.989857	1.44433	28.00	74.00	9.64 1	-3.47 2	-1.68 2	4.51 2
0.965386	1.44481	26.00	82.00	6.49 1	-2.94 2	-1.23 2	3.81 2
0.956895	1.44919	25.00	86.00	5.35 1	-2.72 2	-1.06 2	3.52 2
0.987391	1.44932	27.00	77.00	8.19 1	-3.25 2	-1.47 2	4.21 2
0.976193	1.45056	26.00	81.00	6.73 1	-3.00 2	-1.26 2	3.88 2
0.967518	1.45459	25.00	85.00	5.55 1	-2.77 2	-1.08 2	3.58 2
0.998569	1.45561	27.00	76.00	8.51 1	-3.32 2	-1.50 2	4.29 2
0.950732	1.45627	24.00	90.00	4.42 1	-2.51 2	-9.21 1	3.24 2
0.987085	1.45644	26.00	80.00	6.99 1	-3.06 2	-1.28 2	3.95 2
0.978207	1.46011	25.00	84.00	5.76 1	-2.83 2	-1.11 2	3.64 2
0.961247	1.46137	24.00	89.00	4.59 1	-2.56 2	-9.39 1	3.30 2
0.998068	1.46246	26.00	79.00	7.25 1	-3.12 2	-1.31 2	4.01 2
0.988966	1.46575	25.00	83.00	5.98 1	-2.88 2	-1.13 2	3.70 2
0.971809	1.46657	24.00	88.00	4.76 1	-2.62 2	-9.57 1	3.36 2
0.999802	1.47153	25.00	82.00	6.20 1	-2.94 2	-1.15 2	3.76 2
0.982424	1.47190	24.00	87.00	4.94 1	-2.67 2	-9.76 1	3.42 2
0.993096	1.47734	24.00	86.00	5.12 1	-2.72 2	-9.95 1	3.48 2
0.988945	1.48606	23.00	90.00	4.23 1	-2.52 2	-8.61 1	3.21 2
0.999573	1.49133	23.00	89.00	4.39 1	-2.57 2	-8.78 1	3.27 2
1.00	1.10						
1.00042	1.41455	44.00	46.00	3.95 3	-4.21 3	-5.63 3	5.90 3
1.00167	1.41564	43.00	47.00	2.18 3	-2.46 3	-3.12 3	3.44 3
1.00375	1.41750	42.00	48.00	1.48 3	-1.77 3	-2.13 3	2.45 3
1.00669	1.42008	41.00	49.00	1.08 3	-1.36 3	-1.55 3	1.88 3
1.00581	1.42237	38.00	53.00	5.18 2	-8.06 2	-7.68 2	1.10 3
1.01050	1.42347	40.00	50.00	8.46 2	-1.14 3	-1.23 3	1.56 3
1.00131	1.42458	35.00	58.00	2.95 2	-5.77 2	-4.52 2	7.72 2
1.00612	1.42571	36.00	56.00	3.57 2	-6.42 2	-5.39 2	8.62 2
1.01772	1.42658	44.00	45.00	1.29 3	-1.38 3	-1.85 3	1.90 3
1.01519	1.42760	39.00	51.00	6.80 2	-9.72 2	-9.92 2	1.32 3
1.01858	1.42760	43.00	46.00	3.36 3	-3.67 3	-4.75 3	5.10 3
1.01259	1.42835	37.00	54.00	4.42 2	-7.30 2	-6.57 2	9.84 2
1.02031	1.42906	42.00	47.00	1.75 3	-2.04 3	-2.49 3	2.81 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.02291	1.43137	41.00	48.00	1.25 3	-1.54 3	-1.78 3	2.11 3
1.02079	1.43254	38.00	52.00	5.64 2	-8.56 2	-8.26 2	1.16 3
1.01146	1.43353	34.00	59.00	2.61 2	-5.43 2	-4.02 2	7.21 2
1.01506	1.43359	35.00	57.00	3.13 2	-5.98 2	-4.74 2	7.97 2
1.02640	1.43446	40.00	49.00	9.48 2	-1.24 3	-1.36 3	1.69 3
1.00950	1.43496	33.00	61.00	2.21 2	-5.00 2	-3.46 2	6.61 2
1.02034	1.43518	36.00	55.00	3.81 2	-6.70 2	-5.69 2	8.96 2
1.00917	1.43786	32.00	63.00	1.89 2	-4.64 2	-3.00 2	6.11 2
1.02733	1.43832	37.00	53.00	4.76 2	-7.68 2	-7.00 2	1.03 3
1.03080	1.43836	39.00	50.00	7.53 2	-1.05 3	-1.09 3	1.42 3
1.03598	1.43990	43.00	45.00	3.50 3	-3.73 3	-4.90 3	5.14 3
1.00134	1.44076	30.00	68.00	1.36 2	-4.01 2	-2.24 2	5.24 2
1.03732	1.44114	42.00	46.00	2.33 3	-2.63 3	-3.28 3	3.62 3
1.01048	1.44224	31.00	65.00	1.63 2	-4.35 2	-2.62 2	5.69 2
1.02504	1.44242	34.00	58.00	2.76 2	-5.61 2	-4.20 2	7.43 2
1.02909	1.44290	35.00	56.00	3.32 2	-6.20 2	-4.98 2	8.24 2
1.03956	1.44307	41.00	47.00	1.45 3	-1.74 3	-2.05 3	2.37 3
1.03613	1.44308	38.00	51.00	6.16 2	-9.11 2	-8.92 2	1.23 3
1.02269	1.44346	33.00	60.00	2.33 2	-5.15 2	-3.59 2	6.78 2
1.03486	1.44496	36.00	54.00	4.08 2	-7.00 2	-6.03 2	9.32 2
1.04271	1.44590	40.00	48.00	1.08 3	-1.38 3	-1.54 3	1.87 3
1.02202	1.44602	32.00	62.00	1.99 2	-4.77 2	-3.11 2	6.26 2
1.01344	1.44815	30.00	67.00	1.42 2	-4.10 2	-2.31 2	5.34 2
1.00623	1.44845	29.00	70.00	1.19 2	-3.80 2	-1.99 2	4.94 2
1.04242	1.44864	37.00	52.00	5.16 2	-8.11 2	-7.50 2	1.08 3
1.04680	1.44950	39.00	49.00	8.36 2	-1.13 3	-1.19 3	1.53 3
1.02302	1.45010	31.00	64.00	1.71 2	-4.46 2	-2.71 2	5.82 2
1.00128	1.45094	28.00	73.00	1.00 2	-3.54 2	-1.72 2	4.59 2
1.03890	1.45159	34.00	57.00	2.93 2	-5.81 2	-4.40 2	7.65 2
1.03613	1.45222	33.00	59.00	2.46 2	-5.31 2	-3.74 2	6.96 2
1.04341	1.45252	35.00	55.00	3.54 2	-6.46 2	-5.25 2	8.54 2
1.05390	1.45296	43.00	44.00	-4.28 3	4.33 3	5.86 3	-6.01 3
1.05482	1.45361	42.00	45.00	2.72 3	-2.99 3	-3.79 3	4.08 3
1.05184	1.45399	38.00	50.00	6.78 2	-9.76 2	-9.70 2	1.31 3
1.03509	1.45443	32.00	61.00	2.09 2	-4.90 2	-3.23 2	6.41 2
1.04971	1.45508	36.00	53.00	4.39 2	-7.33 2	-6.40 2	9.73 2
1.05668	1.45529	41.00	46.00	1.80 3	-2.10 3	-2.51 3	2.85 3
1.01811	1.45560	29.00	69.00	1.24 2	-3.88 2	-2.04 2	5.03 2
1.02572	1.45574	30.00	66.00	1.48 2	-4.20 2	-2.38 2	5.45 2
1.01284	1.45772	28.00	72.00	1.04 2	-3.62 2	-1.77 2	4.67 2
1.05947	1.45776	40.00	47.00	1.25 3	-1.55 3	-1.75 3	2.09 3
1.03577	1.45819	31.00	63.00	1.79 2	-4.57 2	-2.80 2	5.94 2
1.05786	1.45932	37.00	51.00	5.61 2	-8.59 2	-8.06 2	1.14 3
1.05303	1.46104	34.00	56.00	3.10 2	-6.02 2	-4.61 2	7.90 2
1.06322	1.46109	39.00	48.00	9.42 2	-1.24 3	-1.33 3	1.67 3
1.04983	1.46127	33.00	58.00	2.59 2	-5.47 2	-3.91 2	7.16 2
1.00986	1.46206	27.00	75.00	8.84 1	-3.39 2	-1.54 2	4.36 2
1.05804	1.46245	35.00	54.00	3.78 2	-6.73 2	-5.54 2	8.86 2
1.03015	1.46296	29.00	68.00	1.29 2	-3.97 2	-2.10 2	5.12 2
1.04839	1.46309	32.00	60.00	2.19 2	-5.04 2	-3.35 2	6.56 2
1.03818	1.46354	30.00	65.00	1.55 2	-4.30 2	-2.46 2	5.56 2
1.02454	1.46468	28.00	71.00	1.08 2	-3.70 2	-1.81 2	4.76 2
1.06795	1.46528	38.00	49.00	7.47 2	-1.05 3	-1.06 3	1.40 3
1.06490	1.46555	36.00	52.00	4.73 2	-7.71 2	-6.83 2	1.02 3
1.04873	1.46651	31.00	62.00	1.88 2	-4.69 2	-2.90 2	6.08 2
1.07285	1.46674	42.00	44.00	6.43 3	-6.82 3	-8.83 3	9.29 3
1.07429	1.46793	41.00	45.00	2.11 3	-2.40 3	-2.92 3	3.24 3
1.00915	1.46862	26.00	78.00	7.53 1	-3.18 2	-1.34 2	4.08 2
1.02127	1.46867	27.00	74.00	9.18 1	-3.46 2	-1.57 2	4.43 2
1.07670	1.47014	40.00	46.00	1.51 3	-1.81 3	-2.09 3	2.44 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.07368	1.47039	37.00	50.00	6.13 2	-9.14 2	-8.71 2	1.21 3
1.04236	1.47050	29.00	67.00	1.34 2	-4.06 2	-2.16 2	5.22 2
1.06379	1.47059	33.00	57.00	2.74 2	-5.65 2	-4.08 2	7.36 2
1.06746	1.47082	34.00	55.00	3.30 2	-6.25 2	-4.85 2	8.17 2
1.05083	1.47155	30.00	64.00	1.62 2	-4.40 2	-2.54 2	5.67 2
1.03638	1.47181	28.00	70.00	1.13 2	-3.77 2	-1.86 2	4.84 2
1.06194	1.47201	32.00	59.00	2.31 2	-5.19 2	-3.49 2	6.73 2
1.07300	1.47273	35.00	53.00	4.05 2	-7.03 2	-5.87 2	9.22 2
1.08009	1.47310	39.00	47.00	1.07 3	-1.37 3	-1.49 3	1.83 3
1.02033	1.47493	26.00	77.00	7.81 1	-3.25 2	-1.37 2	4.15 2
1.06191	1.47508	31.00	61.00	1.97 2	-4.82 2	-3.01 2	6.22 2
1.03281	1.47544	27.00	73.00	9.54 1	-3.53 2	-1.61 2	4.51 2
1.08045	1.47639	36.00	51.00	5.12 2	-8.13 2	-7.31 2	1.07 3
1.08448	1.47703	38.00	48.00	8.34 2	-1.14 3	-1.17 3	1.51 3
1.01072	1.47744	25.00	81.00	6.43 1	-3.00 2	-1.18 2	3.83 2
1.05475	1.47825	29.00	66.00	1.40 2	-4.15 2	-2.23 2	5.32 2
1.04837	1.47912	28.00	69.00	1.17 2	-3.85 2	-1.91 2	4.93 2
1.06369	1.47980	30.00	63.00	1.69 2	-4.51 2	-2.62 2	5.79 2
1.07803	1.48020	33.00	56.00	2.90 2	-5.84 2	-4.27 2	7.58 2
1.09144	1.48026	42.00	43.00	4.52 3	-4.69 3	-6.16 3	6.32 3
1.08220	1.48091	34.00	54.00	3.51 2	-6.49 2	-5.11 2	8.46 2
1.09243	1.48119	41.00	44.00	3.15 3	-3.46 3	-4.31 3	4.65 3
1.07575	1.48121	32.00	58.00	2.43 2	-5.35 2	-3.63 2	6.91 2
1.03161	1.48139	26.00	76.00	8.11 1	-3.31 2	-1.41 2	4.22 2
1.08990	1.48184	37.00	49.00	6.71 2	-9.75 2	-9.44 2	1.29 3
1.04447	1.48239	27.00	72.00	9.92 1	-3.60 2	-1.66 2	4.59 2
1.00383	1.48291	24.00	85.00	5.31 1	-2.78 2	-1.02 2	3.54 2
1.09442	1.48294	40.00	45.00	1.79 3	-2.09 3	-2.45 3	2.79 3
1.08830	1.48336	35.00	52.00	4.35 2	-7.36 2	-6.23 2	9.62 2
1.02172	1.48349	25.00	80.00	6.67 1	-3.06 2	-1.20 2	3.89 2
1.07532	1.48389	31.00	60.00	2.06 2	-4.95 2	-3.12 2	6.36 2
1.09743	1.48563	39.00	46.00	1.25 3	-1.56 3	-1.73 3	2.07 3
1.06732	1.48621	29.00	65.00	1.46 2	-4.25 2	-2.30 2	5.43 2
1.06053	1.48664	28.00	68.00	1.22 2	-3.94 2	-1.97 2	5.02 2
1.09638	1.48762	36.00	50.00	5.56 2	-8.61 2	-7.86 2	1.13 3
1.04302	1.48800	26.00	75.00	8.41 1	-3.38 2	-1.44 2	4.29 2
1.07676	1.48828	30.00	62.00	1.77 2	-4.62 2	-2.71 2	5.91 2
1.01463	1.48861	24.00	84.00	5.50 1	-2.83 2	-1.04 2	3.60 2
1.05628	1.48950	27.00	71.00	1.03 2	-3.67 2	-1.70 2	4.67 2
1.03282	1.48967	25.00	79.00	6.91 1	-3.12 2	-1.23 2	3.96 2
1.09258	1.49014	33.00	55.00	3.08 2	-6.05 2	-4.48 2	7.83 2
1.08982	1.49069	32.00	57.00	2.57 2	-5.51 2	-3.79 2	7.10 2
1.09728	1.49134	34.00	53.00	3.75 2	-6.76 2	-5.39 2	8.77 2
1.08898	1.49297	31.00	59.00	2.17 2	-5.08 2	-3.25 2	6.52 2
1.07285	1.49434	28.00	67.00	1.27 2	-4.02 2	-2.03 2	5.11 2
1.08009	1.49439	29.00	64.00	1.53 2	-4.34 2	-2.37 2	5.53 2
1.02550	1.49443	24.00	83.00	5.70 1	-2.89 2	-1.06 2	3.66 2
1.05454	1.49478	26.00	74.00	8.73 1	-3.45 2	-1.48 2	4.36 2
1.04401	1.49601	25.00	78.00	7.17 1	-3.18 2	-1.26 2	4.02 2
1.01025	1.49672	23.00	88.00	4.55 1	-2.63 2	-8.95 1	3.32 2
1.06824	1.49680	27.00	70.00	1.07 2	-3.75 2	-1.74 2	4.75 2
1.09006	1.49701	30.00	61.00	1.85 2	-4.73 2	-2.81 2	6.04 2
1.03646	1.50037	24.00	82.00	5.91 1	-2.95 2	-1.08 2	3.72 2
1.06619	1.50172	26.00	73.00	9.07 1	-3.51 2	-1.51 2	4.44 2
1.02098	1.50222	23.00	87.00	4.72 1	-2.68 2	-9.12 1	3.38 2
1.08535	1.50226	28.00	66.00	1.33 2	-4.11 2	-2.09 2	5.21 2
1.05530	1.50249	25.00	77.00	7.43 1	-3.24 2	-1.29 2	4.09 2
1.09306	1.50280	29.00	63.00	1.60 2	-4.44 2	-2.45 2	5.64 2
1.08035	1.50428	27.00	69.00	1.11 2	-3.83 2	-1.79 2	4.83 2
1.04749	1.50646	24.00	81.00	6.13 1	-3.00 2	-1.10 2	3.78 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.03177	1.50785	23.00	86.00	4.89 1	-2.73 2	-9.30 1	3.44 2
1.07798	1.50884	26.00	72.00	9.41 1	-3.58 2	-1.55 2	4.51 2
1.06671	1.50912	25.00	76.00	7.71 1	-3.31 2	-1.32 2	4.16 2
1.09804	1.51039	28.00	65.00	1.38 2	-4.20 2	-2.15 2	5.30 2
1.09262	1.51197	27.00	68.00	1.16 2	-3.91 2	-1.84 2	4.92 2
1.05861	1.51269	24.00	80.00	6.35 1	-3.06 2	-1.13 2	3.84 2
1.04263	1.51360	23.00	85.00	5.06 1	-2.79 2	-9.49 1	3.50 2
1.07823	1.51591	25.00	75.00	7.99 1	-3.37 2	-1.35 2	4.23 2
1.08990	1.51613	26.00	71.00	9.78 1	-3.65 2	-1.59 2	4.59 2
1.02991	1.51846	22.00	90.00	4.05 1	-2.53 2	-8.04 1	3.18 2
1.06982	1.51905	24.00	79.00	6.58 1	-3.12 2	-1.15 2	3.91 2
1.05355	1.51947	23.00	84.00	5.25 1	-2.84 2	-9.68 1	3.56 2
1.08988	1.52286	25.00	74.00	8.29 1	-3.44 2	-1.38 2	4.30 2
1.04066	1.52392	22.00	89.00	4.19 1	-2.58 2	-8.19 1	3.24 2
1.06454	1.52547	23.00	83.00	5.43 1	-2.90 2	-9.88 1	3.62 2
1.08114	1.52556	24.00	78.00	6.82 1	-3.18 2	-1.18 2	3.97 2
1.05146	1.52949	22.00	88.00	4.34 1	-2.64 2	-8.35 1	3.29 2
1.07562	1.53161	23.00	82.00	5.63 1	-2.95 2	-1.01 2	3.68 2
1.09256	1.53222	24.00	77.00	7.06 1	-3.24 2	-1.20 2	4.03 2
1.06232	1.53518	22.00	87.00	4.50 1	-2.69 2	-8.51 1	3.35 2
1.08678	1.53788	23.00	81.00	5.83 1	-3.01 2	-1.03 2	3.74 2
1.07324	1.54100	22.00	86.00	4.66 1	-2.74 2	-8.68 1	3.41 2
1.09803	1.54429	23.00	80.00	6.03 1	-3.06 2	-1.05 2	3.80 2
1.08422	1.54694	22.00	85.00	4.82 1	-2.79 2	-8.85 1	3.46 2
1.09527	1.55301	22.00	84.00	4.99 1	-2.85 2	-9.03 1	3.52 2
1.07399	1.55381	21.00	90.00	3.86 1	-2.55 2	-7.48 1	3.15 2
1.08487	1.55947	21.00	89.00	3.99 1	-2.60 2	-7.62 1	3.21 2
1.09581	1.56525	21.00	88.00	4.13 1	-2.65 2	-7.77 1	3.26 2
1.10	1.20						
1.10146	1.48921	38.00	47.00	9.37 2	-1.24 3	-1.30 3	1.64 3
1.10655	1.49374	37.00	48.00	7.43 2	-1.05 3	-1.03 3	1.38 3
1.10397	1.49436	35.00	51.00	4.69 2	-7.73 2	-6.64 2	1.01 3
1.11113	1.49488	41.00	43.00	3.50 3	-3.74 3	-4.74 3	4.99 3
1.11268	1.49636	40.00	44.00	2.45 3	-2.78 3	-3.33 3	3.70 3
1.11527	1.49860	39.00	45.00	1.45 3	-1.76 3	-1.98 3	2.32 3
1.11272	1.49923	36.00	49.00	6.06 2	-9.13 2	-8.47 2	1.19 3
1.10744	1.50039	33.00	54.00	3.27 2	-6.28 2	-4.71 2	8.09 2
1.10418	1.50047	32.00	56.00	2.71 2	-5.69 2	-3.96 2	7.30 2
1.11892	1.50189	38.00	46.00	1.08 3	-1.39 3	-1.48 3	1.83 3
1.11270	1.50214	34.00	52.00	4.02 2	-7.06 2	-5.71 2	9.13 2
1.10290	1.50233	31.00	58.00	2.28 2	-5.23 2	-3.38 2	6.68 2
1.12002	1.50574	35.00	50.00	5.07 2	-8.14 2	-7.11 2	1.06 3
1.10359	1.50599	30.00	60.00	1.94 2	-4.86 2	-2.91 2	6.18 2
1.12365	1.50609	37.00	47.00	8.27 2	-1.14 3	-1.14 3	1.49 3
1.13043	1.50922	41.00	42.00	3.56 3	-3.70 3	-4.78 3	4.91 3
1.13150	1.51025	40.00	43.00	3.22 3	-3.54 3	-4.33 3	4.69 3
1.11885	1.51057	32.00	55.00	2.87 2	-5.88 2	-4.15 2	7.52 2
1.12263	1.51099	33.00	53.00	3.48 2	-6.52 2	-4.96 2	8.37 2
1.12949	1.51130	36.00	48.00	6.66 2	-9.76 2	-9.21 2	1.27 3
1.10625	1.51145	29.00	62.00	1.67 2	-4.55 2	-2.53 2	5.76 2
1.11710	1.51198	31.00	57.00	2.40 2	-5.38 2	-3.52 2	6.85 2
1.13365	1.51217	39.00	44.00	1.82 3	-2.14 3	-2.46 3	2.82 3
1.12848	1.51330	34.00	51.00	4.31 2	-7.39 2	-6.07 2	9.51 2
1.13689	1.51503	38.00	45.00	1.24 3	-1.55 3	-1.68 3	2.03 3
1.11737	1.51524	30.00	59.00	2.04 2	-4.99 2	-3.02 2	6.32 2
1.13648	1.51753	35.00	49.00	5.50 2	-8.59 2	-7.63 2	1.11 3
1.11093	1.51874	28.00	64.00	1.44 2	-4.29 2	-2.22 2	5.40 2
1.14123	1.51894	37.00	46.00	9.37 2	-1.25 3	-1.28 3	1.69 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.10506	1.51984	27.00	67.00	1.21 2	-3.99 2	-1.89 2	5.01 2
1.11967	1.52035	29.00	61.00	1.75 2	-4.66 2	-2.62 2	5.88 2
1.13383	1.52099	32.00	54.00	3.04 2	-6.08 2	-4.35 2	7.75 2
1.13159	1.52193	31.00	56.00	2.53 2	-5.54 2	-3.67 2	7.04 2
1.13817	1.52195	33.00	52.00	3.71 2	-6.79 2	-5.24 2	8.68 2
1.10198	1.52360	26.00	70.00	1.02 2	-3.73 2	-1.63 2	4.67 2
1.14672	1.52382	36.00	47.00	7.35 2	-1.05 3	-1.01 3	1.36 3
1.13142	1.52477	30.00	58.00	2.14 2	-5.12 2	-3.14 2	6.47 2
1.15093	1.52479	40.00	42.00	6.31 3	-6.71 3	-8.39 3	8.86 3
1.14466	1.52486	34.00	50.00	4.65 2	-7.75 2	-6.47 2	9.94 2
1.15260	1.52623	39.00	43.00	2.23 3	-2.54 3	-2.98 3	3.33 3
1.12403	1.52732	28.00	63.00	1.51 2	-4.39 2	-2.29 2	5.51 2
1.11769	1.52794	27.00	66.00	1.26 2	-4.07 2	-1.95 2	5.10 2
1.15539	1.52877	38.00	44.00	1.50 3	-1.82 3	-2.01 3	2.37 3
1.13333	1.52950	29.00	60.00	1.83 2	-4.78 2	-2.71 2	6.01 2
1.15338	1.52977	35.00	48.00	6.00 2	-9.13 2	-8.24 2	1.17 3
1.10165	1.52998	25.00	73.00	8.60 1	-3.50 2	-1.41 2	4.37 2
1.11421	1.53126	26.00	69.00	1.06 2	-3.80 2	-1.68 2	4.74 2
1.14915	1.53177	32.00	53.00	3.23 2	-6.30 2	-4.57 2	8.00 2
1.14637	1.53221	31.00	55.00	2.68 2	-5.72 2	-3.84 2	7.23 2
1.15933	1.53226	37.00	45.00	1.06 3	-1.38 3	-1.43 3	1.78 3
1.15409	1.53329	33.00	51.00	3.97 2	-7.08 2	-5.55 2	9.02 2
1.14574	1.53459	30.00	57.00	2.25 2	-5.26 2	-3.27 2	6.63 2
1.13734	1.53614	28.00	62.00	1.57 2	-4.49 2	-2.36 2	5.62 2
1.13051	1.53624	27.00	65.00	1.31 2	-4.16 2	-2.01 2	5.19 2
1.16125	1.53683	34.00	49.00	5.02 2	-8.15 2	-6.91 2	1.04 3
1.16443	1.53684	36.00	46.00	8.23 2	-1.14 3	-1.11 3	1.47 3
1.11356	1.53727	25.00	72.00	8.93 1	-3.57 2	-1.45 2	4.44 2
1.14724	1.53893	29.00	59.00	1.92 2	-4.90 2	-2.81 2	6.14 2
1.10409	1.53904	24.00	76.00	7.32 1	-3.30 2	-1.23 2	4.10 2
1.12661	1.53912	26.00	68.00	1.10 2	-3.88 2	-1.72 2	4.83 2
1.17100	1.54004	40.00	41.00	-3.73 3	3.78 3	4.88 3	-5.01 3
1.17215	1.54093	39.00	42.00	3.03 3	-3.35 3	-4.02 3	4.37 3
1.17073	1.54246	35.00	47.00	6.58 2	-9.73 2	-8.95 2	1.25 3
1.16149	1.54281	31.00	54.00	2.83 2	-5.90 2	-4.02 2	7.44 2
1.16482	1.54291	32.00	52.00	3.44 2	-6.54 2	-4.82 2	8.28 2
1.17447	1.54302	38.00	43.00	1.80 3	-2.12 3	-2.39 3	2.75 3
1.16035	1.54472	30.00	56.00	2.37 2	-5.41 2	-3.40 2	6.80 2
1.12562	1.54474	25.00	71.00	9.26 1	-3.64 2	-1.49 2	4.51 2
1.14352	1.54477	27.00	64.00	1.36 2	-4.24 2	-2.07 2	5.28 2
1.17039	1.54503	33.00	50.00	4.27 2	-7.40 2	-5.90 2	9.40 2
1.15089	1.54522	28.00	61.00	1.64 2	-4.59 2	-2.44 2	5.73 2
1.11574	1.54601	24.00	75.00	7.59 1	-3.36 2	-1.26 2	4.17 2
1.17796	1.54616	37.00	44.00	1.25 3	-1.57 3	-1.66 3	2.02 3
1.13919	1.54718	26.00	67.00	1.14 2	-3.95 2	-1.77 2	4.91 2
1.16141	1.54864	29.00	58.00	2.01 2	-5.02 2	-2.92 2	6.28 2
1.17828	1.54924	34.00	48.00	5.45 2	-8.61 2	-7.44 2	1.10 3
1.18265	1.55034	36.00	45.00	9.22 2	-1.24 3	-1.24 3	1.59 3
1.10937	1.55084	23.00	79.00	6.25 1	-3.12 2	-1.07 2	3.86 2
1.13782	1.55240	25.00	70.00	9.61 1	-3.71 2	-1.52 2	4.59 2
1.12752	1.55315	24.00	74.00	7.86 1	-3.43 2	-1.29 2	4.23 2
1.15675	1.55354	27.00	63.00	1.42 2	-4.34 2	-2.13 2	5.38 2
1.17694	1.55376	31.00	53.00	3.00 2	-6.11 2	-4.21 2	7.67 2
1.18087	1.55442	32.00	51.00	3.67 2	-6.81 2	-5.09 2	8.58 2
1.16468	1.55456	28.00	60.00	1.72 2	-4.70 2	-2.53 2	5.85 2
1.17527	1.55518	30.00	55.00	2.50 2	-5.58 2	-3.55 2	6.98 2
1.15195	1.55545	26.00	66.00	1.19 2	-4.03 2	-1.82 2	4.99 2
1.18858	1.55566	35.00	46.00	7.29 2	-1.05 3	-9.82 2	1.34 3
1.19236	1.55629	39.00	41.00	5.48 3	-5.85 3	-7.19 3	7.60 3
1.18712	1.55717	33.00	49.00	4.59 2	-7.75 2	-6.28 2	9.80 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.12082	1.55755	23.00	78.00	6.47 1	-3.18 2	-1.10 2	3.92 2
1.19416	1.55790	38.00	42.00	2.32 3	-2.65 3	-3.06 3	3.43 3
1.17587	1.55864	29.00	57.00	2.11 2	-5.15 2	-3.03 2	6.42 2
1.10640	1.55921	22.00	83.00	5.17 1	-2.90 2	-9.21 1	3.58 2
1.15019	1.56025	25.00	69.00	9.98 1	-3.78 2	-1.56 2	4.66 2
1.13942	1.56046	24.00	73.00	8.15 1	-3.49 2	-1.32 2	4.30 2
1.19718	1.56060	37.00	43.00	1.46 3	-1.78 3	-1.93 3	2.29 3
1.19577	1.56212	34.00	47.00	5.94 2	-9.13 2	-8.03 2	1.16 3
1.17020	1.56255	27.00	62.00	1.48 2	-4.43 2	-2.20 2	5.48 2
1.16490	1.56394	26.00	65.00	1.23 2	-4.12 2	-1.87 2	5.08 2
1.17872	1.56417	28.00	59.00	1.80 2	-4.81 2	-2.62 2	5.97 2
1.13237	1.56440	23.00	77.00	6.70 1	-3.24 2	-1.12 2	3.98 2
1.19274	1.56508	31.00	52.00	3.19 2	-6.32 2	-4.43 2	7.92 2
1.11761	1.56554	22.00	82.00	5.35 1	-2.96 2	-9.40 1	3.64 2
1.19052	1.56596	30.00	54.00	2.64 2	-5.75 2	-3.71 2	7.17 2
1.19731	1.56634	32.00	50.00	3.92 2	-7.09 2	-5.39 2	8.91 2
1.15147	1.56794	24.00	72.00	8.45 1	-3.56 2	-1.35 2	4.37 2
1.16272	1.56830	25.00	68.00	1.04 2	-3.85 2	-1.61 2	4.74 2
1.19062	1.56896	29.00	56.00	2.22 2	-5.29 2	-3.16 2	6.58 2
1.10680	1.57114	21.00	87.00	4.28 1	-2.70 2	-7.92 1	3.32 2
1.14404	1.57141	23.00	76.00	6.94 1	-3.30 2	-1.15 2	4.05 2
1.18388	1.57181	27.00	61.00	1.55 2	-4.53 2	-2.27 2	5.59 2
1.12890	1.57200	22.00	81.00	5.53 1	-3.01 2	-9.59 1	3.69 2
1.17805	1.57266	26.00	64.00	1.29 2	-4.20 2	-1.93 2	5.17 2
1.19304	1.57407	28.00	58.00	1.89 2	-4.93 2	-2.71 2	6.10 2
1.16366	1.57560	24.00	71.00	8.76 1	-3.62 2	-1.39 2	4.44 2
1.17544	1.57654	25.00	67.00	1.08 2	-3.93 2	-1.65 2	4.82 2
1.11786	1.57716	21.00	86.00	4.43 1	-2.75 2	-8.07 1	3.37 2
1.15583	1.57857	23.00	75.00	7.18 1	-3.36 2	-1.17 2	4.11 2
1.14029	1.57861	22.00	80.00	5.72 1	-3.07 2	-9.80 1	3.75 2
1.19781	1.58134	27.00	60.00	1.62 2	-4.63 2	-2.35 2	5.70 2
1.19142	1.58162	26.00	63.00	1.34 2	-4.29 2	-1.99 2	5.26 2
1.12898	1.58331	21.00	85.00	4.58 1	-2.80 2	-8.23 1	3.43 2
1.17601	1.58345	24.00	70.00	9.09 1	-3.69 2	-1.42 2	4.51 2
1.18833	1.58501	25.00	66.00	1.12 2	-4.00 2	-1.70 2	4.90 2
1.15177	1.58537	22.00	79.00	5.92 1	-3.12 2	-1.00 2	3.81 2
1.16774	1.58591	23.00	74.00	7.44 1	-3.42 2	-1.20 2	4.17 2
1.14017	1.58958	21.00	84.00	4.74 1	-2.86 2	-8.39 1	3.49 2
1.18852	1.59149	24.00	69.00	9.43 1	-3.76 2	-1.46 2	4.58 2
1.16336	1.59227	22.00	78.00	6.13 1	-3.18 2	-1.02 2	3.87 2
1.12162	1.59255	20.00	90.00	3.67 1	-2.56 2	-6.94 1	3.13 2
1.17979	1.59342	23.00	73.00	7.71 1	-3.48 2	-1.23 2	4.24 2
1.15145	1.59599	21.00	83.00	4.90 1	-2.91 2	-8.56 1	3.54 2
1.13265	1.59843	20.00	89.00	3.80 1	-2.61 2	-7.07 1	3.18 2
1.17506	1.59933	22.00	77.00	6.34 1	-3.24 2	-1.04 2	3.93 2
1.19198	1.60110	23.00	72.00	7.99 1	-3.55 2	-1.26 2	4.31 2
1.16280	1.60252	21.00	82.00	5.07 1	-2.96 2	-8.74 1	3.60 2
1.14373	1.60442	20.00	88.00	3.93 1	-2.66 2	-7.21 1	3.24 2
1.18687	1.60654	22.00	76.00	6.56 1	-3.30 2	-1.07 2	3.99 2
1.17424	1.60920	21.00	81.00	5.24 1	-3.02 2	-8.92 1	3.66 2
1.15488	1.61053	20.00	87.00	4.06 1	-2.71 2	-7.35 1	3.29 2
1.14693	1.61335	19.50	90.00	3.57 1	-2.57 2	-6.68 1	3.12 2
1.19881	1.61391	22.00	75.00	6.79 1	-3.35 2	-1.09 2	4.06 2
1.18578	1.61602	21.00	80.00	5.42 1	-3.07 2	-9.10 1	3.71 2
1.16608	1.61677	20.00	86.00	4.20 1	-2.76 2	-7.49 1	3.34 2
1.15804	1.61933	19.50	89.00	3.70 1	-2.62 2	-6.81 1	3.17 2
1.19741	1.62299	21.00	79.00	5.60 1	-3.13 2	-9.30 1	3.77 2
1.17736	1.62313	20.00	85.00	4.34 1	-2.82 2	-7.63 1	3.40 2
1.16920	1.62544	19.50	88.00	3.82 1	-2.67 2	-6.94 1	3.22 2
1.18870	1.62962	20.00	84.00	4.48 1	-2.87 2	-7.79 1	3.45 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.18042	1.63166	19.50	87.00	3.95 1	-2.72 2	-7.07 1	3.28 2
1.17333	1.63518	19.00	90.00	3.48 1	-2.58 2	-6.43 1	3.11 2
1.19171	1.63801	19.50	86.00	4.08 1	-2.77 2	-7.20 1	3.33 2
1.18452	1.64129	19.00	89.00	3.60 1	-2.63 2	-6.55 1	3.16 2
1.19576	1.64751	19.00	88.00	3.72 1	-2.68 2	-6.67 1	3.21 2
1.20	1.30						
1.20143	1.56443	36.00	44.00	1.06 3	-1.38 3	-1.41 3	1.77 3
1.20694	1.56935	35.00	45.00	8.09 2	-1.13 3	-1.08 3	1.44 3
1.20428	1.56978	33.00	48.00	4.96 2	-8.15 2	-6.72 2	1.03 3
1.21326	1.57218	39.00	40.00	2.86 3	-2.99 3	-3.73 3	3.84 3
1.21451	1.57344	38.00	41.00	3.46 3	-3.82 3	-4.51 3	4.92 3
1.21376	1.57551	34.00	46.00	6.54 2	-9.76 2	-8.75 2	1.23 3
1.21701	1.57566	37.00	42.00	1.80 3	-2.12 3	-2.35 3	2.72 3
1.20893	1.57679	31.00	51.00	3.39 2	-6.56 2	-4.67 2	8.19 2
1.20611	1.57710	30.00	53.00	2.79 2	-5.93 2	-3.89 2	7.37 2
1.21418	1.57868	32.00	49.00	4.21 2	-7.40 2	-5.72 2	9.27 2
1.22078	1.57905	36.00	43.00	1.22 3	-1.55 3	-1.61 3	1.97 3
1.20568	1.57960	29.00	55.00	2.34 2	-5.44 2	-3.29 2	6.74 2
1.22192	1.58284	33.00	47.00	5.38 2	-8.60 2	-7.22 2	1.08 3
1.22586	1.58362	35.00	44.00	9.15 2	-1.24 3	-1.21 3	1.57 3
1.20763	1.58426	28.00	57.00	1.98 2	-5.05 2	-2.82 2	6.23 2
1.22206	1.58862	30.00	52.00	2.96 2	-6.13 2	-4.08 2	7.60 2
1.22552	1.58890	31.00	50.00	3.62 2	-6.81 2	-4.93 2	8.48 2
1.23226	1.58939	34.00	45.00	7.20 2	-1.05 3	-9.55 2	1.32 3
1.23555	1.58960	38.00	40.00	4.46 3	-4.77 3	-5.76 3	6.11 3
1.22107	1.59058	29.00	54.00	2.46 2	-5.60 2	-3.43 2	6.92 2
1.20501	1.59082	26.00	62.00	1.39 2	-4.38 2	-2.05 2	5.36 2
1.21200	1.59114	27.00	59.00	1.69 2	-4.74 2	-2.43 2	5.81 2
1.23750	1.59139	37.00	41.00	2.36 3	-2.70 3	-3.06 3	3.44 3
1.23149	1.59148	32.00	48.00	4.53 2	-7.76 2	-6.10 2	9.68 2
1.20143	1.59370	25.00	65.00	1.16 2	-4.08 2	-1.74 2	4.98 2
1.24076	1.59431	36.00	42.00	1.45 3	-1.78 3	-1.89 3	2.25 3
1.22253	1.59477	28.00	56.00	2.07 2	-5.18 2	-2.93 2	6.37 2
1.24005	1.59642	33.00	46.00	5.88 2	-9.14 2	-7.82 2	1.14 3
1.24536	1.59844	35.00	43.00	1.04 3	-1.36 3	-1.36 3	1.72 3
1.20119	1.59974	24.00	68.00	9.78 1	-3.83 2	-1.50 2	4.66 2
1.21884	1.60028	26.00	61.00	1.45 2	-4.47 2	-2.12 2	5.46 2
1.23840	1.60052	30.00	51.00	3.14 2	-6.34 2	-4.29 2	7.83 2
1.22646	1.60124	27.00	58.00	1.77 2	-4.85 2	-2.52 2	5.93 2
1.24253	1.60143	31.00	49.00	3.86 2	-7.09 2	-5.22 2	8.79 2
1.23681	1.60192	29.00	53.00	2.60 2	-5.77 2	-3.59 2	7.10 2
1.21473	1.60261	25.00	64.00	1.21 2	-4.16 2	-1.80 2	5.07 2
1.25133	1.60385	34.00	44.00	8.06 2	-1.14 3	-1.06 3	1.42 3
1.24927	1.60474	32.00	47.00	4.89 2	-8.15 2	-6.53 2	1.01 3
1.23774	1.60561	28.00	55.00	2.18 2	-5.32 2	-3.04 2	6.52 2
1.25735	1.60662	38.00	39.00	-1.09 4	1.12 4	1.40 4	-1.44 4
1.25869	1.60776	37.00	40.00	2.99 3	-3.32 3	-3.85 3	4.21 3
1.21405	1.60819	24.00	67.00	1.02 2	-3.90 2	-1.54 2	4.73 2
1.20432	1.60897	23.00	71.00	8.27 1	-3.61 2	-1.29 2	4.37 2
1.23291	1.61001	26.00	60.00	1.52 2	-4.57 2	-2.19 2	5.56 2
1.26141	1.61023	36.00	41.00	1.79 3	-2.12 3	-2.31 3	2.68 3
1.25871	1.61050	33.00	45.00	6.44 2	-9.72 2	-8.48 2	1.21 3
1.24121	1.61163	27.00	57.00	1.85 2	-4.96 2	-2.61 2	6.06 2
1.22824	1.61177	25.00	63.00	1.26 2	-4.24 2	-1.85 2	5.15 2
1.25514	1.61283	30.00	50.00	3.34 2	-6.57 2	-4.52 2	8.09 2
1.25291	1.61363	29.00	52.00	2.75 2	-5.95 2	-3.76 2	7.30 2
1.26549	1.61390	35.00	42.00	1.20 3	-1.53 3	-1.56 3	1.92 3
1.26000	1.61443	31.00	48.00	4.14 2	-7.40 2	-5.54 2	9.15 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.25328	1.61679	28.00	54.00	2.29 2	-5.47 2	-3.17 2	6.68 2
1.22710	1.61686	24.00	66.00	1.05 2	-3.97 2	-1.58 2	4.81 2
1.21681	1.61702	23.00	70.00	8.58 1	-3.67 2	-1.32 2	4.44 2
1.26756	1.61852	32.00	46.00	5.32 2	-8.61 2	-7.03 2	1.07 3
1.27099	1.61888	34.00	43.00	9.05 2	-1.24 3	-1.18 3	1.54 3
1.24725	1.62002	26.00	59.00	1.58 2	-4.67 2	-2.26 2	5.67 2
1.24199	1.62118	25.00	62.00	1.31 2	-4.33 2	-1.91 2	5.24 2
1.21088	1.62146	22.00	74.00	7.03 1	-3.41 2	-1.12 2	4.12 2
1.25625	1.62234	27.00	56.00	1.94 2	-5.08 2	-2.71 2	6.19 2
1.28065	1.62495	37.00	39.00	5.96 3	-6.38 3	-7.59 3	8.06 3
1.27793	1.62517	33.00	44.00	7.14 2	-1.05 3	-9.32 2	1.30 3
1.22947	1.62527	23.00	69.00	8.89 1	-3.74 2	-1.36 2	4.51 2
1.27231	1.62557	30.00	49.00	3.56 2	-6.82 2	-4.77 2	8.37 2
1.26940	1.62574	29.00	51.00	2.91 2	-6.14 2	-3.94 2	7.52 2
1.24035	1.62576	24.00	65.00	1.10 2	-4.05 2	-1.62 2	4.89 2
1.28276	1.62681	36.00	40.00	2.18 3	-2.51 3	-2.79 3	3.16 3
1.27794	1.62790	31.00	47.00	4.46 2	-7.74 2	-5.91 2	9.53 2
1.26918	1.62833	28.00	53.00	2.42 2	-5.62 2	-3.31 2	6.85 2
1.22308	1.62918	22.00	73.00	7.28 1	-3.47 2	-1.14 2	4.18 2
1.28630	1.63002	35.00	41.00	1.42 3	-1.76 3	-1.83 3	2.20 3
1.20916	1.63011	21.00	78.00	5.79 1	-3.18 2	-9.50 1	3.83 2
1.26187	1.63032	26.00	58.00	1.66 2	-4.77 2	-2.34 2	5.78 2
1.25597	1.63085	25.00	61.00	1.37 2	-4.42 2	-1.97 2	5.34 2
1.28638	1.63281	32.00	45.00	5.79 2	-9.11 2	-7.58 2	1.12 3
1.27162	1.63339	27.00	55.00	2.04 2	-5.21 2	-2.82 2	6.32 2
1.24231	1.63373	23.00	68.00	9.22 1	-3.81 2	-1.39 2	4.58 2
1.29128	1.63455	34.00	42.00	1.03 3	-1.37 3	-1.33 3	1.70 3
1.25380	1.63488	24.00	64.00	1.14 2	-4.12 2	-1.67 2	4.97 2
1.20013	1.63625	20.00	83.00	4.63 1	-2.92 2	-7.94 1	3.51 2
1.23542	1.63707	22.00	72.00	7.53 1	-3.54 2	-1.17 2	4.25 2
1.22101	1.63738	21.00	77.00	5.99 1	-3.24 2	-9.70 1	3.89 2
1.28630	1.63826	29.00	50.00	3.09 2	-6.35 2	-4.15 2	7.75 2
1.28993	1.63878	30.00	48.00	3.80 2	-7.09 2	-5.05 2	8.68 2
1.28544	1.64026	28.00	52.00	2.55 2	-5.79 2	-3.46 2	7.03 2
1.29775	1.64041	33.00	43.00	7.93 2	-1.13 3	-1.03 3	1.40 3
1.27021	1.64079	25.00	60.00	1.42 2	-4.51 2	-2.03 2	5.43 2
1.27677	1.64092	26.00	57.00	1.73 2	-4.88 2	-2.42 2	5.89 2
1.29639	1.64189	31.00	46.00	4.82 2	-8.14 2	-6.33 2	9.99 2
1.25533	1.64239	23.00	67.00	9.56 1	-3.88 2	-1.43 2	4.65 2
1.21164	1.64301	20.00	82.00	4.79 1	-2.97 2	-8.10 1	3.56 2
1.26748	1.64425	24.00	63.00	1.18 2	-4.20 2	-1.72 2	5.05 2
1.20306	1.64449	19.50	85.00	4.22 1	-2.82 2	-7.34 1	3.38 2
1.28733	1.64478	27.00	54.00	2.14 2	-5.35 2	-2.93 2	6.47 2
1.23298	1.64481	21.00	76.00	6.19 1	-3.30 2	-9.92 1	3.95 2
1.24792	1.64516	22.00	71.00	7.80 1	-3.60 2	-1.20 2	4.31 2
1.22325	1.64991	20.00	81.00	4.95 1	-3.03 2	-8.27 1	3.62 2
1.28471	1.65101	25.00	59.00	1.48 2	-4.60 2	-2.10 2	5.53 2
1.21449	1.65110	19.50	84.00	4.36 1	-2.87 2	-7.49 1	3.44 2
1.26853	1.65128	23.00	66.00	9.92 1	-3.95 2	-1.47 2	4.73 2
1.29199	1.65185	26.00	56.00	1.81 2	-4.99 2	-2.51 2	6.01 2
1.24508	1.65241	21.00	75.00	6.40 1	-3.35 2	-1.01 2	4.01 2
1.26058	1.65343	22.00	70.00	8.08 1	-3.66 2	-1.23 2	4.38 2
1.20707	1.65385	19.00	87.00	3.84 1	-2.73 2	-6.80 1	3.26 2
1.28138	1.65388	24.00	62.00	1.23 2	-4.28 2	-1.77 2	5.14 2
1.23495	1.65696	20.00	80.00	5.11 1	-3.08 2	-8.44 1	3.68 2
1.22600	1.65784	19.50	83.00	4.50 1	-2.92 2	-7.64 1	3.49 2
1.20091	1.65814	18.50	90.00	3.38 1	-2.59 2	-6.17 1	3.09 2
1.25731	1.66017	21.00	74.00	6.62 1	-3.41 2	-1.04 2	4.07 2
1.21844	1.66032	19.00	86.00	3.97 1	-2.78 2	-6.93 1	3.32 2
1.28194	1.66039	23.00	65.00	1.03 2	-4.02 2	-1.51 2	4.80 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.29949	1.66153	25.00	58.00	1.55 2	-4.70 2	-2.17 2	5.63 2
1.27340	1.66190	22.00	69.00	8.37 1	-3.72 2	-1.26 2	4.44 2
1.29553	1.66377	24.00	61.00	1.28 2	-4.37 2	-1.82 2	5.22 2
1.24675	1.66415	20.00	79.00	5.28 1	-3.13 2	-8.62 1	3.73 2
1.21218	1.66437	18.50	89.00	3.50 1	-2.63 2	-6.29 1	3.15 2
1.23760	1.66472	19.50	82.00	4.65 1	-2.98 2	-7.79 1	3.55 2
1.22988	1.66692	19.00	85.00	4.10 1	-2.83 2	-7.06 1	3.37 2
1.26968	1.66812	21.00	73.00	6.85 1	-3.47 2	-1.06 2	4.13 2
1.29557	1.66974	23.00	64.00	1.07 2	-4.09 2	-1.55 2	4.88 2
1.28640	1.67058	22.00	68.00	8.67 1	-3.79 2	-1.29 2	4.51 2
1.22351	1.67071	18.50	88.00	3.61 1	-2.68 2	-6.41 1	3.20 2
1.25865	1.67150	20.00	78.00	5.46 1	-3.19 2	-8.80 1	3.79 2
1.24929	1.67174	19.50	81.00	4.81 1	-3.03 2	-7.95 1	3.60 2
1.24139	1.67365	19.00	84.00	4.23 1	-2.88 2	-7.20 1	3.42 2
1.28219	1.67624	21.00	72.00	7.09 1	-3.53 2	-1.09 2	4.19 2
1.23490	1.67718	18.50	87.00	3.73 1	-2.73 2	-6.53 1	3.25 2
1.26107	1.67891	19.50	80.00	4.96 1	-3.08 2	-8.12 1	3.66 2
1.27068	1.67901	20.00	77.00	5.64 1	-3.24 2	-8.99 1	3.85 2
1.29959	1.67947	22.00	67.00	8.98 1	-3.86 2	-1.33 2	4.58 2
1.25299	1.68051	19.00	83.00	4.37 1	-2.93 2	-7.34 1	3.48 2
1.22975	1.68232	18.00	90.00	3.29 1	-2.59 2	-5.92 1	3.08 2
1.24636	1.68377	18.50	86.00	3.85 1	-2.78 2	-6.65 1	3.30 2
1.29486	1.68456	21.00	71.00	7.33 1	-3.59 2	-1.11 2	4.25 2
1.27296	1.68622	19.50	79.00	5.13 1	-3.14 2	-8.28 1	3.71 2
1.28282	1.68667	20.00	76.00	5.83 1	-3.30 2	-9.19 1	3.90 2
1.26468	1.68751	19.00	82.00	4.51 1	-2.98 2	-7.49 1	3.53 2
1.24112	1.68867	18.00	89.00	3.40 1	-2.64 2	-6.03 1	3.14 2
1.25789	1.69049	18.50	85.00	3.98 1	-2.83 2	-6.78 1	3.36 2
1.28496	1.69369	19.50	78.00	5.30 1	-3.19 2	-8.46 1	3.77 2
1.29509	1.69450	20.00	75.00	6.03 1	-3.35 2	-9.39 1	3.96 2
1.27645	1.69465	19.00	81.00	4.66 1	-3.03 2	-7.64 1	3.59 2
1.25254	1.69514	18.00	88.00	3.51 1	-2.69 2	-6.15 1	3.19 2
1.26950	1.69735	18.50	84.00	4.11 1	-2.89 2	-6.91 1	3.41 2
1.29707	1.70132	19.50	77.00	5.47 1	-3.24 2	-8.64 1	3.83 2
1.26402	1.70173	18.00	87.00	3.62 1	-2.74 2	-6.26 1	3.24 2
1.28833	1.70194	19.00	80.00	4.81 1	-3.09 2	-7.80 1	3.64 2
1.28118	1.70433	18.50	83.00	4.24 1	-2.94 2	-7.05 1	3.46 2
1.25997	1.70781	17.50	90.00	3.19 1	-2.60 2	-5.68 1	3.08 2
1.27557	1.70845	18.00	86.00	3.74 1	-2.79 2	-6.38 1	3.29 2
1.29296	1.71146	18.50	82.00	4.38 1	-2.99 2	-7.19 1	3.52 2
1.27142	1.71429	17.50	89.00	3.30 1	-2.65 2	-5.79 1	3.13 2
1.28719	1.71531	18.00	85.00	3.86 1	-2.84 2	-6.51 1	3.35 2
1.28294	1.72089	17.50	88.00	3.40 1	-2.70 2	-5.89 1	3.18 2
1.29889	1.72229	18.00	84.00	3.98 1	-2.89 2	-6.63 1	3.40 2
1.29452	1.72762	17.50	87.00	3.51 1	-2.75 2	-6.01 1	3.23 2
1.29167	1.73472	17.00	90.00	3.10 1	-2.61 2	-5.44 1	3.07 2
1.30	1.40						
1.30341	1.64285	37.00	38.00	9.15 3	-9.48 3	-1.16 4	1.19 4
1.30488	1.64419	36.00	39.00	3.11 3	-3.46 3	-3.94 3	4.33 3
1.30781	1.64681	35.00	40.00	1.68 3	-2.01 3	-2.15 3	2.51 3
1.30576	1.64769	32.00	44.00	6.37 2	-9.72 2	-8.27 2	1.20 3
1.31225	1.65088	34.00	41.00	1.20 3	-1.54 3	-1.54 3	1.91 3
1.30364	1.65121	29.00	49.00	3.28 2	-6.57 2	-4.37 2	7.99 2
1.30804	1.65246	30.00	47.00	4.08 2	-7.40 2	-5.37 2	9.02 2
1.30210	1.65258	28.00	51.00	2.69 2	-5.96 2	-3.63 2	7.22 2
1.31821	1.65629	33.00	42.00	8.94 2	-1.23 3	-1.15 3	1.52 3
1.31538	1.65639	31.00	45.00	5.22 2	-8.57 2	-6.80 2	1.05 3
1.30338	1.65654	27.00	53.00	2.25 2	-5.49 2	-3.06 2	6.62 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.32781	1.66232	36.00	38.00	4.13 3	-4.44 3	-5.19 3	5.53 3
1.30752	1.66312	26.00	55.00	1.90 2	-5.11 2	-2.61 2	6.14 2
1.32576	1.66315	32.00	43.00	7.02 2	-1.04 3	-9.04 2	1.28 3
1.33010	1.66440	35.00	39.00	2.14 3	-2.47 3	-2.70 3	3.07 3
1.32143	1.66464	29.00	48.00	3.50 2	-6.82 2	-4.61 2	8.27 2
1.31917	1.66532	28.00	50.00	2.85 2	-6.15 2	-3.80 2	7.43 2
1.32666	1.66667	30.00	46.00	4.39 2	-7.74 2	-5.73 2	9.41 2
1.33394	1.66791	34.00	40.00	1.40 3	-1.74 3	-1.78 3	2.15 3
1.31982	1.66869	27.00	52.00	2.37 2	-5.64 2	-3.19 2	6.79 2
1.33494	1.67150	31.00	44.00	5.70 2	-9.08 2	-7.36 2	1.11 3
1.31456	1.67236	25.00	57.00	1.62 2	-4.80 2	-2.24 2	5.74 2
1.33936	1.67285	33.00	41.00	1.02 3	-1.36 3	-1.30 3	1.67 3
1.30994	1.67393	24.00	60.00	1.33 2	-4.45 2	-1.88 2	5.31 2
1.32340	1.67473	26.00	54.00	1.99 2	-5.23 2	-2.71 2	6.27 2
1.33667	1.67850	28.00	49.00	3.02 2	-6.35 2	-4.00 2	7.65 2
1.33971	1.67855	29.00	47.00	3.73 2	-7.09 2	-4.89 2	8.57 2
1.34639	1.67925	32.00	42.00	7.83 2	-1.12 3	-9.99 2	1.37 3
1.30941	1.67934	23.00	63.00	1.11 2	-4.17 2	-1.59 2	4.96 2
1.33665	1.68123	27.00	51.00	2.50 2	-5.80 2	-3.34 2	6.96 2
1.35163	1.68133	36.00	37.00	5.10 3	-5.31 3	-6.37 3	6.58 3
1.34582	1.68140	30.00	45.00	4.73 2	-8.11 2	-6.13 2	9.84 2
1.35322	1.68276	35.00	38.00	2.64 3	-2.95 3	-3.31 3	3.64 3
1.32995	1.68351	25.00	56.00	1.69 2	-4.90 2	-2.32 2	5.85 2
1.32461	1.68437	24.00	59.00	1.39 2	-4.54 2	-1.94 2	5.41 2
1.35641	1.68573	34.00	39.00	1.73 3	-2.07 3	-2.17 3	2.55 3
1.33963	1.68672	26.00	53.00	2.09 2	-5.36 2	-2.82 2	6.41 2
1.35511	1.68718	31.00	43.00	6.24 2	-9.65 2	-7.99 2	1.17 3
1.31297	1.68859	22.00	66.00	9.31 1	-3.92 2	-1.36 2	4.65 2
1.32349	1.68919	23.00	62.00	1.15 2	-4.24 2	-1.64 2	5.04 2
1.36123	1.69011	33.00	40.00	1.17 3	-1.52 3	-1.48 3	1.85 3
1.35465	1.69215	28.00	48.00	3.21 2	-6.57 2	-4.21 2	7.89 2
1.35851	1.69299	29.00	46.00	4.01 2	-7.39 2	-5.20 2	8.91 2
1.30769	1.69306	21.00	70.00	7.59 1	-3.65 2	-1.14 2	4.32 2
1.35390	1.69421	27.00	50.00	2.64 2	-5.97 2	-3.49 2	7.15 2
1.34566	1.69500	25.00	55.00	1.77 2	-5.02 2	-2.41 2	5.97 2
1.33957	1.69513	24.00	58.00	1.45 2	-4.63 2	-2.01 2	5.50 2
1.36772	1.69605	32.00	41.00	8.83 2	-1.23 3	-1.12 3	1.49 3
1.36557	1.69673	30.00	44.00	5.14 2	-8.56 2	-6.60 2	1.03 3
1.32656	1.69793	22.00	65.00	9.66 1	-3.99 2	-1.40 2	4.72 2
1.35624	1.69909	26.00	52.00	2.20 2	-5.50 2	-2.94 2	6.56 2
1.33782	1.69931	23.00	61.00	1.20 2	-4.32 2	-1.69 2	5.12 2
1.32069	1.70177	21.00	69.00	7.86 1	-3.71 2	-1.17 2	4.38 2
1.37722	1.70199	35.00	37.00	3.20 3	-3.45 3	-3.98 3	4.24 3
1.30750	1.70251	20.00	74.00	6.23 1	-3.41 2	-9.60 1	4.02 2
1.37593	1.70352	31.00	42.00	6.90 2	-1.03 3	-8.75 2	1.25 3
1.37971	1.70433	34.00	38.00	2.15 3	-2.49 3	-2.67 3	3.05 3
1.35483	1.70619	24.00	57.00	1.51 2	-4.73 2	-2.08 2	5.60 2
1.37311	1.70629	28.00	47.00	3.42 2	-6.81 2	-4.45 2	8.16 2
1.36172	1.70685	25.00	54.00	1.85 2	-5.13 2	-2.50 2	6.09 2
1.34036	1.70752	22.00	64.00	1.00 2	-4.06 2	-1.44 2	4.79 2
1.37159	1.70762	27.00	49.00	2.79 2	-6.15 2	-3.67 2	7.35 2
1.37786	1.70796	29.00	45.00	4.31 2	-7.72 2	-5.54 2	9.27 2
1.38388	1.70816	33.00	39.00	1.39 3	-1.74 3	-1.74 3	2.12 3
1.30931	1.70910	19.50	76.00	5.65 1	-3.30 2	-8.83 1	3.88 2
1.30031	1.70938	19.00	79.00	4.97 1	-3.14 2	-7.96 1	3.70 2
1.35241	1.70971	23.00	60.00	1.25 2	-4.40 2	-1.74 2	5.20 2
1.33387	1.71069	21.00	68.00	8.13 1	-3.77 2	-1.20 2	4.44 2
1.32004	1.71069	20.00	73.00	6.44 1	-3.47 2	-9.82 1	4.08 2
1.37326	1.71188	26.00	51.00	2.32 2	-5.65 2	-3.07 2	6.72 2
1.38592	1.71266	30.00	43.00	5.60 2	-9.04 2	-7.13 2	1.09 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.38978	1.71354	32.00	40.00	1.00 3	-1.35 3	-1.26 3	1.63 3
1.31240	1.71698	19.00	78.00	5.13 1	-3.19 2	-8.13 1	3.75 2
1.32167	1.71706	19.50	75.00	5.84 1	-3.35 2	-9.02 1	3.94 2
1.35439	1.71735	22.00	63.00	1.04 2	-4.13 2	-1.48 2	4.87 2
1.37040	1.71758	24.00	56.00	1.58 2	-4.83 2	-2.15 2	5.70 2
1.30483	1.71873	18.50	81.00	4.52 1	-3.04 2	-7.34 1	3.57 2
1.33274	1.71906	20.00	72.00	6.66 1	-3.52 2	-1.00 2	4.14 2
1.37814	1.71908	25.00	53.00	1.94 2	-5.25 2	-2.60 2	6.22 2
1.34724	1.71982	21.00	67.00	8.42 1	-3.84 2	-1.23 2	4.51 2
1.36727	1.72039	23.00	59.00	1.30 2	-4.49 2	-1.80 2	5.29 2
1.39744	1.72055	31.00	41.00	7.69 2	-1.12 3	-9.67 2	1.35 3
1.39210	1.72097	28.00	46.00	3.66 2	-7.08 2	-4.72 2	8.45 2
1.38975	1.72151	27.00	48.00	2.96 2	-6.35 2	-3.85 2	7.56 2
1.39780	1.72353	29.00	44.00	4.65 2	-8.10 2	-5.94 2	9.70 2
1.32461	1.72473	19.00	77.00	5.30 1	-3.25 2	-8.30 1	3.81 2
1.39070	1.72509	26.00	50.00	2.44 2	-5.81 2	-3.21 2	6.89 2
1.33417	1.72519	19.50	74.00	6.03 1	-3.41 2	-9.23 1	4.00 2
1.31680	1.72615	18.50	80.00	4.67 1	-3.09 2	-7.49 1	3.63 2
1.36866	1.72745	22.00	62.00	1.08 2	-4.21 2	-1.52 2	4.94 2
1.34560	1.72762	20.00	71.00	6.88 1	-3.58 2	-1.03 2	4.20 2
1.36081	1.72918	21.00	66.00	8.73 1	-3.90 2	-1.26 2	4.58 2
1.38630	1.72932	24.00	55.00	1.65 2	-4.93 2	-2.23 2	5.81 2
1.31068	1.72941	18.00	83.00	4.11 1	-2.94 2	-6.76 1	3.45 2
1.38241	1.73139	23.00	58.00	1.35 2	-4.57 2	-1.86 2	5.38 2
1.39495	1.73170	25.00	52.00	2.04 2	-5.38 2	-2.71 2	6.36 2
1.33694	1.73264	19.00	76.00	5.47 1	-3.30 2	-8.48 1	3.86 2
1.34681	1.73350	19.50	73.00	6.23 1	-3.47 2	-9.44 1	4.06 2
1.32888	1.73371	18.50	79.00	4.82 1	-3.14 2	-7.64 1	3.68 2
1.30616	1.73447	17.50	86.00	3.62 1	-2.80 2	-6.12 1	3.28 2
1.35861	1.73637	20.00	70.00	7.12 1	-3.64 2	-1.05 2	4.26 2
1.32255	1.73666	18.00	82.00	4.24 1	-2.99 2	-6.90 1	3.50 2
1.38317	1.73781	22.00	61.00	1.12 2	-4.28 2	-1.56 2	5.02 2
1.37459	1.73877	21.00	65.00	9.04 1	-3.97 2	-1.29 2	4.64 2
1.34940	1.74073	19.00	75.00	5.65 1	-3.36 2	-8.67 1	3.92 2
1.30322	1.74134	17.00	89.00	3.20 1	-2.66 2	-5.54 1	3.12 2
1.34107	1.74144	18.50	78.00	4.97 1	-3.20 2	-7.80 1	3.74 2
1.31789	1.74145	17.50	85.00	3.74 1	-2.85 2	-6.24 1	3.33 2
1.35961	1.74200	19.50	72.00	6.44 1	-3.52 2	-9.65 1	4.11 2
1.39786	1.74270	23.00	57.00	1.41 2	-4.66 2	-1.92 2	5.47 2
1.33452	1.74406	18.00	81.00	4.38 1	-3.05 2	-7.04 1	3.56 2
1.37181	1.74533	20.00	69.00	7.36 1	-3.70 2	-1.08 2	4.32 2
1.31484	1.74808	17.00	88.00	3.30 1	-2.71 2	-5.65 1	3.17 2
1.39795	1.74846	22.00	60.00	1.17 2	-4.36 2	-1.61 2	5.10 2
1.32969	1.74857	17.50	84.00	3.86 1	-2.90 2	-6.36 1	3.39 2
1.38858	1.74861	21.00	64.00	9.37 1	-4.04 2	-1.33 2	4.71 2
1.36200	1.74899	19.00	74.00	5.84 1	-3.41 2	-8.86 1	3.98 2
1.35337	1.74932	18.50	77.00	5.13 1	-3.25 2	-7.97 1	3.79 2
1.37256	1.75069	19.50	71.00	6.66 1	-3.58 2	-9.88 1	4.17 2
1.34659	1.75162	18.00	80.00	4.52 1	-3.10 2	-7.18 1	3.61 2
1.38518	1.75451	20.00	68.00	7.62 1	-3.76 2	-1.11 2	4.38 2
1.32652	1.75494	17.00	87.00	3.40 1	-2.76 2	-5.75 1	3.22 2
1.34157	1.75583	17.50	83.00	3.98 1	-2.95 2	-6.48 1	3.44 2
1.36580	1.75737	18.50	76.00	5.30 1	-3.30 2	-8.14 1	3.85 2
1.37474	1.75743	19.00	73.00	6.03 1	-3.47 2	-9.06 1	4.03 2
1.35876	1.75932	18.00	79.00	4.66 1	-3.15 2	-7.33 1	3.66 2
1.38568	1.75957	19.50	70.00	6.88 1	-3.64 2	-1.01 2	4.23 2
1.33827	1.76194	17.00	86.00	3.51 1	-2.81 2	-5.86 1	3.27 2
1.32498	1.76318	16.50	90.00	3.00 1	-2.62 2	-5.21 1	3.06 2
1.35355	1.76322	17.50	82.00	4.11 1	-3.00 2	-6.61 1	3.49 2
1.39875	1.76389	20.00	67.00	7.88 1	-3.82 2	-1.13 2	4.45 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.37837	1.76559	18.50	75.00	5.47 1	-3.36 2	-8.32 1	3.90 2
1.38764	1.76606	19.00	72.00	6.23 1	-3.52 2	-9.27 1	4.09 2
1.37105	1.76718	18.00	78.00	4.81 1	-3.20 2	-7.48 1	3.72 2
1.39897	1.76866	19.50	69.00	7.12 1	-3.70 2	-1.04 2	4.29 2
1.35009	1.76906	17.00	85.00	3.62 1	-2.86 2	-5.97 1	3.32 2
1.33664	1.76994	16.50	89.00	3.09 1	-2.67 2	-5.30 1	3.11 2
1.36562	1.77076	17.50	81.00	4.24 1	-3.05 2	-6.75 1	3.54 2
1.39107	1.77399	18.50	74.00	5.65 1	-3.41 2	-8.50 1	3.96 2
1.38346	1.77520	18.00	77.00	4.97 1	-3.25 2	-7.64 1	3.77 2
1.36199	1.77632	17.00	84.00	3.74 1	-2.91 2	-6.09 1	3.38 2
1.34836	1.77682	16.50	88.00	3.19 1	-2.72 2	-5.40 1	3.16 2
1.37779	1.77845	17.50	80.00	4.37 1	-3.10 2	-6.88 1	3.60 2
1.39600	1.78339	18.00	76.00	5.12 1	-3.31 2	-7.81 1	3.83 2
1.37398	1.78371	17.00	83.00	3.85 1	-2.96 2	-6.21 1	3.43 2
1.36014	1.78383	16.50	87.00	3.29 1	-2.77 2	-5.50 1	3.21 2
1.39007	1.78629	17.50	79.00	4.51 1	-3.15 2	-7.02 1	3.65 2
1.37200	1.79097	16.50	86.00	3.40 1	-2.82 2	-5.61 1	3.26 2
1.38607	1.79125	17.00	82.00	3.97 1	-3.01 2	-6.33 1	3.48 2
1.36004	1.79333	16.00	90.00	2.90 1	-2.63 2	-4.98 1	3.05 2
1.38393	1.79824	16.50	85.00	3.50 1	-2.87 2	-5.72 1	3.31 2
1.39825	1.79893	17.00	81.00	4.10 1	-3.06 2	-6.46 1	3.53 2
1.37181	1.80024	16.00	89.00	2.99 1	-2.68 2	-5.07 1	3.10 2
1.39595	1.80564	16.50	84.00	3.61 1	-2.92 2	-5.83 1	3.37 2
1.38364	1.80727	16.00	88.00	3.09 1	-2.73 2	-5.16 1	3.15 2
1.39554	1.81443	16.00	87.00	3.18 1	-2.78 2	-5.26 1	3.20 2
1.39702	1.82532	15.50	90.00	2.81 1	-2.64 2	-4.75 1	3.05 2
1.40	1.50						
1.40217	1.72215	35.00	36.00	2.66 3	-2.79 3	-3.29 3	3.40 3
1.40390	1.72383	34.00	37.00	2.86 3	-3.20 3	-3.53 3	3.90 3
1.40738	1.72701	33.00	38.00	1.68 3	-2.02 3	-2.08 3	2.46 3
1.40694	1.72924	30.00	42.00	6.14 2	-9.61 2	-7.75 2	1.15 3
1.41263	1.73184	32.00	39.00	1.16 3	-1.51 3	-1.45 3	1.83 3
1.40841	1.73590	27.00	47.00	3.15 2	-6.57 2	-4.06 2	7.80 2
1.41165	1.73619	28.00	45.00	3.92 2	-7.37 2	-5.01 2	8.77 2
1.41970	1.73829	31.00	40.00	8.61 2	-1.21 3	-1.07 3	1.45 3
1.40859	1.73875	26.00	49.00	2.58 2	-5.97 2	-3.36 2	7.07 2
1.41835	1.73970	29.00	43.00	5.04 2	-8.52 2	-6.38 2	1.02 3
1.40255	1.74141	24.00	54.00	1.73 2	-5.04 2	-2.31 2	5.92 2
1.42906	1.74428	34.00	36.00	4.49 3	-4.84 3	-5.50 3	5.88 3
1.41216	1.74473	25.00	51.00	2.15 2	-5.51 2	-2.82 2	6.50 2
1.42866	1.74653	30.00	41.00	6.79 2	-1.03 3	-8.50 2	1.23 3
1.43177	1.74676	33.00	37.00	2.10 3	-2.45 3	-2.59 3	2.97 3
1.42760	1.75083	27.00	46.00	3.35 2	-6.80 2	-4.29 2	8.06 2
1.43633	1.75095	32.00	38.00	1.37 3	-1.72 3	-1.69 3	2.07 3
1.43178	1.75202	28.00	44.00	4.22 2	-7.70 2	-5.35 2	9.14 2
1.42695	1.75290	26.00	48.00	2.73 2	-6.15 2	-3.53 2	7.26 2
1.41917	1.75389	24.00	53.00	1.81 2	-5.15 2	-2.40 2	6.04 2
1.41363	1.75434	23.00	56.00	1.47 2	-4.76 2	-1.98 2	5.57 2
1.43957	1.75654	29.00	42.00	5.50 2	-9.00 2	-6.90 2	1.07 3
1.44276	1.75685	31.00	39.00	9.82 2	-1.33 3	-1.22 3	1.60 3
1.42980	1.75820	25.00	50.00	2.26 2	-5.66 2	-2.95 2	6.65 2
1.40281	1.75870	21.00	63.00	9.72 1	-4.10 2	-1.36 2	4.78 2
1.41301	1.75940	22.00	59.00	1.21 2	-4.44 2	-1.66 2	5.18 2
1.45113	1.76453	30.00	40.00	7.54 2	-1.11 3	-9.36 2	1.32 3
1.45525	1.76584	34.00	35.00	-6.69 3	6.89 3	8.10 3	-8.38 3
1.44736	1.76631	27.00	45.00	3.58 2	-7.06 2	-4.55 2	8.34 2
1.42974	1.76634	23.00	55.00	1.53 2	-4.85 2	-2.05 2	5.67 2
1.43618	1.76677	24.00	52.00	1.89 2	-5.27 2	-2.49 2	6.17 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.45714	1.76747	33.00	36.00	2.86 3	-3.21 3	-3.48 3	3.87 3
1.44582	1.76755	26.00	47.00	2.89 2	-6.35 2	-3.71 2	7.47 2
1.45255	1.76845	28.00	43.00	4.55 2	-8.06 2	-5.73 2	9.54 2
1.41728	1.76905	21.00	62.00	1.01 2	-4.17 2	-1.40 2	4.85 2
1.42837	1.77066	22.00	58.00	1.26 2	-4.52 2	-1.71 2	5.26 2
1.46094	1.77096	32.00	37.00	1.66 3	-2.01 3	-2.09 3	2.41 3
1.44790	1.77212	25.00	49.00	2.38 2	-5.81 2	-3.08 2	6.81 2
1.41252	1.77352	20.00	66.00	8.16 1	-3.89 2	-1.16 2	4.51 2
1.46150	1.77409	29.00	41.00	6.03 2	-9.57 2	-7.52 2	1.14 3
1.40069	1.77489	19.00	71.00	6.44 1	-3.58 2	-9.48 1	4.15 2
1.46667	1.77622	31.00	38.00	1.13 3	-1.48 3	-1.39 3	1.77 3
1.41245	1.77797	19.50	68.00	7.36 1	-3.76 2	-1.06 2	4.35 2
1.44620	1.77870	23.00	54.00	1.60 2	-4.95 2	-2.13 2	5.77 2
1.43200	1.77968	21.00	61.00	1.05 2	-4.25 2	-1.44 2	4.93 2
1.45360	1.78007	24.00	51.00	1.99 2	-5.39 2	-2.59 2	6.30 2
1.44402	1.78223	22.00	57.00	1.31 2	-4.60 2	-1.77 2	5.35 2
1.46771	1.78240	27.00	44.00	3.84 2	-7.35 2	-4.84 2	8.65 2
1.40391	1.78257	18.50	73.00	5.83 1	-3.47 2	-8.69 1	4.01 2
1.46522	1.78275	26.00	46.00	3.07 2	-6.56 2	-3.91 2	7.70 2
1.47440	1.78335	30.00	39.00	8.49 2	-1.20 3	-1.05 3	1.43 3
1.42651	1.78338	20.00	65.00	8.45 1	-3.95 2	-1.19 2	4.57 2
1.41392	1.78391	19.00	70.00	6.65 1	-3.64 2	-9.71 1	4.21 2
1.47399	1.78556	28.00	42.00	4.94 2	-8.47 2	-6.16 2	1.00 3
1.46647	1.78653	25.00	48.00	2.51 2	-5.97 2	-3.23 2	6.98 2
1.42613	1.78750	19.50	67.00	7.61 1	-3.82 2	-1.09 2	4.42 2
1.48355	1.78925	33.00	35.00	5.78 3	-6.24 3	-6.99 3	7.50 3
1.44699	1.79060	21.00	60.00	1.09 2	-4.32 2	-1.49 2	5.00 2
1.41692	1.79134	18.50	72.00	6.02 1	-3.52 2	-8.89 1	4.07 2
1.46303	1.79145	23.00	53.00	1.68 2	-5.06 2	-2.21 2	5.88 2
1.40867	1.79175	18.00	75.00	5.29 1	-3.36 2	-7.97 1	3.88 2
1.48652	1.79194	32.00	36.00	2.11 3	-2.47 3	-2.57 3	2.96 3
1.48419	1.79237	29.00	40.00	6.65 2	-1.02 3	-8.22 2	1.21 3
1.42732	1.79314	19.00	69.00	6.88 1	-3.69 2	-9.94 1	4.27 2
1.44071	1.79348	20.00	64.00	8.75 1	-4.01 2	-1.22 2	4.64 2
1.47146	1.79380	24.00	50.00	2.09 2	-5.52 2	-2.70 2	6.44 2
1.46001	1.79414	22.00	56.00	1.37 2	-4.69 2	-1.83 2	5.44 2
1.40247	1.79429	17.50	78.00	4.65 1	-3.21 2	-7.17 1	3.70 2
1.49150	1.79650	31.00	37.00	1.33 3	-1.68 3	-1.62 3	2.00 3
1.44001	1.79726	19.50	66.00	7.88 1	-3.88 2	-1.12 2	4.48 2
1.48520	1.79850	26.00	45.00	3.27 2	-6.78 2	-4.13 2	7.94 2
1.48869	1.79911	27.00	43.00	4.12 2	-7.66 2	-5.16 2	9.00 2
1.42148	1.80028	18.00	74.00	5.46 1	-3.41 2	-8.15 1	3.94 2
1.43008	1.80030	18.50	71.00	6.22 1	-3.58 2	-9.10 1	4.13 2
1.48556	1.80146	25.00	47.00	2.66 2	-6.14 2	-3.38 2	7.17 2
1.46227	1.80181	21.00	59.00	1.13 2	-4.39 2	-1.53 2	5.08 2
1.41499	1.80246	17.50	77.00	4.80 1	-3.26 2	-7.32 1	3.76 2
1.44091	1.80258	19.00	68.00	7.11 1	-3.75 2	-1.02 2	4.33 2
1.49854	1.80300	30.00	38.00	9.64 2	-1.32 3	-1.18 3	1.57 3
1.49614	1.80338	28.00	41.00	5.38 2	-8.94 2	-6.66 2	1.05 3
1.45515	1.80384	20.00	63.00	9.06 1	-4.08 2	-1.26 2	4.71 2
1.48026	1.80460	23.00	52.00	1.76 2	-5.17 2	-2.29 2	5.99 2
1.47633	1.80642	22.00	55.00	1.43 2	-4.78 2	-1.89 2	5.53 2
1.41053	1.80677	17.00	80.00	4.23 1	-3.11 2	-6.59 1	3.58 2
1.45410	1.80726	19.50	65.00	8.16 1	-3.94 2	-1.14 2	4.54 2
1.48978	1.80800	24.00	49.00	2.20 2	-5.66 2	-2.82 2	6.58 2
1.43443	1.80900	18.00	73.00	5.63 1	-3.47 2	-8.33 1	3.99 2
1.44341	1.80946	18.50	70.00	6.43 1	-3.63 2	-9.31 1	4.18 2
1.42763	1.81078	17.50	76.00	4.95 1	-3.31 2	-7.48 1	3.81 2
1.45469	1.81225	19.00	67.00	7.35 1	-3.81 2	-1.04 2	4.39 2
1.40805	1.81319	16.50	83.00	3.72 1	-2.97 2	-5.94 1	3.42 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.47784	1.81334	21.00	58.00	1.17 2	-4.47 2	-1.58 2	5.16 2
1.46984	1.81447	20.00	62.00	9.40 1	-4.15 2	-1.29 2	4.77 2
1.42292	1.81475	17.00	79.00	4.36 1	-3.16 2	-6.72 1	3.64 2
1.46842	1.81750	19.50	64.00	8.44 1	-4.00 2	-1.17 2	4.60 2
1.44755	1.81792	18.00	72.00	5.82 1	-3.52 2	-8.52 1	4.05 2
1.49791	1.81817	23.00	51.00	1.84 2	-5.28 2	-2.38 2	6.11 2
1.45693	1.81883	18.50	69.00	6.64 1	-3.69 2	-9.53 1	4.24 2
1.49301	1.81906	22.00	54.00	1.49 2	-4.87 2	-1.96 2	5.63 2
1.44041	1.81929	17.50	75.00	5.11 1	-3.36 2	-7.64 1	3.86 2
1.42024	1.82087	16.50	82.00	3.84 1	-3.01 2	-6.06 1	3.47 2
1.40751	1.82172	16.00	86.00	3.28 1	-2.83 2	-5.36 1	3.25 2
1.46868	1.82216	19.00	66.00	7.61 1	-3.87 2	-1.07 2	4.45 2
1.43543	1.82290	17.00	78.00	4.49 1	-3.21 2	-6.86 1	3.69 2
1.49372	1.82520	21.00	57.00	1.22 2	-4.55 2	-1.63 2	5.24 2
1.48479	1.82538	20.00	61.00	9.74 1	-4.21 2	-1.33 2	4.84 2
1.46082	1.82702	18.00	71.00	6.01 1	-3.58 2	-8.72 1	4.10 2
1.45333	1.82797	17.50	74.00	5.27 1	-3.42 2	-7.81 1	3.92 2
1.48297	1.82801	19.50	63.00	8.75 1	-4.07 2	-1.21 2	4.67 2
1.47063	1.82843	18.50	68.00	6.86 1	-3.75 2	-9.76 1	4.30 2
1.43253	1.82870	16.50	81.00	3.96 1	-3.06 2	-6.18 1	3.52 2
1.41956	1.82914	16.00	85.00	3.38 1	-2.88 2	-5.46 1	3.31 2
1.44806	1.83121	17.00	77.00	4.63 1	-3.26 2	-7.01 1	3.74 2
1.48289	1.83230	19.00	65.00	7.87 1	-3.93 2	-1.10 2	4.51 2
1.40891	1.83238	15.50	89.00	2.89 1	-2.69 2	-4.84 1	3.10 2
1.47427	1.83633	18.00	70.00	6.20 1	-3.63 2	-8.92 1	4.16 2
1.44493	1.83669	16.50	80.00	4.08 1	-3.12 2	-6.30 1	3.57 2
1.43169	1.83670	16.00	84.00	3.49 1	-2.92 2	-5.57 1	3.36 2
1.46641	1.83684	17.50	73.00	5.44 1	-3.47 2	-7.98 1	3.97 2
1.48453	1.83824	18.50	67.00	7.09 1	-3.81 2	-1.00 2	4.36 2
1.49778	1.83879	19.50	62.00	9.06 1	-4.13 2	-1.24 2	4.74 2
1.42086	1.83957	15.50	88.00	2.98 1	-2.74 2	-4.93 1	3.15 2
1.46082	1.83969	17.00	76.00	4.78 1	-3.31 2	-7.16 1	3.80 2
1.49732	1.84269	19.00	64.00	8.14 1	-3.99 2	-1.13 2	4.57 2
1.44390	1.84439	16.00	83.00	3.60 1	-2.97 2	-5.68 1	3.41 2
1.45744	1.84483	16.50	79.00	4.21 1	-3.17 2	-6.43 1	3.62 2
1.48790	1.84585	18.00	69.00	6.41 1	-3.69 2	-9.13 1	4.22 2
1.47964	1.84590	17.50	72.00	5.61 1	-3.52 2	-8.16 1	4.03 2
1.43287	1.84689	15.50	87.00	3.08 1	-2.79 2	-5.02 1	3.20 2
1.49864	1.84829	18.50	66.00	7.34 1	-3.86 2	-1.03 2	4.42 2
1.47372	1.84835	17.00	75.00	4.93 1	-3.37 2	-7.31 1	3.85 2
1.45622	1.85223	16.00	82.00	3.71 1	-3.02 2	-5.79 1	3.46 2
1.47007	1.85313	16.50	78.00	4.34 1	-3.22 2	-6.56 1	3.68 2
1.44496	1.85433	15.50	86.00	3.17 1	-2.84 2	-5.12 1	3.25 2
1.49303	1.85516	17.50	71.00	5.79 1	-3.58 2	-8.35 1	4.08 2
1.48676	1.85718	17.00	74.00	5.09 1	-3.42 2	-7.47 1	3.90 2
1.43610	1.85933	15.00	90.00	2.71 1	-2.65 2	-4.53 1	3.04 2
1.46863	1.86022	16.00	81.00	3.82 1	-3.07 2	-5.90 1	3.51 2
1.48282	1.86160	16.50	77.00	4.47 1	-3.27 2	-6.70 1	3.73 2
1.45713	1.86192	15.50	85.00	3.27 1	-2.88 2	-5.21 1	3.30 2
1.49995	1.86621	17.00	73.00	5.25 1	-3.47 2	-7.64 1	3.96 2
1.44811	1.86656	15.00	89.00	2.79 1	-2.70 2	-4.61 1	3.09 2
1.48115	1.86837	16.00	80.00	3.94 1	-3.12 2	-6.02 1	3.56 2
1.46938	1.86963	15.50	84.00	3.37 1	-2.93 2	-5.31 1	3.35 2
1.49570	1.87023	16.50	76.00	4.61 1	-3.32 2	-6.84 1	3.78 2
1.46018	1.87391	15.00	88.00	2.88 1	-2.75 2	-4.70 1	3.14 2
1.49378	1.87666	16.00	79.00	4.06 1	-3.17 2	-6.14 1	3.61 2
1.48172	1.87749	15.50	83.00	3.47 1	-2.98 2	-5.42 1	3.40 2
1.47232	1.88139	15.00	87.00	2.97 1	-2.80 2	-4.79 1	3.19 2
1.49416	1.88550	15.50	82.00	3.57 1	-3.03 2	-5.52 1	3.45 2
1.48453	1.88901	15.00	86.00	3.06 1	-2.85 2	-4.88 1	3.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.47748	1.89556	14.50	90.00	2.61 1	-2.67 2	-4.31 1	3.04 2
1.49683	1.89675	15.00	85.00	3.15 1	-2.89 2	-4.97 1	3.29 2
1.48961	1.90296	14.50	89.00	2.69 1	-2.71 2	-4.39 1	3.09 2
1.50	1.60						
1.50769	1.81147	29.00	39.00	7.42 2	-1.10 3	-9.09 2	1.30 3
1.51110	1.81203	33.00	34.00	6.53 3	-6.80 3	-7.85 3	8.14 3
1.51317	1.81399	32.00	35.00	3.11 3	-3.51 3	-3.75 3	4.18 3
1.50577	1.81487	26.00	44.00	3.50 2	-7.04 2	-4.38 2	8.22 2
1.51036	1.81650	27.00	42.00	4.45 2	-8.02 2	-5.53 2	9.39 2
1.50519	1.81693	25.00	46.00	2.82 2	-6.34 2	-3.56 2	7.37 2
1.51732	1.81776	31.00	36.00	1.60 3	-1.96 3	-1.94 3	2.32 3
1.51906	1.82194	28.00	40.00	5.89 2	-9.47 2	-7.24 2	1.11 3
1.50859	1.82270	24.00	48.00	2.32 2	-5.81 2	-2.95 2	6.74 2
1.52360	1.82358	30.00	37.00	1.11 3	-1.47 3	-1.35 3	1.74 3
1.53207	1.83141	29.00	38.00	8.32 2	-1.19 3	-1.01 3	1.40 3
1.52699	1.83186	26.00	43.00	3.74 2	-7.31 2	-4.65 2	8.52 2
1.51008	1.83209	22.00	53.00	1.55 2	-4.97 2	-2.03 2	5.73 2
1.51600	1.83220	23.00	50.00	1.93 2	-5.40 2	-2.48 2	6.24 2
1.52540	1.83297	25.00	45.00	2.99 2	-6.54 2	-3.75 2	7.59 2
1.53275	1.83461	27.00	41.00	4.83 2	-8.43 2	-5.95 2	9.84 2
1.50001	1.83659	20.00	60.00	1.01 2	-4.28 2	-1.37 2	4.91 2
1.54095	1.83709	32.00	34.00	4.37 3	-4.74 3	-5.24 3	5.63 3
1.50993	1.83740	21.00	56.00	1.27 2	-4.63 2	-1.68 2	5.32 2
1.52791	1.83791	24.00	47.00	2.44 2	-5.97 2	-3.09 2	6.90 2
1.54421	1.84009	31.00	35.00	2.05 3	-2.41 3	-2.46 3	2.85 3
1.54280	1.84133	28.00	39.00	6.50 2	-1.01 3	-7.94 2	1.18 3
1.54966	1.84513	30.00	36.00	1.31 3	-1.68 3	-1.58 3	1.97 3
1.52754	1.84553	22.00	52.00	1.62 2	-5.07 2	-2.10 2	5.83 2
1.53455	1.84669	23.00	49.00	2.03 2	-5.53 2	-2.58 2	6.37 2
1.51551	1.84809	20.00	59.00	1.05 2	-4.35 2	-1.41 2	4.99 2
1.54890	1.84955	26.00	42.00	4.02 2	-7.62 2	-4.97 2	8.86 2
1.54622	1.84964	25.00	44.00	3.19 2	-6.76 2	-3.97 2	7.83 2
1.51284	1.84985	19.50	61.00	9.39 1	-4.20 2	-1.27 2	4.80 2
1.52649	1.84996	21.00	55.00	1.32 2	-4.72 2	-1.74 2	5.41 2
1.55738	1.85228	29.00	37.00	9.47 2	-1.31 3	-1.14 3	1.54 3
1.51200	1.85335	19.00	63.00	8.43 1	-4.06 2	-1.16 2	4.64 2
1.55592	1.85348	27.00	40.00	5.25 2	-8.88 2	-6.43 2	1.03 3
1.54778	1.85368	24.00	46.00	2.58 2	-6.14 2	-3.25 2	7.09 2
1.50172	1.85560	18.00	68.00	6.62 1	-3.74 2	-9.35 1	4.28 2
1.51296	1.85858	18.50	65.00	7.59 1	-3.92 2	-1.05 2	4.48 2
1.54543	1.85940	22.00	51.00	1.70 2	-5.18 2	-2.18 2	5.94 2
1.53132	1.85992	20.00	58.00	1.09 2	-4.43 2	-1.45 2	5.06 2
1.52818	1.86120	19.50	60.00	9.74 1	-4.27 2	-1.31 2	4.87 2
1.56998	1.86145	32.00	33.00	1.56 4	-1.62 4	-1.85 4	1.92 4
1.56743	1.86158	28.00	38.00	7.23 2	-1.09 3	-8.75 2	1.27 3
1.55360	1.86168	23.00	48.00	2.13 2	-5.66 2	-2.70 2	6.51 2
1.54342	1.86290	21.00	54.00	1.38 2	-4.80 2	-1.80 2	5.50 2
1.57225	1.86349	31.00	34.00	2.54 3	-2.88 3	-3.03 3	3.39 3
1.52692	1.86428	19.00	62.00	8.73 1	-4.12 2	-1.19 2	4.70 2
1.50660	1.86462	17.50	70.00	5.98 1	-3.63 2	-8.54 1	4.14 2
1.51574	1.86556	18.00	67.00	6.84 1	-3.80 2	-9.58 1	4.33 2
1.56769	1.86694	25.00	43.00	3.40 2	-7.00 2	-4.20 2	8.09 2
1.57680	1.86776	30.00	35.00	1.61 3	-1.98 3	-1.93 3	2.33 3
1.57155	1.86796	26.00	41.00	4.34 2	-7.97 2	-5.32 2	9.24 2
1.52752	1.86913	18.50	64.00	7.85 1	-3.98 2	-1.08 2	4.54 2
1.56824	1.87003	24.00	45.00	2.74 2	-6.32 2	-3.41 2	7.28 2
1.54745	1.87207	20.00	57.00	1.13 2	-4.50 2	-1.50 2	5.14 2
1.54381	1.87286	19.50	59.00	1.01 2	-4.34 2	-1.35 2	4.94 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.57991	1.87317	27.00	39.00	5.76 2	-9.42 2	-7.00 2	1.09 3
1.56376	1.87373	22.00	50.00	1.78 2	-5.29 2	-2.27 2	6.06 2
1.58369	1.87415	29.00	36.00	1.10 3	-1.46 3	-1.32 3	1.71 3
1.52035	1.87430	17.50	69.00	6.18 1	-3.69 2	-8.74 1	4.19 2
1.51330	1.87542	17.00	72.00	5.41 1	-3.52 2	-7.81 1	4.01 2
1.54211	1.87549	19.00	61.00	9.05 1	-4.18 2	-1.22 2	4.77 2
1.52997	1.87577	18.00	66.00	7.07 1	-3.86 2	-9.82 1	4.39 2
1.56073	1.87623	21.00	53.00	1.44 2	-4.89 2	-1.86 2	5.59 2
1.57318	1.87720	23.00	47.00	2.25 2	-5.80 2	-2.82 2	6.66 2
1.50872	1.87904	16.50	75.00	4.75 1	-3.37 2	-6.99 1	3.83 2
1.54232	1.87994	18.50	63.00	8.12 1	-4.05 2	-1.11 2	4.60 2
1.59299	1.88276	28.00	37.00	8.11 2	-1.18 3	-9.76 2	1.37 3
1.53430	1.88420	17.50	68.00	6.38 1	-3.74 2	-8.95 1	4.25 2
1.56391	1.88458	20.00	56.00	1.18 2	-4.58 2	-1.54 2	5.21 2
1.55974	1.88484	19.50	58.00	1.05 2	-4.41 2	-1.39 2	5.01 2
1.52682	1.88484	17.00	71.00	5.58 1	-3.58 2	-7.98 1	4.06 2
1.58985	1.88493	25.00	42.00	3.64 2	-7.27 2	-4.47 2	8.38 2
1.50653	1.88513	16.00	78.00	4.18 1	-3.22 2	-6.27 1	3.66 2
1.54443	1.88622	18.00	65.00	7.31 1	-3.92 2	-1.01 2	4.45 2
1.55758	1.88700	19.00	60.00	9.38 1	-4.25 2	-1.26 2	4.83 2
1.58931	1.88700	24.00	44.00	2.91 2	-6.52 2	-3.60 2	7.49 2
1.59497	1.88714	26.00	40.00	4.70 2	-8.36 2	-5.72 2	9.66 2
1.52189	1.88804	16.50	74.00	4.90 1	-3.42 2	-7.14 1	3.89 2
1.58257	1.88853	22.00	49.00	1.87 2	-5.40 2	-2.36 2	6.18 2
1.57844	1.88998	21.00	52.00	1.50 2	-4.99 2	-1.93 2	5.69 2
1.55737	1.89103	18.50	62.00	8.41 1	-4.11 2	-1.14 2	4.67 2
1.59331	1.89329	23.00	46.00	2.37 2	-5.96 2	-2.96 2	6.82 2
1.50670	1.89365	15.50	81.00	3.68 1	-3.08 2	-5.63 1	3.50 2
1.51941	1.89375	16.00	77.00	4.31 1	-3.27 2	-6.40 1	3.71 2
1.54844	1.89432	17.50	67.00	6.59 1	-3.80 2	-9.17 1	4.31 2
1.54052	1.89446	17.00	70.00	5.76 1	-3.63 2	-8.17 1	4.12 2
1.55911	1.89692	18.00	64.00	7.56 1	-3.98 2	-1.03 2	4.51 2
1.57600	1.89715	19.50	57.00	1.09 2	-4.48 2	-1.43 2	5.09 2
1.53521	1.89722	16.50	73.00	5.05 1	-3.47 2	-7.30 1	3.94 2
1.58072	1.89745	20.00	55.00	1.22 2	-4.66 2	-1.59 2	5.29 2
1.57333	1.89881	19.00	59.00	9.73 1	-4.32 2	-1.29 2	4.90 2
1.51934	1.90196	15.50	80.00	3.79 1	-3.13 2	-5.75 1	3.55 2
1.57269	1.90240	18.50	61.00	8.71 1	-4.17 2	-1.17 2	4.73 2
1.53242	1.90255	16.00	76.00	4.44 1	-3.32 2	-6.53 1	3.77 2
1.59659	1.90417	21.00	51.00	1.57 2	-5.08 2	-2.00 2	5.79 2
1.55440	1.90430	17.00	69.00	5.95 1	-3.69 2	-8.36 1	4.17 2
1.50921	1.90464	15.00	84.00	3.24 1	-2.94 2	-5.07 1	3.34 2
1.56280	1.90469	17.50	66.00	6.81 1	-3.86 2	-9.39 1	4.37 2
1.54869	1.90660	16.50	72.00	5.21 1	-3.53 2	-7.46 1	3.99 2
1.57404	1.90790	18.00	63.00	7.82 1	-4.04 2	-1.06 2	4.57 2
1.59259	1.90982	19.50	56.00	1.13 2	-4.55 2	-1.48 2	5.16 2
1.53211	1.91042	15.50	79.00	3.91 1	-3.18 2	-5.86 1	3.60 2
1.50181	1.91049	14.50	88.00	2.77 1	-2.76 2	-4.47 1	3.13 2
1.59790	1.91071	20.00	54.00	1.28 2	-4.74 2	-1.65 2	5.38 2
1.58940	1.91096	19.00	58.00	1.01 2	-4.39 2	-1.33 2	4.97 2
1.54557	1.91153	16.00	75.00	4.58 1	-3.38 2	-6.67 1	3.82 2
1.52168	1.91267	15.00	83.00	3.34 1	-2.99 2	-5.16 1	3.39 2
1.58828	1.91407	18.50	60.00	9.03 1	-4.24 2	-1.20 2	4.79 2
1.56848	1.91436	17.00	68.00	6.14 1	-3.74 2	-8.56 1	4.23 2
1.57739	1.91530	17.50	65.00	7.04 1	-3.91 2	-9.63 1	4.42 2
1.56234	1.91618	16.50	71.00	5.38 1	-3.58 2	-7.63 1	4.05 2
1.51409	1.91814	14.50	87.00	2.86 1	-2.81 2	-4.56 1	3.18 2
1.54499	1.91905	15.50	78.00	4.03 1	-3.23 2	-5.98 1	3.65 2
1.58922	1.91915	18.00	62.00	8.10 1	-4.10 2	-1.09 2	4.63 2
1.55887	1.92069	16.00	74.00	4.72 1	-3.43 2	-6.82 1	3.87 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.53425	1.92084	15.00	82.00	3.44 1	-3.04 2	-5.26 1	3.44 2
1.58275	1.92465	17.00	67.00	6.34 1	-3.80 2	-8.76 1	4.28 2
1.52644	1.92593	14.50	86.00	2.94 1	-2.86 2	-4.64 1	3.23 2
1.57616	1.92597	16.50	70.00	5.55 1	-3.63 2	-7.80 1	4.10 2
1.59220	1.92617	17.50	64.00	7.28 1	-3.97 2	-9.88 1	4.48 2
1.55800	1.92785	15.50	77.00	4.15 1	-3.28 2	-6.11 1	3.70 2
1.54692	1.92917	15.00	81.00	3.54 1	-3.09 2	-5.37 1	3.49 2
1.57232	1.93004	16.00	73.00	4.86 1	-3.48 2	-6.97 1	3.92 2
1.53887	1.93385	14.50	85.00	3.03 1	-2.91 2	-4.73 1	3.28 2
1.52139	1.93424	14.00	90.00	2.52 1	-2.68 2	-4.10 1	3.03 2
1.59725	1.93519	17.00	66.00	6.55 1	-3.85 2	-8.98 1	4.34 2
1.59018	1.93598	16.50	69.00	5.72 1	-3.69 2	-7.99 1	4.15 2
1.57114	1.93682	15.50	76.00	4.27 1	-3.33 2	-6.23 1	3.75 2
1.55971	1.93765	15.00	80.00	3.65 1	-3.14 2	-5.48 1	3.54 2
1.58593	1.93959	16.00	72.00	5.02 1	-3.53 2	-7.12 1	3.98 2
1.53366	1.94182	14.00	89.00	2.59 1	-2.73 2	-4.18 1	3.08 2
1.55138	1.94192	14.50	84.00	3.12 1	-2.95 2	-4.82 1	3.33 2
1.58443	1.94597	15.50	75.00	4.40 1	-3.38 2	-6.37 1	3.81 2
1.57260	1.94629	15.00	79.00	3.76 1	-3.19 2	-5.59 1	3.59 2
1.59972	1.94934	16.00	71.00	5.17 1	-3.58 2	-7.28 1	4.03 2
1.54600	1.94953	14.00	88.00	2.67 1	-2.77 2	-4.25 1	3.13 2
1.56399	1.95012	14.50	83.00	3.21 1	-3.00 2	-4.91 1	3.38 2
1.58562	1.95509	15.00	78.00	3.87 1	-3.24 2	-5.70 1	3.64 2
1.59786	1.95530	15.50	74.00	4.54 1	-3.43 2	-6.50 1	3.86 2
1.55842	1.95737	14.00	87.00	2.75 1	-2.82 2	-4.33 1	3.18 2
1.57670	1.95848	14.50	82.00	3.31 1	-3.05 2	-5.01 1	3.43 2
1.59878	1.96407	15.00	77.00	3.99 1	-3.29 2	-5.82 1	3.69 2
1.57091	1.96534	14.00	86.00	2.83 1	-2.87 2	-4.41 1	3.23 2
1.58952	1.96698	14.50	81.00	3.41 1	-3.10 2	-5.11 1	3.48 2
1.58348	1.97345	14.00	85.00	2.91 1	-2.92 2	-4.50 1	3.28 2
1.56810	1.97563	13.50	90.00	2.42 1	-2.69 2	-3.89 1	3.03 2
1.59614	1.98170	14.00	84.00	3.00 1	-2.97 2	-4.58 1	3.33 2
1.58052	1.98341	13.50	89.00	2.49 1	-2.74 2	-3.96 1	3.08 2
1.59301	1.99130	13.50	88.00	2.57 1	-2.79 2	-4.04 1	3.13 2
1.60	1.70						
1.60153	1.88814	31.00	33.00	3.31 3	-3.60 3	-3.92 3	4.23 3
1.60510	1.89149	30.00	34.00	1.99 3	-2.35 3	-2.36 3	2.75 3
1.60480	1.89374	27.00	38.00	6.35 2	-1.00 3	-7.66 2	1.16 3
1.61110	1.89710	29.00	35.00	1.31 3	-1.68 3	-1.56 3	1.96 3
1.61276	1.90367	25.00	41.00	3.92 2	-7.57 2	-4.77 2	8.71 2
1.60189	1.90384	22.00	48.00	1.96 2	-5.53 2	-2.47 2	6.30 2
1.61105	1.90462	24.00	43.00	3.10 2	-6.73 2	-3.80 2	7.72 2
1.61958	1.90495	28.00	36.00	9.23 2	-1.29 3	-1.10 3	1.50 3
1.61924	1.90716	26.00	39.00	5.13 2	-8.81 2	-6.19 2	1.02 3
1.61403	1.90995	23.00	45.00	2.51 2	-6.12 2	-3.10 2	6.99 2
1.63218	1.91406	31.00	32.00	2.37 3	-2.50 3	-2.80 3	2.91 3
1.63064	1.91525	27.00	37.00	7.07 2	-1.08 3	-8.46 2	1.24 3
1.63467	1.91648	30.00	33.00	2.64 3	-3.00 3	-3.11 3	3.49 3
1.61519	1.91882	21.00	50.00	1.64 2	-5.19 2	-2.08 2	5.89 2
1.62173	1.91968	22.00	47.00	2.06 2	-5.66 2	-2.57 2	6.44 2
1.63968	1.92117	29.00	34.00	1.57 3	-1.95 3	-1.86 3	2.26 3
1.60954	1.92286	19.50	55.00	1.18 2	-4.63 2	-1.53 2	5.24 2
1.63349	1.92295	24.00	42.00	3.31 2	-6.97 2	-4.03 2	7.97 2
1.63646	1.92318	25.00	40.00	4.22 2	-7.90 2	-5.11 2	9.07 2
1.60579	1.92344	19.00	57.00	1.05 2	-4.46 2	-1.37 2	5.04 2
1.61548	1.92437	20.00	53.00	1.33 2	-4.82 2	-1.70 2	5.46 2
1.60418	1.92605	18.50	59.00	9.36 1	-4.30 2	-1.24 2	4.86 2
1.63538	1.92726	23.00	44.00	2.66 2	-6.30 2	-3.27 2	7.18 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.64440	1.92806	26.00	38.00	5.61 2	-9.32 2	-6.73 2	1.07 3
1.64727	1.92823	28.00	35.00	1.07 3	-1.44 3	-1.27 3	1.67 3
1.60467	1.93068	18.00	61.00	8.38 1	-4.16 2	-1.12 2	4.69 2
1.63427	1.93395	21.00	49.00	1.72 2	-5.29 2	-2.16 2	6.00 2
1.64214	1.93610	22.00	46.00	2.17 2	-5.80 2	-2.69 2	6.58 2
1.62252	1.93627	19.00	56.00	1.09 2	-4.53 2	-1.41 2	5.11 2
1.62686	1.93628	19.50	54.00	1.23 2	-4.71 2	-1.58 2	5.32 2
1.60727	1.93731	17.50	63.00	7.52 1	-4.03 2	-1.01 2	4.54 2
1.65752	1.93778	27.00	36.00	7.95 2	-1.17 3	-9.45 2	1.35 3
1.62038	1.93836	18.50	58.00	9.71 1	-4.37 2	-1.27 2	4.93 2
1.63347	1.93845	20.00	52.00	1.39 2	-4.91 2	-1.76 2	5.55 2
1.65668	1.94202	24.00	41.00	3.54 2	-7.23 2	-4.29 2	8.25 2
1.62041	1.94252	18.00	60.00	8.68 1	-4.22 2	-1.15 2	4.76 2
1.66560	1.94280	30.00	32.00	3.53 3	-3.85 3	-4.13 3	4.47 3
1.66102	1.94354	25.00	39.00	4.57 2	-8.29 2	-5.50 2	9.48 2
1.65740	1.94522	23.00	43.00	2.82 2	-6.49 2	-3.44 2	7.38 2
1.61197	1.94597	17.00	65.00	6.77 1	-3.91 2	-9.20 1	4.40 2
1.60439	1.94621	16.50	68.00	5.91 1	-3.74 2	-8.17 1	4.21 2
1.66953	1.94651	29.00	33.00	2.00 3	-2.38 3	-2.35 3	2.75 3
1.62259	1.94873	17.50	62.00	7.78 1	-4.09 2	-1.04 2	4.60 2
1.63961	1.94948	19.00	55.00	1.13 2	-4.60 2	-1.46 2	5.19 2
1.65387	1.94960	21.00	48.00	1.80 2	-5.41 2	-2.25 2	6.12 2
1.67054	1.94992	26.00	37.00	6.19 2	-9.93 2	-7.38 2	1.14 3
1.64458	1.95011	19.50	53.00	1.28 2	-4.79 2	-1.63 2	5.40 2
1.63691	1.95102	18.50	57.00	1.01 2	-4.44 2	-1.31 2	5.00 2
1.67614	1.95265	28.00	34.00	1.25 3	-1.62 3	-1.48 3	1.87 3
1.65190	1.95298	20.00	51.00	1.45 2	-5.00 2	-1.83 2	5.64 2
1.66314	1.95311	22.00	45.00	2.29 2	-5.94 2	-2.82 2	6.74 2
1.63644	1.95468	18.00	59.00	9.00 1	-4.29 2	-1.18 2	4.82 2
1.61881	1.95667	16.50	67.00	6.10 1	-3.79 2	-8.37 1	4.26 2
1.62693	1.95701	17.00	64.00	7.00 1	-3.96 2	-9.44 1	4.45 2
1.61369	1.95931	16.00	70.00	5.33 1	-3.63 2	-7.45 1	4.08 2
1.63818	1.96045	17.50	61.00	8.06 1	-4.15 2	-1.07 2	4.66 2
1.68550	1.96141	27.00	35.00	9.08 2	-1.28 3	-1.07 3	1.48 3
1.68068	1.96188	24.00	40.00	3.80 2	-7.52 2	-4.58 2	8.56 2
1.65707	1.96308	19.00	54.00	1.18 2	-4.68 2	-1.51 2	5.27 2
1.68013	1.96390	23.00	42.00	3.00 2	-6.70 2	-3.64 2	7.61 2
1.65378	1.96402	18.50	56.00	1.05 2	-4.51 2	-1.35 2	5.07 2
1.66271	1.96437	19.50	52.00	1.33 2	-4.87 2	-1.69 2	5.49 2
1.68648	1.96479	25.00	38.00	4.98 2	-8.72 2	-5.94 2	9.95 2
1.61146	1.96483	15.50	73.00	4.68 1	-3.48 2	-6.64 1	3.91 2
1.67400	1.96580	21.00	47.00	1.89 2	-5.52 2	-2.35 2	6.24 2
1.65279	1.96716	18.00	58.00	9.33 1	-4.35 2	-1.22 2	4.89 2
1.63345	1.96738	16.50	66.00	6.30 1	-3.85 2	-8.57 1	4.32 2
1.67079	1.96798	20.00	50.00	1.51 2	-5.09 2	-1.90 2	5.74 2
1.64213	1.96833	17.00	63.00	7.23 1	-4.02 2	-9.68 1	4.51 2
1.62785	1.96949	16.00	69.00	5.50 1	-3.69 2	-7.62 1	4.13 2
1.69801	1.97067	30.00	31.00	-1.24 5	1.29 5	1.44 5	-1.50 5
1.68479	1.97077	22.00	44.00	2.42 2	-6.10 2	-2.96 2	6.90 2
1.65406	1.97246	17.50	60.00	8.34 1	-4.21 2	-1.10 2	4.72 2
1.69771	1.97281	26.00	36.00	6.89 2	-1.07 3	-8.16 2	1.22 3
1.61206	1.97322	15.00	76.00	4.11 1	-3.34 2	-5.94 1	3.74 2
1.62522	1.97456	15.50	72.00	4.82 1	-3.53 2	-6.79 1	3.96 2
1.60244	1.97564	14.50	80.00	3.51 1	-3.15 2	-5.21 1	3.53 2
1.67494	1.97709	19.00	53.00	1.23 2	-4.76 2	-1.56 2	5.34 2
1.67102	1.97741	18.50	55.00	1.09 2	-4.58 2	-1.39 2	5.14 2
1.64831	1.97834	16.50	65.00	6.50 1	-3.90 2	-8.79 1	4.37 2
1.68129	1.97908	19.50	51.00	1.39 2	-4.96 2	-1.75 2	5.58 2
1.64220	1.97990	16.00	68.00	5.68 1	-3.74 2	-7.80 1	4.19 2
1.65760	1.97992	17.00	62.00	7.48 1	-4.08 2	-9.94 1	4.57 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.66946	1.97999	18.00	57.00	9.67 1	-4.42 2	-1.25 2	4.95 2
1.62549	1.98255	15.00	75.00	4.23 1	-3.39 2	-6.06 1	3.79 2
1.69470	1.98257	21.00	46.00	1.99 2	-5.65 2	-2.45 2	6.37 2
1.69016	1.98346	20.00	49.00	1.58 2	-5.19 2	-1.97 2	5.84 2
1.61549	1.98447	14.50	79.00	3.61 1	-3.20 2	-5.32 1	3.58 2
1.63915	1.98449	15.50	71.00	4.97 1	-3.58 2	-6.94 1	4.01 2
1.67024	1.98479	17.50	59.00	8.64 1	-4.27 2	-1.13 2	4.79 2
1.66341	1.98957	16.50	64.00	6.72 1	-3.96 2	-9.01 1	4.43 2
1.60890	1.99009	14.00	83.00	3.09 1	-3.01 2	-4.67 1	3.38 2
1.65677	1.99054	16.00	67.00	5.86 1	-3.79 2	-7.99 1	4.24 2
1.68863	1.99119	18.50	54.00	1.13 2	-4.65 2	-1.44 2	5.21 2
1.69322	1.99153	19.00	52.00	1.28 2	-4.84 2	-1.61 2	5.43 2
1.67334	1.99182	17.00	61.00	7.74 1	-4.14 2	-1.02 2	4.63 2
1.63907	1.99207	15.00	74.00	4.36 1	-3.44 2	-6.19 1	3.84 2
1.68649	1.99318	18.00	56.00	1.00 2	-4.49 2	-1.29 2	5.02 2
1.62866	1.99346	14.50	78.00	3.72 1	-3.25 2	-5.42 1	3.63 2
1.65326	1.99463	15.50	70.00	5.12 1	-3.64 2	-7.10 1	4.06 2
1.68674	1.99746	17.50	58.00	8.95 1	-4.34 2	-1.16 2	4.85 2
1.62176	1.99863	14.00	82.00	3.18 1	-3.06 2	-4.76 1	3.43 2
1.60558	1.99933	13.50	87.00	2.64 1	-2.83 2	-4.11 1	3.18 2
1.67877	2.00106	16.50	63.00	6.95 1	-4.02 2	-9.24 1	4.48 2
1.67155	2.00144	16.00	66.00	6.05 1	-3.85 2	-8.18 1	4.29 2
1.65282	2.00178	15.00	73.00	4.49 1	-3.49 2	-6.33 1	3.89 2
1.64195	2.00262	14.50	77.00	3.83 1	-3.30 2	-5.54 1	3.68 2
1.68937	2.00402	17.00	60.00	8.01 1	-4.20 2	-1.05 2	4.69 2
1.66757	2.00500	15.50	69.00	5.28 1	-3.69 2	-7.26 1	4.12 2
1.63472	2.00733	14.00	81.00	3.27 1	-3.11 2	-4.86 1	3.48 2
1.61822	2.00750	13.50	86.00	2.72 1	-2.88 2	-4.19 1	3.22 2
1.66673	2.01169	15.00	72.00	4.63 1	-3.54 2	-6.47 1	3.95 2
1.65539	2.01195	14.50	76.00	3.94 1	-3.34 2	-5.65 1	3.73 2
1.68657	2.01258	16.00	65.00	6.24 1	-3.90 2	-8.38 1	4.35 2
1.69439	2.01285	16.50	62.00	7.18 1	-4.07 2	-9.48 1	4.54 2
1.68208	2.01560	15.50	68.00	5.45 1	-3.74 2	-7.43 1	4.17 2
1.63095	2.01580	13.50	85.00	2.80 1	-2.93 2	-4.27 1	3.27 2
1.64780	2.01618	14.00	80.00	3.37 1	-3.16 2	-4.95 1	3.52 2
1.61793	2.02004	13.00	90.00	2.32 1	-2.71 2	-3.69 1	3.03 2
1.66898	2.02147	14.50	75.00	4.06 1	-3.39 2	-5.77 1	3.78 2
1.68081	2.02181	15.00	71.00	4.77 1	-3.59 2	-6.61 1	4.00 2
1.64376	2.02425	13.50	84.00	2.88 1	-2.98 2	-4.35 1	3.32 2
1.66100	2.02520	14.00	79.00	3.47 1	-3.21 2	-5.05 1	3.57 2
1.69680	2.02643	15.50	67.00	5.62 1	-3.79 2	-7.61 1	4.22 2
1.63050	2.02801	13.00	89.00	2.39 1	-2.75 2	-3.75 1	3.08 2
1.68271	2.03118	14.50	74.00	4.18 1	-3.44 2	-5.89 1	3.83 2
1.69508	2.03215	15.00	70.00	4.92 1	-3.64 2	-6.76 1	4.05 2
1.65668	2.03284	13.50	83.00	2.96 1	-3.03 2	-4.43 1	3.37 2
1.67432	2.03438	14.00	78.00	3.57 1	-3.26 2	-5.15 1	3.62 2
1.64315	2.03612	13.00	88.00	2.46 1	-2.80 2	-3.82 1	3.12 2
1.69661	2.04109	14.50	73.00	4.31 1	-3.49 2	-6.02 1	3.88 2
1.66969	2.04158	13.50	82.00	3.05 1	-3.07 2	-4.52 1	3.42 2
1.68778	2.04374	14.00	77.00	3.67 1	-3.30 2	-5.26 1	3.67 2
1.65588	2.04435	13.00	87.00	2.53 1	-2.85 2	-3.89 1	3.17 2
1.68282	2.05047	13.50	81.00	3.14 1	-3.12 2	-4.61 1	3.47 2
1.66868	2.05272	13.00	86.00	2.61 1	-2.90 2	-3.97 1	3.22 2
1.69605	2.05953	13.50	80.00	3.23 1	-3.17 2	-4.70 1	3.52 2
1.68157	2.06123	13.00	85.00	2.68 1	-2.94 2	-4.04 1	3.27 2
1.67122	2.06781	12.50	90.00	2.23 1	-2.72 2	-3.49 1	3.03 2
1.69455	2.06988	13.00	84.00	2.76 1	-2.99 2	-4.12 1	3.32 2
1.68396	2.07600	12.50	89.00	2.29 1	-2.77 2	-3.55 1	3.07 2
1.69678	2.08431	12.50	88.00	2.36 1	-2.81 2	-3.62 1	3.12 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.70	1.80						
1.70077	1.97319	29.00	32.00	2.67 3	-3.05 3	-3.12 3	3.52 3
1.70630	1.97835	28.00	33.00	1.51 3	-1.89 3	-1.77 3	2.17 3
1.70553	1.98261	24.00	39.00	4.10 2	-7.85 2	-4.90 2	8.91 2
1.70363	1.98333	23.00	41.00	3.20 2	-6.93 2	-3.86 2	7.85 2
1.71468	1.98620	27.00	34.00	1.05 3	-1.42 3	-1.23 3	1.63 3
1.71292	1.98701	25.00	37.00	5.45 2	-9.22 2	-6.47 2	1.05 3
1.70711	1.98909	22.00	43.00	2.57 2	-6.27 2	-3.12 2	7.08 2
1.70033	1.99426	19.50	50.00	1.45 2	-5.05 2	-1.81 2	5.67 2
1.72601	1.99681	26.00	35.00	7.76 2	-1.16 3	-9.13 2	1.32 3
1.71006	1.99948	20.00	48.00	1.65 2	-5.30 2	-2.05 2	5.94 2
1.71602	1.99994	21.00	45.00	2.10 2	-5.78 2	-2.56 2	6.50 2
1.73350	2.00142	29.00	31.00	5.69 3	-6.21 3	-6.59 3	7.15 3
1.72793	2.00356	23.00	40.00	3.43 2	-7.18 2	-4.10 2	8.11 2
1.73131	2.00423	24.00	38.00	4.44 2	-8.21 2	-5.28 2	9.31 2
1.70665	2.00538	18.50	53.00	1.18 2	-4.73 2	-1.49 2	5.29 2
1.73785	2.00541	28.00	32.00	1.88 3	-2.25 3	-2.18 3	2.57 3
1.71195	2.00642	19.00	51.00	1.33 2	-4.92 2	-1.67 2	5.51 2
1.70387	2.00676	18.00	55.00	1.04 2	-4.56 2	-1.33 2	5.09 2
1.73016	2.00814	22.00	42.00	2.72 2	-6.46 2	-3.29 2	7.28 2
1.71987	2.00993	19.50	49.00	1.51 2	-5.15 2	-1.88 2	5.76 2
1.74041	2.01028	25.00	36.00	6.02 2	-9.80 2	-7.09 2	1.11 3
1.70357	2.01048	17.50	57.00	9.28 1	-4.40 2	-1.20 2	4.91 2
1.74516	2.01228	27.00	33.00	1.23 3	-1.61 3	-1.44 3	1.84 3
1.73050	2.01604	20.00	47.00	1.73 2	-5.40 2	-2.13 2	6.05 2
1.70571	2.01653	17.00	59.00	8.29 1	-4.26 2	-1.08 2	4.75 2
1.73798	2.01798	21.00	44.00	2.21 2	-5.93 2	-2.69 2	6.65 2
1.72510	2.02001	18.50	52.00	1.22 2	-4.81 2	-1.54 2	5.37 2
1.72165	2.02072	18.00	54.00	1.08 2	-4.63 2	-1.37 2	5.16 2
1.73115	2.02179	19.00	50.00	1.39 2	-5.01 2	-1.73 2	5.60 2
1.75552	2.02198	26.00	34.00	8.81 2	-1.26 3	-1.03 3	1.44 3
1.72075	2.02385	17.50	56.00	9.63 1	-4.47 2	-1.23 2	4.98 2
1.70183	2.02399	16.00	64.00	6.45 1	-3.96 2	-8.59 1	4.40 2
1.75311	2.02467	23.00	39.00	3.68 2	-7.46 2	-4.38 2	8.42 2
1.71029	2.02493	16.50	61.00	7.43 1	-4.13 2	-9.74 1	4.60 2
1.73992	2.02613	19.50	48.00	1.58 2	-5.24 2	-1.95 2	5.86 2
1.75808	2.02684	24.00	37.00	4.84 2	-8.63 2	-5.71 2	9.76 2
1.75398	2.02795	22.00	41.00	2.90 2	-6.66 2	-3.47 2	7.49 2
1.72236	2.02939	17.00	58.00	8.59 1	-4.32 2	-1.11 2	4.81 2
1.76788	2.03120	29.00	30.00	-4.26 4	4.43 4	4.89 4	-5.10 4
1.75153	2.03319	20.00	46.00	1.82 2	-5.52 2	-2.23 2	6.17 2
1.77093	2.03399	28.00	31.00	2.63 3	-3.02 3	-3.04 3	3.45 3
1.76904	2.03467	25.00	35.00	6.70 2	-1.05 3	-7.84 2	1.19 3
1.74399	2.03509	18.50	51.00	1.27 2	-4.89 2	-1.59 2	5.45 2
1.73983	2.03511	18.00	53.00	1.13 2	-4.70 2	-1.42 2	5.24 2
1.71734	2.03568	16.00	63.00	6.66 1	-4.01 2	-8.81 1	4.46 2
1.76063	2.03668	21.00	43.00	2.34 2	-6.08 2	-2.82 2	6.81 2
1.72648	2.03732	16.50	60.00	7.68 1	-4.19 2	-1.00 2	4.66 2
1.71174	2.03751	15.50	66.00	5.80 1	-3.85 2	-7.79 1	4.27 2
1.73830	2.03762	17.50	55.00	1.00 2	-4.54 2	-1.27 2	5.05 2
1.75085	2.03765	19.00	49.00	1.45 2	-5.10 2	-1.79 2	5.69 2
1.77706	2.03974	27.00	32.00	1.49 3	-1.87 3	-1.73 3	2.13 3
1.73935	2.04260	17.00	57.00	8.90 1	-4.39 2	-1.14 2	4.88 2
1.70954	2.04271	15.00	69.00	5.07 1	-3.69 2	-6.92 1	4.10 2
1.76053	2.04289	19.50	47.00	1.66 2	-5.35 2	-2.03 2	5.97 2
1.77923	2.04669	23.00	38.00	3.97 2	-7.78 2	-4.69 2	8.75 2
1.73312	2.04766	16.00	62.00	6.88 1	-4.07 2	-9.04 1	4.52 2
1.78634	2.04846	26.00	33.00	1.02 3	-1.40 3	-1.18 3	1.59 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.77862	2.04858	22.00	40.00	3.09 2	-6.88 2	-3.68 2	7.72 2
1.72692	2.04885	15.50	65.00	5.99 1	-3.90 2	-7.98 1	4.33 2
1.75844	2.04993	18.00	52.00	1.17 2	-4.78 2	-1.47 2	5.31 2
1.74297	2.05003	16.50	59.00	7.95 1	-4.25 2	-1.03 2	4.72 2
1.78591	2.05050	24.00	36.00	5.30 2	-9.12 2	-6.21 2	1.03 3
1.76335	2.05066	18.50	50.00	1.33 2	-4.97 2	-1.65 2	5.54 2
1.77317	2.05096	20.00	45.00	1.91 2	-5.64 2	-2.32 2	6.29 2
1.71068	2.05120	14.50	72.00	4.44 1	-3.54 2	-6.15 1	3.93 2
1.75623	2.05178	17.50	54.00	1.04 2	-4.60 2	-1.31 2	5.12 2
1.70138	2.05328	14.00	76.00	3.78 1	-3.35 2	-5.37 1	3.72 2
1.72421	2.05350	15.00	68.00	5.23 1	-3.74 2	-7.08 1	4.15 2
1.77108	2.05406	19.00	48.00	1.52 2	-5.20 2	-1.86 2	5.79 2
1.78401	2.05613	21.00	42.00	2.47 2	-6.24 2	-2.97 2	6.98 2
1.75669	2.05617	17.00	56.00	9.23 1	-4.45 2	-1.18 2	4.94 2
1.74918	2.05993	16.00	61.00	7.12 1	-4.12 2	-9.28 1	4.57 2
1.79890	2.06025	25.00	34.00	7.51 2	-1.13 3	-8.73 2	1.28 3
1.78173	2.06025	19.50	46.00	1.74 2	-5.46 2	-2.12 2	6.08 2
1.74234	2.06046	15.50	64.00	6.18 1	-3.95 2	-8.18 1	4.38 2
1.72493	2.06152	14.50	71.00	4.57 1	-3.59 2	-6.29 1	3.98 2
1.71512	2.06300	14.00	75.00	3.89 1	-3.40 2	-5.48 1	3.77 2
1.75979	2.06309	16.50	58.00	8.23 1	-4.31 2	-1.06 2	4.78 2
1.73910	2.06453	15.00	67.00	5.39 1	-3.79 2	-7.24 1	4.20 2
1.77750	2.06521	18.00	51.00	1.22 2	-4.86 2	-1.52 2	5.39 2
1.77458	2.06636	17.50	53.00	1.08 2	-4.68 2	-1.35 2	5.19 2
1.78322	2.06673	18.50	49.00	1.39 2	-5.06 2	-1.71 2	5.62 2
1.70941	2.06875	13.50	79.00	3.32 1	-3.22 2	-4.79 1	3.57 2
1.79548	2.06939	20.00	44.00	2.02 2	-5.77 2	-2.43 2	6.43 2
1.77441	2.07014	17.00	55.00	9.56 1	-4.52 2	-1.21 2	5.01 2
1.79186	2.07102	19.00	47.00	1.59 2	-5.30 2	-1.94 2	5.89 2
1.73936	2.07206	14.50	70.00	4.71 1	-3.64 2	-6.43 1	4.03 2
1.75801	2.07235	15.50	63.00	6.38 1	-4.01 2	-8.39 1	4.44 2
1.76554	2.07252	16.00	60.00	7.36 1	-4.18 2	-9.53 1	4.63 2
1.72902	2.07291	14.00	74.00	4.01 1	-3.45 2	-5.60 1	3.82 2
1.75420	2.07582	15.00	66.00	5.56 1	-3.85 2	-7.42 1	4.25 2
1.77695	2.07649	16.50	57.00	8.53 1	-4.37 2	-1.09 2	4.84 2
1.72290	2.07814	13.50	78.00	3.42 1	-3.27 2	-4.89 1	3.62 2
1.70763	2.07868	13.00	83.00	2.84 1	-3.04 2	-4.20 1	3.37 2
1.79704	2.08098	18.00	50.00	1.27 2	-4.94 2	-1.57 2	5.47 2
1.79336	2.08139	17.50	52.00	1.12 2	-4.75 2	-1.40 2	5.26 2
1.75399	2.08282	14.50	69.00	4.85 1	-3.69 2	-6.57 1	4.08 2
1.74309	2.08302	14.00	73.00	4.13 1	-3.50 2	-5.72 1	3.87 2
1.79252	2.08451	17.00	54.00	9.94 1	-4.58 2	-1.25 2	5.07 2
1.77396	2.08453	15.50	62.00	6.60 1	-4.06 2	-8.61 1	4.49 2
1.78220	2.08544	16.00	59.00	7.61 1	-4.24 2	-9.79 1	4.69 2
1.76955	2.08736	15.00	65.00	5.74 1	-3.90 2	-7.60 1	4.31 2
1.72081	2.08763	13.00	82.00	2.92 1	-3.09 2	-4.28 1	3.42 2
1.73653	2.08770	13.50	77.00	3.52 1	-3.31 2	-4.99 1	3.67 2
1.79447	2.09027	16.50	59.00	8.84 1	-4.43 2	-1.12 2	4.90 2
1.70967	2.09276	12.50	87.00	2.43 1	-2.86 2	-3.68 1	3.17 2
1.75732	2.09334	14.00	72.00	4.25 1	-3.55 2	-5.84 1	3.92 2
1.76883	2.09382	14.50	68.00	5.00 1	-3.75 2	-6.73 1	4.13 2
1.73411	2.09674	13.00	81.00	3.00 1	-3.13 2	-4.36 1	3.47 2
1.79020	2.09701	15.50	61.00	6.82 1	-4.12 2	-8.83 1	4.54 2
1.75029	2.09745	13.50	76.00	3.62 1	-3.36 2	-5.09 1	3.71 2
1.79919	2.09870	16.00	58.00	7.88 1	-4.30 2	-1.01 2	4.74 2
1.78514	2.09917	15.00	64.00	5.92 1	-3.95 2	-7.78 1	4.36 2
1.72265	2.10135	12.50	86.00	2.49 1	-2.91 2	-3.75 1	3.22 2
1.77174	2.10386	14.00	71.00	4.38 1	-3.60 2	-5.97 1	3.97 2
1.78388	2.10506	14.50	67.00	5.16 1	-3.80 2	-6.88 1	4.19 2
1.74752	2.10601	13.00	80.00	3.09 1	-3.18 2	-4.45 1	3.51 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.76421	2.10738	13.50	75.00	3.72 1	-3.41 2	-5.20 1	3.76 2
1.73571	2.11008	12.50	85.00	2.57 1	-2.96 2	-3.82 1	3.27 2
1.78635	2.11461	14.00	70.00	4.51 1	-3.65 2	-6.10 1	4.02 2
1.76105	2.11544	13.00	79.00	3.18 1	-3.23 2	-4.54 1	3.56 2
1.79917	2.11655	14.50	66.00	5.32 1	-3.85 2	-7.05 1	4.24 2
1.77829	2.11750	13.50	74.00	3.83 1	-3.46 2	-5.31 1	3.81 2
1.74887	2.11895	12.50	84.00	2.64 1	-3.00 2	-3.90 1	3.32 2
1.72839	2.11935	12.00	90.00	2.13 1	-2.74 2	-3.29 1	3.03 2
1.77472	2.12505	13.00	78.00	3.27 1	-3.28 2	-4.63 1	3.61 2
1.74132	2.12776	12.00	89.00	2.19 1	-2.78 2	-3.35 1	3.07 2
1.79253	2.12783	13.50	73.00	3.95 1	-3.51 2	-5.42 1	3.86 2
1.76213	2.12797	12.50	83.00	2.71 1	-3.05 2	-3.97 1	3.37 2
1.78852	2.13483	13.00	77.00	3.36 1	-3.33 2	-4.72 1	3.66 2
1.75431	2.13631	12.00	88.00	2.25 1	-2.83 2	-3.41 1	3.12 2
1.77549	2.13714	12.50	82.00	2.79 1	-3.10 2	-4.05 1	3.41 2
1.76739	2.14498	12.00	87.00	2.32 1	-2.88 2	-3.48 1	3.17 2
1.78897	2.14647	12.50	81.00	2.87 1	-3.15 2	-4.13 1	3.46 2
1.78055	2.15380	12.00	86.00	2.38 1	-2.92 2	-3.54 1	3.22 2
1.79380	2.16276	12.00	85.00	2.45 1	-2.97 2	-3.61 1	3.27 2
1.78993	2.17513	11.50	90.00	2.03 1	-2.75 2	-3.10 1	3.03 2
1.80	1.90						
1.80566	2.06415	28.00	30.00	3.58 3	-3.93 3	-4.11 3	4.48 3
1.81048	2.06873	27.00	31.00	1.94 3	-2.34 3	-2.24 3	2.66 3
1.80635	2.06970	23.00	37.00	4.30 2	-8.13 2	-5.05 2	9.13 2
1.80415	2.07009	22.00	39.00	3.31 2	-7.12 2	-3.92 2	7.98 2
1.81490	2.07530	24.00	35.00	5.85 2	-9.71 2	-6.82 2	1.09 3
1.81859	2.07633	26.00	32.00	1.20 3	-1.58 3	-1.38 3	1.79 3
1.80818	2.07635	21.00	41.00	2.63 2	-6.42 2	-3.13 2	7.17 2
1.80355	2.07822	19.50	45.00	1.83 2	-5.57 2	-2.21 2	6.20 2
1.80362	2.08334	18.50	48.00	1.45 2	-5.15 2	-1.78 2	5.71 2
1.83009	2.08714	25.00	33.00	8.53 2	-1.24 3	-9.86 2	1.40 3
1.81848	2.08851	20.00	43.00	2.13 2	-5.90 2	-2.55 2	6.57 2
1.81323	2.08858	19.00	46.00	1.66 2	-5.40 2	-2.02 2	5.99 2
1.83062	2.09253	22.00	38.00	3.56 2	-7.39 2	-4.18 2	8.26 2
1.83455	2.09379	23.00	36.00	4.68 2	-8.54 2	-5.47 2	9.57 2
1.84220	2.09604	28.00	29.00	2.69 3	-2.84 3	-3.08 3	3.21 3
1.82603	2.09686	19.50	44.00	1.92 2	-5.70 2	-2.31 2	6.32 2
1.81260	2.09688	17.50	51.00	1.17 2	-4.82 2	-1.45 2	5.34 2
1.81708	2.09726	18.00	49.00	1.33 2	-5.02 2	-1.63 2	5.56 2
1.83318	2.09739	21.00	40.00	2.79 2	-6.61 2	-3.31 2	7.37 2
1.81104	2.09930	17.00	53.00	1.03 2	-4.65 2	-1.29 2	5.14 2
1.84558	2.09934	27.00	30.00	2.61 3	-3.01 3	-2.99 3	3.41 3
1.82458	2.10051	18.50	47.00	1.52 2	-5.25 2	-1.85 2	5.81 2
1.84513	2.10131	24.00	34.00	6.50 2	-1.04 3	-7.53 2	1.16 3
1.81236	2.10445	16.50	55.00	9.17 1	-4.50 2	-1.15 2	4.96 2
1.85239	2.10576	26.00	31.00	1.48 3	-1.87 3	-1.69 3	2.11 3
1.83524	2.10677	19.00	45.00	1.75 2	-5.51 2	-2.11 2	6.10 2
1.84222	2.10838	20.00	42.00	2.25 2	-6.05 2	-2.68 2	6.72 2
1.80673	2.10981	15.50	60.00	7.05 1	-4.17 2	-9.07 1	4.60 2
1.80099	2.11127	15.00	63.00	6.11 1	-4.00 2	-7.98 1	4.41 2
1.81653	2.11232	16.00	57.00	8.16 1	-4.36 2	-1.04 2	4.80 2
1.83232	2.11287	17.50	50.00	1.22 2	-4.90 2	-1.50 2	5.41 2
1.83767	2.11408	18.00	48.00	1.39 2	-5.11 2	-1.69 2	5.64 2
1.83001	2.11454	17.00	52.00	1.07 2	-4.72 2	-1.33 2	5.21 2
1.86272	2.11545	25.00	32.00	9.83 2	-1.37 3	-1.13 3	1.54 3
1.85811	2.11598	22.00	37.00	3.83 2	-7.70 2	-4.48 2	8.58 2
1.84922	2.11620	19.50	43.00	2.03 2	-5.82 2	-2.42 2	6.45 2
1.84614	2.11829	18.50	46.00	1.59 2	-5.35 2	-1.92 2	5.91 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.86391	2.11902	23.00	35.00	5.14 2	-9.02 2	-5.96 2	1.01 3
1.83065	2.11903	16.50	54.00	9.51 1	-4.56 2	-1.19 2	5.03 2
1.85908	2.11934	21.00	39.00	2.98 2	-6.83 2	-3.51 2	7.59 2
1.82357	2.12294	15.50	59.00	7.29 1	-4.23 2	-9.32 1	4.66 2
1.81712	2.12366	15.00	62.00	6.31 1	-4.06 2	-8.18 1	4.47 2
1.80116	2.12559	14.00	69.00	4.64 1	-3.70 2	-6.24 1	4.07 2
1.85791	2.12563	19.00	44.00	1.83 2	-5.63 2	-2.20 2	6.22 2
1.83423	2.12632	16.00	56.00	8.46 1	-4.42 2	-1.07 2	4.86 2
1.81469	2.12831	14.50	65.00	5.49 1	-3.90 2	-7.22 1	4.29 2
1.87670	2.12866	24.00	33.00	7.30 2	-1.12 3	-8.40 2	1.25 3
1.86677	2.12903	20.00	41.00	2.38 2	-6.21 2	-2.82 2	6.88 2
1.85255	2.12936	17.50	49.00	1.27 2	-4.98 2	-1.55 2	5.49 2
1.84943	2.13025	17.00	51.00	1.12 2	-4.80 2	-1.38 2	5.28 2
1.85882	2.13148	18.00	47.00	1.45 2	-5.20 2	-1.76 2	5.74 2
1.88252	2.13173	27.00	29.00	3.63 3	-3.99 3	-4.12 3	4.51 3
1.84936	2.13404	16.50	53.00	9.88 1	-4.63 2	-1.23 2	5.10 2
1.87316	2.13629	19.50	42.00	2.14 2	-5.96 2	-2.54 2	6.60 2
1.83353	2.13636	15.00	61.00	6.52 1	-4.11 2	-8.40 1	4.52 2
1.84075	2.13642	15.50	58.00	7.54 1	-4.29 2	-9.58 1	4.71 2
1.86834	2.13669	18.50	45.00	1.67 2	-5.45 2	-2.00 2	6.02 2
1.81618	2.13680	14.00	68.00	4.78 1	-3.75 2	-6.39 1	4.12 2
1.88789	2.13682	26.00	30.00	1.86 3	-2.25 3	-2.12 3	2.53 3
1.80695	2.13837	13.50	72.00	4.06 1	-3.56 2	-5.54 1	3.91 2
1.83046	2.14034	14.50	64.00	5.66 1	-3.95 2	-7.40 1	4.34 2
1.88670	2.14051	22.00	36.00	4.15 2	-8.04 2	-4.82 2	8.94 2
1.85231	2.14071	16.00	55.00	8.77 1	-4.48 2	-1.10 2	4.93 2
1.88594	2.14222	21.00	38.00	3.19 2	-7.06 2	-3.73 2	7.83 2
1.80247	2.14480	13.00	76.00	3.46 1	-3.37 2	-4.82 1	3.71 2
1.88129	2.14519	19.00	43.00	1.93 2	-5.75 2	-2.30 2	6.35 2
1.89691	2.14533	25.00	31.00	1.17 3	-1.56 3	-1.33 3	1.75 3
1.89453	2.14549	23.00	34.00	5.66 2	-9.57 2	-6.53 2	1.07 3
1.87333	2.14641	17.50	48.00	1.32 2	-5.07 2	-1.61 2	5.58 2
1.86934	2.14645	17.00	50.00	1.16 2	-4.87 2	-1.42 2	5.36 2
1.83141	2.14826	14.00	67.00	4.93 1	-3.80 2	-6.53 1	4.17 2
1.82155	2.14911	13.50	71.00	4.18 1	-3.61 2	-5.66 1	3.96 2
1.85025	2.14938	15.00	60.00	6.74 1	-4.17 2	-8.62 1	4.57 2
1.88057	2.14948	18.00	46.00	1.52 2	-5.29 2	-1.83 2	5.83 2
1.86851	2.14950	16.50	52.00	1.03 2	-4.70 2	-1.27 2	5.16 2
1.85827	2.15026	15.50	57.00	7.80 1	-4.35 2	-9.85 1	4.77 2
1.89216	2.15053	20.00	40.00	2.52 2	-6.38 2	-2.97 2	7.06 2
1.84650	2.15266	14.50	63.00	5.84 1	-4.00 2	-7.58 1	4.39 2
1.81657	2.15495	13.00	75.00	3.56 1	-3.42 2	-4.92 1	3.76 2
1.87079	2.15551	16.00	54.00	9.09 1	-4.54 2	-1.13 2	4.99 2
1.89120	2.15578	18.50	44.00	1.75 2	-5.56 2	-2.09 2	6.13 2
1.80256	2.15597	12.50	80.00	2.95 1	-3.19 2	-4.21 1	3.51 2
1.89790	2.15718	19.50	41.00	2.26 2	-6.11 2	-2.67 2	6.75 2
1.84688	2.15998	14.00	66.00	5.08 1	-3.85 2	-6.69 1	4.22 2
1.83634	2.16008	13.50	70.00	4.31 1	-3.66 2	-5.79 1	4.01 2
1.86729	2.16274	15.00	59.00	6.96 1	-4.22 2	-8.85 1	4.63 2
1.88977	2.16317	17.00	49.00	1.21 2	-4.95 2	-1.47 2	5.44 2
1.89467	2.16403	17.50	47.00	1.38 2	-5.15 2	-1.67 2	5.66 2
1.87616	2.16448	15.50	56.00	8.08 1	-4.40 2	-1.01 2	4.83 2
1.86282	2.16527	14.50	62.00	6.03 1	-4.06 2	-7.77 1	4.44 2
1.83083	2.16530	13.00	74.00	3.66 1	-3.47 2	-5.03 1	3.81 2
1.88813	2.16544	16.50	51.00	1.07 2	-4.77 2	-1.31 2	5.23 2
1.81628	2.16563	12.50	79.00	3.03 1	-3.24 2	-4.29 1	3.56 2
1.88969	2.17075	16.00	53.00	9.43 1	-4.61 2	-1.17 2	5.05 2
1.85133	2.17128	13.50	69.00	4.44 1	-3.70 2	-5.92 1	4.06 2
1.80715	2.17187	12.00	84.00	2.52 1	-3.02 2	-3.68 1	3.32 2
1.86259	2.17196	14.00	65.00	5.24 1	-3.90 2	-6.85 1	4.27 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.83014	2.17547	12.50	78.00	3.12 1	-3.29 2	-4.38 1	3.61 2
1.84526	2.17586	13.00	73.00	3.77 1	-3.52 2	-5.13 1	3.85 2
1.88465	2.17644	15.00	58.00	7.20 1	-4.28 2	-9.10 1	4.68 2
1.87942	2.17820	14.50	61.00	6.23 1	-4.11 2	-7.97 1	4.50 2
1.89443	2.17910	15.50	55.00	8.37 1	-4.46 2	-1.04 2	4.89 2
1.82060	2.18112	12.00	83.00	2.59 1	-3.07 2	-3.75 1	3.36 2
1.86654	2.18273	13.50	68.00	4.57 1	-3.75 2	-6.05 1	4.11 2
1.80305	2.18379	11.50	89.00	2.09 1	-2.80 2	-3.16 1	3.08 2
1.87856	2.18422	14.00	64.00	5.41 1	-3.95 2	-7.02 1	4.32 2
1.84413	2.18548	12.50	77.00	3.21 1	-3.34 2	-4.47 1	3.65 2
1.85987	2.18662	13.00	72.00	3.88 1	-3.57 2	-5.24 1	3.90 2
1.83415	2.19053	12.00	82.00	2.66 1	-3.11 2	-3.82 1	3.41 2
1.89633	2.19145	14.50	60.00	6.43 1	-4.16 2	-8.18 1	4.55 2
1.81624	2.19257	11.50	88.00	2.15 1	-2.85 2	-3.21 1	3.12 2
1.88197	2.19442	13.50	67.00	4.71 1	-3.80 2	-6.19 1	4.16 2
1.85827	2.19568	12.50	76.00	3.30 1	-3.38 2	-4.56 1	3.70 2
1.89479	2.19677	14.00	63.00	5.58 1	-4.00 2	-7.19 1	4.37 2
1.87466	2.19760	13.00	71.00	3.99 1	-3.61 2	-5.36 1	3.95 2
1.84782	2.20010	12.00	81.00	2.74 1	-3.16 2	-3.89 1	3.46 2
1.82951	2.20150	11.50	87.00	2.21 1	-2.89 2	-3.27 1	3.17 2
1.87257	2.20607	12.50	75.00	3.39 1	-3.43 2	-4.65 1	3.75 2
1.89764	2.20637	13.50	66.00	4.85 1	-3.85 2	-6.34 1	4.21 2
1.88965	2.20881	13.00	70.00	4.11 1	-3.66 2	-5.48 1	4.00 2
1.86161	2.20984	12.00	80.00	2.81 1	-3.21 2	-3.97 1	3.51 2
1.84287	2.21056	11.50	86.00	2.27 1	-2.94 2	-3.33 1	3.22 2
1.88703	2.21666	12.50	74.00	3.49 1	-3.48 2	-4.75 1	3.80 2
1.87553	2.21974	12.00	79.00	2.89 1	-3.26 2	-4.05 1	3.56 2
1.85632	2.21977	11.50	85.00	2.34 1	-2.99 2	-3.40 1	3.27 2
1.86987	2.22912	11.50	84.00	2.40 1	-3.03 2	-3.46 1	3.32 2
1.88959	2.22982	12.00	78.00	2.97 1	-3.30 2	-4.13 1	3.60 2
1.85641	2.23572	11.00	90.00	1.94 1	-2.77 2	-2.91 1	3.03 2
1.88353	2.23863	11.50	83.00	2.47 1	-3.08 2	-3.53 1	3.36 2
1.86973	2.24464	11.00	89.00	1.99 1	-2.82 2	-2.97 1	3.08 2
1.89729	2.24829	11.50	82.00	2.54 1	-3.13 2	-3.60 1	3.41 2
1.88314	2.25368	11.00	88.00	2.05 1	-2.86 2	-3.02 1	3.13 2
1.89662	2.26287	11.00	87.00	2.10 1	-2.91 2	-3.08 1	3.17 2
1.90	2.00						
1.90973	2.15743	24.00	32.00	8.29 2	-1.22 3	-9.49 2	1.36 3
1.90543	2.16551	19.00	42.00	2.04 2	-5.88 2	-2.41 2	6.48 2
1.91384	2.16614	21.00	37.00	3.42 2	-7.32 2	-3.98 2	8.11 2
1.92146	2.16621	27.00	28.00	-2.64 4	2.76 4	2.98 4	-3.11 4
1.91647	2.16621	22.00	35.00	4.52 2	-8.44 2	-5.22 2	9.37 2
1.90296	2.16812	18.00	45.00	1.59 2	-5.39 2	-1.90 2	5.93 2
1.92523	2.16969	26.00	29.00	2.43 3	-2.81 3	-2.75 3	3.16 3
1.91846	2.17294	20.00	39.00	2.68 2	-6.57 2	-3.14 2	7.25 2
1.92651	2.17330	23.00	33.00	6.29 2	-1.02 3	-7.22 2	1.14 3
1.91479	2.17558	18.50	43.00	1.84 2	-5.68 2	-2.18 2	6.25 2
1.93282	2.17686	25.00	30.00	1.40 3	-1.79 3	-1.59 3	2.00 3
1.92350	2.17891	19.50	40.00	2.40 2	-6.27 2	-2.81 2	6.91 2
1.91074	2.18045	17.00	48.00	1.26 2	-5.03 2	-1.53 2	5.52 2
1.90824	2.18187	16.50	50.00	1.11 2	-4.84 2	-1.35 2	5.30 2
1.91663	2.18227	17.50	46.00	1.45 2	-5.24 2	-1.74 2	5.76 2
1.90904	2.18644	16.00	52.00	9.80 1	-4.67 2	-1.20 2	5.12 2
1.93037	2.18664	19.00	41.00	2.15 2	-6.02 2	-2.53 2	6.63 2
1.92603	2.18744	18.00	44.00	1.67 2	-5.50 2	-1.98 2	6.04 2
1.94435	2.18779	24.00	31.00	9.63 2	-1.36 3	-1.10 3	1.51 3
1.90237	2.19051	15.00	57.00	7.45 1	-4.33 2	-9.35 1	4.74 2
1.94284	2.19115	21.00	36.00	3.69 2	-7.61 2	-4.27 2	8.41 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.94751	2.19316	22.00	34.00	4.95 2	-8.88 2	-5.68 2	9.84 2
1.91311	2.19414	15.50	54.00	8.68 1	-4.53 2	-1.08 2	4.95 2
1.93914	2.19614	18.50	42.00	1.94 2	-5.80 2	-2.29 2	6.37 2
1.94574	2.19630	20.00	38.00	2.86 2	-6.77 2	-3.33 2	7.46 2
1.93229	2.19831	17.00	47.00	1.32 2	-5.11 2	-1.59 2	5.60 2
1.92887	2.19883	16.50	49.00	1.16 2	-4.91 2	-1.40 2	5.38 2
1.93923	2.20114	17.50	45.00	1.51 2	-5.34 2	-1.81 2	5.85 2
1.95001	2.20156	19.50	39.00	2.55 2	-6.45 2	-2.97 2	7.09 2
1.95997	2.20257	23.00	32.00	7.07 2	-1.10 3	-8.05 2	1.22 3
1.92886	2.20261	16.00	51.00	1.02 2	-4.74 2	-1.24 2	5.18 2
1.96461	2.20462	26.00	28.00	4.38 3	-4.84 3	-4.93 3	5.42 3
1.92046	2.20497	15.00	56.00	7.71 1	-4.39 2	-9.62 1	4.80 2
1.91357	2.20504	14.50	59.00	6.65 1	-4.22 2	-8.40 1	4.60 2
1.94983	2.20748	18.00	43.00	1.75 2	-5.61 2	-2.07 2	6.15 2
1.95619	2.20862	19.00	40.00	2.28 2	-6.17 2	-2.67 2	6.78 2
1.93222	2.20961	15.50	53.00	9.00 1	-4.59 2	-1.11 2	5.01 2
1.91131	2.20962	14.00	62.00	5.76 1	-4.05 2	-7.37 1	4.42 2
1.97061	2.21023	25.00	29.00	1.72 3	-2.11 3	-1.95 3	2.35 3
1.95005	2.21635	16.50	48.00	1.20 2	-4.99 2	-1.45 2	5.45 2
1.95446	2.21679	17.00	46.00	1.38 2	-5.20 2	-1.65 2	5.69 2
1.97304	2.21734	21.00	35.00	4.00 2	-7.95 2	-4.60 2	8.76 2
1.96430	2.21752	18.50	41.00	2.04 2	-5.93 2	-2.40 2	6.51 2
1.91355	2.21859	13.50	65.00	5.00 1	-3.90 2	-6.49 1	4.26 2
1.93114	2.21898	14.50	58.00	6.87 1	-4.27 2	-8.63 1	4.66 2
1.94918	2.21929	16.00	50.00	1.06 2	-4.81 2	-1.29 2	5.25 2
1.98070	2.21983	24.00	30.00	1.13 3	-1.53 3	-1.28 3	1.70 3
1.93894	2.21983	15.00	55.00	7.99 1	-4.45 2	-9.91 1	4.86 2
1.90485	2.22025	13.00	69.00	4.23 1	-3.71 2	-5.60 1	4.05 2
1.97406	2.22071	20.00	37.00	3.06 2	-6.99 2	-3.54 2	7.69 2
1.96251	2.22072	17.50	44.00	1.59 2	-5.44 2	-1.88 2	5.95 2
1.97993	2.22147	22.00	33.00	5.46 2	-9.41 2	-6.23 2	1.04 3
1.92812	2.22279	14.00	61.00	5.94 1	-4.11 2	-7.56 1	4.48 2
1.97751	2.22518	19.50	38.00	2.71 2	-6.64 2	-3.15 2	7.29 2
1.95178	2.22555	15.50	52.00	9.35 1	-4.65 2	-1.14 2	5.07 2
1.90166	2.22746	12.50	73.00	3.59 1	-3.53 2	-4.85 1	3.85 2
1.97439	2.22829	18.00	42.00	1.84 2	-5.73 2	-2.17 2	6.27 2
1.92972	2.23109	13.50	64.00	5.16 1	-3.95 2	-6.65 1	4.31 2
1.98292	2.23152	19.00	39.00	2.42 2	-6.34 2	-2.81 2	6.95 2
1.92026	2.23193	13.00	68.00	4.36 1	-3.76 2	-5.73 1	4.10 2
1.94907	2.23330	14.50	57.00	7.11 1	-4.33 2	-8.88 1	4.71 2
1.99504	2.23344	23.00	31.00	8.06 2	-1.21 3	-9.14 2	1.33 3
1.97182	2.23446	16.50	47.00	1.26 2	-5.07 2	-1.51 2	5.53 2
1.95783	2.23511	15.00	54.00	8.28 1	-4.51 2	-1.02 2	4.91 2
1.97727	2.23592	17.00	45.00	1.44 2	-5.29 2	-1.72 2	5.78 2
1.94523	2.23628	14.00	60.00	6.14 1	-4.16 2	-7.76 1	4.53 2
1.97002	2.23650	16.00	49.00	1.10 2	-4.88 2	-1.33 2	5.32 2
1.91647	2.23847	12.50	72.00	3.70 1	-3.58 2	-4.95 1	3.89 2
1.99033	2.23975	18.50	40.00	2.16 2	-6.08 2	-2.52 2	6.65 2
1.90379	2.24009	12.00	77.00	3.06 1	-3.35 2	-4.21 1	3.65 2
1.98653	2.24101	17.50	43.00	1.67 2	-5.54 2	-1.97 2	6.06 2
1.97181	2.24197	15.50	51.00	9.71 1	-4.72 2	-1.18 2	5.14 2
1.93589	2.24387	13.00	67.00	4.49 1	-3.81 2	-5.86 1	4.14 2
1.94616	2.24388	13.50	63.00	5.32 1	-4.00 2	-6.81 1	4.35 2
1.96737	2.24800	14.50	56.00	7.36 1	-4.38 2	-9.13 1	4.77 2
1.93147	2.24969	12.50	71.00	3.80 1	-3.62 2	-5.06 1	3.94 2
1.99978	2.24993	18.00	41.00	1.94 2	-5.85 2	-2.27 2	6.40 2
1.96268	2.25011	14.00	59.00	6.34 1	-4.21 2	-7.97 1	4.58 2
1.91813	2.25053	12.00	76.00	3.14 1	-3.40 2	-4.30 1	3.70 2
1.97715	2.25083	15.00	53.00	8.58 1	-4.57 2	-1.05 2	4.97 2
1.99420	2.25320	16.50	46.00	1.31 2	-5.15 2	-1.56 2	5.62 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
1.99143	2.25428	16.00	48.00	1.15 2	-4.96 2	-1.38 2	5.40 2
1.95177	2.25607	13.00	66.00	4.62 1	-3.86 2	-6.00 1	4.19 2
1.96289	2.25698	13.50	62.00	5.48 1	-4.05 2	-6.98 1	4.40 2
1.91117	2.25811	11.50	81.00	2.61 1	-3.18 2	-3.67 1	3.46 2
1.99235	2.25890	15.50	50.00	1.01 2	-4.78 2	-1.22 2	5.21 2
1.94667	2.26115	12.50	70.00	3.91 1	-3.67 2	-5.17 1	3.99 2
1.93264	2.26117	12.00	75.00	3.23 1	-3.44 2	-4.39 1	3.75 2
1.98606	2.26311	14.50	55.00	7.61 1	-4.44 2	-9.39 1	4.82 2
1.98047	2.26431	14.00	58.00	6.55 1	-4.26 2	-8.18 1	4.63 2
1.99693	2.26703	15.00	52.00	8.91 1	-4.63 2	-1.08 2	5.03 2
1.92517	2.26810	11.50	80.00	2.68 1	-3.22 2	-3.74 1	3.51 2
1.96789	2.26854	13.00	65.00	4.76 1	-3.91 2	-6.14 1	4.24 2
1.97991	2.27040	13.50	61.00	5.66 1	-4.10 2	-7.16 1	4.46 2
1.94731	2.27202	12.00	74.00	3.32 1	-3.49 2	-4.48 1	3.79 2
1.91019	2.27219	11.00	86.00	2.16 1	-2.96 2	-3.13 1	3.22 2
1.96208	2.27284	12.50	69.00	4.03 1	-3.72 2	-5.29 1	4.04 2
1.93930	2.27827	11.50	79.00	2.75 1	-3.27 2	-3.81 1	3.55 2
1.99861	2.27888	14.00	57.00	6.77 1	-4.42 2	-8.41 1	4.68 2
1.98428	2.28129	13.00	64.00	4.91 1	-3.96 2	-6.29 1	4.29 2
1.92386	2.28166	11.00	85.00	2.22 1	-3.00 2	-3.19 1	3.27 2
1.96215	2.28307	12.00	73.00	3.42 1	-3.54 2	-4.57 1	3.84 2
1.99725	2.28415	13.50	60.00	5.84 1	-4.16 2	-7.34 1	4.51 2
1.97770	2.28478	12.50	68.00	4.15 1	-3.77 2	-5.41 1	4.09 2
1.95357	2.28861	11.50	78.00	2.83 1	-3.32 2	-3.89 1	3.60 2
1.93763	2.29128	11.00	84.00	2.28 1	-3.05 2	-3.25 1	3.32 2
1.97718	2.29434	12.00	72.00	3.51 1	-3.59 2	-4.67 1	3.89 2
1.99356	2.29697	12.50	67.00	4.27 1	-3.82 2	-5.53 1	4.13 2
1.96799	2.29913	11.50	77.00	2.91 1	-3.36 2	-3.97 1	3.65 2
1.95150	2.30105	11.00	83.00	2.34 1	-3.10 2	-3.31 1	3.37 2
1.92850	2.30179	10.50	90.00	1.84 1	-2.79 2	-2.73 1	3.03 2
1.99240	2.30583	12.00	71.00	3.62 1	-3.63 2	-4.77 1	3.94 2
1.98256	2.30985	11.50	76.00	2.99 1	-3.41 2	-4.05 1	3.70 2
1.94205	2.31098	10.50	89.00	1.89 1	-2.84 2	-2.78 1	3.08 2
1.96549	2.31099	11.00	82.00	2.41 1	-3.15 2	-3.38 1	3.41 2
1.95568	2.32030	10.50	88.00	1.94 1	-2.88 2	-2.83 1	3.13 2
1.99729	2.32076	11.50	75.00	3.07 1	-3.46 2	-4.13 1	3.74 2
1.97959	2.32108	11.00	81.00	2.47 1	-3.19 2	-3.44 1	3.46 2
1.96940	2.32977	10.50	87.00	2.00 1	-2.93 2	-2.88 1	3.18 2
1.99382	2.33135	11.00	80.00	2.54 1	-3.24 2	-3.51 1	3.51 2
1.98320	2.33937	10.50	86.00	2.05 1	-2.98 2	-2.94 1	3.23 2
1.99710	2.34913	10.50	85.00	2.11 1	-3.02 2	-2.99 1	3.27 2
2.00	2.15						
2.00623	2.24166	26.00	27.00	6.58 3	-6.93 3	-7.37 3	7.73 3
2.00454	2.24481	21.00	34.00	4.35 2	-8.32 2	-4.97 2	9.16 2
2.01045	2.24566	25.00	28.00	2.35 3	-2.74 3	-2.64 3	3.04 3
2.00352	2.24623	20.00	36.00	3.29 2	-7.24 2	-3.78 2	7.95 2
2.00606	2.24984	19.50	37.00	2.90 2	-6.85 2	-3.34 2	7.51 2
2.01385	2.25126	22.00	32.00	6.06 2	-1.00 3	-6.88 2	1.11 3
2.01895	2.25373	24.00	29.00	1.36 3	-1.76 3	-1.53 3	1.95 3
2.01065	2.25540	19.00	38.00	2.57 2	-6.51 2	-2.97 2	7.13 2
2.00078	2.25575	17.00	44.00	1.51 2	-5.38 2	-1.79 2	5.87 2
2.01132	2.26208	17.50	42.00	1.75 2	-5.66 2	-2.06 2	6.17 2
2.01730	2.26292	18.50	39.00	2.29 2	-6.23 2	-2.66 2	6.81 2
2.03187	2.26601	23.00	30.00	9.30 2	-1.33 3	-1.05 3	1.47 3
2.02605	2.27243	18.00	40.00	2.05 2	-5.99 2	-2.39 2	6.53 2
2.01725	2.27258	16.50	45.00	1.37 2	-5.24 2	-1.63 2	5.70 2
2.01342	2.27264	16.00	47.00	1.20 2	-5.03 2	-1.43 2	5.47 2
2.03418	2.27296	20.00	35.00	3.55 2	-7.53 2	-4.06 2	8.25 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.03743	2.27366	21.00	33.00	4.76 2	-8.75 2	-5.42 2	9.62 2
2.03575	2.27564	19.50	36.00	3.10 2	-7.08 2	-3.56 2	7.75 2
2.02503	2.27631	17.00	43.00	1.59 2	-5.48 2	-1.86 2	5.97 2
2.01342	2.27637	15.50	49.00	1.05 2	-4.85 2	-1.26 2	5.27 2
2.00518	2.27865	14.50	54.00	7.89 1	-4.50 2	-9.67 1	4.88 2
2.03944	2.28034	19.00	37.00	2.74 2	-6.71 2	-3.15 2	7.33 2
2.04940	2.28267	22.00	31.00	6.82 2	-1.08 3	-7.70 2	1.19 3
2.05255	2.28324	25.00	27.00	2.94 3	-3.27 3	-3.28 3	3.62 3
2.01719	2.28371	15.00	51.00	9.25 1	-4.70 2	-1.12 2	5.10 2
2.03695	2.28398	17.50	41.00	1.85 2	-5.77 2	-2.15 2	6.29 2
2.04527	2.28707	18.50	38.00	2.43 2	-6.40 2	-2.81 2	6.98 2
2.05927	2.28971	24.00	28.00	1.75 3	-2.15 3	-1.96 3	2.38 3
2.03604	2.29165	16.00	46.00	1.25 2	-5.11 2	-1.48 2	5.55 2
2.04099	2.29268	16.50	44.00	1.44 2	-5.33 2	-1.69 2	5.79 2
2.01714	2.29384	14.00	56.00	7.00 1	-4.37 2	-8.65 1	4.74 2
2.00094	2.29434	13.00	63.00	5.06 1	-4.01 2	-6.44 1	4.34 2
2.03505	2.29441	15.50	48.00	1.09 2	-4.92 2	-1.31 2	5.34 2
2.02472	2.29464	14.50	53.00	8.17 1	-4.55 2	-9.97 1	4.94 2
2.05326	2.29587	18.00	39.00	2.17 2	-6.13 2	-2.52 2	6.68 2
2.05006	2.29765	17.00	42.00	1.67 2	-5.59 2	-1.95 2	6.08 2
2.01492	2.29825	13.50	59.00	6.03 1	-4.21 2	-7.54 1	4.56 2
2.07061	2.30047	23.00	29.00	1.09 3	-1.49 3	-1.23 3	1.65 3
2.03796	2.30091	15.00	50.00	9.61 1	-4.76 2	-1.16 2	5.16 2
2.06616	2.30097	20.00	34.00	3.84 2	-7.84 2	-4.37 2	8.58 2
2.06667	2.30264	19.50	35.00	3.34 2	-7.34 2	-3.81 2	8.02 2
2.07184	2.30400	21.00	32.00	5.25 2	-9.26 2	-5.94 2	1.02 3
2.06938	2.30641	19.00	36.00	2.93 2	-6.92 2	-3.36 2	7.55 2
2.06346	2.30676	17.50	40.00	1.95 2	-5.90 2	-2.26 2	6.42 2
2.01789	2.30771	13.00	62.00	5.22 1	-4.05 2	-6.60 1	4.39 2
2.03607	2.30922	14.00	55.00	7.25 1	-4.43 2	-8.90 1	4.79 2
2.00966	2.30944	12.50	66.00	4.40 1	-3.86 2	-5.66 1	4.18 2
2.04474	2.31110	14.50	52.00	8.48 1	-4.61 2	-1.03 2	5.00 2
2.05932	2.31131	16.00	45.00	1.31 2	-5.19 2	-1.54 2	5.63 2
2.07431	2.31229	18.50	37.00	2.59 2	-6.58 2	-2.98 2	7.17 2
2.03293	2.31271	13.50	58.00	6.23 1	-4.26 2	-7.74 1	4.61 2
2.05728	2.31305	15.50	47.00	1.14 2	-5.00 2	-1.35 2	5.42 2
2.06548	2.31351	16.50	43.00	1.51 2	-5.43 2	-1.77 2	5.89 2
2.08673	2.31581	22.00	30.00	7.74 2	-1.18 3	-8.70 2	1.29 3
2.00783	2.31755	12.00	70.00	3.72 1	-3.68 2	-4.88 1	3.98 2
2.05927	2.31864	15.00	49.00	9.99 1	-4.83 2	-1.20 2	5.23 2
2.07593	2.31983	17.00	41.00	1.75 2	-5.70 2	-2.04 2	6.19 2
2.08147	2.32030	18.00	38.00	2.30 2	-6.29 2	-2.65 2	6.84 2
2.03515	2.32139	13.00	61.00	5.38 1	-4.10 2	-6.77 1	4.44 2
2.02601	2.32217	12.50	65.00	4.53 1	-3.91 2	-5.80 1	4.23 2
2.09714	2.32329	25.00	26.00	2.68 3	-2.83 3	-2.98 3	3.13 3
2.05541	2.32503	14.00	54.00	7.50 1	-4.48 2	-9.16 1	4.85 2
2.05131	2.32755	13.50	57.00	6.44 1	-4.31 2	-7.95 1	4.66 2
2.10189	2.32790	24.00	27.00	2.28 3	-2.67 3	-2.53 3	2.94 3
2.06523	2.32805	14.50	51.00	8.80 1	-4.68 2	-1.06 2	5.06 2
2.02346	2.32951	12.00	69.00	3.83 1	-3.73 2	-4.99 1	4.03 2
2.09956	2.33039	20.00	33.00	4.18 2	-8.20 2	-4.73 2	8.95 2
2.09092	2.33048	17.50	39.00	2.06 2	-6.04 2	-2.38 2	6.56 2
2.09891	2.33095	19.50	34.00	3.61 2	-7.63 2	-4.10 2	8.32 2
2.08331	2.33168	16.00	44.00	1.37 2	-5.28 2	-1.60 2	5.72 2
2.01219	2.33187	11.50	74.00	3.16 1	-3.51 2	-4.22 1	3.79 2
2.08015	2.33233	15.50	46.00	1.19 2	-5.07 2	-1.41 2	5.49 2
2.10055	2.33371	19.00	35.00	3.15 2	-7.16 2	-3.59 2	7.80 2
2.09076	2.33514	16.50	42.00	1.58 2	-5.53 2	-1.84 2	5.99 2
2.04263	2.33520	12.50	64.00	4.67 1	-3.96 2	-5.93 1	4.28 2
2.05272	2.33541	13.00	60.00	5.56 1	-4.15 2	-6.94 1	4.49 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.10790	2.33598	21.00	31.00	5.85 2	-9.88 2	-6.57 2	1.08 3
2.08115	2.33696	15.00	48.00	1.04 2	-4.89 2	-1.24 2	5.29 2
2.11145	2.33703	23.00	28.00	1.34 3	-1.75 3	-1.49 3	1.92 3
2.10451	2.33865	18.50	36.00	2.77 2	-6.78 2	-3.16 2	7.37 2
2.07520	2.34129	14.00	53.00	7.77 1	-4.54 2	-9.43 1	4.90 2
2.03932	2.34172	12.00	68.00	3.94 1	-3.78 2	-5.10 1	4.08 2
2.00818	2.34178	11.00	79.00	2.61 1	-3.29 2	-3.58 1	3.56 2
2.07008	2.34278	13.50	56.00	6.66 1	-4.36 2	-8.18 1	4.71 2
2.10270	2.34289	17.00	40.00	1.85 2	-5.82 2	-2.14 2	6.31 2
2.02726	2.34319	11.50	73.00	3.24 1	-3.55 2	-4.31 1	3.84 2
2.08625	2.34553	14.50	50.00	9.14 1	-4.74 2	-1.10 2	5.12 2
2.11077	2.34581	18.00	37.00	2.45 2	-6.46 2	-2.81 2	7.01 2
2.05952	2.34853	12.50	63.00	4.81 1	-4.01 2	-6.08 1	4.33 2
2.07062	2.34978	13.00	59.00	5.73 1	-4.20 2	-7.12 1	4.54 2
2.12600	2.35086	22.00	29.00	8.91 2	-1.29 3	-9.96 2	1.42 3
2.10368	2.35228	15.50	45.00	1.24 2	-5.15 2	-1.46 2	5.57 2
2.02269	2.35240	11.00	78.00	2.68 1	-3.33 2	-3.65 1	3.60 2
2.10806	2.35280	16.00	43.00	1.43 2	-5.37 2	-1.67 2	5.81 2
2.05541	2.35419	12.00	67.00	4.05 1	-3.82 2	-5.22 1	4.12 2
2.04253	2.35474	11.50	72.00	3.34 1	-3.60 2	-4.40 1	3.88 2
2.11940	2.35521	17.50	38.00	2.18 2	-6.18 2	-2.50 2	6.70 2
2.10363	2.35589	15.00	47.00	1.08 2	-4.96 2	-1.28 2	5.36 2
2.11689	2.35761	16.50	41.00	1.66 2	-5.63 2	-1.93 2	6.10 2
2.09546	2.35803	14.00	52.00	8.06 1	-4.60 2	-9.73 1	4.96 2
2.08925	2.35844	13.50	55.00	6.89 1	-4.42 2	-8.41 1	4.76 2
2.01110	2.35903	10.50	84.00	2.16 1	-3.07 2	-3.05 1	3.32 2
2.13257	2.36067	19.50	33.00	3.91 2	-7.96 2	-4.42 2	8.66 2
2.13450	2.36133	20.00	32.00	4.57 2	-8.62 2	-5.15 2	9.39 2
2.07671	2.36217	12.50	62.00	4.96 1	-4.06 2	-6.23 1	4.37 2
2.13306	2.36231	19.00	34.00	3.39 2	-7.43 2	-3.84 2	8.08 2
2.03734	2.36321	11.00	77.00	2.76 1	-3.38 2	-3.73 1	3.65 2
2.10781	2.36355	14.50	49.00	9.49 1	-4.80 2	-1.13 2	5.18 2
2.08888	2.36452	13.00	58.00	5.92 1	-4.26 2	-7.31 1	4.59 2
2.13594	2.36625	18.50	35.00	2.97 2	-7.00 2	-3.37 2	7.60 2
2.05798	2.36651	11.50	71.00	3.43 1	-3.65 2	-4.49 1	3.93 2
2.13042	2.36692	17.00	39.00	1.95 2	-5.95 2	-2.25 2	6.44 2
2.07175	2.36693	12.00	66.00	4.17 1	-3.87 2	-5.34 1	4.17 2
2.14703	2.36859	24.00	26.00	3.28 3	-3.65 3	-3.63 3	4.02 3
2.02521	2.36909	10.50	83.00	2.22 1	-3.12 2	-3.11 1	3.37 2
2.14577	2.36973	21.00	30.00	6.56 2	-1.06 3	-7.34 2	1.16 3
2.14124	2.37248	18.00	36.00	2.61 2	-6.64 2	-2.98 2	7.20 2
2.12793	2.37295	15.50	44.00	1.30 2	-5.23 2	-1.52 2	5.65 2
2.00702	2.37413	10.00	90.00	1.75 1	-2.81 2	-2.55 1	3.04 2
2.05215	2.37420	11.00	76.00	2.83 1	-3.43 2	-3.80 1	3.70 2
2.10884	2.37454	13.50	54.00	7.13 1	-4.47 2	-8.66 1	4.82 2
2.13360	2.37473	16.00	42.00	1.50 2	-5.47 2	-1.74 2	5.91 2
2.11621	2.37528	14.00	51.00	8.36 1	-4.66 2	-1.00 2	5.02 2
2.12675	2.37546	15.00	46.00	1.13 2	-5.04 2	-1.33 2	5.43 2
2.09421	2.37613	12.50	61.00	5.11 1	-4.11 2	-6.39 1	4.42 2
2.07365	2.37851	11.50	70.00	3.53 1	-3.69 2	-4.59 1	3.98 2
2.03944	2.37931	10.50	82.00	2.28 1	-3.16 2	-3.16 1	3.42 2
2.10751	2.37965	13.00	57.00	6.12 1	-4.31 2	-7.51 1	4.64 2
2.08835	2.37995	12.00	65.00	4.30 1	-3.92 2	-5.46 1	4.22 2
2.14392	2.38098	16.50	40.00	1.75 2	-5.74 2	-2.02 2	6.21 2
2.14897	2.38103	17.50	37.00	2.32 2	-6.34 2	-2.65 2	6.86 2
2.12994	2.38217	14.50	48.00	9.87 1	-4.87 2	-1.17 2	5.24 2
2.02082	2.38362	10.00	89.00	1.79 1	-2.86 2	-2.60 1	3.09 2
2.06712	2.38540	11.00	75.00	2.91 1	-3.47 2	-3.88 1	3.74 2
2.05379	2.38970	10.50	81.00	2.34 1	-3.21 2	-3.23 1	3.46 2
2.11203	2.39044	12.50	60.00	5.27 1	-4.16 2	-6.55 1	4.47 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.08953	2.39075	11.50	69.00	3.63 1	-3.74 2	-4.69 1	4.02 2
2.12888	2.39109	13.50	53.00	7.38 1	-4.53 2	-8.92 1	4.87 2
2.13748	2.39305	14.00	50.00	8.68 1	-4.72 2	-1.04 2	5.08 2
2.03470	2.39325	10.00	88.00	1.84 1	-2.90 2	-2.64 1	3.14 2
2.10521	2.39326	12.00	64.00	4.43 1	-3.97 2	-5.59 1	4.27 2
2.12653	2.39518	13.00	56.00	6.32 1	-4.36 2	-7.72 1	4.69 2
2.08226	2.39680	11.00	74.00	2.99 1	-3.52 2	-3.96 1	3.79 2
2.06826	2.40026	10.50	80.00	2.41 1	-3.26 2	-3.29 1	3.51 2
2.04866	2.40301	10.00	87.00	1.89 1	-2.95 2	-2.69 1	3.18 2
2.10564	2.40326	11.50	68.00	3.73 1	-3.79 2	-4.80 1	4.07 2
2.04044	2.40504	9.80	90.00	1.71 1	-2.82 2	-2.48 1	3.04 2
2.13019	2.40510	12.50	59.00	5.44 1	-4.20 2	-6.72 1	4.52 2
2.12236	2.40688	12.00	63.00	4.56 1	-4.01 2	-5.73 1	4.31 2
2.14940	2.40813	13.50	52.00	7.65 1	-4.58 2	-9.19 1	4.93 2
2.09759	2.40842	11.00	73.00	3.07 1	-3.57 2	-4.04 1	3.84 2
2.08288	2.41099	10.50	79.00	2.47 1	-3.30 2	-3.35 1	3.56 2
2.14595	2.41113	13.00	55.00	6.54 1	-4.41 2	-7.94 1	4.74 2
2.06271	2.41292	10.00	86.00	1.94 1	-3.00 2	-2.74 1	3.23 2
2.05434	2.41465	9.80	89.00	1.75 1	-2.86 2	-2.52 1	3.09 2
2.12198	2.41602	11.50	67.00	3.84 1	-3.83 2	-4.91 1	4.12 2
2.14871	2.42014	12.50	58.00	5.62 1	-4.25 2	-6.90 1	4.57 2
2.11310	2.42026	11.00	72.00	3.16 1	-3.61 2	-4.13 1	3.88 2
2.13980	2.42081	12.00	62.00	4.70 1	-4.06 2	-5.87 1	4.36 2
2.09763	2.42191	10.50	78.00	2.54 1	-3.35 2	-3.42 1	3.60 2
2.07687	2.42298	10.00	85.00	1.99 1	-3.04 2	-2.79 1	3.28 2
2.06833	2.42440	9.80	88.00	1.80 1	-2.91 2	-2.57 1	3.14 2
2.13857	2.42906	11.50	66.00	3.95 1	-3.58 2	-5.02 1	4.16 2
2.12881	2.43232	11.00	71.00	3.25 1	-3.66 2	-4.22 1	3.93 2
2.11254	2.43302	10.50	77.00	2.61 1	-3.40 2	-3.49 1	3.65 2
2.09113	2.43319	10.00	84.00	2.05 1	-3.09 2	-2.85 1	3.33 2
2.08240	2.43429	9.80	87.00	1.85 1	-2.96 2	-2.62 1	3.19 2
2.07512	2.43717	9.60	90.00	1.67 1	-2.83 2	-2.41 1	3.05 2
2.10550	2.44356	10.00	83.00	2.10 1	-3.14 2	-2.90 1	3.37 2
2.12760	2.44431	10.50	76.00	2.68 1	-3.44 2	-3.56 1	3.70 2
2.09656	2.44433	9.80	86.00	1.90 1	-3.00 2	-2.67 1	3.23 2
2.14474	2.44463	11.00	70.00	3.34 1	-3.71 2	-4.31 1	3.98 2
2.08913	2.44691	9.60	89.00	1.71 1	-2.87 2	-2.45 1	3.09 2
2.11998	2.45409	10.00	82.00	2.16 1	-3.18 2	-2.96 1	3.42 2
2.11082	2.45452	9.80	85.00	1.95 1	-3.05 2	-2.72 1	3.28 2
2.14284	2.45582	10.50	75.00	2.75 1	-3.49 2	-3.63 1	3.74 2
2.10322	2.45679	9.60	88.00	1.76 1	-2.92 2	-2.50 1	3.14 2
2.13460	2.46479	10.00	81.00	2.22 1	-3.23 2	-3.01 1	3.47 2
2.12519	2.46486	9.80	84.00	2.00 1	-3.10 2	-2.77 1	3.33 2
2.11740	2.46682	9.60	87.00	1.81 1	-2.97 2	-2.54 1	3.19 2
2.11113	2.47060	9.40	90.00	1.63 1	-2.83 2	-2.34 1	3.05 2
2.13967	2.47536	9.80	83.00	2.05 1	-3.15 2	-2.82 1	3.38 2
2.14934	2.47566	10.00	80.00	2.27 1	-3.28 2	-3.07 1	3.51 2
2.13167	2.47698	9.60	86.00	1.85 1	-3.01 2	-2.59 1	3.24 2
2.12525	2.48048	9.40	89.00	1.67 1	-2.88 2	-2.38 1	3.10 2
2.14605	2.48730	9.60	85.00	1.90 1	-3.06 2	-2.64 1	3.28 2
2.13946	2.49050	9.40	88.00	1.72 1	-2.93 2	-2.43 1	3.15 2
2.14856	2.50543	9.20	90.00	1.59 1	-2.84 2	-2.27 1	3.05 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.15	2.30						
2.15461	2.37584	23.00	27.00	1.67 3	-2.08 3	-1.85 3	2.28 3
2.16740	2.38804	22.00	28.00	1.05 3	-1.46 3	-1.17 3	1.60 3
2.16779	2.39192	19.50	32.00	4.27 2	-8.33 2	-4.80 2	9.05 2
2.15917	2.39195	17.00	38.00	2.06 2	-6.08 2	-2.36 2	6.58 2
2.16701	2.39235	19.00	33.00	3.67 2	-7.73 2	-4.14 2	8.39 2
2.17112	2.39393	20.00	31.00	5.05 2	-9.12 2	-5.65 2	9.92 2
2.15294	2.39437	15.50	43.00	1.36 2	-5.32 2	-1.58 2	5.74 2
2.16873	2.39517	18.50	34.00	3.19 2	-7.24 2	-3.61 2	7.85 2
2.15055	2.39571	15.00	45.00	1.18 2	-5.11 2	-1.38 2	5.51 2
2.16000	2.39750	16.00	41.00	1.58 2	-5.57 2	-1.82 2	6.01 2
2.17296	2.40039	18.00	35.00	2.80 2	-6.85 2	-3.17 2	7.41 2
2.15269	2.40139	14.50	47.00	1.03 2	-4.93 2	-1.21 2	5.31 2
2.17192	2.40531	16.50	39.00	1.85 2	-5.86 2	-2.12 2	6.33 2
2.18560	2.40542	21.00	29.00	7.44 2	-1.15 3	-8.28 2	1.25 3
2.17971	2.40801	17.50	36.00	2.47 2	-6.51 2	-2.80 2	7.04 2
2.15930	2.41137	14.00	49.00	9.01 1	-4.78 2	-1.07 2	5.14 2
2.19498	2.41213	24.00	25.00	1.90 5	-2.00 5	-2.09 5	2.20 5
2.17876	2.41660	15.50	42.00	1.42 2	-5.41 2	-1.65 2	5.83 2
2.17507	2.41669	15.00	44.00	1.23 2	-5.19 2	-1.43 2	5.59 2
2.20034	2.41718	23.00	26.00	2.24 3	-2.64 3	-2.47 3	2.89 3
2.18902	2.41809	17.00	37.00	2.19 2	-6.23 2	-2.49 2	6.73 2
2.18731	2.42118	16.00	40.00	1.66 2	-5.67 2	-1.91 2	6.11 2
2.17608	2.42127	14.50	46.00	1.07 2	-5.00 2	-1.26 2	5.38 2
2.20252	2.42393	19.00	32.00	4.00 2	-8.08 2	-4.48 2	8.75 2
2.20470	2.42485	19.50	31.00	4.70 2	-8.78 2	-5.25 2	9.53 2
2.20297	2.42552	18.50	33.00	3.44 2	-7.52 2	-3.88 2	8.14 2
2.17042	2.42567	13.50	51.00	7.93 1	-4.64 2	-9.47 1	4.98 2
2.21114	2.42750	22.00	27.00	1.27 3	-1.67 3	-1.40 3	1.82 3
2.16581	2.42753	13.00	54.00	6.76 1	-4.46 2	-8.17 1	4.79 2
2.20956	2.42833	20.00	30.00	5.60 2	-9.69 2	-6.25 2	1.05 3
2.20603	2.42963	18.00	34.00	3.00 2	-7.07 2	-3.39 2	7.65 2
2.18171	2.43029	14.00	48.00	9.37 1	-4.84 2	-1.11 2	5.20 2
2.20096	2.43067	16.50	38.00	1.95 2	-5.99 2	-2.23 2	6.46 2
2.15756	2.43508	12.00	61.00	4.85 1	-4.11 2	-6.01 1	4.41 2
2.16760	2.43557	12.50	57.00	5.80 1	-4.30 2	-7.08 1	4.62 2
2.21172	2.43624	17.50	35.00	2.63 2	-6.70 2	-2.98 2	7.24 2
2.20036	2.43843	15.00	43.00	1.29 2	-5.27 2	-1.49 2	5.67 2
2.20545	2.43970	15.50	41.00	1.49 2	-5.51 2	-1.72 2	5.92 2
2.20016	2.44183	14.50	45.00	1.12 2	-5.08 2	-1.30 2	5.45 2
2.15543	2.44238	11.50	65.00	4.07 1	-3.93 2	-5.14 1	4.21 2
2.22760	2.44325	21.00	28.00	8.61 2	-1.27 3	-9.54 2	1.38 3
2.19196	2.44376	13.50	50.00	8.23 1	-4.70 2	-9.78 1	5.04 2
2.18613	2.44439	13.00	53.00	7.00 1	-4.52 2	-8.41 1	4.84 2
2.22006	2.44539	17.00	36.00	2.33 2	-6.39 2	-2.64 2	6.89 2
2.21560	2.44584	16.00	39.00	1.75 2	-5.79 2	-2.00 2	6.27 2
2.17565	2.44969	12.00	60.00	5.00 1	-4.16 2	-6.17 1	4.45 2
2.20473	2.44983	14.00	47.00	9.74 1	-4.91 2	-1.15 2	5.26 2
2.18688	2.45140	12.50	56.00	5.99 1	-4.35 2	-7.28 1	4.67 2
2.17256	2.45599	11.50	64.00	4.19 1	-3.97 2	-5.26 1	4.26 2
2.23111	2.45713	16.50	37.00	2.07 2	-6.13 2	-2.35 2	6.60 2
2.16088	2.45718	11.00	69.00	3.43 1	-3.75 2	-4.40 1	4.02 2
2.23973	2.45719	19.00	31.00	4.38 2	-8.48 2	-4.89 2	9.18 2
2.23878	2.45744	18.50	32.00	3.74 2	-7.84 2	-4.18 2	8.47 2
2.24345	2.45958	19.50	30.00	5.19 2	-9.30 2	-5.78 2	1.01 3
2.24057	2.46033	18.00	33.00	3.23 2	-7.33 2	-3.63 2	7.91 2
2.22647	2.46099	15.00	42.00	1.35 2	-5.36 2	-1.56 2	5.75 2
2.24890	2.46137	23.00	25.00	4.05 3	-4.53 3	-4.44 3	4.95 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.20692	2.46174	13.00	52.00	7.25 1	-4.57 2	-8.67 1	4.90 2
2.21407	2.46240	13.50	49.00	8.54 1	-4.76 2	-1.01 2	5.10 2
2.22497	2.46313	14.50	44.00	1.17 2	-5.15 2	-1.35 2	5.52 2
2.23305	2.46371	15.50	40.00	1.57 2	-5.60 2	-1.80 2	6.02 2
2.19408	2.46467	12.00	59.00	5.15 1	-4.21 2	-6.33 1	4.50 2
2.25000	2.46469	20.00	29.00	6.28 2	-1.04 3	-6.97 2	1.13 3
2.24510	2.46582	17.50	34.00	2.82 2	-6.91 2	-3.18 2	7.45 2
2.15824	2.46753	10.50	74.00	2.83 1	-3.54 2	-3.71 1	3.79 2
2.20659	2.46767	12.50	55.00	6.19 1	-4.41 2	-7.48 1	4.72 2
2.25748	2.46952	22.00	26.00	1.58 3	-1.98 3	-1.74 3	2.16 3
2.18997	2.46992	11.50	63.00	4.32 1	-4.02 2	-5.38 1	4.30 2
2.17725	2.46999	11.00	68.00	3.53 1	-3.80 2	-4.50 1	4.07 2
2.22841	2.47004	14.00	46.00	1.01 2	-4.97 2	-1.19 2	5.33 2
2.24493	2.47153	16.00	38.00	1.84 2	-5.91 2	-2.10 2	6.35 2
2.25238	2.47397	17.00	35.00	2.48 2	-6.57 2	-2.80 2	7.07 2
2.17384	2.47946	10.50	73.00	2.91 1	-3.58 2	-3.79 1	3.84 2
2.22822	2.47961	13.00	51.00	7.51 1	-4.63 2	-8.94 1	4.95 2
2.21287	2.48002	12.00	58.00	5.32 1	-4.25 2	-6.49 1	4.55 2
2.23676	2.48164	13.50	48.00	8.87 1	-4.82 2	-1.04 2	5.16 2
2.19387	2.48307	11.00	67.00	3.63 1	-3.84 2	-4.60 1	4.11 2
2.27197	2.48341	21.00	27.00	1.01 3	-1.42 3	-1.11 3	1.54 3
2.20769	2.48417	11.50	62.00	4.45 1	-4.07 2	-5.52 1	4.35 2
2.22673	2.48439	12.50	54.00	6.41 1	-4.46 2	-7.70 1	4.77 2
2.25345	2.48442	15.00	41.00	1.41 2	-5.45 2	-1.62 2	5.84 2
2.26245	2.48478	16.50	36.00	2.20 2	-6.28 2	-2.48 2	6.75 2
2.25055	2.48521	14.50	43.00	1.22 2	-5.23 2	-1.41 2	5.60 2
2.15426	2.48602	9.80	82.00	2.11 1	-3.19 2	-2.88 1	3.42 2
2.16422	2.48671	10.00	79.00	2.34 1	-3.32 2	-3.13 1	3.56 2
2.26164	2.48870	15.50	39.00	1.65 2	-5.71 2	-1.88 2	6.13 2
2.25279	2.49093	14.00	45.00	1.06 2	-5.04 2	-1.23 2	5.40 2
2.27631	2.49106	18.50	31.00	4.08 2	-8.20 2	-4.55 2	8.85 2
2.18962	2.49161	10.50	72.00	2.99 1	-3.63 2	-3.87 1	3.88 2
2.27880	2.49228	19.00	30.00	4.82 2	-8.95 2	-5.36 2	9.66 2
2.27670	2.49260	18.00	32.00	3.50 2	-7.62 2	-3.91 2	8.21 2
2.23204	2.49577	12.00	57.00	5.49 1	-4.30 2	-6.67 1	4.60 2
2.28422	2.49630	19.50	29.00	5.79 2	-9.91 2	-6.42 2	1.07 3
2.21073	2.49642	11.00	66.00	3.74 1	-3.89 2	-4.71 1	4.16 2
2.16899	2.49685	9.80	81.00	2.16 1	-3.24 2	-2.93 1	3.47 2
2.27995	2.49687	17.50	33.00	3.03 2	-7.15 2	-3.40 2	7.69 2
2.16053	2.49778	9.60	84.00	1.95 1	-3.11 2	-2.69 1	3.33 2
2.17925	2.49795	10.00	78.00	2.40 1	-3.37 2	-3.20 1	3.61 2
2.25006	2.49802	13.00	50.00	7.79 1	-4.68 2	-9.22 1	5.00 2
2.27539	2.49834	16.00	37.00	1.95 2	-6.04 2	-2.21 2	6.48 2
2.22573	2.49876	11.50	61.00	4.58 1	-4.11 2	-5.65 1	4.40 2
2.15375	2.50066	9.40	87.00	1.76 1	-2.98 2	-2.47 1	3.19 2
2.26008	2.50152	13.50	47.00	9.23 1	-4.88 2	-1.08 2	5.22 2
2.24733	2.50157	12.50	53.00	6.63 1	-4.51 2	-7.92 1	4.82 2
2.29264	2.50323	20.00	28.00	7.16 2	-1.13 3	-7.90 2	1.22 3
2.28607	2.50390	17.00	34.00	2.65 2	-6.77 2	-2.98 2	7.27 2
2.20561	2.50400	10.50	71.00	3.07 1	-3.67 2	-3.95 1	3.93 2
2.18384	2.50786	9.80	80.00	2.22 1	-3.28 2	-2.99 1	3.52 2
2.27697	2.50811	14.50	42.00	1.27 2	-5.31 2	-1.47 2	5.68 2
2.17512	2.50841	9.60	83.00	2.00 1	-3.15 2	-2.74 1	3.38 2
2.28137	2.50877	15.00	40.00	1.48 2	-5.54 2	-1.70 2	5.93 2
2.19443	2.50938	10.00	77.00	2.46 1	-3.42 2	-3.26 1	3.65 2
2.22787	2.51007	11.00	65.00	3.85 1	-3.94 2	-4.82 1	4.20 2
2.16814	2.51096	9.40	86.00	1.81 1	-3.02 2	-2.52 1	3.24 2
2.25162	2.51193	12.00	56.00	5.67 1	-4.35 2	-6.85 1	4.65 2
2.27790	2.51257	14.00	44.00	1.10 2	-5.11 2	-1.28 2	5.47 2
2.24410	2.51370	11.50	60.00	4.72 1	-4.16 2	-5.79 1	4.44 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.29509	2.51371	16.50	35.00	2.34 2	-6.45 2	-2.63 2	6.92 2
2.29129	2.51474	15.50	38.00	1.74 2	-5.82 2	-1.98 2	6.24 2
2.16280	2.51545	9.20	89.00	1.63 1	-2.89 2	-2.31 1	3.10 2
2.22181	2.51663	10.50	70.00	3.15 1	-3.72 2	-4.03 1	3.97 2
2.27246	2.51700	13.00	49.00	8.08 1	-4.74 2	-9.52 1	5.06 2
2.19884	2.51904	9.80	79.00	2.28 1	-3.33 2	-3.05 1	3.56 2
2.18983	2.51921	9.60	82.00	2.06 1	-3.20 2	-2.79 1	3.43 2
2.26842	2.51926	12.50	52.00	6.86 1	-4.56 2	-8.16 1	4.87 2
2.20978	2.52101	10.00	76.00	2.53 1	-3.46 2	-3.33 1	3.70 2
2.18262	2.52142	9.40	85.00	1.86 1	-3.07 2	-2.56 1	3.29 2
2.28406	2.52206	13.50	46.00	9.60 1	-4.94 2	-1.12 2	5.28 2
2.24528	2.52401	11.00	64.00	3.96 1	-3.98 2	-4.93 1	4.25 2
2.17712	2.52560	9.20	88.00	1.68 1	-2.94 2	-2.36 1	3.15 2
2.27161	2.52853	12.00	55.00	5.86 1	-4.40 2	-7.04 1	4.69 2
2.26282	2.52900	11.50	59.00	4.87 1	-4.21 2	-5.94 1	4.49 2
2.23824	2.52951	10.50	69.00	3.24 1	-3.77 2	-4.12 1	4.02 2
2.20467	2.53018	9.60	81.00	2.11 1	-3.25 2	-2.85 1	3.47 2
2.21399	2.53042	9.80	78.00	2.34 1	-3.38 2	-3.11 1	3.61 2
2.19722	2.53203	9.40	84.00	1.91 1	-3.12 2	-2.61 1	3.34 2
2.22529	2.53284	10.00	75.00	2.60 1	-3.51 2	-3.39 1	3.75 2
2.19153	2.53590	9.20	87.00	1.72 1	-2.98 2	-2.40 1	3.20 2
2.29546	2.53658	13.00	48.00	8.40 1	-4.80 2	-9.83 1	5.12 2
2.29002	2.53747	12.50	51.00	7.11 1	-4.61 2	-8.41 1	4.92 2
2.26299	2.53827	11.00	63.00	4.08 1	-4.03 2	-5.05 1	4.30 2
2.21964	2.54132	9.60	80.00	2.17 1	-3.29 2	-2.90 1	3.52 2
2.18750	2.54173	9.00	90.00	1.55 1	-2.85 2	-2.20 1	3.06 2
2.22928	2.54198	9.80	77.00	2.40 1	-3.42 2	-3.17 1	3.66 2
2.25490	2.54265	10.50	68.00	3.33 1	-3.81 2	-4.21 1	4.06 2
2.21193	2.54280	9.40	83.00	1.96 1	-3.16 2	-2.66 1	3.38 2
2.28191	2.54469	11.50	58.00	5.03 1	-4.26 2	-6.10 1	4.54 2
2.24099	2.54489	10.00	74.00	2.67 1	-3.55 2	-3.46 1	3.79 2
2.29205	2.54558	12.00	54.00	6.06 1	-4.45 2	-7.24 1	4.74 2
2.20603	2.54634	9.20	86.00	1.77 1	-3.03 2	-2.44 1	3.24 2
2.20186	2.55189	9.00	89.00	1.59 1	-2.90 2	-2.24 1	3.11 2
2.23476	2.55265	9.60	79.00	2.23 1	-3.34 2	-2.96 1	3.57 2
2.28100	2.55286	11.00	62.00	4.20 1	-4.07 2	-5.17 1	4.34 2
2.22676	2.55374	9.40	82.00	2.01 1	-3.21 2	-2.71 1	3.43 2
2.24475	2.55375	9.80	76.00	2.47 1	-3.47 2	-3.23 1	3.70 2
2.27181	2.55606	10.50	67.00	3.43 1	-3.86 2	-4.31 1	4.11 2
2.22064	2.55694	9.20	85.00	1.81 1	-3.08 2	-2.49 1	3.20 2
2.25687	2.55715	10.00	73.00	2.74 1	-3.60 2	-3.54 1	3.84 2
2.21630	2.56219	9.00	88.00	1.64 1	-2.95 2	-2.29 1	3.15 2
2.25002	2.56416	9.60	78.00	2.28 1	-3.39 2	-3.02 1	3.61 2
2.24172	2.56485	9.40	81.00	2.06 1	-3.26 2	-2.77 1	3.48 2
2.26038	2.56572	9.80	75.00	2.53 1	-3.52 2	-3.30 1	3.75 2
2.23536	2.56770	9.20	84.00	1.86 1	-3.13 2	-2.54 1	3.34 2
2.29934	2.56778	11.00	61.00	4.33 1	-4.12 2	-5.30 1	4.39 2
2.27295	2.56965	10.00	72.00	2.81 1	-3.65 2	-3.61 1	3.88 2
2.28897	2.56976	10.50	66.00	3.53 1	-3.90 2	-4.41 1	4.16 2
2.23083	2.57263	9.00	87.00	1.68 1	-2.99 2	-2.33 1	3.20 2
2.26544	2.57587	9.60	77.00	2.35 1	-3.43 2	-3.08 1	3.66 2
2.25682	2.57614	9.40	80.00	2.12 1	-3.30 2	-2.82 1	3.52 2
2.27620	2.57790	9.80	74.00	2.60 1	-3.56 2	-3.37 1	3.79 2
2.25019	2.57861	9.20	83.00	1.91 1	-3.17 2	-2.58 1	3.39 2
2.22805	2.57961	8.80	90.00	1.51 1	-2.86 2	-2.14 1	3.06 2
2.28923	2.58238	10.00	71.00	2.89 1	-3.69 2	-3.69 1	3.93 2
2.24546	2.58322	9.00	86.00	1.72 1	-3.04 2	-2.37 1	3.25 2
2.27206	2.58760	9.40	79.00	2.17 1	-3.35 2	-2.88 1	3.57 2
2.28103	2.58777	9.60	76.00	2.41 1	-3.48 2	-3.14 1	3.71 2
2.26515	2.58969	9.20	82.00	1.96 1	-3.22 2	-2.63 1	3.43 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.24253	2.58992	8.80	89.00	1.55 1	-2.91 2	-2.18 1	3.11 2
2.29220	2.59031	9.80	73.00	2.67 1	-3.61 2	-3.44 1	3.84 2
2.26019	2.59397	9.00	85.00	1.77 1	-3.09 2	-2.42 1	3.30 2
2.28744	2.59926	9.40	78.00	2.23 1	-3.39 2	-2.93 1	3.62 2
2.29679	2.59989	9.60	75.00	2.47 1	-3.52 2	-3.21 1	3.75 2
2.25710	2.60037	8.80	88.00	1.60 1	-2.96 2	-2.22 1	3.16 2
2.28023	2.60095	9.20	81.00	2.01 1	-3.27 2	-2.69 1	3.48 2
2.27504	2.60487	9.00	84.00	1.81 1	-3.14 2	-2.46 1	3.34 2
2.27176	2.61096	8.80	87.00	1.64 1	-3.00 2	-2.26 1	3.21 2
2.29545	2.61238	9.20	80.00	2.06 1	-3.31 2	-2.74 1	3.53 2
2.29000	2.61593	9.00	83.00	1.86 1	-3.18 2	-2.51 1	3.39 2
2.27032	2.61918	8.60	90.00	1.48 1	-2.87 2	-2.07 1	3.07 2
2.28652	2.62170	8.80	86.00	1.68 1	-3.05 2	-2.30 1	3.25 2
2.28493	2.62964	8.60	89.00	1.52 1	-2.92 2	-2.11 1	3.11 2
2.29963	2.64024	8.60	88.00	1.55 1	-2.97 2	-2.15 1	3.16 2
2.30	2.45						
2.30062	2.50860	23.00	24.00	9.19 3	-9.72 3	-1.00 4	1.06 4
2.30670	2.51441	22.00	25.00	2.17 3	-2.58 3	-2.37 3	2.80 3
2.31897	2.52616	21.00	26.00	1.22 3	-1.63 3	-1.34 3	1.76 3
2.30706	2.52635	16.00	36.00	2.07 2	-6.18 2	-2.33 2	6.62 2
2.31571	2.52651	18.50	30.00	4.48 2	-8.62 2	-4.97 2	9.28 2
2.31456	2.52658	18.00	31.00	3.81 2	-7.95 2	-4.24 2	8.55 2
2.31990	2.52937	19.00	29.00	5.36 2	-9.50 2	-5.92 2	1.02 3
2.31642	2.52950	17.50	32.00	3.28 2	-7.41 2	-3.65 2	7.96 2
2.30427	2.53189	14.50	41.00	1.34 2	-5.39 2	-1.53 2	5.74 2
2.31028	2.53412	15.00	39.00	1.56 2	-5.64 2	-1.78 2	6.03 2
2.30380	2.53499	14.00	43.00	1.15 2	-5.19 2	-1.33 2	5.54 2
2.32719	2.53522	19.50	28.00	6.55 2	-1.07 3	-7.22 2	1.15 3
2.32126	2.53532	17.00	33.00	2.85 2	-6.98 2	-3.18 2	7.49 2
2.32208	2.54191	15.50	37.00	1.84 2	-5.95 2	-2.08 2	6.36 2
2.30875	2.54330	13.50	45.00	1.00 2	-5.01 2	-1.16 2	5.34 2
2.32911	2.54401	16.50	34.00	2.50 2	-6.63 2	-2.80 2	7.10 2
2.33768	2.54413	20.00	27.00	8.24 2	-1.24 3	-9.05 2	1.34 3
2.34003	2.55565	16.00	35.00	2.20 2	-6.33 2	-2.47 2	6.77 2
2.31216	2.55622	12.50	50.00	7.37 1	-4.67 2	-8.68 1	4.97 2
2.33251	2.55660	14.50	40.00	1.40 2	-5.48 2	-1.60 2	5.85 2
2.31909	2.55681	13.00	47.00	8.72 1	-4.86 2	-1.02 2	5.19 2
2.33054	2.55825	14.00	42.00	1.20 2	-5.26 2	-1.38 2	5.61 2
2.34026	2.56053	15.00	38.00	1.64 2	-5.75 2	-1.86 2	6.14 2
2.30138	2.56078	11.50	57.00	5.19 1	-4.30 2	-6.26 1	4.58 2
2.35911	2.56239	22.00	24.00	2.90 3	-3.27 3	-3.16 3	3.54 3
2.35431	2.56242	18.00	30.00	4.17 2	-8.33 2	-4.62 2	8.95 2
2.31296	2.56312	12.00	53.00	6.26 1	-4.50 2	-7.45 1	4.79 2
2.35462	2.56387	17.50	31.00	3.56 2	-7.71 2	-3.95 2	8.27 2
2.35716	2.56399	18.50	29.00	4.96 2	-9.11 2	-5.47 2	9.79 2
2.33419	2.56530	13.50	44.00	1.04 2	-5.08 2	-1.20 2	5.41 2
2.35806	2.56833	17.00	32.00	3.07 2	-7.22 2	-3.42 2	7.74 2
2.36322	2.56867	19.00	28.00	6.02 2	-1.02 3	-6.63 2	1.10 3
2.35408	2.57030	15.50	36.00	1.95 2	-6.08 2	-2.19 2	6.49 2
2.36888	2.57181	21.00	25.00	1.55 3	-1.96 3	-1.69 3	2.12 3
2.33488	2.57556	12.50	49.00	7.64 1	-4.72 2	-8.95 1	5.03 2
2.36465	2.57581	16.50	33.00	2.67 2	-6.82 2	-2.98 2	7.30 2
2.37259	2.57651	19.50	27.00	7.48 2	-1.16 3	-8.21 2	1.25 3
2.32126	2.57729	11.50	56.00	5.35 1	-4.35 2	-6.43 1	4.63 2
2.34340	2.57771	13.00	46.00	9.07 1	-4.92 2	-1.05 2	5.24 2
2.33436	2.58116	12.00	52.00	6.48 1	-4.55 2	-7.67 1	4.84 2
2.36175	2.58233	14.50	39.00	1.47 2	-5.58 2	-1.67 2	5.95 2
2.35817	2.58241	14.00	41.00	1.26 2	-5.34 2	-1.44 2	5.69 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.31801	2.58307	11.00	60.00	4.46 1	-4.17 2	-5.43 1	4.43 2
2.30641	2.58375	10.50	65.00	3.63 1	-3.95 2	-4.51 1	4.20 2
2.37440	2.58633	16.00	34.00	2.35 2	-6.49 2	-2.62 2	6.94 2
2.38539	2.58767	20.00	26.00	9.69 2	-1.38 3	-1.06 3	1.49 3
2.37139	2.58808	15.00	37.00	1.74 2	-5.86 2	-1.96 2	6.25 2
2.36042	2.58809	13.50	43.00	1.09 2	-5.15 2	-1.25 2	5.48 2
2.34157	2.59424	11.50	55.00	5.53 1	-4.40 2	-6.61 1	4.68 2
2.30574	2.59536	10.00	70.00	2.97 1	-3.74 2	-3.77 1	3.98 2
2.35821	2.59551	12.50	48.00	7.93 1	-4.78 2	-9.25 1	5.08 2
2.32413	2.59804	10.50	64.00	3.73 1	-3.99 2	-4.61 1	4.25 2
2.33705	2.59872	11.00	59.00	4.60 1	-4.21 2	-5.57 1	4.48 2
2.36841	2.59932	13.00	45.00	9.45 1	-4.98 2	-1.09 2	5.30 2
2.35629	2.59973	12.00	51.00	6.71 1	-4.60 2	-7.90 1	4.89 2
2.38740	2.59998	15.50	35.00	2.07 2	-6.22 2	-2.32 2	6.64 2
2.39473	2.60010	17.50	30.00	3.88 2	-8.06 2	-4.29 2	8.63 2
2.39612	2.60029	18.00	29.00	4.60 2	-8.77 2	-5.06 2	9.41 2
2.30841	2.60295	9.80	72.00	2.75 1	-3.65 2	-3.51 1	3.89 2
2.39663	2.60309	17.00	31.00	3.33 2	-7.50 2	-3.68 2	8.02 2
2.40084	2.60369	18.50	28.00	5.54 2	-9.72 2	-6.09 2	1.04 3
2.38675	2.60750	14.00	40.00	1.32 2	-5.43 2	-1.50 2	5.78 2
2.32247	2.60859	10.00	69.00	3.05 1	-3.78 2	-3.85 1	4.02 2
2.39208	2.60912	14.50	38.00	1.55 2	-5.68 2	-1.75 2	6.05 2
2.40181	2.60922	16.50	32.00	2.88 2	-7.05 2	-3.19 2	7.53 2
2.40899	2.61037	19.00	27.00	6.84 2	-1.10 3	-7.49 2	1.18 3
2.30299	2.61111	9.40	77.00	2.29 1	-3.44 2	-2.99 1	3.66 2
2.36234	2.61166	11.50	54.00	5.71 1	-4.45 2	-6.80 1	4.72 2
2.38750	2.61173	13.50	42.00	1.14 2	-5.22 2	-1.30 2	5.55 2
2.31273	2.61222	9.60	74.00	2.54 1	-3.57 2	-3.27 1	3.80 2
2.34214	2.61265	10.50	63.00	3.84 1	-4.04 2	-4.72 1	4.29 2
2.41510	2.61389	22.00	23.00	2.86 3	-3.04 3	-3.10 3	3.28 3
2.35645	2.61477	11.00	58.00	4.74 1	-4.26 2	-5.72 1	4.52 2
2.32482	2.61583	9.80	71.00	2.82 1	-3.70 2	-3.58 1	3.93 2
2.38217	2.61611	12.50	47.00	8.24 1	-4.84 2	-9.56 1	5.14 2
2.40375	2.61685	15.00	36.00	1.84 2	-5.99 2	-2.06 2	6.38 2
2.41030	2.61853	16.00	33.00	2.51 2	-6.68 2	-2.79 2	7.13 2
2.37876	2.61885	12.00	50.00	6.95 1	-4.66 2	-8.15 1	4.94 2
2.42067	2.62046	19.50	26.00	8.71 2	-1.29 3	-9.51 2	1.38 3
2.42203	2.62062	21.00	24.00	2.01 3	-2.40 3	-2.18 3	2.59 3
2.39419	2.62170	13.00	44.00	9.84 1	-5.05 2	-1.13 2	5.35 2
2.33944	2.62209	10.00	68.00	3.14 1	-3.83 2	-3.93 1	4.07 2
2.31870	2.62317	9.40	76.00	2.35 1	-3.49 2	-3.05 1	3.71 2
2.31082	2.62400	9.20	79.00	2.12 1	-3.36 2	-2.79 1	3.57 2
2.32886	2.62478	9.60	73.00	2.61 1	-3.62 2	-3.34 1	3.84 2
2.30508	2.62717	9.00	82.00	1.91 1	-3.23 2	-2.56 1	3.44 2
2.36048	2.62760	10.50	62.00	3.96 1	-4.08 2	-4.84 1	4.33 2
2.34145	2.62895	9.80	70.00	2.90 1	-3.74 2	-3.66 1	3.98 2
2.38357	2.62956	11.50	53.00	5.91 1	-4.50 2	-6.99 1	4.77 2
2.42214	2.63107	15.50	34.00	2.20 2	-6.37 2	-2.46 2	6.79 2
2.37625	2.63123	11.00	57.00	4.89 1	-4.31 2	-5.87 1	4.57 2
2.30138	2.63260	8.80	85.00	1.72 1	-3.10 2	-2.34 1	3.30 2
2.41635	2.63362	14.00	39.00	1.39 2	-5.52 2	-1.57 2	5.86 2
2.43606	2.63414	20.00	25.00	1.18 3	-1.60 3	-1.28 3	1.72 3
2.33459	2.63543	9.40	75.00	2.41 1	-3.53 2	-3.11 1	3.75 2
2.32634	2.63581	9.20	78.00	2.17 1	-3.40 2	-2.85 1	3.62 2
2.35667	2.63586	10.00	67.00	3.23 1	-3.87 2	-4.02 1	4.11 2
2.41548	2.63628	13.50	41.00	1.19 2	-5.30 2	-1.35 2	5.63 2
2.42357	2.63707	14.50	37.00	1.63 2	-5.78 2	-1.84 2	6.15 2
2.40682	2.63739	12.50	46.00	8.56 1	-4.89 2	-9.89 1	5.19 2
2.34520	2.63756	9.60	72.00	2.68 1	-3.66 2	-3.41 1	3.89 2
2.43691	2.63839	17.50	29.00	4.26 2	-8.45 2	-4.68 2	9.04 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.40182	2.63856	12.00	49.00	7.21 1	-4.71 2	-8.41 1	4.99 2
2.32029	2.63857	9.00	81.00	1.96 1	-3.27 2	-2.61 1	3.48 2
2.43711	2.63974	17.00	30.00	3.62 2	-7.81 2	-3.99 2	8.34 2
2.44019	2.64041	18.00	28.00	5.12 2	-9.32 2	-5.61 2	9.97 2
2.35832	2.64233	9.80	69.00	2.98 1	-3.79 2	-3.74 1	4.02 2
2.37914	2.64290	10.50	61.00	4.07 1	-4.13 2	-4.96 1	4.38 2
2.31635	2.64365	8.80	84.00	1.77 1	-3.15 2	-2.39 1	3.35 2
2.44076	2.64439	16.50	31.00	3.11 2	-7.30 2	-3.43 2	7.79 2
2.42077	2.64488	13.00	43.00	1.03 2	-5.11 2	-1.17 2	5.43 2
2.44700	2.64581	18.50	27.00	6.25 2	-1.04 3	-6.83 2	1.12 3
2.43744	2.64695	15.00	35.00	1.95 2	-6.12 2	-2.18 2	6.51 2
2.34201	2.64781	9.20	77.00	2.23 1	-3.45 2	-2.90 1	3.67 2
2.35066	2.64791	9.40	74.00	2.47 1	-3.58 2	-3.18 1	3.80 2
2.40531	2.64798	11.50	52.00	6.11 1	-4.55 2	-7.20 1	4.82 2
2.39646	2.64811	11.00	56.00	5.04 1	-4.35 2	-6.02 1	4.61 2
2.37415	2.64992	10.00	66.00	3.32 1	-3.92 2	-4.11 1	4.15 2
2.33565	2.65016	9.00	80.00	2.01 1	-3.32 2	-2.66 1	3.53 2
2.36174	2.65059	9.60	71.00	2.75 1	-3.71 2	-3.48 1	3.93 2
2.31442	2.65099	8.60	87.00	1.59 1	-3.01 2	-2.19 1	3.21 2
2.44784	2.65235	16.00	32.00	2.69 2	-6.88 2	-2.98 2	7.33 2
2.33144	2.65487	8.80	83.00	1.81 1	-3.19 2	-2.43 1	3.39 2
2.37542	2.65598	9.80	68.00	3.06 1	-3.83 2	-3.82 1	4.07 2
2.39814	2.65855	10.50	60.00	4.20 1	-4.18 2	-5.08 1	4.42 2
2.42549	2.65890	12.00	48.00	7.48 1	-4.76 2	-8.68 1	5.05 2
2.43219	2.65940	12.50	45.00	8.91 1	-4.95 2	-1.02 2	5.25 2
2.35786	2.66002	9.20	76.00	2.29 1	-3.50 2	-2.96 1	3.71 2
2.31443	2.66055	8.40	90.00	1.44 1	-2.88 2	-2.00 1	3.07 2
2.36693	2.66062	9.40	73.00	2.54 1	-3.62 2	-3.24 1	3.84 2
2.44705	2.66082	14.00	38.00	1.46 2	-5.61 2	-1.64 2	5.96 2
2.44443	2.66178	13.50	40.00	1.25 2	-5.38 2	-1.41 2	5.70 2
2.32931	2.66189	8.60	86.00	1.64 1	-3.06 2	-2.23 1	3.26 2
2.35114	2.66193	9.00	79.00	2.06 1	-3.37 2	-2.71 1	3.58 2
2.37851	2.66387	9.60	70.00	2.82 1	-3.75 2	-3.56 1	3.98 2
2.39192	2.66428	10.00	65.00	3.41 1	-3.96 2	-4.21 1	4.20 2
2.41711	2.66545	11.00	55.00	5.21 1	-4.40 2	-6.19 1	4.66 2
2.34666	2.66626	8.80	82.00	1.86 1	-3.24 2	-2.48 1	3.44 2
2.42758	2.66693	11.50	51.00	6.32 1	-4.60 2	-7.41 1	4.87 2
2.44821	2.66893	13.00	42.00	1.07 2	-5.18 2	-1.22 2	5.49 2
2.39278	2.66991	9.80	67.00	3.15 1	-3.88 2	-3.91 1	4.11 2
2.32918	2.67117	8.40	89.00	1.48 1	-2.93 2	-2.04 1	3.12 2
2.37388	2.67243	9.20	75.00	2.35 1	-3.54 2	-3.02 1	3.76 2
2.34431	2.67294	8.60	85.00	1.68 1	-3.11 2	-2.27 1	3.30 2
2.38340	2.67356	9.40	72.00	2.61 1	-3.67 2	-3.31 1	3.89 2
2.36679	2.67389	9.00	78.00	2.12 1	-3.41 2	-2.76 1	3.62 2
2.41751	2.67459	10.50	59.00	4.32 1	-4.22 2	-5.21 1	4.47 2
2.39550	2.67740	9.60	69.00	2.90 1	-3.80 2	-3.63 1	4.02 2
2.36201	2.67782	8.80	81.00	1.91 1	-3.28 2	-2.53 1	3.49 2
2.40997	2.67895	10.00	64.00	3.51 1	-4.01 2	-4.31 1	4.24 2
2.44981	2.67989	12.00	47.00	7.76 1	-4.82 2	-8.97 1	5.10 2
2.34401	2.68193	8.40	88.00	1.51 1	-2.98 2	-2.08 1	3.17 2
2.43822	2.68325	11.00	54.00	5.38 1	-4.45 2	-6.36 1	4.71 2
2.41040	2.68413	9.80	66.00	3.23 1	-3.92 2	-4.00 1	4.15 2
2.35942	2.68416	8.60	84.00	1.72 1	-3.16 2	-2.31 1	3.35 2
2.39008	2.68507	9.20	74.00	2.41 1	-3.59 2	-3.08 1	3.80 2
2.38260	2.68605	9.00	77.00	2.17 1	-3.46 2	-2.82 1	3.67 2
2.40008	2.68674	9.40	71.00	2.68 1	-3.71 2	-3.38 1	3.93 2
2.37750	2.68956	8.80	80.00	1.96 1	-3.33 2	-2.57 1	3.53 2
2.43725	2.69102	10.50	58.00	4.46 1	-4.27 2	-5.34 1	4.51 2
2.41275	2.69121	9.60	68.00	2.98 1	-3.84 2	-3.71 1	4.07 2
2.35894	2.69284	8.40	87.00	1.55 1	-3.03 2	-2.12 1	3.22 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.42832	2.69395	10.00	63.00	3.61 1	-4.05 2	-4.41 1	4.29 2
2.37465	2.69553	8.60	83.00	1.77 1	-3.20 2	-2.36 1	3.40 2
2.40649	2.69793	9.20	73.00	2.48 1	-3.63 2	-3.15 1	3.85 2
2.39859	2.69841	9.00	76.00	2.23 1	-3.50 2	-2.87 1	3.71 2
2.42830	2.69864	9.80	65.00	3.33 1	-3.97 2	-4.09 1	4.20 2
2.41698	2.70017	9.40	70.00	2.75 1	-3.76 2	-3.45 1	3.98 2
2.39313	2.70149	8.80	79.00	2.01 1	-3.38 2	-2.63 1	3.58 2
2.36051	2.70386	8.20	90.00	1.40 1	-2.90 2	-1.94 1	3.08 2
2.37397	2.70390	8.40	86.00	1.59 1	-3.07 2	-2.16 1	3.26 2
2.43024	2.70529	9.60	67.00	3.07 1	-3.89 2	-3.80 1	4.11 2
2.39000	2.70708	8.60	82.00	1.81 1	-3.25 2	-2.40 1	3.45 2
2.44700	2.70928	10.00	62.00	3.72 1	-4.10 2	-4.51 1	4.33 2
2.41475	2.71099	9.00	75.00	2.29 1	-3.55 2	-2.93 1	3.76 2
2.42309	2.71103	9.20	72.00	2.54 1	-3.68 2	-3.21 1	3.89 2
2.44649	2.71347	9.80	64.00	3.42 1	-4.01 2	-4.18 1	4.24 2
2.40892	2.71361	8.80	78.00	2.06 1	-3.42 2	-2.68 1	3.63 2
2.43411	2.71387	9.40	69.00	2.83 1	-3.80 2	-3.53 1	4.02 2
2.37540	2.71464	8.20	89.00	1.44 1	-2.94 2	-1.98 1	3.13 2
2.38911	2.71512	8.40	85.00	1.63 1	-3.12 2	-2.20 1	3.31 2
2.40549	2.71880	8.60	81.00	1.86 1	-3.29 2	-2.45 1	3.49 2
2.44800	2.71966	9.60	66.00	3.15 1	-3.93 2	-3.88 1	4.16 2
2.43109	2.72378	9.00	74.00	2.35 1	-3.60 2	-2.99 1	3.81 2
2.43991	2.72437	9.20	71.00	2.61 1	-3.72 2	-3.28 1	3.94 2
2.39038	2.72557	8.20	88.00	1.47 1	-2.99 2	-2.01 1	3.17 2
2.42487	2.72593	8.80	77.00	2.12 1	-3.47 2	-2.73 1	3.67 2
2.40436	2.72650	8.40	84.00	1.68 1	-3.17 2	-2.24 1	3.36 2
2.42112	2.73071	8.60	80.00	1.91 1	-3.34 2	-2.49 1	3.54 2
2.40545	2.73665	8.20	87.00	1.51 1	-3.04 2	-2.05 1	3.22 2
2.44764	2.73681	9.00	73.00	2.41 1	-3.64 2	-3.05 1	3.85 2
2.41973	2.73804	8.40	83.00	1.72 1	-3.21 2	-2.28 1	3.40 2
2.44100	2.73846	8.80	76.00	2.17 1	-3.51 2	-2.79 1	3.72 2
2.43690	2.74280	8.60	79.00	1.96 1	-3.39 2	-2.54 1	3.59 2
2.42063	2.74788	8.20	86.00	1.55 1	-3.08 2	-2.09 1	3.27 2
2.40872	2.74924	8.00	90.00	1.36 1	-2.91 2	-1.88 1	3.08 2
2.43523	2.74976	8.40	82.00	1.76 1	-3.26 2	-2.32 1	3.45 2
2.43591	2.75927	8.20	85.00	1.59 1	-3.13 2	-2.13 1	3.32 2
2.42375	2.76020	8.00	89.00	1.40 1	-2.95 2	-1.91 1	3.13 2
2.43888	2.77131	8.00	88.00	1.43 1	-3.00 2	-1.94 1	3.18 2
2.45	2.60						
2.45746	2.65474	19.00	26.00	7.89 2	-1.21 3	-8.60 2	1.29 3
2.45842	2.66368	15.50	33.00	2.35 2	-6.54 2	-2.61 2	6.96 2
2.45631	2.66626	14.50	36.00	1.73 2	-5.90 2	-1.93 2	6.27 2
2.47173	2.66736	19.50	25.00	1.04 3	-1.46 3	-1.13 3	1.57 3
2.47881	2.67300	21.00	23.00	2.67 3	-3.02 3	-2.89 3	3.25 3
2.47256	2.67846	15.00	34.00	2.07 2	-6.26 2	-2.30 2	6.65 2
2.47970	2.67846	17.00	29.00	3.96 2	-8.17 2	-4.34 2	8.71 2
2.48138	2.67894	17.50	28.00	4.72 2	-8.93 2	-5.16 2	9.53 2
2.48163	2.68147	16.50	30.00	3.37 2	-7.58 2	-3.71 2	8.08 2
2.45833	2.68218	12.50	44.00	9.78 1	-5.02 2	-1.06 2	5.31 2
2.48674	2.68297	18.00	27.00	5.74 2	-9.95 2	-6.26 2	1.06 3
2.49000	2.68382	20.00	24.00	1.47 3	-1.88 3	-1.59 3	2.02 3
2.45041	2.68645	11.50	50.00	6.55 1	-4.65 2	-7.64 1	4.92 2
2.48718	2.68796	16.00	31.00	2.90 2	-7.11 2	-3.20 2	7.57 2
2.47441	2.68831	13.50	39.00	1.31 2	-5.46 2	-1.47 2	5.79 2
2.47892	2.68919	14.00	37.00	1.54 2	-5.71 2	-1.72 2	6.06 2
2.49588	2.69063	18.50	26.00	7.15 2	-1.14 3	-7.78 2	1.21 3
2.47657	2.69388	13.00	41.00	1.12 2	-5.25 2	-1.27 2	5.56 2
2.49039	2.69678	14.50	35.00	1.83 2	-6.02 2	-2.04 2	6.39 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.49636	2.69794	15.50	32.00	2.52 2	-6.73 2	-2.79 2	7.15 2
2.45981	2.70155	11.00	53.00	5.56 1	-4.49 2	-6.54 1	4.75 2
2.47483	2.70158	12.00	46.00	8.06 1	-4.87 2	-9.28 1	5.15 2
2.50893	2.70209	19.00	25.00	9.33 2	-1.36 3	-1.01 3	1.45 3
2.48529	2.70577	12.50	43.00	9.67 1	-5.08 2	-1.10 2	5.37 2
2.47382	2.70657	11.50	49.00	6.79 1	-4.70 2	-7.88 1	4.97 2
2.45740	2.70787	10.50	57.00	4.60 1	-4.31 2	-5.48 1	4.56 2
2.50924	2.71151	15.00	33.00	2.21 2	-6.42 2	-2.44 2	6.81 2
2.50549	2.71594	13.50	38.00	1.37 2	-5.55 2	-1.54 2	5.87 2
2.52610	2.71749	19.50	24.00	1.27 3	-1.69 3	-1.38 3	1.81 3
2.51205	2.71881	14.00	36.00	1.62 2	-5.82 2	-1.81 2	6.16 2
2.52458	2.71946	17.00	28.00	4.37 2	-8.60 2	-4.77 2	9.16 2
2.50590	2.71980	13.00	40.00	1.17 2	-5.33 2	-1.32 2	5.64 2
2.48191	2.72036	11.00	52.00	5.75 1	-4.54 2	-6.74 1	4.80 2
2.52463	2.72064	16.50	29.00	3.68 2	-7.91 2	-4.03 2	8.41 2
2.52835	2.72195	17.50	27.00	5.27 2	-9.49 2	-5.74 2	1.01 3
2.50057	2.72401	12.00	45.00	8.38 1	-4.93 2	-9.61 1	5.21 2
2.46601	2.72497	10.00	61.00	3.83 1	-4.14 2	-4.62 1	4.37 2
2.47797	2.72515	10.50	56.00	4.74 1	-4.36 2	-5.63 1	4.60 2
2.52847	2.72549	16.00	30.00	3.14 2	-7.37 2	-3.45 2	7.83 2
2.49787	2.72731	11.50	48.00	7.04 1	-4.75 2	-8.13 1	5.02 2
2.45150	2.72783	9.40	68.00	2.91 1	-3.85 2	-3.61 1	4.07 2
2.53605	2.72825	18.00	26.00	6.52 2	-1.08 3	-7.09 2	1.15 3
2.46499	2.72863	9.80	63.00	3.52 1	-4.06 2	-4.28 1	4.29 2
2.52591	2.72873	14.50	34.00	1.94 2	-6.15 2	-2.16 2	6.52 2
2.53966	2.72946	21.00	22.00	4.96 3	-5.28 3	-5.34 3	5.67 3
2.51311	2.73024	12.50	42.00	1.01 2	-5.15 2	-1.15 2	5.44 2
2.53611	2.73400	15.50	31.00	2.71 2	-6.94 2	-2.98 2	7.37 2
2.46605	2.73434	9.60	65.00	3.24 1	-3.97 2	-3.97 1	4.20 2
2.54763	2.73713	20.00	23.00	1.90 3	-2.30 3	-2.05 3	2.46 3
2.45696	2.73797	9.20	70.00	2.68 1	-3.77 2	-3.35 1	3.98 2
2.54778	2.73844	18.50	25.00	8.36 2	-1.26 3	-9.06 2	1.34 3
2.50454	2.73973	11.00	51.00	5.95 1	-4.59 2	-6.94 1	4.85 2
2.48537	2.74103	10.00	60.00	3.94 1	-4.19 2	-4.74 1	4.42 2
2.46914	2.74208	9.40	67.00	2.99 1	-3.89 2	-3.69 1	4.11 2
2.49898	2.74289	10.50	55.00	4.89 1	-4.40 2	-5.78 1	4.65 2
2.48381	2.74413	9.80	62.00	3.62 1	-4.10 2	-4.39 1	4.33 2
2.53777	2.74475	13.50	37.00	1.45 2	-5.64 2	-1.62 2	5.97 2
2.54760	2.74623	15.00	32.00	2.36 2	-6.59 2	-2.60 2	6.99 2
2.53628	2.74677	13.00	39.00	1.23 2	-5.41 2	-1.38 2	5.72 2
2.52710	2.74721	12.00	44.00	8.73 1	-4.99 2	-9.95 1	5.27 2
2.52257	2.74873	11.50	47.00	7.30 1	-4.80 2	-8.40 1	5.07 2
2.48439	2.74934	9.60	64.00	3.33 1	-4.02 2	-4.06 1	4.24 2
2.54654	2.74978	14.00	35.00	1.72 2	-5.93 2	-1.91 2	6.28 2
2.46439	2.75007	9.00	72.00	2.48 1	-3.69 2	-3.12 1	3.90 2
2.45730	2.75120	8.80	75.00	2.23 1	-3.56 2	-2.84 1	3.76 2
2.47424	2.75182	9.20	69.00	2.75 1	-3.81 2	-3.43 1	4.03 2
2.56374	2.75271	19.00	24.00	1.12 3	-1.54 3	-1.21 3	1.65 3
2.45283	2.75509	8.60	78.00	2.01 1	-3.43 2	-2.59 1	3.63 2
2.54187	2.75563	12.50	41.00	1.05 2	-5.21 2	-1.19 2	5.51 2
2.48705	2.75662	9.40	66.00	3.07 1	-3.94 2	-3.77 1	4.16 2
2.50510	2.75747	10.00	59.00	4.06 1	-4.23 2	-4.86 1	4.46 2
2.52775	2.75967	11.00	50.00	6.15 1	-4.64 2	-7.15 1	4.89 2
2.50297	2.75998	9.80	61.00	3.73 1	-4.15 2	-4.49 1	4.37 2
2.52046	2.76111	10.50	54.00	5.05 1	-4.45 2	-5.94 1	4.69 2
2.45086	2.76165	8.40	81.00	1.81 1	-3.31 2	-2.37 1	3.50 2
2.56995	2.76212	16.50	28.00	4.04 2	-8.29 2	-4.41 2	8.81 2
2.56301	2.76224	14.50	33.00	2.07 2	-6.30 2	-2.28 2	6.67 2
2.57199	2.76295	17.00	27.00	4.85 2	-9.10 2	-5.28 2	9.68 2
2.48135	2.76358	9.00	71.00	2.54 1	-3.73 2	-3.18 1	3.94 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.47379	2.76416	8.80	74.00	2.29 1	-3.61 2	-2.90 1	3.81 2
2.50303	2.76466	9.60	63.00	3.43 1	-4.06 2	-4.16 1	4.29 2
2.57190	2.76513	16.00	29.00	3.42 2	-7.66 2	-3.73 2	8.13 2
2.49177	2.76596	9.20	68.00	2.83 1	-3.86 2	-3.50 1	4.07 2
2.46893	2.76758	8.60	77.00	2.06 1	-3.48 2	-2.65 1	3.68 2
2.57810	2.76771	17.50	26.00	5.94 2	-1.02 3	-6.45 2	1.08 3
2.45131	2.77081	8.20	84.00	1.63 1	-3.18 2	-2.17 1	3.36 2
2.54797	2.77085	11.50	46.00	7.58 1	-4.86 2	-8.69 1	5.12 2
2.55445	2.77124	12.00	43.00	9.09 1	-5.05 2	-1.03 2	5.33 2
2.58417	2.77129	19.50	23.00	1.61 3	-2.02 3	-1.74 3	2.15 3
2.50524	2.77147	9.40	65.00	3.16 1	-3.98 2	-3.86 1	4.20 2
2.57784	2.77201	15.50	30.00	2.93 2	-7.18 2	-3.21 2	7.60 2
2.46664	2.77372	8.40	80.00	1.85 1	-3.35 2	-2.42 1	3.54 2
2.52522	2.77432	10.00	58.00	4.18 1	-4.27 2	-4.98 1	4.51 2
2.57131	2.77482	13.50	36.00	1.52 2	-5.74 2	-1.70 2	6.07 2
2.56778	2.77485	13.00	38.00	1.29 2	-5.49 2	-1.45 2	5.80 2
2.52248	2.77621	9.80	60.00	3.84 1	-4.19 2	-4.60 1	4.42 2
2.58839	2.77654	18.00	25.00	7.56 2	-1.18 3	-8.17 2	1.26 3
2.49854	2.77734	9.00	70.00	2.61 1	-3.78 2	-3.25 1	3.98 2
2.49048	2.77736	8.80	73.00	2.35 1	-3.65 2	-2.96 1	3.85 2
2.54243	2.77983	10.50	53.00	5.22 1	-4.49 2	-6.11 1	4.74 2
2.55155	2.78021	11.00	49.00	6.37 1	-4.69 2	-7.37 1	4.94 2
2.48520	2.78027	8.60	76.00	2.11 1	-3.52 2	-2.70 1	3.72 2
2.52200	2.78033	9.60	62.00	3.53 1	-4.11 2	-4.26 1	4.33 2
2.50956	2.78037	9.20	67.00	2.91 1	-3.90 2	-3.58 1	4.11 2
2.57161	2.78200	12.50	40.00	1.10 2	-5.28 2	-1.24 2	5.57 2
2.58250	2.78220	14.00	34.00	1.82 2	-6.06 2	-2.02 2	6.40 2
2.46683	2.78253	8.20	83.00	1.67 1	-3.22 2	-2.21 1	3.41 2
2.45410	2.78256	8.00	87.00	1.47 1	-3.05 2	-1.98 1	3.23 2
2.58778	2.78276	15.00	31.00	2.53 2	-6.78 2	-2.78 2	7.18 2
2.48256	2.78598	8.40	79.00	1.90 1	-3.40 2	-2.46 1	3.59 2
2.52373	2.78663	9.40	64.00	3.24 1	-4.03 2	-3.95 1	4.24 2
2.50738	2.79079	8.80	72.00	2.41 1	-3.70 2	-3.02 1	3.90 2
2.51598	2.79137	9.00	69.00	2.68 1	-3.82 2	-3.32 1	4.03 2
2.54574	2.79159	10.00	57.00	4.31 1	-4.32 2	-5.11 1	4.55 2
2.54237	2.79282	9.80	59.00	3.95 1	-4.23 2	-4.72 1	4.46 2
2.50165	2.79318	8.60	75.00	2.17 1	-3.57 2	-2.75 1	3.77 2
2.57412	2.79372	11.50	45.00	7.88 1	-4.91 2	-8.99 1	5.17 2
2.46943	2.79396	8.00	86.00	1.51 1	-3.10 2	-2.02 1	3.27 2
2.48248	2.79442	8.20	82.00	1.71 1	-3.27 2	-2.25 1	3.46 2
2.52762	2.79508	9.20	66.00	2.99 1	-3.94 2	-3.66 1	4.16 2
2.58269	2.79616	12.00	42.00	9.48 1	-5.11 2	-1.07 2	5.39 2
2.54131	2.79636	9.60	61.00	3.63 1	-4.15 2	-4.36 1	4.37 2
2.45920	2.79687	7.80	90.00	1.32 1	-2.92 2	-1.81 1	3.09 2
2.49865	2.79844	8.40	78.00	1.95 1	-3.44 2	-2.51 1	3.64 2
2.56492	2.79908	10.50	52.00	5.39 1	-4.54 2	-6.29 1	4.78 2
2.57599	2.80140	11.00	48.00	6.61 1	-4.74 2	-7.60 1	4.99 2
2.54253	2.80212	9.40	63.00	3.34 1	-4.07 2	-4.04 1	4.29 2
2.52450	2.80447	8.80	71.00	2.47 1	-3.74 2	-3.09 1	3.94 2
2.48486	2.80552	8.00	85.00	1.54 1	-3.14 2	-2.06 1	3.32 2
2.53366	2.80567	9.00	68.00	2.75 1	-3.86 2	-3.40 1	4.07 2
2.51830	2.80632	8.60	74.00	2.22 1	-3.62 2	-2.81 1	3.81 2
2.49826	2.80648	8.20	81.00	1.76 1	-3.32 2	-2.29 1	3.50 2
2.47439	2.80801	7.80	89.00	1.36 1	-2.97 2	-1.84 1	3.14 2
2.56670	2.80930	10.00	56.00	4.45 1	-4.36 2	-5.25 1	4.59 2
2.56264	2.80985	9.80	58.00	4.07 1	-4.28 2	-4.84 1	4.50 2
2.54596	2.81010	9.20	65.00	3.07 1	-3.99 2	-3.74 1	4.20 2
2.51490	2.81111	8.40	77.00	2.00 1	-3.49 2	-2.56 1	3.68 2
2.56098	2.81276	9.60	60.00	3.74 1	-4.20 2	-4.47 1	4.42 2
2.50041	2.81725	8.00	84.00	1.58 1	-3.19 2	-2.09 1	3.37 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.56165	2.81797	9.40	62.00	3.43 1	-4.11 2	-4.14 1	4.33 2
2.54184	2.81840	8.80	70.00	2.54 1	-3.78 2	-3.15 1	3.99 2
2.51419	2.81873	8.20	80.00	1.80 1	-3.36 2	-2.34 1	3.55 2
2.58795	2.81888	10.50	51.00	5.58 1	-4.59 2	-6.47 1	4.83 2
2.48967	2.81929	7.80	88.00	1.39 1	-3.01 2	-1.88 1	3.19 2
2.53514	2.81969	8.60	73.00	2.28 1	-3.66 2	-2.87 1	3.86 2
2.55160	2.82026	9.00	67.00	2.83 1	-3.91 2	-3.47 1	4.12 2
2.53132	2.82398	8.40	76.00	2.05 1	-3.54 2	-2.61 1	3.73 2
2.56461	2.82544	9.20	64.00	3.16 1	-4.03 2	-3.83 1	4.24 2
2.58333	2.82729	9.80	57.00	4.20 1	-4.32 2	-4.97 1	4.55 2
2.58810	2.82748	10.00	55.00	4.59 1	-4.41 2	-5.39 1	4.64 2
2.51609	2.82914	8.00	83.00	1.62 1	-3.24 2	-2.13 1	3.42 2
2.58103	2.82955	9.60	59.00	3.85 1	-4.24 2	-4.58 1	4.46 2
2.50505	2.83072	7.80	87.00	1.43 1	-3.06 2	-1.91 1	3.23 2
2.53027	2.83117	8.20	79.00	1.85 1	-3.41 2	-2.38 1	3.60 2
2.55943	2.83260	8.80	69.00	2.61 1	-3.83 2	-3.22 1	4.03 2
2.55219	2.83329	8.60	72.00	2.34 1	-3.71 2	-2.93 1	3.90 2
2.58112	2.83417	9.40	61.00	3.53 1	-4.16 2	-4.24 1	4.37 2
2.56982	2.83515	9.00	66.00	2.91 1	-3.95 2	-3.55 1	4.16 2
2.54793	2.83706	8.40	75.00	2.11 1	-3.58 2	-2.67 1	3.77 2
2.58357	2.84111	9.20	63.00	3.25 1	-4.08 2	-3.92 1	4.29 2
2.53189	2.84121	8.00	82.00	1.67 1	-3.28 2	-2.17 1	3.46 2
2.52053	2.84231	7.80	86.00	1.46 1	-3.11 2	-1.95 1	3.28 2
2.54651	2.84381	8.20	78.00	1.90 1	-3.45 2	-2.43 1	3.64 2
2.51213	2.84691	7.60	90.00	1.29 1	-2.93 2	-1.75 1	3.10 2
2.57727	2.84709	8.80	68.00	2.68 1	-3.87 2	-3.29 1	4.08 2
2.56947	2.84715	8.60	71.00	2.40 1	-3.75 2	-2.99 1	3.95 2
2.58832	2.85034	9.00	65.00	2.99 1	-4.00 2	-3.63 1	4.20 2
2.56473	2.85038	8.40	74.00	2.16 1	-3.63 2	-2.72 1	3.82 2
2.54783	2.85345	8.00	81.00	1.71 1	-3.33 2	-2.22 1	3.51 2
2.53612	2.85406	7.80	85.00	1.50 1	-3.15 2	-1.99 1	3.33 2
2.56292	2.85665	8.20	77.00	1.94 1	-3.50 2	-2.48 1	3.69 2
2.52748	2.85823	7.60	89.00	1.32 1	-2.98 2	-1.78 1	3.15 2
2.58697	2.86126	8.60	70.00	2.47 1	-3.79 2	-3.05 1	3.99 2
2.59537	2.86185	8.80	67.00	2.75 1	-3.92 2	-3.36 1	4.12 2
2.58173	2.86392	8.40	73.00	2.22 1	-3.67 2	-2.78 1	3.86 2
2.56392	2.86589	8.00	80.00	1.75 1	-3.37 2	-2.26 1	3.56 2
2.55183	2.86597	7.80	84.00	1.54 1	-3.20 2	-2.02 1	3.38 2
2.57950	2.86970	8.20	76.00	2.00 1	-3.55 2	-2.53 1	3.73 2
2.54293	2.86970	7.60	88.00	1.35 1	-3.03 2	-1.81 1	3.19 2
2.59895	2.87771	8.40	72.00	2.28 1	-3.72 2	-2.83 1	3.91 2
2.56767	2.87804	7.80	83.00	1.58 1	-3.25 2	-2.06 1	3.42 2
2.58016	2.87851	8.00	79.00	1.80 1	-3.42 2	-2.30 1	3.60 2
2.55847	2.88132	7.60	87.00	1.39 1	-3.07 2	-1.85 1	3.24 2
2.59627	2.88297	8.20	75.00	2.05 1	-3.59 2	-2.58 1	3.78 2
2.58364	2.89030	7.80	82.00	1.62 1	-3.29 2	-2.10 1	3.47 2
2.59657	2.89134	8.00	78.00	1.84 1	-3.47 2	-2.35 1	3.65 2
2.57412	2.89310	7.60	86.00	1.42 1	-3.12 2	-1.88 1	3.29 2
2.56772	2.89955	7.40	90.00	1.25 1	-2.94 2	-1.69 1	3.10 2
2.59975	2.90273	7.80	81.00	1.66 1	-3.34 2	-2.14 1	3.52 2
2.58988	2.90504	7.60	85.00	1.46 1	-3.17 2	-1.92 1	3.34 2
2.58324	2.91107	7.40	89.00	1.28 1	-2.99 2	-1.72 1	3.15 2
2.59885	2.92274	7.40	88.00	1.31 1	-3.04 2	-1.75 1	3.20 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.60	2.75						
2.60304	2.78955	18.50	24.00	9.92 2	-1.41 3	-1.07 3	1.51 3
2.60938	2.79455	20.00	22.00	2.89 3	-3.29 3	-3.10 3	3.51 3
2.60181	2.79744	14.50	32.00	2.21 2	-6.46 2	-2.43 2	6.83 2
2.60048	2.80413	13.00	37.00	1.36 2	-5.58 2	-1.51 2	5.88 2
2.61781	2.80610	16.50	27.00	4.47 2	-8.73 2	-4.85 2	9.26 2
2.60624	2.80627	13.50	35.00	1.61 2	-5.85 2	-1.79 2	6.17 2
2.62227	2.80701	19.00	23.00	1.40 3	-1.82 3	-1.51 3	1.94 3
2.61767	2.80710	16.00	28.00	3.74 2	-8.01 2	-4.07 2	8.49 2
2.62219	2.80921	17.00	26.00	5.45 2	-9.72 2	-5.90 2	1.03 3
2.60241	2.80944	12.50	39.00	1.15 2	-5.36 2	-1.29 2	5.65 2
2.62172	2.81214	15.50	29.00	3.18 2	-7.44 2	-3.46 2	7.88 2
2.62004	2.81620	14.00	33.00	1.94 2	-6.19 2	-2.13 2	6.53 2
2.63091	2.81651	17.50	25.00	6.82 2	-1.11 3	-7.37 2	1.18 3
2.60106	2.81738	11.50	44.00	8.20 1	-4.97 2	-9.31 1	5.23 2
2.62997	2.82126	15.00	30.00	2.73 2	-7.00 2	-2.98 2	7.40 2
2.61186	2.82202	12.00	41.00	9.90 1	-5.18 2	-1.11 2	5.45 2
2.60111	2.82326	11.00	47.00	6.85 1	-4.79 2	-7.85 1	5.04 2
2.64412	2.82817	18.00	24.00	8.88 2	-1.31 3	-9.57 2	1.40 3
2.64639	2.82923	19.50	22.00	2.27 3	-2.67 3	-2.43 3	2.85 3
2.64246	2.83447	14.50	31.00	2.37 2	-6.64 2	-2.59 2	7.01 2
2.63447	2.83469	13.00	36.00	1.43 2	-5.67 2	-1.59 2	5.98 2
2.63435	2.83800	12.50	38.00	1.21 2	-5.44 2	-1.35 2	5.72 2
2.64265	2.83918	13.50	34.00	1.71 2	-5.96 2	-1.88 2	6.28 2
2.61157	2.83927	10.50	50.00	5.77 1	-4.63 2	-6.67 1	4.87 2
2.62884	2.84188	11.50	43.00	8.53 1	-5.02 2	-9.65 1	5.28 2
2.66205	2.84438	18.50	23.00	1.21 3	-1.63 3	-1.30 3	1.74 3
2.60444	2.84518	9.80	56.00	4.33 1	-4.37 2	-5.10 1	4.59 2
2.62693	2.84585	11.00	46.00	7.11 1	-4.84 2	-8.12 1	5.09 2
2.60998	2.84614	10.00	54.00	4.73 1	-4.45 2	-5.54 1	4.68 2
2.60146	2.84675	9.60	58.00	3.96 1	-4.28 2	-4.70 1	4.50 2
2.64204	2.84887	12.00	40.00	1.03 2	-5.24 2	-1.16 2	5.52 2
2.60095	2.85075	9.40	60.00	3.64 1	-4.20 2	-4.34 1	4.42 2
2.66602	2.85161	16.00	27.00	4.12 2	-8.40 2	-4.47 2	8.89 2
2.65930	2.85189	14.00	32.00	2.06 2	-6.34 2	-2.27 2	6.68 2
2.66850	2.85288	16.50	26.00	4.99 2	-9.27 2	-5.40 2	9.82 2
2.66797	2.85463	15.50	28.00	3.47 2	-7.75 2	-3.77 2	8.19 2
2.67579	2.85657	20.00	21.00	5.04 3	-5.38 3	-5.39 3	5.74 3
2.60285	2.85713	9.20	62.00	3.34 1	-4.12 2	-4.01 1	4.33 2
2.67549	2.85854	17.00	25.00	6.21 2	-1.05 3	-6.70 2	1.11 3
2.63579	2.86027	10.50	49.00	5.97 1	-4.68 2	-6.87 1	4.92 2
2.67433	2.86191	15.00	29.00	2.95 2	-7.24 2	-3.22 2	7.64 2
2.62601	2.86355	9.80	55.00	4.46 1	-4.41 2	-5.23 1	4.63 2
2.62231	2.86438	9.60	57.00	4.09 1	-4.33 2	-4.82 1	4.54 2
2.63236	2.86532	10.00	53.00	4.89 1	-4.50 2	-5.69 1	4.72 2
2.68499	2.86548	19.00	22.00	1.91 3	-2.33 3	-2.04 3	2.48 3
2.60713	2.86586	9.00	64.00	3.07 1	-4.04 2	-3.71 1	4.25 2
2.66986	2.86664	13.00	35.00	1.51 2	-5.77 2	-1.67 2	6.07 2
2.65752	2.86727	11.50	42.00	8.89 1	-5.08 2	-1.00 2	5.34 2
2.62116	2.86773	9.40	59.00	3.75 1	-4.24 2	-4.45 1	4.46 2
2.66750	2.86777	12.50	37.00	1.27 2	-5.52 2	-1.41 2	5.80 2
2.68714	2.86867	17.50	24.00	7.93 2	-1.22 3	-8.52 2	1.29 3
2.65351	2.86918	11.00	45.00	7.39 1	-4.89 2	-8.39 1	5.14 2
2.68512	2.87349	14.50	30.00	2.54 2	-6.83 2	-2.78 2	7.20 2
2.62249	2.87352	9.20	61.00	3.44 1	-4.16 2	-4.11 1	4.37 2
2.68066	2.87368	13.50	33.00	1.81 2	-6.09 2	-1.99 2	6.41 2
2.60472	2.87565	8.60	69.00	2.53 1	-3.84 2	-3.12 1	4.04 2
2.67330	2.87679	12.00	39.00	1.08 2	-5.31 2	-1.21 2	5.58 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.61375	2.87692	8.80	66.00	2.83 1	-3.96 2	-3.44 1	4.16 2
2.62625	2.88172	9.00	63.00	3.16 1	-4.08 2	-3.80 1	4.29 2
2.66066	2.88193	10.50	48.00	6.19 1	-4.73 2	-7.09 1	4.96 2
2.64807	2.88240	9.80	54.00	4.61 1	-4.45 2	-5.38 1	4.68 2
2.64360	2.88246	9.60	56.00	4.21 1	-4.37 2	-4.95 1	4.59 2
2.70364	2.88354	18.00	23.00	1.07 3	-1.50 3	-1.15 3	1.59 3
2.65527	2.88503	10.00	52.00	5.05 1	-4.54 2	-5.86 1	4.77 2
2.64176	2.88512	9.40	58.00	3.86 1	-4.29 2	-4.56 1	4.50 2
2.70043	2.88945	14.00	31.00	2.21 2	-6.50 2	-2.41 2	6.85 2
2.64248	2.89029	9.20	60.00	3.54 1	-4.21 2	-4.21 1	4.42 2
2.62272	2.89031	8.60	68.00	2.60 1	-3.88 2	-3.19 1	4.08 2
2.61639	2.89176	8.40	71.00	2.34 1	-3.76 2	-2.89 1	3.95 2
2.71331	2.89178	19.50	21.00	3.43 3	-3.80 3	-3.67 3	4.04 3
2.63242	2.89231	8.80	65.00	2.90 1	-4.00 2	-3.52 1	4.21 2
2.68089	2.89333	11.00	44.00	7.68 1	-4.95 2	-8.69 1	5.19 2
2.68714	2.89362	11.50	41.00	9.28 1	-5.14 2	-1.04 2	5.40 2
2.61324	2.89647	8.20	74.00	2.10 1	-3.64 2	-2.63 1	3.82 2
2.64571	2.89793	9.00	62.00	3.25 1	-4.13 2	-3.89 1	4.33 2
2.70197	2.89884	12.50	36.00	1.34 2	-5.61 2	-1.48 2	5.89 2
2.71721	2.89893	16.00	26.00	4.58 2	-8.88 2	-4.95 2	9.38 2
2.71681	2.89967	15.50	27.00	3.81 2	-8.10 2	-4.12 2	8.55 2
2.70674	2.90007	13.00	34.00	1.60 2	-5.88 2	-1.76 2	6.18 2
2.66534	2.90101	9.60	55.00	4.34 1	-4.41 2	-5.08 1	4.63 2
2.67062	2.90176	9.80	53.00	4.76 1	-4.50 2	-5.53 1	4.72 2
2.72230	2.90276	16.50	25.00	5.65 2	-9.95 2	-6.08 2	1.05 3
2.66278	2.90293	9.40	57.00	3.97 1	-4.33 2	-4.68 1	4.54 2
2.72529	2.90339	18.50	22.00	1.58 3	-2.00 3	-1.69 3	2.13 3
2.68621	2.90428	10.50	47.00	6.42 1	-4.78 2	-7.32 1	5.01 2
2.61314	2.90436	8.00	77.00	1.89 1	-3.51 2	-2.40 1	3.69 2
2.72107	2.90494	15.00	28.00	3.22 2	-7.52 2	-3.49 2	7.93 2
2.64099	2.90527	8.60	67.00	2.67 1	-3.93 2	-3.26 1	4.12 2
2.67873	2.90531	10.00	51.00	5.22 1	-4.59 2	-6.03 1	4.81 2
2.70570	2.90586	12.00	38.00	1.13 2	-5.39 2	-1.26 2	5.66 2
2.63406	2.90606	8.40	70.00	2.40 1	-3.80 2	-2.96 1	4.00 2
2.66286	2.90745	9.20	59.00	3.64 1	-4.25 2	-4.31 1	4.46 2
2.65140	2.90801	8.80	64.00	2.99 1	-4.05 2	-3.60 1	4.25 2
2.72041	2.90991	13.50	32.00	1.93 2	-6.22 2	-2.11 2	6.54 2
2.63040	2.91021	8.20	73.00	2.15 1	-3.68 2	-2.69 1	3.87 2
2.73223	2.91125	17.00	24.00	7.16 2	-1.15 3	-7.69 2	1.21 3
2.66551	2.91451	9.00	61.00	3.34 1	-4.17 2	-3.98 1	4.37 2
2.72998	2.91468	14.50	29.00	2.75 2	-7.05 2	-2.98 2	7.43 2
2.61600	2.91535	7.80	80.00	1.70 1	-3.39 2	-2.18 1	3.56 2
2.60576	2.91714	7.60	84.00	1.49 1	-3.21 2	-1.95 1	3.38 2
2.62989	2.91760	8.00	76.00	1.94 1	-3.56 2	-2.44 1	3.74 2
2.70913	2.91833	11.00	43.00	7.99 1	-5.00 2	-9.01 1	5.24 2
2.68757	2.92006	9.60	54.00	4.48 1	-4.46 2	-5.22 1	4.67 2
2.65954	2.92053	8.60	66.00	2.75 1	-3.97 2	-3.33 1	4.17 2
2.65197	2.92063	8.40	69.00	2.46 1	-3.85 2	-3.02 1	4.04 2
2.71779	2.92098	11.50	40.00	9.69 1	-5.21 2	-1.08 2	5.46 2
2.68424	2.92121	9.40	56.00	4.10 1	-4.37 2	-4.80 1	4.59 2
2.69371	2.92167	9.80	52.00	4.91 1	-4.54 2	-5.69 1	4.76 2
2.67069	2.92406	8.80	63.00	3.07 1	-4.09 2	-3.68 1	4.29 2
2.64779	2.92419	8.20	72.00	2.21 1	-3.73 2	-2.74 1	3.91 2
2.74718	2.92460	17.50	23.00	9.42 2	-1.37 3	-1.01 3	1.45 3
2.68364	2.92503	9.20	58.00	3.75 1	-4.29 2	-4.42 1	4.50 2
2.70279	2.92618	10.00	50.00	5.40 1	-4.63 2	-6.21 1	4.86 2
2.71248	2.92736	10.50	46.00	6.66 1	-4.83 2	-7.56 1	5.06 2
2.63241	2.92817	7.80	79.00	1.74 1	-3.43 2	-2.23 1	3.61 2
2.74360	2.92901	14.00	30.00	2.37 2	-6.68 2	-2.58 2	7.03 2
2.62176	2.92941	7.60	83.00	1.53 1	-3.26 2	-1.99 1	3.43 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.64683	2.93107	8.00	75.00	1.99 1	-3.60 2	-2.49 1	3.78 2
2.73784	2.93132	12.50	35.00	1.41 2	-5.70 2	-1.56 2	5.98 2
2.68568	2.93147	9.00	60.00	3.44 1	-4.21 2	-4.08 1	4.42 2
2.61457	2.93456	7.40	87.00	1.34 1	-3.09 2	-1.78 1	3.25 2
2.74525	2.93511	13.00	33.00	1.69 2	-5.99 2	-1.86 2	6.29 2
2.67015	2.93549	8.40	68.00	2.53 1	-3.89 2	-3.09 1	4.08 2
2.67838	2.93610	8.60	65.00	2.82 1	-4.01 2	-3.41 1	4.21 2
2.73934	2.93616	12.00	37.00	1.19 2	-5.46 2	-1.32 2	5.73 2
2.66540	2.93842	8.20	71.00	2.27 1	-3.77 2	-2.80 1	3.96 2
2.71030	2.93962	9.60	53.00	4.63 1	-4.50 2	-5.37 1	4.72 2
2.70617	2.93996	9.40	55.00	4.23 1	-4.42 2	-4.93 1	4.63 2
2.69032	2.94046	8.80	62.00	3.16 1	-4.13 2	-3.77 1	4.33 2
2.64898	2.94119	7.80	78.00	1.79 1	-3.48 2	-2.27 1	3.65 2
2.63790	2.94186	7.60	82.00	1.57 1	-3.31 2	-2.03 1	3.48 2
2.71735	2.94215	9.80	51.00	5.08 1	-4.59 2	-5.85 1	4.81 2
2.70484	2.94305	9.20	57.00	3.86 1	-4.34 2	-4.54 1	4.54 2
2.73827	2.94424	11.00	42.00	8.32 1	-5.06 2	-9.34 1	5.30 2
2.66396	2.94476	8.00	74.00	2.04 1	-3.65 2	-2.54 1	3.83 2
2.63039	2.94653	7.40	86.00	1.38 1	-3.13 2	-1.81 1	3.30 2
2.72746	2.94768	10.00	49.00	5.59 1	-4.68 2	-6.40 1	4.90 2
2.70624	2.94883	9.00	59.00	3.54 1	-4.26 2	-4.18 1	4.46 2
2.74953	2.94943	11.50	39.00	1.01 2	-5.27 2	-1.13 2	5.53 2
2.68859	2.95063	8.40	67.00	2.60 1	-3.94 2	-3.15 1	4.13 2
2.73953	2.95120	10.50	45.00	6.91 1	-4.88 2	-7.82 1	5.11 2
2.69753	2.95200	8.60	64.00	2.90 1	-4.06 2	-3.48 1	4.25 2
2.68324	2.95291	8.20	70.00	2.33 1	-3.81 2	-2.86 1	4.00 2
2.66573	2.95441	7.80	77.00	1.83 1	-3.52 2	-2.31 1	3.70 2
2.65418	2.95449	7.60	81.00	1.61 1	-3.35 2	-2.07 1	3.52 2
2.62618	2.95502	7.20	90.00	1.21 1	-2.96 2	-1.62 1	3.11 2
2.71030	2.95724	8.80	61.00	3.25 1	-4.18 2	-3.86 1	4.38 2
2.64632	2.95867	7.40	85.00	1.41 1	-3.18 2	-1.85 1	3.34 2
2.68130	2.95869	8.00	73.00	2.09 1	-3.69 2	-2.60 1	3.87 2
2.72857	2.95920	9.40	54.00	4.36 1	-4.46 2	-5.06 1	4.67 2
2.73357	2.95973	9.60	52.00	4.78 1	-4.55 2	-5.52 1	4.76 2
2.72648	2.96152	9.20	56.00	3.98 1	-4.38 2	-4.66 1	4.58 2
2.74159	2.96323	9.80	50.00	5.25 1	-4.63 2	-6.03 1	4.85 2
2.70731	2.96609	8.40	66.00	2.67 1	-3.98 2	-3.22 1	4.17 2
2.72719	2.96661	9.00	58.00	3.65 1	-4.30 2	-4.29 1	4.50 2
2.64188	2.96675	7.20	89.00	1.24 1	-3.00 2	-1.65 1	3.16 2
2.67061	2.96731	7.60	80.00	1.65 1	-3.40 2	-2.11 1	3.57 2
2.70133	2.96768	8.20	69.00	2.39 1	-3.86 2	-2.92 1	4.04 2
2.68265	2.96785	7.80	76.00	1.88 1	-3.57 2	-2.36 1	3.75 2
2.71700	2.96825	8.60	63.00	2.98 1	-4.10 2	-3.57 1	4.29 2
2.66237	2.97097	7.40	84.00	1.45 1	-3.23 2	-1.88 1	3.39 2
2.69886	2.97286	8.00	72.00	2.15 1	-3.74 2	-2.65 1	3.92 2
2.73065	2.97440	8.80	60.00	3.34 1	-4.22 2	-3.95 1	4.42 2
2.65767	2.97862	7.20	88.00	1.27 1	-3.05 2	-1.68 1	3.21 2
2.68719	2.98032	7.60	79.00	1.69 1	-3.45 2	-2.15 1	3.62 2
2.74859	2.98047	9.20	55.00	4.11 1	-4.42 2	-4.78 1	4.63 2
2.69977	2.98151	7.80	75.00	1.93 1	-3.61 2	-2.41 1	3.79 2
2.72633	2.98186	8.40	65.00	2.74 1	-4.02 2	-3.30 1	4.21 2
2.71968	2.98274	8.20	68.00	2.45 1	-3.90 2	-2.98 1	4.09 2
2.67856	2.98344	7.40	83.00	1.48 1	-3.27 2	-1.92 1	3.44 2
2.74857	2.98482	9.00	57.00	3.76 1	-4.34 2	-4.40 1	4.54 2
2.73681	2.98485	8.60	62.00	3.07 1	-4.14 2	-3.65 1	4.34 2
2.71665	2.98730	8.00	71.00	2.20 1	-3.78 2	-2.71 1	3.96 2
2.67356	2.99064	7.20	87.00	1.30 1	-3.10 2	-1.72 1	3.26 2
2.70394	2.99354	7.60	78.00	1.73 1	-3.49 2	-2.19 1	3.66 2
2.71708	2.99540	7.80	74.00	1.98 1	-3.66 2	-2.46 1	3.84 2
2.69487	2.99609	7.40	82.00	1.52 1	-3.32 2	-1.96 1	3.48 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.74567	2.99797	8.40	64.00	2.82 1	-4.07 2	-3.37 1	4.25 2
2.73830	2.99809	8.20	67.00	2.52 1	-3.95 2	-3.05 1	4.13 2
2.73467	3.00199	8.00	70.00	2.26 1	-3.83 2	-2.76 1	4.01 2
2.68956	3.00282	7.20	86.00	1.33 1	-3.15 2	-1.75 1	3.30 2
2.72087	3.00697	7.60	77.00	1.78 1	-3.54 2	-2.23 1	3.71 2
2.71133	3.00893	7.40	81.00	1.56 1	-3.37 2	-1.99 1	3.53 2
2.73460	3.00953	7.80	73.00	2.03 1	-3.70 2	-2.51 1	3.88 2
2.68776	3.01356	7.00	90.00	1.17 1	-2.97 2	-1.56 1	3.12 2
2.70568	3.01516	7.20	85.00	1.37 1	-3.19 2	-1.78 1	3.35 2
2.73797	3.02061	7.60	76.00	1.82 1	-3.58 2	-2.28 1	3.75 2
2.72794	3.02196	7.40	80.00	1.60 1	-3.41 2	-2.03 1	3.58 2
2.70364	3.02549	7.00	89.00	1.20 1	-3.02 2	-1.59 1	3.17 2
2.72191	3.02767	7.20	84.00	1.40 1	-3.24 2	-1.81 1	3.40 2
2.74471	3.03518	7.40	79.00	1.64 1	-3.46 2	-2.07 1	3.62 2
2.71962	3.03758	7.00	88.00	1.23 1	-3.07 2	-1.62 1	3.22 2
2.73828	3.04036	7.20	83.00	1.44 1	-3.29 2	-1.85 1	3.45 2
2.73570	3.04981	7.00	87.00	1.26 1	-3.11 2	-1.65 1	3.27 2
2.75	2.90						
2.75244	2.92861	19.00	21.00	2.88 3	-3.30 3	-3.07 3	3.51 3
2.76741	2.94313	18.00	22.00	1.37 3	-1.80 3	-1.46 3	1.90 3
2.76853	2.94756	15.50	26.00	4.21 2	-8.53 2	-4.54 2	8.99 2
2.76205	2.94802	13.50	31.00	2.06 2	-6.37 2	-2.24 2	6.69 2
2.77155	2.94938	16.00	25.00	5.15 2	-9.47 2	-5.54 2	9.99 2
2.77045	2.95055	15.00	27.00	3.52 2	-7.84 2	-3.80 2	8.26 2
2.77958	2.95605	16.50	24.00	6.46 2	-1.08 3	-6.93 2	1.14 3
2.77726	2.95828	14.50	28.00	2.98 2	-7.30 2	-3.23 2	7.68 2
2.78556	2.95957	19.50	20.00	3.21 3	-3.33 3	-3.42 3	3.53 3
2.77523	2.96530	12.50	34.00	1.49 2	-5.80 2	-1.64 2	6.08 2
2.79329	2.96711	18.50	21.00	2.20 3	-2.62 3	-2.35 3	2.77 3
2.79282	2.96778	17.00	23.00	8.43 2	-1.27 3	-9.02 2	1.35 3
2.77431	2.96778	12.00	36.00	1.25 2	-5.55 2	-1.38 2	5.81 2
2.75279	2.96985	10.00	48.00	5.78 1	-4.72 2	-6.60 1	4.94 2
2.78899	2.97078	14.00	29.00	2.55 2	-6.88 2	-2.77 2	7.23 2
2.76839	2.97111	11.00	41.00	8.68 1	-5.12 2	-9.70 1	5.36 2
2.78552	2.97190	13.00	32.00	1.80 2	-6.12 2	-1.97 2	6.42 2
2.76739	2.97587	10.50	44.00	7.18 1	-4.93 2	-8.09 1	5.16 2
2.75149	2.97897	9.40	53.00	4.50 1	-4.50 2	-5.21 1	4.71 2
2.78243	2.97904	11.50	38.00	1.06 2	-5.34 2	-1.18 2	5.59 2
2.75741	2.98042	9.60	51.00	4.94 1	-4.59 2	-5.68 1	4.80 2
2.81150	2.98479	17.50	22.00	1.17 3	-1.59 3	-1.24 3	1.68 3
2.76645	2.98494	9.80	49.00	5.43 1	-4.68 2	-6.21 1	4.89 2
2.80575	2.98816	13.50	30.00	2.20 2	-6.53 2	-2.40 2	6.86 2
2.75139	2.99196	8.80	59.00	3.44 1	-4.26 2	-4.05 1	4.46 2
2.77882	2.99271	10.00	47.00	5.99 1	-4.77 2	-6.81 1	4.99 2
2.82525	2.99705	19.00	20.00	6.15 3	-6.59 3	-6.53 3	6.99 3
2.82343	2.99861	15.50	25.00	4.71 2	-9.04 2	-5.06 2	9.52 2
2.79953	2.99902	11.00	40.00	9.06 1	-5.17 2	-1.01 2	5.41 2
2.82272	2.99904	15.00	26.00	3.88 2	-8.22 2	-4.18 2	8.64 2
2.77495	2.99929	9.40	52.00	4.65 1	-4.55 2	-5.35 1	4.75 2
2.77118	2.99993	9.20	54.00	4.24 1	-4.46 2	-4.91 1	4.67 2
2.81070	3.00082	12.00	35.00	1.32 2	-5.63 2	-1.45 2	5.90 2
2.81427	3.00091	12.50	33.00	1.58 2	-5.90 2	-1.73 2	6.18 2
2.79611	3.00140	10.50	43.00	7.47 1	-4.98 2	-8.38 1	5.21 2
2.78184	3.00171	9.60	50.00	5.11 1	-4.63 2	-5.85 1	4.84 2
2.75698	3.00183	8.60	61.00	3.15 1	-4.19 2	-3.74 1	4.38 2
2.82939	3.00327	16.00	24.00	5.85 2	-1.02 3	-6.27 2	1.07 3
2.77040	3.00350	9.00	56.00	3.87 1	-4.38 2	-4.51 1	4.58 2
2.82718	3.00449	14.50	27.00	3.25 2	-7.59 2	-3.51 2	7.98 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.79198	3.00732	9.80	48.00	5.62 1	-4.72 2	-6.40 1	4.94 2
2.83598	3.00746	18.00	21.00	1.85 3	-2.29 3	-1.97 3	2.42 3
2.81659	3.00990	11.50	37.00	1.11 2	-5.41 2	-1.23 2	5.66 2
2.77253	3.00994	8.80	58.00	3.54 1	-4.31 2	-4.15 1	4.50 2
2.82771	3.01059	13.00	31.00	1.92 2	-6.25 2	-2.09 2	6.55 2
2.84074	3.01319	16.50	23.00	7.52 2	-1.18 3	-8.04 2	1.25 3
2.75721	3.01375	8.20	66.00	2.59 1	-3.99 2	-3.12 1	4.17 2
2.76532	3.01442	8.40	63.00	2.89 1	-4.11 2	-3.45 1	4.30 2
2.83682	3.01497	14.00	28.00	2.76 2	-7.11 2	-2.99 2	7.46 2
2.80558	3.01632	10.00	46.00	6.21 1	-4.82 2	-7.03 1	5.04 2
2.75295	3.01696	8.00	69.00	2.32 1	-3.87 2	-2.82 1	4.05 2
2.77751	3.01919	8.60	60.00	3.24 1	-4.23 2	-3.83 1	4.42 2
2.79429	3.01991	9.20	53.00	4.37 1	-4.51 2	-5.05 1	4.71 2
2.79898	3.02019	9.40	51.00	4.80 1	-4.59 2	-5.51 1	4.80 2
2.79270	3.02267	9.00	55.00	3.99 1	-4.43 2	-4.63 1	4.63 2
2.80690	3.02363	9.60	49.00	5.28 1	-4.68 2	-6.02 1	4.89 2
2.75234	3.02391	7.80	72.00	2.08 1	-3.75 2	-2.56 1	3.92 2
2.82576	3.02786	10.50	42.00	7.77 1	-5.03 2	-8.69 1	5.26 2
2.83179	3.02803	11.00	39.00	9.47 1	-5.24 2	-1.05 2	5.47 2
2.79411	3.02837	8.80	57.00	3.65 1	-4.35 2	-4.26 1	4.54 2
2.85773	3.02859	17.00	22.00	1.03 3	-1.46 3	-1.10 3	1.54 3
2.77642	3.02972	8.20	65.00	2.66 1	-4.03 2	-3.19 1	4.22 2
2.81821	3.03040	9.80	47.00	5.83 1	-4.77 2	-6.61 1	4.98 2
2.85170	3.03053	13.50	29.00	2.37 2	-6.72 2	-2.57 2	7.04 2
2.78532	3.03123	8.40	62.00	2.98 1	-4.15 2	-3.53 1	4.34 2
2.77148	3.03223	8.00	68.00	2.38 1	-3.91 2	-2.88 1	4.09 2
2.86391	3.03354	19.00	19.50	-6.36 3	6.57 3	6.73 3	-6.96 3
2.75527	3.03448	7.60	75.00	1.87 1	-3.63 2	-2.32 1	3.80 2
2.84863	3.03538	12.00	34.00	1.39 2	-5.72 2	-1.52 2	5.99 2
2.86669	3.03617	18.50	20.00	3.46 3	-3.85 3	-3.67 3	4.07 3
2.79844	3.03697	8.60	59.00	3.34 1	-4.27 2	-3.92 1	4.46 2
2.85509	3.03829	12.50	32.00	1.68 2	-6.02 2	-1.83 2	6.30 2
2.77031	3.03855	7.80	71.00	2.13 1	-3.79 2	-2.61 1	3.97 2
2.81795	3.04044	9.20	52.00	4.51 1	-4.55 2	-5.19 1	4.75 2
2.83312	3.04071	10.00	45.00	6.45 1	-4.87 2	-7.27 1	5.08 2
2.82361	3.04169	9.40	50.00	4.96 1	-4.64 2	-5.67 1	4.84 2
2.85209	3.04210	11.50	36.00	1.17 2	-5.49 2	-1.29 2	5.74 2
2.81549	3.04233	9.00	54.00	4.12 1	-4.47 2	-4.76 1	4.67 2
2.79594	3.04604	8.20	64.00	2.73 1	-4.08 2	-3.26 1	4.26 2
2.83263	3.04623	9.60	48.00	5.47 1	-4.72 2	-6.21 1	4.93 2
2.81613	3.04726	8.80	56.00	3.76 1	-4.39 2	-4.37 1	4.58 2
2.79029	3.04778	8.00	67.00	2.44 1	-3.96 2	-2.95 1	4.14 2
2.80567	3.04841	8.40	61.00	3.06 1	-4.19 2	-3.62 1	4.38 2
2.77277	3.04858	7.60	74.00	1.92 1	-3.67 2	-2.37 1	3.84 2
2.76165	3.04861	7.40	78.00	1.68 1	-3.50 2	-2.11 1	3.67 2
2.88067	3.04976	17.50	21.00	1.51 3	-1.93 3	-1.60 3	2.04 3
2.87820	3.05071	15.00	25.00	4.32 2	-8.68 2	-4.63 2	9.11 2
2.87197	3.05134	13.00	30.00	2.05 2	-6.40 2	-2.22 2	6.70 2
2.88186	3.05314	15.50	24.00	5.31 2	-9.66 2	-5.68 2	1.02 3
2.75479	3.05322	7.20	82.00	1.47 1	-3.33 2	-1.88 1	3.49 2
2.78852	3.05346	7.80	70.00	2.19 1	-3.84 2	-2.67 1	4.01 2
2.88004	3.05360	14.50	26.00	3.57 2	-7.93 2	-3.84 2	8.32 2
2.84517	3.05423	9.80	46.00	6.04 1	-4.82 2	-6.82 1	5.03 2
2.81978	3.05517	8.60	58.00	3.44 1	-4.31 2	-4.02 1	4.50 2
2.85640	3.05530	10.50	41.00	8.10 1	-5.09 2	-9.02 1	5.31 2
2.86522	3.05822	11.00	38.00	9.91 1	-5.30 2	-1.10 2	5.54 2
2.89115	3.06105	16.00	23.00	6.75 2	-1.11 3	-7.20 2	1.17 3
2.84218	3.06156	9.20	51.00	4.66 1	-4.59 2	-5.34 1	4.79 2
2.88734	3.06181	14.00	27.00	3.01 2	-7.37 2	-3.24 2	7.72 2
2.75189	3.06221	7.00	86.00	1.29 1	-3.16 2	-1.68 1	3.31 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.77876	3.06224	7.40	77.00	1.72 1	-3.55 2	-2.15 1	3.72 2
2.83880	3.06253	9.00	53.00	4.25 1	-4.51 2	-4.89 1	4.71 2
2.81578	3.06270	8.20	63.00	2.81 1	-4.12 2	-3.34 1	4.30 2
2.79048	3.06292	7.60	73.00	1.97 1	-3.72 2	-2.42 1	3.89 2
2.80939	3.06365	8.00	66.00	2.51 1	-4.00 2	-3.01 1	4.18 2
2.84888	3.06384	9.40	49.00	5.13 1	-4.68 2	-5.84 1	4.88 2
2.86150	3.06594	10.00	44.00	6.70 1	-4.92 2	-7.52 1	5.13 2
2.82640	3.06599	8.40	60.00	3.15 1	-4.24 2	-3.71 1	4.42 2
2.77143	3.06627	7.20	81.00	1.51 1	-3.38 2	-1.92 1	3.54 2
2.83862	3.06664	8.80	55.00	3.87 1	-4.43 2	-4.49 1	4.62 2
2.80699	3.06864	7.80	69.00	2.25 1	-3.88 2	-2.73 1	4.06 2
2.85906	3.06954	9.60	47.00	5.66 1	-4.77 2	-6.41 1	4.97 2
2.88824	3.07160	12.00	33.00	1.47 2	-5.82 2	-1.61 2	6.08 2
2.84155	3.07381	8.60	57.00	3.54 1	-4.35 2	-4.13 1	4.54 2
2.76819	3.07477	7.00	85.00	1.32 1	-3.21 2	-1.71 1	3.36 2
2.75272	3.07543	6.80	90.00	1.13 1	-2.98 2	-1.50 1	3.13 2
2.88904	3.07573	11.50	35.00	1.23 2	-5.57 2	-1.35 2	5.82 2
2.79606	3.07610	7.40	76.00	1.76 1	-3.60 2	-2.20 1	3.76 2
2.80841	3.07752	7.60	72.00	2.02 1	-3.76 2	-2.47 1	3.93 2
2.89785	3.07760	12.50	31.00	1.78 2	-6.14 2	-1.94 2	6.42 2
2.87293	3.07885	9.80	45.00	6.27 1	-4.86 2	-7.05 1	5.07 2
2.78824	3.07951	7.20	80.00	1.55 1	-3.43 2	-1.96 1	3.59 2
2.83598	3.07973	8.20	62.00	2.89 1	-4.16 2	-3.42 1	4.34 2
2.82879	3.07985	8.00	65.00	2.58 1	-4.04 2	-3.08 1	4.22 2
2.86266	3.08329	9.00	52.00	4.38 1	-4.55 2	-5.03 1	4.75 2
2.86702	3.08329	9.20	50.00	4.82 1	-4.64 2	-5.50 1	4.84 2
2.88808	3.08379	10.50	40.00	8.45 1	-5.15 2	-9.38 1	5.37 2
2.84753	3.08398	8.40	59.00	3.24 1	-4.28 2	-3.80 1	4.46 2
2.82572	3.08412	7.80	68.00	2.31 1	-3.93 2	-2.79 1	4.10 2
2.86162	3.08653	8.80	54.00	3.99 1	-4.47 2	-4.61 1	4.67 2
2.87482	3.08667	9.40	48.00	5.31 1	-4.72 2	-6.02 1	4.92 2
2.78462	3.08750	7.00	84.00	1.36 1	-3.25 2	-1.75 1	3.41 2
2.76880	3.08759	6.80	89.00	1.16 1	-3.03 2	-1.53 1	3.18 2
2.89993	3.08967	11.00	37.00	1.04 2	-5.37 2	-1.14 2	5.60 2
2.81355	3.09018	7.40	75.00	1.81 1	-3.64 2	-2.24 1	3.81 2
2.89075	3.09204	10.00	43.00	6.96 1	-4.97 2	-7.78 1	5.18 2
2.82658	3.09237	7.60	71.00	2.07 1	-3.81 2	-2.52 1	3.98 2
2.86378	3.09292	8.60	56.00	3.65 1	-4.40 2	-4.23 1	4.58 2
2.80520	3.09295	7.20	79.00	1.59 1	-3.47 2	-2.00 1	3.63 2
2.88624	3.09360	9.60	46.00	5.87 1	-4.81 2	-6.62 1	5.02 2
2.84850	3.09638	8.00	64.00	2.65 1	-4.09 2	-3.15 1	4.26 2
2.85653	3.09713	8.20	61.00	2.97 1	-4.20 2	-3.50 1	4.38 2
2.84472	3.09989	7.80	67.00	2.37 1	-3.97 2	-2.85 1	4.14 2
2.78497	3.09990	6.80	88.00	1.19 1	-3.08 2	-1.56 1	3.23 2
2.80118	3.10041	7.00	83.00	1.39 1	-3.30 2	-1.78 1	3.46 2
2.86907	3.10240	8.40	58.00	3.34 1	-4.32 2	-3.89 1	4.50 2
2.83124	3.10450	7.40	74.00	1.86 1	-3.69 2	-2.29 1	3.85 2
2.88710	3.10463	9.00	51.00	4.53 1	-4.60 2	-5.17 1	4.79 2
2.89249	3.10567	9.20	49.00	4.98 1	-4.68 2	-5.66 1	4.88 2
2.82233	3.10660	7.20	78.00	1.63 1	-3.52 2	-2.03 1	3.68 2
2.88514	3.10696	8.80	53.00	4.12 1	-4.52 2	-4.74 1	4.71 2
2.84498	3.10749	7.60	70.00	2.12 1	-3.85 2	-2.58 1	4.02 2
2.80125	3.11236	6.80	87.00	1.22 1	-3.13 2	-1.59 1	3.27 2
2.88648	3.11253	8.60	55.00	3.76 1	-4.44 2	-4.34 1	4.62 2
2.86855	3.11326	8.00	63.00	2.72 1	-4.13 2	-3.23 1	4.31 2
2.81788	3.11349	7.00	82.00	1.42 1	-3.35 2	-1.81 1	3.50 2
2.87746	3.11493	8.20	60.00	3.05 1	-4.24 2	-3.58 1	4.43 2
2.86402	3.11598	7.80	66.00	2.43 1	-4.01 2	-2.91 1	4.18 2
2.84915	3.11906	7.40	73.00	1.90 1	-3.73 2	-2.33 1	3.90 2
2.83964	3.12046	7.20	77.00	1.67 1	-3.56 2	-2.08 1	3.72 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.89105	3.12128	8.40	57.00	3.43 1	-4.36 2	-3.99 1	4.54 2
2.86364	3.12290	7.60	69.00	2.18 1	-3.89 2	-2.63 1	4.06 2
2.81764	3.12498	6.80	86.00	1.25 1	-3.17 2	-1.62 1	3.32 2
2.83473	3.12676	7.00	81.00	1.46 1	-3.39 2	-1.85 1	3.55 2
2.88895	3.13051	8.00	62.00	2.80 1	-4.17 2	-3.30 1	4.35 2
2.88362	3.13240	7.80	65.00	2.50 1	-4.05 2	-2.98 1	4.23 2
2.89879	3.13315	8.20	59.00	3.14 1	-4.29 2	-3.67 1	4.47 2
2.86728	3.13388	7.40	72.00	1.95 1	-3.77 2	-2.38 1	3.94 2
2.85713	3.13454	7.20	76.00	1.71 1	-3.61 2	-2.12 1	3.77 2
2.83414	3.13777	6.80	85.00	1.28 1	-3.22 2	-1.65 1	3.37 2
2.88257	3.13860	7.60	68.00	2.23 1	-3.94 2	-2.69 1	4.11 2
2.85173	3.14023	7.00	80.00	1.50 1	-3.44 2	-1.88 1	3.60 2
2.82138	3.14094	6.60	90.00	1.10 1	-3.00 2	-1.44 1	3.14 2
2.87482	3.14884	7.20	75.00	1.75 1	-3.65 2	-2.16 1	3.81 2
2.88564	3.14896	7.40	71.00	2.00 1	-3.82 2	-2.43 1	3.98 2
2.85078	3.15073	6.80	84.00	1.31 1	-3.27 2	-1.68 1	3.42 2
2.83766	3.15333	6.60	89.00	1.12 1	-3.05 2	-1.47 1	3.19 2
2.86890	3.15390	7.00	79.00	1.53 1	-3.49 2	-1.92 1	3.64 2
2.89272	3.16339	7.20	74.00	1.79 1	-3.70 2	-2.20 1	3.86 2
2.86754	3.16386	6.80	83.00	1.34 1	-3.32 2	-1.71 1	3.46 2
2.85404	3.16587	6.60	88.00	1.15 1	-3.09 2	-1.50 1	3.24 2
2.88623	3.16777	7.00	78.00	1.57 1	-3.53 2	-1.96 1	3.69 2
2.88445	3.17718	6.80	82.00	1.38 1	-3.36 2	-1.74 1	3.51 2
2.87053	3.17857	6.60	87.00	1.18 1	-3.14 2	-1.53 1	3.28 2
2.88712	3.19143	6.60	86.00	1.21 1	-3.19 2	-1.55 1	3.33 2
2.89408	3.21043	6.40	90.00	1.06 1	-3.01 2	-1.38 1	3.15 2
2.90	3.05						
2.90566	3.07296	18.50	19.50	5.51 3	-5.92 3	-5.83 3	6.25 3
2.90626	3.07465	16.50	22.00	9.01 2	-1.34 3	-9.59 2	1.41 3
2.90012	3.07535	13.50	28.00	2.56 2	-6.92 2	-2.76 2	7.25 2
2.91000	3.07719	18.00	20.00	2.89 3	-3.33 3	-3.06 3	3.52 3
2.92752	3.09422	17.00	21.00	1.30 3	-1.74 3	-1.38 3	1.83 3
2.91852	3.09435	13.00	29.00	2.20 2	-6.57 2	-2.38 2	6.87 2
2.90152	3.10432	9.80	44.00	6.51 1	-4.91 2	-7.29 1	5.12 2
2.93726	3.10591	15.00	24.00	4.85 2	-9.22 2	-5.18 2	9.67 2
2.93614	3.10594	14.50	25.00	3.96 2	-8.33 2	-4.23 2	8.73 2
2.92964	3.10961	12.00	32.00	1.56 2	-5.93 2	-1.70 2	6.19 2
2.90146	3.11021	9.40	47.00	5.50 1	-4.77 2	-6.21 1	4.97 2
2.92755	3.11092	11.50	34.00	1.30 2	-5.66 2	-1.42 2	5.90 2
2.94630	3.11133	18.50	19.00	2.78 3	-2.89 3	-2.94 3	3.04 3
2.94081	3.11158	14.00	26.00	3.29 2	-7.67 2	-3.53 2	8.03 2
2.94425	3.11159	15.50	23.00	6.08 2	-1.04 3	-6.48 2	1.10 3
2.92089	3.11340	10.50	39.00	8.82 1	-5.20 2	-9.76 1	5.43 2
2.94930	3.11433	18.00	19.50	4.45 3	-4.96 3	-4.71 3	5.23 3
2.91421	3.11846	9.60	45.00	6.09 1	-4.86 2	-6.84 1	5.06 2
2.94272	3.11899	12.50	30.00	1.91 2	-6.78 2	-2.06 2	6.56 2
2.92095	3.11909	10.00	42.00	7.24 1	-5.02 2	-8.07 1	5.23 2
2.95533	3.12016	17.50	20.00	2.09 3	-2.50 3	-2.21 3	2.64 3
2.93601	3.12248	11.00	36.00	1.09 2	-5.44 2	-1.20 2	5.67 2
2.95125	3.12285	13.50	27.00	2.78 2	-7.15 2	-2.98 2	7.48 2
2.95730	3.12319	16.00	22.00	7.97 2	-1.23 3	-8.47 2	1.29 3
2.91215	3.12660	9.00	50.00	4.68 1	-4.64 2	-5.32 1	4.83 2
2.90921	3.12795	8.80	52.00	4.25 1	-4.56 2	-4.87 1	4.75 2
2.91865	3.12873	9.20	48.00	5.16 1	-4.72 2	-5.84 1	4.92 2
2.93100	3.13067	9.80	43.00	6.76 1	-4.96 2	-7.55 1	5.17 2
2.90968	3.13265	8.60	54.00	3.88 1	-4.48 2	-4.46 1	4.67 2
2.92887	3.13451	9.40	46.00	5.70 1	-4.81 2	-6.41 1	5.01 2
2.96756	3.13983	13.00	28.00	2.37 2	-6.76 2	-2.55 2	7.06 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.91348	3.14062	8.40	56.00	3.54 1	-4.40 2	-4.09 1	4.59 2
2.97670	3.14097	16.50	21.00	1.11 3	-1.55 3	-1.18 3	1.63 3
2.94303	3.14417	9.60	44.00	6.32 1	-4.91 2	-7.07 1	5.11 2
2.95490	3.14421	10.50	38.00	9.23 1	-5.26 2	-1.02 2	5.48 2
2.95214	3.14714	10.00	41.00	7.54 1	-5.07 2	-8.37 1	5.28 2
2.96775	3.14778	11.50	33.00	1.37 2	-5.75 2	-1.49 2	5.99 2
2.90971	3.14814	8.00	61.00	2.88 1	-4.21 2	-3.38 1	4.39 2
2.90354	3.14916	7.80	64.00	2.57 1	-4.10 2	-3.04 1	4.27 2
2.93785	3.14921	9.00	49.00	4.84 1	-4.68 2	-5.48 1	4.87 2
2.93386	3.14953	8.80	51.00	4.39 1	-4.60 2	-5.01 1	4.79 2
2.97301	3.14957	12.00	31.00	1.66 2	-6.04 2	-1.80 2	6.30 2
2.92054	3.15180	8.20	58.00	3.23 1	-4.33 2	-3.76 1	4.51 2
2.94552	3.15251	9.20	47.00	5.34 1	-4.77 2	-6.02 1	4.96 2
2.99026	3.15309	18.00	19.00	6.79 3	-7.31 3	-7.17 3	7.70 3
2.93341	3.15331	8.60	53.00	4.00 1	-4.52 2	-4.58 1	4.71 2
2.90178	3.15460	7.60	67.00	2.29 1	-3.98 2	-2.75 1	4.15 2
2.97355	3.15676	11.00	35.00	1.15 2	-5.51 2	-1.25 2	5.74 2
2.99496	3.15764	17.50	19.50	2.61 3	-3.03 3	-2.76 3	3.19 3
2.96143	3.15796	9.80	42.00	7.03 1	-5.01 2	-7.82 1	5.21 2
2.95707	3.15962	9.40	45.00	5.91 1	-4.86 2	-6.63 1	5.06 2
2.93639	3.16046	8.40	55.00	3.65 1	-4.44 2	-4.20 1	4.63 2
2.99585	3.16183	14.50	24.00	4.42 2	-8.80 2	-4.71 2	9.21 2
2.98989	3.16267	12.50	29.00	2.04 2	-6.43 2	-2.20 2	6.71 2
2.90426	3.16431	7.40	70.00	2.05 1	-3.86 2	-2.48 1	4.03 2
2.99756	3.16461	14.00	25.00	3.63 2	-8.03 2	-3.88 2	8.39 2
3.00030	3.16506	15.00	23.00	5.51 2	-9.89 2	-5.86 2	1.04 3
3.00284	3.16534	17.00	20.00	1.77 3	-2.21 3	-1.87 3	2.33 3
2.93085	3.16618	8.00	60.00	2.96 1	-4.25 2	-3.46 1	4.43 2
2.92380	3.16627	7.80	63.00	2.64 1	-4.14 2	-3.11 1	4.31 2
2.97274	3.17077	9.60	43.00	6.56 1	-4.96 2	-7.32 1	5.16 2
2.94273	3.17091	8.20	57.00	3.33 1	-4.37 2	-3.86 1	4.55 2
2.92129	3.17092	7.60	66.00	2.36 1	-4.02 2	-2.81 1	4.19 2
2.95914	3.17173	8.80	50.00	4.54 1	-4.64 2	-5.15 1	4.83 2
2.96423	3.17252	9.00	48.00	5.00 1	-4.72 2	-5.65 1	4.91 2
3.00538	3.17332	13.50	26.00	3.03 2	-7.42 2	-3.24 2	7.75 2
3.01107	3.17444	15.50	22.00	7.10 2	-1.15 3	-7.54 2	1.20 3
2.95771	3.17454	8.60	52.00	4.13 1	-4.56 2	-4.71 1	4.75 2
2.98441	3.17625	10.00	40.00	7.86 1	-5.12 2	-8.69 1	5.33 2
2.99021	3.17630	10.50	37.00	9.66 1	-5.33 2	-1.06 2	5.55 2
2.97315	3.17706	9.20	46.00	5.53 1	-4.81 2	-6.21 1	5.00 2
2.91083	3.17818	7.20	73.00	1.84 1	-3.74 2	-2.25 1	3.90 2
2.92313	3.17994	7.40	69.00	2.11 1	-3.91 2	-2.54 1	4.07 2
2.95982	3.18081	8.40	54.00	3.76 1	-4.49 2	-4.32 1	4.67 2
2.90374	3.18186	7.00	77.00	1.61 1	-3.58 2	-2.00 1	3.73 2
2.94440	3.18375	7.80	62.00	2.71 1	-4.18 2	-3.19 1	4.35 2
2.95240	3.18463	8.00	59.00	3.04 1	-4.30 2	-3.55 1	4.47 2
2.98611	3.18557	9.40	44.00	6.13 1	-4.90 2	-6.85 1	5.10 2
2.99286	3.18627	9.80	41.00	7.32 1	-5.06 2	-8.12 1	5.26 2
3.00978	3.18646	11.50	32.00	1.45 2	-5.84 2	-1.57 2	6.09 2
2.94110	3.18757	7.60	65.00	2.42 1	-4.07 2	-2.87 1	4.23 2
3.01934	3.18803	13.00	27.00	2.57 2	-6.97 2	-2.75 2	7.27 2
3.02842	3.19024	16.00	21.00	9.67 2	-1.40 3	-1.02 3	1.47 3
2.96539	3.19049	8.20	56.00	3.43 1	-4.41 2	-3.96 1	4.59 2
2.90150	3.19069	6.80	81.00	1.41 1	-3.41 2	-1.78 1	3.56 2
3.01852	3.19165	12.00	30.00	1.77 2	-6.17 2	-1.91 2	6.43 2
3.01268	3.19261	11.00	34.00	1.21 2	-5.59 2	-1.31 2	5.82 2
2.92917	3.19323	7.20	72.00	1.89 1	-3.79 2	-2.30 1	3.95 2
3.03301	3.19371	18.00	18.50	-3.49 3	3.61 3	3.67 3	-3.80 3
2.98506	3.19459	8.80	49.00	4.69 1	-4.68 2	-5.31 1	4.87 2
2.94227	3.19588	7.40	68.00	2.16 1	-3.95 2	-2.59 1	4.11 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.92145	3.19618	7.00	76.00	1.65 1	-3.62 2	-2.04 1	3.78 2
2.98259	3.19636	8.60	51.00	4.26 1	-4.60 2	-4.85 1	4.79 2
2.99133	3.19655	9.00	47.00	5.18 1	-4.77 2	-5.83 1	4.96 2
3.03628	3.19677	17.50	19.00	3.04 3	-3.40 3	-3.20 3	3.58 3
3.00341	3.19832	9.60	42.00	6.83 1	-5.00 2	-7.58 1	5.20 2
2.96538	3.20162	7.80	61.00	2.79 1	-4.22 2	-3.26 1	4.39 2
2.98377	3.20172	8.40	53.00	3.88 1	-4.53 2	-4.43 1	4.71 2
3.00158	3.20242	9.20	45.00	5.73 1	-4.86 2	-6.42 1	5.05 2
3.04283	3.20321	17.00	19.50	2.19 3	-2.64 3	-2.31 3	2.78 3
2.97436	3.20352	8.00	58.00	3.13 1	-4.24 2	-3.64 1	4.51 2
2.91871	3.20439	6.80	80.00	1.45 1	-3.46 2	-1.81 1	3.60 2
2.90384	3.20446	6.60	85.00	1.24 1	-3.24 2	-1.58 1	3.38 2
2.96123	3.20456	7.60	64.00	2.48 1	-4.11 2	-2.94 1	4.27 2
3.01782	3.20651	10.00	39.00	8.20 1	-5.18 2	-9.04 1	5.38 2
2.94775	3.20854	7.20	71.00	1.94 1	-3.83 2	-2.34 1	3.99 2
3.03959	3.20886	12.50	28.00	2.19 2	-6.60 2	-2.36 2	6.88 2
3.02690	3.20977	10.50	36.00	1.01 2	-5.39 2	-1.11 2	5.61 2
2.98852	3.21057	8.20	55.00	3.53 1	-4.45 2	-4.06 1	4.63 2
2.93935	3.21072	7.00	75.00	1.69 1	-3.67 2	-2.08 1	3.82 2
2.96169	3.21211	7.40	67.00	2.22 1	-3.99 2	-2.65 1	4.16 2
3.01606	3.21243	9.40	43.00	6.37 1	-4.95 2	-7.09 1	5.15 2
3.02537	3.21565	9.80	40.00	7.63 1	-5.11 2	-8.43 1	5.31 2
2.92069	3.21766	6.60	84.00	1.27 1	-3.28 2	-1.61 1	3.43 2
3.01167	3.21815	8.80	48.00	4.85 1	-4.73 2	-5.47 1	4.91 2
2.93609	3.21829	6.80	79.00	1.48 1	-3.50 2	-1.85 1	3.65 2
3.00809	3.21882	8.60	50.00	4.40 1	-4.65 2	-4.99 1	4.83 2
2.98674	3.21990	7.80	60.00	2.86 1	-4.26 2	-3.34 1	4.43 2
3.01919	3.22136	9.00	46.00	5.37 1	-4.81 2	-6.02 1	5.00 2
2.98171	3.22191	7.60	63.00	2.55 1	-4.15 2	-3.01 1	4.32 2
2.99678	3.22287	8.00	57.00	3.22 1	-4.38 2	-3.73 1	4.55 2
2.91058	3.22307	6.40	89.00	1.08 1	-3.06 2	-1.41 1	3.20 2
3.00829	3.22319	8.40	52.00	4.00 1	-4.57 2	-4.56 1	4.75 2
2.96657	3.22413	7.20	70.00	1.99 1	-3.88 2	-2.39 1	4.04 2
2.95746	3.22550	7.00	74.00	1.73 1	-3.71 2	-2.12 1	3.87 2
3.03509	3.22689	9.60	41.00	7.10 1	-5.05 2	-7.86 1	5.25 2
3.03087	3.22864	9.20	44.00	5.95 1	-4.90 2	-6.64 1	5.09 2
2.98141	3.22867	7.40	66.00	2.28 1	-4.04 2	-2.71 1	4.20 2
2.93767	3.23104	6.60	83.00	1.30 1	-3.33 2	-1.64 1	3.48 2
3.01217	3.23117	8.20	54.00	3.64 1	-4.49 2	-4.17 1	4.67 2
2.95364	3.23241	6.80	78.00	1.52 1	-3.55 2	-1.88 1	3.70 2
2.92718	3.23586	6.40	88.00	1.11 1	-3.11 2	-1.44 1	3.25 2
3.00851	3.23859	7.80	59.00	2.95 1	-4.30 2	-3.42 1	4.47 2
3.00254	3.23964	7.60	62.00	2.62 1	-4.19 2	-3.08 1	4.36 2
2.98566	3.24001	7.20	69.00	2.04 1	-3.92 2	-2.44 1	4.08 2
3.04698	3.24025	9.40	42.00	6.62 1	-5.00 2	-7.35 1	5.19 2
2.97579	3.24054	7.00	73.00	1.78 1	-3.76 2	-2.16 1	3.91 2
3.03425	3.24193	8.60	49.00	4.55 1	-4.69 2	-5.14 1	4.87 2
3.03901	3.24244	8.80	47.00	5.02 1	-4.77 2	-5.64 1	4.95 2
3.01965	3.24270	8.00	56.00	3.32 1	-4.42 2	-3.82 1	4.59 2
2.95479	3.24460	6.60	82.00	1.33 1	-3.38 2	-1.67 1	3.52 2
3.03341	3.24527	8.40	51.00	4.13 1	-4.61 2	-4.69 1	4.79 2
3.00144	3.24556	7.40	65.00	2.34 1	-4.08 2	-2.77 1	4.24 2
2.97137	3.24674	6.80	77.00	1.56 1	-3.59 2	-1.92 1	3.74 2
3.04787	3.24697	9.00	45.00	5.56 1	-4.86 2	-6.21 1	5.04 2
2.94388	3.24881	6.40	87.00	1.14 1	-3.16 2	-1.46 1	3.30 2
3.03636	3.25233	8.20	53.00	3.75 1	-4.53 2	-4.28 1	4.71 2
2.99435	3.25583	7.00	72.00	1.82 1	-3.80 2	-2.21 1	3.96 2
3.00502	3.25618	7.20	68.00	2.09 1	-3.96 2	-2.50 1	4.12 2
3.03070	3.25773	7.80	58.00	3.03 1	-4.35 2	-3.51 1	4.51 2
3.02374	3.25775	7.60	61.00	2.70 1	-4.23 2	-3.15 1	4.40 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
2.97206	3.25835	6.60	81.00	1.36 1	-3.43 2	-1.71 1	3.57 2
2.98929	3.26130	6.80	76.00	1.59 1	-3.64 2	-1.96 1	3.79 2
2.96070	3.26192	6.40	86.00	1.16 1	-3.21 2	-1.49 1	3.34 2
3.02180	3.26280	7.40	64.00	2.40 1	-4.12 2	-2.83 1	4.28 2
3.04302	3.26303	8.00	55.00	3.42 1	-4.46 2	-3.92 1	4.63 2
3.01315	3.27138	7.00	71.00	1.87 1	-3.85 2	-2.26 1	4.00 2
2.98950	3.27230	6.60	80.00	1.40 1	-3.47 2	-1.74 1	3.62 2
3.02467	3.27267	7.20	67.00	2.15 1	-4.01 2	-2.55 1	4.16 2
2.97764	3.27519	6.40	85.00	1.19 1	-3.25 2	-1.52 1	3.39 2
3.00742	3.27609	6.80	75.00	1.63 1	-3.68 2	-2.00 1	3.83 2
3.04533	3.27628	7.60	60.00	2.77 1	-4.27 2	-3.22 1	4.44 2
3.04250	3.28040	7.40	63.00	2.47 1	-4.16 2	-2.90 1	4.32 2
2.97122	3.28430	6.20	90.00	1.02 1	-3.03 2	-1.33 1	3.16 2
3.00709	3.28645	6.60	79.00	1.43 1	-3.52 2	-1.77 1	3.66 2
3.03220	3.28722	7.00	70.00	1.92 1	-3.89 2	-2.30 1	4.04 2
2.99471	3.28864	6.40	84.00	1.22 1	-3.30 2	-1.55 1	3.44 2
3.04462	3.28948	7.20	66.00	2.20 1	-4.05 2	-2.61 1	4.21 2
3.02575	3.29112	6.80	74.00	1.68 1	-3.73 2	-2.04 1	3.88 2
2.98794	3.29719	6.20	89.00	1.04 1	-3.08 2	-1.35 1	3.21 2
3.02487	3.30082	6.60	78.00	1.47 1	-3.56 2	-1.81 1	3.71 2
3.01192	3.30228	6.40	83.00	1.25 1	-3.35 2	-1.58 1	3.49 2
3.04431	3.30640	6.80	73.00	1.72 1	-3.77 2	-2.08 1	3.92 2
3.00477	3.31024	6.20	88.00	1.07 1	-3.13 2	-1.38 1	3.26 2
3.04283	3.31540	6.60	77.00	1.50 1	-3.61 2	-1.84 1	3.75 2
3.02927	3.31609	6.40	82.00	1.28 1	-3.39 2	-1.61 1	3.53 2
3.02170	3.32345	6.20	87.00	1.10 1	-3.18 2	-1.40 1	3.31 2
3.04677	3.33010	6.40	81.00	1.31 1	-3.44 2	-1.64 1	3.58 2
3.03875	3.33682	6.20	86.00	1.12 1	-3.22 2	-1.43 1	3.36 2
3.05	3.20						
3.05272	3.21283	16.50	20.00	1.45 3	-1.88 3	-1.53 3	1.98 3
3.05795	3.22123	14.00	24.00	4.04 2	-8.44 2	-4.30 2	8.82 2
3.05959	3.22172	14.50	23.00	4.99 2	-9.39 2	-5.30 2	9.81 2
3.06281	3.22707	13.50	25.00	3.33 2	-7.74 2	-3.55 2	8.08 2
3.05380	3.22712	11.50	31.00	1.54 2	-5.95 2	-1.66 2	6.19 2
3.06783	3.22866	15.00	22.00	6.38 2	-1.08 3	-6.76 2	1.13 3
3.05352	3.23016	11.00	33.00	1.27 2	-5.68 2	-1.38 2	5.90 2
3.06636	3.23604	12.00	29.00	1.89 2	-6.31 2	-2.03 2	6.56 2
3.07939	3.23771	17.50	18.50	4.19 3	-4.52 3	-4.41 3	4.75 3
3.05245	3.23798	10.00	38.00	8.57 1	-5.23 2	-9.41 1	5.44 2
3.07415	3.23923	13.00	26.00	2.79 2	-7.21 2	-2.98 2	7.51 2
3.08290	3.24224	15.50	21.00	8.48 2	-1.29 3	-8.97 2	1.35 3
3.08451	3.24273	17.00	19.00	2.72 3	-3.16 3	-2.86 3	3.32 3
3.06508	3.24474	10.50	35.00	1.06 2	-5.46 2	-1.16 2	5.68 2
3.05903	3.24617	9.80	39.00	7.96 1	-5.17 2	-8.76 1	5.37 2
3.09308	3.25108	16.50	19.50	1.71 3	-2.15 3	-1.80 3	2.25 3
3.06107	3.25576	9.20	43.00	6.18 1	-4.95 2	-6.87 1	5.14 2
3.06785	3.25654	9.60	40.00	7.40 1	-5.10 2	-8.17 1	5.30 2
3.09207	3.25780	12.50	27.00	2.37 2	-6.79 2	-2.54 2	7.07 2
3.10517	3.26286	16.00	20.00	1.22 3	-1.65 3	-1.29 3	1.73 3
3.06110	3.26575	8.60	48.00	4.70 1	-4.73 2	-5.29 1	4.91 2
3.06712	3.26751	8.80	46.00	5.20 1	-4.81 2	-5.82 1	4.99 2
3.05915	3.26798	8.40	50.00	4.26 1	-4.65 2	-4.82 1	4.83 2
3.07891	3.26909	9.40	41.00	6.89 1	-5.05 2	-7.62 1	5.24 2
3.09623	3.26956	11.00	32.00	1.35 2	-5.77 2	-1.46 2	5.99 2
3.09999	3.26993	11.50	30.00	1.64 2	-6.06 2	-1.77 2	6.30 2
3.08839	3.27076	10.00	37.00	8.97 1	-5.29 2	-9.82 1	5.49 2
3.07741	3.27346	9.00	44.00	5.77 1	-4.90 2	-6.42 1	5.08 2
3.06112	3.27406	8.20	52.00	3.87 1	-4.57 2	-4.40 1	4.75 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.05335	3.27733	7.80	57.00	3.12 1	-4.39 2	-3.60 1	4.55 2
3.09393	3.27793	9.80	38.00	8.31 1	-5.22 2	-9.12 1	5.42 2
3.12445	3.28045	17.50	18.00	1.46 3	-1.53 3	-1.54 3	1.60 3
3.10487	3.28129	10.50	34.00	1.12 2	-5.54 2	-1.22 2	5.75 2
3.12242	3.28190	14.00	23.00	4.53 2	-8.95 2	-4.81 2	9.34 2
3.11677	3.28298	12.00	28.00	2.03 2	-6.46 2	-2.18 2	6.72 2
3.09223	3.28385	9.20	42.00	6.42 1	-4.99 2	-7.11 1	5.18 2
3.06691	3.28389	8.00	54.00	3.52 1	-4.50 2	-4.03 1	4.67 2
3.12800	3.28408	17.00	18.50	4.18 3	-4.69 3	-4.39 3	4.92 3
3.12393	3.28447	13.50	24.00	3.69 2	-8.11 2	-3.92 2	8.45 2
3.12785	3.28609	14.50	22.00	5.73 2	-1.01 3	-6.06 2	1.06 3
3.10177	3.28735	9.60	39.00	7.72 1	-5.16 2	-8.49 1	5.35 2
3.08868	3.29031	8.60	47.00	4.87 1	-4.77 2	-5.46 1	4.95 2
3.13514	3.29100	16.50	19.00	2.02 3	-2.45 3	-2.13 3	2.57 3
3.08555	3.29136	8.40	49.00	4.41 1	-4.69 2	-4.97 1	4.87 2
3.09604	3.29340	8.80	45.00	5.39 1	-4.85 2	-6.01 1	5.03 2
3.13232	3.29376	13.00	25.00	3.06 2	-7.49 2	-3.26 2	7.80 2
3.06733	3.29523	7.60	59.00	2.85 1	-4.32 2	-3.30 1	4.48 2
3.08647	3.29640	8.20	51.00	4.00 1	-4.61 2	-4.53 1	4.79 2
3.14040	3.29725	15.00	21.00	7.53 2	-1.20 3	-7.96 2	1.25 3
3.07646	3.29742	7.80	56.00	3.21 1	-4.43 2	-3.69 1	4.59 2
3.06356	3.29838	7.40	62.00	2.54 1	-4.20 2	-2.96 1	4.36 2
3.11194	3.29902	9.40	40.00	7.18 1	-5.10 2	-7.91 1	5.29 2
3.10786	3.30086	9.00	43.00	5.99 1	-4.94 2	-6.65 1	5.13 2
3.14591	3.30152	16.00	19.50	1.40 3	-1.84 3	-1.48 3	1.93 3
3.05151	3.30335	7.00	69.00	1.97 1	-3.93 2	-2.35 1	4.09 2
3.12575	3.30495	10.00	36.00	9.40 1	-5.35 2	-1.02 2	5.55 2
3.09134	3.30531	8.00	53.00	3.63 1	-4.54 2	-4.14 1	4.71 2
3.06488	3.30662	7.20	65.00	2.26 1	-4.09 2	-2.67 1	4.25 2
3.14761	3.30977	12.50	26.00	2.57 2	-7.01 2	-2.74 2	7.29 2
3.14095	3.31096	11.00	31.00	1.43 2	-5.86 2	-1.54 2	6.09 2
3.13014	3.31100	9.80	37.00	8.70 1	-5.28 2	-9.51 1	5.47 2
3.12443	3.31298	9.20	41.00	6.68 1	-5.04 2	-7.37 1	5.23 2
3.08976	3.31463	7.60	58.00	2.93 1	-4.36 2	-3.39 1	4.52 2
3.14855	3.31508	11.50	29.00	1.75 2	-6.19 2	-1.88 2	6.43 2
3.11265	3.31545	8.40	48.00	4.56 1	-4.73 2	-5.12 1	4.90 2
3.11705	3.31565	8.60	46.00	5.04 1	-4.81 2	-5.63 1	4.99 2
3.16042	3.31568	15.50	20.00	1.05 3	-1.48 3	-1.10 3	1.55 3
3.08499	3.31675	7.40	61.00	2.61 1	-4.24 2	-3.03 1	4.40 2
3.10007	3.31801	7.80	55.00	3.31 1	-4.47 2	-3.79 1	4.63 2
3.11246	3.31938	8.20	50.00	4.13 1	-4.65 2	-4.66 1	4.82 2
3.13694	3.31939	9.60	38.00	8.06 1	-5.21 2	-8.83 1	5.40 2
3.14641	3.31958	10.50	33.00	1.18 2	-5.61 2	-1.28 2	5.82 2
3.07110	3.31978	7.00	68.00	2.02 1	-3.98 2	-2.40 1	4.13 2
3.12584	3.32016	8.80	44.00	5.59 1	-4.90 2	-6.21 1	5.08 2
3.06309	3.32195	6.80	72.00	1.76 1	-3.82 2	-2.12 1	3.97 2
3.08547	3.32411	7.20	64.00	2.32 1	-4.13 2	-2.73 1	4.29 2
3.11634	3.32731	8.00	52.00	3.75 1	-4.58 2	-4.25 1	4.75 2
3.17346	3.32733	17.00	18.00	5.25 3	-5.67 3	-5.51 3	5.94 3
3.13929	3.32924	9.00	42.00	6.22 1	-4.99 2	-6.88 1	5.17 2
3.14613	3.33012	9.40	39.00	7.49 1	-5.15 2	-8.22 1	5.34 2
3.06098	3.33022	6.60	76.00	1.54 1	-3.65 2	-1.88 1	3.80 2
3.16998	3.33270	12.00	27.00	2.19 2	-6.63 2	-2.34 2	6.89 2
3.17903	3.33277	16.50	18.50	2.60 3	-3.04 3	-2.73 3	3.18 3
3.11265	3.33449	7.60	57.00	3.02 1	-4.40 2	-3.47 1	4.56 2
3.10682	3.33554	7.40	60.00	2.68 1	-4.29 2	-3.11 1	4.44 2
3.09098	3.33652	7.00	67.00	2.07 1	-4.02 2	-2.46 1	4.17 2
3.08213	3.33776	6.80	71.00	1.81 1	-3.86 2	-2.17 1	4.01 2
3.12421	3.33914	7.80	54.00	3.41 1	-4.51 2	-3.89 1	4.67 2
3.14049	3.34029	8.40	47.00	4.71 1	-4.77 2	-5.27 1	4.94 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.16462	3.34065	10.00	35.00	9.86 1	-5.42 2	-1.07 2	5.62 2
3.14623	3.34182	8.60	45.00	5.22 1	-4.85 2	-5.81 1	5.03 2
3.18837	3.34187	16.00	19.00	1.62 3	-2.05 3	-1.70 3	2.14 3
3.10641	3.34198	7.20	63.00	2.38 1	-4.17 2	-2.79 1	4.33 2
3.13912	3.34304	8.20	49.00	4.27 1	-4.69 2	-4.80 1	4.86 2
3.15773	3.34320	9.20	40.00	6.96 1	-5.09 2	-7.65 1	5.27 2
3.06443	3.34431	6.40	80.00	1.35 1	-3.49 2	-1.67 1	3.63 2
3.07934	3.34526	6.60	75.00	1.58 1	-3.70 2	-1.92 1	3.84 2
3.16778	3.34548	9.80	36.00	9.11 1	-5.34 2	-9.92 1	5.53 2
3.18917	3.34594	13.50	23.00	4.12 2	-8.55 2	-4.36 2	8.90 2
3.19145	3.34709	14.00	22.00	5.16 2	-9.60 2	-5.46 2	1.00 3
3.15656	3.34785	8.80	43.00	5.80 1	-4.94 2	-6.43 1	5.12 2
3.14195	3.34992	8.00	51.00	3.87 1	-4.62 2	-4.37 1	4.79 2
3.05593	3.35036	6.20	85.00	1.15 1	-3.27 2	-1.45 1	3.40 2
3.19420	3.35197	13.00	24.00	3.37 2	-7.82 2	-3.58 2	8.13 2
3.17343	3.35276	9.60	37.00	8.43 1	-5.27 2	-9.21 1	5.46 2
3.11117	3.35359	7.00	66.00	2.13 1	-4.06 2	-2.51 1	4.21 2
3.10141	3.35386	6.80	70.00	1.85 1	-3.91 2	-2.21 1	4.05 2
3.18787	3.35454	11.00	30.00	1.52 2	-5.97 2	-1.63 2	6.19 2
3.12907	3.35476	7.40	59.00	2.76 1	-4.33 2	-3.18 1	4.48 2
3.13601	3.35484	7.60	56.00	3.11 1	-4.44 2	-3.56 1	4.60 2
3.17176	3.35865	9.00	41.00	6.47 1	-5.04 2	-7.13 1	5.22 2
3.08227	3.35873	6.40	79.00	1.38 1	-3.53 2	-1.70 1	3.67 2
3.18983	3.35975	10.50	32.00	1.25 2	-5.70 2	-1.35 2	5.91 2
3.12771	3.36022	7.20	62.00	2.45 1	-4.22 2	-2.85 1	4.37 2
3.09791	3.36056	6.60	74.00	1.62 1	-3.74 2	-1.96 1	3.89 2
3.14889	3.36083	7.80	53.00	3.52 1	-4.55 2	-3.99 1	4.71 2
3.18157	3.36246	9.40	38.00	7.82 1	-5.20 2	-8.55 1	5.39 2
3.19970	3.36281	11.50	28.00	1.87 2	-6.33 2	-2.01 2	6.57 2
3.05323	3.36297	6.00	90.00	9.82 0	-3.05 2	-1.27 1	3.17 2
3.07323	3.36408	6.20	84.00	1.18 1	-3.32 2	-1.48 1	3.45 2
3.16912	3.36592	8.40	46.00	4.88 1	-4.81 2	-5.44 1	4.98 2
3.16648	3.36741	8.20	48.00	4.41 1	-4.74 2	-4.94 1	4.90 2
3.17630	3.36887	8.60	44.00	5.42 1	-4.90 2	-6.01 1	5.07 2
3.12097	3.37025	6.80	69.00	1.90 1	-3.95 2	-2.26 1	4.10 2
3.13167	3.37100	7.00	65.00	2.18 1	-4.10 2	-2.57 1	4.26 2
3.16820	3.37318	8.00	50.00	3.99 1	-4.66 2	-4.50 1	4.82 2
3.10028	3.37336	6.40	78.00	1.41 1	-3.58 2	-1.73 1	3.72 2
3.15175	3.37442	7.40	58.00	2.83 1	-4.37 2	-3.26 1	4.52 2
3.19220	3.37460	9.20	39.00	7.25 1	-5.14 2	-7.95 1	5.32 2
3.15987	3.37571	7.60	55.00	3.20 1	-4.48 2	-3.65 1	4.64 2
3.11670	3.37610	6.60	73.00	1.66 1	-3.79 2	-2.00 1	3.93 2
3.07019	3.37614	6.00	89.00	1.01 1	-3.10 2	-1.29 1	3.22 2
3.18826	3.37652	8.80	42.00	6.03 1	-4.99 2	-6.66 1	5.16 2
3.09068	3.37797	6.20	83.00	1.21 1	-3.37 2	-1.51 1	3.50 2
3.14939	3.37886	7.20	61.00	2.52 1	-4.26 2	-2.92 1	4.41 2
3.17415	3.38311	7.80	52.00	3.63 1	-4.59 2	-4.10 1	4.75 2
3.14080	3.38695	6.80	68.00	1.95 1	-3.99 2	-2.31 1	4.14 2
3.11848	3.38821	6.40	77.00	1.45 1	-3.63 2	-1.77 1	3.77 2
3.15251	3.38876	7.00	64.00	2.24 1	-4.15 2	-2.62 1	4.30 2
3.08726	3.38946	6.00	88.00	1.03 1	-3.14 2	-1.32 1	3.27 2
3.13573	3.39192	6.60	72.00	1.70 1	-3.83 2	-2.04 1	3.98 2
3.10827	3.39206	6.20	82.00	1.24 1	-3.41 2	-1.54 1	3.55 2
3.19858	3.39237	8.40	45.00	5.06 1	-4.86 2	-5.62 1	5.03 2
3.19459	3.39253	8.20	47.00	4.56 1	-4.78 2	-5.09 1	4.94 2
3.17489	3.39456	7.40	57.00	2.92 1	-4.41 2	-3.34 1	4.56 2
3.18426	3.39712	7.60	54.00	3.30 1	-4.52 2	-3.75 1	4.68 2
3.19512	3.39712	8.00	49.00	4.13 1	-4.70 2	-4.63 1	4.86 2
3.17147	3.39792	7.20	60.00	2.59 1	-4.30 2	-2.99 1	4.45 2
3.10444	3.40294	6.00	87.00	1.06 1	-3.19 2	-1.34 1	3.32 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.13687	3.40329	6.40	76.00	1.48 1	-3.67 2	-1.80 1	3.81 2
3.16093	3.40395	6.80	67.00	2.00 1	-4.03 2	-2.36 1	4.18 2
3.12602	3.40634	6.20	81.00	1.27 1	-3.46 2	-1.57 1	3.59 2
3.17370	3.40689	7.00	63.00	2.30 1	-4.19 2	-2.68 1	4.34 2
3.15501	3.40800	6.60	71.00	1.74 1	-3.88 2	-2.08 1	4.02 2
3.19851	3.41519	7.40	56.00	3.00 1	-4.45 2	-3.43 1	4.60 2
3.12174	3.41659	6.00	86.00	1.08 1	-3.24 2	-1.37 1	3.37 2
3.19397	3.41741	7.20	59.00	2.66 1	-4.34 2	-3.07 1	4.49 2
3.15548	3.41861	6.40	75.00	1.52 1	-3.72 2	-1.84 1	3.86 2
3.14393	3.42082	6.20	80.00	1.30 1	-3.51 2	-1.60 1	3.64 2
3.18136	3.42130	6.80	66.00	2.05 1	-4.08 2	-2.41 1	4.22 2
3.17454	3.42437	6.60	70.00	1.79 1	-3.92 2	-2.13 1	4.06 2
3.19525	3.42541	7.00	62.00	2.36 1	-4.23 2	-2.75 1	4.38 2
3.13916	3.43041	6.00	85.00	1.11 1	-3.29 2	-1.39 1	3.42 2
3.17429	3.43417	6.40	74.00	1.56 1	-3.76 2	-1.88 1	3.90 2
3.16201	3.43551	6.20	79.00	1.33 1	-3.55 2	-1.63 1	3.69 2
3.19435	3.44103	6.60	69.00	1.83 1	-3.96 2	-2.17 1	4.11 2
3.15672	3.44440	6.00	84.00	1.13 1	-3.34 2	-1.42 1	3.46 2
3.14062	3.44696	5.80	90.00	9.45 0	-3.07 2	-1.21 1	3.19 2
3.19334	3.45000	6.40	73.00	1.60 1	-3.81 2	-1.92 1	3.94 2
3.18027	3.45042	6.20	78.00	1.36 1	-3.60 2	-1.66 1	3.73 2
3.17442	3.45858	6.00	83.00	1.16 1	-3.38 2	-1.44 1	3.51 2
3.15784	3.46041	5.80	89.00	9.67 0	-3.11 2	-1.23 1	3.24 2
3.19872	3.46555	6.20	77.00	1.39 1	-3.64 2	-1.69 1	3.78 2
3.19226	3.47295	6.00	82.00	1.19 1	-3.43 2	-1.47 1	3.56 2
3.17517	3.47402	5.80	88.00	9.91 0	-3.16 2	-1.26 1	3.29 2
3.19261	3.48779	5.80	87.00	1.01 1	-3.21 2	-1.28 1	3.33 2
3.20	3.35						
3.20156	3.35476	15.50	19.50	1.18 3	-1.62 3	-1.24 3	1.69 3
3.20121	3.35552	14.50	21.00	6.69 2	-1.11 3	-7.05 2	1.16 3
3.20654	3.36511	12.50	25.00	2.81 2	-7.26 2	-2.98 2	7.54 2
3.21872	3.37154	15.00	20.00	9.15 2	-1.36 3	-9.63 2	1.42 3
3.22103	3.37283	17.00	17.50	-2.20 3	2.27 3	2.30 3	-2.39 3
3.22490	3.37645	16.50	18.00	3.05 3	-3.43 3	-3.19 3	3.59 3
3.20513	3.37797	10.00	34.00	1.04 2	-5.49 2	-1.12 2	5.68 2
3.20694	3.38149	9.80	35.00	9.56 1	-5.40 2	-1.04 2	5.59 2
3.23268	3.38407	16.00	18.50	1.96 3	-2.39 3	-2.06 3	2.50 3
3.22630	3.38550	12.00	26.00	2.37 2	-6.82 2	-2.52 2	7.08 2
3.21136	3.38756	9.60	36.00	8.83 1	-5.32 2	-9.61 1	5.51 2
3.20534	3.38917	9.00	40.00	6.74 1	-5.08 2	-7.40 1	5.26 2
3.24443	3.39555	15.50	19.00	1.34 3	-1.78 3	-1.41 3	1.86 3
3.21836	3.39614	9.40	37.00	8.17 1	-5.25 2	-8.91 1	5.44 2
3.20730	3.39685	8.60	43.00	5.62 1	-4.94 2	-6.21 1	5.11 2
3.23719	3.40051	11.00	29.00	1.62 2	-6.08 2	-1.73 2	6.30 2
3.23530	3.40195	10.50	31.00	1.32 2	-5.79 2	-1.42 2	5.99 2
3.20002	3.40601	7.80	51.00	3.74 1	-4.63 2	-4.22 1	4.79 2
3.22102	3.40624	8.80	41.00	6.27 1	-5.03 2	-6.90 1	5.21 2
3.22793	3.40725	9.20	38.00	7.57 1	-5.19 2	-8.27 1	5.37 2
3.26028	3.41107	15.00	19.50	1.03 3	-1.47 3	-1.08 3	1.53 3
3.25902	3.41201	13.50	22.00	4.66 2	-9.10 2	-4.91 2	9.47 2
3.25370	3.41337	11.50	27.00	2.01 2	-6.48 2	-2.15 2	6.72 2
3.26025	3.41431	13.00	23.00	3.75 2	-8.21 2	-3.97 2	8.52 2
3.24741	3.41705	10.00	33.00	1.09 2	-5.56 2	-1.18 2	5.75 2
3.26565	3.41740	14.00	21.00	5.97 2	-1.04 3	-6.29 2	1.08 3
3.22349	3.41845	8.20	46.00	4.72 1	-4.82 2	-5.26 1	4.98 2
3.20921	3.41909	7.60	53.00	3.40 1	-4.56 2	-3.85 1	4.71 2
3.24775	3.41913	9.80	34.00	1.00 2	-5.47 2	-1.09 2	5.66 2
3.22892	3.41973	8.40	44.00	5.24 1	-4.90 2	-5.81 1	5.07 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.24010	3.42088	9.00	39.00	7.03 1	-5.13 2	-7.69 1	5.31 2
3.22275	3.42178	8.00	48.00	4.26 1	-4.74 2	-4.77 1	4.90 2
3.27289	3.42232	16.50	17.50	7.25 3	-7.86 3	-7.59 3	8.21 3
3.25082	3.42388	9.60	35.00	9.26 1	-5.39 2	-1.00 2	5.57 2
3.26925	3.42419	12.50	24.00	3.08 2	-7.55 2	-3.27 2	7.83 2
3.23928	3.42583	8.60	42.00	5.84 1	-4.98 2	-6.43 1	5.15 2
3.27897	3.42821	16.00	18.00	2.28 3	-2.68 3	-2.39 3	2.80 3
3.22654	3.42956	7.80	50.00	3.86 1	-4.67 2	-4.34 1	4.83 2
3.28037	3.43069	14.50	20.00	7.99 2	-1.24 3	-8.40 2	1.29 3
3.25658	3.43126	9.40	36.00	8.55 1	-5.31 2	-9.29 1	5.49 2
3.22263	3.43635	7.40	55.00	3.09 1	-4.49 2	-3.52 1	4.64 2
3.25488	3.43707	8.80	40.00	6.53 1	-5.08 2	-7.16 1	5.25 2
3.21691	3.43736	7.20	58.00	2.74 1	-4.38 2	-3.14 1	4.53 2
3.28917	3.43820	15.50	18.50	1.58 3	-2.01 3	-1.65 3	2.10 3
3.20212	3.43898	6.80	65.00	2.11 1	-4.12 2	-2.47 1	4.27 2
3.26502	3.44125	9.20	37.00	7.91 1	-5.24 2	-8.62 1	5.42 2
3.23473	3.44166	7.60	52.00	3.50 1	-4.60 2	-3.96 1	4.75 2
3.28605	3.44170	12.00	25.00	2.58 2	-7.05 2	-2.73 2	7.31 2
3.21719	3.44433	7.00	61.00	2.43 1	-4.27 2	-2.81 1	4.42 2
3.25323	3.44521	8.20	45.00	4.89 1	-4.86 2	-5.43 1	5.02 2
3.28300	3.44636	10.50	30.00	1.40 2	-5.88 2	-1.50 2	6.09 2
3.25114	3.44720	8.00	47.00	4.41 1	-4.78 2	-4.92 1	4.94 2
3.26021	3.44801	8.40	43.00	5.44 1	-4.94 2	-6.00 1	5.11 2
3.28914	3.44909	11.00	28.00	1.73 2	-6.21 2	-1.85 2	6.43 2
3.30360	3.45232	15.00	19.00	1.16 3	-1.60 3	-1.21 3	1.67 3
3.25373	3.45379	7.80	49.00	3.99 1	-4.71 2	-4.47 1	4.86 2
3.27613	3.45385	9.00	38.00	7.33 1	-5.18 2	-8.00 1	5.36 2
3.27233	3.45586	8.60	41.00	6.07 1	-5.03 2	-6.67 1	5.20 2
3.22321	3.45703	6.80	64.00	2.16 1	-4.16 2	-2.52 1	4.31 2
3.24031	3.45778	7.20	57.00	2.82 1	-4.42 2	-3.22 1	4.57 2
3.21443	3.45801	6.60	68.00	1.88 1	-4.01 2	-2.22 1	4.15 2
3.29160	3.45804	10.00	32.00	1.15 2	-5.63 2	-1.24 2	5.83 2
3.24729	3.45805	7.40	54.00	3.18 1	-4.53 2	-3.61 1	4.68 2
3.29035	3.45855	9.80	33.00	1.06 2	-5.54 2	-1.14 2	5.72 2
3.29194	3.46186	9.60	34.00	9.72 1	-5.45 2	-1.05 2	5.63 2
3.23953	3.46367	7.00	60.00	2.50 1	-4.31 2	-2.88 1	4.46 2
3.26088	3.46485	7.60	51.00	3.61 1	-4.63 2	-4.07 1	4.79 2
3.21262	3.46609	6.40	72.00	1.64 1	-3.85 2	-1.96 1	3.99 2
3.31084	3.46704	11.50	26.00	2.18 2	-6.66 2	-2.31 2	6.90 2
3.29636	3.46792	9.40	35.00	8.97 1	-5.37 2	-9.71 1	5.55 2
3.28995	3.46910	8.80	39.00	6.80 1	-5.13 2	-7.43 1	5.30 2
3.32318	3.47031	16.50	17.00	2.34 3	-2.45 3	-2.45 3	2.55 3
3.32237	3.47069	14.50	19.50	8.86 2	-1.33 3	-9.30 2	1.39 3
3.28386	3.47287	8.20	44.00	5.07 1	-4.90 2	-5.61 1	5.06 2
3.28033	3.47343	8.00	46.00	4.57 1	-4.82 2	-5.07 1	4.98 2
3.32742	3.47453	16.00	17.50	3.28 3	-3.71 3	-3.43 3	3.87 3
3.23482	3.47530	6.60	67.00	1.93 1	-4.05 2	-2.27 1	4.19 2
3.24466	3.47544	6.80	63.00	2.22 1	-4.20 2	-2.58 1	4.35 2
3.30355	3.47669	9.20	36.00	8.28 1	-5.30 2	-8.99 1	5.48 2
3.29249	3.47730	8.40	42.00	5.65 1	-4.98 2	-6.21 1	5.15 2
3.26420	3.47871	7.20	56.00	2.90 1	-4.46 2	-3.30 1	4.61 2
3.28165	3.47876	7.80	48.00	4.12 1	-4.74 2	-4.60 1	4.90 2
3.27251	3.48031	7.40	53.00	3.28 1	-4.56 2	-3.71 1	4.72 2
3.21738	3.48091	6.20	76.00	1.43 1	-3.69 2	-1.73 1	3.82 2
3.33098	3.48128	13.00	22.00	4.22 2	-8.69 2	-4.44 2	9.02 2
3.23216	3.48246	6.40	71.00	1.68 1	-3.89 2	-2.00 1	4.03 2
3.33592	3.48282	15.50	18.00	1.82 3	-2.24 3	-1.91 3	2.33 3
3.33409	3.48323	13.50	21.00	5.34 2	-9.80 2	-5.61 2	1.02 3
3.26230	3.48346	7.00	59.00	2.57 1	-4.35 2	-2.95 1	4.50 2
3.30650	3.48701	8.60	40.00	6.32 1	-5.07 2	-6.92 1	5.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.33616	3.48744	12.50	23.00	3.41 2	-7.89 2	-3.60 2	8.18 2
3.21027	3.48752	6.00	81.00	1.22 1	-3.48 2	-1.50 1	3.61 2
3.31353	3.48818	9.00	37.00	7.66 1	-5.23 2	-8.33 1	5.41 2
3.28768	3.48871	7.60	50.00	3.73 1	-4.67 2	-4.18 1	4.83 2
3.25551	3.49293	6.60	66.00	1.98 1	-4.09 2	-2.32 1	4.23 2
3.33314	3.49319	10.50	29.00	1.49 2	-5.99 2	-1.59 2	6.19 2
3.34569	3.49351	14.00	20.00	7.05 2	-1.15 3	-7.41 2	1.20 3
3.26648	3.49425	6.80	62.00	2.28 1	-4.24 2	-2.64 1	4.39 2
3.34879	3.49546	15.00	18.50	1.54 3	-1.79 3	-1.40 3	1.86 3
3.23624	3.49652	6.20	75.00	1.46 1	-3.73 2	-1.76 1	3.87 2
3.25195	3.49911	6.40	70.00	1.72 1	-3.94 2	-2.04 1	4.08 2
3.33487	3.49988	9.80	32.00	1.11 2	-5.61 2	-1.20 2	5.80 2
3.28860	3.50016	7.20	55.00	2.98 1	-4.50 2	-3.39 1	4.65 2
3.31036	3.50051	8.00	45.00	4.73 1	-4.86 2	-5.24 1	5.02 2
3.34398	3.50053	11.00	27.00	1.85 2	-6.35 2	-1.97 2	6.57 2
3.33788	3.50110	10.00	31.00	1.22 2	-5.72 2	-1.31 2	5.91 2
3.31544	3.50148	8.20	43.00	5.26 1	-4.94 2	-5.80 1	5.10 2
3.33486	3.50162	9.60	33.00	1.02 2	-5.52 2	-1.10 2	5.70 2
3.34961	3.50169	12.00	24.00	2.82 2	-7.30 2	-2.98 2	7.57 2
3.21017	3.50173	5.80	86.00	1.04 1	-3.26 2	-1.30 1	3.38 2
3.22844	3.50229	6.00	80.00	1.25 1	-3.52 2	-1.53 1	3.65 2
3.32629	3.50240	8.80	38.00	7.09 1	-5.17 2	-7.73 1	5.34 2
3.29832	3.50318	7.40	52.00	3.38 1	-4.60 2	-3.81 1	4.76 2
3.28551	3.50370	7.00	58.00	2.64 1	-4.39 2	-3.02 1	4.54 2
3.31032	3.50449	7.80	47.00	4.26 1	-4.78 2	-4.74 1	4.94 2
3.33780	3.50623	9.40	34.00	9.41 1	-5.43 2	-1.02 2	5.61 2
3.32583	3.50766	8.40	41.00	5.87 1	-5.03 2	-6.44 1	5.19 2
3.27654	3.51091	6.60	65.00	2.03 1	-4.13 2	-2.37 1	4.28 2
3.25532	3.51237	6.20	74.00	1.50 1	-3.78 2	-1.80 1	3.91 2
3.31516	3.51325	7.60	49.00	3.85 1	-4.71 2	-4.31 1	4.87 2
3.28869	3.51347	6.80	61.00	2.34 1	-4.28 2	-2.70 1	4.43 2
3.34365	3.51369	9.20	35.00	8.68 1	-5.36 2	-9.39 1	5.53 2
3.22785	3.51585	5.80	85.00	1.06 1	-3.31 2	-1.33 1	3.43 2
3.27202	3.51607	6.40	69.00	1.76 1	-3.98 2	-2.08 1	4.12 2
3.24678	3.51727	6.00	79.00	1.28 1	-3.57 2	-1.56 1	3.70 2
3.34187	3.51937	8.60	39.00	6.58 1	-5.12 2	-7.18 1	5.29 2
3.31354	3.52216	7.20	54.00	3.07 1	-4.54 2	-3.48 1	4.68 2
3.30919	3.52442	7.00	57.00	2.72 1	-4.43 2	-3.10 1	4.58 2
3.32475	3.52669	7.40	51.00	3.49 1	-4.64 2	-3.92 1	4.79 2
3.34129	3.52849	8.00	44.00	4.90 1	-4.90 2	-5.41 1	5.06 2
3.27463	3.52849	6.20	73.00	1.54 1	-3.82 2	-1.84 1	3.96 2
3.29790	3.52924	6.60	64.00	2.08 1	-4.18 2	-2.42 1	4.32 2
3.24567	3.53014	5.80	84.00	1.09 1	-3.35 2	-1.35 1	3.48 2
3.33981	3.53104	7.80	46.00	4.41 1	-4.82 2	-4.89 1	4.98 2
3.34803	3.53110	8.20	42.00	5.46 1	-4.98 2	-6.00 1	5.14 2
3.26531	3.53247	6.00	78.00	1.31 1	-3.62 2	-1.59 1	3.75 2
3.31130	3.53311	6.80	60.00	2.41 1	-4.32 2	-2.77 1	4.47 2
3.29237	3.53333	6.40	68.00	1.81 1	-4.02 2	-2.13 1	4.16 2
3.23398	3.53684	5.60	90.00	9.07 0	-3.08 2	-1.16 1	3.20 2
3.34337	3.53853	7.60	48.00	3.98 1	-4.75 2	-4.43 1	4.90 2
3.26364	3.54461	5.80	83.00	1.11 1	-3.40 2	-1.38 1	3.53 2
3.33905	3.54474	7.20	53.00	3.17 1	-4.57 2	-3.57 1	4.72 2
3.29418	3.54487	6.20	72.00	1.57 1	-3.87 2	-1.87 1	4.00 2
3.33336	3.54565	7.00	56.00	2.79 1	-4.47 2	-3.18 1	4.61 2
3.28403	3.54790	6.00	77.00	1.34 1	-3.66 2	-1.62 1	3.79 2
3.31962	3.54796	6.60	63.00	2.14 1	-4.22 2	-2.48 1	4.36 2
3.25147	3.55060	5.60	89.00	9.29 0	-3.13 2	-1.18 1	3.25 2
3.31303	3.55092	6.40	67.00	1.85 1	-4.07 2	-2.17 1	4.20 2
3.33435	3.55319	6.80	59.00	2.47 1	-4.36 2	-2.83 1	4.51 2
3.28176	3.55928	5.80	82.00	1.14 1	-3.45 2	-1.41 1	3.57 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.31398	3.56154	6.20	71.00	1.61 1	-3.91 2	-1.91 1	4.05 2
3.30295	3.56356	6.00	76.00	1.37 1	-3.71 2	-1.65 1	3.84 2
3.26907	3.56451	5.60	88.00	9.51 0	-3.18 2	-1.20 1	3.30 2
3.34172	3.56707	6.60	62.00	2.20 1	-4.26 2	-2.53 1	4.40 2
3.33400	3.56885	6.40	66.00	1.90 1	-4.11 2	-2.22 1	4.25 2
3.30003	3.57415	5.80	81.00	1.17 1	-3.50 2	-1.43 1	3.62 2
3.33405	3.57849	6.20	70.00	1.65 1	-3.96 2	-1.95 1	4.09 2
3.28679	3.57859	5.60	87.00	9.74 0	-3.23 2	-1.22 1	3.35 2
3.32208	3.57946	6.00	75.00	1.41 1	-3.75 2	-1.69 1	3.88 2
3.31848	3.58923	5.80	80.00	1.20 1	-3.54 2	-1.46 1	3.67 2
3.30462	3.59284	5.60	86.00	9.97 0	-3.28 2	-1.24 1	3.40 2
3.34144	3.59562	6.00	74.00	1.44 1	-3.80 2	-1.72 1	3.93 2
3.33710	3.60451	5.80	79.00	1.23 1	-3.59 2	-1.49 1	3.71 2
3.32259	3.60726	5.60	85.00	1.02 1	-3.33 2	-1.27 1	3.44 2
3.34069	3.62187	5.60	84.00	1.04 1	-3.37 2	-1.29 1	3.49 2
3.33398	3.63327	5.40	90.00	8.70 0	-3.10 2	-1.10 1	3.22 2
3.35	3.50						
3.36615	3.51243	14.50	19.00	9.87 2	-1.43 3	-1.03 3	1.49 3
3.37818	3.52305	16.00	17.00	2.85 3	-3.10 3	-2.97 3	3.23 3
3.35238	3.52396	9.00	36.00	8.01 1	-5.29 2	-8.69 1	5.46 2
3.37147	3.52417	11.50	25.00	2.36 2	-6.86 2	-2.50 2	7.10 2
3.38484	3.52963	15.50	17.50	2.34 3	-2.77 3	-2.45 3	2.88 3
3.38816	3.53399	14.00	19.50	7.75 2	-1.22 3	-8.13 2	1.27 3
3.36400	3.53707	8.80	37.00	7.41 1	-5.23 2	-8.05 1	5.39 2
3.36032	3.53914	8.40	40.00	6.11 1	-5.07 2	-6.68 1	5.23 2
3.39602	3.54058	15.00	18.00	1.55 3	-1.99 3	-1.62 3	2.07 3
3.38595	3.54268	10.50	28.00	1.59 2	-6.10 2	-1.70 2	6.30 2
3.38149	3.54330	9.80	31.00	1.18 2	-5.69 2	-1.26 2	5.87 2
3.37972	3.54331	9.60	32.00	1.08 2	-5.59 2	-1.16 2	5.77 2
3.38105	3.54635	9.40	33.00	9.90 1	-5.50 2	-1.07 2	5.67 2
3.38643	3.54640	10.00	30.00	1.29 2	-5.80 2	-1.38 2	5.99 2
3.35184	3.55085	7.40	50.00	3.60 1	-4.68 2	-4.03 1	4.83 2
3.38543	3.55236	9.20	34.00	9.11 1	-5.42 2	-9.82 1	5.59 2
3.37853	3.55301	8.60	38.00	6.86 1	-5.17 2	-7.47 1	5.33 2
3.40696	3.55348	13.00	21.00	4.80 2	-9.28 2	-5.04 2	9.62 2
3.40201	3.55513	11.00	26.00	2.00 2	-6.51 2	-2.12 2	6.72 2
3.40780	3.55538	12.50	22.00	3.82 2	-8.31 2	-4.02 2	8.60 2
3.41182	3.55606	14.50	18.50	1.12 3	-1.57 3	-1.17 3	1.63 3
3.37318	3.55742	8.00	43.00	5.08 1	-4.94 2	-5.59 1	5.10 2
3.37015	3.55844	7.80	45.00	4.57 1	-4.86 2	-5.05 1	5.02 2
3.41507	3.56032	13.50	20.00	6.23 2	-1.07 3	-6.53 2	1.11 3
3.39281	3.56132	9.00	35.00	8.39 1	-5.34 2	-9.07 1	5.51 2
3.38169	3.56179	8.20	41.00	5.67 1	-5.02 2	-6.21 1	5.18 2
3.37235	3.56459	7.60	47.00	4.12 1	-4.79 2	-4.57 1	4.94 2
3.41745	3.56591	12.00	23.00	3.11 2	-7.60 2	-3.28 2	7.87 2
3.35805	3.56742	7.00	55.00	2.88 1	-4.51 2	-3.26 1	4.65 2
3.36515	3.56792	7.20	52.00	3.26 1	-4.61 2	-3.67 1	4.76 2
3.39601	3.57185	8.40	39.00	6.36 1	-5.12 2	-6.93 1	5.28 2
3.40319	3.57320	8.80	36.00	7.75 1	-5.28 2	-8.39 1	5.44 2
3.35785	3.57374	6.80	58.00	2.54 1	-4.40 2	-2.90 1	4.55 2
3.43144	3.57413	16.00	16.50	2.63 3	-2.75 3	-2.75 3	2.86 3
3.37962	3.57572	7.40	49.00	3.72 1	-4.72 2	-4.15 1	4.87 2
3.43242	3.57624	14.00	19.00	8.56 2	-1.30 3	-8.96 2	1.35 3
3.43609	3.57868	15.50	17.00	2.51 3	-2.86 3	-2.62 3	2.97 3
3.43596	3.58512	11.50	24.00	2.58 2	-7.09 2	-2.72 2	7.33 2
3.36422	3.58659	6.60	61.00	2.26 1	-4.30 2	-2.59 1	4.44 2
3.40139	3.58675	7.80	44.00	4.73 1	-4.90 2	-5.21 1	5.05 2
3.42670	3.58710	9.60	31.00	1.14 2	-5.66 2	-1.22 2	5.84 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.35531	3.58713	6.40	65.00	1.95 1	-4.15 2	-2.27 1	4.29 2
3.40609	3.58738	8.00	42.00	5.28 1	-4.98 2	-5.79 1	5.14 2
3.44542	3.58790	15.00	17.50	1.93 3	-2.39 3	-2.02 3	2.48 3
3.41658	3.58804	8.60	37.00	7.16 1	-5.22 2	-7.77 1	5.38 2
3.42626	3.58841	9.40	32.00	1.04 2	-5.57 2	-1.12 2	5.74 2
3.43039	3.58898	9.80	30.00	1.25 2	-5.77 2	-1.33 2	5.96 2
3.38328	3.58973	7.00	54.00	2.96 1	-4.55 2	-3.34 1	4.69 2
3.40214	3.59147	7.60	46.00	4.26 1	-4.83 2	-4.71 1	4.98 2
3.39188	3.59174	7.20	51.00	3.37 1	-4.65 2	-3.77 1	4.80 2
3.42903	3.59284	9.20	33.00	9.58 1	-5.48 2	-1.03 2	5.65 2
3.41650	3.59362	8.20	40.00	5.90 1	-5.07 2	-6.44 1	5.22 2
3.43745	3.59417	10.00	29.00	1.37 2	-5.90 2	-1.46 2	6.09 2
3.38182	3.59478	6.80	57.00	2.62 1	-4.44 2	-2.98 1	4.58 2
3.44169	3.59507	10.50	27.00	1.70 2	-6.23 2	-1.81 2	6.43 2
3.35440	3.59575	6.20	69.00	1.70 1	-4.00 2	-1.99 1	4.13 2
3.43493	3.60035	9.00	34.00	8.81 1	-5.40 2	-9.49 1	5.57 2
3.45803	3.60132	13.50	19.50	6.79 2	-1.13 3	-7.11 2	1.17 3
3.40814	3.60133	7.40	48.00	3.84 1	-4.76 2	-4.27 1	4.90 2
3.45954	3.60171	14.50	18.00	1.27 3	-1.72 3	-1.33 3	1.78 3
3.37695	3.60578	6.40	64.00	2.00 1	-4.19 2	-2.32 1	4.33 2
3.43301	3.60584	8.40	38.00	6.63 1	-5.16 2	-7.21 1	5.32 2
3.38712	3.60655	6.60	60.00	2.32 1	-4.34 2	-2.66 1	4.48 2
3.44396	3.61092	8.80	35.00	8.12 1	-5.33 2	-8.76 1	5.49 2
3.36103	3.61204	6.00	73.00	1.48 1	-3.84 2	-1.76 1	3.97 2
3.40909	3.61263	7.00	53.00	3.05 1	-4.59 2	-3.43 1	4.73 2
3.46356	3.61324	11.00	25.00	2.16 2	-6.68 2	-2.29 2	6.90 2
3.37504	3.61333	6.20	68.00	1.74 1	-4.04 2	-2.04 1	4.17 2
3.43360	3.61603	7.80	43.00	4.91 1	-4.94 2	-5.39 1	5.09 2
3.41927	3.61624	7.20	50.00	3.47 1	-4.69 2	-3.88 1	4.83 2
3.40628	3.61633	6.80	56.00	2.69 1	-4.48 2	-3.05 1	4.62 2
3.44008	3.61842	8.00	41.00	5.48 1	-5.02 2	-5.99 1	5.18 2
3.43280	3.61921	7.60	45.00	4.41 1	-4.87 2	-4.86 1	5.02 2
3.35591	3.62002	5.80	78.00	1.26 1	-3.64 2	-1.52 1	3.76 2
3.47860	3.62041	14.00	18.50	9.60 2	-1.41 3	-1.00 3	1.46 3
3.45611	3.62454	8.60	36.00	7.49 1	-5.27 2	-8.10 1	5.43 2
3.39897	3.62481	6.40	63.00	2.06 1	-4.23 2	-2.38 1	4.37 2
3.45254	3.62668	8.20	39.00	6.14 1	-5.11 2	-6.69 1	5.27 2
3.41046	3.62695	6.60	59.00	2.38 1	-4.38 2	-2.72 1	4.52 2
3.43743	3.62772	7.40	47.00	3.97 1	-4.80 2	-4.40 1	4.94 2
3.48477	3.62860	12.50	21.00	4.31 2	-8.82 2	-4.53 2	9.12 2
3.38086	3.62874	6.00	72.00	1.51 1	-3.89 2	-1.79 1	4.02 2
3.48986	3.63030	15.50	16.50	3.07 3	-3.35 3	-3.20 3	3.48 3
3.39598	3.63123	6.20	67.00	1.78 1	-4.08 2	-2.08 1	4.22 2
3.48893	3.63161	13.00	20.00	5.55 2	-1.00 3	-5.81 2	1.04 3
3.47360	3.63258	9.40	31.00	1.10 2	-5.64 2	-1.18 2	5.81 2
3.47597	3.63317	9.60	30.00	1.21 2	-5.74 2	-1.29 2	5.92 2
3.49006	3.63487	12.00	22.00	3.46 2	-7.97 2	-3.64 2	8.24 2
3.47460	3.63528	9.20	32.00	1.01 2	-5.55 2	-1.08 2	5.72 2
3.37491	3.63576	5.80	77.00	1.29 1	-3.68 2	-1.55 1	3.81 2
3.43549	3.63614	7.00	52.00	3.15 1	-4.62 2	-3.53 1	4.77 2
3.35894	3.63666	5.60	83.00	1.07 1	-3.42 2	-1.32 1	3.54 2
3.48179	3.63714	9.80	29.00	1.33 2	-5.86 2	-1.41 2	6.05 2
3.49719	3.63752	15.00	17.00	2.29 3	-2.72 3	-2.38 3	2.82 3
3.43127	3.63842	6.80	55.00	2.77 1	-4.52 2	-3.13 1	4.66 2
3.47889	3.64121	9.00	33.00	9.26 1	-5.46 2	-9.94 1	5.63 2
3.47140	3.64123	8.40	37.00	6.92 1	-5.21 2	-7.50 1	5.37 2
3.44737	3.64144	7.20	49.00	3.59 1	-4.73 2	-3.99 1	4.87 2
3.42136	3.64424	6.40	62.00	2.11 1	-4.27 2	-2.43 1	4.41 2
3.49118	3.64463	10.00	28.00	1.46 2	-6.00 2	-1.55 2	6.19 2
3.40095	3.64572	6.00	71.00	1.55 1	-3.93 2	-1.83 1	4.06 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.46684	3.64634	7.80	42.00	5.09 1	-4.98 2	-5.58 1	5.13 2
3.35176	3.64735	5.40	89.00	8.90 0	-3.15 2	-1.12 1	3.27 2
3.43426	3.64782	6.60	58.00	2.45 1	-4.42 2	-2.79 1	4.55 2
3.46437	3.64787	7.60	44.00	4.57 1	-4.91 2	-5.02 1	5.05 2
3.41724	3.64948	6.20	66.00	1.83 1	-4.13 2	-2.13 1	4.26 2
3.48645	3.65033	8.80	34.00	8.51 1	-5.39 2	-9.16 1	5.55 2
3.47522	3.65061	8.00	40.00	5.70 1	-5.07 2	-6.21 1	5.22 2
3.37735	3.65164	5.60	82.00	1.10 1	-3.47 2	-1.34 1	3.59 2
3.39412	3.65173	5.80	76.00	1.32 1	-3.73 2	-1.58 1	3.85 2
3.46755	3.65494	7.40	46.00	4.11 1	-4.83 2	-4.54 1	4.98 2
3.46254	3.66030	7.00	51.00	3.24 1	-4.66 2	-3.62 1	4.80 2
3.48988	3.66105	8.20	38.00	6.40 1	-5.16 2	-6.95 1	5.31 2
3.45681	3.66106	6.80	54.00	2.85 1	-4.56 2	-3.21 1	4.70 2
3.36965	3.66159	5.40	88.00	9.12 0	-3.20 2	-1.14 1	3.31 2
3.49724	3.66263	8.60	35.00	7.84 1	-5.32 2	-8.45 1	5.48 2
3.42131	3.66299	6.00	70.00	1.59 1	-3.97 2	-1.87 1	4.10 2
3.44415	3.66408	6.40	61.00	2.17 1	-4.32 2	-2.49 1	4.45 2
3.39591	3.66683	5.60	81.00	1.12 1	-3.52 2	-1.37 1	3.64 2
3.47621	3.66740	7.20	48.00	3.70 1	-4.77 2	-4.11 1	4.91 2
3.41354	3.66796	5.80	75.00	1.35 1	-3.77 2	-1.61 1	3.90 2
3.43884	3.66808	6.20	65.00	1.88 1	-4.17 2	-2.17 1	4.30 2
3.45853	3.66919	6.60	57.00	2.52 1	-4.46 2	-2.86 1	4.59 2
3.38766	3.67600	5.40	87.00	9.33 0	-3.25 2	-1.16 1	3.36 2
3.49692	3.67751	7.60	43.00	4.73 1	-4.95 2	-5.19 1	5.09 2
3.44196	3.68057	6.00	69.00	1.63 1	-4.02 2	-1.91 1	4.15 2
3.41465	3.68223	5.60	80.00	1.15 1	-3.56 2	-1.39 1	3.68 2
3.49854	3.68304	7.40	45.00	4.25 1	-4.87 2	-4.68 1	5.02 2
3.48293	3.68430	6.80	53.00	2.94 1	-4.60 2	-3.30 1	4.73 2
3.46736	3.68436	6.40	60.00	2.23 1	-4.36 2	-2.55 1	4.49 2
3.43319	3.68444	5.80	74.00	1.38 1	-3.82 2	-1.64 1	3.94 2
3.49025	3.68514	7.00	50.00	3.35 1	-4.70 2	-3.73 1	4.84 2
3.46079	3.68705	6.20	64.00	1.93 1	-4.21 2	-2.22 1	4.34 2
3.40579	3.69057	5.40	86.00	9.55 0	-3.30 2	-1.19 1	3.41 2
3.48331	3.69107	6.60	56.00	2.59 1	-4.50 2	-2.93 1	4.63 2
3.43356	3.69784	5.60	79.00	1.18 1	-3.61 2	-1.42 1	3.73 2
3.46289	3.69847	6.00	68.00	1.67 1	-4.06 2	-1.95 1	4.19 2
3.45307	3.70118	5.80	73.00	1.42 1	-3.86 2	-1.68 1	3.99 2
3.49101	3.70510	6.40	59.00	2.29 1	-4.39 2	-2.61 1	4.53 2
3.42405	3.70533	5.40	85.00	9.78 0	-3.35 2	-1.21 1	3.46 2
3.48311	3.70641	6.20	63.00	1.98 1	-4.25 2	-2.27 1	4.38 2
3.45267	3.71367	5.60	78.00	1.20 1	-3.66 2	-1.45 1	3.78 2
3.48414	3.71670	6.00	67.00	1.71 1	-4.10 2	-1.99 1	4.23 2
3.47321	3.71820	5.80	72.00	1.45 1	-3.91 2	-1.71 1	4.03 2
3.44246	3.72026	5.40	84.00	1.00 1	-3.40 2	-1.23 1	3.51 2
3.47197	3.72974	5.60	77.00	1.23 1	-3.70 2	-1.48 1	3.82 2
3.46101	3.73539	5.40	83.00	1.02 1	-3.44 2	-1.25 1	3.56 2
3.49360	3.73551	5.80	71.00	1.49 1	-3.95 2	-1.75 1	4.07 2
3.44140	3.73704	5.20	90.00	8.32 0	-3.13 2	-1.05 1	3.23 2
3.49148	3.74605	5.60	76.00	1.26 1	-3.75 2	-1.51 1	3.87 2
3.47972	3.75071	5.40	82.00	1.05 1	-3.49 2	-1.28 1	3.60 2
3.45949	3.75146	5.20	89.00	8.52 0	-3.17 2	-1.07 1	3.28 2
3.47769	3.76605	5.20	88.00	8.72 0	-3.22 2	-1.09 1	3.33 2
3.49859	3.76623	5.40	81.00	1.07 1	-3.54 2	-1.30 1	3.65 2
3.49601	3.78080	5.20	87.00	8.93 0	-3.27 2	-1.11 1	3.38 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.50	3.65						
3.50281	3.64411	13.50	19.00	7.43 2	-1.19 3	-7.77 2	1.23 3
3.50947	3.64957	14.50	17.50	1.52 3	-1.97 3	-1.58 3	2.04 3
3.50477	3.65037	11.50	23.00	2.83 2	-7.35 2	-2.98 2	7.59 2
3.50067	3.65068	10.50	26.00	1.83 2	-6.37 2	-1.94 2	6.57 2
3.52685	3.66660	14.00	18.00	1.08 3	-1.53 3	-1.13 3	1.58 3
3.53242	3.67315	13.00	19.50	6.02 2	-1.05 3	-6.29 2	1.09 3
3.52904	3.67524	11.00	24.00	2.35 2	-6.89 2	-2.48 2	7.11 2
3.50117	3.67774	7.80	41.00	5.29 1	-5.02 2	-5.77 1	5.17 2
3.51129	3.67811	8.40	36.00	7.24 1	-5.26 2	-7.81 1	5.41 2
3.52325	3.67905	9.40	30.00	1.17 2	-5.72 2	-1.24 2	5.89 2
3.52231	3.67986	9.20	31.00	1.06 2	-5.62 2	-1.14 2	5.78 2
3.52774	3.68173	9.60	29.00	1.28 2	-5.83 2	-1.36 2	6.01 2
3.51161	3.68404	8.00	39.00	5.93 1	-5.11 2	-6.45 1	5.26 2
3.52484	3.68405	9.00	32.00	9.75 1	-5.53 2	-1.04 2	5.69 2
3.54639	3.68464	15.50	16.00	3.23 3	-3.38 3	-3.36 3	3.51 3
3.53591	3.68801	9.80	28.00	1.41 2	-5.96 2	-1.50 2	6.14 2
3.54951	3.68883	13.50	18.50	8.23 2	-1.27 3	-8.59 2	1.32 3
3.55150	3.68971	15.00	16.50	3.25 3	-3.70 3	-3.38 3	3.84 3
3.53078	3.69159	8.80	33.00	8.94 1	-5.45 2	-9.60 1	5.61 2
3.50583	3.69414	7.20	47.00	3.83 1	-4.80 2	-4.23 1	4.94 2
3.52863	3.69681	8.20	37.00	6.68 1	-5.20 2	-7.23 1	5.35 2
3.54790	3.69804	10.00	27.00	1.56 2	-6.11 2	-1.66 2	6.30 2
3.56177	3.69975	14.50	17.00	1.76 3	-2.20 3	-1.84 3	2.28 3
3.54010	3.70244	8.60	34.00	8.22 1	-5.37 2	-8.84 1	5.53 2
3.56778	3.70783	12.50	20.00	4.95 2	-9.46 2	-5.18 2	9.78 2
3.50966	3.70816	6.80	52.00	3.03 1	-4.64 2	-3.39 1	4.77 2
3.53050	3.70818	7.60	42.00	4.91 1	-4.99 2	-5.37 1	5.13 2
3.56807	3.70919	12.00	21.00	3.89 2	-8.41 2	-4.07 2	8.68 2
3.56322	3.70984	10.50	25.00	1.98 2	-6.53 2	-2.09 2	6.73 2
3.53667	3.71031	7.80	40.00	5.50 1	-5.07 2	-5.99 1	5.21 2
3.51868	3.71070	7.00	49.00	3.45 1	-4.74 2	-3.84 1	4.87 2
3.53045	3.71206	7.40	44.00	4.40 1	-4.91 2	-4.83 1	5.05 2
3.50862	3.71350	6.60	55.00	2.67 1	-4.53 2	-3.00 1	4.67 2
3.57731	3.71503	14.00	17.50	1.26 3	-1.71 3	-1.31 3	1.77 3
3.57773	3.71651	13.00	19.00	6.55 2	-1.11 3	-6.84 2	1.14 3
3.55279	3.71660	8.40	35.00	7.57 1	-5.31 2	-8.15 1	5.46 2
3.54931	3.71879	8.00	38.00	6.18 1	-5.15 2	-6.70 1	5.30 2
3.57842	3.72043	11.50	22.00	3.14 2	-7.67 2	-3.29 2	7.92 2
3.53629	3.72172	7.20	46.00	3.96 1	-4.84 2	-4.36 1	4.98 2
3.50581	3.72617	6.20	62.00	2.03 1	-4.29 2	-2.33 1	4.42 2
3.51512	3.72631	6.40	58.00	2.35 1	-4.43 2	-2.67 1	4.57 2
3.57235	3.72674	9.20	30.00	1.13 2	-5.69 2	-1.20 2	5.86 2
3.57543	3.72804	9.40	29.00	1.24 2	-5.80 2	-1.32 2	5.97 2
3.57294	3.72903	9.00	31.00	1.03 2	-5.59 2	-1.10 2	5.76 2
3.53704	3.73267	6.80	51.00	3.12 1	-4.67 2	-3.48 1	4.81 2
3.58227	3.73303	9.60	28.00	1.36 2	-5.93 2	-1.45 2	6.10 2
3.56889	3.73409	8.20	36.00	6.98 1	-5.25 2	-7.53 1	5.40 2
3.57711	3.73483	8.80	32.00	9.41 1	-5.51 2	-1.01 2	5.67 2
3.50571	3.73528	6.00	66.00	1.76 1	-4.15 2	-2.04 1	4.27 2
3.59831	3.73560	13.50	18.00	9.14 2	-1.36 3	-9.53 2	1.41 3
3.53448	3.73649	6.60	54.00	2.74 1	-4.57 2	-3.08 1	4.71 2
3.54785	3.73701	7.00	48.00	3.57 1	-4.77 2	-3.95 1	4.91 2
3.56519	3.73996	7.60	41.00	5.10 1	-5.02 2	-5.56 1	5.17 2
3.59889	3.74158	11.00	23.00	2.58 2	-7.12 2	-2.71 2	7.34 2
3.59303	3.74186	9.80	27.00	1.51 2	-6.07 2	-1.60 2	6.25 2
3.56335	3.74207	7.40	43.00	4.56 1	-4.95 2	-5.00 1	5.09 2
3.58481	3.74410	8.60	33.00	8.64 1	-5.43 2	-9.25 1	5.59 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.57342	3.74413	7.80	39.00	5.72 1	-5.11 2	-6.21 1	5.25 2
3.60859	3.74467	15.00	16.00	7.71 3	-8.42 3	-8.01 3	8.74 3
3.52891	3.74635	6.20	61.00	2.08 1	-4.33 2	-2.38 1	4.46 2
3.53971	3.74802	6.40	57.00	2.42 1	-4.47 2	-2.74 1	4.60 2
3.61182	3.74995	12.50	19.50	5.33 2	-9.86 2	-5.57 2	1.02 3
3.56762	3.75018	7.20	45.00	4.10 1	-4.88 2	-4.50 1	5.02 2
3.61665	3.75253	14.50	16.50	2.24 3	-2.68 3	-2.33 3	2.78 3
3.51427	3.75312	5.80	70.00	1.52 1	-3.99 2	-1.78 1	4.12 2
3.52762	3.75421	6.00	65.00	1.80 1	-4.19 2	-2.08 1	4.31 2
3.60789	3.75472	10.00	26.00	1.68 2	-6.24 2	-1.77 2	6.43 2
3.58844	3.75495	8.00	37.00	6.45 1	-5.20 2	-6.97 1	5.34 2
3.59603	3.75681	8.40	34.00	7.94 1	-5.36 2	-8.52 1	5.51 2
3.56509	3.75787	6.80	50.00	3.22 1	-4.71 2	-3.58 1	4.84 2
3.56093	3.76008	6.60	53.00	2.83 1	-4.61 2	-3.16 1	4.74 2
3.62500	3.76181	13.00	18.50	7.19 2	-1.17 3	-7.50 2	1.21 3
3.51121	3.76261	5.60	75.00	1.29 1	-3.79 2	-1.54 1	3.91 2
3.57782	3.76412	7.00	47.00	3.69 1	-4.81 2	-4.07 1	4.95 2
3.63018	3.76581	14.00	17.00	1.45 3	-1.89 3	-1.51 3	1.96 3
3.55244	3.76698	6.20	60.00	2.14 1	-4.37 2	-2.44 1	4.50 2
3.56482	3.77026	6.40	56.00	2.49 1	-4.51 2	-2.81 1	4.64 2
3.53523	3.77104	5.80	69.00	1.56 1	-4.04 2	-1.82 1	4.16 2
3.60105	3.77292	7.60	40.00	5.30 1	-5.07 2	-5.76 1	5.21 2
3.62976	3.77294	10.50	24.00	2.15 2	-6.71 2	-2.26 2	6.91 2
3.61078	3.77298	8.20	35.00	7.31 1	-5.30 2	-7.86 1	5.45 2
3.59729	3.77313	7.40	42.00	4.73 1	-4.99 2	-5.17 1	5.13 2
3.54988	3.77353	6.00	64.00	1.85 1	-4.23 2	-2.13 1	4.35 2
3.62494	3.77615	9.20	29.00	1.19 2	-5.77 2	-1.27 2	5.94 2
3.62339	3.77635	9.00	30.00	1.09 2	-5.67 2	-1.16 2	5.83 2
3.61150	3.77927	7.80	38.00	5.96 1	-5.15 2	-6.45 1	5.29 2
3.53117	3.77942	5.60	74.00	1.32 1	-3.84 2	-1.57 1	3.96 2
3.59989	3.77959	7.20	44.00	4.24 1	-4.92 2	-4.65 1	5.05 2
3.63037	3.77977	9.40	28.00	1.32 2	-5.89 2	-1.40 2	6.06 2
3.62561	3.78024	8.80	31.00	9.93 1	-5.57 2	-1.06 2	5.73 2
3.51764	3.78197	5.40	80.00	1.10 1	-3.59 2	-1.33 1	3.70 2
3.59386	3.78379	6.80	49.00	3.32 1	-4.75 2	-3.68 1	4.88 2
3.58800	3.78430	6.60	52.00	2.91 1	-4.65 2	-3.25 1	4.78 2
3.64935	3.78463	13.50	17.50	1.04 3	-1.49 3	-1.08 3	1.54 3
3.63981	3.78732	9.60	27.00	1.46 2	-6.03 2	-1.54 2	6.21 2
3.63154	3.78777	8.60	32.00	9.08 1	-5.49 2	-9.71 1	5.64 2
3.57642	3.78806	6.20	59.00	2.20 1	-4.41 2	-2.50 1	4.54 2
3.55648	3.78928	5.80	68.00	1.60 1	-4.08 2	-1.86 1	4.20 2
3.60863	3.79208	7.00	46.00	3.81 1	-4.85 2	-4.19 1	4.98 2
3.62908	3.79264	8.00	36.00	6.74 1	-5.24 2	-7.26 1	5.39 2
3.59046	3.79304	6.40	55.00	2.56 1	-4.55 2	-2.88 1	4.68 2
3.57252	3.79323	6.00	63.00	1.90 1	-4.27 2	-2.18 1	4.39 2
3.51445	3.79572	5.20	86.00	9.14 0	-3.32 2	-1.13 1	3.43 2
3.55137	3.79651	5.60	73.00	1.36 1	-3.88 2	-1.60 1	4.00 2
3.53687	3.79793	5.40	79.00	1.13 1	-3.63 2	-1.35 1	3.75 2
3.64115	3.79889	8.40	33.00	8.33 1	-5.42 2	-8.92 1	5.57 2
3.63235	3.80531	7.40	41.00	4.92 1	-5.03 2	-5.35 1	5.16 2
3.63818	3.80713	7.60	39.00	5.52 1	-5.11 2	-5.98 1	5.25 2
3.57804	3.80786	5.80	67.00	1.64 1	-4.12 2	-1.90 1	4.24 2
3.61571	3.80918	6.60	51.00	3.00 1	-4.69 2	-3.34 1	4.82 2
3.60086	3.80963	6.20	58.00	2.26 1	-4.45 2	-2.56 1	4.58 2
3.63315	3.80999	7.20	43.00	4.40 1	-4.95 2	-4.80 1	5.09 2
3.62338	3.81047	6.80	48.00	3.43 1	-4.78 2	-3.79 1	4.92 2
3.53303	3.81082	5.20	85.00	9.35 0	-3.37 2	-1.15 1	3.48 2
3.59555	3.81335	6.00	62.00	1.95 1	-4.31 2	-2.23 1	4.43 2
3.57183	3.81388	5.60	72.00	1.39 1	-3.93 2	-1.63 1	4.05 2
3.55629	3.81411	5.40	78.00	1.15 1	-3.68 2	-1.38 1	3.79 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.61666	3.81640	6.40	54.00	2.64 1	-4.59 2	-2.95 1	4.72 2
3.64033	3.82092	7.00	45.00	3.94 1	-4.89 2	-4.33 1	5.02 2
3.55176	3.82611	5.20	84.00	9.57 0	-3.42 2	-1.17 1	3.53 2
3.59994	3.82679	5.80	66.00	1.68 1	-4.17 2	-1.94 1	4.29 2
3.57591	3.83053	5.40	77.00	1.18 1	-3.72 2	-1.41 1	3.84 2
3.59254	3.83154	5.60	71.00	1.42 1	-3.97 2	-1.67 1	4.09 2
3.62579	3.83171	6.20	57.00	2.32 1	-4.49 2	-2.62 1	4.61 2
3.61899	3.83389	6.00	61.00	2.00 1	-4.35 2	-2.28 1	4.47 2
3.64412	3.83475	6.60	50.00	3.10 1	-4.72 2	-3.43 1	4.85 2
3.64346	3.84036	6.40	53.00	2.72 1	-4.62 2	-3.03 1	4.75 2
3.57063	3.84159	5.20	83.00	9.80 0	-3.47 2	-1.19 1	3.57 2
3.62218	3.84608	5.80	65.00	1.73 1	-4.21 2	-1.99 1	4.33 2
3.59574	3.84719	5.40	76.00	1.21 1	-3.77 2	-1.44 1	3.88 2
3.55713	3.84903	5.00	90.00	7.95 0	-3.15 2	-9.93 0	3.25 2
3.61354	3.84950	5.60	70.00	1.46 1	-4.02 2	-1.70 1	4.13 2
3.64285	3.85488	6.00	60.00	2.05 1	-4.39 2	-2.33 1	4.51 2
3.58966	3.85727	5.20	82.00	1.00 1	-3.51 2	-1.21 1	3.62 2
3.57555	3.86382	5.00	89.00	8.14 0	-3.20 2	-1.01 1	3.30 2
3.61580	3.86410	5.40	75.00	1.24 1	-3.82 2	-1.46 1	3.93 2
3.64478	3.86575	5.80	64.00	1.77 1	-4.25 2	-2.03 1	4.37 2
3.63482	3.86778	5.60	69.00	1.50 1	-4.06 2	-1.74 1	4.18 2
3.60886	3.87315	5.20	81.00	1.03 1	-3.56 2	-1.24 1	3.67 2
3.59409	3.87877	5.00	88.00	8.33 0	-3.25 2	-1.03 1	3.35 2
3.63609	3.88128	5.40	74.00	1.27 1	-3.86 2	-1.49 1	3.97 2
3.62824	3.88925	5.20	80.00	1.05 1	-3.61 2	-1.26 1	3.72 2
3.61274	3.89389	5.00	87.00	8.52 0	-3.30 2	-1.05 1	3.40 2
3.64780	3.90557	5.20	79.00	1.08 1	-3.66 2	-1.29 1	3.76 2
3.63152	3.90919	5.00	86.00	8.72 0	-3.34 2	-1.07 1	3.45 2
3.65	3.80						
3.65219	3.78958	12.00	20.00	4.42 2	-8.96 2	-4.62 2	9.24 2
3.65770	3.79390	12.50	19.00	5.77 2	-1.03 3	-6.02 2	1.06 3
3.65753	3.79590	11.50	21.00	3.51 2	-8.05 2	-3.67 2	8.30 2
3.65346	3.79899	9.80	26.00	1.62 2	-6.19 2	-1.71 2	6.37 2
3.66870	3.80268	15.00	15.50	-2.54 3	2.65 3	2.63 3	-2.75 3
3.67432	3.80808	14.50	16.00	3.17 3	-3.64 3	-3.29 3	3.76 3
3.67438	3.80920	13.00	18.00	7.93 2	-1.24 3	-8.26 2	1.28 3
3.67365	3.81280	11.00	22.00	2.84 2	-7.40 2	-2.98 2	7.62 2
3.65441	3.81361	8.20	34.00	7.66 1	-5.35 2	-8.21 1	5.50 2
3.67152	3.81501	10.00	25.00	1.81 2	-6.38 2	-1.91 2	6.57 2
3.65101	3.81584	7.80	37.00	6.22 1	-5.19 2	-6.71 1	5.33 2
3.68565	3.81920	14.00	16.50	1.77 3	-2.22 3	-1.84 3	2.30 3
3.67640	3.82620	9.00	29.00	1.15 2	-5.74 2	-1.22 2	5.90 2
3.67648	3.82799	8.80	30.00	1.05 2	-5.64 2	-1.12 2	5.80 2
3.68031	3.82834	9.20	28.00	1.27 2	-5.86 2	-1.35 2	6.02 2
3.67137	3.83195	8.00	35.00	7.05 1	-5.29 2	-7.57 1	5.43 2
3.69682	3.83231	12.00	19.50	4.75 2	-9.29 2	-4.95 2	9.58 2
3.68046	3.83361	8.60	31.00	9.58 1	-5.55 2	-1.02 2	5.71 2
3.68835	3.83451	9.40	27.00	1.40 2	-5.99 2	-1.49 2	6.16 2
3.70282	3.83603	13.50	17.00	1.17 3	-1.62 3	-1.22 3	1.67 3
3.65371	3.83797	6.80	47.00	3.55 1	-4.82 2	-3.91 1	4.95 2
3.66860	3.83867	7.40	40.00	5.11 1	-5.07 2	-5.54 1	5.20 2
3.70556	3.83983	12.50	18.50	6.30 2	-1.08 3	-6.56 2	1.12 3
3.70073	3.84045	10.50	23.00	2.34 2	-6.91 2	-2.46 2	7.11 2
3.66748	3.84144	7.20	42.00	4.56 1	-4.99 2	-4.97 1	5.13 2
3.67665	3.84269	7.60	38.00	5.75 1	-5.15 2	-6.21 1	5.29 2
3.68829	3.84300	8.40	32.00	8.76 1	-5.47 2	-9.36 1	5.62 2
3.70069	3.84491	9.60	26.00	1.56 2	-6.15 2	-1.65 2	6.32 2
3.67297	3.85073	7.00	44.00	4.08 1	-4.92 2	-4.47 1	5.05 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.69206	3.85395	7.80	36.00	6.49 1	-5.24 2	-6.99 1	5.38 2
3.65124	3.85431	6.20	56.00	2.39 1	-4.53 2	-2.69 1	4.65 2
3.69994	3.85613	8.20	33.00	8.04 1	-5.40 2	-8.59 1	5.55 2
3.72602	3.85886	13.00	17.50	8.91 2	-1.34 3	-9.27 2	1.39 3
3.71754	3.85975	9.80	25.00	1.74 2	-6.33 2	-1.84 2	6.51 2
3.67325	3.86106	6.60	49.00	3.20 1	-4.76 2	-3.53 1	4.89 2
3.67088	3.86496	6.40	52.00	2.80 1	-4.66 2	-3.11 1	4.79 2
3.68489	3.86632	6.80	46.00	3.67 1	-4.86 2	-4.03 1	4.99 2
3.73504	3.86667	14.50	15.50	6.77 3	-7.42 3	-7.01 3	7.67 3
3.71542	3.87302	8.00	34.00	7.38 1	-5.34 2	-7.91 1	5.48 2
3.70612	3.87330	7.40	39.00	5.31 1	-5.11 2	-5.75 1	5.24 2
3.70292	3.87403	7.20	41.00	4.73 1	-5.03 2	-5.14 1	5.16 2
3.74395	3.87540	14.00	16.00	2.31 3	-2.78 3	-2.40 3	2.88 3
3.66717	3.87633	6.00	59.00	2.11 1	-4.43 2	-2.39 1	4.55 2
3.74331	3.87690	12.00	19.00	5.11 2	-9.65 2	-5.33 2	9.95 2
3.67723	3.87747	6.20	55.00	2.46 1	-4.57 2	-2.76 1	4.69 2
3.74284	3.87752	11.50	20.00	3.97 2	-8.52 2	-4.14 2	8.78 2
3.72993	3.87831	8.80	29.00	1.11 2	-5.72 2	-1.18 2	5.87 2
3.73221	3.87885	9.00	28.00	1.22 2	-5.83 2	-1.30 2	5.99 2
3.73919	3.87930	10.00	24.00	1.96 2	-6.54 2	-2.06 2	6.73 2
3.71657	3.87969	7.60	37.00	5.99 1	-5.19 2	-6.45 1	5.33 2
3.70662	3.88153	7.00	43.00	4.23 1	-4.96 2	-4.61 1	5.09 2
3.73177	3.88183	8.60	30.00	1.01 2	-5.62 2	-1.08 2	5.77 2
3.73874	3.88356	9.20	27.00	1.35 2	-5.96 2	-1.43 2	6.12 2
3.66775	3.88583	5.80	63.00	1.82 1	-4.29 2	-2.08 1	4.41 2
3.65641	3.88638	5.60	68.00	1.53 1	-4.10 2	-1.78 1	4.22 2
3.75556	3.88786	12.50	18.00	6.89 2	-1.14 3	-7.17 2	1.18 3
3.70314	3.88814	6.60	48.00	3.30 1	-4.79 2	-3.64 1	4.92 2
3.73765	3.88930	8.40	31.00	9.23 1	-5.54 2	-9.83 1	5.68 2
3.75395	3.88951	11.00	21.00	3.16 2	-7.73 2	-3.31 2	7.95 2
3.75891	3.89007	13.50	16.50	1.38 3	-1.82 3	-1.43 3	1.88 3
3.69896	3.89022	6.40	51.00	2.88 1	-4.70 2	-3.20 1	4.82 2
3.74968	3.89259	9.40	26.00	1.50 2	-6.10 2	-1.59 2	6.27 2
3.73476	3.89370	7.80	35.00	6.79 1	-5.28 2	-7.28 1	5.42 2
3.71697	3.89557	6.80	45.00	3.79 1	-4.89 2	-4.15 1	5.02 2
3.69196	3.89828	6.00	58.00	2.17 1	-4.47 2	-2.45 1	4.59 2
3.65663	3.89873	5.40	73.00	1.30 1	-3.91 2	-1.52 1	4.02 2
3.74752	3.90069	8.20	32.00	8.45 1	-5.46 2	-9.01 1	5.60 2
3.70379	3.90121	6.20	54.00	2.53 1	-4.60 2	-2.83 1	4.73 2
3.67831	3.90533	5.60	67.00	1.57 1	-4.14 2	-1.81 1	4.26 2
3.76524	3.90617	9.60	25.00	1.68 2	-6.28 2	-1.77 2	6.45 2
3.69113	3.90631	5.80	62.00	1.87 1	-4.33 2	-2.13 1	4.45 2
3.73957	3.90781	7.20	40.00	4.92 1	-5.07 2	-5.33 1	5.20 2
3.74500	3.90929	7.40	38.00	5.53 1	-5.15 2	-5.97 1	5.28 2
3.78012	3.91092	13.00	17.00	1.00 3	-1.45 3	-1.04 3	1.50 3
3.77668	3.91291	10.50	22.00	2.58 2	-7.16 2	-2.70 2	7.36 2
3.74133	3.91340	7.00	42.00	4.39 1	-5.00 2	-4.77 1	5.13 2
3.76138	3.91599	8.00	33.00	7.74 1	-5.39 2	-8.27 1	5.53 2
3.73385	3.91604	6.60	47.00	3.41 1	-4.83 2	-3.75 1	4.96 2
3.72774	3.91619	6.40	50.00	2.97 1	-4.73 2	-3.29 1	4.86 2
3.67742	3.91646	5.40	72.00	1.33 1	-3.95 2	-1.56 1	4.06 2
3.75803	3.91824	7.60	36.00	6.26 1	-5.23 2	-6.72 1	5.37 2
3.71725	3.92073	6.00	57.00	2.23 1	-4.51 2	-2.51 1	4.63 2
3.78809	3.92091	11.50	19.50	4.24 2	-8.80 2	-4.42 2	9.06 2
3.66756	3.92212	5.20	78.00	1.10 1	-3.70 2	-1.31 1	3.81 2
3.79180	3.92348	12.00	18.50	5.54 2	-1.01 3	-5.77 2	1.04 3
3.78569	3.92455	9.80	24.00	1.88 2	-6.48 2	-1.98 2	6.66 2
3.70055	3.92463	5.60	66.00	1.61 1	-4.19 2	-1.85 1	4.30 2
3.65044	3.92466	5.00	85.00	8.93 0	-3.39 2	-1.09 1	3.50 2
3.73096	3.92556	6.20	53.00	2.61 1	-4.64 2	-2.90 1	4.76 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.75000	3.92579	6.80	44.00	3.93 1	-4.93 2	-4.29 1	5.06 2
3.71492	3.92723	5.80	61.00	1.92 1	-4.37 2	-2.18 1	4.49 2
3.79907	3.92843	14.50	15.00	2.99 3	-3.13 3	-3.09 3	3.23 3
3.78621	3.93145	8.80	28.00	1.18 2	-5.80 2	-1.25 2	5.95 2
3.78568	3.93262	8.60	29.00	1.07 2	-5.69 2	-1.14 2	5.84 2
3.69848	3.93449	5.40	71.00	1.36 1	-3.99 2	-1.59 1	4.11 2
3.79111	3.93456	9.00	27.00	1.31 2	-5.92 2	-1.38 2	6.08 2
3.77924	3.93523	7.80	34.00	7.11 1	-5.33 2	-7.61 1	5.47 2
3.78941	3.93799	8.40	30.00	9.75 1	-5.60 2	-1.04 2	5.74 2
3.68753	3.93891	5.20	77.00	1.13 1	-3.75 2	-1.34 1	3.86 2
3.66951	3.94033	5.00	84.00	9.14 0	-3.44 2	-1.11 1	3.55 2
3.77750	3.94288	7.20	39.00	5.11 1	-5.11 2	-5.52 1	5.24 2
3.75725	3.94290	6.40	49.00	3.07 1	-4.77 2	-3.38 1	4.89 2
3.74307	3.94372	6.00	56.00	2.29 1	-4.54 2	-2.57 1	4.66 2
3.72314	3.94430	5.60	65.00	1.65 1	-4.23 2	-1.89 1	4.34 2
3.76542	3.94480	6.60	46.00	3.52 1	-4.87 2	-3.86 1	4.99 2
3.77718	3.94642	7.00	41.00	4.55 1	-5.03 2	-4.94 1	5.16 2
3.78534	3.94673	7.40	37.00	5.77 1	-5.19 2	-6.20 1	5.32 2
3.79733	3.94746	8.20	31.00	8.90 1	-5.52 2	-9.46 1	5.66 2
3.73914	3.94860	5.80	60.00	1.97 1	-4.41 2	-2.23 1	4.53 2
3.75875	3.95056	6.20	52.00	2.68 1	-4.68 2	-2.98 1	4.80 2
3.71982	3.95283	5.40	70.00	1.40 1	-4.04 2	-1.62 1	4.15 2
3.70771	3.95595	5.20	76.00	1.15 1	-3.79 2	-1.36 1	3.90 2
3.68873	3.95618	5.00	83.00	9.35 0	-3.49 2	-1.13 1	3.59 2
3.78405	3.95701	6.80	43.00	4.07 1	-4.97 2	-4.43 1	5.09 2
3.74610	3.96435	5.60	64.00	1.70 1	-4.27 2	-1.94 1	4.38 2
3.76943	3.96728	6.00	55.00	2.36 1	-4.58 2	-2.63 1	4.70 2
3.68226	3.97031	4.80	90.00	7.58 0	-3.17 2	-9.40 0	3.27 2
3.78753	3.97039	6.40	48.00	3.17 1	-4.81 2	-3.48 1	4.93 2
3.76382	3.97045	5.80	59.00	2.02 1	-4.45 2	-2.28 1	4.57 2
3.74145	3.97149	5.40	69.00	1.43 1	-4.08 2	-1.66 1	4.19 2
3.70811	3.97224	5.00	82.00	9.57 0	-3.54 2	-1.15 1	3.64 2
3.72811	3.97324	5.20	75.00	1.18 1	-3.84 2	-1.39 1	3.95 2
3.79789	3.97447	6.60	45.00	3.64 1	-4.90 2	-3.98 1	5.03 2
3.78721	3.97623	6.20	51.00	2.77 1	-4.71 2	-3.06 1	4.83 2
3.76943	3.98481	5.60	63.00	1.74 1	-4.31 2	-1.98 1	4.43 2
3.70103	3.98549	4.80	89.00	7.76 0	-3.22 2	-9.57 0	3.32 2
3.72766	3.98851	5.00	81.00	9.79 0	-3.59 2	-1.17 1	3.69 2
3.76340	3.99048	5.40	68.00	1.47 1	-4.12 2	-1.69 1	4.24 2
3.74875	3.99080	5.20	74.00	1.21 1	-3.89 2	-1.42 1	3.99 2
3.79637	3.99142	6.00	54.00	2.43 1	-4.62 2	-2.70 1	4.74 2
3.78899	3.99279	5.80	58.00	2.08 1	-4.49 2	-2.34 1	4.60 2
3.71992	4.00083	4.80	88.00	7.94 0	-3.27 2	-9.75 0	3.37 2
3.74739	4.00500	5.00	80.00	1.00 1	-3.63 2	-1.20 1	3.74 2
3.79317	4.00569	5.60	62.00	1.79 1	-4.35 2	-2.03 1	4.46 2
3.76964	4.00864	5.20	73.00	1.24 1	-3.93 2	-1.45 1	4.04 2
3.78566	4.00981	5.40	67.00	1.50 1	-4.17 2	-1.73 1	4.28 2
3.73893	4.01635	4.80	87.00	8.12 0	-3.32 2	-9.93 0	3.42 2
3.76731	4.02171	5.00	79.00	1.03 1	-3.68 2	-1.22 1	3.78 2
3.79079	4.02676	5.20	72.00	1.27 1	-3.97 2	-1.48 1	4.08 2
3.75808	4.03204	4.80	86.00	8.31 0	-3.37 2	-1.01 1	3.47 2
3.78743	4.03865	5.00	78.00	1.05 1	-3.73 2	-1.24 1	3.83 2
3.77736	4.04792	4.80	85.00	8.50 0	-3.42 2	-1.03 1	3.52 2
3.79679	4.06398	4.80	84.00	8.70 0	-3.47 2	-1.05 1	3.57 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.80	4.00						
3.80531	3.93466	14.00	15.50	3.51 3	-4.03 3	-3.63 3	4.17 3
3.80785	3.93818	12.50	17.50	7.65 2	-1.22 3	-7.94 2	1.26 3
3.80055	3.94213	9.20	26.00	1.45 2	-6.06 2	-1.53 2	6.22 2
3.81786	3.94694	13.50	16.00	1.66 3	-2.10 3	-1.72 3	2.17 3
3.81137	3.94807	10.00	23.00	2.13 2	-6.73 2	-2.23 2	6.91 2
3.81472	3.95435	9.40	25.00	1.62 2	-6.23 2	-1.70 2	6.39 2
3.80117	3.95845	7.60	35.00	6.54 1	-5.28 2	-7.01 1	5.41 2
3.80941	3.96102	8.00	32.00	8.14 1	-5.45 2	-8.67 1	5.58 2
3.83688	3.96565	13.00	16.50	1.15 3	-1.60 3	-1.19 3	1.65 3
3.83523	3.96617	11.50	19.00	4.55 2	-9.11 2	-4.73 2	9.38 2
3.83388	3.97148	9.60	24.00	1.81 2	-6.42 2	-1.90 2	6.59 2
3.84245	3.97219	12.00	18.00	6.03 2	-1.06 3	-6.26 2	1.09 3
3.84052	3.97245	11.00	20.00	3.56 2	-8.13 2	-3.71 2	8.36 2
3.82565	3.97867	7.80	33.00	7.46 1	-5.38 2	-7.96 1	5.52 2
3.81681	3.97932	7.20	38.00	5.32 1	-5.15 2	-5.73 1	5.27 2
3.81425	3.98064	7.00	40.00	4.73 1	-5.07 2	-5.11 1	5.20 2
3.82724	3.98574	7.40	36.00	6.02 1	-5.23 2	-6.46 1	5.36 2
3.84243	3.98626	8.60	28.00	1.14 2	-5.77 2	-1.20 2	5.92 2
3.84559	3.98766	8.80	27.00	1.26 2	-5.89 2	-1.33 2	6.04 2
3.84379	3.98928	8.40	29.00	1.03 2	-5.67 2	-1.09 2	5.81 2
3.81917	3.98933	6.80	42.00	4.22 1	-5.00 2	-4.58 1	5.13 2
3.85824	3.99095	10.50	21.00	2.86 2	-7.45 2	-2.98 2	7.65 2
3.86262	3.99095	12.50	17.00	8.49 2	-1.30 3	-8.81 2	1.34 3
3.85341	3.99365	9.00	26.00	1.40 2	-6.02 2	-1.47 2	6.18 2
3.85837	3.99385	9.80	23.00	2.05 2	-6.66 2	-2.15 2	6.83 2
3.84955	3.99664	8.20	30.00	9.39 1	-5.58 2	-9.96 1	5.72 2
3.87002	3.99717	14.00	15.00	4.19 3	-4.61 3	-4.33 3	4.76 3
3.81864	3.99871	6.40	47.00	3.27 1	-4.84 2	-3.59 1	4.96 2
3.84610	4.00045	7.60	34.00	6.84 1	-5.32 2	-7.31 1	5.46 2
3.81638	4.00261	6.20	50.00	2.85 1	-4.75 2	-3.15 1	4.87 2
3.86608	4.00441	9.20	25.00	1.56 2	-6.18 2	-1.64 2	6.34 2
3.83134	4.00512	6.60	44.00	3.77 1	-4.94 2	-4.11 1	5.06 2
3.87990	4.00689	13.50	15.50	2.08 3	-2.52 3	-2.15 3	2.60 3
3.85968	4.00829	8.00	31.00	8.57 1	-5.50 2	-9.10 1	5.64 2
3.88439	4.01345	11.50	18.50	4.91 2	-9.48 2	-5.10 2	9.75 2
3.81465	4.01565	5.80	57.00	2.13 1	-4.53 2	-2.39 1	4.64 2
3.85261	4.01617	7.00	39.00	4.92 1	-5.11 2	-5.30 1	5.23 2
3.82391	4.01618	6.00	53.00	2.50 1	-4.66 2	-2.77 1	4.77 2
3.88643	4.01653	11.00	19.50	3.79 2	-8.37 2	-3.94 2	8.60 2
3.85759	4.01723	7.20	37.00	5.55 1	-5.19 2	-5.96 1	5.31 2
3.88387	4.02020	9.40	24.00	1.75 2	-6.37 2	-1.83 2	6.53 2
3.88860	4.02187	10.00	22.00	2.33 2	-6.94 2	-2.44 2	7.13 2
3.85545	4.02279	6.80	41.00	4.37 1	-5.04 2	-4.74 1	5.16 2
3.89542	4.02323	12.00	17.50	6.63 2	-1.12 3	-6.88 2	1.15 3
3.89651	4.02323	13.00	16.00	1.36 3	-1.81 3	-1.41 3	1.87 3
3.87415	4.02419	7.80	32.00	7.83 1	-5.43 2	-8.34 1	5.57 2
3.87083	4.02642	7.40	35.00	6.29 1	-5.27 2	-6.73 1	5.40 2
3.81733	4.02701	5.60	61.00	1.83 1	-4.39 2	-2.07 1	4.50 2
3.85061	4.02791	6.40	46.00	3.38 1	-4.88 2	-3.70 1	5.00 2
3.80827	4.02950	5.40	66.00	1.54 1	-4.21 2	-1.76 1	4.32 2
3.84629	4.02975	6.20	49.00	2.94 1	-4.78 2	-3.24 1	4.90 2
3.86581	4.03679	6.60	43.00	3.90 1	-4.97 2	-4.24 1	5.09 2
3.84085	4.03905	5.80	56.00	2.19 1	-4.56 2	-2.45 1	4.68 2
3.90709	4.04133	9.60	23.00	1.97 2	-6.59 2	-2.06 2	6.76 2
3.85210	4.04160	6.00	52.00	2.57 1	-4.69 2	-2.85 1	4.81 2
3.90231	4.04299	8.60	27.00	1.21 2	-5.86 2	-1.28 2	6.00 2
3.90104	4.04343	8.40	28.00	1.09 2	-5.74 2	-1.16 2	5.89 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.89298	4.04438	7.60	33.00	7.18 1	-5.37 2	-7.65 1	5.50 2
3.81222	4.04519	5.20	71.00	1.30 1	-4.02 2	-1.51 1	4.13 2
3.92007	4.04640	12.50	16.50	9.62 2	-1.41 3	-9.97 2	1.46 3
3.90839	4.04728	8.80	26.00	1.34 2	-5.98 2	-1.41 2	6.13 2
3.90442	4.04845	8.20	29.00	9.93 1	-5.65 2	-1.05 2	5.78 2
3.84194	4.04879	5.60	60.00	1.88 1	-4.43 2	-2.12 1	4.54 2
3.83123	4.04957	5.40	65.00	1.58 1	-4.25 2	-1.80 1	4.36 2
3.89236	4.05307	7.00	38.00	5.12 1	-5.15 2	-5.50 1	5.27 2
3.80776	4.05584	5.00	77.00	1.07 1	-3.77 2	-1.27 1	3.88 2
3.91946	4.05647	9.00	25.00	1.50 2	-6.14 2	-1.57 2	6.29 2
3.89995	4.05671	7.20	36.00	5.79 1	-5.23 2	-6.20 1	5.35 2
3.89296	4.05747	6.80	40.00	4.54 1	-5.08 2	-4.90 1	5.20 2
3.87698	4.05767	6.20	48.00	3.04 1	-4.82 2	-3.33 1	4.94 2
3.91240	4.05798	8.00	30.00	9.04 1	-5.56 2	-9.58 1	5.70 2
3.88350	4.05802	6.40	45.00	3.50 1	-4.91 2	-3.81 1	5.03 2
3.93426	4.06251	11.00	19.00	4.05 2	-8.63 2	-4.21 2	8.86 2
3.93574	4.06289	11.50	18.00	5.31 2	-9.88 2	-5.51 2	1.02 3
3.86760	4.06302	5.80	55.00	2.26 1	-4.60 2	-2.52 1	4.71 2
3.93941	4.06343	14.00	14.50	-2.53 4	2.65 4	2.61 4	-2.74 4
3.83393	4.06392	5.20	70.00	1.33 1	-4.06 2	-1.54 1	4.17 2
3.88097	4.06770	6.00	51.00	2.65 1	-4.73 2	-2.93 1	4.84 2
3.93614	4.06820	9.80	22.00	2.24 2	-6.86 2	-2.34 2	7.04 2
3.91623	4.06891	7.40	34.00	6.58 1	-5.32 2	-7.02 1	5.44 2
3.90137	4.06956	6.60	42.00	4.05 1	-5.01 2	-4.39 1	5.13 2
3.85456	4.07003	5.40	64.00	1.62 1	-4.29 2	-1.84 1	4.40 2
3.94533	4.07015	13.50	15.00	2.33 3	-2.70 3	-2.41 3	2.78 3
3.93577	4.07081	9.20	24.00	1.68 2	-6.31 2	-1.76 2	6.47 2
3.86701	4.07104	5.60	59.00	1.93 1	-4.47 2	-2.17 1	4.58 2
3.92491	4.07196	7.80	31.00	8.25 1	-5.49 2	-8.75 1	5.62 2
3.82830	4.07327	5.00	76.00	1.10 1	-3.82 2	-1.29 1	3.92 2
3.94617	4.07530	10.50	20.00	3.19 2	-7.79 2	-3.32 2	8.00 2
3.95090	4.07673	12.00	17.00	7.30 2	-1.18 3	-7.56 2	1.22 3
3.81638	4.08024	4.80	83.00	8.90 0	-3.52 2	-1.07 1	3.61 2
3.85594	4.08298	5.20	69.00	1.36 1	-4.11 2	-1.57 1	4.21 2
3.95928	4.08393	13.00	15.50	1.66 3	-2.12 3	-1.72 3	2.18 3
3.90851	4.08643	6.20	47.00	3.14 1	-4.85 2	-3.43 1	4.97 2
3.89494	4.08759	5.80	54.00	2.32 1	-4.64 2	-2.58 1	4.75 2
3.91738	4.08913	6.40	44.00	3.62 1	-4.95 2	-3.93 1	5.07 2
3.94196	4.09041	7.60	32.00	7.54 1	-5.42 2	-8.01 1	5.55 2
3.95762	4.09061	9.40	23.00	1.89 2	-6.53 2	-1.98 2	6.69 2
3.87828	4.09090	5.40	63.00	1.66 1	-4.33 2	-1.89 1	4.44 2
3.84908	4.09097	5.00	75.00	1.13 1	-3.87 2	-1.32 1	3.97 2
3.93360	4.09146	7.00	37.00	5.33 1	-5.19 2	-5.72 1	5.31 2
3.93177	4.09347	6.80	39.00	4.72 1	-5.11 2	-5.08 1	5.23 2
3.89256	4.09380	5.60	58.00	1.99 1	-4.51 2	-2.23 1	4.62 2
3.91055	4.09452	6.00	50.00	2.73 1	-4.76 2	-3.01 1	4.88 2
3.83613	4.09671	4.80	82.00	9.11 0	-3.56 2	-1.09 1	3.66 2
3.94400	4.09789	7.20	35.00	6.05 1	-5.27 2	-6.46 1	5.39 2
3.96144	4.10071	8.40	27.00	1.16 2	-5.82 2	-1.23 2	5.96 2
3.97152	4.10132	10.00	21.00	2.58 2	-7.19 2	-2.68 2	7.38 2
3.81803	4.10213	4.60	90.00	7.21 0	-3.20 2	-8.88 0	3.29 2
3.87826	4.10238	5.20	68.00	1.40 1	-4.15 2	-1.61 1	4.26 2
3.96219	4.10314	8.20	28.00	1.05 2	-5.72 2	-1.11 2	5.85 2
3.96564	4.10316	8.60	26.00	1.29 2	-5.95 2	-1.36 2	6.09 2
3.93809	4.10350	6.60	41.00	4.20 1	-5.04 2	-4.54 1	5.16 2
3.98043	4.10474	12.50	16.00	1.11 3	-1.56 3	-1.15 3	1.61 3
3.87010	4.10893	5.00	74.00	1.15 1	-3.91 2	-1.35 1	4.01 2
3.96777	4.11031	8.00	29.00	9.56 1	-5.63 2	-1.01 2	5.76 2
3.98414	4.11053	11.00	18.50	4.34 2	-8.93 2	-4.51 2	9.17 2
3.97498	4.11066	8.80	25.00	1.44 2	-6.09 2	-1.51 2	6.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
3.90241	4.11220	5.40	62.00	1.71 1	-4.37 2	-1.93 1	4.48 2
3.92290	4.11279	5.80	53.00	2.39 1	-4.67 2	-2.65 1	4.79 2
3.96360	4.11336	7.40	33.00	6.90 1	-5.36 2	-7.34 1	5.49 2
3.85606	4.11339	4.80	81.00	9.32 0	-3.61 2	-1.11 1	3.71 2
3.98943	4.11468	11.50	17.50	5.80 2	-1.04 3	-6.01 2	1.07 3
3.94091	4.11609	6.20	46.00	3.24 1	-4.89 2	-3.54 1	5.00 2
3.98541	4.11626	9.60	22.00	2.15 2	-6.78 2	-2.25 2	6.95 2
3.91863	4.11709	5.60	57.00	2.04 1	-4.55 2	-2.28 1	4.66 2
3.83718	4.11772	4.60	89.00	7.38 0	-3.25 2	-9.04 0	3.34 2
3.99279	4.12012	10.50	19.50	3.39 2	-8.00 2	-3.53 2	8.20 2
3.95229	4.12127	6.40	43.00	3.75 1	-4.98 2	-4.05 1	5.10 2
3.94088	4.12210	6.00	49.00	2.82 1	-4.80 2	-3.09 1	4.91 2
3.90091	4.12213	5.20	67.00	1.43 1	-4.19 2	-1.64 1	4.30 2
3.97813	4.12218	7.80	30.00	8.69 1	-5.55 2	-9.20 1	5.67 2
3.98969	4.12343	9.00	24.00	1.61 2	-6.26 2	-1.69 2	6.41 2
3.89137	4.12718	5.00	73.00	1.18 1	-3.96 2	-1.37 1	4.06 2
3.87617	4.13028	4.80	80.00	9.54 0	-3.66 2	-1.13 1	3.76 2
3.97199	4.13087	6.80	38.00	4.91 1	-5.15 2	-5.28 1	5.27 2
3.97644	4.13145	7.00	36.00	5.56 1	-5.23 2	-5.95 1	5.35 2
3.85645	4.13349	4.60	88.00	7.55 0	-3.30 2	-9.21 0	3.39 2
3.92696	4.13394	5.40	61.00	1.75 1	-4.41 2	-1.97 1	4.52 2
3.95150	4.13864	5.80	52.00	2.46 1	-4.71 2	-2.72 1	4.82 2
3.97605	4.13867	6.60	40.00	4.36 1	-5.08 2	-4.70 1	5.20 2
3.99322	4.13871	7.60	31.00	7.93 1	-5.47 2	-8.40 1	5.60 2
3.98990	4.14090	7.20	34.00	6.33 1	-5.31 2	-6.74 1	5.43 2
3.94523	4.14092	5.60	56.00	2.10 1	-4.58 2	-2.34 1	4.69 2
3.92390	4.14224	5.20	66.00	1.47 1	-4.23 2	-1.68 1	4.34 2
3.91290	4.14572	5.00	72.00	1.21 1	-4.00 2	-1.40 1	4.10 2
3.97425	4.14667	6.20	45.00	3.35 1	-4.92 2	-3.65 1	5.04 2
3.89647	4.14741	4.80	79.00	9.76 0	-3.71 2	-1.16 1	3.81 2
3.87585	4.14942	4.60	87.00	7.72 0	-3.35 2	-9.38 0	3.44 2
3.97200	4.15048	6.00	48.00	2.91 1	-4.83 2	-3.18 1	4.95 2
3.98830	4.15451	6.40	42.00	3.88 1	-5.02 2	-4.20 1	5.13 2
3.95197	4.15615	5.40	60.00	1.80 1	-4.45 2	-2.02 1	4.56 2
3.94726	4.16273	5.20	65.00	1.51 1	-4.28 2	-1.71 1	4.38 2
3.93472	4.16457	5.00	71.00	1.24 1	-4.04 2	-1.43 1	4.15 2
3.91698	4.16477	4.80	78.00	9.99 0	-3.75 2	-1.18 1	3.85 2
3.98079	4.16519	5.80	51.00	2.54 1	-4.75 2	-2.79 1	4.86 2
3.97240	4.16534	5.60	55.00	2.16 1	-4.62 2	-2.40 1	4.73 2
3.89538	4.16554	4.60	86.00	7.90 0	-3.40 2	-9.56 0	3.49 2
3.97745	4.17884	5.40	59.00	1.85 1	-4.49 2	-2.07 1	4.60 2
3.91506	4.18184	4.60	85.00	8.08 0	-3.44 2	-9.74 0	3.54 2
3.93770	4.18238	4.80	77.00	1.02 1	-3.80 2	-1.20 1	3.90 2
3.97099	4.18362	5.20	64.00	1.55 1	-4.32 2	-1.75 1	4.42 2
3.95682	4.18373	5.00	70.00	1.27 1	-4.09 2	-1.46 1	4.19 2
3.93488	4.19834	4.60	84.00	8.27 0	-3.49 2	-9.92 0	3.59 2
3.95864	4.20024	4.80	76.00	1.05 1	-3.85 2	-1.23 1	3.95 2
3.97923	4.20321	5.00	69.00	1.30 1	-4.13 2	-1.49 1	4.23 2
3.99512	4.20493	5.20	63.00	1.59 1	-4.36 2	-1.79 1	4.46 2
3.95487	4.21503	4.60	83.00	8.46 0	-3.54 2	-1.01 1	3.64 2
3.97981	4.21837	4.80	75.00	1.07 1	-3.89 2	-1.25 1	3.99 2
3.97502	4.23194	4.60	82.00	8.66 0	-3.59 2	-1.03 1	3.69 2
3.96594	4.24596	4.40	90.00	6.84 0	-3.22 2	-8.36 0	3.31 2
3.99535	4.24905	4.60	81.00	8.86 0	-3.64 2	-1.05 1	3.73 2
3.98550	4.26201	4.40	89.00	7.00 0	-3.27 2	-8.52 0	3.36 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.00	4.20						
4.00909	4.13295	12.00	16.50	8.17 2	-1.27 3	-8.45 2	1.31 3
4.01446	4.13713	13.50	14.50	2.82 3	-3.11 3	-2.91 3	3.21 3
4.01007	4.14180	9.20	23.00	1.82 2	-6.46 2	-1.90 2	6.62 2
4.02546	4.14799	13.00	15.00	1.97 3	-2.40 3	-2.03 3	2.47 3
4.01964	4.14825	9.80	21.00	2.47 2	-7.10 2	-2.57 2	7.27 2
4.01308	4.15992	7.40	32.00	7.24 1	-5.41 2	-7.69 1	5.53 2
4.03623	4.16074	11.00	18.00	4.68 2	-9.26 2	-4.85 2	9.51 2
4.02313	4.16098	8.20	27.00	1.12 2	-5.80 2	-1.18 2	5.93 2
4.02531	4.16144	8.40	26.00	1.24 2	-5.91 2	-1.31 2	6.05 2
4.02607	4.16556	8.00	28.00	1.01 2	-5.69 2	-1.07 2	5.83 2
4.03652	4.16614	9.40	22.00	2.07 2	-6.71 2	-2.16 2	6.87 2
4.04396	4.16622	12.50	15.50	1.30 3	-1.76 3	-1.35 3	1.81 3
4.04136	4.16687	10.50	19.00	3.61 2	-8.22 2	-3.75 2	8.43 2
4.03279	4.16712	8.60	25.00	1.39 2	-6.05 2	-1.45 2	6.19 2
4.04567	4.16897	11.50	17.00	6.34 2	-1.09 3	-6.56 2	1.12 3
4.01371	4.16977	6.80	37.00	5.12 1	-5.19 2	-5.48 1	5.30 2
4.02099	4.17315	7.00	35.00	5.81 1	-5.27 2	-6.20 1	5.39 2
4.03404	4.17508	7.80	29.00	9.19 1	-5.61 2	-9.70 1	5.73 2
4.01534	4.17516	6.60	39.00	4.53 1	-5.12 2	-4.87 1	5.23 2
4.04578	4.17821	8.80	24.00	1.55 2	-6.21 2	-1.62 2	6.36 2
4.00857	4.17825	6.20	44.00	3.47 1	-4.96 2	-3.76 1	5.07 2
4.00397	4.17971	6.00	47.00	3.00 1	-4.87 2	-3.28 1	4.98 2
4.03777	4.18587	7.20	33.00	6.63 1	-5.36 2	-7.05 1	5.48 2
4.06090	4.18718	10.00	20.00	2.87 2	-7.49 2	-2.98 2	7.68 2
4.02550	4.18894	6.40	41.00	4.03 1	-5.05 2	-4.34 1	5.17 2
4.04697	4.18948	7.60	30.00	8.36 1	-5.53 2	-8.84 1	5.65 2
4.00016	4.19035	5.60	54.00	2.22 1	-4.66 2	-2.46 1	4.77 2
4.07022	4.19209	12.00	16.00	9.25 2	-1.38 3	-9.56 2	1.42 3
4.01080	4.19248	5.80	50.00	2.61 1	-4.78 2	-2.87 1	4.89 2
4.06458	4.19503	9.00	23.00	1.75 2	-6.40 2	-1.83 2	6.55 2
4.06950	4.19692	9.60	21.00	2.37 2	-7.01 2	-2.47 2	7.18 2
4.00342	4.20204	5.40	58.00	1.90 1	-4.53 2	-2.12 1	4.64 2
4.08766	4.20807	13.50	14.00	1.34 3	-1.42 3	-1.39 3	1.46 3
4.06488	4.20877	7.40	31.00	7.62 1	-5.46 2	-8.06 1	5.58 2
4.03682	4.20984	6.00	46.00	3.10 1	-4.90 2	-3.38 1	5.01 2
4.05705	4.21028	6.80	36.00	5.34 1	-5.23 2	-5.70 1	5.34 2
4.04395	4.21088	6.20	43.00	3.59 1	-4.99 2	-3.88 1	5.10 2
4.05605	4.21307	6.60	38.00	4.71 1	-5.15 2	-5.05 1	5.27 2
4.09070	4.21933	11.00	17.50	5.08 2	-9.67 2	-5.25 2	9.92 2
4.09201	4.21968	10.50	18.50	3.86 2	-8.48 2	-4.00 2	8.69 2
4.09538	4.21980	13.00	14.50	2.63 3	-3.06 3	-2.71 3	3.14 3
4.02855	4.21601	5.60	53.00	2.28 1	-4.69 2	-2.52 1	4.80 2
4.06740	4.21669	7.00	34.00	6.07 1	-5.31 2	-6.46 1	5.42 2
4.08956	4.21795	9.20	22.00	1.98 2	-6.64 2	-2.07 2	6.79 2
4.04158	4.22053	5.80	49.00	2.70 1	-4.82 2	-2.95 1	4.92 2
4.08757	4.22230	8.20	26.00	1.19 2	-5.88 2	-1.25 2	6.01 2
4.00196	4.22305	5.00	68.00	1.33 1	-4.17 2	-1.52 1	4.28 2
4.08757	4.22398	8.00	27.00	1.08 2	-5.77 2	-1.13 2	5.90 2
4.06394	4.22462	6.40	40.00	4.18 1	-5.09 2	-4.50 1	5.20 2
4.02991	4.22578	5.40	57.00	1.95 1	-4.57 2	-2.17 1	4.67 2
4.10464	4.22600	11.50	16.50	7.03 2	-1.16 3	-7.26 2	1.19 3
4.09303	4.22600	8.40	25.00	1.33 2	-6.01 2	-1.39 2	6.15 2
4.01966	4.22667	5.20	62.00	1.63 1	-4.40 2	-1.83 1	4.50 2
4.09289	4.23090	7.80	28.00	9.73 1	-5.67 2	-1.02 2	5.80 2
4.11093	4.23111	12.50	15.00	1.52 3	-1.96 3	-1.57 3	2.01 3
4.10829	4.23280	10.00	19.50	3.04 2	-7.67 2	-3.15 2	7.85 2
4.08779	4.23299	7.20	32.00	6.95 1	-5.40 2	-7.37 1	5.52 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.10964	4.23475	9.80	20.00	2.74 2	-7.38 2	-2.85 2	7.56 2
4.10416	4.23528	8.60	24.00	1.49 2	-6.16 2	-1.56 2	6.31 2
4.00123	4.23677	4.80	74.00	1.10 1	-3.94 2	-1.27 1	4.04 2
4.07063	4.24091	6.00	45.00	3.21 1	-4.94 2	-3.48 1	5.05 2
4.05759	4.24233	5.60	52.00	2.35 1	-4.73 2	-2.59 1	4.84 2
4.10344	4.24295	7.60	29.00	8.83 1	-5.59 2	-9.31 1	5.71 2
4.02502	4.24323	5.00	67.00	1.37 1	-4.22 2	-1.56 1	4.32 2
4.08044	4.24463	6.20	42.00	3.72 1	-5.03 2	-4.01 1	5.14 2
4.12122	4.24744	9.40	21.00	2.27 2	-6.92 2	-2.36 2	7.08 2
4.04464	4.24886	5.20	61.00	1.67 1	-4.44 2	-1.88 1	4.54 2
4.07316	4.24939	5.80	48.00	2.78 1	-4.85 2	-3.04 1	4.96 2
4.05694	4.25007	5.40	56.00	2.00 1	-4.60 2	-2.23 1	4.71 2
4.12126	4.25042	8.80	23.00	1.68 2	-6.35 2	-1.75 2	6.49 2
4.09828	4.25250	6.60	37.00	4.91 1	-5.19 2	-5.25 1	5.30 2
4.10212	4.25252	6.80	35.00	5.57 1	-5.26 2	-5.94 1	5.38 2
4.13456	4.25441	12.00	15.50	1.06 3	-1.52 3	-1.10 3	1.56 3
4.02291	4.25546	4.80	73.00	1.12 1	-3.98 2	-1.30 1	4.08 2
4.11918	4.26012	7.40	30.00	8.02 1	-5.51 2	-8.48 1	5.63 2
4.10373	4.26164	6.40	39.00	4.34 1	-5.12 2	-4.66 1	5.23 2
4.11580	4.26222	7.00	33.00	6.36 1	-5.35 2	-6.75 1	5.47 2
4.04843	4.26379	5.00	66.00	1.40 1	-4.26 2	-1.59 1	4.36 2
4.01587	4.26639	4.60	80.00	9.06 0	-3.69 2	-1.07 1	3.78 2
4.14489	4.26672	10.50	18.00	4.14 2	-8.76 2	-4.29 2	8.97 2
4.14774	4.26846	11.00	17.00	5.52 2	-1.01 3	-5.70 2	1.04 3
4.08733	4.26936	5.60	51.00	2.42 1	-4.76 2	-2.66 1	4.87 2
4.07007	4.27152	5.20	60.00	1.71 1	-4.48 2	-1.92 1	4.58 2
4.14468	4.27181	9.00	22.00	1.90 2	-6.57 2	-1.98 2	6.72 2
4.10543	4.27300	6.00	44.00	3.32 1	-4.97 2	-3.59 1	5.08 2
4.04486	4.27444	4.80	72.00	1.15 1	-4.03 2	-1.33 1	4.13 2
4.08455	4.27495	5.40	55.00	2.06 1	-4.64 2	-2.28 1	4.75 2
4.00519	4.27823	4.40	88.00	7.16 0	-3.32 2	-8.67 0	3.41 2
4.10559	4.27911	5.80	47.00	2.87 1	-4.88 2	-3.13 1	4.99 2
4.11813	4.27957	6.20	41.00	3.85 1	-5.06 2	-4.15 1	5.17 2
4.15765	4.28037	10.00	19.00	3.22 2	-7.86 2	-3.34 2	8.05 2
4.15735	4.28070	9.80	19.50	2.90 2	-7.54 2	-3.01 2	7.72 2
4.14013	4.28242	7.20	31.00	7.31 1	-5.45 2	-7.73 1	5.57 2
4.03659	4.28396	4.60	79.00	9.27 0	-3.73 2	-1.09 1	3.83 2
4.16013	4.28408	9.60	20.00	2.63 2	-7.27 2	-2.73 2	7.44 2
4.07221	4.28474	5.00	65.00	1.43 1	-4.30 2	-1.63 1	4.40 2
4.15260	4.28592	8.00	26.00	1.15 2	-5.85 2	-1.20 2	5.98 2
4.16660	4.28599	11.50	16.00	7.87 2	-1.25 3	-8.12 2	1.28 3
4.15588	4.28748	8.20	25.00	1.28 2	-5.97 2	-1.34 2	6.10 2
4.16941	4.28766	13.00	14.00	3.09 3	-3.42 3	-3.18 3	3.52 3
4.15497	4.28993	7.80	27.00	1.03 2	-5.74 2	-1.09 2	5.87 2
4.14213	4.29356	6.60	36.00	5.12 1	-5.23 2	-5.46 1	5.34 2
4.06709	4.29374	4.80	71.00	1.18 1	-4.07 2	-1.36 1	4.17 2
4.02500	4.29462	4.40	87.00	7.33 0	-3.37 2	-8.84 0	3.46 2
4.09599	4.29468	5.20	59.00	1.76 1	-4.51 2	-1.97 1	4.62 2
4.16501	4.29479	8.40	24.00	1.43 2	-6.12 2	-1.50 2	6.25 2
4.14906	4.29662	6.80	34.00	5.83 1	-5.31 2	-6.19 1	5.42 2
4.11781	4.29713	5.60	50.00	2.50 1	-4.80 2	-2.74 1	4.90 2
4.16286	4.29938	7.60	28.00	9.35 1	-5.65 2	-9.83 1	5.77 2
4.18170	4.29979	12.50	14.50	1.88 3	-2.32 3	-1.94 3	2.38 3
4.17490	4.29990	9.20	21.00	2.18 2	-6.84 2	-2.26 2	7.00 2
4.14495	4.30009	6.40	38.00	4.51 1	-5.16 2	-4.83 1	5.27 2
4.11276	4.30045	5.40	54.00	2.12 1	-4.68 2	-2.34 1	4.78 2
4.05751	4.30178	4.60	78.00	9.49 0	-3.78 2	-1.11 1	3.88 2
4.09637	4.30609	5.00	64.00	1.47 1	-4.34 2	-1.66 1	4.44 2
4.14129	4.30614	6.00	43.00	3.43 1	-5.00 2	-3.71 1	5.11 2
4.18026	4.30813	8.60	23.00	1.61 2	-6.29 2	-1.68 2	6.43 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.13893	4.30975	5.80	46.00	2.96 1	-4.92 2	-3.22 1	5.02 2
4.16637	4.30991	7.00	32.00	6.67 1	-5.40 2	-7.07 1	5.51 2
4.04495	4.31119	4.40	86.00	7.49 0	-3.42 2	-9.00 0	3.51 2
4.08962	4.31335	4.80	70.00	1.21 1	-4.12 2	-1.38 1	4.21 2
4.17621	4.31419	7.40	29.00	8.47 1	-5.57 2	-8.93 1	5.69 2
4.15708	4.31578	6.20	40.00	4.00 1	-5.10 2	-4.30 1	5.20 2
4.12240	4.31835	5.20	58.00	1.81 1	-4.55 2	-2.01 1	4.66 2
4.07865	4.31984	4.60	77.00	9.71 0	-3.83 2	-1.13 1	3.92 2
4.14905	4.32568	5.60	49.00	2.57 1	-4.83 2	-2.81 1	4.94 2
4.14161	4.32659	5.40	53.00	2.18 1	-4.71 2	-2.40 1	4.82 2
4.12093	4.32786	5.00	63.00	1.51 1	-4.38 2	-1.70 1	4.48 2
4.06505	4.32796	4.40	85.00	7.67 0	-3.47 2	-9.17 0	3.56 2
4.11246	4.33330	4.80	69.00	1.24 1	-4.16 2	-1.41 1	4.26 2
4.19501	4.33436	7.20	30.00	7.70 1	-5.50 2	-8.12 1	5.62 2
4.18774	4.33636	6.60	35.00	5.34 1	-5.26 2	-5.68 1	5.37 2
4.10001	4.33816	4.60	76.00	9.94 0	-3.87 2	-1.16 1	3.97 2
4.18771	4.34007	6.40	37.00	4.70 1	-5.19 2	-5.02 1	5.30 2
4.17829	4.34042	6.00	42.00	3.56 1	-5.04 2	-3.83 1	5.14 2
4.17322	4.34134	5.80	45.00	3.06 1	-4.95 2	-3.32 1	5.06 2
4.14934	4.34257	5.20	57.00	1.86 1	-4.59 2	-2.06 1	4.69 2
4.19802	4.34273	6.80	33.00	6.10 1	-5.35 2	-6.47 1	5.46 2
4.08530	4.34491	4.40	84.00	7.84 0	-3.52 2	-9.35 0	3.61 2
4.14592	4.35007	5.00	62.00	1.55 1	-4.42 2	-1.74 1	4.52 2
4.19739	4.35335	6.20	39.00	4.16 1	-5.13 2	-4.45 1	5.24 2
4.17112	4.35341	5.40	52.00	2.24 1	-4.75 2	-2.47 1	4.85 2
4.13562	4.35359	4.80	68.00	1.27 1	-4.20 2	-1.44 1	4.30 2
4.18112	4.35505	5.60	48.00	2.66 1	-4.87 2	-2.89 1	4.97 2
4.12162	4.35675	4.60	75.00	1.02 1	-3.92 2	-1.18 1	4.02 2
4.10572	4.36208	4.40	83.00	8.02 0	-3.57 2	-9.52 0	3.66 2
4.17684	4.36735	5.20	56.00	1.91 1	-4.63 2	-2.11 1	4.73 2
4.17134	4.37274	5.00	61.00	1.59 1	-4.46 2	-1.78 1	4.56 2
4.15912	4.37425	4.80	67.00	1.30 1	-4.25 2	-1.47 1	4.34 2
4.14347	4.37561	4.60	74.00	1.04 1	-3.97 2	-1.20 1	4.06 2
4.12630	4.37945	4.40	82.00	8.21 0	-3.62 2	-9.71 0	3.71 2
4.16559	4.39477	4.60	73.00	1.07 1	-4.01 2	-1.23 1	4.11 2
4.18297	4.39529	4.80	66.00	1.33 1	-4.29 2	-1.51 1	4.38 2
4.19723	4.39588	5.00	60.00	1.63 1	-4.50 2	-1.82 1	4.60 2
4.14707	4.39703	4.40	81.00	8.39 0	-3.67 2	-9.89 0	3.76 2
4.12779	4.40361	4.20	90.00	6.48 0	-3.25 2	-7.85 0	3.34 2
4.18798	4.41423	4.60	72.00	1.09 1	-4.06 2	-1.25 1	4.15 2
4.16803	4.41485	4.40	80.00	8.59 0	-3.72 2	-1.01 1	3.81 2
4.14780	4.42014	4.20	89.00	6.62 0	-3.30 2	-8.00 0	3.39 2
4.18919	4.43290	4.40	79.00	8.79 0	-3.76 2	-1.03 1	3.85 2
4.16793	4.43685	4.20	88.00	6.77 0	-3.35 2	-8.15 0	3.44 2
4.18820	4.45373	4.20	87.00	6.93 0	-3.40 2	-8.30 0	3.49 2
4.20	4.40						
4.20019	4.32017	10.50	17.50	4.47 2	-9.09 2	-4.62 2	9.31 2
4.20238	4.32018	12.00	15.00	1.22 3	-1.67 3	-1.26 3	1.71 3
4.20756	4.32636	11.00	16.50	6.06 2	-1.07 3	-6.26 2	1.09 3
4.20199	4.32787	8.80	22.00	1.83 2	-6.50 2	-1.90 2	6.65 2
4.20704	4.32862	9.80	19.00	3.08 2	-7.72 2	-3.19 2	7.90 2
4.20912	4.33004	10.00	18.50	3.43 2	-8.08 2	-3.56 2	8.27 2
4.20818	4.33038	9.60	19.50	2.78 2	-7.43 2	-2.88 2	7.60 2
4.21250	4.33527	9.40	20.00	2.51 2	-7.17 2	-2.61 2	7.34 2
4.23179	4.34920	11.50	15.50	8.92 2	-1.35 3	-9.20 2	1.39 3
4.22153	4.35174	8.00	25.00	1.23 2	-5.94 2	-1.28 2	6.06 2
4.22061	4.35250	7.80	26.00	1.10 2	-5.82 2	-1.15 2	5.94 2
4.23066	4.35444	9.00	21.00	2.09 2	-6.76 2	-2.17 2	6.91 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.22849	4.35692	8.20	24.00	1.37 2	-6.08 2	-1.43 2	6.21 2
4.22555	4.35904	7.60	27.00	9.92 1	-5.72 2	-1.04 2	5.84 2
4.21929	4.35994	7.00	31.00	7.01 1	-5.44 2	-7.41 1	5.55 2
4.24795	4.36415	13.00	13.50	-6.65 3	7.00 3	6.83 3	-7.19 3
4.24175	4.36831	8.40	23.00	1.54 2	-6.24 2	-1.61 2	6.38 2
4.23624	4.37124	7.40	28.00	8.97 1	-5.63 2	-9.42 1	5.75 2
4.25660	4.37257	12.50	14.00	2.26 3	-2.64 3	-2.32 3	2.71 3
4.20853	4.37395	5.80	44.00	3.17 1	-4.99 2	-3.43 1	5.09 2
4.21650	4.37591	6.00	41.00	3.69 1	-5.07 2	-3.96 1	5.18 2
4.25809	4.37619	10.50	17.00	4.84 2	-9.45 2	-4.99 2	9.68 2
4.25886	4.37865	9.80	18.50	3.28 2	-7.92 2	-3.39 2	8.10 2
4.25822	4.37865	9.60	19.00	2.94 2	-7.60 2	-3.05 2	7.77 2
4.20134	4.38094	5.40	51.00	2.31 1	-4.78 2	-2.53 1	4.89 2
4.23525	4.38105	6.60	34.00	5.58 1	-5.30 2	-5.93 1	5.41 2
4.23211	4.38170	6.40	36.00	4.90 1	-5.23 2	-5.22 1	5.34 2
4.26089	4.38192	9.40	19.50	2.65 2	-7.32 2	-2.75 2	7.48 2
4.26287	4.38196	10.00	18.00	3.67 2	-8.31 2	-3.80 2	8.50 2
4.21404	4.38530	5.60	47.00	2.74 1	-4.90 2	-2.98 1	5.00 2
4.26166	4.38626	8.60	22.00	1.75 2	-6.44 2	-1.82 2	6.58 2
4.27039	4.38725	11.00	16.00	6.71 2	-1.13 3	-6.92 2	1.16 3
4.26685	4.38843	9.20	20.00	2.41 2	-7.08 2	-2.50 2	7.23 2
4.25264	4.38905	7.20	29.00	8.13 1	-5.56 2	-8.55 1	5.67 2
4.27403	4.38977	12.00	14.50	1.46 3	-1.90 3	-1.50 3	1.95 3
4.24917	4.39102	6.80	32.00	6.40 1	-5.39 2	-6.77 1	5.50 2
4.23915	4.39237	6.20	38.00	4.32 1	-5.16 2	-4.62 1	5.27 2
4.20491	4.39273	5.20	55.00	1.96 1	-4.67 2	-2.17 1	4.77 2
4.24491	4.40764	5.80	43.00	3.28 1	-5.02 2	-3.54 1	5.12 2
4.23230	4.40923	5.40	50.00	2.38 1	-4.82 2	-2.60 1	4.92 2
4.28866	4.41120	8.80	21.00	2.00 2	-6.68 2	-2.07 2	6.83 2
4.27477	4.41251	7.00	30.00	7.38 1	-5.49 2	-7.78 1	5.60 2
4.25599	4.41268	6.00	40.00	3.82 1	-5.10 2	-4.10 1	5.21 2
4.30052	4.41591	11.50	15.00	1.01 3	-1.47 3	-1.04 3	1.50 3
4.24789	4.41646	5.60	46.00	2.83 1	-4.94 2	-3.07 1	5.04 2
4.20720	4.41671	4.80	65.00	1.36 1	-4.33 2	-1.54 1	4.43 2
4.23360	4.41873	5.20	54.00	2.02 1	-4.70 2	-2.22 1	4.80 2
4.29019	4.41899	7.80	25.00	1.18 2	-5.90 2	-1.23 2	6.03 2
4.22361	4.41953	5.00	59.00	1.67 1	-4.54 2	-1.86 1	4.64 2
4.29480	4.42186	8.00	24.00	1.32 2	-6.04 2	-1.37 2	6.16 2
4.29183	4.42227	7.60	26.00	1.06 2	-5.79 2	-1.11 2	5.91 2
4.27829	4.42510	6.40	35.00	5.11 1	-5.27 2	-5.43 1	5.37 2
4.28479	4.42777	6.60	33.00	5.84 1	-5.34 2	-6.19 1	5.45 2
4.31039	4.42905	9.60	18.50	3.13 2	-7.79 2	-3.23 2	7.96 2
4.31128	4.43056	9.40	19.00	2.81 2	-7.48 2	-2.91 2	7.64 2
4.31296	4.43095	9.80	18.00	3.49 2	-8.14 2	-3.61 2	8.33 2
4.30590	4.43113	8.20	23.00	1.48 2	-6.19 2	-1.54 2	6.32 2
4.29956	4.43155	7.40	27.00	9.51 1	-5.70 2	-9.97 1	5.81 2
4.28247	4.43293	6.20	37.00	4.50 1	-5.20 2	-4.80 1	5.30 2
4.21066	4.43401	4.60	71.00	1.12 1	-4.10 2	-1.28 1	4.19 2
4.31881	4.43502	10.50	16.50	5.28 2	-9.90 2	-5.44 2	1.01 3
4.31559	4.43545	9.20	19.50	2.54 2	-7.21 2	-2.63 2	7.37 2
4.31905	4.43633	10.00	17.50	3.94 2	-8.59 2	-4.07 2	8.79 2
4.26405	4.43830	5.40	49.00	2.45 1	-4.85 2	-2.68 1	4.95 2
4.23182	4.43855	4.80	64.00	1.40 1	-4.37 2	-1.57 1	4.47 2
4.30269	4.44168	6.80	31.00	6.72 1	-5.43 2	-7.09 1	5.54 2
4.28244	4.44248	5.80	42.00	3.40 1	-5.05 2	-3.65 1	5.15 2
4.32331	4.44369	9.00	20.00	2.30 2	-6.98 2	-2.39 2	7.13 2
4.25050	4.44371	5.00	58.00	1.72 1	-4.58 2	-1.91 1	4.68 2
4.26293	4.44538	5.20	53.00	2.08 1	-4.74 2	-2.28 1	4.84 2
4.31330	4.44676	7.20	28.00	8.60 1	-5.61 2	-9.03 1	5.73 2
4.32383	4.44714	8.40	22.00	1.68 2	-6.38 2	-1.74 2	6.51 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.28270	4.44860	5.60	45.00	2.92 1	-4.97 2	-3.16 1	5.07 2
4.33608	4.44995	12.50	13.50	4.01 3	-4.47 3	-4.12 3	4.58 3
4.29685	4.45083	6.00	39.00	3.97 1	-5.14 2	-4.25 1	5.24 2
4.21056	4.45120	4.40	78.00	8.99 0	-3.81 2	-1.05 1	3.90 2
4.33650	4.45141	11.00	15.50	7.51 2	-1.21 3	-7.73 2	1.24 3
4.23364	4.45411	4.60	70.00	1.14 1	-4.15 2	-1.31 1	4.24 2
4.25685	4.46082	4.80	63.00	1.43 1	-4.41 2	-1.61 1	4.51 2
4.34987	4.46352	12.00	14.00	1.74 3	-2.16 3	-1.79 3	2.21 3
4.33303	4.46786	7.00	29.00	7.79 1	-5.54 2	-8.19 1	5.65 2
4.29662	4.46821	5.40	48.00	2.53 1	-4.89 2	-2.75 1	4.99 2
4.27792	4.46843	5.00	57.00	1.77 1	-4.62 2	-1.96 1	4.71 2
4.23215	4.46975	4.40	77.00	9.20 0	-3.86 2	-1.07 1	3.95 2
4.34902	4.47031	8.60	21.00	1.91 2	-6.61 2	-1.99 2	6.75 2
4.32639	4.47040	6.40	34.00	5.34 1	-5.30 2	-5.66 1	5.41 2
4.20860	4.47080	4.20	86.00	7.09 0	-3.45 2	-8.46 0	3.54 2
4.29295	4.47273	5.20	52.00	2.14 1	-4.77 2	-2.34 1	4.87 2
4.25693	4.47455	4.60	69.00	1.17 1	-4.19 2	-1.33 1	4.28 2
4.32745	4.47517	6.20	36.00	4.69 1	-5.23 2	-4.98 1	5.34 2
4.33655	4.47670	6.60	32.00	6.12 1	-5.38 2	-6.47 1	5.49 2
4.32120	4.47854	5.80	41.00	3.52 1	-5.08 2	-3.78 1	5.18 2
4.36383	4.48135	9.40	18.50	2.98 2	-7.65 2	-3.08 2	7.82 2
4.36486	4.48173	9.60	18.00	3.33 2	-7.99 2	-3.44 2	8.17 2
4.31854	4.48177	5.60	44.00	3.02 1	-5.00 2	-3.26 1	5.10 2
4.28231	4.48353	4.80	62.00	1.47 1	-4.45 2	-1.65 1	4.55 2
4.36636	4.48447	9.20	19.00	2.68 2	-7.36 2	-2.78 2	7.52 2
4.36952	4.48570	9.80	17.50	3.75 2	-8.41 2	-3.87 2	8.59 2
4.37311	4.48648	11.50	14.50	1.19 3	-1.64 3	-1.22 3	1.68 3
4.22916	4.48806	4.20	85.00	7.25 0	-3.50 2	-8.62 0	3.59 2
4.25397	4.48856	4.40	76.00	9.41 0	-3.91 2	-1.09 1	4.00 2
4.36207	4.48945	7.60	25.00	1.13 2	-5.87 2	-1.18 2	5.99 2
4.36413	4.48981	7.80	24.00	1.26 2	-6.00 2	-1.32 2	6.12 2
4.33918	4.49044	6.00	38.00	4.13 1	-5.17 2	-4.41 1	5.27 2
4.37242	4.49109	9.00	19.50	2.43 2	-7.11 2	-2.51 2	7.26 2
4.37788	4.49331	10.00	17.00	4.25 2	-8.90 2	-4.38 2	9.09 2
4.30590	4.49374	5.00	56.00	1.81 1	-4.65 2	-2.00 1	4.75 2
4.35879	4.49491	6.80	30.00	7.07 1	-5.48 2	-7.44 1	5.59 2
4.28056	4.49534	4.60	68.00	1.20 1	-4.23 2	-1.36 1	4.32 2
4.36650	4.49547	7.40	26.00	1.01 2	-5.76 2	-1.06 2	5.88 2
4.37290	4.49679	8.00	23.00	1.42 2	-6.15 2	-1.48 2	6.27 2
4.38258	4.49688	10.50	16.00	5.80 2	-1.04 3	-5.97 2	1.07 3
4.33007	4.49901	5.40	47.00	2.61 1	-4.92 2	-2.83 1	5.02 2
4.32367	4.50080	5.20	51.00	2.20 1	-4.81 2	-2.41 1	4.90 2
4.38203	4.50120	8.80	20.00	2.20 2	-6.89 2	-2.28 2	7.04 2
4.24987	4.50552	4.20	84.00	7.41 0	-3.55 2	-8.78 0	3.64 2
4.30822	4.50671	4.80	61.00	1.51 1	-4.49 2	-1.68 1	4.59 2
4.27604	4.50764	4.40	75.00	9.63 0	-3.95 2	-1.11 1	4.04 2
4.37728	4.50776	7.20	27.00	9.11 1	-5.67 2	-9.55 1	5.78 2
4.38868	4.51069	8.20	22.00	1.61 2	-6.33 2	-1.67 2	6.45 2
4.36125	4.51590	5.80	40.00	3.65 1	-5.12 2	-3.91 1	5.21 2
4.35547	4.51604	5.60	43.00	3.13 1	-5.03 2	-3.37 1	5.13 2
4.30453	4.51650	4.60	67.00	1.23 1	-4.27 2	-1.39 1	4.37 2
4.37654	4.51776	6.40	33.00	5.59 1	-5.34 2	-5.91 1	5.44 2
4.37423	4.51919	6.20	35.00	4.89 1	-5.27 2	-5.19 1	5.37 2
4.33448	4.51964	5.00	55.00	1.87 1	-4.69 2	-2.05 1	4.79 2
4.27075	4.52318	4.20	83.00	7.58 0	-3.60 2	-8.95 0	3.69 2
4.39434	4.52624	7.00	28.00	8.23 1	-5.60 2	-8.64 1	5.70 2
4.29836	4.52701	4.40	74.00	9.86 0	-4.00 2	-1.13 1	4.09 2
4.39070	4.52801	6.60	31.00	6.43 1	-5.43 2	-6.78 1	5.53 2
4.35516	4.52963	5.20	50.00	2.27 1	-4.84 2	-2.47 1	4.94 2
4.33460	4.53038	4.80	60.00	1.55 1	-4.53 2	-1.72 1	4.62 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.36445	4.53074	5.40	46.00	2.70 1	-4.95 2	-2.92 1	5.05 2
4.38308	4.53162	6.00	37.00	4.30 1	-5.21 2	-4.57 1	5.30 2
4.32887	4.53805	4.60	66.00	1.26 1	-4.32 2	-1.42 1	4.41 2
4.29180	4.54106	4.20	82.00	7.76 0	-3.65 2	-9.12 0	3.74 2
4.36368	4.54618	5.00	54.00	1.92 1	-4.73 2	-2.11 1	4.82 2
4.32095	4.54668	4.40	73.00	1.01 1	-4.04 2	-1.16 1	4.13 2
4.39357	4.55147	5.60	42.00	3.24 1	-5.07 2	-3.48 1	5.16 2
4.36147	4.55456	4.80	59.00	1.59 1	-4.57 2	-1.76 1	4.66 2
4.31304	4.55916	4.20	81.00	7.93 0	-3.70 2	-9.29 0	3.79 2
4.38743	4.55926	5.20	49.00	2.34 1	-4.88 2	-2.54 1	4.97 2
4.35358	4.55999	4.60	65.00	1.29 1	-4.36 2	-1.45 1	4.45 2
4.39982	4.56345	5.40	45.00	2.79 1	-4.99 2	-3.01 1	5.08 2
4.34381	4.56665	4.40	72.00	1.03 1	-4.09 2	-1.18 1	4.18 2
4.39353	4.57339	5.00	53.00	1.97 1	-4.76 2	-2.16 1	4.86 2
4.30575	4.57723	4.00	90.00	6.11 0	-3.28 2	-7.35 0	3.36 2
4.33448	4.57749	4.20	80.00	8.12 0	-3.75 2	-9.47 0	3.83 2
4.38886	4.57927	4.80	58.00	1.63 1	-4.61 2	-1.81 1	4.70 2
4.37869	4.58235	4.60	64.00	1.32 1	-4.40 2	-1.49 1	4.49 2
4.36698	4.58694	4.40	71.00	1.06 1	-4.13 2	-1.21 1	4.22 2
4.32625	4.59429	4.00	89.00	6.25 0	-3.33 2	-7.49 0	3.41 2
4.35612	4.59606	4.20	79.00	8.30 0	-3.80 2	-9.66 0	3.88 2
4.39045	4.60756	4.40	70.00	1.08 1	-4.18 2	-1.23 1	4.27 2
4.34687	4.61153	4.00	88.00	6.39 0	-3.39 2	-7.63 0	3.47 2
4.37797	4.61487	4.20	78.00	8.49 0	-3.84 2	-9.85 0	3.93 2
4.36763	4.62894	4.00	87.00	6.53 0	-3.44 2	-7.77 0	3.52 2
4.38853	4.64654	4.00	86.00	6.68 0	-3.49 2	-7.92 0	3.57 2
4.40	4.60						
4.40619	4.51911	11.00	15.00	8.43 2	-1.30 3	-8.67 2	1.33 3
4.41191	4.53194	8.40	21.00	1.83 2	-6.54 2	-1.90 2	6.67 2
4.42061	4.53225	12.50	13.00	2.53 3	-2.67 3	-2.60 3	2.74 3
4.41868	4.53442	9.40	18.00	3.17 2	-7.85 2	-3.28 2	8.01 2
4.41928	4.53565	9.20	18.50	2.85 2	-7.53 2	-2.94 2	7.69 2
4.42181	4.53688	9.60	17.50	3.57 2	-8.24 2	-3.68 2	8.41 2
4.42357	4.54051	9.00	19.00	2.56 2	-7.25 2	-2.65 2	7.40 2
4.43033	4.54190	12.00	13.50	2.42 3	-2.85 3	-2.48 3	2.92 3
4.42874	4.54308	9.80	17.00	4.03 2	-8.68 2	-4.16 2	8.87 2
4.43152	4.54898	8.80	19.50	2.32 2	-7.02 2	-2.40 2	7.16 2
4.41771	4.55093	6.80	29.00	7.45 1	-5.53 2	-7.83 1	5.63 2
4.43956	4.55313	10.00	16.50	4.61 2	-9.26 2	-4.75 2	9.46 2
4.40269	4.55466	5.80	39.00	3.79 1	-5.15 2	-4.05 1	5.25 2
4.43672	4.56101	7.60	24.00	1.21 2	-5.96 2	-1.26 2	6.08 2
4.44314	4.56108	8.60	20.00	2.10 2	-6.81 2	-2.18 2	6.95 2
4.44994	4.56125	11.50	14.00	1.41 3	-1.85 3	-1.44 3	1.90 3
4.44967	4.56206	10.50	15.50	6.42 2	-1.11 3	-6.61 2	1.13 3
4.43744	4.56338	7.40	25.00	1.08 2	-5.84 2	-1.13 2	5.95 2
4.42294	4.56514	6.20	34.00	5.11 1	-5.31 2	-5.41 1	5.40 2
4.44295	4.56549	7.80	23.00	1.36 2	-6.10 2	-1.41 2	6.22 2
4.42893	4.56735	6.40	32.00	5.86 1	-5.38 2	-6.18 1	5.48 2
4.44491	4.57239	7.20	26.00	9.69 1	-5.74 2	-1.01 2	5.85 2
4.42867	4.57449	6.00	36.00	4.48 1	-5.24 2	-4.75 1	5.34 2
4.45641	4.57711	8.00	22.00	1.54 2	-6.77 2	-1.60 2	6.39 2
4.44746	4.58192	6.60	30.00	6.76 1	-5.47 2	-7.11 1	5.57 2
4.45901	4.58795	7.00	27.00	8.72 1	-5.65 2	-9.13 1	5.76 2
4.43290	4.58814	5.60	41.00	3.36 1	-5.10 2	-3.60 1	5.19 2
4.47453	4.58914	9.20	18.00	3.03 2	-7.71 2	-3.12 2	7.87 2
4.42055	4.58975	5.20	48.00	2.41 1	-4.91 2	-2.61 1	5.00 2
4.47603	4.58999	9.40	17.50	3.39 2	-8.07 2	-3.50 2	8.24 2
4.47979	4.59071	11.00	14.50	9.67 2	-1.42 3	-9.94 2	1.45 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.47689	4.59209	9.00	18.50	2.71 2	-7.41 2	-2.80 2	7.56 2
4.48143	4.59468	9.60	17.00	3.83 2	-8.50 2	-3.95 2	8.67 2
4.44562	4.59490	5.80	38.00	3.94 1	-5.18 2	-4.20 1	5.28 2
4.47752	4.59627	8.20	21.00	1.75 2	-6.48 2	-1.82 2	6.60 2
4.43622	4.59722	5.40	44.00	2.88 1	-5.02 2	-3.10 1	5.11 2
4.48305	4.59880	8.80	19.00	2.45 2	-7.15 2	-2.53 2	7.29 2
4.42408	4.60129	5.00	52.00	2.03 1	-4.80 2	-2.22 1	4.89 2
4.49082	4.60332	9.80	16.50	4.36 2	-9.02 2	-4.49 2	9.21 2
4.41680	4.60454	4.80	57.00	1.68 1	-4.64 2	-1.85 1	4.74 2
4.40422	4.60515	4.60	63.00	1.36 1	-4.44 2	-1.52 1	4.53 2
4.49302	4.60928	8.60	19.50	2.21 2	-6.92 2	-2.29 2	7.06 2
4.47971	4.61003	6.80	28.00	7.88 1	-5.58 2	-8.26 1	5.69 2
4.47374	4.61317	6.20	33.00	5.34 1	-5.34 2	-5.64 1	5.44 2
4.50433	4.61604	10.00	16.00	5.03 2	-9.69 2	-5.18 2	9.90 2
4.47608	4.61917	6.00	35.00	4.67 1	-5.27 2	-4.95 1	5.37 2
4.48375	4.61935	6.40	31.00	6.15 1	-5.42 2	-6.47 1	5.52 2
4.45456	4.62113	5.20	47.00	2.49 1	-4.94 2	-2.69 1	5.03 2
4.50680	4.62351	8.40	20.00	2.01 2	-6.73 2	-2.08 2	6.86 2
4.51590	4.62530	12.00	13.00	2.63 3	-2.95 3	-2.70 3	3.01 3
4.47355	4.62612	5.60	40.00	3.48 1	-5.13 2	-3.72 1	5.22 2
4.43019	4.62840	4.60	62.00	1.39 1	-4.48 2	-1.55 1	4.57 2
4.41424	4.62853	4.40	69.00	1.11 1	-4.22 2	-1.26 1	4.31 2
4.45535	4.62993	5.00	51.00	2.09 1	-4.83 2	-2.28 1	4.92 2
4.44531	4.63039	4.80	56.00	1.72 1	-4.68 2	-1.90 1	4.77 2
4.52038	4.63081	10.50	15.00	7.15 2	-1.18 3	-7.35 2	1.20 3
4.47374	4.63209	5.40	43.00	2.98 1	-5.05 2	-3.20 1	5.14 2
4.40005	4.63395	4.20	77.00	8.69 0	-3.89 2	-1.00 1	3.98 2
4.51283	4.63570	7.40	24.00	1.16 2	-5.93 2	-1.20 2	6.04 2
4.49015	4.63673	5.80	37.00	4.10 1	-5.21 2	-4.36 1	5.31 2
4.51629	4.63746	7.60	23.00	1.30 2	-6.06 2	-1.35 2	6.17 2
4.50707	4.63866	6.60	29.00	7.13 1	-5.52 2	-7.48 1	5.62 2
4.53145	4.64070	11.50	13.50	1.83 3	-2.29 3	-1.88 3	2.34 3
4.51658	4.64105	7.20	25.00	1.03 2	-5.81 2	-1.08 2	5.92 2
4.53229	4.64512	9.20	17.50	3.23 2	-7.92 2	-3.33 2	8.08 2
4.53255	4.64600	9.00	18.00	2.88 2	-7.57 2	-2.97 2	7.73 2
4.52722	4.64659	7.80	22.00	1.47 2	-6.22 2	-1.53 2	6.34 2
4.53606	4.64821	9.40	17.00	3.64 2	-8.32 2	-3.75 2	8.49 2
4.43837	4.64986	4.40	68.00	1.14 1	-4.26 2	-1.28 1	4.35 2
4.53678	4.65081	8.80	18.50	2.59 2	-7.29 2	-2.67 2	7.44 2
4.45661	4.65213	4.60	61.00	1.43 1	-4.52 2	-1.59 1	4.61 2
4.42237	4.65329	4.20	76.00	8.89 0	-3.94 2	-1.02 1	4.02 2
4.52736	4.65334	7.00	26.00	9.27 1	-5.72 2	-9.68 1	5.82 2
4.48951	4.65346	5.20	46.00	2.57 1	-4.97 2	-2.77 1	5.07 2
4.54393	4.65535	9.60	16.50	4.14 2	-8.81 2	-4.26 2	8.99 2
4.47442	4.65686	4.80	55.00	1.77 1	-4.72 2	-1.94 1	4.81 2
4.48738	4.65935	5.00	50.00	2.15 1	-4.87 2	-2.34 1	4.96 2
4.54496	4.65952	8.60	19.00	2.33 2	-7.05 2	-2.41 2	7.18 2
4.52680	4.66345	6.20	32.00	5.59 1	-5.38 2	-5.90 1	5.48 2
4.54602	4.66349	8.00	21.00	1.67 2	-6.41 2	-1.73 2	6.54 2
4.40958	4.66434	4.00	85.00	6.83 0	-3.54 2	-8.07 0	3.62 2
4.51561	4.66552	5.60	39.00	3.61 1	-5.16 2	-3.85 1	5.25 2
4.52545	4.66580	6.00	34.00	4.87 1	-5.31 2	-5.15 1	5.40 2
4.55767	4.66658	11.00	14.00	1.12 3	-1.57 3	-1.15 3	1.60 3
4.55603	4.66666	9.80	16.00	4.75 2	-9.41 2	-4.88 2	9.61 2
4.51243	4.66815	5.40	42.00	3.08 1	-5.08 2	-3.31 1	5.17 2
4.40159	4.67083	3.90	90.00	5.93 0	-3.30 2	-7.11 0	3.38 2
4.46285	4.67156	4.40	67.00	1.16 1	-4.31 2	-1.31 1	4.39 2
4.55709	4.67213	8.40	19.50	2.11 2	-6.84 2	-2.19 2	6.97 2
4.54510	4.67249	6.80	27.00	8.34 1	-5.64 2	-8.72 1	5.74 2
4.44493	4.67291	4.20	75.00	9.10 0	-3.99 2	-1.04 1	4.07 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.54120	4.67398	6.40	30.00	6.46 1	-5.47 2	-6.79 1	5.56 2
4.48352	4.67635	4.60	60.00	1.47 1	-4.56 2	-1.63 1	4.65 2
4.53638	4.68026	5.80	36.00	4.27 1	-5.25 2	-4.53 1	5.34 2
4.57248	4.68229	10.00	15.50	5.53 2	-1.02 3	-5.68 2	1.04 3
4.43079	4.68234	4.00	84.00	6.99 0	-3.59 2	-8.22 0	3.67 2
4.50416	4.68398	4.80	54.00	1.82 1	-4.75 2	-1.99 1	4.84 2
4.52546	4.68679	5.20	45.00	2.65 1	-5.01 2	-2.85 1	5.10 2
4.42234	4.68818	3.90	89.00	6.06 0	-3.35 2	-7.24 0	3.43 2
4.57321	4.68867	8.20	20.00	1.92 2	-6.65 2	-1.99 2	6.78 2
4.52023	4.68958	5.00	49.00	2.22 1	-4.90 2	-2.41 1	4.99 2
4.46776	4.69282	4.20	74.00	9.31 0	-4.03 2	-1.07 1	4.12 2
4.48770	4.69366	4.40	66.00	1.19 1	-4.35 2	-1.34 1	4.44 2
4.56979	4.69850	6.60	28.00	7.53 1	-5.57 2	-7.88 1	5.67 2
4.45218	4.70055	4.00	83.00	7.15 0	-3.64 2	-8.38 0	3.72 2
4.51092	4.70109	4.60	59.00	1.51 1	-4.60 2	-1.67 1	4.69 2
4.59073	4.70242	9.00	17.50	3.07 2	-7.77 2	-3.17 2	7.92 2
4.59505	4.70353	10.50	14.50	8.10 2	-1.27 3	-8.31 2	1.30 3
4.59275	4.70379	9.20	17.00	3.46 2	-8.15 2	-3.56 2	8.31 2
4.59286	4.70515	8.80	18.00	2.74 2	-7.45 2	-2.83 2	7.59 2
4.55238	4.70546	5.40	41.00	3.20 1	-5.11 2	-3.42 1	5.20 2
4.44323	4.70569	3.90	88.00	6.20 0	-3.40 2	-7.38 0	3.48 2
4.55917	4.70642	5.60	38.00	3.75 1	-5.19 2	-3.99 1	5.28 2
4.59900	4.70933	9.40	16.50	3.92 2	-8.61 2	-4.04 2	8.78 2
4.53457	4.71177	4.80	53.00	1.87 1	-4.79 2	-2.05 1	4.88 2
4.59911	4.71195	8.60	18.50	2.47 2	-7.18 2	-2.55 2	7.32 2
4.59317	4.71295	7.40	23.00	1.24 2	-6.02 2	-1.29 2	6.13 2
4.49086	4.71303	4.20	73.00	9.53 0	-4.08 2	-1.09 1	4.16 2
4.59273	4.71417	7.20	24.00	1.11 2	-5.89 2	-1.15 2	6.00 2
4.57692	4.71453	6.00	33.00	5.10 1	-5.34 2	-5.38 1	5.44 2
4.51294	4.71616	4.40	65.00	1.22 1	-4.39 2	-1.37 1	4.48 2
4.58231	4.71618	6.20	31.00	5.87 1	-5.42 2	-6.17 1	5.51 2
4.47374	4.71898	4.00	82.00	7.31 0	-3.69 2	-8.54 0	3.77 2
4.55393	4.72067	5.00	48.00	2.29 1	-4.93 2	-2.48 1	5.02 2
4.56247	4.72119	5.20	44.00	2.74 1	-5.04 2	-2.94 1	5.13 2
4.59979	4.72278	7.00	25.00	9.88 1	-5.79 2	-1.03 2	5.89 2
4.46425	4.72339	3.90	87.00	6.34 0	-3.45 2	-7.51 0	3.53 2
4.58446	4.72563	5.80	35.00	4.45 1	-5.28 2	-4.71 1	5.37 2
4.53886	4.72638	4.60	58.00	1.55 1	-4.64 2	-1.71 1	4.72 2
4.51424	4.73356	4.20	72.00	9.75 0	-4.12 2	-1.11 1	4.21 2
4.49549	4.73763	4.00	81.00	7.48 0	-3.73 2	-8.70 0	3.81 2
4.53858	4.73908	4.40	64.00	1.25 1	-4.43 2	-1.40 1	4.52 2
4.56568	4.74027	4.80	52.00	1.93 1	-4.82 2	-2.10 1	4.91 2
4.48541	4.74128	3.90	86.00	6.48 0	-3.50 2	-7.65 0	3.58 2
4.59366	4.74411	5.40	40.00	3.31 1	-5.14 2	-3.54 1	5.23 2
4.56735	4.75223	4.60	57.00	1.59 1	-4.67 2	-1.75 1	4.76 2
4.58853	4.75267	5.00	47.00	2.36 1	-4.96 2	-2.55 1	5.05 2
4.53793	4.75441	4.20	71.00	9.98 0	-4.17 2	-1.13 1	4.25 2
4.51745	4.75652	4.00	80.00	7.65 0	-3.78 2	-8.87 0	3.86 2
4.50673	4.75937	3.90	85.00	6.63 0	-3.55 2	-7.80 0	3.63 2
4.56465	4.76245	4.40	63.00	1.28 1	-4.47 2	-1.43 1	4.56 2
4.50250	4.76947	3.80	90.00	5.75 0	-3.32 2	-6.86 0	3.39 2
4.59753	4.76952	4.80	51.00	1.98 1	-4.86 2	-2.16 1	4.95 2
4.56193	4.77559	4.20	70.00	1.02 1	-4.21 2	-1.16 1	4.30 2
4.53961	4.77564	4.00	79.00	7.82 0	-3.83 2	-9.05 0	3.91 2
4.52821	4.77765	3.90	84.00	6.78 0	-3.60 2	-7.95 0	3.68 2
4.59642	4.77868	4.60	56.00	1.63 1	-4.71 2	-1.79 1	4.80 2
4.59116	4.78628	4.40	62.00	1.32 1	-4.51 2	-1.46 1	4.60 2
4.52353	4.78711	3.80	89.00	5.88 0	-3.37 2	-6.99 0	3.44 2
4.56199	4.79503	4.00	78.00	8.00 0	-3.88 2	-9.22 0	3.96 2
4.54986	4.79615	3.90	83.00	6.93 0	-3.65 2	-8.10 0	3.73 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.58626	4.79713	4.20	69.00	1.05 1	-4.26 2	-1.18 1	4.34 2
4.54468	4.80492	3.80	88.00	6.01 0	-3.42 2	-7.12 0	3.49 2
4.58460	4.81467	4.00	77.00	8.18 0	-3.93 2	-9.40 0	4.01 2
4.57170	4.81487	3.90	82.00	7.09 0	-3.70 2	-8.25 0	3.78 2
4.56598	4.82292	3.80	87.00	6.14 0	-3.47 2	-7.26 0	3.55 2
4.59373	4.83382	3.90	81.00	7.25 0	-3.75 2	-8.41 0	3.83 2
4.58742	4.84110	3.80	86.00	6.28 0	-3.52 2	-7.39 0	3.60 2
4.60	4.80						
4.60714	4.71438	12.00	12.50	2.93 3	-3.10 3	-3.00 3	3.17 3
4.60957	4.71915	9.60	16.00	4.49 2	-9.17 2	-4.62 2	9.35 2
4.60136	4.71938	7.60	22.00	1.41 2	-6.17 2	-1.46 2	6.28 2
4.60945	4.72280	8.40	19.00	2.23 2	-6.95 2	-2.30 2	7.08 2
4.61811	4.72525	11.50	13.00	2.26 3	-2.68 3	-2.32 3	2.74 3
4.60153	4.73147	6.40	29.00	6.81 1	-5.51 2	-7.14 1	5.61 2
4.62461	4.73337	9.80	15.50	5.20 2	-9.87 2	-5.34 2	1.01 3
4.61765	4.73381	7.80	21.00	1.60 2	-6.36 2	-1.66 2	6.47 2
4.62392	4.73772	8.20	19.50	2.02 2	-6.75 2	-2.09 2	6.88 2
4.61420	4.73866	6.80	26.00	8.86 1	-5.70 2	-9.25 1	5.80 2
4.64029	4.74717	11.00	13.50	1.37 3	-1.82 3	-1.40 3	1.86 3
4.60436	4.74893	5.60	37.00	3.90 1	-5.22 2	-4.15 1	5.32 2
4.64429	4.75219	10.00	15.00	6.10 2	-1.08 3	-6.27 2	1.10 3
4.60060	4.75670	5.20	43.00	2.83 1	-5.07 2	-3.04 1	5.16 2
4.64255	4.75675	8.00	20.00	1.83 2	-6.58 2	-1.90 2	6.70 2
4.65163	4.76154	9.00	17.00	3.28 2	-7.98 2	-3.38 2	8.13 2
4.63592	4.76174	6.60	27.00	7.97 1	-5.62 2	-8.33 1	5.72 2
4.65148	4.76203	8.80	17.50	2.92 2	-7.63 2	-3.01 2	7.78 2
4.65613	4.76537	9.20	16.50	3.72 2	-8.42 2	-3.83 2	8.58 2
4.63069	4.76555	6.00	32.00	5.34 1	-5.38 2	-5.62 1	5.47 2
4.65563	4.76675	8.60	18.00	2.61 2	-7.33 2	-2.69 2	7.47 2
4.64049	4.77156	6.20	30.00	6.17 1	-5.46 2	-6.47 1	5.55 2
4.63451	4.77298	5.80	34.00	4.65 1	-5.31 2	-4.91 1	5.40 2
4.66508	4.77358	9.40	16.00	4.25 2	-8.94 2	-4.37 2	9.11 2
4.66404	4.77569	8.40	18.50	2.35 2	-7.08 2	-2.43 2	7.21 2
4.67407	4.78055	10.50	14.00	9.25 2	-1.38 3	-9.48 2	1.41 3
4.63637	4.78419	5.40	39.00	3.44 1	-5.17 2	-3.66 1	5.26 2
4.62409	4.78564	5.00	46.00	2.44 1	-5.00 2	-2.62 1	5.08 2
4.67861	4.78633	9.60	15.50	4.91 2	-9.59 2	-5.04 2	9.78 2
4.67672	4.78884	8.20	19.00	2.12 2	-6.86 2	-2.19 2	6.99 2
4.66500	4.79209	6.40	28.00	7.19 1	-5.56 2	-7.52 1	5.65 2
4.67389	4.79226	7.20	23.00	1.19 2	-5.98 2	-1.23 2	6.09 2
4.65127	4.79318	5.60	36.00	4.07 1	-5.26 2	-4.31 1	5.35 2
4.63993	4.79342	5.20	42.00	2.93 1	-5.10 2	-3.14 1	5.19 2
4.67907	4.79573	7.40	22.00	1.34 2	-6.13 2	-1.39 2	6.23 2
4.67675	4.79673	7.00	24.00	1.06 2	-5.86 2	-1.10 2	5.96 2
4.63016	4.79956	4.80	50.00	2.04 1	-4.89 2	-2.21 1	4.98 2
4.69689	4.80374	9.80	15.00	5.72 2	-1.04 3	-5.87 2	1.06 3
4.62611	4.80576	4.60	55.00	1.68 1	-4.75 2	-1.83 1	4.83 2
4.69370	4.80625	8.00	19.50	1.93 2	-6.68 2	-1.99 2	6.80 2
4.69262	4.80747	7.60	21.00	1.53 2	-6.30 2	-1.58 2	6.41 2
4.68743	4.80892	6.80	25.00	9.44 1	-5.76 2	-9.83 1	5.86 2
4.61814	4.81060	4.40	61.00	1.35 1	-4.55 2	-1.50 1	4.64 2
4.71051	4.81553	11.50	12.50	3.47 3	-3.90 3	-3.55 3	3.99 3
4.68693	4.81903	6.00	31.00	5.60 1	-5.42 2	-5.88 1	5.51 2
4.61093	4.81904	4.20	68.00	1.07 1	-4.30 2	-1.21 1	4.38 2
4.66066	4.81962	5.00	45.00	2.52 1	-5.03 2	-2.70 1	5.11 2
4.71284	4.82162	8.80	17.00	3.12 2	-7.83 2	-3.21 2	7.97 2
4.68670	4.82246	5.80	33.00	4.86 1	-5.35 2	-5.12 1	5.44 2
4.71548	4.82360	9.00	16.50	3.53 2	-8.23 2	-3.63 2	8.38 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.71471	4.82409	8.60	17.50	2.78 2	-7.50 2	-2.86 2	7.64 2
4.68061	4.82579	5.40	38.00	3.57 1	-5.21 2	-3.79 1	5.29 2
4.72012	4.82609	10.00	14.50	6.84 2	-1.15 3	-7.01 2	1.17 3
4.71503	4.82796	7.80	20.00	1.75 2	-6.51 2	-1.81 2	6.63 2
4.70582	4.82873	6.60	26.00	8.46 1	-5.68 2	-8.82 1	5.77 2
4.70158	4.82983	6.20	29.00	6.50 1	-5.50 2	-6.80 1	5.59 2
4.72269	4.83010	9.20	16.00	4.02 2	-8.72 2	-4.13 2	8.89 2
4.66361	4.83042	4.80	49.00	2.10 1	-4.92 2	-2.28 1	5.01 2
4.72101	4.83095	8.40	18.00	2.49 2	-7.22 2	-2.56 2	7.35 2
4.68053	4.83142	5.20	41.00	3.04 1	-5.13 2	-3.24 1	5.22 2
4.72813	4.83292	11.00	13.00	1.63 3	-2.06 3	-1.67 3	2.11 3
4.65643	4.83348	4.60	54.00	1.72 1	-4.78 2	-1.88 1	4.87 2
4.60746	4.83459	4.00	76.00	8.37 0	-3.97 2	-9.59 0	4.05 2
4.64561	4.83542	4.40	60.00	1.39 1	-4.59 2	-1.53 1	4.68 2
4.70004	4.83928	5.60	35.00	4.24 1	-5.29 2	-4.48 1	5.38 2
4.73460	4.84125	9.40	15.50	4.63 2	-9.33 2	-4.76 2	9.51 2
4.63596	4.84132	4.20	67.00	1.10 1	-4.34 2	-1.23 1	4.43 2
4.73176	4.84220	8.20	18.50	2.24 2	-6.98 2	-2.31 2	7.11 2
4.61595	4.85300	3.90	80.00	7.41 0	-3.80 2	-8.58 0	3.88 2
4.69831	4.85469	5.00	44.00	2.60 1	-5.06 2	-2.79 1	5.15 2
4.63057	4.85479	4.00	75.00	8.56 0	-4.02 2	-9.78 0	4.10 2
4.73193	4.85615	6.40	27.00	7.61 1	-5.61 2	-7.94 1	5.70 2
4.75137	4.85719	9.60	15.00	5.39 2	-1.01 3	-5.53 2	1.03 3
4.74695	4.85784	8.00	19.00	2.02 2	-6.78 2	-2.09 2	6.90 2
4.60901	4.85949	3.80	85.00	6.42 0	-3.57 2	-7.53 0	3.65 2
4.67359	4.86076	4.40	59.00	1.42 1	-4.63 2	-1.57 1	4.72 2
4.68744	4.86190	4.60	53.00	1.77 1	-4.82 2	-1.93 1	4.90 2
4.69793	4.86217	4.80	48.00	2.17 1	-4.96 2	-2.34 1	5.04 2
4.75788	4.86237	10.50	13.50	1.10 3	-1.56 3	-1.12 3	1.59 3
4.66137	4.86401	4.20	66.00	1.12 1	-4.38 2	-1.26 1	4.47 2
4.72649	4.86903	5.40	37.00	3.71 1	-5.24 2	-3.94 1	5.32 2
4.72249	4.87077	5.20	40.00	3.15 1	-5.16 2	-3.35 1	5.25 2
4.63839	4.87243	3.90	79.00	7.58 0	-3.85 2	-8.74 0	3.93 2
4.60892	4.87358	3.70	90.00	5.56 0	-3.33 2	-6.62 0	3.41 2
4.74121	4.87424	5.80	32.00	5.08 1	-5.38 2	-5.35 1	5.47 2
4.74587	4.87520	6.00	30.00	5.88 1	-5.46 2	-6.16 1	5.55 2
4.65394	4.87529	4.00	74.00	8.76 0	-4.07 2	-9.98 0	4.15 2
4.75875	4.87569	7.00	23.00	1.13 2	-5.95 2	-1.18 2	6.05 2
4.76064	4.87592	7.20	22.00	1.28 2	-6.08 2	-1.33 2	6.18 2
4.76664	4.87793	7.80	19.50	1.84 2	-6.60 2	-1.90 2	6.72 2
4.63077	4.87808	3.80	84.00	6.57 0	-3.62 2	-7.67 0	3.70 2
4.77320	4.87814	9.80	14.50	6.38 2	-1.10 3	-6.54 2	1.13 3
4.76522	4.88373	6.80	24.00	1.01 2	-5.83 2	-1.05 2	5.93 2
4.77716	4.88416	8.80	16.50	3.34 2	-8.06 2	-3.44 2	8.21 2
4.77654	4.88417	8.60	17.00	2.96 2	-7.68 2	-3.05 2	7.82 2
4.77121	4.88472	7.40	21.00	1.46 2	-6.25 2	-1.51 2	6.35 2
4.70211	4.88667	4.40	58.00	1.46 1	-4.67 2	-1.61 1	4.75 2
4.68717	4.88711	4.20	65.00	1.15 1	-4.43 2	-1.29 1	4.51 2
4.75083	4.88738	5.60	34.00	4.42 1	-5.32 2	-4.66 1	5.41 2
4.78056	4.88878	8.40	17.50	2.64 2	-7.38 2	-2.72 2	7.51 2
4.78251	4.88882	9.00	16.00	3.80 2	-8.51 2	-3.91 2	8.67 2
4.73710	4.89090	5.00	43.00	2.69 1	-5.09 2	-2.88 1	5.17 2
4.71916	4.89104	4.60	52.00	1.82 1	-4.85 2	-1.98 1	4.94 2
4.76584	4.89127	6.20	28.00	6.86 1	-5.55 2	-7.16 1	5.64 2
4.63023	4.89152	3.70	89.00	5.69 0	-3.39 2	-6.74 0	3.46 2
4.66106	4.89211	3.90	78.00	7.75 0	-3.90 2	-8.91 0	3.98 2
4.73317	4.89483	4.80	47.00	2.24 1	-4.99 2	-2.41 1	5.07 2
4.67759	4.89609	4.00	73.00	8.97 0	-4.11 2	-1.02 1	4.19 2
4.65271	4.89688	3.80	83.00	6.71 0	-3.67 2	-7.82 0	3.75 2
4.78920	4.89794	8.20	18.00	2.37 2	-7.11 2	-2.44 2	7.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.79269	4.89827	9.20	15.50	4.38 2	-9.08 2	-4.49 2	9.25 2
4.77988	4.89985	6.60	25.00	9.01 1	-5.74 2	-9.37 1	5.83 2
4.79091	4.90254	7.60	20.00	1.67 2	-6.45 2	-1.72 2	6.56 2
4.65167	4.90964	3.70	88.00	5.82 0	-3.44 2	-6.87 0	3.51 2
4.71339	4.91064	4.20	64.00	1.18 1	-4.47 2	-1.31 1	4.55 2
4.76589	4.91157	5.20	39.00	3.27 1	-5.19 2	-3.47 1	5.28 2
4.68395	4.91206	3.90	77.00	7.93 0	-3.95 2	-9.09 0	4.02 2
4.73119	4.91314	4.40	57.00	1.50 1	-4.71 2	-1.64 1	4.79 2
4.77412	4.91402	5.40	36.00	3.87 1	-5.27 2	-4.09 1	5.35 2
4.67483	4.91590	3.80	82.00	6.87 0	-3.72 2	-7.97 0	3.80 2
4.70154	4.91721	4.00	72.00	9.18 0	-4.16 2	-1.04 1	4.24 2
4.75163	4.92095	4.60	51.00	1.88 1	-4.89 2	-2.03 1	4.97 2
4.67325	4.92794	3.70	87.00	5.95 0	-3.49 2	-7.00 0	3.56 2
4.77711	4.92832	5.00	42.00	2.78 1	-5.12 2	-2.97 1	5.20 2
4.76938	4.92848	4.80	46.00	2.31 1	-5.02 2	-2.48 1	5.10 2
4.79823	4.92853	5.80	31.00	5.33 1	-5.42 2	-5.59 1	5.51 2
4.70710	4.93228	3.90	76.00	8.11 0	-3.99 2	-9.27 0	4.07 2
4.74004	4.93462	4.20	63.00	1.21 1	-4.51 2	-1.34 1	4.59 2
4.69714	4.93515	3.80	81.00	7.02 0	-3.77 2	-8.12 0	3.85 2
4.72579	4.93866	4.00	71.00	9.39 0	-4.20 2	-1.06 1	4.28 2
4.76087	4.94023	4.40	56.00	1.54 1	-4.74 2	-1.69 1	4.83 2
4.69498	4.94644	3.70	86.00	6.08 0	-3.54 2	-7.13 0	3.61 2
4.78490	4.95165	4.60	50.00	1.93 1	-4.92 2	-2.09 1	5.00 2
4.73049	4.95279	3.90	75.00	8.30 0	-4.04 2	-9.46 0	4.12 2
4.71966	4.95465	3.80	80.00	7.18 0	-3.82 2	-8.28 0	3.90 2
4.76714	4.95908	4.20	62.00	1.24 1	-4.55 2	-1.37 1	4.63 2
4.75037	4.96046	4.00	70.00	9.62 0	-4.25 2	-1.08 1	4.33 2
4.71687	4.96514	3.70	85.00	6.22 0	-3.59 2	-7.27 0	3.66 2
4.79117	4.96795	4.40	55.00	1.58 1	-4.78 2	-1.73 1	4.86 2
4.75416	4.97360	3.90	74.00	8.49 0	-4.09 2	-9.65 0	4.16 2
4.74239	4.97439	3.80	79.00	7.34 0	-3.87 2	-8.44 0	3.95 2
4.77528	4.98262	4.00	69.00	9.85 0	-4.29 2	-1.11 1	4.37 2
4.72134	4.98362	3.60	90.00	5.38 0	-3.35 2	-6.38 0	3.42 2
4.79472	4.98403	4.20	61.00	1.27 1	-4.59 2	-1.41 1	4.67 2
4.73892	4.98404	3.70	84.00	6.36 0	-3.64 2	-7.40 0	3.72 2
4.76535	4.99439	3.80	78.00	7.51 0	-3.92 2	-8.61 0	3.99 2
4.77811	4.99472	3.90	73.00	8.69 0	-4.13 2	-9.84 0	4.21 2
4.74294	5.00189	3.60	89.00	5.50 0	-3.40 2	-6.50 0	3.48 2
4.76116	5.00316	3.70	83.00	6.50 0	-3.69 2	-7.54 0	3.77 2
4.78854	5.01465	3.80	77.00	7.68 0	-3.97 2	-8.78 0	4.04 2
4.76468	5.02033	3.60	88.00	5.63 0	-3.46 2	-6.62 0	3.53 2
4.78357	5.02250	3.70	82.00	6.65 0	-3.74 2	-7.69 0	3.82 2
4.78657	5.03896	3.60	87.00	5.75 0	-3.51 2	-6.75 0	3.58 2
4.80	5.00						
4.80035	4.90436	10.00	14.00	7.72 2	-1.24 3	-7.91 2	1.26 3
4.80246	4.91168	8.00	18.50	2.13 2	-6.89 2	-2.20 2	7.01 2
4.80927	4.91218	11.50	12.00	7.87 4	-8.34 4	-8.03 4	8.52 4
4.80784	4.91262	9.40	15.00	5.07 2	-9.76 2	-5.20 2	9.94 2
4.80266	4.92399	6.40	26.00	8.07 1	-5.66 2	-8.41 1	5.75 2
4.82176	4.92447	11.00	12.50	2.12 3	-2.53 3	-2.16 3	2.58 3
4.82036	4.93000	7.80	19.00	1.93 2	-6.70 2	-1.99 2	6.81 2
4.82818	4.93210	9.60	14.50	5.98 2	-1.07 3	-6.13 2	1.09 3
4.80776	4.93430	6.00	29.00	6.19 1	-5.50 2	-6.48 1	5.59 2
4.80377	4.93764	5.60	33.00	4.62 1	-5.35 2	-4.86 1	5.44 2
4.84135	4.94722	8.60	16.50	3.17 2	-7.90 2	-3.26 2	8.04 2
4.84288	4.94936	8.40	17.00	2.81 2	-7.55 2	-2.89 2	7.68 2
4.84697	4.94941	10.50	13.00	1.30 3	-1.75 3	-1.33 3	1.79 3
4.84469	4.94990	8.80	16.00	3.60 2	-8.32 2	-3.70 2	8.47 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.84298	4.95300	7.60	19.50	1.75 2	-6.53 2	-1.81 2	6.64 2
4.81085	4.95391	5.20	38.00	3.39 1	-5.22 2	-3.60 1	5.30 2
4.83360	4.95619	6.20	27.00	7.25 1	-5.60 2	-7.56 1	5.68 2
4.84924	4.95628	8.20	17.50	2.51 2	-7.26 2	-2.59 2	7.39 2
4.85394	4.95694	9.80	14.00	7.16 2	-1.18 3	-7.34 2	1.20 3
4.85301	4.95750	9.00	15.50	4.13 2	-8.84 2	-4.23 2	9.00 2
4.84640	4.96028	7.00	22.00	1.22 2	-6.04 2	-1.27 2	6.14 2
4.82364	4.96089	5.40	35.00	4.03 1	-5.30 2	-4.25 1	5.38 2
4.80662	4.96316	4.80	45.00	2.38 1	-5.05 2	-2.56 1	5.14 2
4.84811	4.96361	6.80	23.00	1.08 2	-5.91 2	-1.12 2	6.01 2
4.85370	4.96586	7.20	21.00	1.39 2	-6.19 2	-1.44 2	6.30 2
4.81840	4.96704	5.00	41.00	2.88 1	-5.15 2	-3.07 1	5.23 2
4.86039	4.96792	8.00	18.00	2.25 2	-7.01 2	-2.32 2	7.13 2
4.86644	4.97016	9.20	15.00	4.78 2	-9.48 2	-4.90 2	9.65 2
4.85855	4.97557	6.60	24.00	9.62 1	-5.81 2	-9.99 1	5.90 2
4.87043	4.98076	7.40	20.00	1.59 2	-6.38 2	-1.64 2	6.49 2
4.81900	4.98320	4.60	49.00	1.99 1	-4.95 2	-2.15 1	5.03 2
4.87636	4.98434	7.80	18.50	2.03 2	-6.80 2	-2.09 2	6.92 2
4.85797	4.98553	5.80	30.00	5.60 1	-5.46 2	-5.86 1	5.54 2
4.88543	4.98748	10.00	13.50	8.97 2	-1.37 3	-9.17 2	1.39 3
4.88517	4.98806	9.40	14.50	5.61 2	-1.03 3	-5.75 2	1.05 3
4.85907	4.99024	5.60	32.00	4.84 1	-5.39 2	-5.08 1	5.47 2
4.87758	4.99601	6.40	25.00	8.59 1	-5.72 2	-8.93 1	5.81 2
4.82213	4.99634	4.40	54.00	1.63 1	-4.81 2	-1.77 1	4.90 2
4.87286	4.99660	6.00	28.00	6.53 1	-5.54 2	-6.82 1	5.63 2
4.85746	4.99792	5.20	37.00	3.53 1	-5.25 2	-3.73 1	5.33 2
4.84496	4.99894	4.80	44.00	2.46 1	-5.08 2	-2.64 1	5.16 2
4.80054	5.00515	4.00	68.00	1.01 1	-4.34 2	-1.13 1	4.42 2
4.89720	5.00558	7.60	19.00	1.84 2	-6.62 2	-1.89 2	6.73 2
4.86108	5.00714	5.00	40.00	2.99 1	-5.18 2	-3.17 1	5.26 2
4.82280	5.00949	4.20	60.00	1.31 1	-4.63 2	-1.44 1	4.71 2
4.87519	5.00979	5.40	34.00	4.20 1	-5.33 2	-4.43 1	5.41 2
4.90945	5.01144	9.60	14.00	6.70 2	-1.14 3	-6.85 2	1.16 3
4.90821	5.01294	8.40	16.50	3.01 2	-7.75 2	-3.09 2	7.88 2
4.90939	5.01349	8.60	16.00	3.41 2	-8.14 2	-3.50 2	8.28 2
4.85398	5.01564	4.60	48.00	2.05 1	-4.99 2	-2.21 1	5.07 2
4.80236	5.01616	3.90	72.00	8.89 0	-4.18 2	-1.00 1	4.26 2
4.91207	5.01738	8.20	17.00	2.67 2	-7.42 2	-2.75 2	7.54 2
4.91571	5.01912	8.80	15.50	3.90 2	-8.62 2	-4.00 2	8.77 2
4.92184	5.02244	11.00	12.00	2.95 3	-3.33 3	-3.01 3	3.40 3
4.90520	5.02493	6.20	26.00	7.69 1	-5.65 2	-8.00 1	5.73 2
4.85378	5.02544	4.40	53.00	1.67 1	-4.85 2	-1.82 1	4.93 2
4.92093	5.02678	8.00	17.50	2.39 2	-7.15 2	-2.46 2	7.27 2
4.82617	5.02807	4.00	67.00	1.03 1	-4.38 2	-1.15 1	4.46 2
4.92729	5.02994	9.00	15.00	4.50 2	-9.20 2	-4.61 2	9.36 2
4.92300	5.03172	7.40	19.50	1.67 2	-6.46 2	-1.72 2	6.57 2
4.81198	5.03520	3.80	76.00	7.86 0	-4.01 2	-8.95 0	4.09 2
4.85140	5.03549	4.20	59.00	1.34 1	-4.67 2	-1.47 1	4.75 2
4.88445	5.03588	4.80	43.00	2.55 1	-5.11 2	-2.72 1	5.19 2
4.82691	5.03793	3.90	71.00	9.10 0	-4.22 2	-1.03 1	4.30 2
4.93955	5.04061	9.80	13.50	8.24 2	-1.29 3	-8.43 2	1.32 3
4.93479	5.04111	7.80	18.00	2.14 2	-6.92 2	-2.21 2	7.03 2
4.80619	5.04208	3.70	81.00	6.79 0	-3.79 2	-7.84 0	3.86 2
4.94192	5.04232	10.50	12.50	1.64 3	-2.09 3	-1.67 3	2.13 3
4.90586	5.04370	5.20	36.00	3.67 1	-5.28 2	-3.87 1	5.36 2
4.91690	5.04537	5.60	31.00	5.07 1	-5.42 2	-5.31 1	5.50 2
4.92070	5.04550	5.80	29.00	5.89 1	-5.49 2	-6.16 1	5.58 2
4.94430	5.04615	9.20	14.50	5.27 2	-9.98 2	-5.40 2	1.02 3
4.90522	5.04870	5.00	39.00	3.10 1	-5.21 2	-3.29 1	5.29 2
4.88990	5.04902	4.60	47.00	2.11 1	-5.02 2	-2.27 1	5.10 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.93670	5.04916	6.80	22.00	1.17 2	-6.00 2	-1.21 2	6.10 2
4.94041	5.05120	7.00	21.00	1.32 2	-6.15 2	-1.37 2	6.24 2
4.85218	5.05139	4.00	66.00	1.06 1	-4.42 2	-1.18 1	4.50 2
4.88615	5.05526	4.40	52.00	1.72 1	-4.88 2	-1.86 1	4.96 2
4.83569	5.05603	3.80	75.00	8.04 0	-4.06 2	-9.13 0	4.14 2
4.94236	5.05640	6.60	23.00	1.03 2	-5.88 2	-1.07 2	5.97 2
4.80860	5.05779	3.60	86.00	5.88 0	-3.56 2	-6.87 0	3.63 2
4.85179	5.06006	3.90	70.00	9.32 0	-4.27 2	-1.05 1	4.35 2
4.95370	5.06044	7.60	18.50	1.93 2	-6.72 2	-1.99 2	6.83 2
4.92894	5.06088	5.40	33.00	4.39 1	-5.36 2	-4.61 1	5.44 2
4.82901	5.06190	3.70	80.00	6.95 0	-3.84 2	-7.99 0	3.91 2
4.88055	5.06206	4.20	58.00	1.38 1	-4.70 2	-1.51 1	4.78 2
4.94149	5.06242	6.00	27.00	6.90 1	-5.59 2	-7.19 1	5.67 2
4.95390	5.06290	7.20	20.00	1.52 2	-6.32 2	-1.56 2	6.42 2
4.96698	5.06796	9.40	14.00	6.26 2	-1.09 3	-6.40 2	1.11 3
4.95717	5.07267	6.40	24.00	9.17 1	-5.78 2	-9.51 1	5.87 2
4.92518	5.07406	4.80	42.00	2.63 1	-5.14 2	-2.81 1	5.22 2
4.87860	5.07514	4.00	65.00	1.08 1	-4.46 2	-1.20 1	4.54 2
4.97586	5.07591	10.00	13.00	1.05 3	-1.51 3	-1.07 3	1.54 3
4.83079	5.07681	3.60	85.00	6.01 0	-3.61 2	-7.00 0	3.68 2
4.85966	5.07716	3.80	74.00	8.22 0	-4.11 2	-9.31 0	4.18 2
4.97678	5.07975	8.40	16.00	3.23 2	-7.97 2	-3.31 2	8.11 2
4.97792	5.08150	8.20	16.50	2.85 2	-7.60 2	-2.93 2	7.73 2
4.85205	5.08196	3.70	79.00	7.11 0	-3.89 2	-8.14 0	3.96 2
4.87701	5.08254	3.90	69.00	9.54 0	-4.31 2	-1.07 1	4.39 2
4.98095	5.08325	8.60	15.50	3.68 2	-8.42 2	-3.78 2	8.56 2
4.92681	5.08339	4.60	46.00	2.18 1	-5.05 2	-2.34 1	5.13 2
4.97772	5.08482	7.40	19.00	1.75 2	-6.55 2	-1.80 2	6.65 2
4.91929	5.08587	4.40	51.00	1.77 1	-4.92 2	-1.91 1	5.00 2
4.98429	5.08842	8.00	17.00	2.54 2	-7.30 2	-2.61 2	7.42 2
4.91028	5.08922	4.20	57.00	1.41 1	-4.74 2	-1.54 1	4.82 2
4.95617	5.09140	5.20	35.00	3.82 1	-5.91 2	-4.03 1	5.39 2
4.95094	5.09184	5.00	38.00	3.22 1	-5.24 2	-3.40 1	5.32 2
4.99054	5.09210	8.80	15.00	4.24 2	-8.96 2	-4.34 2	9.11 2
4.99561	5.09568	9.60	13.50	7.65 2	-1.24 3	-7.82 2	1.26 3
4.85315	5.09605	3.60	84.00	6.15 0	-3.66 2	-7.14 0	3.73 2
4.98104	5.09790	6.20	25.00	8.18 1	-5.70 2	-8.49 1	5.79 2
4.88392	5.09861	3.80	73.00	8.41 0	-4.15 2	-9.50 0	4.23 2
4.90544	5.09933	4.00	64.00	1.11 1	-4.51 2	-1.23 1	4.58 2
4.84029	5.10016	3.50	90.00	5.20 0	-3.37 2	-6.14 0	3.44 2
4.99586	5.10050	7.80	17.50	2.27 2	-7.05 2	-2.33 2	7.16 2
4.87531	5.10229	3.70	78.00	7.27 0	-3.94 2	-8.30 0	4.01 2
4.97750	5.10326	5.60	30.00	5.32 1	-5.46 2	-5.57 1	5.54 2
4.90259	5.10541	3.90	68.00	9.77 0	-4.36 2	-1.09 1	4.43 2
4.98667	5.10871	5.80	28.00	6.21 1	-5.54 2	-6.48 1	5.62 2
4.96722	5.11355	4.80	41.00	2.73 1	-5.17 2	-2.90 1	5.25 2
4.98507	5.11434	5.40	32.00	4.59 1	-5.39 2	-4.82 1	5.47 2
4.87570	5.11550	3.60	83.00	6.28 0	-3.71 2	-7.27 0	3.78 2
4.94061	5.11699	4.20	56.00	1.45 1	-4.78 2	-1.58 1	4.86 2
4.95324	5.11729	4.40	50.00	1.82 1	-4.95 2	-1.97 1	5.03 2
4.86221	5.11876	3.50	89.00	5.32 0	-3.42 2	-6.26 0	3.49 2
4.96476	5.11882	4.60	45.00	2.25 1	-5.08 2	-2.41 1	5.16 2
4.90848	5.12038	3.80	72.00	8.61 0	-4.20 2	-9.70 0	4.27 2
4.89882	5.12289	3.70	77.00	7.43 0	-3.99 2	-8.47 0	4.06 2
4.93272	5.12398	4.00	63.00	1.14 1	-4.55 2	-1.26 1	4.62 2
4.92853	5.12866	3.90	67.00	1.00 1	-4.40 2	-1.11 1	4.48 2
4.89843	5.13517	3.60	82.00	6.43 0	-3.76 2	-7.41 0	3.83 2
4.99834	5.13666	5.00	37.00	3.34 1	-5.27 2	-3.53 1	5.35 2
4.88426	5.13754	3.50	88.00	5.44 0	-3.48 2	-6.37 0	3.55 2
4.93335	5.14249	3.80	71.00	8.81 0	-4.24 2	-9.90 0	4.32 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
4.92257	5.14377	3.70	76.00	7.60 0	-4.03 2	-8.64 0	4.11 2
4.97158	5.14541	4.20	55.00	1.49 1	-4.81 2	-1.62 1	4.89 2
4.96046	5.14912	4.00	62.00	1.17 1	-4.59 2	-1.29 1	4.66 2
4.98804	5.14956	4.40	49.00	1.88 1	-4.98 2	-2.02 1	5.06 2
4.95487	5.15233	3.90	66.00	1.02 1	-4.44 2	-1.14 1	4.52 2
4.92136	5.15508	3.60	81.00	6.57 0	-3.81 2	-7.55 0	3.88 2
4.90646	5.15651	3.50	87.00	5.56 0	-3.53 2	-6.49 0	3.60 2
4.94659	5.16494	3.70	75.00	7.78 0	-4.08 2	-8.81 0	4.15 2
4.95855	5.16495	3.80	70.00	9.02 0	-4.29 2	-1.01 1	4.36 2
4.98869	5.17475	4.00	61.00	1.20 1	-4.63 2	-1.32 1	4.70 2
4.94449	5.17524	3.60	80.00	6.72 0	-3.86 2	-7.70 0	3.93 2
4.92881	5.17568	3.50	86.00	5.68 0	-3.58 2	-6.62 0	3.65 2
4.98161	5.17642	3.90	65.00	1.05 1	-4.48 2	-1.16 1	4.56 2
4.97089	5.18641	3.70	74.00	7.95 0	-4.13 2	-8.99 0	4.20 2
4.98410	5.18778	3.80	69.00	9.23 0	-4.33 2	-1.03 1	4.41 2
4.95133	5.19505	3.50	85.00	5.81 0	-3.63 2	-6.74 0	3.70 2
4.96785	5.19565	3.60	79.00	6.87 0	-3.91 2	-7.85 0	3.98 2
4.99547	5.20820	3.70	73.00	8.14 0	-4.17 2	-9.17 0	4.25 2
4.97401	5.21463	3.50	84.00	5.94 0	-3.68 2	-6.87 0	3.75 2
4.99144	5.21632	3.60	78.00	7.02 0	-3.96 2	-8.00 0	4.03 2
4.96639	5.22380	3.40	90.00	5.02 0	-3.39 2	-5.91 0	3.46 2
4.99688	5.23443	3.50	83.00	6.07 0	-3.73 2	-7.00 0	3.80 2
4.98864	5.24275	3.40	89.00	5.14 0	-3.44 2	-6.02 0	3.51 2
5.00	5.20						
5.00570	5.10649	9.00	14.50	4.94 2	-9.65 2	-5.06 2	9.82 2
5.00698	5.11438	7.20	19.50	1.59 2	-6.40 2	-1.64 2	6.50 2
5.01266	5.11775	7.60	18.00	2.04 2	-6.83 2	-2.10 2	6.93 2
5.02667	5.12662	9.20	14.00	5.85 2	-1.06 3	-5.99 2	1.07 3
5.02916	5.12755	11.00	11.50	2.05 3	-2.18 3	-2.09 3	2.22 3
5.03055	5.12962	9.80	13.00	9.51 2	-1.42 3	-9.72 2	1.44 3
5.01400	5.13211	6.00	26.00	7.32 1	-5.63 2	-7.61 1	5.72 2
5.03475	5.14023	7.40	18.50	1.84 2	-6.64 2	-1.89 2	6.74 2
5.03171	5.14111	6.80	21.00	1.26 2	-6.10 2	-1.30 2	6.19 2
5.00854	5.14114	5.20	34.00	3.99 1	-5.34 2	-4.19 1	5.42 2
5.04340	5.14172	10.50	12.00	2.22 3	-2.68 3	-2.26 3	2.73 3
5.03193	5.14297	6.60	22.00	1.11 2	-5.97 2	-1.15 2	6.06 2
5.04705	5.14888	8.20	16.00	3.06 2	-7.81 2	-3.14 2	7.94 2
5.04163	5.14929	7.00	20.00	1.44 2	-6.27 2	-1.49 2	6.36 2
5.04890	5.15009	8.40	15.50	3.48 2	-8.23 2	-3.57 2	8.36 2
5.05372	5.15278	9.40	13.50	7.11 2	-1.18 3	-7.27 2	1.20 3
5.05069	5.15310	8.00	16.50	2.71 2	-7.47 2	-2.78 2	7.59 2
5.01065	5.15444	4.80	40.00	2.83 1	-5.20 2	-3.00 1	5.28 2
5.04196	5.15451	6.40	23.00	9.82 1	-5.85 2	-1.02 2	5.94 2
5.00383	5.15536	4.60	44.00	2.33 1	-5.11 2	-2.48 1	5.19 2
5.05634	5.15682	8.60	15.00	3.99 2	-8.72 2	-4.09 2	8.87 2
5.05977	5.16271	7.80	17.00	2.41 2	-7.18 2	-2.47 2	7.30 2
5.04111	5.16414	5.60	29.00	5.60 1	-5.49 2	-5.84 1	5.57 2
5.06223	5.16803	7.20	19.00	1.66 2	-6.48 2	-1.71 2	6.58 2
5.06952	5.16924	8.80	14.50	4.64 2	-9.37 2	-4.75 2	9.52 2
5.07223	5.17027	10.00	12.50	1.27 3	-1.74 3	-1.30 3	1.77 3
5.04376	5.17037	5.40	31.00	4.81 1	-5.43 2	-5.04 1	5.50 2
5.00322	5.17451	4.20	54.00	1.53 1	-4.85 2	-1.66 1	4.93 2
5.05622	5.17548	5.80	27.00	6.56 1	-5.58 2	-6.83 1	5.66 2
5.06160	5.17555	6.20	24.00	8.72 1	-5.76 2	-9.04 1	5.85 2
5.07428	5.17770	7.60	17.50	2.16 2	-6.95 2	-2.22 2	7.05 2
5.02374	5.18275	4.40	48.00	1.93 1	-5.02 2	-2.08 1	5.09 2
5.04755	5.18329	5.00	36.00	3.48 1	-5.30 2	-3.67 1	5.37 2
5.08719	5.18528	9.60	13.00	8.79 2	-1.35 3	-8.98 2	1.37 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.08865	5.18755	9.00	14.00	5.47 2	-1.02 3	-5.59 2	1.03 3
5.04408	5.19309	4.60	43.00	2.40 1	-5.14 2	-2.56 1	5.22 2
5.06314	5.19312	5.20	33.00	4.16 1	-5.37 2	-4.37 1	5.45 2
5.05559	5.19683	4.80	39.00	2.93 1	-5.23 2	-3.10 1	5.31 2
5.09426	5.19810	7.40	18.00	1.94 2	-6.74 2	-1.99 2	6.84 2
5.01744	5.20091	4.00	60.00	1.23 1	-4.67 2	-1.35 1	4.74 2
5.00879	5.20096	3.90	64.00	1.08 1	-4.53 2	-1.19 1	4.60 2
5.09524	5.20132	7.00	19.50	1.51 2	-6.34 2	-1.55 2	6.43 2
5.03556	5.20433	4.20	53.00	1.57 1	-4.88 2	-1.71 1	4.96 2
5.09081	5.20607	6.00	25.00	7.78 1	-5.69 2	-8.07 1	5.77 2
5.01000	5.21099	3.80	68.00	9.45 0	-4.38 2	-1.05 1	4.45 2
5.11399	5.21204	9.20	13.50	6.61 2	-1.13 3	-6.76 2	1.15 3
5.06039	5.21689	4.40	47.00	1.99 1	-5.05 2	-2.14 1	5.12 2
5.11973	5.21980	8.20	15.50	3.29 2	-8.05 2	-3.37 2	8.18 2
5.12039	5.22107	8.00	16.00	2.89 2	-7.66 2	-2.97 2	7.78 2
5.11981	5.22400	7.20	18.50	1.75 2	-6.56 2	-1.80 2	6.66 2
5.12486	5.22425	8.40	15.00	3.77 2	-8.51 2	-3.86 2	8.65 2
5.12752	5.22459	9.80	12.50	1.14 3	-1.60 3	-1.16 3	1.63 3
5.03640	5.22597	3.90	63.00	1.10 1	-4.57 2	-1.22 1	4.64 2
5.04671	5.22762	4.00	59.00	1.26 1	-4.70 2	-1.38 1	4.78 2
5.12674	5.22798	7.80	16.50	2.56 2	-7.34 2	-2.63 2	7.46 2
5.10802	5.22831	5.60	28.00	5.90 1	-5.53 2	-6.15 1	5.61 2
5.10526	5.22918	5.40	30.00	5.05 1	-5.46 2	-5.28 1	5.54 2
5.02036	5.23032	3.70	72.00	8.33 0	-4.22 2	-9.36 0	4.29 2
5.09870	5.23186	5.00	35.00	3.62 1	-5.32 2	-3.81 1	5.40 2
5.08558	5.23207	4.60	42.00	2.49 1	-5.17 2	-2.65 1	5.24 2
5.13590	5.23456	8.60	14.50	4.37 2	-9.10 2	-4.47 2	9.25 2
5.03628	5.23460	3.80	67.00	9.68 0	-4.42 2	-1.08 1	4.50 2
5.06864	5.23490	4.20	52.00	1.62 1	-4.92 2	-1.75 1	5.00 2
5.12799	5.23598	6.60	21.00	1.20 2	-6.06 2	-1.24 2	6.15 2
5.01527	5.23727	3.60	77.00	7.18 0	-4.01 2	-8.16 0	4.08 2
5.13398	5.24029	6.80	20.00	1.37 2	-6.22 2	-1.41 2	6.31 2
5.13875	5.24049	7.60	17.00	2.29 2	-7.07 2	-2.35 2	7.18 2
5.10212	5.24081	4.80	38.00	3.04 1	-5.26 2	-3.21 1	5.33 2
5.13256	5.24213	6.40	22.00	1.06 2	-5.93 2	-1.09 2	6.02 2
5.14590	5.24300	9.40	13.00	8.12 2	-1.28 3	-8.29 2	1.30 3
5.12970	5.24616	5.80	26.00	6.95 1	-5.62 2	-7.22 1	5.70 2
5.12014	5.24748	5.20	32.00	4.36 1	-5.40 2	-4.56 1	5.48 2
5.15220	5.24839	10.50	11.50	2.90 3	-3.30 3	-2.96 3	3.36 3
5.15306	5.25092	8.80	14.00	5.12 2	-9.84 2	-5.24 2	1.00 3
5.06449	5.25146	3.90	62.00	1.13 1	-4.61 2	-1.24 1	4.68 2
5.09805	5.25205	4.40	46.00	2.06 1	-5.08 2	-2.20 1	5.15 2
5.04556	5.25278	3.70	71.00	8.52 0	-4.27 2	-9.55 0	4.34 2
5.01994	5.25446	3.50	82.00	6.21 0	-3.78 2	-7.13 0	3.85 2
5.07655	5.25491	4.00	58.00	1.29 1	-4.74 2	-1.41 1	4.82 2
5.15105	5.25554	7.00	19.00	1.58 2	-6.41 2	-1.63 2	6.51 2
5.14740	5.25844	6.20	23.00	9.33 1	-5.83 2	-9.65 1	5.91 2
5.03936	5.25849	3.60	76.00	7.35 0	-4.06 2	-8.32 0	4.13 2
5.06295	5.25862	3.80	66.00	9.91 0	-4.46 2	-1.10 1	4.54 2
5.15645	5.25863	7.40	17.50	2.05 2	-6.85 2	-2.10 2	6.95 2
5.01102	5.26189	3.40	88.00	5.25 0	-3.50 2	-6.13 0	3.56 2
5.10250	5.26626	4.20	51.00	1.67 1	-4.95 2	-1.80 1	5.03 2
5.17522	5.27122	10.00	14.00	1.63 3	-2.11 3	-1.67 3	2.15 3
5.12841	5.27239	4.60	41.00	2.58 1	-5.20 2	-2.73 1	5.27 2
5.17658	5.27359	9.00	13.50	6.14 2	-1.09 3	-6.27 2	1.10 3
5.04320	5.27472	3.50	81.00	6.35 0	-3.83 2	-7.27 0	3.90 2
5.07110	5.27560	3.70	70.00	8.72 0	-4.31 2	-9.75 0	4.38 2
5.09307	5.27746	3.90	61.00	1.16 1	-4.65 2	-1.27 1	4.72 2
5.06371	5.28002	3.60	75.00	7.51 0	-4.10 2	-8.49 0	4.17 2
5.18478	5.28088	9.60	12.50	1.04 3	-1.51 3	-1.06 3	1.54 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.03356	5.28122	3.40	87.00	5.37 0	-3.55 2	-6.24 0	3.62 2
5.17989	5.28246	7.20	18.00	1.84 2	-6.66 2	-1.89 2	6.75 2
5.15194	5.28251	5.00	34.00	3.78 1	-5.35 2	-3.96 1	5.43 2
5.10697	5.28279	4.00	57.00	1.33 1	-4.78 2	-1.45 1	4.85 2
5.09004	5.28308	3.80	65.00	1.02 1	-4.51 2	-1.12 1	4.58 2
5.17238	5.28477	6.00	24.00	8.29 1	-5.74 2	-8.58 1	5.82 2
5.15036	5.28650	4.80	37.00	3.16 1	-5.29 2	-3.33 1	5.36 2
5.13677	5.28828	4.40	45.00	2.12 1	-5.11 2	-2.27 1	5.18 2
5.16981	5.29104	5.40	29.00	5.31 1	-5.49 2	-5.54 1	5.57 2
5.19367	5.29260	8.00	15.50	3.11 2	-7.88 2	-3.18 2	8.00 2
5.18816	5.29290	6.80	19.50	1.43 2	-6.28 2	-1.48 2	6.37 2
5.19630	5.29458	8.20	15.00	3.55 2	-8.31 2	-3.64 2	8.44 2
5.06667	5.29524	3.50	80.00	6.49 0	-3.88 2	-7.41 0	3.95 2
5.17854	5.29608	5.60	27.00	6.23 1	-5.57 2	-6.48 1	5.65 2
5.19703	5.29655	7.80	16.00	2.74 2	-7.52 2	-2.81 2	7.64 2
5.13719	5.29845	4.20	50.00	1.71 1	-4.99 2	-1.85 1	5.06 2
5.09698	5.29878	3.70	69.00	8.93 0	-4.36 2	-9.95 0	4.43 2
5.05625	5.30074	3.40	86.00	5.48 0	-3.60 2	-6.36 0	3.67 2
5.08834	5.30185	3.60	74.00	7.69 0	-4.15 2	-8.66 0	4.22 2
5.12216	5.30399	3.90	60.00	1.19 1	-4.69 2	-1.30 1	4.76 2
5.17976	5.30446	5.20	31.00	4.56 1	-5.43 2	-4.77 1	5.51 2
5.11756	5.30798	3.80	64.00	1.04 1	-4.55 2	-1.15 1	4.62 2
5.13801	5.31131	4.00	56.00	1.36 1	-4.82 2	-1.48 1	4.89 2
5.17267	5.31413	4.60	40.00	2.67 1	-5.23 2	-2.83 1	5.30 2
5.09037	5.31600	3.50	79.00	6.63 0	-3.93 2	-7.56 0	4.00 2
5.07910	5.32048	3.40	85.00	5.61 0	-3.65 2	-6.48 0	3.72 2
5.12323	5.32236	3.70	68.00	9.14 0	-4.40 2	-1.02 1	4.47 2
5.11326	5.32400	3.60	73.00	7.86 0	-4.20 2	-8.84 0	4.27 2
5.17663	5.32564	4.40	44.00	2.19 1	-5.14 2	-2.34 1	5.21 2
5.15180	5.33108	3.90	59.00	1.22 1	-4.73 2	-1.33 1	4.80 2
5.17274	5.33151	4.20	49.00	1.77 1	-5.02 2	-1.90 1	5.09 2
5.14553	5.33336	3.80	63.00	1.07 1	-4.59 2	-1.17 1	4.66 2
5.11429	5.33703	3.50	78.00	6.78 0	-3.98 2	-7.71 0	4.05 2
5.10212	5.34042	3.40	84.00	5.73 0	-3.70 2	-6.61 0	3.77 2
5.16970	5.34049	4.00	55.00	1.40 1	-4.85 2	-1.52 1	4.93 2
5.14985	5.34633	3.70	67.00	9.36 0	-4.44 2	-1.04 1	4.51 2
5.13849	5.34648	3.60	72.00	8.05 0	-4.24 2	-9.02 0	4.31 2
5.10034	5.35522	3.30	90.00	4.84 0	-3.41 2	-5.67 0	3.48 2
5.13847	5.35834	3.50	77.00	6.94 0	-4.03 2	-7.86 0	4.10 2
5.18200	5.35874	3.90	58.00	1.25 1	-4.76 2	-1.36 1	4.84 2
5.17397	5.35923	3.80	62.00	1.09 1	-4.63 2	-1.20 1	4.70 2
5.12533	5.36059	3.40	83.00	5.86 0	-3.75 2	-6.73 0	3.82 2
5.16404	5.36931	3.60	71.00	8.23 0	-4.29 2	-9.20 0	4.36 2
5.17688	5.37073	3.70	66.00	9.58 0	-4.49 2	-1.06 1	4.56 2
5.12293	5.37455	3.30	89.00	4.95 0	-3.47 2	-5.78 0	3.53 2
5.16290	5.37994	3.50	76.00	7.09 0	-4.08 2	-8.01 0	4.15 2
5.14874	5.38098	3.40	82.00	5.99 0	-3.81 2	-6.86 0	3.87 2
5.18993	5.39250	3.60	70.00	8.43 0	-4.33 2	-9.39 0	4.40 2
5.14567	5.39406	3.30	88.00	5.06 0	-3.52 2	-5.89 0	3.58 2
5.17235	5.40162	3.40	81.00	6.12 0	-3.86 2	-6.99 0	3.92 2
5.18760	5.40183	3.50	75.00	7.25 0	-4.13 2	-8.17 0	4.19 2
5.16855	5.41377	3.30	87.00	5.17 0	-3.57 2	-6.00 0	3.64 2
5.19617	5.42250	3.40	80.00	6.26 0	-3.91 2	-7.13 0	3.97 2
5.19159	5.43367	3.30	86.00	5.29 0	-3.62 2	-6.11 0	3.69 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.20	5.40						
5.20504	5.30261	8.40	14.50	4.11 2	-8.86 2	-4.20 2	9.00 2
5.20679	5.30290	9.20	13.00	7.51 2	-1.22 3	-7.67 2	1.24 3
5.20631	5.30636	7.60	16.50	2.43 2	-7.22 2	-2.49 2	7.33 2
5.20920	5.31210	7.00	18.50	1.66 2	-6.49 2	-1.71 2	6.59 2
5.22006	5.31686	8.60	14.00	4.80 2	-9.53 2	-4.91 2	9.68 2
5.20753	5.32117	5.80	25.00	7.38 1	-5.67 2	-7.65 1	5.75 2
5.22151	5.32203	7.40	17.00	2.17 2	-6.97 2	-2.22 2	7.07 2
5.23114	5.32618	9.80	12.00	1.41 3	-1.88 3	-1.44 3	1.91 3
5.20043	5.33403	4.80	36.00	3.29 1	-5.31 2	-3.46 1	5.39 2
5.20744	5.33541	5.00	33.00	3.94 1	-5.38 2	-4.13 1	5.46 2
5.22971	5.33628	6.40	21.00	1.14 2	-6.02 2	-1.18 2	6.11 2
5.23138	5.33631	6.60	20.00	1.30 2	-6.17 2	-1.34 2	6.25 2
5.24162	5.33760	8.80	13.50	5.73 2	-1.05 3	-5.85 2	1.06 3
5.24412	5.33925	9.40	12.50	9.54 2	-1.43 3	-9.73 2	1.45 3
5.24267	5.34360	7.20	17.50	1.94 2	-6.76 2	-1.99 2	6.86 2
5.23908	5.34717	6.20	22.00	1.00 2	-5.90 2	-1.04 2	5.98 2
5.24454	5.34771	6.80	19.00	1.50 2	-6.35 2	-1.54 2	6.44 2
5.23770	5.35622	5.40	28.00	5.59 1	-5.53 2	-5.82 1	5.61 2
5.21845	5.35739	4.60	39.00	2.77 1	-5.25 2	-2.92 1	5.33 2
5.26922	5.36331	10.50	11.00	5.56 4	-5.93 4	-5.66 4	6.04 4
5.21768	5.36421	4.40	43.00	2.27 1	-5.17 2	-2.41 1	5.24 2
5.24222	5.36426	5.20	30.00	4.79 1	-5.47 2	-4.99 1	5.54 2
5.27002	5.36510	9.00	13.00	6.94 2	-1.16 3	-7.08 2	1.18 3
5.20921	5.36550	4.20	48.00	1.82 1	-5.05 2	-1.95 1	5.12 2
5.25304	5.36781	5.60	26.00	6.60 1	-5.62 2	-6.85 1	5.69 2
5.27086	5.36802	8.00	15.00	3.35 2	-8.12 2	-3.43 2	8.24 2
5.27093	5.36872	7.80	15.50	2.94 2	-7.72 2	-3.01 2	7.84 2
5.25926	5.36876	6.00	23.00	8.86 1	-5.80 2	-9.16 1	5.88 2
5.20208	5.37036	4.00	54.00	1.44 1	-4.89 2	-1.56 1	4.96 2
5.26988	5.37117	7.00	18.00	1.75 2	-6.58 2	-1.79 2	6.67 2
5.27711	5.37359	8.20	14.50	3.87 2	-8.62 2	-3.95 2	8.75 2
5.27722	5.37557	7.60	16.00	2.59 2	-7.39 2	-2.66 2	7.50 2
5.28561	5.37952	10.00	11.50	2.17 3	-2.64 3	-2.21 3	2.68 3
5.28905	5.38314	9.60	12.00	1.28 3	-1.75 3	-1.30 3	1.78 3
5.25248	5.38352	4.80	35.00	3.42 1	-5.34 2	-3.60 1	5.41 2
5.28984	5.38557	8.40	14.00	4.51 2	-9.25 2	-4.60 2	9.39 2
5.20291	5.38561	3.80	61.00	1.12 1	-4.67 2	-1.23 1	4.74 2
5.21279	5.38702	3.90	57.00	1.28 1	-4.80 2	-1.40 1	4.87 2
5.28969	5.38853	7.40	16.50	2.30 2	-7.11 2	-2.36 2	7.21 2
5.28614	5.38952	6.60	19.50	1.36 2	-6.23 2	-1.40 2	6.31 2
5.26539	5.39075	5.00	32.00	4.12 1	-5.41 2	-4.31 1	5.49 2
5.20432	5.39556	3.70	65.00	9.82 0	-4.53 2	-1.08 1	4.60 2
5.30567	5.39981	9.20	12.50	8.75 2	-1.35 3	-8.93 2	1.37 3
5.24665	5.40047	4.20	47.00	1.88 1	-5.08 2	-2.01 1	5.15 2
5.23517	5.40097	4.00	53.00	1.48 1	-4.92 2	-1.60 1	5.00 2
5.29017	5.40097	5.80	24.00	7.87 1	-5.73 2	-8.14 1	5.80 2
5.26585	5.40227	4.60	38.00	2.87 1	-5.28 2	-3.03 1	5.35 2
5.26002	5.40405	4.40	42.00	2.34 1	-5.20 2	-2.49 1	5.27 2
5.30927	5.40421	8.60	13.50	5.34 2	-1.01 3	-5.46 2	1.02 3
5.30330	5.40488	6.80	18.50	1.58 2	-6.43 2	-1.62 2	6.51 2
5.30835	5.40763	7.20	17.00	2.05 2	-6.87 2	-2.11 2	6.97 2
5.23237	5.41253	3.80	60.00	1.15 1	-4.71 2	-1.26 1	4.78 2
5.24421	5.41593	3.90	56.00	1.32 1	-4.84 2	-1.43 1	4.91 2
5.21617	5.41606	3.60	69.00	8.62 0	-4.38 2	-9.59 0	4.45 2
5.23220	5.42085	3.70	64.00	1.01 1	-4.57 2	-1.11 1	4.64 2
5.21258	5.42404	3.50	74.00	7.42 0	-4.17 2	-8.34 0	4.24 2
5.30925	5.42505	5.40	27.00	5.91 1	-5.57 2	-6.13 1	5.64 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.30776	5.42714	5.20	29.00	5.03 1	-5.50 2	-5.24 1	5.57 2
5.33572	5.42979	8.80	13.00	6.44 2	-1.12 3	-6.57 2	1.13 3
5.26902	5.43234	4.00	52.00	1.52 1	-4.96 2	-1.64 1	5.03 2
5.33327	5.43294	7.00	17.50	1.84 2	-6.68 2	-1.89 2	6.77 2
5.30666	5.43513	4.80	34.00	3.57 1	-5.37 2	-3.74 1	5.44 2
5.34220	5.43517	9.80	11.50	1.79 3	-2.24 3	-1.82 3	2.27 3
5.28512	5.43647	4.20	46.00	1.93 1	-5.11 2	-2.07 1	5.18 2
5.33426	5.43779	6.40	20.00	1.24 2	-6.12 2	-1.27 2	6.20 2
5.26238	5.44000	3.80	59.00	1.18 1	-4.75 2	-1.29 1	4.82 2
5.24278	5.44002	3.60	68.00	8.83 0	-4.42 2	-9.80 0	4.49 2
5.34905	5.44219	9.40	12.00	1.15 3	-1.63 3	-1.18 3	1.65 3
5.33738	5.44249	8.20	21.00	1.08 2	-5.98 2	-1.11 2	6.06 2
5.22022	5.44364	3.40	79.00	6.40 0	-3.96 2	-7.27 0	4.02 2
5.33193	5.44392	5.60	25.00	7.00 1	-5.66 2	-7.25 1	5.74 2
5.34877	5.44480	7.80	15.00	3.16 2	-7.95 2	-3.24 2	8.06 2
5.34313	5.44495	6.60	19.00	1.43 2	-6.29 2	-1.46 2	6.38 2
5.30371	5.44526	4.40	41.00	2.43 1	-5.22 2	-2.57 1	5.30 2
5.27629	5.44552	3.90	55.00	1.35 1	-4.87 2	-1.47 1	4.94 2
5.23786	5.44657	3.50	73.00	7.59 0	-4.22 2	-8.51 0	4.29 2
5.26054	5.44661	3.70	63.00	1.03 1	-4.61 2	-1.13 1	4.68 2
5.35233	5.44770	8.00	14.50	3.64 2	-8.41 2	-3.72 2	8.53 2
5.35177	5.44840	7.60	15.50	2.78 2	-7.58 2	-2.84 2	7.68 2
5.32598	5.44873	5.00	31.00	4.32 1	-5.44 2	-4.51 1	5.51 2
5.31499	5.44890	4.60	37.00	2.98 1	-5.31 2	-3.14 1	5.38 2
5.21480	5.45378	3.30	85.00	5.40 0	-3.68 2	-6.23 0	3.74 2
5.36257	5.45723	8.20	14.00	4.23 2	-8.98 2	-4.32 2	9.11 2
5.36124	5.45840	7.40	16.00	2.45 2	-7.26 2	-2.51 2	7.36 2
5.35207	5.45866	6.00	22.00	9.52 1	-5.87 2	-9.82 1	5.95 2
5.36956	5.46271	9.00	12.50	8.00 2	-1.27 3	-8.16 2	1.29 3
5.26977	5.46438	3.60	67.00	9.04 0	-4.47 2	-1.00 1	4.54 2
5.30366	5.46451	4.00	51.00	1.56 1	-4.99 2	-1.68 1	5.04 2
5.36460	5.46459	6.80	18.00	1.66 2	-6.51 2	-1.70 2	6.59 2
5.24450	5.46506	3.40	78.00	6.54 0	-4.00 2	-7.41 0	4.07 2
5.29296	5.46807	3.80	58.00	1.21 1	-4.79 2	-1.32 1	4.86 2
5.26346	5.46943	3.50	72.00	7.77 0	-4.27 2	-8.68 0	4.33 2
5.28936	5.47287	3.70	62.00	1.06 1	-4.65 2	-1.16 1	4.72 2
5.32467	5.47355	4.20	45.00	2.00 1	-5.14 2	-2.13 1	5.21 2
5.37971	5.47361	8.40	13.50	5.00 2	-9.76 2	-5.10 2	9.90 2
5.23819	5.47411	3.30	84.00	5.52 0	-3.73 2	-6.34 0	3.79 2
5.37717	5.47479	7.20	16.50	2.18 2	-7.00 2	-2.23 2	7.10 2
5.30906	5.47580	3.90	54.00	1.39 1	-4.91 2	-1.50 1	4.98 2
5.37818	5.48611	5.80	23.00	8.41 1	-5.78 2	-8.68 1	5.86 2
5.26904	5.48675	3.40	77.00	6.69 0	-4.05 2	-7.56 0	4.12 2
5.34884	5.48791	4.40	40.00	2.51 1	-5.25 2	-2.66 1	5.32 2
5.36312	5.48903	4.80	33.00	3.72 1	-5.40 2	-3.90 1	5.47 2
5.29717	5.48916	3.60	66.00	9.26 0	-4.51 2	-1.02 1	4.58 2
5.38963	5.49163	6.40	19.50	1.29 2	-6.18 2	-1.33 2	6.26 2
5.28937	5.49264	3.50	71.00	7.95 0	-4.31 2	-8.86 0	4.38 2
5.37670	5.49340	5.20	28.00	5.30 1	-5.53 2	-5.50 1	5.60 2
5.26176	5.49466	3.30	83.00	5.65 0	-3.78 2	-6.47 0	3.84 2
5.24291	5.49522	3.20	90.00	4.67 0	-3.44 2	-5.44 0	3.50 2
5.32415	5.49675	3.80	57.00	1.24 1	-4.82 2	-1.35 1	4.89 2
5.36599	5.49738	4.60	36.00	3.10 1	-5.34 2	-3.26 1	5.40 2
5.33915	5.49753	4.00	50.00	1.61 1	-5.02 2	-1.73 1	5.09 2
5.39960	5.49763	7.00	17.00	1.95 2	-6.78 2	-1.99 2	6.87 2
5.38483	5.49789	5.40	26.00	6.25 1	-5.61 2	-6.48 1	5.68 2
5.31868	5.49965	3.70	61.00	1.08 1	-4.69 2	-1.18 1	4.76 2
5.34255	5.50682	3.90	53.00	1.43 1	-4.94 2	-1.54 1	5.01 2
5.29383	5.50873	3.40	76.00	6.84 0	-4.10 2	-7.71 0	4.17 2
5.38945	5.50958	5.00	30.00	4.53 1	-5.47 2	-4.72 1	5.54 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.36538	5.51180	4.20	44.00	2.06 1	-5.17 2	-2.19 1	5.24 2
5.32499	5.51439	3.60	65.00	9.48 0	-4.55 2	-1.04 1	4.62 2
5.26588	5.51494	3.20	89.00	4.77 0	-3.49 2	-5.54 0	3.55 2
5.28553	5.51544	3.30	82.00	5.77 0	-3.83 2	-6.59 0	3.89 2
5.31563	5.51622	3.50	70.00	8.13 0	-4.36 2	-9.04 0	4.43 2
5.35596	5.52608	3.80	56.00	1.27 1	-4.86 2	-1.38 1	4.93 2
5.34853	5.52697	3.70	60.00	1.11 1	-4.73 2	-1.21 1	4.80 2
5.31890	5.53101	3.40	75.00	7.00 0	-4.15 2	-7.86 0	4.22 2
5.37552	5.53145	4.00	49.00	1.66 1	-5.06 2	-1.77 1	5.13 2
5.39553	5.53211	4.40	39.00	2.60 1	-5.28 2	-2.75 1	5.35 2
5.28898	5.53485	3.20	88.00	4.87 0	-3.54 2	-5.65 0	3.60 2
5.30950	5.53647	3.30	81.00	5.90 0	-3.88 2	-6.72 0	3.94 2
5.37681	5.53861	3.90	52.00	1.47 1	-4.98 2	-1.58 1	5.05 2
5.35325	5.54007	3.60	64.00	9.71 0	-4.59 2	-1.07 1	4.66 2
5.34224	5.54018	3.50	69.00	8.32 0	-4.40 2	-9.23 0	4.47 2
5.34426	5.55361	3.40	74.00	7.16 0	-4.20 2	-8.02 0	4.26 2
5.37893	5.55486	3.70	59.00	1.14 1	-4.77 2	-1.24 1	4.84 2
5.31224	5.55495	3.20	87.00	4.98 0	-3.59 2	-5.75 0	3.66 2
5.38844	5.55608	3.80	55.00	1.31 1	-4.90 2	-1.42 1	4.96 2
5.33369	5.55775	3.30	80.00	6.03 0	-3.93 2	-6.85 0	3.99 2
5.36923	5.56453	3.50	68.00	8.52 0	-4.45 2	-9.43 0	4.51 2
5.38197	5.56624	3.60	63.00	9.95 0	-4.63 2	-1.09 1	4.70 2
5.33565	5.57525	3.20	86.00	5.09 0	-3.65 2	-5.86 0	3.71 2
5.36991	5.57653	3.40	73.00	7.32 0	-4.24 2	-8.18 0	4.31 2
5.35811	5.57928	3.30	79.00	6.17 0	-3.98 2	-6.98 0	4.04 2
5.39660	5.58929	3.50	67.00	8.72 0	-4.49 2	-9.63 0	4.56 2
5.35924	5.59576	3.20	85.00	5.20 0	-3.70 2	-5.97 0	3.76 2
5.39588	5.59980	3.40	72.00	7.49 0	-4.29 2	-8.35 0	4.36 2
5.38278	5.60110	3.30	78.00	6.30 0	-4.03 2	-7.12 0	4.09 2
5.38300	5.61649	3.20	84.00	5.32 0	-3.75 2	-6.09 0	3.81 2
5.39503	5.64468	3.10	90.00	4.49 0	-3.46 2	-5.21 0	3.52 2
5.40	5.60						
5.40080	5.49284	9.60	11.50	1.60 3	-2.07 3	-1.63 3	2.10 3
5.40432	5.49617	10.00	11.00	4.49 3	-5.14 3	-4.57 3	5.22 3
5.40405	5.49710	8.60	13.00	5.98 2	-1.07 3	-6.10 2	1.09 3
5.40251	5.50276	6.60	18.50	1.49 2	-6.36 2	-1.53 2	6.45 2
5.41130	5.50346	9.20	12.00	1.05 3	-1.52 3	-1.07 3	1.55 3
5.41570	5.52488	5.60	24.00	7.46 1	-5.71 2	-7.71 1	5.78 2
5.43029	5.52517	7.60	15.00	2.98 2	-7.78 2	-3.05 2	7.89 2
5.43092	5.52518	7.80	14.50	3.43 2	-8.21 2	-3.50 2	8.33 2
5.42864	5.52703	6.80	17.50	1.75 2	-6.60 2	-1.79 2	6.69 2
5.43596	5.52810	8.80	12.50	7.38 2	-1.21 3	-7.52 2	1.23 3
5.43646	5.53191	7.40	15.50	2.62 2	-7.43 2	-2.68 2	7.54 2
5.43847	5.53204	8.00	14.00	3.97 2	-8.74 2	-4.05 2	8.86 2
5.44316	5.54526	6.20	20.00	1.17 2	-6.08 2	-1.21 2	6.16 2
5.44939	5.54534	7.20	16.00	2.32 2	-7.14 2	-2.37 2	7.24 2
5.42207	5.54541	4.80	32.00	3.89 1	-5.43 2	-4.07 1	5.49 2
5.45314	5.54597	8.20	13.50	4.67 2	-9.44 2	-4.77 2	9.57 2
5.44726	5.54771	6.40	19.00	1.35 2	-6.24 2	-1.39 2	6.32 2
5.41900	5.54787	4.60	35.00	3.23 1	-5.36 2	-3.39 1	5.43 2
5.40731	5.55127	4.20	43.00	2.13 1	-5.20 2	-2.26 1	5.27 2
5.46163	5.55253	9.80	11.00	2.75 3	-3.23 3	-2.79 3	3.29 3
5.46152	5.55261	9.40	11.50	1.43 3	-1.90 3	-1.45 3	1.93 3
5.45158	5.55522	6.00	21.00	1.03 2	-5.95 2	-1.06 2	6.03 2
5.46446	5.56313	6.60	18.00	1.57 2	-6.44 2	-1.61 2	6.52 2
5.44934	5.56335	5.20	27.00	5.59 1	-5.57 2	-5.80 1	5.64 2
5.46909	5.56547	7.00	16.50	2.06 2	-6.90 2	-2.11 2	6.99 2
5.41283	5.56631	4.00	48.00	1.71 1	-5.09 2	-1.82 1	5.16 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.47591	5.56709	9.00	12.00	9.44 2	-1.42 3	-9.61 2	1.44 3
5.47520	5.56721	8.40	13.00	5.57 2	-1.03 3	-5.68 2	1.05 3
5.41187	5.57122	3.90	51.00	1.51 1	-5.01 2	-1.62 1	5.08 2
5.45606	5.57356	5.00	29.00	4.75 1	-5.50 2	-4.95 1	5.57 2
5.46486	5.57517	5.40	25.00	6.63 1	-5.65 2	-6.86 1	5.72 2
5.47219	5.57725	5.80	22.00	9.02 1	-5.85 2	-9.30 1	5.92 2
5.44386	5.57796	4.40	38.00	2.70 1	-5.31 2	-2.85 1	5.37 2
5.40991	5.58335	3.70	58.00	1.17 1	-4.81 2	-1.27 1	4.88 2
5.42162	5.58679	3.80	54.00	1.35 1	-4.93 2	-1.45 1	5.00 2
5.45054	5.59205	4.20	42.00	2.20 1	-5.23 2	-2.33 1	5.30 2
5.49563	5.59240	6.80	17.00	1.84 2	-6.69 2	-1.89 2	6.78 2
5.41118	5.59291	3.60	62.00	1.02 1	-4.68 2	-1.12 1	4.74 2
5.50502	5.59615	8.60	12.50	6.81 2	-1.16 3	-6.94 2	1.17 3
5.49917	5.59976	6.20	19.50	1.22 2	-6.13 2	-1.26 2	6.21 2
5.47417	5.60051	4.60	34.00	3.36 1	-5.39 2	-3.52 1	5.46 2
5.45112	5.60216	4.00	47.00	1.76 1	-5.12 2	-1.88 1	5.19 2
5.48370	5.60446	4.80	31.00	4.07 1	-5.45 2	-4.25 1	5.52 2
5.44778	5.60469	3.90	50.00	1.56 1	-5.04 2	-1.67 1	5.11 2
5.50729	5.60620	6.40	18.50	1.42 2	-6.30 2	-1.45 2	6.38 2
5.51313	5.60627	7.60	14.50	3.23 2	-8.02 2	-3.29 2	8.13 2
5.51567	5.60940	7.40	15.00	2.81 2	-7.62 2	-2.87 2	7.73 2
5.51777	5.61024	7.80	14.00	3.73 2	-8.51 2	-3.81 2	8.63 2
5.52096	5.61095	9.60	11.00	2.36 3	-2.86 3	-2.40 3	2.91 3
5.50490	5.61125	5.60	23.00	7.96 1	-5.77 2	-8.22 1	5.84 2
5.44150	5.61245	3.70	57.00	1.20 1	-4.85 2	-1.30 1	4.91 2
5.42439	5.61449	3.50	66.00	8.93 0	-4.53 2	-9.84 0	4.60 2
5.52449	5.61464	9.20	11.50	1.28 3	-1.75 3	-1.30 3	1.78 3
5.45553	5.61825	3.80	53.00	1.38 1	-4.97 2	-1.49 1	5.03 2
5.52531	5.61957	7.20	15.50	2.48 2	-7.30 2	-2.53 2	7.40 2
5.44090	5.62011	3.60	61.00	1.05 1	-4.72 2	-1.14 1	4.78 2
5.52976	5.62152	8.00	13.50	4.37 2	-9.15 2	-4.46 2	9.28 2
5.53245	5.62217	10.00	10.50	-2.80 4	3.00 4	2.85 4	-3.05 4
5.40769	5.62319	3.30	77.00	6.44 0	-4.08 2	-7.26 0	4.14 2
5.42218	5.62342	3.40	71.00	7.66 0	-4.34 2	-8.52 0	4.40 2
5.49397	5.62558	4.40	37.00	2.81 1	-5.33 2	-2.95 1	5.40 2
5.52917	5.62626	6.60	17.50	1.65 2	-6.52 2	-1.69 2	6.61 2
5.54304	5.63324	8.80	12.00	8.62 2	-1.34 3	-8.78 2	1.36 3
5.49515	5.63421	4.20	41.00	2.28 1	-5.26 2	-2.41 1	5.32 2
5.54200	5.63674	7.00	16.00	2.19 2	-7.03 2	-2.24 2	7.12 2
5.52606	5.63737	5.20	26.00	5.91 1	-5.61 2	-6.12 1	5.67 2
5.40695	5.63745	3.20	83.00	5.43 0	-3.80 2	-6.20 0	3.87 2
5.48458	5.63906	3.90	49.00	1.60 1	-5.08 2	-1.71 1	5.14 2
5.49046	5.63907	4.00	46.00	1.81 1	-5.15 2	-1.93 1	5.22 2
5.45260	5.64013	3.50	65.00	9.15 0	-4.58 2	-1.01 1	4.64 2
5.54936	5.64033	8.20	13.00	5.19 2	-9.95 2	-5.29 2	1.01 3
5.52610	5.64095	5.00	28.00	5.00 1	-5.64 2	-5.20 1	5.60 2
5.47373	5.64221	3.70	56.00	1.23 1	-4.88 2	-1.33 1	4.95 2
5.43287	5.64558	3.30	76.00	6.59 0	-4.13 2	-7.40 0	4.19 2
5.44882	5.64740	3.40	70.00	7.84 0	-4.38 2	-8.70 0	4.45 2
5.47115	5.64785	3.60	60.00	1.07 1	-4.75 2	-1.17 1	4.82 2
5.49021	5.65049	3.80	52.00	1.42 1	-5.00 2	-1.53 1	5.07 2
5.53167	5.65547	4.60	33.00	3.51 1	-5.42 2	-3.67 1	5.48 2
5.55746	5.65652	6.20	19.00	1.28 2	-6.19 2	-1.31 2	6.26 2
5.54983	5.65735	5.40	24.00	7.05 1	-5.70 2	-7.29 1	5.77 2
5.43111	5.65864	3.20	82.00	5.55 0	-3.85 2	-6.32 0	3.92 2
5.55864	5.65931	6.00	20.00	1.11 2	-6.04 2	-1.14 2	6.11 2
5.56582	5.66096	6.80	16.50	1.95 2	-6.80 2	-2.00 2	6.89 2
5.41838	5.66482	3.10	89.00	4.59 0	-3.51 2	-5.31 0	3.57 2
5.48126	5.66623	3.50	64.00	9.37 0	-4.62 2	-1.03 1	4.68 2
5.54826	5.66643	4.80	30.00	4.27 1	-5.48 2	-4.44 1	5.55 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.57691	5.66703	8.40	12.50	6.31 2	-1.11 3	-6.43 2	1.12 3
5.56993	5.66727	6.40	18.00	1.49 2	-6.37 2	-1.52 2	6.45 2
5.45832	5.66827	3.30	75.00	6.74 0	-4.17 2	-7.55 0	4.24 2
5.58243	5.67149	9.40	11.00	2.00 3	-2.49 3	-2.03 3	2.53 3
5.47583	5.67177	3.40	69.00	8.02 0	-4.43 2	-8.88 0	4.49 2
5.50663	5.67265	3.70	55.00	1.26 1	-4.92 2	-1.37 1	4.99 2
5.52233	5.67438	3.90	48.00	1.65 1	-5.11 2	-1.76 1	5.17 2
5.54597	5.67510	4.40	36.00	2.92 1	-5.36 2	-3.06 1	5.43 2
5.57296	5.67511	5.80	21.00	9.71 1	-5.92 2	-9.99 1	5.99 2
5.50196	5.67617	3.60	59.00	1.10 1	-4.79 2	-1.20 1	4.86 2
5.53092	5.67709	4.00	45.00	1.87 1	-5.18 2	-1.99 1	5.25 2
5.54124	5.67785	4.20	40.00	2.36 1	-5.28 2	-2.49 1	5.35 2
5.58986	5.67904	9.00	11.50	1.13 3	-1.60 3	-1.15 3	1.62 3
5.59053	5.67928	9.80	10.50	3.97 3	-4.37 3	-4.03 3	4.44 3
5.45547	5.68008	3.20	81.00	5.68 0	-3.90 2	-6.44 0	3.97 2
5.52571	5.68355	3.80	51.00	1.46 1	-5.03 2	-1.57 1	5.10 2
5.44187	5.68514	3.10	88.00	4.69 0	-3.57 2	-5.41 0	3.63 2
5.59925	5.69125	7.40	14.50	3.03 2	-7.85 2	-3.10 2	7.95 2
5.48407	5.69128	3.30	74.00	6.89 0	-4.22 2	-7.70 0	4.29 2
5.59687	5.69235	6.60	17.00	1.74 2	-6.61 2	-1.78 2	6.70 2
5.51039	5.69283	3.50	63.00	9.60 0	-4.66 2	-1.05 1	4.73 2
5.50321	5.69655	3.40	68.00	8.21 0	-4.47 2	-9.07 0	4.54 2
5.48005	5.70177	3.20	80.00	5.80 0	-3.95 2	-6.57 0	4.02 2
5.54023	5.70381	3.70	54.00	1.30 1	-4.95 2	-1.40 1	5.02 2
5.53336	5.70509	3.60	58.00	1.13 1	-4.83 2	-1.22 1	4.90 2
5.46552	5.70566	3.10	87.00	4.79 0	-3.62 2	-5.51 0	3.68 2
5.56109	5.71071	3.90	47.00	1.70 1	-5.14 2	-1.81 1	5.20 2
5.59990	5.71210	5.00	27.00	5.28 1	-5.57 2	-5.47 1	5.64 2
5.59168	5.71295	4.60	32.00	3.67 1	-5.44 2	-3.83 1	5.51 2
5.51012	5.71462	3.30	73.00	7.05 0	-4.27 2	-7.86 0	4.33 2
5.57254	5.71630	4.00	44.00	1.93 1	-5.21 2	-2.05 1	5.27 2
5.56206	5.71748	3.80	50.00	1.50 1	-5.07 2	-1.61 1	5.13 2
5.54001	5.71993	3.50	62.00	9.84 0	-4.70 2	-1.07 1	4.77 2
5.53099	5.72173	3.40	67.00	8.41 0	-4.52 2	-9.26 0	4.58 2
5.58890	5.72306	4.20	39.00	2.45 1	-5.31 2	-2.58 1	5.37 2
5.50486	5.72372	3.20	79.00	5.93 0	-4.00 2	-6.70 0	4.07 2
5.48933	5.72639	3.10	86.00	4.89 0	-3.67 2	-5.61 0	3.73 2
5.56538	5.73464	3.60	57.00	1.16 1	-4.87 2	-1.25 1	4.94 2
5.57458	5.73572	3.70	53.00	1.34 1	-4.99 2	-1.44 1	5.05 2
5.53649	5.73831	3.30	72.00	7.21 0	-4.32 2	-8.02 0	4.38 2
5.52992	5.74596	3.20	78.00	6.06 0	-4.05 2	-6.83 0	4.12 2
5.51331	5.74732	3.10	85.00	5.00 0	-3.72 2	-5.72 0	3.78 2
5.55918	5.74735	3.40	66.00	8.61 0	-4.56 2	-9.46 0	4.62 2
5.57015	5.74756	3.50	61.00	1.01 1	-4.74 2	-1.10 1	4.81 2
5.59932	5.75232	3.80	49.00	1.55 1	-5.10 2	-1.65 1	5.16 2
5.56319	5.76235	3.30	71.00	7.38 0	-4.36 2	-8.18 0	4.43 2
5.59804	5.76485	3.60	56.00	1.19 1	-4.91 2	-1.28 1	4.97 2
5.55524	5.76847	3.20	77.00	6.20 0	-4.10 2	-6.96 0	4.17 2
5.53748	5.76848	3.10	84.00	5.11 0	-3.78 2	-5.83 0	3.84 2
5.58781	5.77343	3.40	65.00	8.82 0	-4.60 2	-9.67 0	4.67 2
5.59025	5.78677	3.30	70.00	7.55 0	-4.41 2	-8.35 0	4.47 2
5.56183	5.78986	3.10	83.00	5.22 0	-3.83 2	-5.94 0	3.89 2
5.58082	5.79129	3.20	76.00	6.34 0	-4.15 2	-7.10 0	4.22 2
5.55770	5.80464	3.00	90.00	4.31 0	-3.48 2	-4.98 0	3.54 2
5.58639	5.81149	3.10	82.00	5.34 0	-3.88 2	-6.06 0	3.94 2
5.58146	5.82521	3.00	89.00	4.40 0	-3.54 2	-5.08 0	3.60 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.60	5.80						
5.60073	5.69209	7.60	14.00	3.50 2	-8.30 2	-3.57 2	8.41 2
5.60525	5.69780	7.20	15.00	2.65 2	-7.47 2	-2.71 2	7.57 2
5.60981	5.70049	7.80	13.50	4.09 2	-8.89 2	-4.17 2	9.01 2
5.61286	5.70206	8.60	12.00	7.89 2	-1.26 3	-8.03 2	1.28 3
5.60018	5.70368	5.60	22.00	8.54 1	-5.83 2	-8.79 1	5.90 2
5.61865	5.71171	7.00	15.50	2.34 2	-7.18 2	-2.39 2	7.27 2
5.61533	5.71449	6.00	19.50	1.16 2	-6.09 2	-1.19 2	6.16 2
5.61818	5.71572	6.20	18.50	1.34 2	-6.25 2	-1.37 2	6.32 2
5.60729	5.71588	5.20	25.00	6.27 1	-5.65 2	-6.48 1	5.71 2
5.62675	5.71665	8.00	13.00	4.84 2	-9.62 2	-4.93 2	9.75 2
5.60001	5.72665	4.40	35.00	3.04 1	-5.39 2	-3.18 1	5.45 2
5.63535	5.73112	6.40	17.50	1.56 2	-6.45 2	-1.60 2	6.53 2
5.61600	5.73157	4.80	29.00	4.48 1	-5.51 2	-4.66 1	5.58 2
5.63946	5.73296	6.80	16.00	2.07 2	-6.93 2	-2.12 2	7.01 2
5.64619	5.73431	9.20	11.00	1.72 3	-2.21 3	-1.75 3	2.24 3
5.65064	5.73851	9.60	10.50	3.71 3	-4.21 3	-3.77 3	4.28 3
5.65185	5.74093	8.20	12.50	5.85 2	-1.06 3	-5.95 2	1.08 3
5.64029	5.74502	5.40	23.00	7.53 1	-5.75 2	-7.76 1	5.82 2
5.65778	5.74598	8.80	11.50	1.02 3	-1.49 3	-1.04 3	1.52 3
5.60089	5.74810	3.90	46.00	1.75 1	-5.17 2	-1.87 1	5.23 2
5.61542	5.75675	4.00	43.00	2.00 1	-5.24 2	-2.11 1	5.30 2
5.66778	5.76166	6.60	16.50	1.84 2	-6.71 2	-1.88 2	6.80 2
5.60971	5.76842	3.70	52.00	1.37 1	-5.02 2	-1.47 1	5.09 2
5.63824	5.76995	4.20	38.00	2.54 1	-5.34 2	-2.67 1	5.40 2
5.67431	5.77197	6.00	19.00	1.21 2	-6.14 2	-1.24 2	6.21 2
5.65443	5.77315	4.60	31.00	3.84 1	-5.47 2	-4.00 1	5.53 2
5.68555	5.77375	8.40	12.00	7.27 2	-1.20 3	-7.39 2	1.22 3
5.60082	5.77575	3.50	60.00	1.03 1	-4.78 2	-1.12 1	4.85 2
5.68153	5.77751	6.20	18.00	1.41 2	-6.31 2	-1.44 2	6.39 2
5.68762	5.77785	7.40	14.00	3.29 2	-8.10 2	-3.35 2	8.20 2
5.65625	5.78039	4.40	34.00	3.16 1	-5.41 2	-3.31 1	5.47 2
5.68959	5.78043	7.20	14.50	2.86 2	-7.68 2	-2.91 2	7.78 2
5.68138	5.78058	5.80	20.00	1.05 2	-6.00 2	-1.08 2	6.07 2
5.69355	5.78313	7.60	13.50	3.83 2	-8.64 2	-3.91 2	8.76 2
5.64182	5.78661	3.90	45.00	1.81 1	-5.20 2	-1.92 1	5.26 2
5.67784	5.78736	5.00	26.00	5.58 1	-5.61 2	-5.77 1	5.67 2
5.63754	5.78812	3.80	48.00	1.60 1	-5.13 2	-1.70 1	5.19 2
5.69935	5.79072	7.00	15.00	2.50 2	-7.34 2	-2.55 2	7.43 2
5.63138	5.79575	3.60	55.00	1.22 1	-4.94 2	-1.32 1	5.01 2
5.70758	5.79642	7.80	13.00	4.52 2	-9.31 2	-4.60 2	9.43 2
5.70378	5.79796	6.40	17.00	1.65 2	-6.54 2	-1.69 2	6.61 2
5.65961	5.79853	4.00	42.00	2.06 1	-5.26 2	-2.18 1	5.33 2
5.69352	5.79937	5.20	24.00	6.66 1	-5.69 2	-6.88 1	5.76 2
5.71237	5.79953	9.00	11.00	1.45 3	-1.93 3	-1.48 3	1.96 3
5.71292	5.79988	9.40	10.50	2.96 3	-3.46 3	-3.01 3	3.51 3
5.61689	5.79997	3.40	64.00	9.03 0	-4.64 2	-9.88 0	4.71 2
5.68722	5.80018	4.80	28.00	4.72 1	-5.54 2	-4.89 1	5.61 2
5.64566	5.80196	3.70	51.00	1.41 1	-5.06 2	-1.51 1	5.12 2
5.70229	5.80291	5.60	21.00	9.19 1	-5.89 2	-9.45 1	5.96 2
5.63206	5.80452	3.50	59.00	1.06 1	-4.82 2	-1.15 1	4.88 2
5.71687	5.80871	6.80	15.50	2.20 2	-7.06 2	-2.25 2	7.15 2
5.61767	5.81157	3.30	69.00	7.72 0	-4.45 2	-8.53 0	4.52 2
5.60668	5.81441	3.20	75.00	6.48 0	-4.20 2	-7.24 0	4.26 2
5.72841	5.81564	8.60	11.50	9.28 2	-1.40 3	-9.44 2	1.42 3
5.73021	5.81667	9.80	10.00	6.34 2	-6.54 2	-6.45 2	6.62 2
5.73003	5.81807	8.00	12.50	5.43 2	-1.02 3	-5.53 2	1.03 3
5.68939	5.81865	4.20	37.00	2.63 1	-5.36 2	-2.76 1	5.42 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.67676	5.82494	3.80	47.00	1.64 1	-5.16 2	-1.75 1	5.22 2
5.68394	5.82633	3.90	44.00	1.87 1	-5.23 2	-1.98 1	5.29 2
5.64645	5.82701	3.40	63.00	9.25 0	-4.69 2	-1.01 1	4.75 2
5.66543	5.82738	3.60	54.00	1.25 1	-4.98 2	-1.35 1	5.04 2
5.73576	5.83190	6.00	18.50	1.27 2	-6.20 2	-1.30 2	6.27 2
5.61116	5.83336	3.10	81.00	5.46 0	-3.93 2	-6.17 0	3.99 2
5.66390	5.83390	3.50	58.00	1.09 1	-4.86 2	-1.18 1	4.92 2
5.74219	5.83444	6.60	16.00	1.95 2	-6.83 2	-2.00 2	6.91 2
5.72015	5.83631	4.60	30.00	4.02 1	-5.50 2	-4.18 1	5.56 2
5.68248	5.83637	3.70	50.00	1.45 1	-5.09 2	-1.55 1	5.15 2
5.73878	5.83650	5.80	19.50	1.10 2	-6.05 2	-1.12 2	6.12 2
5.71485	5.83650	4.40	33.00	3.30 1	-5.44 2	-3.44 1	5.50 2
5.64547	5.83678	3.30	68.00	7.91 0	-4.50 2	-8.71 0	4.56 2
5.63284	5.83786	3.20	74.00	6.63 0	-4.25 2	-7.39 0	4.31 2
5.73690	5.83881	5.40	22.00	8.07 1	-5.81 2	-8.30 1	5.87 2
5.70523	5.84172	4.00	41.00	2.13 1	-5.29 2	-2.25 1	5.35 2
5.74769	5.84212	6.20	17.50	1.48 2	-6.38 2	-1.51 2	6.46 2
5.60537	5.84598	3.00	88.00	4.50 0	-3.59 2	-5.17 0	3.65 2
5.76130	5.84848	8.20	12.00	6.68 2	-1.15 3	-6.79 2	1.16 3
5.67650	5.85457	3.40	62.00	9.48 0	-4.73 2	-1.03 1	4.79 2
5.63616	5.85549	3.10	80.00	5.58 0	-3.98 2	-6.29 0	4.04 2
5.70023	5.85977	3.60	53.00	1.29 1	-5.01 2	-1.38 1	5.08 2
5.65931	5.86164	3.20	73.00	6.78 0	-4.30 2	-7.54 0	4.36 2
5.67367	5.86241	3.30	67.00	8.09 0	-4.54 2	-8.90 0	4.61 2
5.71706	5.86284	3.80	46.00	1.69 1	-5.19 2	-1.80 1	5.25 2
5.77751	5.86355	9.20	10.50	2.43 3	-2.93 3	-2.47 3	2.97 3
5.69636	5.86391	3.50	57.00	1.12 1	-4.89 2	-1.21 1	4.96 2
5.62943	5.86694	3.00	87.00	4.60 0	-3.64 2	-5.27 0	3.70 2
5.76035	5.86718	5.00	25.00	5.91 1	-5.64 2	-6.11 1	5.71 2
5.72731	5.86730	3.90	43.00	1.93 1	-5.26 2	-2.04 1	5.32 2
5.78111	5.86732	8.80	11.00	1.29 3	-1.76 3	-1.31 3	1.79 3
5.77876	5.86785	7.20	14.00	3.09 2	-7.91 2	-3.15 2	8.01 2
5.77546	5.86805	6.40	16.50	1.74 2	-6.63 2	-1.78 2	6.71 2
5.74246	5.86927	4.20	36.00	2.74 1	-5.39 2	-2.87 1	5.45 2
5.78124	5.86971	7.40	13.50	3.59 2	-8.41 2	-3.66 2	8.51 2
5.72021	5.87170	3.70	49.00	1.50 1	-5.12 2	-1.60 1	5.18 2
5.76225	5.87259	4.80	27.00	4.97 1	-5.58 2	-5.15 1	5.64 2
5.78449	5.87416	7.00	14.50	2.69 2	-7.53 2	-2.74 2	7.62 2
5.79115	5.87683	9.60	10.00	3.02 3	-3.20 3	-3.07 3	3.24 3
5.66139	5.87788	3.10	79.00	5.70 0	-4.03 2	-6.41 0	4.09 2
5.79213	5.87990	7.60	13.00	4.22 2	-9.02 2	-4.30 2	9.14 2
5.70707	5.88266	3.40	61.00	9.72 0	-4.77 2	-1.06 1	4.83 2
5.68610	5.88577	3.20	72.00	6.94 0	-4.34 2	-7.69 0	4.41 2
5.75234	5.88642	4.00	40.00	2.21 1	-5.32 2	-2.33 1	5.38 2
5.65366	5.88811	3.00	86.00	4.70 0	-3.70 2	-5.37 0	3.76 2
5.78532	5.88840	5.20	23.00	7.11 1	-5.74 2	-7.32 1	5.80 2
5.70229	5.88849	3.30	66.00	8.29 0	-4.59 2	-9.09 0	4.65 2
5.79836	5.88853	6.80	15.00	2.36 2	-7.21 2	-2.40 2	7.30 2
5.73583	5.89295	3.60	52.00	1.32 1	-5.05 2	-1.42 1	5.11 2
5.79986	5.89447	6.00	18.00	1.33 2	-6.26 2	-1.36 2	6.33 2
5.72947	5.89459	3.50	56.00	1.15 1	-4.93 2	-1.24 1	4.99 2
5.79850	5.89472	5.80	19.00	1.14 2	-6.09 2	-1.17 2	6.16 2
5.77602	5.89516	4.40	32.00	3.45 1	-5.46 2	-3.59 1	5.52 2
5.68686	5.90056	3.10	78.00	5.83 0	-4.08 2	-6.54 0	4.14 2
5.75849	5.90187	3.80	45.00	1.75 1	-5.22 2	-1.85 1	5.28 2
5.78910	5.90269	4.60	29.00	4.22 1	-5.52 2	-4.38 1	5.59 2
5.75892	5.90801	3.70	48.00	1.54 1	-5.15 2	-1.64 1	5.21 2
5.67806	5.90950	3.00	85.00	4.80 0	-3.75 2	-5.47 0	3.81 2
5.77203	5.90961	3.90	42.00	1.99 1	-5.28 2	-2.11 1	5.35 2
5.71323	5.91026	3.20	71.00	7.10 0	-4.39 2	-7.85 0	4.45 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.73819	5.91131	3.40	60.00	9.96 0	-4.81 2	-1.08 1	4.87 2
5.73135	5.91502	3.30	65.00	8.49 0	-4.63 2	-9.29 0	4.69 2
5.79761	5.92197	4.20	35.00	2.85 1	-5.41 2	-2.98 1	5.47 2
5.71260	5.92352	3.10	77.00	5.96 0	-4.13 2	-6.67 0	4.19 2
5.76328	5.92598	3.50	55.00	1.18 1	-4.97 2	-1.27 1	5.03 2
5.77226	5.92698	3.60	51.00	1.36 1	-5.08 2	-1.46 1	5.14 2
5.70265	5.93110	3.00	84.00	4.91 0	-3.80 2	-5.58 0	3.86 2
5.74071	5.93513	3.20	70.00	7.26 0	-4.44 2	-8.01 0	4.50 2
5.76989	5.94055	3.40	59.00	1.02 1	-4.85 2	-1.11 1	4.91 2
5.76087	5.94202	3.30	64.00	8.69 0	-4.67 2	-9.49 0	4.73 2
5.79864	5.94535	3.70	47.00	1.59 1	-5.18 2	-1.69 1	5.24 2
5.73861	5.94679	3.10	76.00	6.09 0	-4.18 2	-6.80 0	4.24 2
5.72743	5.95294	3.00	83.00	5.01 0	-3.85 2	-5.68 0	3.91 2
5.79780	5.95809	3.50	54.00	1.21 1	-5.00 2	-1.30 1	5.07 2
5.76857	5.96039	3.20	69.00	7.43 0	-4.48 2	-8.18 0	4.54 2
5.79088	5.96953	3.30	63.00	8.90 0	-4.71 2	-9.70 0	4.77 2
5.76491	5.97036	3.10	75.00	6.23 0	-4.23 2	-6.94 0	4.29 2
5.75242	5.97502	3.00	82.00	5.12 0	-3.91 2	-5.79 0	3.97 2
5.73211	5.97627	2.90	90.00	4.13 0	-3.51 2	-4.76 0	3.57 2
5.79681	5.98607	3.20	68.00	7.60 0	-4.53 2	-8.35 0	4.59 2
5.79150	5.99427	3.10	74.00	6.37 0	-4.28 2	-7.08 0	4.34 2
5.75631	5.99731	2.90	89.00	4.22 0	-3.56 2	-4.85 0	3.62 2
5.77763	5.99735	3.00	81.00	5.24 0	-3.96 2	-5.90 0	4.02 2
5.78066	6.01854	2.90	88.00	4.31 0	-3.62 2	-4.94 0	3.67 2
5.80	6.00						
5.80193	5.88817	8.40	11.50	8.48 2	-1.32 3	-8.62 2	1.34 3
5.81170	5.89869	7.80	12.50	5.05 2	-9.84 2	-5.14 2	9.97 2
5.81689	5.90975	6.20	17.00	1.55 2	-6.46 2	-1.59 2	6.54 2
5.81214	5.90985	5.60	20.00	9.93 1	-5.97 2	-1.02 2	6.04 2
5.82039	5.91100	6.60	15.50	2.08 2	-6.95 2	-2.12 2	7.03 2
5.84033	5.92649	8.00	12.00	6.17 2	-1.10 3	-6.27 2	1.11 3
5.84454	5.92964	9.00	10.50	1.91 3	-2.37 3	-1.94 3	2.41 3
5.80106	5.93273	4.00	39.00	2.29 1	-5.34 2	-2.41 1	5.40 2
5.85072	5.93563	9.60	9.80	-1.64 3	1.68 3	1.66 3	-1.71 3
5.85260	5.93785	8.60	11.00	1.14 3	-1.62 3	-1.16 3	1.64 3
5.85429	5.93909	9.40	10.00	3.89 3	-4.24 3	-3.94 3	4.30 3
5.84043	5.93950	5.40	21.00	8.67 1	-5.87 2	-8.91 1	5.93 2
5.85066	5.94165	6.40	16.00	1.84 2	-6.73 2	-1.88 2	6.81 2
5.80111	5.94211	3.80	44.00	1.80 1	-5.25 2	-1.91 1	5.31 2
5.84149	5.94918	4.80	26.00	5.26 1	-5.61 2	-5.43 1	5.67 2
5.84792	5.95205	5.00	24.00	6.28 1	-5.68 2	-6.48 1	5.75 2
5.81817	5.95336	3.90	41.00	2.06 1	-5.31 2	-2.17 1	5.37 2
5.86071	5.95544	5.80	18.50	1.20 2	-6.15 2	-1.23 2	6.22 2
5.83996	5.95659	4.40	31.00	3.60 1	-5.49 2	-3.75 1	5.55 2
5.86680	5.95987	6.00	17.50	1.39 2	-6.32 2	-1.43 2	6.39 2
5.87322	5.96057	7.20	13.50	3.36 2	-8.19 2	-3.42 2	8.29 2
5.80956	5.96190	3.60	50.00	1.40 1	-5.11 2	-1.50 1	5.17 2
5.87449	5.96243	7.00	14.00	2.90 2	-7.74 2	-2.95 2	7.83 2
5.87855	5.96379	8.20	11.50	7.73 2	-1.25 3	-7.86 2	1.27 3
5.87028	5.96653	5.60	19.50	1.04 2	-6.01 2	-1.06 2	6.08 2
5.88068	5.96735	7.40	13.00	3.94 2	-8.75 2	-4.01 2	8.86 2
5.80219	5.97041	3.40	58.00	1.05 1	-4.88 2	-1.13 1	4.95 2
5.86158	5.97260	4.60	28.00	4.44 1	-5.55 2	-4.60 1	5.61 2
5.88433	5.97282	6.80	14.50	2.53 2	-7.38 2	-2.58 2	7.47 2
5.85500	5.97689	4.20	34.00	2.97 1	-5.44 2	-3.10 1	5.50 2
5.88937	5.98066	6.20	16.50	1.64 2	-6.55 2	-1.68 2	6.62 2
5.85149	5.98074	4.00	38.00	2.37 1	-5.37 2	-2.49 1	5.43 2
5.89711	5.98305	7.60	12.50	4.69 2	-9.50 2	-4.78 2	9.62 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.84501	5.98363	3.80	43.00	1.86 1	-5.28 2	-1.97 1	5.34 2
5.88334	5.98364	5.20	22.00	7.61 1	-5.79 2	-7.82 1	5.85 2
5.83944	5.98377	3.70	46.00	1.64 1	-5.21 2	-1.74 1	5.27 2
5.83308	5.99098	3.50	53.00	1.24 1	-5.04 2	-1.33 1	5.10 2
5.90271	5.99167	6.60	15.00	2.22 2	-7.09 2	-2.26 2	7.17 2
5.82138	5.99756	3.30	62.00	9.12 0	-4.75 2	-9.92 0	4.82 2
5.84780	5.99775	3.60	49.00	1.44 1	-5.14 2	-1.54 1	5.21 2
5.91421	5.99822	9.40	9.80	-1.00 4	1.06 4	1.02 4	-1.08 4
5.91418	5.99834	8.80	10.50	1.65 3	-2.12 3	-1.67 3	2.15 3
5.86583	5.99862	3.90	40.00	2.14 1	-5.34 2	-2.25 1	5.40 2
5.83511	6.00091	3.40	57.00	1.08 1	-4.92 2	-1.16 1	4.98 2
5.91977	6.00368	9.20	10.00	3.53 3	-3.97 3	-3.58 3	4.03 3
5.92287	6.00800	7.80	12.00	5.70 2	-1.05 3	-5.80 2	1.06 3
5.92702	6.01129	8.40	11.00	1.03 3	-1.51 3	-1.05 3	1.53 3
5.82546	6.01217	3.20	67.00	7.78 0	-4.57 2	-8.53 0	4.63 2
5.81841	6.01851	3.10	73.00	6.51 0	-4.32 2	-7.22 0	4.38 2
5.92560	6.01881	5.80	18.00	1.25 2	-6.20 2	-1.28 2	6.27 2
5.92969	6.01905	6.40	15.50	1.96 2	-6.85 2	-2.00 2	6.93 2
5.80306	6.01994	3.00	80.00	5.35 0	-4.01 2	-6.02 0	4.07 2
5.90692	6.02103	4.40	30.00	3.78 1	-5.51 2	-3.92 1	5.57 2
5.88139	6.02334	3.70	45.00	1.69 1	-5.24 2	-1.79 1	5.30 2
5.86917	6.02467	3.50	52.00	1.28 1	-5.07 2	-1.37 1	5.13 2
5.93078	6.02555	5.60	19.00	1.08 2	-6.06 2	-1.11 2	6.12 2
5.85242	6.02613	3.30	61.00	9.35 0	-4.79 2	-1.01 1	4.86 2
5.89027	6.02650	3.80	42.00	1.93 1	-5.30 2	-2.03 1	5.36 2
5.93681	6.02833	6.00	17.00	1.47 2	-6.39 2	-1.50 2	6.46 2
5.92536	6.03040	4.80	25.00	5.57 1	-5.64 2	-5.74 1	5.70 2
5.90376	6.03060	4.00	37.00	2.47 1	-5.39 2	-2.58 1	5.45 2
5.86870	6.03209	3.40	56.00	1.10 1	-4.96 2	-1.19 1	5.02 2
5.91480	6.03423	4.20	33.00	3.09 1	-5.46 2	-3.22 1	5.52 2
5.88700	6.03459	3.60	48.00	1.49 1	-5.18 2	-1.58 1	5.24 2
5.85454	6.03871	3.20	66.00	7.97 0	-4.61 2	-8.72 0	4.67 2
5.80517	6.03998	2.90	87.00	4.41 0	-3.67 2	-5.03 0	3.73 2
5.94114	6.04254	5.00	23.00	6.70 1	-5.73 2	-6.89 1	5.79 2
5.95847	6.04271	8.00	11.50	7.09 2	-1.19 3	-7.21 2	1.20 3
5.82873	6.04280	3.00	79.00	5.47 0	-4.06 2	-6.14 0	4.12 2
5.84565	6.04311	3.10	72.00	6.66 0	-4.37 2	-7.37 0	4.43 2
5.91511	6.04550	3.90	39.00	2.21 1	-5.36 2	-2.32 1	5.42 2
5.93794	6.04636	4.60	27.00	4.68 1	-5.58 2	-4.84 1	5.64 2
5.95178	6.04797	5.40	20.00	9.37 1	-5.94 2	-9.61 1	6.00 2
5.96541	6.05510	6.20	16.00	1.74 2	-6.64 2	-1.77 2	6.72 2
5.88401	6.05528	3.30	60.00	9.59 0	-4.83 2	-1.04 1	4.89 2
5.96983	6.05604	7.00	13.50	3.15 2	-7.99 2	-3.21 2	8.09 2
5.97354	6.05911	7.20	13.00	3.68 2	-8.50 2	-3.74 2	8.60 2
5.90610	6.05922	3.50	51.00	1.31 1	-5.11 2	-1.40 1	5.17 2
5.97623	6.05935	9.40	9.60	-6.13 3	6.32 3	6.22 3	-6.40 3
5.82984	6.06162	2.90	86.00	4.50 0	-3.72 2	-5.13 0	3.78 2
5.97520	6.06198	6.80	14.00	2.72 2	-7.58 2	-2.77 2	7.66 2
5.98007	6.06317	9.20	9.80	1.49 4	-1.63 4	-1.51 4	1.66 4
5.90299	6.06398	3.40	55.00	1.13 1	-4.99 2	-1.22 1	5.05 2
5.92455	6.06414	3.70	44.00	1.74 1	-5.27 2	-1.84 1	5.33 2
5.88406	6.06572	3.20	65.00	8.16 0	-4.66 2	-8.91 0	4.72 2
5.85465	6.06594	3.00	78.00	5.59 0	-4.11 2	-6.26 0	4.17 2
5.87323	6.06808	3.10	71.00	6.81 0	-4.42 2	-7.52 0	4.48 2
5.98658	6.06980	8.60	10.50	1.44 3	-1.91 3	-1.46 3	1.93 3
5.98772	6.07069	9.00	10.00	2.43 3	-2.83 3	-2.47 3	2.87 3
5.93696	6.07081	3.80	41.00	1.99 1	-5.33 2	-2.10 1	5.39 2
5.98655	6.07141	7.40	12.50	4.36 2	-9.18 2	-4.44 2	9.29 2
5.92725	6.07246	3.60	47.00	1.53 1	-5.21 2	-1.62 1	5.27 2
5.98955	6.07684	6.60	14.50	2.38 2	-7.25 2	-2.42 2	7.33 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
5.95800	6.08242	4.00	36.00	2.56 1	-5.42 2	-2.68 1	5.48 2
5.85469	6.08348	2.90	85.00	4.60 0	-3.78 2	-5.23 0	3.83 2
5.91618	6.08502	3.30	59.00	9.83 0	-4.87 2	-1.06 1	4.93 2
5.99336	6.08505	5.80	17.50	1.31 2	-6.27 2	-1.34 2	6.33 2
5.98837	6.08586	5.20	21.00	8.18 1	-5.85 2	-8.39 1	5.91 2
5.99380	6.08708	5.60	18.50	1.13 2	-6.10 2	-1.16 2	6.17 2
5.97717	6.08874	4.40	29.00	3.96 1	-5.54 2	-4.11 1	5.60 2
5.88084	6.08938	3.00	77.00	5.72 0	-4.16 2	-6.38 0	4.22 2
5.91404	6.09322	3.20	64.00	8.35 0	-4.70 2	-9.10 0	4.76 2
5.90116	6.09342	3.10	70.00	6.97 0	-4.47 2	-7.68 0	4.52 2
5.96612	6.09412	3.90	38.00	2.29 1	-5.39 2	-2.41 1	5.45 2
5.97720	6.09416	4.20	32.00	3.23 1	-5.49 2	-3.36 1	5.54 2
5.94391	6.09467	3.50	50.00	1.35 1	-5.14 2	-1.44 1	5.20 2
5.93801	6.09661	3.40	54.00	1.16 1	-5.03 2	-1.25 1	5.09 2
5.87973	6.10556	2.90	84.00	4.70 0	-3.83 2	-5.33 0	3.89 2
5.96900	6.10622	3.70	43.00	1.80 1	-5.30 2	-1.90 1	5.36 2
5.96858	6.11144	3.60	46.00	1.58 1	-5.24 2	-1.67 1	5.30 2
5.90730	6.11312	3.00	76.00	5.84 0	-4.21 2	-6.51 0	4.27 2
5.94896	6.11538	3.30	58.00	1.01 1	-4.91 2	-1.09 1	4.97 2
5.98519	6.11666	3.80	40.00	2.06 1	-5.36 2	-2.17 1	5.41 2
5.92948	6.11917	3.10	69.00	7.13 0	-4.51 2	-7.84 0	4.57 2
5.94452	6.12122	3.20	63.00	8.56 0	-4.74 2	-9.30 0	4.80 2
5.90497	6.12788	2.90	83.00	4.81 0	-3.88 2	-5.43 0	3.94 2
5.97380	6.13002	3.40	53.00	1.20 1	-5.06 2	-1.28 1	5.12 2
5.98266	6.13106	3.50	49.00	1.39 1	-5.17 2	-1.48 1	5.23 2
5.93406	6.13718	3.00	75.00	5.97 0	-4.26 2	-6.64 0	4.32 2
5.95819	6.14533	3.10	68.00	7.30 0	-4.56 2	-8.00 0	4.61 2
5.98238	6.14639	3.30	57.00	1.03 1	-4.95 2	-1.11 1	5.01 2
5.97550	6.14975	3.20	62.00	8.77 0	-4.78 2	-9.51 0	4.84 2
5.93041	6.15044	2.90	82.00	4.91 0	-3.94 2	-5.53 0	3.99 2
5.91965	6.16094	2.80	90.00	3.96 0	-3.54 2	-4.54 0	3.59 2
5.96111	6.16157	3.00	74.00	6.11 0	-4.31 2	-6.77 0	4.36 2
5.98731	6.17193	3.10	67.00	7.47 0	-4.60 2	-8.17 0	4.66 2
5.95608	6.17325	2.90	81.00	5.02 0	-3.99 2	-5.64 0	4.04 2
5.94431	6.18247	2.80	89.00	4.04 0	-3.59 2	-4.62 0	3.65 2
5.98849	6.18631	3.00	73.00	6.25 0	-4.35 2	-6.91 0	4.41 2
5.98197	6.19634	2.90	80.00	5.13 0	-4.04 2	-5.75 0	4.09 2
5.96913	6.20420	2.80	88.00	4.13 0	-3.65 2	-4.71 0	3.70 2
5.99411	6.22614	2.80	87.00	4.22 0	-3.70 2	-4.80 0	3.75 2
6.00	6.20						
6.00455	6.08785	8.20	11.00	9.25 2	-1.40 3	-9.40 2	1.42 3
6.00920	6.09328	7.60	12.00	5.28 2	-1.01 3	-5.37 2	1.02 3
6.01014	6.10009	6.00	16.50	1.55 2	-6.47 2	-1.58 2	6.54 2
6.01288	6.10061	6.40	15.00	2.09 2	-6.98 2	-2.13 2	7.05 2
6.01072	6.10546	5.40	19.50	9.76 1	-5.98 2	-1.00 2	6.04 2
6.01437	6.11673	4.80	24.00	5.91 1	-5.68 2	-6.09 1	5.74 2
6.01856	6.12438	4.60	26.00	4.94 1	-5.61 2	-5.10 1	5.67 2
6.04249	6.12471	9.20	9.60	7.97 4	-8.47 4	-8.08 4	8.58 4
6.04195	6.12517	7.80	11.50	6.52 2	-1.13 3	-6.63 2	1.15 3
6.04841	6.13056	9.00	9.80	3.48 3	-3.93 3	-3.53 3	3.98 3
6.04531	6.13340	6.20	15.50	1.84 2	-6.75 2	-1.88 2	6.82 2
6.01435	6.13635	4.00	35.00	2.66 1	-5.44 2	-2.78 1	5.50 2
6.04067	6.13932	5.00	22.00	7.16 1	-5.78 2	-7.36 1	5.84 2
6.05830	6.14036	8.80	10.00	2.14 3	-2.56 3	-2.17 3	2.60 3
6.06194	6.14421	8.40	10.50	1.28 3	-1.76 3	-1.30 3	1.78 3
6.01899	6.14459	3.90	37.00	2.38 1	-5.41 2	-2.49 1	5.47 2
6.01482	5.14967	3.70	42.00	1.86 1	-5.32 2	-1.96 1	5.38 2
6.05951	6.15130	5.60	18.00	1.18 2	-6.16 2	-1.21 2	6.22 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.01108	6.15157	3.60	45.00	1.63 1	-5.26 2	-1.72 1	5.32 2
6.06422	6.15437	5.80	17.00	1.38 2	-6.33 2	-1.41 2	6.40 2
6.07107	6.15552	7.00	13.00	3.44 2	-8.28 2	-3.50 2	8.37 2
6.07146	6.15652	6.80	13.50	2.95 2	-7.81 2	-3.00 2	7.90 2
6.04243	6.15691	4.20	31.00	3.38 1	-5.51 2	-3.51 1	5.57 2
6.05100	6.16003	4.40	28.00	4.17 1	-5.57 2	-4.31 1	5.62 2
6.08035	6.16412	7.20	12.50	4.06 2	-8.89 2	-4.13 2	8.99 2
6.03506	6.16415	3.80	39.00	2.14 1	-5.38 2	-2.24 1	5.44 2
6.01040	6.16425	3.40	52.00	1.23 1	-5.10 2	-1.31 1	5.16 2
6.07204	6.16532	5.40	19.00	1.02 2	-6.02 2	-1.04 2	6.08 2
6.08133	6.16693	6.60	14.00	2.55 2	-7.43 2	-2.60 2	7.51 2
6.08543	6.16774	8.00	11.00	8.40 2	-1.32 3	-8.53 2	1.34 3
6.02241	6.16845	3.50	48.00	1.43 1	-5.20 2	-1.52 1	5.26 2
6.08705	6.17543	6.00	16.00	1.64 2	-6.56 2	-1.67 2	6.63 2
6.01647	6.17809	3.30	56.00	1.06 1	-4.99 2	-1.14 1	5.05 2
6.00703	6.17883	3.20	61.00	8.99 0	-4.82 2	-9.73 0	4.88 2
6.09959	6.18261	7.40	12.00	4.89 2	-9.71 2	-4.96 2	9.82 2
6.10063	6.18670	6.40	14.50	2.23 2	-7.12 2	-2.27 2	7.20 2
6.10717	6.18853	9.20	9.40	-5.83 3	6.00 3	5.91 3	-6.08 3
6.11123	6.19251	9.00	9.60	3.26 3	-3.57 3	-3.30 3	3.62 3
6.07298	6.19256	4.00	34.00	2.77 1	-5.47 2	-2.89 1	5.52 2
6.05480	6.19294	3.60	44.00	1.68 1	-5.29 2	-1.77 1	5.35 2
6.06209	6.19458	3.70	41.00	1.92 1	-5.35 2	-2.02 1	5.41 2
6.10132	6.19597	5.20	20.00	8.82 1	-5.91 2	-9.04 1	5.97 2
6.07385	6.19704	3.90	36.00	2.47 1	-5.44 2	-2.59 1	5.49 2
6.01686	6.19897	3.10	66.00	7.65 0	-4.64 2	-8.35 0	4.70 2
6.04785	6.19934	3.40	51.00	1.26 1	-5.13 2	-1.35 1	5.19 2
6.11939	6.20063	8.80	9.80	2.78 3	-3.24 3	-2.82 3	3.29 3
6.06320	6.20688	3.50	47.00	1.47 1	-5.23 2	-1.56 1	5.29 2
6.10388	6.20709	4.60	25.00	5.23 1	-5.65 2	-5.39 1	5.70 2
6.03911	6.20849	3.20	60.00	9.21 0	-4.86 2	-9.96 0	4.92 2
6.10910	6.20877	4.80	23.00	6.30 1	-5.72 2	-6.48 1	5.78 2
6.05127	6.21051	3.30	55.00	1.09 1	-5.02 2	-1.17 1	5.08 2
6.01619	6.21140	3.00	72.00	6.39 0	-4.40 2	-7.05 0	4.46 2
6.12924	6.21144	7.60	11.50	6.00 2	-1.08 3	-6.10 2	1.09 3
6.13169	6.21282	8.60	10.00	1.84 3	-2.28 3	-1.86 3	2.31 3
6.08668	6.21339	3.80	38.00	2.22 1	-5.41 2	-2.32 1	5.46 2
6.12942	6.21588	6.20	15.00	1.96 2	-6.87 2	-2.00 2	6.94 2
6.12814	6.21843	5.60	17.50	1.24 2	-6.21 2	-1.27 2	6.28 2
6.00811	6.21969	2.90	79.00	5.24 0	-4.09 2	-5.86 0	4.15 2
6.14046	6.22176	8.20	10.50	1.13 3	-1.60 3	-1.14 3	1.62 3
6.11073	6.22272	4.20	30.00	3.54 1	-5.53 2	-3.67 1	5.59 2
6.04687	6.22649	3.10	65.00	7.83 0	-4.69 2	-8.53 0	4.75 2
6.13843	6.22704	5.80	16.50	1.46 2	-6.41 2	-1.49 2	6.47 2
6.13590	6.22772	5.40	18.50	1.06 2	-6.06 2	-1.09 2	6.12 2
6.12878	6.23525	4.40	27.00	4.39 1	-5.59 2	-4.53 1	5.65 2
6.08620	6.23534	3.40	50.00	1.30 1	-5.16 2	-1.38 1	5.22 2
6.09982	6.23562	3.60	43.00	1.73 1	-5.32 2	-1.83 1	5.38 2
6.04425	6.23687	3.00	71.00	6.54 0	-4.45 2	-7.19 0	4.51 2
6.07178	6.23875	3.20	59.00	9.45 0	-4.90 2	-1.02 1	4.96 2
6.11092	6.24105	3.70	40.00	1.99 1	-5.38 2	-2.09 1	5.43 2
6.14729	6.24316	5.00	21.00	7.69 1	-5.83 2	-7.89 1	5.89 2
6.03451	6.24333	2.90	78.00	5.36 0	-4.14 2	-5.97 0	4.20 2
6.08681	6.24368	3.30	54.00	1.12 1	-5.06 2	-1.20 1	5.12 2
6.10509	6.24644	3.50	46.00	1.52 1	-5.26 2	-1.61 1	5.32 2
6.01925	6.24828	2.80	86.00	4.31 0	-3.75 2	-4.89 0	3.81 2
6.16989	6.25121	7.80	11.00	7.65 2	-1.25 3	-7.77 2	1.26 3
6.13407	6.25121	4.00	33.00	2.89 1	-5.49 2	-3.01 1	5.55 2
6.13084	6.25163	3.90	35.00	2.57 1	-5.46 2	-2.68 1	5.52 2
6.16110	6.25432	5.20	19.50	9.18 1	-5.95 2	-9.41 1	6.01 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.07735	6.25450	3.10	64.00	8.02 0	-4.73 2	-8.72 0	4.79 2
6.16786	6.25466	6.00	15.50	1.73 2	-6.66 2	-1.77 2	6.73 2
6.17632	6.25671	9.00	9.40	2.37 3	-2.52 3	-2.40 3	2.55 3
6.17366	6.25698	6.80	13.00	3.21 2	-8.07 2	-3.27 2	8.16 2
6.17885	6.26152	7.00	12.50	3.78 2	-8.63 2	-3.84 2	8.72 2
6.17854	6.26244	6.60	13.50	2.76 2	-7.64 2	-2.81 2	7.72 2
6.07267	6.26272	3.00	70.00	6.69 0	-4.50 2	-7.34 0	4.55 2
6.18262	6.26300	8.80	9.60	2.96 3	-3.35 3	-3.00 3	3.39 3
6.14017	6.26450	3.80	37.00	2.30 1	-5.43 2	-2.40 1	5.49 2
6.06117	6.26727	2.90	77.00	5.48 0	-4.19 2	-6.09 0	4.25 2
6.10508	6.26964	3.20	58.00	9.69 0	-4.94 2	-1.04 1	5.00 2
6.04458	6.27064	2.80	85.00	4.40 0	-3.81 2	-4.98 0	3.86 2
6.12550	6.27230	3.40	49.00	1.34 1	-5.20 2	-1.42 1	5.25 2
6.19319	6.27351	8.60	9.80	2.25 3	-2.71 3	-2.28 3	2.75 3
6.19437	6.27632	7.20	12.00	4.53 2	-9.36 2	-4.60 2	9.47 2
6.12313	6.27764	3.30	53.00	1.15 1	-5.09 2	-1.23 1	5.15 2
6.19336	6.27776	6.40	14.00	2.40 2	-7.29 2	-2.44 2	7.36 2
6.14623	6.27968	3.60	42.00	1.79 1	-5.35 2	-1.89 1	5.40 2
6.10832	6.28302	3.10	63.00	8.22 0	-4.77 2	-8.91 0	4.83 2
6.14815	6.28716	3.50	45.00	1.57 1	-5.29 2	-1.66 1	5.35 2
6.19990	6.28867	5.60	17.00	1.30 2	-6.27 2	-1.33 2	6.34 2
6.10147	6.28898	3.00	69.00	6.84 0	-4.54 2	-7.50 0	4.60 2
6.16140	6.28917	3.70	39.00	2.06 1	-5.40 2	-2.16 1	5.46 2
6.08811	6.29152	2.90	76.00	5.60 0	-4.24 2	-6.21 0	4.30 2
6.18237	6.29187	4.20	29.00	3.71 1	-5.56 2	-3.84 1	5.61 2
6.07010	6.29323	2.80	84.00	4.50 0	-3.86 2	-5.08 0	3.91 2
6.19442	6.29499	4.60	24.00	5.55 1	-5.68 2	-5.71 1	5.74 2
6.13901	6.30120	3.20	57.00	9.94 0	-4.98 2	-1.07 1	5.04 2
6.19013	6.30852	3.90	34.00	2.68 1	-5.48 2	-2.79 1	5.54 2
6.16580	6.31026	3.40	48.00	1.38 1	-5.23 2	-1.46 1	5.28 2
6.13981	6.31208	3.10	62.00	8.42 0	-4.81 2	-9.11 0	4.87 2
6.16027	6.31243	3.30	52.00	1.18 1	-5.13 2	-1.26 1	5.18 2
6.19781	6.31252	4.00	32.00	3.02 1	-5.51 2	-3.14 1	5.57 2
6.13068	6.31566	3.00	68.00	7.00 0	-4.59 2	-7.65 0	4.64 2
6.09582	6.31606	2.80	83.00	4.60 0	-3.91 2	-5.17 0	3.97 2
6.11535	6.31609	2.90	75.00	5.72 0	-4.29 2	-6.34 0	4.35 2
6.19567	6.31762	3.80	36.00	2.39 1	-5.45 2	-2.49 1	5.51 2
6.19411	6.32522	3.60	41.00	1.85 1	-5.37 2	-1.95 1	5.43 2
6.19246	6.32914	3.50	44.00	1.62 1	-5.32 2	-1.71 1	5.37 2
6.17363	6.33345	3.20	56.00	1.02 1	-5.02 2	-1.09 1	5.07 2
6.12175	6.33914	2.80	82.00	4.70 0	-3.97 2	-5.27 0	4.02 2
6.14289	6.34099	2.90	74.00	5.85 0	-4.34 2	-6.46 0	4.39 2
6.17185	6.34170	3.10	61.00	8.63 0	-4.85 2	-9.32 0	4.91 2
6.16030	6.34277	3.00	67.00	7.16 0	-4.63 2	-7.82 0	4.69 2
6.19827	6.34810	3.30	51.00	1.22 1	-5.16 2	-1.29 1	5.22 2
6.12190	6.36024	2.70	90.00	3.78 0	-3.57 2	-4.92 0	3.62 2
6.14790	6.36247	2.80	81.00	4.80 0	-4.02 2	-5.38 0	4.07 2
6.17076	6.36625	2.90	73.00	5.98 0	-4.39 2	-6.60 0	4.44 2
6.19036	6.37035	3.00	66.00	7.33 0	-4.68 2	-7.99 0	4.73 2
6.14706	6.38230	2.70	89.00	3.86 0	-3.62 2	-4.40 0	3.67 2
6.17429	6.38607	2.80	80.00	4.91 0	-4.07 2	-5.48 0	4.12 2
6.19897	6.39187	2.90	72.00	6.12 0	-4.43 2	-6.73 0	4.49 2
6.17237	6.40456	2.70	88.00	3.95 0	-3.68 2	-4.48 0	3.73 2
6.19785	6.42702	2.70	87.00	4.03 0	-3.73 2	-4.57 0	3.78 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.20	6.40						
6.20806	6.28827	8.40	10.00	1.63 3	-2.09 3	-1.66 3	2.12 3
6.20250	6.29284	5.40	18.00	1.11 2	-6.11 2	-1.14 2	6.17 2
6.22063	6.30179	7.40	11.50	5.52 2	-1.03 3	-5.61 2	1.05 3
6.22235	6.30268	8.00	10.50	1.01 3	-1.49 3	-1.03 3	1.51 3
6.21811	6.30294	6.20	14.50	2.09 2	-7.00 2	-2.13 2	7.07 2
6.21626	6.30332	5.80	16.00	1.54 2	-6.49 2	-1.57 2	6.55 2
6.21022	6.30718	4.80	22.00	6.73 1	-5.77 2	-6.91 1	5.82 2
6.21088	6.31479	4.40	26.00	4.63 1	-5.62 2	-4.78 1	5.68 2
6.22329	6.31506	5.20	19.00	9.57 1	-5.99 2	-9.79 1	6.04 2
6.24379	6.32323	9.00	9.20	7.03 2	-7.27 2	-7.13 2	7.35 2
6.24813	6.32764	8.80	9.40	2.94 3	-3.23 3	-2.98 3	3.27 3
6.25685	6.33631	8.60	9.60	2.46 3	-2.88 3	-2.49 3	2.91 3
6.25292	6.33811	6.00	15.00	1.84 2	-6.77 2	-1.88 2	6.84 2
6.25821	6.33852	7.60	11.00	6.98 2	-1.18 3	-7.08 2	1.20 3
6.21365	6.33906	3.70	38.00	2.14 1	-5.43 2	-2.24 1	5.48 2
6.20716	6.34930	3.40	47.00	1.42 1	-5.26 2	-1.50 1	5.31 2
6.26999	6.34939	8.40	9.80	1.95 3	-2.42 3	-1.97 3	2.45 3
6.26194	6.35501	5.00	20.00	8.29 1	-5.89 2	-8.50 1	5.95 2
6.27203	6.36089	5.40	17.50	1.16 2	-6.16 2	-1.19 2	6.22 2
6.27504	6.36228	5.60	16.50	1.37 2	-6.34 2	-1.40 2	6.40 2
6.28175	6.36392	6.60	13.00	3.00 2	-7.88 2	-3.05 2	7.96 2
6.28246	6.36402	6.80	12.50	3.53 2	-8.39 2	-3.58 2	8.48 2
6.25766	6.36466	4.20	28.00	3.90 1	-5.58 2	-4.03 1	5.64 2
6.20897	6.36642	3.20	55.00	1.05 1	-5.05 2	-1.12 1	5.11 2
6.28763	6.36689	8.20	10.00	1.41 3	-1.87 3	-1.43 3	1.90 3
6.25190	6.36788	3.90	33.00	2.79 1	-5.51 2	-2.90 1	5.56 2
6.20446	6.37190	3.10	60.00	8.84 0	-4.89 2	-9.54 0	4.95 2
6.24355	6.37232	3.60	40.00	1.92 1	-5.40 2	-2.01 1	5.45 2
6.23808	6.37243	3.50	43.00	1.67 1	-5.35 2	-1.76 1	5.40 2
6.25332	6.37290	3.80	35.00	2.48 1	-5.48 2	-2.59 1	5.53 2
6.29157	6.37429	6.40	13.50	2.59 2	-7.48 2	-2.63 2	7.56 2
6.29390	6.37477	7.00	12.00	4.20 2	-9.05 2	-4.26 2	9.14 2
6.26442	6.37670	4.00	31.00	3.16 1	-5.54 2	-3.27 1	5.59 2
6.28805	6.37837	5.20	18.50	9.99 1	-6.03 2	-1.02 2	6.09 2
6.29804	6.38353	5.80	15.50	1.63 2	-6.58 2	-1.66 2	6.64 2
6.23718	6.38468	3.30	50.00	1.25 1	-5.19 2	-1.33 1	5.25 2
6.30787	6.38723	7.80	10.50	9.13 2	-1.39 3	-9.26 2	1.41 3
6.29076	6.38867	4.60	23.00	5.91 1	-5.72 2	-6.07 1	5.77 2
6.24964	6.38945	3.40	46.00	1.46 1	-5.29 2	-1.55 1	5.34 2
6.26779	6.39084	3.70	37.00	2.22 1	-5.45 2	-2.32 1	5.51 2
6.31603	6.39465	8.80	9.20	2.04 3	-2.18 3	-2.07 3	2.20 3
6.31184	6.39502	6.20	14.00	2.25 2	-7.15 2	-2.28 2	7.22 2
6.31646	6.39657	7.20	11.50	5.09 2	-9.92 2	-5.17 2	1.00 3
6.22088	6.39840	3.00	65.00	7.51 0	-4.72 2	-8.16 0	4.78 2
6.29776	6.39909	4.40	25.00	4.90 1	-5.65 2	-5.05 1	5.71 2
6.24505	6.40016	3.20	54.00	1.08 1	-5.09 2	-1.15 1	5.14 2
6.32279	6.40140	8.60	9.40	2.66 3	-3.02 3	-2.69 3	3.05 3
6.23766	6.40271	3.10	59.00	9.06 0	-4.93 2	-9.76 0	4.99 2
6.20093	6.40995	2.80	79.00	5.01 0	-4.12 2	-5.59 0	4.18 2
6.33408	6.41264	8.40	9.60	2.18 3	-2.64 3	-2.21 3	2.67 3
6.31854	6.41276	4.80	21.00	7.22 1	-5.82 2	-7.40 1	5.87 2
6.32261	6.41426	5.00	19.50	8.63 1	-5.92 2	-8.83 1	5.98 2
6.28511	6.41713	3.50	42.00	1.73 1	-5.37 2	-1.81 1	5.43 2
6.22753	6.41786	2.90	71.00	6.26 0	-4.48 2	-6.87 0	4.54 2
6.29468	6.42110	3.60	39.00	1.99 1	-5.42 2	-2.08 1	5.48 2
6.27706	6.42223	3.30	49.00	1.29 1	-5.22 2	-1.36 1	5.28 2
6.34262	6.42620	6.00	14.50	1.96 2	-6.89 2	-2.00 2	6.96 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.25187	6.42695	3.00	64.00	7.69 0	-4.76 2	-8.34 0	4.82 2
6.35000	6.42845	8.20	9.80	1.63 3	-2.10 3	-1.65 3	2.12 3
6.31635	6.42991	3.90	32.00	2.91 1	-5.53 2	-3.03 1	5.58 2
6.35067	6.42995	7.40	11.00	6.37 2	-1.12 3	-6.46 2	1.13 3
6.31330	6.43049	3.80	34.00	2.59 1	-5.50 2	-2.69 1	5.55 2
6.29330	6.43080	3.40	45.00	1.51 1	-5.32 2	-1.59 1	5.37 2
6.34474	6.43210	5.40	17.00	1.22 2	-6.22 2	-1.25 2	6.28 2
6.22782	6.43412	2.80	78.00	5.12 0	-4.17 2	-5.70 0	4.23 2
6.27149	6.43416	3.10	58.00	9.30 0	-4.97 2	-9.99 0	5.03 2
6.28193	6.43470	3.20	53.00	1.10 1	-5.12 2	-1.18 1	5.18 2
6.35385	6.43956	5.60	16.00	1.44 2	-6.42 2	-1.47 2	6.48 2
6.33696	6.44143	4.20	27.00	4.11 1	-5.61 2	-4.24 1	5.66 2
6.33417	6.44399	4.00	30.00	3.30 1	-5.56 2	-3.42 1	5.61 2
6.25646	6.44425	2.90	70.00	6.40 0	-4.53 2	-7.01 0	4.58 2
6.35558	6.44444	5.20	18.00	1.04 2	-6.07 2	-1.07 2	6.13 2
6.32396	6.44465	3.70	36.00	2.30 1	-5.47 2	-2.40 1	5.53 2
6.37061	6.44892	8.00	10.00	1.25 3	-1.72 3	-1.27 3	1.74 3
6.22350	6.44970	2.70	86.00	4.12 0	-3.78 2	-4.65 0	3.84 2
6.28337	6.45602	3.00	63.00	7.87 0	-4.80 2	-8.52 0	4.86 2
6.25499	6.45859	2.80	77.00	5.24 0	-4.22 2	-5.81 0	4.28 2
6.31795	6.46081	3.30	48.00	1.32 1	-5.26 2	-1.40 1	5.31 2
6.33362	6.46332	3.50	41.00	1.78 1	-5.40 2	-1.87 1	5.45 2
6.38648	6.46429	8.80	9.00	8.15 3	-8.41 3	-8.25 3	8.51 3
6.30597	6.46629	3.10	57.00	9.54 0	-5.01 2	-1.02 1	5.07 2
6.38410	6.46800	5.80	15.00	1.73 2	-6.67 2	-1.76 2	6.74 2
6.39114	6.46888	8.60	9.20	2.49 3	-2.75 3	-2.53 3	2.78 3
6.31964	6.47008	3.20	52.00	1.14 1	-5.16 2	-1.21 1	5.21 2
6.28578	6.47105	2.90	69.00	6.55 0	-4.57 2	-7.16 0	4.63 2
6.34758	6.47167	3.60	38.00	2.06 1	-5.45 2	-2.15 1	5.50 2
6.39160	6.47204	6.60	12.50	3.29 2	-8.16 2	-3.34 2	8.25 2
6.24934	6.47260	2.70	85.00	4.21 0	-3.84 2	-4.74 0	3.89 2
6.33823	6.47341	3.40	44.00	1.56 1	-5.34 2	-1.64 1	5.40 2
6.39728	6.47565	7.60	10.50	8.25 2	-1.31 3	-8.36 2	1.32 3
6.38571	6.47594	5.00	19.00	8.99 1	-5.96 2	-9.19 1	6.01 2
6.39583	6.47684	6.40	13.00	2.80 2	-7.70 2	-2.85 2	7.77 2
6.39857	6.47835	6.80	12.00	3.90 2	-8.77 2	-3.96 2	8.86 2
6.28244	6.48337	2.80	76.00	5.35 0	-4.27 2	-5.92 0	4.33 2
6.31540	6.48564	3.00	62.00	8.07 0	-4.85 2	-8.72 0	4.90 2
6.38994	6.48866	4.40	24.00	5.20 1	-5.69 2	-5.35 1	5.74 2
6.39360	6.48883	4.60	22.00	6.31 1	-5.76 2	-6.48 1	5.81 2
6.37579	6.49058	3.80	33.00	2.69 1	-5.52 2	-2.80 1	5.58 2
6.38371	6.49485	3.90	31.00	3.05 1	-5.55 2	-3.16 1	5.60 2
6.27537	6.49573	2.70	84.00	4.30 0	-3.89 2	-4.83 0	3.94 2
6.31551	6.49827	2.90	68.00	6.70 0	-4.62 2	-7.31 0	4.67 2
6.34115	6.49912	3.10	56.00	9.79 0	-5.05 2	-1.05 1	5.10 2
6.35991	6.50046	3.30	47.00	1.36 1	-5.29 2	-1.44 1	5.34 2
6.38231	6.50064	3.70	35.00	2.39 1	-5.50 2	-2.49 1	5.55 2
6.35822	6.50635	3.20	51.00	1.17 1	-5.19 2	-1.24 1	5.24 2
6.31020	6.50848	2.80	75.00	5.47 0	-4.32 2	-6.04 0	4.38 2
6.38372	6.51110	3.50	40.00	1.85 1	-5.42 2	-1.93 1	5.48 2
6.34798	6.51582	3.00	61.00	8.27 0	-4.89 2	-8.91 0	4.94 2
6.38448	6.51736	3.40	43.00	1.61 1	-5.37 2	-1.69 1	5.43 2
6.30160	6.51910	2.70	83.00	4.39 0	-3.95 2	-4.92 0	4.00 2
6.34566	6.52594	2.90	67.00	6.86 0	-4.66 2	-7.46 0	4.72 2
6.37705	6.53268	3.10	55.00	1.00 1	-5.08 2	-1.07 1	5.14 2
6.33826	6.53394	2.80	74.00	5.59 0	-4.37 2	-6.16 0	4.43 2
6.32805	6.54272	2.70	82.00	4.49 0	-4.00 2	-5.02 0	4.05 2
6.39773	6.54354	3.20	50.00	1.20 1	-5.22 2	-1.27 1	5.28 2
6.38114	6.54660	3.00	60.00	8.47 0	-4.93 2	-9.12 0	4.98 2
6.37626	6.55408	2.90	66.00	7.02 0	-4.71 2	-7.63 0	4.76 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.36666	6.55974	2.80	73.00	5.72 0	-4.42 2	-6.29 0	4.47 2
6.35473	6.56660	2.70	81.00	4.58 0	-4.05 2	-5.11 0	4.10 2
6.34073	6.57603	2.60	90.00	3.61 0	-3.60 2	-4.10 0	3.65 2
6.39540	6.58592	2.80	72.00	5.85 0	-4.47 2	-6.42 0	4.52 2
6.38164	6.59076	2.70	80.00	4.68 0	-4.10 2	-5.21 0	4.16 2
6.36642	6.59865	2.60	89.00	3.68 0	-3.65 2	-4.18 0	3.70 2
6.39227	6.62148	2.60	88.00	3.76 0	-3.71 2	-4.26 0	3.76 2
6.40	6.60						
6.40048	6.47819	8.40	9.40	2.48 3	-2.91 3	-2.51 3	2.95 3
6.41454	6.49216	8.20	9.60	1.80 3	-2.26 3	-1.83 3	2.29 3
6.41110	6.49262	6.20	13.50	2.42 2	-7.33 2	-2.46 2	7.40 2
6.41708	6.49612	7.00	11.50	4.70 2	-9.54 2	-4.77 2	9.64 2
6.42087	6.50672	5.40	16.50	1.29 2	-6.28 2	-1.31 2	6.34 2
6.43343	6.51095	8.00	9.80	1.42 3	-1.90 3	-1.44 3	1.92 3
6.42608	6.51348	5.20	17.50	1.09 2	-6.12 2	-1.12 2	6.18 2
6.40731	6.51468	4.00	29.00	3.46 1	-5.58 2	-3.58 1	5.63 2
6.43739	6.51934	6.00	14.00	2.10 2	-7.03 2	-2.14 2	7.09 2
6.43663	6.52079	5.60	15.50	1.53 2	-6.50 2	-1.56 2	6.56 2
6.42065	6.52260	4.20	26.00	4.33 1	-5.64 2	-4.46 1	5.69 2
6.40241	6.52416	3.60	37.00	2.14 1	-5.47 2	-2.23 1	5.52 2
6.44761	6.52585	7.20	11.00	5.83 2	-1.07 3	-5.91 2	1.08 3
6.43499	6.52645	4.80	20.00	7.78 1	-5.87 2	-7.97 1	5.92 2
6.45725	6.53461	7.80	10.00	1.12 3	-1.59 3	-1.13 3	1.61 3
6.46206	6.53897	8.60	9.00	4.41 3	-4.71 3	-4.47 3	4.76 3
6.45143	6.54023	5.00	18.50	9.38 1	-6.00 2	-9.58 1	6.05 2
6.40300	6.54125	3.30	46.00	1.41 1	-5.32 2	-1.48 1	5.37 2
6.46929	6.54615	8.40	9.20	2.73 3	-3.11 3	-2.76 3	3.14 3
6.44098	6.55338	3.80	32.00	2.81 1	-5.55 2	-2.92 1	5.60 2
6.47485	6.55715	5.80	14.50	1.84 2	-6.79 2	-1.87 2	6.85 2
6.48140	6.55818	8.20	9.40	2.02 3	-2.46 3	-2.05 3	2.49 3
6.44301	6.55897	3.70	34.00	2.49 1	-5.52 2	-2.59 1	5.57 2
6.43551	6.56057	3.50	39.00	1.91 1	-5.45 2	-2.00 1	5.50 2
6.43215	6.56272	3.40	42.00	1.66 1	-5.40 2	-1.74 1	5.45 2
6.45422	6.56293	3.90	30.00	3.19 1	-5.57 2	-3.30 1	5.62 2
6.41372	6.56702	3.10	54.00	1.03 1	-5.12 2	-1.10 1	5.17 2
6.49088	6.56824	7.40	10.50	7.45 2	-1.23 3	-7.55 2	1.24 3
6.49845	6.57514	8.00	9.60	1.58 3	-2.04 3	-1.59 3	2.07 3
6.41490	6.57799	3.00	59.00	8.69 0	-4.97 2	-9.33 0	5.02 2
6.45928	6.57869	3.60	36.00	2.22 1	-5.50 2	-2.31 1	5.55 2
6.43821	6.58172	3.20	49.00	1.24 1	-5.25 2	-1.31 1	5.31 2
6.40732	6.58270	2.90	65.00	7.19 0	-4.75 2	-7.79 0	4.81 2
6.44730	6.58325	3.30	45.00	1.45 1	-5.34 2	-1.53 1	5.40 2
6.48801	6.58412	4.40	23.00	5.53 1	-5.72 2	-5.68 1	5.77 2
6.50070	6.58503	5.40	16.00	1.36 2	-6.35 2	-1.38 2	6.41 2
6.49978	6.58571	5.20	17.00	1.15 2	-6.17 2	-1.17 2	6.23 2
6.50679	6.58608	6.40	12.50	3.06 2	-7.95 2	-3.11 2	8.03 2
6.49661	6.58667	4.80	19.50	8.09 1	-5.90 2	-8.28 1	5.95 2
6.50884	6.58751	6.60	12.00	3.62 2	-8.50 2	-3.68 2	8.59 2
6.48418	6.58908	4.00	28.00	3.64 1	-5.61 2	-3.76 1	5.66 2
6.50373	6.59626	4.60	21.00	6.77 1	-5.80 2	-6.93 1	5.86 2
6.51646	6.59629	6.20	13.00	2.62 2	-7.52 2	-2.66 2	7.59 2
6.52055	6.59711	7.80	9.80	1.25 3	-1.74 3	-1.27 3	1.76 3
6.52288	6.60086	6.80	11.50	4.35 2	-9.21 2	-4.41 2	9.31 2
6.45118	6.60217	3.10	53.00	1.06 1	-5.15 2	-1.13 1	5.21 2
6.52375	6.60635	5.60	15.00	1.62 2	-6.59 2	-1.65 2	6.65 2
6.51994	6.60730	5.00	18.00	9.79 1	-6.04 2	-1.00 2	6.09 2
6.50921	6.60862	4.20	25.00	4.58 1	-5.67 2	-4.71 1	5.72 2
6.48133	6.60960	3.40	41.00	1.72 1	-5.42 2	-1.80 1	5.48 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.44930	6.61004	3.00	58.00	8.91 0	-5.01 2	-9.55 0	5.06 2
6.53571	6.61174	8.60	8.80	2.80 3	-2.90 3	-2.84 3	2.93 3
6.43887	6.61183	2.90	64.00	7.36 0	-4.80 2	-7.96 0	4.85 2
6.48912	6.61185	3.50	38.00	1.98 1	-5.47 2	-2.07 1	5.52 2
6.42450	6.61247	2.80	71.00	5.98 0	-4.52 2	-6.55 0	4.57 2
6.40881	6.61520	2.70	79.00	4.79 0	-4.15 2	-5.32 0	4.21 2
6.54068	6.61672	8.40	9.00	4.91 3	-5.42 3	-4.97 3	5.48 3
6.53775	6.61805	6.00	13.50	2.26 2	-7.19 2	-2.30 2	7.26 2
6.50910	6.61910	3.80	31.00	2.94 1	-5.57 2	-3.04 1	5.62 2
6.50624	6.61983	3.70	33.00	2.60 1	-5.54 2	-2.70 1	5.59 2
6.47972	6.62093	3.20	48.00	1.27 1	-5.29 2	-1.34 1	5.34 2
6.54783	6.62422	7.60	10.00	9.98 2	-1.48 3	-1.01 3	1.49 3
6.49287	6.62653	3.30	44.00	1.50 1	-5.37 2	-1.57 1	5.42 2
6.54938	6.62658	7.00	11.00	5.35 2	-1.02 3	-5.42 2	1.03 3
6.55070	6.62663	8.20	9.20	2.24 3	-2.64 3	-2.27 3	2.67 3
6.52816	6.63444	3.90	29.00	3.34 1	-5.60 2	-3.45 1	5.65 2
6.51836	6.63543	3.60	35.00	2.31 1	-5.52 2	-2.40 1	5.57 2
6.48949	6.63817	3.10	52.00	1.09 1	-5.19 2	-1.16 1	5.24 2
6.45397	6.63943	2.80	70.00	6.12 0	-4.56 2	-6.68 0	4.62 2
6.43624	6.63993	2.70	78.00	4.89 0	-4.21 2	-5.42 0	4.26 2
6.47093	6.64148	2.90	63.00	7.54 0	-4.84 2	-8.14 0	4.89 2
6.56579	6.64165	8.00	9.40	1.77 3	-2.23 3	-1.79 3	2.25 3
6.48437	6.64276	3.00	57.00	9.14 0	-5.04 2	-9.78 0	5.10 2
6.41829	6.64451	2.60	87.00	3.84 0	-3.76 2	-4.34 0	3.81 2
6.56069	6.64935	4.80	19.00	8.42 1	-5.93 2	-8.61 1	5.98 2
6.57072	6.65141	5.80	14.00	1.97 2	-6.91 2	-2.00 2	6.97 2
6.53211	6.65808	3.40	40.00	1.78 1	-5.45 2	-1.86 1	5.50 2
6.52231	6.66124	3.20	47.00	1.31 1	-5.32 2	-1.38 1	5.37 2
6.57695	6.66139	5.20	16.50	1.21 2	-6.23 2	-1.23 2	6.28 2
6.58605	6.66180	7.80	9.60	1.38 3	-1.86 3	-1.40 3	1.88 3
6.46395	6.66497	2.70	77.00	5.00 0	-4.26 2	-5.53 0	4.31 2
6.54465	6.66507	3.50	37.00	2.06 1	-5.50 2	-2.14 1	5.55 2
6.58900	6.66534	7.20	10.50	6.76 2	-1.16 3	-6.85 2	1.17 3
6.48384	6.66680	2.80	69.00	6.26 0	-4.61 2	-6.82 0	4.66 2
6.58456	6.66736	5.40	15.50	1.43 2	-6.43 2	-1.46 2	6.48 2
6.56512	6.66754	4.00	27.00	3.83 1	-5.63 2	-3.95 1	5.68 2
6.44448	6.66776	2.60	86.00	3.93 0	-3.82 2	-4.42 0	3.87 2
6.53978	6.67115	3.30	43.00	1.54 1	-5.40 2	-1.62 1	5.45 2
6.50352	6.67169	2.90	62.00	7.72 0	-4.88 2	-8.32 0	4.93 2
6.52869	6.67507	3.10	51.00	1.12 1	-5.22 2	-1.19 1	5.27 2
6.52013	6.67620	3.00	56.00	9.37 0	-5.08 2	-1.00 1	5.13 2
6.59147	6.67738	5.00	17.50	1.03 2	-6.08 2	-1.05 2	6.13 2
6.57221	6.68342	3.70	32.00	2.71 1	-5.56 2	-2.81 1	5.61 2
6.59268	6.68614	4.40	22.00	5.91 1	-5.76 2	-6.05 1	5.81 2
6.58041	6.68800	3.80	30.00	3.07 1	-5.59 2	-3.18 1	5.64 2
6.49195	6.69032	2.70	76.00	5.11 0	-4.31 2	-5.64 0	4.36 2
6.47085	6.69123	2.60	85.00	4.01 0	-3.87 2	-4.50 0	3.92 2
6.57981	6.69453	3.60	34.00	2.40 1	-5.54 2	-2.49 1	5.59 2
6.51413	6.69461	2.80	68.00	6.40 0	-4.66 2	-6.97 0	4.71 2
6.53668	6.70247	2.90	61.00	7.91 0	-4.92 2	-8.51 0	4.97 2
6.56605	6.70270	3.20	46.00	1.35 1	-5.34 2	-1.42 1	5.40 2
6.58461	6.70828	3.40	39.00	1.84 1	-5.47 2	-1.92 1	5.52 2
6.55663	6.71039	3.00	55.00	9.62 0	-5.12 2	-1.03 1	5.17 2
6.56882	6.71291	3.10	50.00	1.15 1	-5.25 2	-1.22 1	5.31 2
6.49743	6.71494	2.60	84.00	4.10 0	-3.93 2	-4.59 0	3.98 2
6.52025	6.71601	2.70	75.00	5.22 0	-4.36 2	-5.75 0	4.41 2
6.58814	6.71722	3.30	42.00	1.60 1	-5.43 2	-1.67 1	5.48 2
6.54484	6.72287	2.80	67.00	6.55 0	-4.70 2	-7.12 0	4.75 2
6.57042	6.73385	2.90	60.00	8.11 0	-4.96 2	-8.71 0	5.01 2
6.52421	6.73889	2.60	83.00	4.19 0	-3.98 2	-4.68 0	4.03 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.54887	6.74204	2.70	74.00	5.34 0	-4.41 2	-5.86 0	4.46 2
6.59391	6.74536	3.00	54.00	9.88 0	-5.15 2	-1.05 1	5.20 2
6.57601	6.75160	2.80	66.00	6.71 0	-4.74 2	-7.27 0	4.80 2
6.55122	6.76309	2.60	82.00	4.28 0	-4.03 2	-4.77 0	4.08 2
6.57783	6.76844	2.70	73.00	5.46 0	-4.46 2	-5.98 0	4.51 2
6.57845	6.78756	2.60	81.00	4.37 0	-4.09 2	-4.86 0	4.14 2
6.57835	6.81051	2.50	90.00	3.43 0	-3.63 2	-3.89 0	3.68 2
• 6.60	6.90						
6.61162	6.68722	7.60	9.80	1.11 3	-1.59 3	-1.12 3	1.61 3
6.61482	6.69000	8.40	8.80	9.50 3	-1.01 4	-9.61 3	1.03 4
6.61560	6.69662	5.60	14.50	1.72 2	-6.69 2	-1.75 2	6.75 2
6.62258	6.69770	8.20	9.00	3.05 3	-3.48 3	-3.08 3	3.52 3
6.60315	6.69999	4.20	24.00	4.86 1	-5.69 2	-4.99 1	5.74 2
6.62519	6.70274	6.40	12.00	3.37 2	-8.26 2	-3.42 2	8.34 2
6.62857	6.70670	6.20	12.50	2.85 2	-7.75 2	-2.89 2	7.83 2
6.60586	6.70969	3.90	28.00	3.51 1	-5.62 2	-3.62 1	5.67 2
6.63558	6.71061	8.00	9.20	1.99 3	-2.43 3	-2.01 3	2.45 3
6.63433	6.71122	6.60	11.50	4.03 2	-8.91 2	-4.08 2	8.99 2
6.62210	6.71190	4.60	20.00	7.28 1	-5.85 2	-7.45 1	5.91 2
6.62742	6.71467	4.80	18.50	8.78 1	-5.97 2	-8.97 1	6.02 2
6.64264	6.71804	7.40	10.00	8.90 2	-1.37 3	-9.01 2	1.38 3
6.60226	6.72036	3.50	36.00	2.13 1	-5.52 2	-2.22 1	5.57 2
6.64426	6.72289	6.00	13.00	2.44 2	-7.36 2	-2.48 2	7.43 2
6.65389	6.72882	7.80	9.40	1.54 3	-2.02 3	-1.56 3	2.04 3
6.65639	6.73254	6.80	11.00	4.93 2	-9.80 2	-4.99 2	9.89 2
6.65787	6.74081	5.20	16.00	1.27 2	-6.29 2	-1.29 2	6.35 2
6.61101	6.74538	3.20	45.00	1.39 1	-5.37 2	-1.46 1	5.42 2
6.64113	6.74996	3.70	31.00	2.83 1	-5.58 2	-2.93 1	5.63 2
6.65054	6.75047	4.00	26.00	4.04 1	-5.66 2	-4.16 1	5.70 2
6.66624	6.75069	5.00	17.00	1.07 2	-6.13 2	-1.10 2	6.18 2
6.67223	6.75130	5.80	13.50	2.11 2	-7.06 2	-2.15 2	7.12 2
6.60994	6.75175	3.10	49.00	1.18 1	-5.29 2	-1.25 1	5.34 2
6.67763	6.75242	7.60	9.60	1.21 3	-1.69 3	-1.23 3	1.71 3
6.67279	6.75405	5.40	15.00	1.52 2	-6.51 2	-1.54 2	6.57 2
6.64382	6.75618	3.60	33.00	2.50 1	-5.56 2	-2.59 1	5.61 2
6.63894	6.76030	3.40	38.00	1.91 1	-5.50 2	-1.99 1	5.55 2
6.65519	6.76036	3.80	29.00	3.22 1	-5.61 2	-3.33 1	5.66 2
6.63801	6.76482	3.30	41.00	1.65 1	-5.45 2	-1.73 1	5.50 2
6.60478	6.76586	2.90	59.00	8.31 0	-5.00 2	-8.91 0	5.05 2
6.69186	6.76621	8.40	8.60	-2.85 3	2.94 3	2.88 3	-2.97 3
6.69200	6.76731	7.00	10.50	6.16 2	-1.10 3	-6.24 2	1.11 3
6.69723	6.77149	8.20	8.80	3.67 3	-4.06 3	-3.71 3	4.10 3
6.68473	6.77316	4.60	19.50	7.57 1	-5.88 2	-7.74 1	5.93 2
6.66210	6.77788	3.50	35.00	2.22 1	-5.54 2	-2.31 1	5.59 2
6.60765	6.78082	2.80	65.00	6.87 0	-4.79 2	-7.43 0	4.84 2
6.63200	6.78115	3.00	53.00	1.01 1	-5.19 2	-1.08 1	5.24 2
6.70694	6.78156	7.40	9.80	9.75 2	-1.46 3	-9.87 2	1.47 3
6.70798	6.78219	8.00	9.00	2.56 3	-3.03 3	-2.59 3	3.06 3
6.69699	6.78281	4.80	18.00	9.17 1	-6.00 2	-9.36 1	6.05 2
6.68768	6.78904	3.90	27.00	3.69 1	-5.64 2	-3.81 1	5.69 2
6.65726	6.78936	3.20	44.00	1.44 1	-5.40 2	-1.51 1	5.45 2
6.65210	6.79164	3.10	48.00	1.22 1	-5.32 2	-1.29 1	5.37 2
6.71264	6.79206	5.60	14.00	1.84 2	-6.81 2	-1.87 2	6.87 2
6.60713	6.79520	2.70	72.00	5.58 0	-4.50 2	-6.11 0	4.56 2
6.70474	6.79555	4.40	21.00	6.33 1	-5.80 2	-6.48 1	5.85 2
6.70308	6.79734	4.20	23.00	5.17 1	-5.73 2	-5.30 1	5.77 2
6.72420	6.79830	7.80	9.20	1.74 3	-2.20 3	-1.76 3	2.22 3
6.63978	6.79853	2.90	58.00	8.52 0	-5.04 2	-9.12 0	5.09 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.63978	6.81056	2.80	64.00	7.03 0	-4.83 2	-7.59 0	4.88 2
6.60593	6.81231	2.60	80.00	4.46 0	-4.14 2	-4.95 0	4.19 2
6.68952	6.81404	3.30	40.00	1.71 1	-5.48 2	-1.78 1	5.53 2
6.69522	6.81429	3.40	37.00	1.98 1	-5.52 2	-2.06 1	5.57 2
6.74202	6.81642	7.20	10.00	7.99 2	-1.28 3	-8.09 2	1.29 3
6.67094	6.81781	3.00	52.00	1.04 1	-5.22 2	-1.11 1	5.27 2
6.71328	6.81972	3.70	30.00	2.96 1	-5.61 2	-3.06 1	5.65 2
6.74599	6.81997	7.60	9.40	1.34 3	-1.82 3	-1.36 3	1.84 3
6.71059	6.82060	3.60	32.00	2.61 1	-5.58 2	-2.70 1	5.63 2
6.63680	6.82236	2.70	71.00	5.71 0	-4.55 2	-6.23 0	4.60 2
6.74286	6.82429	5.20	15.50	1.34 2	-6.36 2	-1.36 2	6.42 2
6.74820	6.82461	6.20	12.00	3.12 2	-8.03 2	-3.17 2	8.10 2
6.74451	6.82750	5.00	16.50	1.13 2	-6.18 2	-1.15 2	6.23 2
6.75193	6.82771	6.40	11.50	3.73 2	-8.62 2	-3.78 2	8.70 2
6.67546	6.83190	2.90	57.00	8.74 0	-5.08 2	-9.34 0	5.13 2
6.69536	6.83263	3.10	47.00	1.26 1	-5.35 2	-1.32 1	5.40 2
6.60461	6.83374	2.50	89.00	3.51 0	-3.69 2	-3.96 0	3.73 2
6.75759	6.83454	6.00	12.50	2.65 2	-7.58 2	-2.69 2	7.64 2
6.70488	6.83471	3.20	43.00	1.48 1	-5.43 2	-1.55 1	5.48 2
6.73377	6.83650	3.80	28.00	3.38 1	-5.63 2	-3.49 1	5.68 2
6.74986	6.83690	4.60	19.00	7.88 1	-5.91 2	-8.05 1	5.96 2
6.63366	6.83734	2.60	79.00	4.56 0	-4.19 2	-5.05 0	4.24 2
6.72434	6.83779	3.50	34.00	2.31 1	-5.56 2	-2.40 1	5.61 2
6.74091	6.83833	4.00	25.00	4.27 1	-5.68 2	-4.39 1	5.73 2
6.67244	6.84083	2.80	63.00	7.20 0	-4.87 2	-7.76 0	4.93 2
6.76910	6.84417	6.60	11.00	4.54 2	-9.42 2	-4.60 2	9.51 2
6.76581	6.84551	5.40	14.50	1.61 2	-6.60 2	-1.64 2	6.66 2
6.77347	6.84729	7.40	9.60	1.06 3	-1.54 3	-1.07 3	1.55 3
6.77480	6.84821	8.20	8.60	5.24 3	-5.61 3	-5.30 3	5.67 3
6.66686	6.84992	2.70	70.00	5.84 0	-4.60 2	-6.36 0	4.65 2
6.76960	6.85400	4.80	17.50	9.59 1	-6.04 2	-9.78 1	6.09 2
6.71078	6.85538	3.00	51.00	1.07 1	-5.26 2	-1.14 1	5.31 2
6.78316	6.85652	8.00	8.80	3.17 3	-3.63 3	-3.20 3	3.67 3
6.63103	6.85716	2.50	88.00	3.58 0	-3.74 2	-4.03 0	3.79 2
6.77996	6.85738	5.80	13.00	2.28 2	-7.22 2	-2.31 2	7.28 2
6.66167	6.86267	2.60	78.00	4.66 0	-4.24 2	-5.15 0	4.29 2
6.74275	6.86499	3.30	39.00	1.77 1	-5.50 2	-1.84 1	5.55 2
6.71185	6.86598	2.90	56.00	8.97 0	-5.12 2	-9.57 0	5.17 2
6.75361	6.87037	3.40	36.00	2.05 1	-5.54 2	-2.13 1	5.59 2
6.79713	6.87042	7.80	9.00	2.15 3	-2.63 3	-2.17 3	2.66 3
6.70563	6.87166	2.80	62.00	7.37 0	-4.92 2	-7.93 0	4.97 2
6.77401	6.87290	3.90	26.00	3.89 1	-5.67 2	-4.01 1	5.71 2
6.80029	6.87457	6.80	10.50	5.64 2	-1.05 3	-5.71 2	1.06 3
6.73979	6.87480	3.10	46.00	1.29 1	-5.38 2	-1.36 1	5.43 2
6.69731	6.87790	2.70	69.00	5.97 0	-4.65 2	-6.49 0	4.70 2
6.80685	6.88048	7.20	9.80	8.68 2	-1.35 3	-8.79 2	1.36 3
6.65762	6.88080	2.50	87.00	3.66 0	-3.80 2	-4.11 0	3.84 2
6.75394	6.88151	3.20	42.00	1.53 1	-5.45 2	-1.60 1	5.50 2
6.78036	6.88801	3.60	31.00	2.73 1	-5.60 2	-2.82 1	5.65 2
6.68995	6.88832	2.60	77.00	4.76 0	-4.29 2	-5.25 0	4.34 2
6.81683	6.89000	7.60	9.20	1.50 3	-1.97 3	-1.52 3	1.99 3
6.78893	6.89297	3.70	29.00	3.10 1	-5.63 2	-3.20 1	5.67 2
6.81536	6.89318	5.60	13.50	1.97 2	-6.94 2	-2.00 2	7.00 2
6.75158	6.89391	3.00	50.00	1.10 1	-5.29 2	-1.17 1	5.34 2
6.78917	6.90028	3.50	33.00	2.41 1	-5.58 2	-2.49 1	5.63 2
6.74899	6.90083	2.90	55.00	9.20 0	-5.15 2	-9.80 0	5.20 2
6.80971	6.90137	4.20	22.00	5.51 1	-5.76 2	-5.64 1	5.81 2
6.73940	6.90308	2.80	61.00	7.56 0	-4.96 2	-8.11 0	5.01 2
6.81767	6.90332	4.60	18.50	8.21 1	-5.94 2	-8.38 1	5.99 2
6.68439	6.90466	2.50	86.00	3.74 0	-3.85 2	-4.19 0	3.90 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.72819	6.90633	2.70	68.00	6.11 0	-4.69 2	-6.63 0	4.74 2
6.82658	6.90809	5.00	16.00	1.19 2	-6.24 2	-1.21 2	6.29 2
6.83228	6.91217	5.20	15.00	1.42 2	-6.44 2	-1.44 2	6.49 2
6.82518	6.91329	4.40	20.00	6.80 1	-5.84 2	-6.95 1	5.89 2
6.71853	6.91428	2.60	76.00	4.87 0	-4.34 2	-5.35 0	4.39 2
6.84237	6.91539	7.40	9.40	1.16 3	-1.64 3	-1.18 3	1.65 3
6.81649	6.91679	3.80	27.00	3.56 1	-5.66 2	-3.67 1	5.70 2
6.79784	6.91780	3.30	38.00	1.83 1	-5.52 2	-1.91 1	5.57 2
6.78545	6.91820	3.10	45.00	1.33 1	-5.41 2	-1.40 1	5.45 2
6.84633	6.91973	7.00	10.00	7.21 2	-1.20 3	-7.30 2	1.21 3
6.85552	6.92801	8.20	8.40	1.52 3	-1.57 3	-1.54 3	1.59 3
6.84550	6.92846	4.80	17.00	1.00 2	-6.09 2	-1.02 2	6.14 2
6.81424	6.92870	3.40	35.00	2.13 1	-5.56 2	-2.22 1	5.61 2
6.71135	6.92875	2.50	85.00	3.82 0	-3.91 2	-4.27 0	3.96 2
6.80456	6.92986	3.20	41.00	1.58 1	-5.48 2	-1.65 1	5.53 2
6.83675	6.93165	4.00	24.00	4.52 1	-5.71 2	-4.64 1	5.75 2
6.79337	6.93344	3.00	49.00	1.13 1	-5.32 2	-1.20 1	5.37 2
6.86128	6.93380	8.00	8.60	4.57 3	-5.07 3	-4.62 3	5.12 3
6.77376	6.93511	2.80	60.00	7.74 0	-5.00 2	-8.30 0	5.05 2
6.75950	6.93521	2.70	67.00	6.25 0	-4.74 2	-6.77 0	4.79 2
6.78691	6.93647	2.90	54.00	9.45 0	-5.19 2	-1.00 1	5.24 2
6.74742	6.94058	2.60	75.00	4.98 0	-4.39 2	-5.46 0	4.44 2
6.86407	6.94219	5.40	14.00	1.72 2	-6.71 2	-1.75 2	6.76 2
6.87285	6.94531	7.80	8.80	2.62 3	-3.11 3	-2.64 3	3.14 3
6.87392	6.94676	7.20	9.60	9.38 2	-1.42 3	-9.49 2	1.43 3
6.87623	6.95089	6.20	11.50	3.45 2	-8.25 2	-3.49 2	8.42 2
6.73851	6.95307	2.50	84.00	3.90 0	-3.96 2	-4.35 0	4.01 2
6.87851	6.95376	6.00	12.00	2.90 2	-7.82 2	-2.94 2	7.89 2
6.85338	6.95865	3.60	30.00	2.85 1	-5.62 2	-2.94 1	5.67 2
6.86533	6.96174	3.90	25.00	4.12 1	-5.69 2	-4.23 1	5.74 2
6.88800	6.96200	6.40	11.00	4.18 2	-9.08 2	-4.23 2	9.16 2
6.89031	6.96268	7.60	9.00	1.78 3	-2.27 3	-1.80 3	2.30 3
6.83241	6.96292	3.10	44.00	1.38 1	-5.43 2	-1.44 1	5.48 2
6.79128	6.96458	2.70	66.00	6.40 0	-4.78 2	-6.92 0	4.83 2
6.85678	6.96556	3.50	32.00	2.51 1	-5.60 2	-2.60 1	5.65 2
6.77664	6.96724	2.60	74.00	5.09 0	-4.44 2	-5.57 0	4.49 2
6.80875	6.96777	2.80	59.00	7.94 0	-5.04 2	-8.49 0	5.09 2
6.86841	6.97004	3.70	28.00	3.26 1	-5.65 2	-3.36 1	5.69 2
6.89457	6.97032	5.80	12.50	2.47 2	-7.41 2	-2.50 2	7.47 2
6.85491	6.97259	3.30	37.00	1.90 1	-5.55 2	-1.98 1	5.59 2
6.88835	6.97260	4.60	18.00	8.57 1	-5.98 2	-8.74 1	6.02 2
6.82566	6.97294	2.90	53.00	9.70 0	-5.22 2	-1.03 1	5.27 2
6.83622	6.97404	3.00	48.00	1.17 1	-5.35 2	-1.23 1	5.40 2
6.88889	6.97565	4.40	19.50	7.07 1	-5.87 2	-7.22 1	5.92 2
6.76589	6.97764	2.50	83.00	3.98 0	-4.02 2	-4.43 0	4.06 2
6.85682	6.97986	3.20	40.00	1.64 1	-5.50 2	-1.71 1	5.55 2
6.87731	6.98946	3.40	34.00	2.22 1	-5.59 2	-2.30 1	5.63 2
6.80619	6.99426	2.60	73.00	5.20 0	-4.49 2	-5.68 0	4.54 2
6.82353	6.99444	2.70	65.00	6.55 0	-4.83 2	-7.07 0	4.88 2
6.84439	7.00111	2.80	58.00	8.14 0	-5.08 2	-8.69 0	5.13 2
6.79349	7.00247	2.50	82.00	4.07 0	-4.07 2	-4.52 0	4.12 2
6.88076	7.00902	3.10	43.00	1.42 1	-5.46 2	-1.49 1	5.51 2
6.86527	7.01030	2.90	52.00	9.97 0	-5.26 2	-1.06 1	5.31 2
6.88019	7.01577	3.00	47.00	1.20 1	-5.38 2	-1.27 1	5.43 2
6.83610	7.02165	2.60	72.00	5.32 0	-4.54 2	-5.80 0	4.59 2
6.85629	7.02482	2.70	64.00	6.71 0	-4.87 2	-7.22 0	4.92 2
6.82132	7.02757	2.50	81.00	4.16 0	-4.12 2	-4.60 0	4.17 2
6.88073	7.03515	2.80	57.00	8.35 0	-5.12 2	-8.90 0	5.17 2
6.86638	7.04945	2.60	71.00	5.44 0	-4.59 2	-5.92 0	4.64 2
6.84940	7.05295	2.50	80.00	4.25 0	-4.18 2	-4.69 0	4.22 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.88958	7.05575	2.70	63.00	6.87 0	-4.91 2	-7.38 0	4.96 2
6.83737	7.06628	2.40	90.00	3.26 0	-3.67 2	-3.67 0	3.71 2
6.89706	7.07765	2.60	70.00	5.56 0	-4.64 2	-6.04 0	4.69 2
6.87774	7.07862	2.50	79.00	4.34 0	-4.23 2	-4.78 0	4.28 2
6.86425	7.09015	2.40	89.00	3.33 0	-3.72 2	-3.74 0	3.77 2
6.89128	7.11423	2.40	88.00	3.40 0	-3.78 2	-3.81 0	3.82 2
6.90	7.20						
6.91171	6.98435	7.00	9.80	7.79 2	-1.26 3	-7.88 2	1.27 3
6.91377	6.98598	7.40	9.20	1.28 3	-1.75 3	-1.30 3	1.77 3
6.91433	6.98757	6.60	10.50	5.16 2	-1.00 3	-5.23 2	1.01 3
6.91277	6.99278	5.00	15.50	1.25 2	-6.30 2	-1.27 2	6.35 2
6.92437	7.00055	5.60	13.00	2.12 2	-7.09 2	-2.15 2	7.15 2
6.90377	7.00162	3.80	26.00	3.75 1	-5.68 2	-3.86 1	5.72 2
6.92653	7.00489	5.20	14.50	1.51 2	-6.52 2	-1.53 2	6.57 2
6.92495	7.00646	4.80	16.50	1.05 2	-6.13 2	-1.07 2	6.19 2
6.92386	7.01290	4.20	21.00	5.90 1	-5.80 2	-6.03 1	5.84 2
6.94255	7.01420	8.00	8.40	4.18 3	-4.48 3	-4.23 3	4.53 3
6.94338	7.01543	7.20	9.40	1.02 3	-1.50 3	-1.03 3	1.51 3
6.95154	7.02317	7.80	8.60	3.53 3	-4.07 3	-3.57 3	4.11 3
6.95599	7.02838	6.80	10.00	6.56 2	-1.14 3	-6.64 2	1.15 3
6.91410	7.02951	3.30	36.00	1.97 1	-5.57 2	-2.05 1	5.61 2
6.93868	7.03104	4.00	23.00	4.81 1	-5.74 2	-4.93 1	5.78 2
6.91083	7.03162	3.20	39.00	1.69 1	-5.53 2	-1.77 1	5.58 2
6.92994	7.03283	3.60	29.00	2.99 1	-5.64 2	-3.08 1	5.69 2
6.92743	7.03387	3.50	31.00	2.62 1	-5.62 2	-2.71 1	5.67 2
6.96661	7.03814	7.60	8.80	2.10 3	-2.60 3	-2.13 3	2.62 3
6.95513	7.04053	4.40	19.00	7.35 1	-5.90 2	-7.50 1	5.94 2
6.96807	7.04461	5.40	13.50	1.84 2	-6.83 2	-1.87 2	6.88 2
6.96213	7.04497	4.60	17.50	8.95 1	-6.01 2	-9.12 1	6.06 2
6.90580	7.04857	2.90	51.00	1.02 1	-5.29 2	-1.08 1	5.34 2
6.97935	7.05121	7.00	9.60	8.38 2	-1.32 3	-8.48 2	1.33 3
6.95208	7.05129	3.70	27.00	3.43 1	-5.67 2	-3.53 1	5.71 2
6.94299	7.05283	3.40	33.00	2.31 1	-5.61 2	-2.39 1	5.65 2
6.96218	7.05609	3.90	24.00	4.36 1	-5.72 2	-4.47 1	5.76 2
6.93058	7.05660	3.10	42.00	1.47 1	-5.49 2	-1.53 1	5.53 2
6.92534	7.05868	3.00	46.00	1.24 1	-5.41 2	-1.30 1	5.46 2
6.98782	7.05923	7.40	9.00	1.48 3	-1.96 3	-1.49 3	1.98 3
6.91778	7.06992	2.80	56.00	8.56 0	-5.15 2	-9.12 0	5.20 2
7.00789	7.08141	6.00	11.50	3.19 2	-8.11 2	-3.23 2	8.18 2
7.00344	7.08194	5.00	15.00	1.32 2	-6.37 2	-1.35 2	6.42 2
6.96672	7.08525	3.20	38.00	1.76 1	-5.55 2	-1.83 1	5.60 2
7.01369	7.08657	6.20	11.00	3.84 2	-8.75 2	-3.89 2	8.82 2
7.01535	7.08660	7.20	9.20	1.12 3	-1.59 3	-1.13 3	1.61 3
6.92342	7.08725	2.70	62.00	7.03 0	-4.96 2	-7.55 0	5.00 2
6.94730	7.08782	2.90	50.00	1.05 1	-5.32 2	-1.11 1	5.37 2
7.00824	7.08829	4.80	16.00	1.11 2	-6.19 2	-1.13 2	6.24 2
6.97558	7.08870	3.30	35.00	2.05 1	-5.59 2	-2.12 1	5.64 2
7.01683	7.09090	5.80	12.00	2.69 2	-7.63 2	-2.73 2	7.69 2
6.99610	7.09148	3.80	25.00	3.97 1	-5.70 2	-4.07 1	5.75 2
7.02195	7.09358	6.80	9.80	7.05 2	-1.19 3	-7.13 2	1.20 3
7.02718	7.09801	8.00	8.20	-6.83 3	7.07 3	6.90 3	-7.14 3
6.97173	7.10284	3.00	45.00	1.28 1	-5.44 2	-1.34 1	5.49 2
7.02608	7.10288	5.20	14.00	1.60 2	-6.62 2	-1.63 2	6.67 2
7.03340	7.10417	7.80	8.40	4.33 3	-4.82 3	-4.38 3	4.86 3
6.90636	7.10460	2.50	78.00	4.43 0	-4.28 2	-4.88 0	4.33 2
7.00136	7.10545	3.50	30.00	2.74 1	-5.64 2	-2.83 1	5.69 2
6.95559	7.10546	2.80	55.00	8.79 0	-5.19 2	-9.34 0	5.24 2
6.98197	7.10575	3.10	41.00	1.52 1	-5.51 2	-1.58 1	5.56 2

Part 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
6.92814	7.10629	2.60	69.00	5.69 0	-4.69 2	-6.17 0	4.73 2
7.03464	7.10681	6.40	10.50	4.73 2	-9.63 2	-4.79 2	9.71 2
7.02410	7.10812	4.40	18.50	7.66 1	-5.92 2	-7.81 1	5.97 2
7.01037	7.11087	3.60	28.00	3.14 1	-5.66 2	-3.23 1	5.71 2
7.04032	7.11487	5.60	12.50	2.30 2	-7.26 2	-2.33 2	7.32 2
7.04588	7.11659	7.60	8.60	2.64 3	-3.15 3	-2.66 3	3.18 3
7.01149	7.11902	3.40	32.00	2.41 1	-5.63 2	-2.49 1	5.67 2
6.95784	7.11934	2.70	61.00	7.20 0	-5.00 2	-7.72 0	5.05 2
7.04939	7.12046	7.00	9.40	9.08 2	-1.39 3	-9.18 2	1.40 3
7.03923	7.12066	4.60	17.00	9.37 1	-6.05 2	-9.54 1	6.10 2
6.98981	7.12810	2.90	49.00	1.08 1	-5.36 2	-1.14 1	5.40 2
6.93526	7.13089	2.50	77.00	4.53 0	-4.33 2	-4.97 0	4.38 2
7.04651	7.13290	4.20	20.00	6.34 1	-5.84 2	-6.47 1	5.88 2
7.06470	7.13530	7.40	8.80	1.69 3	-2.16 3	-1.71 3	2.19 3
6.95965	7.13538	2.60	68.00	5.82 0	-4.73 2	-6.30 0	4.78 2
7.04036	7.13714	3.70	26.00	3.61 1	-5.69 2	-3.71 1	5.74 2
7.04743	7.13722	4.00	22.00	5.13 1	-5.77 2	-5.25 1	5.81 2
6.91849	7.13852	2.40	87.00	3.47 0	-3.83 2	-3.88 0	3.88 2
7.02462	7.14089	3.20	37.00	1.82 1	-5.57 2	-1.89 1	5.62 2
6.99420	7.14181	2.80	54.00	9.02 0	-5.23 2	-9.57 0	5.27 2
7.07146	7.14283	6.60	10.00	5.96 2	-1.08 3	-6.03 2	1.09 3
7.01946	7.14834	3.00	44.00	1.32 1	-5.47 2	-1.38 1	5.51 2
7.03951	7.15034	3.30	34.00	2.13 1	-5.61 2	-2.21 1	5.66 2
6.99286	7.15206	2.70	60.00	7.38 0	-5.04 2	-7.90 0	5.09 2
7.07842	7.15335	5.40	13.00	1.98 2	-6.96 2	-2.00 2	7.02 2
7.06518	7.15657	3.90	23.00	4.63 1	-5.74 2	-4.75 1	5.79 2
7.03503	7.15657	3.10	40.00	1.57 1	-5.54 2	-1.64 1	5.58 2
6.96446	7.15750	2.50	76.00	4.63 0	-4.38 2	-5.07 0	4.43 2
7.09001	7.16046	7.20	9.00	1.26 3	-1.74 3	-1.27 3	1.75 3
7.09018	7.16104	6.80	9.60	7.56 2	-1.24 3	-7.64 2	1.25 3
6.94589	7.16304	2.40	86.00	3.55 0	-3.89 2	-3.96 0	3.94 2
6.99160	7.16493	2.60	67.00	5.95 0	-4.78 2	-6.43 0	4.83 2
7.03339	7.16945	2.90	48.00	1.12 1	-5.39 2	-1.17 1	5.43 2
7.09570	7.17428	4.80	15.50	1.17 2	-6.24 2	-1.19 2	6.29 2
7.09900	7.17599	5.00	14.50	1.40 2	-6.45 2	-1.43 2	6.50 2
7.09598	7.17862	4.40	18.00	7.98 1	-5.95 2	-8.14 1	6.00 2
7.03365	7.17901	2.80	53.00	9.26 0	-5.26 2	-9.82 0	5.31 2
7.07887	7.18060	3.50	29.00	2.87 1	-5.66 2	-2.96 1	5.71 2
6.99398	7.18446	2.50	75.00	4.73 0	-4.43 2	-5.17 0	4.48 2
7.02852	7.18542	2.70	59.00	7.57 0	-5.08 2	-8.08 0	5.13 2
7.09400	7.18690	3.80	24.00	4.20 1	-5.73 2	-4.31 1	5.77 2
6.97347	7.18778	2.40	85.00	3.62 0	-3.95 2	-4.03 0	3.99 2
7.08306	7.18826	3.40	31.00	2.52 1	-5.65 2	-2.60 1	5.69 2
7.11864	7.18857	7.80	8.20	8.71 4	-9.35 4	-8.79 4	9.44 4
7.12197	7.19224	7.00	9.20	9.87 2	-1.46 3	-9.98 2	1.48 3
7.09503	7.19314	3.60	27.00	3.30 1	-5.69 2	-3.39 1	5.73 2
7.02403	7.19497	2.60	66.00	6.09 0	-4.82 2	-6.57 0	4.87 2
7.06858	7.19524	3.00	43.00	1.36 1	-5.49 2	-1.42 1	5.54 2
7.11138	7.19643	4.20	19.50	6.58 1	-5.86 2	-6.72 1	5.91 2
7.12835	7.19821	7.60	8.40	3.18 3	-3.67 3	-3.21 3	3.71 3
7.08466	7.19868	3.20	36.00	1.89 1	-5.60 2	-1.96 1	5.64 2
7.11993	7.19993	4.60	16.50	9.83 1	-6.09 2	-1.00 2	6.14 2
7.13144	7.20668	5.20	13.50	1.71 2	-6.72 2	-1.74 2	6.78 2
7.13802	7.20863	6.60	9.80	6.38 2	-1.13 3	-6.45 2	1.14 3
7.08986	7.20917	3.10	39.00	1.62 1	-5.56 2	-1.69 1	5.60 2
7.02383	7.21178	2.50	74.00	4.84 0	-4.49 2	-5.28 0	4.53 2
7.07810	7.21194	2.90	47.00	1.15 1	-5.42 2	-1.21 1	5.46 2
7.00127	7.21277	2.40	84.00	3.70 0	-4.00 2	-4.11 0	4.05 2
7.14459	7.21436	7.40	8.60	1.99 3	-2.46 3	-2.01 3	2.49 3
7.10609	7.21463	3.30	33.00	2.22 1	-5.63 2	-2.30 1	5.67 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.07398	7.21710	2.80	52.00	9.52 0	-5.30 2	-1.01 1	5.34 2
7.14679	7.21856	6.00	11.00	3.54 2	-8.47 2	-3.59 2	8.54 2
7.06484	7.21946	2.70	58.00	7.76 0	-5.12 2	-8.27 0	5.17 2
7.14765	7.22001	5.80	11.50	2.95 2	-7.89 2	-2.99 2	7.95 2
7.05694	7.22551	2.60	65.00	6.23 0	-4.87 2	-6.71 0	4.92 2
7.13372	7.22806	3.70	25.00	3.82 1	-5.71 2	-3.92 1	5.76 2
7.16083	7.23091	6.80	9.40	8.15 2	-1.30 3	-8.24 2	1.31 3
7.16178	7.23287	6.20	10.50	4.33 2	-9.23 2	-4.38 2	9.30 2
7.16401	7.23689	5.60	12.00	2.50 2	-7.46 2	-2.53 2	7.52 2
7.16750	7.23714	7.20	8.80	1.42 3	-1.89 3	-1.43 3	1.91 3
7.02927	7.23801	2.40	83.00	3.78 0	-4.05 2	-4.19 0	4.10 2
7.05403	7.23947	2.50	73.00	4.94 0	-4.53 2	-5.39 0	4.58 2
7.11920	7.24364	3.00	42.00	1.40 1	-5.52 2	-1.47 1	5.56 2
7.16382	7.25104	4.00	21.00	5.48 1	-5.80 2	-5.60 1	5.84 2
7.17100	7.25226	4.40	17.50	8.34 1	-5.99 2	-8.49 1	6.03 2
7.10187	7.25422	2.70	57.00	7.96 0	-5.16 2	-8.47 0	5.20 2
7.12401	7.25564	2.90	46.00	1.18 1	-5.45 2	-1.24 1	5.49 2
7.11523	7.25613	2.80	51.00	9.78 0	-5.33 2	-1.03 1	5.38 2
7.09036	7.25659	2.60	64.00	6.38 0	-4.91 2	-6.86 0	4.96 2
7.14702	7.25877	3.20	35.00	1.96 1	-5.62 2	-2.04 1	5.66 2
7.16029	7.25966	3.50	28.00	3.01 1	-5.68 2	-3.10 1	5.73 2
7.15795	7.26082	3.40	30.00	2.63 1	-5.67 2	-2.72 1	5.71 2
7.17882	7.26253	4.20	19.00	6.84 1	-5.89 2	-6.98 1	5.93 2
7.05751	7.26351	2.40	82.00	3.86 0	-4.11 2	-4.27 0	4.16 2
7.19326	7.26358	6.40	10.00	5.43 2	-1.03 3	-5.49 2	1.04 3
7.14660	7.26366	3.10	38.00	1.68 1	-5.58 2	-1.75 1	5.63 2
7.17505	7.26389	3.90	22.00	4.94 1	-5.77 2	-5.05 1	5.82 2
7.18770	7.26479	4.80	15.00	1.23 2	-6.31 2	-1.25 2	6.35 2
7.19724	7.26673	7.00	9.00	1.10 3	-1.58 3	-1.11 3	1.59 3
7.08459	7.26754	2.50	72.00	5.05 0	-4.58 2	-5.50 0	4.63 2
7.19580	7.26911	5.40	12.50	2.13 2	-7.12 2	-2.16 2	7.17 2
7.19991	7.27537	5.00	14.00	1.49 2	-6.53 2	-1.52 2	6.58 2
7.18435	7.28005	3.60	26.00	3.47 1	-5.71 2	-3.57 1	5.75 2
7.17552	7.28177	3.30	32.00	2.31 1	-5.65 2	-2.39 1	5.69 2
7.12432	7.28822	2.60	63.00	6.54 0	-4.95 2	-7.01 0	5.00 2
7.19810	7.28850	3.80	23.00	4.46 1	-5.75 2	-4.57 1	5.79 2
7.08599	7.28928	2.40	81.00	3.94 0	-4.16 2	-4.35 0	4.21 2
7.13963	7.28972	2.70	56.00	8.16 0	-5.19 2	-8.67 0	5.24 2
7.17141	7.29363	3.00	41.00	1.45 1	-5.54 2	-1.51 1	5.59 2
7.11553	7.29602	2.50	71.00	5.17 0	-4.63 2	-5.61 0	4.68 2
7.15747	7.29615	2.80	50.00	1.01 1	-5.36 2	-1.06 1	5.41 2
7.17119	7.30061	2.90	45.00	1.22 1	-5.47 2	-1.28 1	5.52 2
7.11472	7.31534	2.40	80.00	4.03 0	-4.22 2	-4.44 0	4.26 2
7.15885	7.32043	2.60	62.00	6.69 0	-5.00 2	-7.17 0	5.04 2
7.14686	7.32492	2.50	70.00	5.28 0	-4.68 2	-5.72 0	4.73 2
7.17816	7.32601	2.70	55.00	8.37 0	-5.23 2	-8.89 0	5.28 2
7.14371	7.34170	2.40	79.00	4.12 0	-4.27 2	-4.52 0	4.32 2
7.12093	7.34646	2.30	90.00	3.09 0	-3.70 2	-3.46 0	3.75 2
7.19396	7.35324	2.60	61.00	6.86 0	-5.04 2	-7.33 0	5.09 2
7.17861	7.35425	2.50	69.00	5.40 0	-4.73 2	-5.84 0	4.77 2
7.17299	7.36836	2.40	78.00	4.21 0	-4.32 2	-4.61 0	4.37 2
7.14846	7.37104	2.30	89.00	3.15 0	-3.76 2	-3.53 0	3.80 2
7.17617	7.39581	2.30	88.00	3.22 0	-3.82 2	-3.60 0	3.86 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.20	7.50						
7.20749	7.27656	7.80	8.00	-3.87 3	4.00 3	3.90 3	-4.04 3
7.20686	7.27671	6.60	9.60	6.82 2	-1.17 3	-6.89 2	1.18 3
7.20453	7.28309	4.60	16.00	1.03 2	-6.14 2	-1.05 2	6.19 2
7.21421	7.28325	7.60	8.20	5.97 3	-6.66 3	-6.03 3	6.72 3
7.22768	7.29661	7.40	8.40	2.28 3	-2.73 3	-2.30 3	2.76 3
7.23403	7.30333	6.80	9.20	8.83 2	-1.36 3	-8.93 2	1.38 3
7.24802	7.31685	7.20	8.60	1.62 3	-2.09 3	-1.63 3	2.11 3
7.24321	7.31687	5.20	13.00	1.84 2	-6.84 2	-1.86 2	6.90 2
7.20536	7.32020	3.10	37.00	1.74 1	-5.60 2	-1.81 1	5.65 2
7.21186	7.32135	3.20	34.00	2.04 1	-5.64 2	-2.11 1	5.68 2
7.23272	7.32460	3.70	24.00	4.04 1	-5.74 2	-4.14 1	5.78 2
7.24939	7.32925	4.40	17.00	8.72 1	-6.02 2	-8.88 1	6.07 2
7.26044	7.33002	6.40	9.80	5.79 2	-1.07 3	-5.85 2	1.08 3
7.24903	7.33139	4.20	18.50	7.12 1	-5.91 2	-7.26 1	5.95 2
7.23645	7.33700	3.40	29.00	2.76 1	-5.68 2	-2.84 1	5.73 2
7.20074	7.33720	2.80	49.00	1.03 1	-5.39 2	-1.09 1	5.44 2
7.24599	7.34298	3.50	27.00	3.17 1	-5.70 2	-3.26 1	5.74 2
7.27537	7.34406	7.00	8.80	1.22 3	-1.69 3	-1.23 3	1.71 3
7.22531	7.34531	3.00	40.00	1.50 1	-5.57 2	-1.56 1	5.61 2
7.21972	7.34693	2.90	44.00	1.26 1	-5.50 2	-1.32 1	5.55 2
7.27815	7.34723	6.60	9.40	7.32 2	-1.22 3	-7.40 2	1.23 3
7.24805	7.35201	3.30	31.00	2.41 1	-5.67 2	-2.49 1	5.71 2
7.28805	7.35869	5.80	11.00	3.27 2	-8.21 2	-3.31 2	8.27 2
7.28465	7.36025	4.80	14.50	1.31 2	-6.38 2	-1.33 2	6.42 2
7.21750	7.36311	2.70	54.00	8.60 0	-5.27 2	-9.11 0	5.31 2
7.29642	7.36641	6.00	10.50	3.97 2	-8.89 2	-4.02 2	8.96 2
7.29632	7.36752	5.60	11.50	2.73 2	-7.69 2	-2.77 2	7.75 2
7.29335	7.37046	4.60	15.50	1.09 2	-6.19 2	-1.11 2	6.24 2
7.30372	7.37189	7.60	8.00	1.66 4	-1.79 4	-1.68 4	1.80 4
7.27880	7.37208	3.60	25.00	3.67 1	-5.73 2	-3.76 1	5.77 2
7.28885	7.37346	4.00	20.00	5.89 1	-5.84 2	-6.01 1	5.88 2
7.30995	7.37847	6.80	9.00	9.75 2	-1.46 3	-9.85 2	1.47 3
7.26631	7.37890	3.10	36.00	1.81 1	-5.63 2	-1.88 1	5.67 2
7.29263	7.37892	3.90	21.00	5.28 1	-5.80 2	-5.39 1	5.85 2
7.24509	7.37935	2.80	48.00	1.06 1	-5.42 2	-1.12 1	5.47 2
7.30671	7.38062	5.00	13.50	1.59 2	-6.63 2	-1.62 2	6.68 2
7.31420	7.38230	7.40	8.20	2.98 3	-3.46 3	-3.01 3	3.49 3
7.21080	7.38404	2.50	68.00	5.53 0	-4.78 2	-5.97 0	4.82 2
7.27938	7.38660	3.20	33.00	2.13 1	-5.66 2	-2.20 1	5.70 2
7.22969	7.38668	2.60	60.00	7.03 0	-5.08 2	-7.50 0	5.13 2
7.32197	7.39122	6.20	10.00	4.93 2	-9.82 2	-4.99 2	9.89 2
7.32098	7.39264	5.40	12.00	2.32 2	-7.30 2	-2.35 2	7.35 2
7.26966	7.39467	2.90	43.00	1.30 1	-5.53 2	-1.36 1	5.57 2
7.20255	7.39535	2.40	77.00	4.30 0	-4.37 2	-4.70 0	4.42 2
7.30914	7.39702	3.80	22.00	4.75 1	-5.78 2	-4.86 1	5.82 2
7.32993	7.39875	6.40	9.60	6.16 2	-1.11 3	-6.23 2	1.11 3
7.28101	7.39879	3.00	39.00	1.55 1	-5.59 2	-1.62 1	5.64 2
7.33177	7.39976	7.20	8.40	1.82 3	-2.27 3	-1.84 3	2.29 3
7.25769	7.40108	2.70	53.00	8.83 0	-5.30 2	-9.34 0	5.35 2
7.32219	7.40320	4.20	18.00	7.42 1	-5.94 2	-7.56 1	5.98 2
7.33143	7.40988	4.40	16.50	9.14 1	-6.06 2	-9.30 1	6.10 2
7.24344	7.41431	2.50	67.00	5.66 0	-4.82 2	-6.09 0	4.87 2
7.31891	7.41711	3.40	28.00	2.89 1	-5.70 2	-2.98 1	5.74 2
7.35200	7.42031	6.60	9.20	7.90 2	-1.27 3	-7.98 2	1.28 3
7.26607	7.42079	2.60	57.00	7.20 0	-5.12 2	-7.67 0	5.17 2
7.20404	7.42081	2.30	87.00	3.29 0	-3.87 2	-3.66 0	3.92 2
7.29060	7.42266	2.80	47.00	1.10 1	-5.46 2	-1.15 1	5.50 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.23243	7.42266	2.40	76.00	4.39 0	-4.43 2	-4.80 0	4.47 2
7.35655	7.42443	7.00	8.60	1.37 3	-1.85 3	-1.39 3	1.86 3
7.32395	7.42559	3.30	30.00	2.53 1	-5.69 2	-2.60 1	5.73 2
7.33798	7.42738	3.70	23.00	4.29 1	-5.76 2	-4.39 1	5.80 2
7.33639	7.43099	3.50	26.00	3.34 1	-5.72 2	-3.43 1	5.76 2
7.36208	7.43414	5.20	12.50	1.98 2	-6.99 2	-2.01 2	7.04 2
7.35497	7.43827	4.00	19.50	6.11 1	-5.86 2	-6.23 1	5.90 2
7.32959	7.43995	3.10	35.00	1.88 1	-5.65 2	-1.95 1	5.69 2
7.29878	7.43995	2.70	52.00	9.07 0	-5.34 2	-9.58 0	5.38 2
7.32113	7.44394	2.90	42.00	1.34 1	-5.55 2	-1.40 1	5.60 2
7.27656	7.44507	2.50	66.00	5.79 0	-4.87 2	-6.23 0	4.91 2
7.23211	7.44603	2.30	86.00	3.36 0	-3.93 2	-3.73 0	3.97 2
7.26262	7.45033	2.40	75.00	4.49 0	-4.48 2	-4.89 0	4.52 2
7.33863	7.45420	3.00	38.00	1.61 1	-5.61 2	-1.67 1	5.66 2
7.34979	7.45474	3.20	32.00	2.22 1	-5.68 2	-2.29 1	5.72 2
7.30312	7.45558	2.60	58.00	7.38 0	-5.16 2	-7.85 0	5.21 2
7.38874	7.45647	6.80	8.80	1.07 3	-1.56 3	-1.09 3	1.57 3
7.38980	7.45832	6.20	9.80	5.24 2	-1.01 3	-5.29 2	1.02 3
7.38702	7.46110	4.80	14.00	1.39 2	-6.45 2	-1.41 2	6.50 2
7.38676	7.46241	4.60	15.00	1.15 2	-6.25 2	-1.17 2	6.29 2
7.39714	7.46444	7.60	7.80	3.32 4	-3.44 4	-3.35 4	3.47 4
7.33732	7.46719	2.80	46.00	1.13 1	-5.48 2	-1.18 1	5.53 2
7.37894	7.46978	3.60	24.00	3.88 1	-5.75 2	-3.98 1	5.79 2
7.40187	7.46994	6.40	9.40	6.59 2	-1.15 3	-6.66 2	1.16 3
7.26037	7.47149	2.30	85.00	3.43 0	-3.99 2	-3.80 0	4.03 2
7.40438	7.47162	7.40	8.00	3.53 3	-3.95 3	-3.57 3	3.99 3
7.31017	7.47634	2.50	65.00	5.92 0	-4.91 2	-6.36 0	4.96 2
7.39854	7.47818	4.20	17.50	7.75 1	-5.97 2	-7.89 1	6.01 2
7.29315	7.47836	2.40	74.00	4.59 0	-4.53 2	-4.99 0	4.57 2
7.34081	7.47978	2.70	51.00	9.32 0	-5.37 2	-9.83 0	5.42 2
7.41896	7.48613	7.20	8.20	2.20 3	-2.65 3	-2.22 3	2.67 3
7.34089	7.49110	2.60	57.00	7.57 0	-5.20 2	-8.04 0	5.24 2
7.41999	7.49234	5.00	13.00	1.71 2	-6.74 2	-1.73 2	6.79 2
7.41742	7.49446	4.40	16.00	9.60 1	-6.10 2	-9.76 1	6.15 2
7.37420	7.49482	2.90	41.00	1.39 1	-5.58 2	-1.44 1	5.62 2
7.42859	7.49613	6.60	9.00	8.64 2	-1.35 3	-8.73 2	1.36 3
7.28884	7.49719	2.30	84.00	3.50 0	-4.04 2	-3.88 0	4.09 2
7.40570	7.50154	3.40	27.00	3.04 1	-5.72 2	-3.12 1	5.76 2
7.41893	7.50263	3.90	20.00	5.67 1	-5.84 2	-5.78 1	5.88 2
7.40350	7.50283	3.30	29.00	2.64 1	-5.71 2	-2.72 1	5.75 2
7.39539	7.50351	3.10	34.00	1.95 1	-5.67 2	-2.02 1	5.71 2
7.42371	7.50568	4.00	19.00	6.35 1	-5.88 2	-6.47 1	5.92 2
7.32404	7.50677	2.40	73.00	4.69 0	-4.58 2	-5.09 0	4.62 2
7.43832	7.50781	5.60	11.00	3.02 2	-7.98 2	-3.05 2	8.04 2
7.44098	7.50804	7.00	8.40	1.53 3	-1.99 3	-1.55 3	2.01 3
7.34431	7.50816	2.50	64.00	6.06 0	-4.96 2	-6.50 0	5.00 2
7.43929	7.50817	5.80	10.50	3.65 2	-8.58 2	-3.69 2	8.64 2
7.39832	7.51168	3.00	37.00	1.67 1	-5.64 2	-1.73 1	5.68 2
7.38533	7.51301	2.80	45.00	1.16 1	-5.51 2	-1.22 1	5.56 2
7.42796	7.51330	3.80	21.00	5.08 1	-5.81 2	-5.19 1	5.85 2
7.38384	7.52061	2.70	50.00	9.58 0	-5.40 2	-1.01 1	5.45 2
7.31754	7.52314	2.30	83.00	3.58 0	-4.10 2	-3.95 0	4.14 2
7.43199	7.52418	3.50	25.00	3.52 1	-5.74 2	-3.61 1	5.78 2
7.45487	7.52488	5.40	11.50	2.53 2	-7.50 2	-2.56 2	7.56 2
7.42334	7.52601	3.20	31.00	2.31 1	-5.69 2	-2.39 1	5.74 2
7.45824	7.52642	6.00	10.00	4.50 2	-9.41 2	-4.55 2	9.48 2
7.37940	7.52738	2.60	56.00	7.76 0	-5.24 2	-8.24 0	5.28 2
7.45996	7.52774	6.20	9.60	5.55 2	-1.04 3	-5.61 2	1.05 3
7.35530	7.53557	2.40	72.00	4.79 0	-4.63 2	-5.20 0	4.67 2
7.45023	7.53714	3.70	22.00	4.57 1	-5.79 2	-4.67 1	5.83 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.47061	7.53754	6.80	8.60	1.20 3	-1.68 3	-1.21 3	1.70 3
7.37900	7.54054	2.50	63.00	6.21 0	-5.00 2	-6.64 0	5.04 2
7.47641	7.54371	6.40	9.20	7.08 2	-1.20 3	-7.15 2	1.20 3
7.42899	7.54741	2.90	40.00	1.43 1	-5.60 2	-1.49 1	5.65 2
7.34646	7.54937	2.30	82.00	3.65 0	-4.15 2	-4.03 0	4.20 2
7.47832	7.55658	4.20	17.00	8.10 1	-6.00 2	-8.24 1	6.04 2
7.48884	7.55928	5.20	12.00	2.14 2	-7.15 2	-2.17 2	7.20 2
7.48519	7.55936	4.60	14.50	1.21 2	-6.31 2	-1.23 2	6.36 2
7.43470	7.56020	2.80	44.00	1.20 1	-5.54 2	-1.25 1	5.58 2
7.42791	7.56249	2.70	49.00	9.85 0	-5.43 2	-1.04 1	5.48 2
7.41869	7.56446	2.60	55.00	7.97 0	-5.27 2	-8.44 0	5.32 2
7.38694	7.56478	2.40	71.00	4.90 0	-4.68 2	-5.30 0	4.72 2
7.49848	7.56485	7.40	7.80	3.03 3	-3.27 3	-3.06 3	3.30 3
7.49534	7.56790	4.80	13.50	1.48 2	-6.54 2	-1.50 2	6.59 2
7.48571	7.56811	3.90	19.50	5.88 1	-5.86 2	-6.00 1	5.90 2
7.46391	7.56978	3.10	33.00	2.03 1	-5.69 2	-2.10 1	5.73 2
7.46021	7.57136	3.00	36.00	1.73 1	-5.66 2	-1.79 1	5.70 2
7.41425	7.57351	2.50	62.00	6.36 0	-5.04 2	-6.79 0	5.09 2
7.48540	7.57378	3.60	23.00	4.12 1	-5.77 2	-4.22 1	5.81 2
7.37563	7.57587	2.30	81.00	3.73 0	-4.21 2	-4.10 0	4.25 2
7.49525	7.57590	4.00	18.50	6.61 1	-5.90 2	-6.73 1	5.94 2
7.48705	7.58406	3.30	28.00	2.77 1	-5.72 2	-2.85 1	5.76 2
7.49724	7.59071	3.40	26.00	3.20 1	-5.74 2	-3.29 1	5.78 2
7.41898	7.59441	2.40	70.00	5.01 0	-4.73 2	-5.41 0	4.77 2
7.48560	7.60183	2.90	39.00	1.48 1	-5.63 2	-1.54 1	5.67 2
7.45881	7.60237	2.60	54.00	8.18 0	-5.31 2	-8.65 0	5.35 2
7.40506	7.60266	2.30	80.00	3.81 0	-4.26 2	-4.18 0	4.30 2
7.47309	7.60549	2.70	48.00	1.01 1	-5.47 2	-1.06 1	5.51 2
7.45011	7.60709	2.50	61.00	6.51 0	-5.08 2	-6.95 0	5.13 2
7.48553	7.60884	2.80	43.00	1.24 1	-5.57 2	-1.29 1	5.61 2
7.45145	7.62449	2.40	69.00	5.12 0	-4.77 2	-5.53 0	4.82 2
7.43476	7.62975	2.30	79.00	3.90 0	-4.31 2	-4.27 0	4.36 2
7.49980	7.64116	2.60	53.00	8.40 0	-5.35 2	-8.87 0	5.39 2
7.48659	7.64131	2.50	60.00	6.67 0	-5.13 2	-7.11 0	5.17 2
7.43279	7.65483	2.20	90.00	2.92 0	-3.74 2	-3.26 0	3.79 2
7.48437	7.65504	2.40	68.00	5.24 0	-4.82 2	-5.64 0	4.87 2
7.46475	7.65716	2.30	78.00	3.98 0	-4.37 2	-4.35 0	4.41 2
7.46104	7.68015	2.20	89.00	2.98 0	-3.80 2	-3.32 0	3.84 2
7.49503	7.68489	2.30	77.00	4.07 0	-4.42 2	-4.44 0	4.46 2
7.48947	7.70569	2.20	88.00	3.04 0	-3.86 2	-3.38 0	3.90 2
7.50	7.80						
7.50808	7.57483	6.60	8.80	9.46 2	-1.43 3	-9.55 2	1.44 3
7.50984	7.57616	7.20	8.00	2.50 3	-2.91 3	-2.53 3	2.94 3
7.50769	7.58330	4.40	15.50	1.01 2	-6.15 2	-1.03 2	6.19 2
7.52676	7.59422	6.00	9.80	4.77 2	-9.68 2	-4.82 2	9.75 2
7.52888	7.59512	7.00	8.20	1.79 3	-2.25 3	-1.81 3	2.27 3
7.53260	7.59962	6.20	9.40	5.92 2	-1.08 3	-5.98 2	1.09 3
7.50029	7.60068	3.20	30.00	2.42 1	-5.71 2	-2.49 1	5.75 2
7.54045	7.61122	5.00	12.50	1.84 2	-6.87 2	-1.86 2	6.91 2
7.55370	7.62024	6.40	9.00	7.69 2	-1.26 3	-7.77 2	1.27 3
7.55575	7.62187	6.80	8.40	1.34 3	-1.81 3	-1.35 3	1.83 3
7.53332	7.62310	3.50	24.00	3.73 1	-5.76 2	-3.82 1	5.80 2
7.52448	7.63340	3.00	35.00	1.80 1	-5.68 2	-1.86 1	5.72 2
7.55513	7.63622	3.90	19.00	6.11 1	-5.88 2	-6.22 1	5.92 2
7.55557	7.63835	3.80	20.00	5.45 1	-5.84 2	-5.56 1	5.88 2
7.56180	7.63867	4.20	16.50	8.48 1	-6.04 2	-8.63 1	6.08 2
7.53535	7.63897	3.10	32.00	2.12 1	-5.70 2	-2.19 1	5.74 2
7.56980	7.64911	4.00	18.00	6.88 1	-5.93 2	-7.01 1	5.97 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.51944	7.64966	2.70	47.00	1.04 1	-5.50 2	-1.09 1	5.54 2
7.57034	7.65473	3.70	21.00	4.88 1	-5.82 2	-4.98 1	5.86 2
7.59066	7.65663	6.60	8.60	1.05 3	-1.53 3	-1.06 3	1.55 3
7.54417	7.65821	2.90	38.00	1.54 1	-5.65 2	-1.59 1	5.69 2
7.59125	7.65901	5.60	10.50	3.36 2	-8.31 2	-3.39 2	8.37 2
7.53788	7.65903	2.80	42.00	1.28 1	-5.59 2	-1.33 1	5.64 2
7.58911	7.66179	4.60	14.00	1.29 2	-6.38 2	-1.31 2	6.43 2
7.59676	7.66223	7.40	7.60	1.28 3	-1.33 3	-1.29 3	1.34 3
7.59763	7.66435	6.00	9.60	5.04 2	-9.94 2	-5.10 2	1.00 3
7.59855	7.66687	5.40	11.00	2.78 2	-7.76 2	-2.81 2	7.81 2
7.57497	7.66965	3.30	27.00	2.92 1	-5.74 2	-2.99 1	5.78 2
7.60283	7.66992	5.80	10.00	4.11 2	-9.03 2	-4.16 2	9.10 2
7.60466	7.67012	7.20	7.80	2.51 3	-2.82 3	-2.54 3	2.85 3
7.60785	7.67412	6.20	9.20	6.32 2	-1.12 3	-6.38 2	1.13 3
7.52374	7.67621	2.50	59.00	6.84 0	-5.17 2	-7.27 0	5.21 2
7.60262	7.67678	4.40	15.00	1.06 2	-6.20 2	-1.08 2	6.24 2
7.58094	7.67904	3.20	29.00	2.53 1	-5.73 2	-2.61 1	5.77 2
7.54170	7.68087	2.60	52.00	8.62 0	-5.38 2	-9.09 0	5.42 2
7.61022	7.68124	4.80	13.00	1.58 2	-6.64 2	-1.60 2	6.69 2
7.59893	7.68484	3.60	22.00	4.39 1	-5.80 2	-4.48 1	5.84 2
7.59402	7.68512	3.40	25.00	3.38 1	-5.76 2	-3.46 1	5.80 2
7.62048	7.68588	7.00	8.00	2.03 3	-2.47 3	-2.05 3	2.49 3
7.51775	7.68607	2.40	67.00	5.36 0	-4.87 2	-5.76 0	4.91 2
7.62441	7.69320	5.20	11.50	2.33 2	-7.33 2	-2.36 2	7.38 2
7.56702	7.69508	2.70	46.00	1.08 1	-5.53 2	-1.13 1	5.57 2
7.59129	7.69800	3.00	34.00	1.87 1	-5.70 2	-1.93 1	5.74 2
7.63392	7.69968	6.40	8.80	8.36 2	-1.33 3	-8.45 2	1.34 3
7.62304	7.70453	3.80	19.50	5.65 1	-5.86 2	-5.76 1	5.90 2
7.62738	7.70715	3.90	18.50	6.35 1	-5.90 2	-6.47 1	5.94 2
7.64437	7.70969	6.80	8.20	1.54 3	-2.02 3	-1.56 3	2.04 3
7.59187	7.71085	2.80	41.00	1.32 1	-5.62 2	-1.38 1	5.66 2
7.60997	7.71133	3.10	31.00	2.21 1	-5.72 2	-2.28 1	5.76 2
7.56157	7.71181	2.50	58.00	7.01 0	-5.21 2	-7.44 0	5.25 2
7.52563	7.71296	2.30	76.00	4.15 0	-4.47 2	-4.52 0	4.52 2
7.60483	7.71668	2.90	37.00	1.59 1	-5.67 2	-1.65 1	5.71 2
7.55161	7.71760	2.40	66.00	5.49 0	-4.91 2	-5.89 0	4.96 2
7.58455	7.72154	2.60	51.00	8.86 0	-5.41 2	-9.33 0	5.46 2
7.64928	7.72476	4.20	16.00	8.90 1	-6.07 2	-9.04 1	6.11 2
7.64758	7.72555	4.00	17.50	7.18 1	-5.95 2	-7.30 1	5.99 2
7.64104	7.72839	3.50	23.00	3.96 1	-5.79 2	-4.05 1	5.82 2
7.51807	7.73144	2.20	87.00	3.11 0	-3.92 2	-3.44 0	3.96 2
7.67099	7.73697	6.00	9.40	5.36 2	-1.02 3	-5.41 2	1.03 3
7.66888	7.73806	5.00	12.00	1.98 2	-7.01 2	-2.01 2	7.06 2
7.67207	7.73845	5.80	9.80	4.34 2	-9.27 2	-4.39 2	9.33 2
7.55655	7.74139	2.30	75.00	4.24 0	-4.52 2	-4.61 0	4.57 2
7.67654	7.74170	6.60	8.40	1.16 3	-1.64 3	-1.17 3	1.65 3
7.61591	7.74181	2.70	45.00	1.11 1	-5.55 2	-1.16 1	5.60 2
7.60013	7.74815	2.50	57.00	7.19 0	-5.24 2	-7.62 0	5.29 2
7.58598	7.74966	2.40	65.00	5.61 0	-4.96 2	-6.01 0	5.00 2
7.68588	7.75139	6.20	9.00	6.82 2	-1.17 3	-6.88 2	1.18 3
7.54686	7.75743	2.20	86.00	3.17 0	-3.97 2	-3.51 0	4.02 2
7.66770	7.76003	3.30	26.00	3.07 1	-5.76 2	-3.15 1	5.80 2
7.66563	7.76143	3.20	28.00	2.66 1	-5.75 2	-2.73 1	5.79 2
7.62842	7.76324	2.60	50.00	9.11 0	-5.45 2	-9.58 0	5.49 2
7.64760	7.76441	2.80	40.00	1.37 1	-5.64 2	-1.42 1	5.68 2
7.66085	7.76534	3.00	33.00	1.94 1	-5.72 2	-2.01 1	5.76 2
7.70370	7.76829	7.20	7.60	2.01 3	-2.17 3	-2.02 3	2.19 3
7.58782	7.77018	2.30	74.00	4.34 0	-4.57 2	-4.71 0	4.62 2
7.69905	7.77023	4.60	13.50	1.37 2	-6.46 2	-1.39 2	6.51 2
7.69317	7.77337	3.80	19.00	5.87 1	-5.88 2	-5.98 1	5.92 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.70262	7.77534	4.40	14.50	1.13 2	-6.26 2	-1.14 2	6.30 2
7.66773	7.77738	2.90	36.00	1.65 1	-5.69 2	-1.71 1	5.73 2
7.71606	7.78061	7.00	7.80	2.20 3	-2.58 3	-2.22 3	2.60 3
7.70266	7.78111	3.90	18.00	6.62 1	-5.92 2	-6.73 1	5.96 2
7.69933	7.78117	3.70	20.00	5.24 1	-5.85 2	-5.34 1	5.89 2
7.71725	7.78223	6.40	8.60	9.17 2	-1.41 3	-9.26 2	1.42 3
7.62089	7.78227	2.40	64.00	5.75 0	-5.00 2	-6.14 0	5.05 2
7.57586	7.78365	2.20	85.00	3.24 0	-4.03 2	-3.58 0	4.07 2
7.63944	7.78526	2.50	56.00	7.37 0	-5.28 2	-7.80 0	5.33 2
7.69661	7.78531	3.40	24.00	3.58 1	-5.78 2	-3.66 1	5.82 2
7.68803	7.78713	3.10	30.00	2.31 1	-5.74 2	-2.38 1	5.78 2
7.66619	7.78993	2.70	44.00	1.14 1	-5.58 2	-1.19 1	5.62 2
7.61945	7.79936	2.30	73.00	4.43 0	-4.63 2	-4.80 0	4.67 2
7.73674	7.80122	6.80	8.00	1.77 3	-2.24 3	-1.79 3	2.26 3
7.73237	7.80183	4.80	12.50	1.70 2	-6.75 2	-1.72 2	6.80 2
7.72039	7.80380	3.60	21.00	4.69 1	-5.82 2	-4.78 1	5.86 2
7.72884	7.80546	4.00	17.00	7.50 1	-5.98 2	-7.63 1	6.07 2
7.67335	7.80601	2.60	49.00	9.37 0	-5.48 2	-9.84 0	5.52 2
7.74368	7.80933	5.80	9.60	4.58 2	-9.50 2	-4.63 2	9.57 2
7.60507	7.81013	2.20	84.00	3.31 0	-4.09 2	-3.65 0	4.13 2
7.74699	7.81222	6.00	9.20	5.70 2	-1.06 3	-5.76 2	1.07 3
7.74110	7.81518	4.20	15.50	9.36 1	-6.12 2	-9.50 1	6.15 2
7.65635	7.81546	2.40	63.00	5.88 0	-5.05 2	-6.28 0	5.09 2
7.70519	7.81983	2.80	39.00	1.41 1	-5.66 2	-1.47 1	5.71 2
7.75327	7.81988	5.40	10.50	3.08 2	-8.05 2	-3.11 2	8.11 2
7.75659	7.82259	5.60	10.00	3.77 2	-8.71 2	-3.81 2	8.78 2
7.67956	7.82318	2.50	55.00	7.56 0	-5.32 2	-7.99 0	5.36 2
7.65145	7.82895	2.30	72.00	4.53 0	-4.68 2	-4.90 0	4.72 2
7.76593	7.83030	6.60	8.20	1.31 3	-1.80 3	-1.33 3	1.81 3
7.76685	7.83160	6.20	8.80	7.36 2	-1.22 3	-7.43 2	1.23 3
7.73338	7.83564	3.00	32.00	2.03 1	-5.73 2	-2.09 1	5.77 2
7.63450	7.83686	2.20	83.00	3.38 0	-4.14 2	-3.72 0	4.18 2
7.76986	7.83699	5.20	11.00	2.56 2	-7.56 2	-2.59 2	7.61 2
7.71794	7.83952	2.70	43.00	1.18 1	-5.61 2	-1.23 1	5.65 2
7.73302	7.84049	2.90	35.00	1.71 1	-5.71 2	-1.77 1	5.75 2
7.75590	7.84080	3.50	22.00	4.21 1	-5.81 2	-4.30 1	5.85 2
7.76616	7.84505	3.80	18.50	6.11 1	-5.90 2	-6.22 1	5.94 2
7.76751	7.84808	3.70	19.50	5.43 1	-5.86 2	-5.53 1	5.90 2
7.75475	7.84824	3.20	27.00	2.79 1	-5.77 2	-2.86 1	5.80 2
7.69239	7.84924	2.40	62.00	6.02 0	-5.09 2	-6.42 0	5.13 2
7.71941	7.84991	2.60	48.00	9.64 0	-5.51 2	-1.01 1	5.55 2
7.76573	7.85571	3.30	25.00	3.24 1	-5.78 2	-3.32 1	5.82 2
7.78120	7.85832	3.90	17.50	6.90 1	-5.95 2	-7.02 1	5.99 2
7.68385	7.85894	2.30	71.00	4.63 0	-4.73 2	-5.00 0	4.77 2
7.72051	7.86195	2.50	54.00	7.76 0	-5.36 2	-8.19 0	5.40 2
7.66417	7.86386	2.20	82.00	3.45 0	-4.20 2	-3.79 0	4.24 2
7.76983	7.86667	3.10	29.00	2.42 1	-5.76 2	-2.49 1	5.79 2
7.76476	7.87723	2.80	38.00	1.46 1	-5.69 2	-1.52 1	5.73 2
7.72904	7.88365	2.40	61.00	6.17 0	-5.13 2	-6.57 0	5.18 2
7.71667	7.88938	2.30	70.00	4.74 0	-4.77 2	-5.10 0	4.82 2
7.77124	7.89068	2.70	42.00	1.22 1	-5.63 2	-1.27 1	5.67 2
7.69409	7.89115	2.20	81.00	3.52 0	-4.25 2	-3.86 0	4.29 2
7.76666	7.89501	2.60	47.00	9.92 0	-5.54 2	-1.04 1	5.58 2
7.76235	7.90162	2.50	53.00	7.97 0	-5.39 2	-8.40 0	5.43 2
7.76634	7.91871	2.40	60.00	6.32 0	-5.17 2	-6.72 0	5.22 2
7.72428	7.91873	2.20	80.00	3.60 0	-4.31 2	-3.93 0	4.35 2
7.74991	7.92026	2.30	69.00	4.84 0	-4.82 2	-5.21 0	4.87 2
7.75474	7.94662	2.20	79.00	3.68 0	-4.36 2	-4.01 0	4.40 2
7.78361	7.95162	2.30	68.00	4.95 0	-4.87 2	-5.32 0	4.91 2
7.78550	7.97482	2.20	78.00	3.76 0	-4.42 2	-4.09 0	4.46 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.77756	7.99595	2.10	90.00	2.75 0	-3.79 2	-3.05 0	3.83 2
7.80	8.10						
7.80389	7.86809	6.40	8.40	1.01 3	-1.49 3	-1.02 3	1.50 3
7.80733	7.87106	7.20	7.40	1.45 3	-1.51 3	-1.46 3	1.52 3
7.80622	7.87378	5.00	11.50	2.16 2	-7.18 2	-2.18 2	7.22 2
7.80819	7.87944	4.40	14.00	1.19 2	-6.32 2	-1.21 2	6.36 2
7.81589	7.87958	7.00	7.60	2.22 3	-2.50 3	-2.24 3	2.52 3
7.81780	7.88272	5.80	9.40	4.85 2	-9.76 2	-4.90 2	9.83 2
7.81564	7.88530	4.60	13.00	1.46 2	-6.55 2	-1.48 2	6.59 2
7.81387	7.88912	4.00	16.50	7.85 1	-6.01 2	-7.98 1	6.05 2
7.82578	7.89027	6.00	9.00	6.12 2	-1.10 3	-6.18 2	1.11 3
7.82659	7.89188	5.60	9.80	3.97 2	-8.92 2	-4.01 2	8.98 2
7.80565	7.89194	3.40	23.00	3.79 1	-5.80 2	-3.88 1	5.84 2
7.83310	7.89675	6.80	7.80	2.01 3	-2.46 3	-2.03 3	2.48 3
7.80091	7.90518	2.90	34.00	1.78 1	-5.73 2	-1.84 1	5.77 2
7.80912	7.90915	3.00	31.00	2.12 1	-5.75 2	-2.18 1	5.79 2
7.83765	7.91030	4.20	15.00	9.86 1	-6.16 2	-1.00 2	6.20 2
7.85096	7.91494	6.20	8.60	7.99 2	-1.28 3	-8.06 2	1.29 3
7.83839	7.91767	3.70	19.00	5.64 1	-5.88 2	-5.74 1	5.92 2
7.84220	7.91978	3.80	18.00	6.36 1	-5.92 2	-6.47 1	5.96 2
7.85908	7.92263	6.60	8.00	1.49 3	-1.97 3	-1.50 3	1.98 3
7.86258	7.93047	4.80	12.00	1.83 2	-6.88 2	-1.85 2	6.93 2
7.85080	7.93170	3.60	20.00	5.03 1	-5.85 2	-5.12 1	5.89 2
7.82644	7.93675	2.80	37.00	1.52 1	-5.71 2	-1.57 1	5.75 2
7.86325	7.93903	3.90	17.00	7.21 1	-5.98 2	-7.33 1	6.01 2
7.84874	7.93990	3.20	26.00	2.94 1	-5.78 2	-3.01 1	5.82 2
7.81516	7.94137	2.60	46.00	1.02 1	-5.57 2	-1.07 1	5.61 2
7.80511	7.94222	2.50	52.00	8.18 0	-5.43 2	-8.61 0	5.47 2
7.82621	7.94350	2.70	41.00	1.26 1	-5.66 2	-1.31 1	5.70 2
7.85573	7.95029	3.10	28.00	2.54 1	-5.77 2	-2.61 1	5.81 2
7.80430	7.95446	2.40	59.00	6.48 0	-5.21 2	-6.87 0	5.26 2
7.86963	7.95724	3.30	24.00	3.43 1	-5.80 2	-3.50 1	5.83 2
7.89408	7.95749	6.40	8.20	1.13 3	-1.62 3	-1.14 3	1.63 3
7.89458	7.95876	5.80	9.20	5.15 2	-1.00 3	-5.20 2	1.01 3
7.87877	7.96119	3.50	21.00	4.50 1	-5.83 2	-4.59 1	5.87 2
7.89898	7.96355	5.60	9.60	4.18 2	-9.12 2	-4.22 2	9.19 2
7.90755	7.97128	6.00	8.80	6.58 2	-1.15 3	-6.64 2	1.15 3
7.87158	7.97465	2.90	33.00	1.86 1	-5.75 2	-1.91 1	5.79 2
7.90295	7.97683	4.00	16.00	8.23 1	-6.05 2	-8.36 1	6.09 2
7.92032	7.98317	7.00	7.40	2.39 3	-2.59 3	-2.41 3	2.61 3
7.81778	7.98347	2.30	67.00	5.07 0	-4.92 2	-5.43 0	4.96 2
7.84885	7.98380	2.50	51.00	8.41 0	-5.46 2	-8.84 0	5.50 2
7.92051	7.98538	5.40	10.00	3.44 2	-8.40 2	-3.48 2	8.46 2
7.88835	7.98614	3.00	30.00	2.21 1	-5.77 2	-2.27 1	5.81 2
7.86499	7.98906	2.60	45.00	1.05 1	-5.60 2	-1.10 1	5.64 2
7.91987	7.98964	4.40	13.50	1.27 2	-6.39 2	-1.28 2	6.43 2
7.91214	7.99013	3.70	18.50	5.86 1	-5.90 2	-5.97 1	5.94 2
7.84297	7.99092	2.40	58.00	6.64 0	-5.26 2	-7.03 0	5.30 2
7.92646	7.99190	5.20	10.50	2.83 2	-7.82 2	-2.86 2	7.87 2
7.93374	7.99655	6.80	7.60	2.31 3	-2.71 3	-2.33 3	2.73 3
7.92153	7.99779	3.80	17.50	6.63 1	-5.95 2	-6.74 1	5.98 2
7.88294	7.99809	2.70	40.00	1.30 1	-5.68 2	-1.35 1	5.72 2
7.89040	7.99854	2.80	36.00	1.57 1	-5.73 2	-1.63 1	5.77 2
7.91974	7.99937	3.60	19.50	5.21 1	-5.87 2	-5.31 1	5.91 2
7.93842	8.00161	6.20	8.40	8.69 2	-1.35 3	-8.77 2	1.36 3
7.81655	8.00337	2.20	77.00	3.84 0	-4.47 2	-4.17 0	4.51 2
7.92189	8.00576	3.40	22.00	4.04 1	-5.82 2	-4.12 1	5.86 2
7.93957	8.00770	4.60	12.50	1.57 2	-6.65 2	-1.59 2	6.69 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
7.93935	8.01058	4.20	14.50	1.04 2	-6.21 2	-1.06 2	6.25 2
7.85245	8.01584	2.30	66.00	5.19 0	-4.96 2	-5.55 0	5.01 2
7.95626	8.01899	6.60	7.80	1.69 3	-2.16 3	-1.71 3	2.18 3
7.95354	8.01946	5.00	11.00	2.36 2	-7.38 2	-2.38 2	7.43 2
7.80659	8.02209	2.10	89.00	2.80 0	-3.85 2	-3.11 0	3.89 2
7.94909	8.02351	3.90	16.50	7.54 1	-6.01 2	-7.66 1	6.04 2
7.89362	8.02642	2.50	50.00	8.64 0	-5.49 2	-9.07 0	5.54 2
7.88238	8.02814	2.40	57.00	6.81 0	-5.29 2	-7.20 0	5.34 2
7.84793	8.03225	2.20	76.00	3.92 0	-4.52 2	-4.25 0	4.56 2
7.94808	8.03691	3.20	25.00	3.10 1	-5.80 2	-3.17 1	5.84 2
7.97419	8.03763	5.80	9.00	5.50 2	-1.04 3	-5.55 2	1.05 3
7.97390	8.03775	5.60	9.40	4.41 2	-9.35 2	-4.46 2	9.42 2
7.91623	8.03817	2.60	44.00	1.09 1	-5.63 2	-1.13 1	5.67 2
7.94611	8.03838	3.10	27.00	2.67 1	-5.79 2	-2.74 1	5.83 2
7.94525	8.04612	2.90	32.00	1.93 1	-5.77 2	-1.99 1	5.80 2
7.83580	8.04845	2.10	88.00	2.86 0	-3.91 2	-3.17 0	3.94 2
7.88764	8.04874	2.30	65.00	5.31 0	-5.01 2	-5.67 0	5.05 2
7.98806	8.05066	6.40	8.00	1.27 3	-1.75 3	-1.28 3	1.76 3
7.94156	8.05456	2.70	39.00	1.34 1	-5.71 2	-1.39 1	5.74 2
7.99248	8.05544	6.00	8.60	7.10 2	-1.20 3	-7.17 2	1.21 3
7.99130	8.05547	5.40	9.80	3.62 2	-8.58 2	-3.65 2	8.64 2
7.87965	8.06150	2.20	75.00	4.00 0	-4.57 2	-4.34 0	4.61 2
7.95680	8.06277	2.80	35.00	1.63 1	-5.75 2	-1.69 1	5.79 2
7.98006	8.06527	3.30	23.00	3.63 1	-5.82 2	-3.71 1	5.85 2
7.98898	8.06567	3.70	18.00	6.10 1	-5.92 2	-6.21 1	5.96 2
7.92256	8.06614	2.40	56.00	6.98 0	-5.33 2	-7.37 0	5.37 2
7.97138	8.06693	3.00	29.00	2.31 1	-5.79 2	-2.38 1	5.82 2
8.00179	8.06808	4.80	11.50	1.99 2	-7.03 2	-2.01 2	7.08 2
7.99645	8.06895	4.00	15.50	8.65 1	-6.09 2	-8.78 1	6.12 2
7.99139	8.06974	3.60	19.00	5.41 1	-5.89 2	-5.51 1	5.92 2
7.93947	8.07014	2.50	49.00	8.89 0	-5.53 2	-9.32 0	5.57 2
7.86519	8.07503	2.10	87.00	2.92 0	-3.96 2	-3.23 0	4.00 2
8.00440	8.07933	3.80	17.00	6.92 1	-5.97 2	-7.03 1	6.01 2
7.92336	8.08221	2.30	64.00	5.43 0	-5.05 2	-5.79 0	5.10 2
7.96896	8.08877	2.60	43.00	1.12 1	-5.65 2	-1.17 1	5.69 2
8.01067	8.09061	3.50	20.00	4.82 1	-5.86 2	-4.91 1	5.90 2
7.91171	8.09112	2.20	74.00	4.09 0	-4.63 2	-4.43 0	4.67 2
8.02969	8.09169	7.00	7.20	2.20 3	-2.29 3	-2.21 3	2.30 3
8.02944	8.09185	6.20	8.20	9.58 2	-1.44 3	-9.67 2	1.45 3
8.03902	8.10100	6.80	7.40	3.09 3	-3.49 3	-3.11 3	3.52 3
7.89477	8.10185	2.10	86.00	2.99 0	-4.02 2	-3.29 0	4.06 2
7.96355	8.10496	2.40	55.00	7.16 0	-5.37 2	-7.56 0	5.41 2
8.03828	8.10655	4.40	13.00	1.35 2	-6.47 2	-1.37 2	6.51 2
8.03903	8.11209	3.90	16.00	7.91 1	-6.04 2	-8.03 1	6.07 2
8.00219	8.11305	2.70	38.00	1.39 1	-5.73 2	-1.44 1	5.77 2
8.05151	8.11463	5.60	9.20	4.67 2	-9.61 2	-4.72 2	9.67 2
7.98646	8.11500	2.50	48.00	9.14 0	-5.56 2	-9.57 0	5.60 2
7.95966	8.11625	2.30	63.00	5.56 0	-5.10 2	-5.92 0	5.14 2
8.04669	8.11648	4.20	14.00	1.10 2	-6.27 2	-1.12 2	6.30 2
8.05678	8.11948	5.80	8.80	5.89 2	-1.08 3	-5.94 2	1.09 3
8.05776	8.11965	6.60	7.60	1.96 3	-2.40 3	-1.98 3	2.42 3
8.02219	8.12085	2.90	31.00	2.02 1	-5.78 2	-2.08 1	5.82 2
7.94414	8.12114	2.20	73.00	4.18 0	-4.68 2	-4.52 0	4.72 2
8.04623	8.12765	3.40	21.00	4.31 1	-5.85 2	-4.39 1	5.88 2
8.06451	8.12797	5.40	9.60	3.80 2	-8.76 2	-3.84 2	8.82 2
7.92456	8.12890	2.10	85.00	3.05 0	-4.08 2	-3.35 0	4.12 2
8.02581	8.12961	2.80	34.00	1.70 1	-5.77 2	-1.75 1	5.80 2
8.04141	8.13138	3.10	26.00	2.81 1	-5.81 2	-2.88 1	5.84 2
8.07167	8.13825	4.60	12.00	1.69 2	-6.77 2	-1.71 2	6.81 2
8.05336	8.13984	3.20	24.00	3.28 1	-5.82 2	-3.35 1	5.85 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.02328	8.14096	2.60	42.00	1.16 1	-5.68 2	-1.20 1	5.72 2
8.08078	8.14297	6.00	8.40	7.69 2	-1.25 3	-7.75 2	1.26 3
8.06594	8.14302	3.60	18.50	5.63 1	-5.91 2	-5.72 1	5.94 2
8.06914	8.14451	3.70	17.50	6.36 1	-5.94 2	-6.47 1	5.98 2
8.00540	8.14465	2.40	54.00	7.35 0	-5.41 2	-7.74 0	5.45 2
8.08609	8.14788	6.40	7.80	1.43 3	-1.90 3	-1.44 3	1.92 3
7.99655	8.15091	2.30	62.00	5.69 0	-5.14 2	-6.05 0	5.18 2
7.97696	8.15157	2.20	72.00	4.28 0	-4.73 2	-4.61 0	4.77 2
8.05855	8.15184	3.00	28.00	2.43 1	-5.80 2	-2.49 1	5.84 2
7.95457	8.15621	2.10	84.00	3.11 0	-4.13 2	-3.42 0	4.17 2
8.08039	8.15907	3.50	19.50	5.00 1	-5.88 2	-5.09 1	5.91 2
8.09571	8.15944	5.20	10.00	3.15 2	-8.13 2	-3.18 2	8.18 2
8.03467	8.16108	2.50	47.00	9.41 0	-5.59 2	-9.84 0	5.63 2
8.09109	8.16468	3.80	16.50	7.24 1	-6.00 2	-7.35 1	6.03 2
8.09474	8.16584	4.00	15.00	9.10 1	-6.13 2	-9.23 1	6.16 2
8.06497	8.17368	2.70	37.00	1.44 1	-5.75 2	-1.49 1	5.79 2
8.09776	8.18058	3.30	22.00	3.87 1	-5.84 2	-3.94 1	5.87 2
8.01018	8.18242	2.20	71.00	4.37 0	-4.78 2	-4.70 0	4.82 2
7.98481	8.18379	2.10	83.00	3.18 0	-4.19 2	-3.48 0	4.23 2
8.04814	8.18525	2.40	53.00	7.54 0	-5.44 2	-7.94 0	5.48 2
8.03406	8.18621	2.30	61.00	5.83 0	-5.18 2	-6.19 0	5.23 2
8.07929	8.19485	2.60	41.00	1.19 1	-5.70 2	-1.24 1	5.74 2
8.09766	8.19928	2.80	33.00	1.77 1	-5.79 2	-1.82 1	5.82 2
8.08415	8.20845	2.50	46.00	9.69 0	-5.62 2	-1.01 1	5.66 2
8.01530	8.21164	2.10	82.00	3.25 0	-4.25 2	-3.55 0	4.29 2
8.04382	8.21371	2.20	70.00	4.47 0	-4.83 2	-4.80 0	4.87 2
8.07223	8.22217	2.30	60.00	5.97 0	-5.23 2	-6.33 0	5.27 2
8.09184	8.22681	2.40	52.00	7.75 0	-5.48 2	-8.14 0	5.52 2
8.04604	8.23978	2.10	81.00	3.32 0	-4.30 2	-3.62 0	4.34 2
8.07791	8.24547	2.20	69.00	4.57 0	-4.88 2	-4.90 0	4.92 2
8.07704	8.26822	2.10	80.00	3.39 0	-4.36 2	-3.69 0	4.40 2
8.10	8.40						
8.11213	8.17639	5.00	10.50	2.60 2	-7.61 2	-2.62 2	7.66 2
8.12427	8.18589	6.20	8.00	1.06 3	-1.53 3	-1.07 3	1.54 3
8.13196	8.19435	5.60	9.00	4.98 2	-9.92 2	-5.02 2	9.98 2
8.10265	8.19910	2.90	30.00	2.11 1	-5.80 2	-2.17 1	5.84 2
8.14028	8.20302	5.40	9.40	4.01 2	-8.96 2	-4.04 2	9.01 2
8.14257	8.20451	5.80	8.60	6.33 2	-1.12 3	-6.38 2	1.13 3
8.13341	8.20510	3.90	15.50	8.30 1	-6.07 2	-8.42 1	6.11 2
8.14926	8.21041	6.80	7.20	6.40 3	-6.95 3	-6.45 3	7.00 3
8.15110	8.21579	4.80	11.00	2.17 2	-7.21 2	-2.19 2	7.26 2
8.14361	8.21939	3.60	18.00	5.85 1	-5.92 2	-5.95 1	5.96 2
8.16391	8.22498	6.60	7.40	2.51 3	-2.96 3	-2.53 3	2.98 3
8.15286	8.22692	3.70	17.00	6.64 1	-5.97 2	-6.75 1	6.00 2
8.16022	8.22856	4.20	13.50	1.17 2	-6.33 2	-1.19 2	6.37 2
8.14213	8.22980	3.10	25.00	2.96 1	-5.82 2	-3.03 1	5.86 2
8.15285	8.23027	3.50	19.00	5.19 1	-5.89 2	-5.28 1	5.93 2
8.16734	8.23038	5.20	9.80	3.30 2	-8.29 2	-3.34 2	8.34 2
8.16412	8.23089	4.40	12.50	1.45 2	-6.56 2	-1.46 2	6.60 2
8.17267	8.23409	6.00	8.20	8.41 2	-1.32 3	-8.48 2	1.33 3
8.13005	8.23663	2.70	36.00	1.50 1	-5.77 2	-1.55 1	5.81 2
8.15025	8.24128	3.00	27.00	2.55 1	-5.82 2	-2.61 1	5.85 2
8.16523	8.24935	3.20	23.00	3.48 1	-5.84 2	-3.55 1	5.87 2
8.18847	8.24943	6.40	7.60	1.63 3	-2.10 3	-1.65 3	2.11 3
8.13709	8.25053	2.60	40.00	1.23 1	-5.73 2	-1.28 1	5.76 2
8.18191	8.25415	3.80	16.00	7.59 1	-6.03 2	-7.70 1	6.06 2
8.13499	8.25717	2.50	45.00	9.99 0	-5.65 2	-1.04 1	5.68 2
8.17971	8.25866	3.40	20.00	4.62 1	-5.87 2	-4.70 1	5.91 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.11108	8.25883	2.30	59.00	6.12 0	-5.27 2	-6.48 0	5.31 2
8.19826	8.26796	4.00	14.50	9.60 1	-6.17 2	-9.73 1	6.21 2
8.13652	8.26937	2.40	51.00	7.96 0	-5.51 2	-8.35 0	5.55 2
8.17255	8.27199	2.80	32.00	1.84 1	-5.80 2	-1.90 1	5.84 2
8.21543	8.27708	5.60	8.80	5.31 2	-1.02 3	-5.36 2	1.03 3
8.11245	8.27770	2.20	68.00	4.67 0	-4.92 2	-5.00 0	4.96 2
8.21288	8.27789	4.60	11.50	1.83 2	-6.90 2	-1.85 2	6.94 2
8.21875	8.28078	5.40	9.20	4.23 2	-9.17 2	-4.27 2	9.23 2
8.18697	8.28120	2.90	29.00	2.21 1	-5.82 2	-2.26 1	5.85 2
8.22320	8.28401	6.20	7.80	1.17 3	-1.63 3	-1.18 3	1.64 3
8.23175	8.29293	5.80	8.40	6.81 2	-1.17 3	-6.87 2	1.17 3
8.15065	8.29623	2.30	58.00	6.27 0	-5.31 2	-6.63 0	5.35 2
8.10834	8.29697	2.10	79.00	3.46 0	-4.41 2	-3.76 0	4.45 2
8.22462	8.29911	3.60	17.50	6.10 1	-5.95 2	-6.20 1	5.98 2
8.19761	8.30204	2.70	35.00	1.55 1	-5.79 2	-1.60 1	5.82 2
8.23262	8.30293	3.90	15.00	8.74 1	-6.11 2	-8.86 1	6.15 2
8.24142	8.30376	5.20	9.60	3.46 2	-8.44 2	-3.50 2	8.50 2
8.22365	8.30404	3.30	21.00	4.12 1	-5.86 2	-4.20 1	5.89 2
8.22824	8.30439	3.50	18.50	5.39 1	-5.91 2	-5.48 1	5.94 2
8.18726	8.30733	2.50	44.00	1.03 1	-5.67 2	-1.07 1	5.71 2
8.19680	8.30812	2.60	39.00	1.28 1	-5.75 2	-1.32 1	5.79 2
8.14748	8.31044	2.20	67.00	4.78 0	-4.97 2	-5.11 0	5.01 2
8.18225	8.31298	2.40	50.00	8.18 0	-5.55 2	-8.57 0	5.58 2
8.24043	8.31317	3.70	16.50	6.95 1	-5.99 2	-7.05 1	6.03 2
8.26487	8.32520	6.80	7.00	-2.91 3	3.03 3	2.93 3	-3.05 3
8.13992	8.32605	2.10	78.00	3.53 0	-4.47 2	-3.83 0	4.51 2
8.25024	8.32795	3.40	19.50	4.79 1	-5.89 2	-4.87 1	5.92 2
8.26841	8.32905	6.00	8.00	9.21 2	-1.40 3	-9.29 2	1.41 3
8.24886	8.33420	3.10	24.00	3.13 1	-5.84 2	-3.20 1	5.87 2
8.19097	8.33438	2.30	57.00	6.43 0	-5.35 2	-6.79 0	5.39 2
8.27506	8.33530	6.60	7.20	3.78 3	-4.29 3	-3.81 3	4.32 3
8.24694	8.33570	3.00	26.00	2.68 1	-5.83 2	-2.74 1	5.87 2
8.18302	8.34371	2.20	66.00	4.89 0	-5.02 2	-5.22 0	5.06 2
8.28351	8.34607	5.00	10.00	2.88 2	-7.89 2	-2.91 2	7.93 2
8.28057	8.34743	4.20	13.00	1.25 2	-6.40 2	-1.26 2	6.44 2
8.25074	8.34800	2.80	31.00	1.92 1	-5.82 2	-1.98 1	5.85 2
8.27722	8.34810	3.80	15.50	7.97 1	-6.06 2	-8.08 1	6.10 2
8.17182	8.35546	2.10	77.00	3.61 0	-4.52 2	-3.91 0	4.56 2
8.29554	8.35569	6.40	7.40	2.00 3	-2.47 3	-2.01 3	2.48 3
8.22909	8.35770	2.40	49.00	8.41 0	-5.58 2	-8.80 0	5.62 2
8.24104	8.35902	2.50	43.00	1.06 1	-5.70 2	-1.10 1	5.74 2
8.30009	8.36140	5.40	9.00	4.49 2	-9.43 2	-4.53 2	9.49 2
8.30212	8.36303	5.60	8.60	5.68 2	-1.06 3	-5.73 2	1.07 3
8.29824	8.36348	4.40	12.00	1.56 2	-6.66 2	-1.57 2	6.70 2
8.28447	8.36621	3.20	22.00	3.70 1	-5.86 2	-3.77 1	5.89 2
8.27548	8.36748	2.90	28.00	2.31 1	-5.83 2	-2.37 1	5.87 2
8.25856	8.36777	2.60	38.00	1.32 1	-5.77 2	-1.37 1	5.81 2
8.26783	8.37012	2.70	34.00	1.62 1	-5.81 2	-1.67 1	5.84 2
8.23208	8.37334	2.30	56.00	6.59 0	-5.39 2	-6.95 0	5.43 2
8.31180	8.37485	4.80	10.50	2.38 2	-7.42 2	-2.40 2	7.46 2
8.16089	8.37547	2.00	90.00	2.58 0	-3.84 2	-2.85 0	3.87 2
8.30750	8.37579	4.00	14.00	1.02 2	-6.22 2	-1.03 2	6.26 2
8.21908	8.37752	2.20	65.00	5.00 0	-5.06 2	-5.33 0	5.10 2
8.31807	8.37971	5.20	9.40	3.64 2	-8.62 2	-3.68 2	8.67 2
8.30677	8.38164	3.50	18.00	5.61 1	-5.93 2	-5.70 1	5.96 2
8.30923	8.38241	3.60	17.00	6.37 1	-5.97 2	-6.47 1	6.00 2
8.32456	8.38498	5.80	8.20	7.40 2	-1.23 3	-7.46 2	1.23 3
8.20405	8.38523	2.10	76.00	3.69 0	-4.57 2	-3.99 0	4.61 2
8.32650	8.38650	6.20	7.60	1.30 3	-1.75 3	-1.31 3	1.76 3
8.32355	8.40000	3.40	19.00	4.97 1	-5.90 2	-5.05 1	5.93 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.19078	8.40251	2.00	89.00	2.63 0	-3.90 2	-2.91 0	3.93 2
8.33218	8.40357	3.70	16.00	7.28 1	-6.02 2	-7.38 1	6.06 2
8.27709	8.40360	2.40	48.00	8.65 0	-5.61 2	-9.04 0	5.65 2
8.33711	8.40603	3.90	14.50	9.21 1	-6.15 2	-9.33 1	6.19 2
8.25570	8.41191	2.20	64.00	5.12 0	-5.11 2	-5.45 0	5.15 2
8.29644	8.41232	2.50	42.00	1.10 1	-5.73 2	-1.14 1	5.76 2
8.27402	8.41314	2.30	55.00	6.76 0	-5.42 2	-7.12 0	5.46 2
8.23662	8.41537	2.10	75.00	3.77 0	-4.63 2	-4.07 0	4.67 2
8.35603	8.41791	5.00	9.80	3.01 2	-8.02 2	-3.04 2	8.07 2
8.33252	8.42759	2.80	30.00	2.01 1	-5.84 2	-2.06 1	5.87 2
8.36431	8.42773	4.60	11.00	1.99 2	-7.06 2	-2.01 2	7.10 2
8.36827	8.42811	6.00	7.80	1.01 3	-1.48 3	-1.02 3	1.49 3
8.32250	8.42959	2.60	37.00	1.37 1	-5.79 2	-1.42 1	5.83 2
8.22084	8.42976	2.00	88.00	2.69 0	-3.95 2	-2.96 0	3.99 2
8.34912	8.43559	3.00	25.00	2.83 1	-5.85 2	-2.89 1	5.88 2
8.35875	8.43670	3.30	20.00	4.42 1	-5.88 2	-4.50 1	5.92 2
8.34092	8.44105	2.70	33.00	1.68 1	-5.82 2	-1.73 1	5.86 2
8.38448	8.44507	5.40	8.80	4.77 2	-9.71 2	-4.81 2	9.77 2
8.36226	8.44526	3.10	23.00	3.32 1	-5.86 2	-3.39 1	5.89 2
8.26955	8.44589	2.10	74.00	3.85 0	-4.68 2	-4.15 0	4.72 2
8.29290	8.44689	2.20	63.00	5.24 0	-5.15 2	-5.57 0	5.19 2
8.37739	8.44690	3.80	15.00	8.38 1	-6.10 2	-8.49 1	6.13 2
8.32632	8.45074	2.40	47.00	8.91 0	-5.64 2	-9.30 0	5.68 2
8.39162	8.45103	6.60	7.00	1.40 4	-1.52 4	-1.41 4	1.53 4
8.39223	8.45239	5.60	8.40	6.10 2	-1.10 3	-6.15 2	1.11 3
8.31683	8.45382	2.30	54.00	6.94 0	-5.46 2	-7.30 0	5.50 2
8.25109	8.45724	2.00	87.00	2.74 0	-4.01 2	-3.02 0	4.05 2
8.36858	8.45835	2.90	27.00	2.43 1	-5.85 2	-2.49 1	5.88 2
8.39746	8.45838	5.20	9.20	3.84 2	-8.81 2	-3.87 2	8.86 2
8.38868	8.46226	3.50	17.50	5.84 1	-5.95 2	-5.94 1	5.98 2
8.35356	8.46734	2.50	41.00	1.13 1	-5.75 2	-1.17 1	5.79 2
8.39773	8.46960	3.60	16.50	6.66 1	-5.99 2	-6.75 1	6.02 2
8.39981	8.47501	3.40	18.50	5.16 1	-5.92 2	-5.25 1	5.95 2
8.30286	8.47682	2.10	73.00	3.93 0	-4.73 2	-4.23 0	4.77 2
8.33071	8.48249	2.20	62.00	5.37 0	-5.20 2	-5.69 0	5.24 2
8.28154	8.48496	2.00	86.00	2.80 0	-4.07 2	-3.07 0	4.11 2
8.38879	8.49376	2.60	36.00	1.42 1	-5.81 2	-1.47 1	5.85 2
8.36055	8.49543	2.30	53.00	7.13 0	-5.50 2	-7.48 0	5.54 2
8.37686	8.49918	2.40	46.00	9.17 0	-5.67 2	-9.56 0	5.71 2
8.33655	8.50816	2.10	72.00	4.02 0	-4.78 2	-4.32 0	4.82 2
8.31220	8.51292	2.00	85.00	2.86 0	-4.13 2	-3.13 0	4.17 2
8.36915	8.51874	2.20	61.00	5.49 0	-5.24 2	-5.82 0	5.28 2
8.37067	8.53993	2.10	71.00	4.11 0	-4.83 2	-4.41 0	4.87 2
8.34308	8.54115	2.00	84.00	2.92 0	-4.19 2	-3.19 0	4.22 2
8.37420	8.56964	2.00	83.00	2.98 0	-4.24 2	-3.25 0	4.28 2
8.36915	8.58176	1.95	90.00	2.49 0	-3.86 2	-2.75 0	3.90 2
8.39949	8.60927	1.95	89.00	2.55 0	-3.92 2	-2.80 0	3.96 2
8.40	8.80						
8.40764	8.46697	6.40	7.20	2.63 3	-3.13 3	-2.65 3	3.15 3
8.40847	8.47385	4.20	12.50	1.33 2	-6.48 2	-1.35 2	6.52 2
8.42125	8.48089	5.80	8.00	8.05 2	-1.29 3	-8.12 2	1.29 3
8.42303	8.48988	4.00	13.50	1.08 2	-6.28 2	-1.09 2	6.31 2
8.41197	8.49132	3.20	21.00	3.94 1	-5.88 2	-4.02 1	5.91 2
8.43101	8.49221	5.00	9.60	3.16 2	-8.16 2	-3.19 2	8.20 2
8.43453	8.49371	6.20	7.40	1.50 3	-1.94 3	-1.51 3	1.95 3
8.42843	8.49849	3.70	15.50	7.64 1	-6.05 2	-7.74 1	6.09 2
8.44158	8.50527	4.40	11.50	1.68 2	-6.78 2	-1.70 2	6.82 2
8.43015	8.50687	3.30	19.50	4.58 1	-5.90 2	-4.66 1	5.93 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.41820	8.51107	2.80	29.00	2.10 1	-5.85 2	-2.15 1	5.88 2
8.44736	8.51487	3.90	14.00	9.74 1	-6.20 2	-9.86 1	6.23 2
8.41710	8.51508	2.70	32.00	1.75 1	-5.84 2	-1.80 1	5.88 2
8.41250	8.52418	2.50	40.00	1.17 1	-5.77 2	-1.21 1	5.81 2
8.47254	8.53158	6.00	7.60	1.12 3	-1.59 3	-1.13 3	1.60 3
8.47212	8.53197	5.40	8.60	5.09 2	-1.00 3	-5.13 2	1.01 3
8.40524	8.53801	2.30	52.00	7.32 0	-5.53 2	-7.67 0	5.57 2
8.47974	8.53996	5.20	9.00	4.06 2	-9.03 2	-4.10 2	9.08 2
8.45737	8.54155	3.00	24.00	2.99 1	-5.86 2	-3.05 1	5.90 2
8.48600	8.54541	5.60	8.20	6.60 2	-1.15 3	-6.65 2	1.16 3
8.47422	8.54651	3.50	17.00	6.10 1	-5.97 2	-6.19 1	6.00 2
8.48543	8.54680	4.80	10.00	2.63 2	-7.66 2	-2.66 2	7.70 2
8.42877	8.54901	2.40	45.00	9.45 0	-5.70 2	-9.84 0	5.73 2
8.48287	8.55101	3.80	14.50	8.83 1	-6.14 2	-8.95 1	6.17 2
8.47925	8.55318	3.40	18.00	5.37 1	-5.93 2	-5.45 1	5.96 2
8.46673	8.55425	2.90	26.00	2.56 1	-5.86 2	-2.61 1	5.89 2
8.40826	8.55568	2.20	60.00	5.63 0	-5.28 2	-5.95 0	5.32 2
8.45759	8.56044	2.60	35.00	1.48 1	-5.83 2	-1.52 1	5.87 2
8.49043	8.56098	3.60	16.00	6.97 1	-6.02 2	-7.07 1	6.05 2
8.48310	8.56376	3.10	22.00	3.53 1	-5.87 2	-3.60 1	5.91 2
8.50861	8.56911	5.00	9.40	3.31 2	-8.31 2	-3.34 2	8.36 2
8.40521	8.57216	2.10	70.00	4.20 0	-4.88 2	-4.50 0	4.92 2
8.51403	8.57256	6.60	6.80	1.14 4	-1.19 4	-1.14 4	1.19 4
8.50434	8.57982	3.30	19.00	4.75 1	-5.91 2	-4.83 1	5.94 2
8.52208	8.58094	5.80	7.80	8.80 2	-1.36 3	-8.86 2	1.36 3
8.45094	8.58161	2.30	51.00	7.52 0	-5.57 2	-7.87 0	5.60 2
8.47338	8.58298	2.50	39.00	1.21 1	-5.80 2	-1.25 1	5.83 2
8.52519	8.58369	6.40	7.00	4.08 3	-4.65 3	-4.11 3	4.68 3
8.52726	8.58906	4.60	10.50	2.18 2	-7.24 2	-2.20 2	7.28 2
8.49663	8.59246	2.70	31.00	1.83 1	-5.86 2	-1.88 1	5.89 2
8.44806	8.59333	2.20	59.00	5.77 0	-5.33 2	-6.09 0	5.36 2
8.52961	8.59830	3.70	15.00	8.03 1	-6.09 2	-8.13 1	6.12 2
8.40557	8.59841	2.00	82.00	3.04 0	-4.30 2	-3.32 0	4.34 2
8.50813	8.59880	2.80	28.00	2.20 1	-5.87 2	-2.26 1	5.90 2
8.48214	8.60030	2.40	44.00	9.74 0	-5.73 2	-1.01 1	5.76 2
8.44020	8.60486	2.10	69.00	4.30 0	-4.93 2	-4.59 0	4.97 2
8.54763	8.60600	6.20	7.20	1.75 3	-2.18 3	-1.76 3	2.19 3
8.54474	8.60862	4.20	12.00	1.43 2	-6.58 2	-1.45 2	6.61 2
8.54547	8.61088	4.00	13.00	1.15 2	-6.34 2	-1.16 2	6.37 2
8.55889	8.61960	4.80	9.80	2.75 2	-7.78 2	-2.77 2	7.82 2
8.56321	8.62232	5.40	8.40	5.43 2	-1.04 3	-5.48 2	1.04 3
8.56510	8.62461	5.20	8.80	4.30 2	-9.27 2	-4.34 2	9.32 2
8.54880	8.62572	3.20	20.00	4.22 1	-5.90 2	-4.29 1	5.93 2
8.49771	8.62629	2.30	50.00	7.72 0	-5.60 2	-8.08 0	5.64 2
8.43720	8.62748	2.00	81.00	3.11 0	-4.36 2	-3.38 0	4.40 2
8.52909	8.62982	2.60	34.00	1.53 1	-5.85 2	-1.58 1	5.88 2
8.56393	8.63003	3.90	13.50	1.03 2	-6.25 2	-1.05 2	6.29 2
8.48860	8.63172	2.20	58.00	5.91 0	-5.37 2	-6.24 0	5.40 2
8.56368	8.63467	3.50	16.50	6.37 1	-5.99 2	-6.46 1	6.02 2
8.56209	8.63476	3.40	17.50	5.59 1	-5.95 2	-5.68 1	5.98 2
8.43001	8.63700	1.95	88.00	2.60 0	-3.98 2	-2.86 0	4.02 2
8.47567	8.63805	2.10	68.00	4.39 0	-4.98 2	-4.69 0	5.02 2
8.58156	8.63980	6.00	7.40	1.28 3	-1.73 3	-1.28 3	1.74 3
8.58368	8.64232	5.60	8.00	7.15 2	-1.20 3	-7.21 2	1.21 3
8.53634	8.64385	2.50	38.00	1.25 1	-5.82 2	-1.30 1	5.85 2
8.58896	8.64876	5.00	9.20	3.48 2	-8.47 2	-3.51 2	8.52 2
8.53705	8.65314	2.40	43.00	1.00 1	-5.75 2	-1.04 1	5.79 2
8.57237	8.65424	3.00	23.00	3.17 1	-5.88 2	-3.23 1	5.91 2
8.57045	8.65570	2.90	25.00	2.69 1	-5.88 2	-2.75 1	5.91 2
8.58152	8.65575	3.30	18.50	4.93 1	-5.93 2	-5.01 1	5.96 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.46910	8.65686	2.00	80.00	3.18 0	-4.41 2	-3.45 0	4.45 2
8.58769	8.65691	3.60	15.50	7.31 1	-6.05 2	-7.41 1	6.08 2
8.59526	8.65739	4.40	11.00	1.82 2	-6.92 2	-1.84 2	6.96 2
8.59417	8.66091	3.80	14.00	9.33 1	-6.18 2	-9.45 1	6.21 2
8.46072	8.66497	1.95	87.00	2.65 0	-4.04 2	-2.91 0	4.08 2
8.52991	8.67089	2.20	57.00	6.06 0	-5.41 2	-6.38 0	5.44 2
8.51163	8.67175	2.10	67.00	4.49 0	-5.03 2	-4.79 0	5.07 2
8.54561	8.67210	2.30	49.00	7.94 0	-5.63 2	-8.30 0	5.67 2
8.57980	8.67346	2.70	30.00	1.91 1	-5.87 2	-1.96 1	5.91 2
8.62737	8.68543	5.80	7.60	9.68 2	-1.44 3	-9.75 2	1.45 3
8.50130	8.68655	2.00	79.00	3.24 0	-4.47 2	-3.51 0	4.51 2
8.61230	8.69059	3.10	21.00	3.76 1	-5.89 2	-3.83 1	5.92 2
8.60271	8.69118	2.80	27.00	2.31 1	-5.88 2	-2.37 1	5.91 2
8.49163	8.69317	1.95	86.00	2.71 0	-4.10 2	-2.97 0	4.14 2
8.63484	8.69487	4.80	9.60	2.87 2	-7.90 2	-2.90 2	7.94 2
8.62109	8.69680	3.20	19.50	4.37 1	-5.91 2	-4.45 1	5.94 2
8.60350	8.70211	2.60	33.00	1.60 1	-5.87 2	-1.64 1	5.90 2
8.63613	8.70346	3.70	14.50	8.46 1	-6.13 2	-8.57 1	6.16 2
8.54811	8.70599	2.10	66.00	4.60 0	-5.08 2	-4.89 0	5.12 2
8.64863	8.70626	6.40	6.80	4.69 3	-5.13 3	-4.72 3	5.16 3
8.60153	8.70694	2.50	37.00	1.30 1	-5.84 2	-1.34 1	5.87 2
8.59361	8.70762	2.40	42.00	1.04 1	-5.78 2	-1.08 1	5.81 2
8.57202	8.71088	2.20	56.00	6.21 0	-5.44 2	-6.54 0	5.48 2
8.65374	8.71252	5.20	8.60	4.57 2	-9.53 2	-4.61 2	9.59 2
8.65799	8.71636	5.40	8.20	5.84 2	-1.08 3	-5.89 2	1.08 3
8.53380	8.71657	2.00	78.00	3.31 0	-4.52 2	-3.58 0	4.56 2
8.59469	8.71911	2.30	48.00	8.17 0	-5.66 2	-8.52 0	5.70 2
8.64860	8.71999	3.40	17.00	5.83 1	-5.97 2	-5.92 1	6.00 2
8.52276	8.72162	1.95	85.00	2.77 0	-4.16 2	-3.02 0	4.19 2
8.66621	8.72375	6.20	7.00	2.04 3	-2.44 3	-2.06 3	2.46 3
8.65739	8.72707	3.50	16.00	6.67 1	-6.02 2	-6.76 1	6.05 2
8.67224	8.73135	5.00	9.00	3.67 2	-8.66 2	-3.71 2	8.71 2
8.66190	8.73488	3.30	18.00	5.13 1	-5.94 2	-5.21 1	5.97 2
8.67557	8.73951	4.00	12.50	1.22 2	-6.41 2	-1.24 2	6.45 2
8.58512	8.74079	2.10	65.00	4.70 0	-5.12 2	-5.00 0	5.16 2
8.68554	8.74341	5.60	7.80	7.78 2	-1.26 3	-7.84 2	1.27 3
8.56662	8.74695	2.00	77.00	3.38 0	-4.58 2	-3.65 0	4.62 2
8.55411	8.75033	1.95	84.00	2.82 0	-4.22 2	-3.08 0	4.25 2
8.61498	8.75173	2.20	55.00	6.37 0	-5.48 2	-6.70 0	5.52 2
8.68748	8.75215	3.90	13.00	1.10 2	-6.31 2	-1.11 2	6.35 2
8.69036	8.75271	4.20	11.50	1.54 2	-6.68 2	-1.56 2	6.72 2
8.69570	8.75313	6.00	7.20	1.47 3	-1.92 3	-1.48 3	1.93 3
8.68990	8.75777	3.60	15.00	7.68 1	-6.08 2	-7.78 1	6.11 2
8.66692	8.75841	2.70	29.00	2.00 1	-5.89 2	-2.05 1	5.92 2
8.68031	8.76329	2.90	24.00	2.85 1	-5.89 2	-2.90 1	5.92 2
8.70327	8.76343	4.60	10.00	2.40 2	-7.45 2	-2.42 2	7.49 2
8.65191	8.76385	2.40	41.00	1.07 1	-5.80 2	-1.11 1	5.84 2
8.64503	8.76738	2.30	47.00	8.41 0	-5.70 2	-8.76 0	5.73 2
8.69621	8.77069	3.20	19.00	4.54 1	-5.92 2	-4.61 1	5.95 2
8.66910	8.77242	2.50	36.00	1.35 1	-5.86 2	-1.39 1	5.89 2
8.71343	8.77278	4.80	9.40	3.01 2	-8.03 2	-3.04 2	8.07 2
8.69491	8.77445	3.00	22.00	3.37 1	-5.90 2	-3.43 1	5.93 2
8.62271	8.77617	2.10	64.00	4.81 0	-5.17 2	-5.11 0	5.21 2
8.71184	8.77718	3.80	13.50	9.89 1	-6.23 2	-1.00 2	6.26 2
8.68105	8.77753	2.60	32.00	1.66 1	-5.88 2	-1.71 1	5.92 2
8.59977	8.77768	2.00	76.00	3.46 0	-4.63 2	-3.73 0	4.67 2
8.58570	8.77931	1.95	83.00	2.88 0	-4.27 2	-3.14 0	4.31 2
8.70241	8.78866	2.80	26.00	2.43 1	-5.89 2	-2.48 1	5.92 2
8.65883	8.79348	2.20	54.00	6.54 0	-5.52 2	-6.86 0	5.56 2
8.73744	8.79472	5.80	7.40	1.08 3	-1.55 3	-1.09 3	1.56 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.58982	8.80040	1.90	90.00	2.41 0	-3.89 2	-2.65 0	3.92 2
8.74586	8.80391	5.20	8.40	4.87 2	-9.81 2	-4.91 2	9.87 2
8.61754	8.80858	1.95	82.00	2.94 0	-4.33 2	-3.20 0	4.37 2
8.63328	8.80879	2.00	75.00	3.53 0	-4.69 2	-3.80 0	4.72 2
8.73907	8.80917	3.40	16.50	6.09 1	-5.99 2	-6.18 1	6.02 2
8.66089	8.81216	2.10	63.00	4.92 0	-5.21 2	-5.22 0	5.25 2
8.75671	8.81433	5.40	8.00	6.30 2	-1.12 3	-6.35 2	1.13 3
8.74852	8.81447	3.70	14.00	8.93 1	-6.17 2	-9.04 1	6.20 2
8.69669	8.81698	2.30	46.00	8.66 0	-5.72 2	-9.01 0	5.76 2
8.75863	8.81703	5.00	8.80	3.88 2	-8.87 2	-3.91 2	8.92 2
8.74573	8.81745	3.30	17.50	5.34 1	-5.96 2	-5.42 1	5.99 2
8.76060	8.82114	4.40	10.50	1.99 2	-7.08 2	-2.01 2	7.12 2
8.71207	8.82195	2.40	40.00	1.11 1	-5.83 2	-1.15 1	5.86 2
8.75569	8.82405	3.50	15.50	6.99 1	-6.04 2	-7.09 1	6.07 2
8.75094	8.82683	3.10	20.00	4.03 1	-5.91 2	-4.10 1	5.94 2
8.62064	8.82842	1.90	89.00	2.46 0	-3.95 2	-2.70 0	3.98 2
8.77846	8.83523	6.40	6.60	5.10 3	-5.34 3	-5.14 3	5.37 3
8.70361	8.83618	2.20	53.00	6.71 0	-5.56 2	-7.03 0	5.59 2
8.77773	8.83724	4.60	9.80	2.50 2	-7.55 2	-2.53 2	7.59 2
8.64965	8.83815	1.95	81.00	3.01 0	-4.39 2	-3.26 0	4.42 2
8.66715	8.84029	2.00	74.00	3.61 0	-4.74 2	-3.88 0	4.78 2
8.73921	8.84045	2.50	35.00	1.40 1	-5.88 2	-1.44 1	5.91 2
8.79072	8.84740	6.20	6.80	1.97 3	-2.25 3	-1.98 3	2.27 3
8.77435	8.84760	3.20	18.50	4.71 1	-5.94 2	-4.79 1	5.97 2
8.75836	8.84767	2.70	28.00	2.09 1	-5.90 2	-2.14 1	5.93 2
8.69968	8.84879	2.10	62.00	5.04 0	-5.26 2	-5.34 0	5.30 2
8.79189	8.84898	5.60	7.60	8.54 2	-1.33 3	-8.60 2	1.34 3
8.79481	8.85347	4.80	9.20	3.16 2	-8.17 2	-3.18 2	8.21 2
8.76200	8.85636	2.60	31.00	1.73 1	-5.90 2	-1.78 1	5.93 2
8.65164	8.85666	1.90	88.00	2.51 0	-4.01 2	-2.76 0	4.04 2
8.79752	8.86403	3.60	14.50	8.09 1	-6.11 2	-8.19 1	6.14 2
8.74976	8.86799	2.30	45.00	8.92 0	-5.75 2	-9.27 0	5.79 2
8.68204	8.86802	1.95	80.00	3.07 0	-4.44 2	-3.33 0	4.48 2
8.70140	8.87220	2.00	73.00	3.69 0	-4.79 2	-3.95 0	4.83 2
8.79701	8.87771	2.90	23.00	3.02 1	-5.91 2	-3.07 1	5.94 2
8.74937	8.87986	2.20	52.00	6.89 0	-5.59 2	-7.21 0	5.63 2
8.77421	8.88202	2.40	39.00	1.14 1	-5.85 2	-1.18 1	5.88 2
8.68283	8.88512	1.90	87.00	2.56 0	-4.07 2	-2.81 0	4.10 2
8.73913	8.88608	2.10	61.00	5.16 0	-5.30 2	-5.46 0	5.34 2
8.71472	8.89822	1.95	79.00	3.14 0	-4.50 2	-3.39 0	4.54 2
8.73606	8.90453	2.00	72.00	3.77 0	-4.84 2	-4.04 0	4.88 2
8.71423	8.91383	1.90	86.00	2.62 0	-4.13 2	-2.86 0	4.16 2
8.77926	8.92407	2.10	60.00	5.29 0	-5.35 2	-5.58 0	5.38 2
8.79617	8.92459	2.20	51.00	7.08 0	-5.63 2	-7.40 0	5.66 2
8.74770	8.92875	1.95	78.00	3.20 0	-4.55 2	-3.46 0	4.59 2
8.77115	8.93731	2.00	71.00	3.85 0	-4.90 2	-4.12 0	4.93 2
8.74584	8.94279	1.90	85.00	2.67 0	-4.19 2	-2.92 0	4.22 2
8.78101	8.95963	1.95	77.00	3.27 0	-4.61 2	-3.53 0	4.65 2
8.77769	8.97201	1.90	84.00	2.73 0	-4.24 2	-2.97 0	4.28 2
8.80	9.20						
8.81536	8.87197	6.00	7.00	1.70 3	-2.13 3	-1.71 3	2.14 3
8.81415	8.87663	4.00	12.00	1.31 2	-6.49 2	-1.33 2	6.54 2
8.81874	8.88196	3.90	12.50	1.17 2	-6.38 2	-1.18 2	6.41 2
8.80775	8.89176	2.80	25.00	2.56 1	-5.91 2	-2.62 1	5.94 2
8.82418	8.89886	3.10	19.50	4.17 1	-5.93 2	-4.24 1	5.95 2
8.84171	8.89903	5.20	8.20	5.22 2	-1.02 3	-5.26 2	1.02 3
8.83654	8.90046	3.80	13.00	1.05 2	-6.29 2	-1.06 2	6.32 2
8.83382	8.90262	3.40	16.00	6.38 1	-6.01 2	-6.46 1	6.04 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.82591	8.90310	3.00	21.00	3.59 1	-5.91 2	-3.65 1	5.94 2
8.83326	8.90371	3.30	17.00	5.57 1	-5.97 2	-5.65 1	6.00 2
8.84832	8.90601	5.00	8.60	4.11 2	-9.09 2	-4.15 2	9.14 2
8.84645	8.90727	4.20	11.00	1.67 2	-6.80 2	-1.69 2	6.84 2
8.85267	8.90915	5.80	7.20	1.23 3	-1.68 3	-1.23 3	1.69 3
8.81208	8.91122	2.50	34.00	1.45 1	-5.90 2	-1.49 1	5.93 2
8.85472	8.91355	4.60	9.60	2.61 2	-7.66 2	-2.64 2	7.70 2
8.85966	8.91651	5.40	7.80	6.81 2	-1.17 3	-6.86 2	1.17 3
8.80431	8.92049	2.30	44.00	9.19 0	-5.78 2	-9.54 0	5.82 2
8.85899	8.92602	3.50	15.00	7.35 1	-6.07 2	-7.44 1	6.10 2
8.85572	8.92774	3.20	18.00	4.90 1	-5.95 2	-4.97 1	5.98 2
8.86733	8.93189	3.70	13.50	9.46 1	-6.21 2	-9.57 1	6.24 2
8.87914	8.93711	4.80	9.00	3.32 2	-8.34 2	-3.35 2	8.38 2
8.84665	8.93886	2.60	30.00	1.81 1	-5.91 2	-1.86 1	5.95 2
8.85451	8.94164	2.70	27.00	2.20 1	-5.92 2	-2.24 1	5.95 2
8.83846	8.94421	2.40	38.00	1.18 1	-5.87 2	-1.22 1	5.90 2
8.90306	8.95938	5.60	7.40	9.50 2	-1.43 3	-9.57 2	1.44 3
8.82010	8.96278	2.10	59.00	5.42 0	-5.39 2	-5.71 0	5.42 2
8.84406	8.97042	2.20	50.00	7.27 0	-5.66 2	-7.60 0	5.70 2
8.80667	8.97055	2.00	70.00	3.94 0	-4.95 2	-4.20 0	4.98 2
8.90027	8.97374	3.10	19.00	4.33 1	-5.94 2	-4.40 1	5.97 2
8.86043	8.97457	2.30	43.00	9.48 0	-5.81 2	-9.83 0	5.84 2
8.91104	8.97619	3.60	14.00	8.54 1	-6.15 2	-8.65 1	6.18 2
8.92167	8.97747	6.20	6.60	1.51 3	-1.65 3	-1.52 3	1.66 3
8.88790	8.98494	2.50	33.00	1.51 1	-5.91 2	-1.55 1	5.95 2
8.81466	8.99088	1.95	76.00	3.34 0	-4.66 2	-3.60 0	4.70 2
8.93436	8.99252	4.60	9.40	2.73 2	-7.77 2	-2.76 2	7.81 2
8.92478	8.99396	3.30	16.50	5.82 1	-5.99 2	-5.90 1	6.02 2
8.94100	8.99676	6.00	6.80	1.81 3	-2.18 3	-1.82 3	2.19 3
8.93916	8.99808	4.40	10.00	2.19 2	-7.27 2	-2.21 2	7.30 2
8.94153	8.99811	5.20	8.00	5.60 2	-1.05 3	-5.64 2	1.06 3
8.94153	8.99850	5.00	8.40	4.37 2	-9.34 2	-4.40 2	9.39 2
8.92133	8.99973	2.90	22.00	3.20 1	-5.92 2	-3.26 1	5.95 2
8.93321	9.00071	3.40	15.50	6.68 1	-6.04 2	-6.77 1	6.07 2
8.91931	9.00108	2.80	24.00	2.71 1	-5.92 2	-2.76 1	5.95 2
8.80977	9.00151	1.90	83.00	2.79 0	-4.30 2	-3.03 0	4.34 2
8.86170	9.00226	2.10	58.00	5.55 0	-5.43 2	-5.84 0	5.46 2
8.84265	9.00428	2.00	69.00	4.02 0	-5.00 2	-4.29 0	5.03 2
8.90498	9.00866	2.40	37.00	1.23 1	-5.89 2	-1.27 1	5.92 2
8.94058	9.01135	3.20	17.50	5.10 1	-5.97 2	-5.17 1	5.99 2
8.89310	9.01740	2.20	49.00	7.48 0	-5.69 2	-7.80 0	5.73 2
8.95855	9.02031	3.90	12.00	1.25 2	-6.46 2	-1.27 2	6.49 2
8.84867	9.02250	1.95	75.00	3.41 0	-4.72 2	-3.67 0	4.75 2
8.96221	9.02319	4.00	11.50	1.41 2	-6.59 2	-1.43 2	6.62 2
8.96712	9.02321	5.40	7.60	7.41 2	-1.22 3	-7.46 2	1.23 3
8.96661	9.02389	4.80	8.80	3.50 2	-8.51 2	-3.53 2	8.55 2
8.93530	9.02538	2.60	29.00	1.89 1	-5.93 2	-1.94 1	5.96 2
8.97346	9.02913	5.80	7.00	1.40 3	-1.84 3	-1.40 3	1.85 3
8.91823	9.03032	2.30	42.00	9.78 0	-5.83 2	-1.01 1	5.87 2
8.84211	9.03130	1.90	82.00	2.85 0	-4.36 2	-3.09 0	4.40 2
8.96900	9.03149	3.80	12.50	1.12 2	-6.35 2	-1.13 2	6.38 2
8.82407	9.03258	1.85	90.00	2.33 0	-3.92 2	-2.56 0	3.95 2
8.96773	9.03342	3.50	14.50	7.74 1	-6.10 2	-7.83 1	6.13 2
8.87912	9.03851	2.00	68.00	4.11 0	-5.04 2	-4.38 0	5.08 2
8.95585	9.04079	2.70	26.00	2.31 1	-5.93 2	-2.36 1	5.96 2
8.96644	9.04126	3.00	20.00	3.84 1	-5.93 2	-3.90 1	5.96 2
8.90407	9.04253	2.10	57.00	5.69 0	-5.47 2	-5.98 0	5.50 2
8.97942	9.05167	3.10	18.50	4.49 1	-5.95 2	-4.56 1	5.98 2
8.88304	9.05453	1.95	74.00	3.49 0	-4.77 2	-3.74 0	4.81 2
8.99323	9.05638	3.70	13.00	1.00 2	-6.27 2	-1.02 2	6.30 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
8.85539	9.06112	1.85	89.00	2.38 0	-3.98 2	-2.60 0	4.01 2
8.87472	9.06138	1.90	81.00	2.91 0	-4.42 2	-3.15 0	4.45 2
8.96691	9.06186	2.50	32.00	1.57 1	-5.93 2	-1.62 1	5.96 2
8.94335	9.06560	2.20	48.00	7.69 0	-5.72 2	-8.01 0	5.76 2
9.01469	9.07297	4.40	9.80	2.28 2	-7.36 2	-2.30 2	7.39 2
8.91610	9.07326	2.00	67.00	4.21 0	-5.09 2	-4.47 0	5.13 2
9.01434	9.07360	4.20	10.50	1.82 2	-6.95 2	-1.84 2	6.98 2
9.01682	9.07431	4.60	9.20	2.86 2	-7.89 2	-2.88 2	7.93 2
9.01944	9.07496	5.60	7.20	1.07 3	-1.54 3	-1.08 3	1.55 3
8.97391	9.07553	2.40	36.00	1.27 1	-5.91 2	-1.31 1	5.94 2
8.94727	9.08364	2.10	56.00	5.83 0	-5.51 2	-6.13 0	5.54 2
8.91781	9.08696	1.95	73.00	3.56 0	-4.82 2	-3.82 0	4.86 2
8.97781	9.08786	2.30	41.00	1.01 1	-5.86 2	-1.05 1	5.89 2
9.02063	9.08853	3.30	16.00	6.09 1	-6.02 2	-6.17 1	6.04 2
8.88690	9.08988	1.85	88.00	2.43 0	-4.04 2	-2.65 0	4.07 2
8.90761	9.09178	1.90	80.00	2.97 0	-4.47 2	-3.21 0	4.51 2
9.03850	9.09475	5.00	8.20	4.66 2	-9.62 2	-4.70 2	9.67 2
9.03104	9.09481	3.60	13.50	9.05 1	-6.20 2	-9.15 1	6.23 2
9.02917	9.09869	3.20	17.00	5.32 1	-5.98 2	-5.39 1	6.01 2
9.04561	9.10144	5.20	7.80	6.03 2	-1.09 3	-6.07 2	1.10 3
9.03765	9.10382	3.40	15.00	7.02 1	-6.07 2	-7.11 1	6.10 2
8.95360	9.10856	2.00	66.00	4.30 0	-5.14 2	-4.57 0	5.18 2
9.05742	9.11400	4.80	8.60	3.70 2	-8.70 2	-3.73 2	8.75 2
9.04067	9.11431	3.00	19.50	3.97 1	-5.94 2	-4.04 1	5.97 2
9.05963	9.11450	6.20	6.40	5.54 2	-5.81 2	-5.58 2	5.84 2
8.99488	9.11509	2.20	47.00	7.91 0	-5.76 2	-8.23 0	5.79 2
9.02834	9.11627	2.60	28.00	1.98 1	-5.94 2	-2.03 1	5.97 2
9.03780	9.11731	2.80	23.00	2.87 1	-5.93 2	-2.92 1	5.96 2
8.91860	9.11888	1.85	87.00	2.48 0	-4.10 2	-2.70 0	4.13 2
8.95298	9.11983	1.95	72.00	3.64 0	-4.88 2	-3.89 0	4.91 2
8.94079	9.12250	1.90	79.00	3.03 0	-4.53 2	-3.27 0	4.57 2
8.99134	9.12563	2.10	55.00	5.98 0	-5.55 2	-6.28 0	5.58 2
9.07311	9.12803	6.00	6.60	1.81 3	-2.08 3	-1.82 3	2.09 3
9.05422	9.13030	2.90	21.00	3.41 1	-5.94 2	-3.47 1	5.97 2
9.06184	9.13286	3.10	18.00	4.67 1	-5.96 2	-4.74 1	5.99 2
9.07946	9.13477	5.40	7.40	8.16 2	-1.29 3	-8.21 2	1.30 3
9.04938	9.14223	2.50	31.00	1.64 1	-5.94 2	-1.68 1	5.98 2
8.99166	9.14443	2.00	65.00	4.40 0	-5.19 2	-4.67 0	5.22 2
9.04544	9.14500	2.40	35.00	1.32 1	-5.93 2	-1.36 1	5.96 2
9.06291	9.14564	2.70	25.00	2.43 1	-5.94 2	-2.48 1	5.97 2
9.08244	9.14677	3.50	14.00	8.16 1	-6.14 2	-8.26 1	6.17 2
9.03928	9.14729	2.30	40.00	1.04 1	-5.88 2	-1.08 1	5.91 2
8.95050	9.14812	1.85	86.00	2.53 0	-4.16 2	-2.76 0	4.19 2
9.09277	9.15039	4.40	9.60	2.38 2	-7.45 2	-2.40 2	7.48 2
8.98858	9.15315	1.95	71.00	3.72 0	-4.93 2	-3.97 0	4.96 2
8.97429	9.15356	1.90	78.00	3.09 0	-4.59 2	-3.33 0	4.62 2
9.10027	9.15511	5.80	6.80	1.52 3	-1.92 3	-1.53 3	1.94 3
9.10228	9.15908	4.60	9.00	3.01 2	-8.03 2	-3.03 2	8.07 2
9.04776	9.16594	2.20	46.00	8.15 0	-5.79 2	-8.47 0	5.82 2
9.10790	9.16818	3.90	11.50	1.35 2	-6.54 2	-1.36 2	6.57 2
9.03631	9.16853	2.10	54.00	6.14 0	-5.58 2	-6.43 0	5.62 2
9.11009	9.17112	3.80	12.00	1.20 2	-6.42 2	-1.21 2	6.45 2
8.98263	9.17761	1.85	85.00	2.58 0	-4.22 2	-2.81 0	4.25 2
9.12089	9.18036	4.00	11.00	1.53 2	-6.70 2	-1.54 2	6.73 2
9.03029	9.18089	2.00	64.00	4.51 0	-5.24 2	-4.77 0	5.27 2
9.00812	9.18498	1.90	77.00	3.16 0	-4.64 2	-3.40 0	4.68 2
9.02463	9.18693	1.95	70.00	3.80 0	-4.98 2	-4.06 0	5.01 2
9.12115	9.18776	3.30	15.50	6.38 1	-6.04 2	-6.46 1	6.07 2
9.12694	9.18868	3.70	12.50	1.07 2	-6.33 2	-1.08 2	6.35 2
9.12180	9.19006	3.20	16.50	5.55 1	-6.00 2	-5.63 1	6.03 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.11779	9.19023	3.00	19.00	4.12 1	-5.95 2	-4.19 1	5.98 2
9.13949	9.19500	5.00	8.00	4.98 2	-9.93 2	-5.02 2	9.98 2
9.14142	9.19615	5.60	7.00	1.21 3	-1.68 3	-1.22 3	1.69 3
9.01499	9.20737	1.85	84.00	2.63 0	-4.28 2	-2.86 0	4.31 2
9.15179	9.20766	4.80	8.40	3.92 2	-8.91 2	-3.95 2	8.95 2
9.10276	9.20874	2.30	39.00	1.08 1	-5.90 2	-1.11 1	5.94 2
9.15426	9.20932	5.20	7.60	6.53 2	-1.14 3	-6.57 2	1.15 3
9.12617	9.21193	2.60	27.00	2.08 1	-5.95 2	-2.13 1	5.98 2
9.08224	9.21240	2.10	53.00	6.30 0	-5.62 2	-6.59 0	5.66 2
9.14758	9.21242	3.40	14.50	7.39 1	-6.10 2	-7.48 1	6.13 2
9.04228	9.21676	1.90	76.00	3.23 0	-4.70 2	-3.47 0	4.73 2
9.11977	9.21726	2.40	34.00	1.37 1	-5.95 2	-1.41 1	5.98 2
9.14777	9.21757	3.10	17.50	4.86 1	-5.98 2	-4.93 1	6.00 2
9.06954	9.21798	2.00	63.00	4.61 0	-5.28 2	-4.88 0	5.32 2
9.10207	9.21822	2.20	45.00	8.39 0	-5.81 2	-8.71 0	5.85 2
9.15818	9.22056	3.60	13.00	9.60 1	-6.25 2	-9.70 1	6.27 2
9.06115	9.22120	1.95	69.00	3.89 0	-5.03 2	-4.14 0	5.06 2
9.13560	9.22634	2.50	30.00	1.71 1	-5.96 2	-1.76 1	5.99 2
9.17354	9.23050	4.40	9.40	2.48 2	-7.55 2	-2.50 2	7.58 2
9.04759	9.23741	1.85	83.00	2.69 0	-4.33 2	-2.92 0	4.37 2
9.16401	9.24125	2.80	22.00	3.04 1	-5.95 2	-3.10 1	5.98 2
9.19090	9.24702	4.60	8.80	3.16 2	-8.18 2	-3.18 2	8.22 2
9.07681	9.24893	1.90	75.00	3.30 0	-4.75 2	-3.54 0	4.79 2
9.19703	9.25157	5.40	7.20	9.05 2	-1.38 3	-9.11 2	1.39 3
9.19563	9.25330	4.20	10.00	2.00 2	-7.11 2	-2.01 2	7.15 2
9.10942	9.25572	2.00	62.00	4.72 0	-5.33 2	-4.98 0	5.36 2
9.09815	9.25599	1.95	68.00	3.98 0	-5.08 2	-4.23 0	5.11 2
9.17628	9.25679	2.70	24.00	2.57 1	-5.95 2	-2.62 1	5.98 2
9.12917	9.25728	2.10	52.00	6.47 0	-5.66 2	-6.76 0	5.69 2
9.08045	9.26774	1.85	82.00	2.75 0	-4.39 2	-2.97 0	4.43 2
9.19800	9.26923	3.00	18.50	4.28 1	-5.96 2	-4.34 1	5.99 2
9.19675	9.27049	2.90	20.00	3.65 1	-5.95 2	-3.71 1	5.98 2
9.15790	9.27203	2.20	44.00	8.65 0	-5.84 2	-8.97 0	5.88 2
9.16840	9.27234	2.30	38.00	1.12 1	-5.93 2	-1.15 1	5.96 2
9.07322	9.27960	1.80	90.00	2.24 0	-3.95 2	-2.46 0	3.98 2
9.11172	9.28151	1.90	74.00	3.37 0	-4.80 2	-3.61 0	4.84 2
9.13567	9.29130	1.95	67.00	4.07 0	-5.13 2	-4.32 0	5.16 2
9.19710	9.29252	2.40	33.00	1.43 1	-5.96 2	-1.47 1	5.99 2
9.14996	9.29415	2.00	61.00	4.83 0	-5.37 2	-5.10 0	5.40 2
9.11358	9.29837	1.85	81.00	2.80 0	-4.45 2	-3.03 0	4.48 2
9.17715	9.30323	2.10	51.00	6.64 0	-5.69 2	-6.93 0	5.73 2
9.10507	9.30869	1.80	89.00	2.29 0	-4.01 2	-2.51 0	4.04 2
9.14702	9.31450	1.90	73.00	3.44 0	-4.86 2	-3.68 0	4.89 2
9.17372	9.32716	1.95	66.00	4.16 0	-5.18 2	-4.41 0	5.21 2
9.14700	9.32931	1.85	80.00	2.86 0	-4.51 2	-3.09 0	4.54 2
9.19120	9.33328	2.00	60.00	4.95 0	-5.41 2	-5.21 0	5.45 2
9.13710	9.33801	1.80	88.00	2.34 0	-4.07 2	-2.55 0	4.10 2
9.18273	9.34792	1.90	72.00	3.52 0	-4.91 2	-3.76 0	4.95 2
9.18072	9.36059	1.85	79.00	2.92 0	-4.56 2	-3.15 0	4.60 2
9.16933	9.36756	1.80	87.00	2.39 0	-4.13 2	-2.60 0	4.16 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.20	9.60						
9.21228	9.26632	6.00	6.40	1.39 3	-1.52 3	-1.39 3	1.53 3
9.20368	9.26665	3.50	13.50	8.64 1	-6.18 2	-8.73 1	6.21 2
9.21879	9.28578	3.20	16.00	5.80 1	-6.02 2	-5.88 1	6.05 2
9.23362	9.28762	5.80	6.60	1.63 3	-1.97 3	-1.64 3	1.98 3
9.22677	9.29208	3.30	15.00	6.70 1	-6.06 2	-6.78 1	6.09 2
9.24477	9.29955	5.00	7.80	5.34 2	-1.03 3	-5.38 2	1.03 3
9.24995	9.30511	4.80	8.20	4.17 2	-9.15 2	-4.20 2	9.20 2
9.23748	9.30604	3.10	17.00	5.07 1	-5.99 2	-5.14 1	6.02 2
9.22925	9.31285	2.60	26.00	2.19 1	-5.97 2	-2.23 1	6.00 2
9.25716	9.31345	4.40	9.20	2.59 2	-7.65 2	-2.61 2	7.69 2
9.22590	9.31451	2.50	29.00	1.79 1	-5.97 2	-1.83 1	6.00 2
9.26078	9.32035	3.80	11.50	1.29 2	-6.51 2	-1.30 2	6.54 2
9.26781	9.32212	5.20	7.40	7.13 2	-1.20 3	-7.18 2	1.20 3
9.26946	9.32338	5.60	6.80	1.36 3	-1.80 3	-1.37 3	1.81 3
9.26794	9.32672	3.90	11.00	1.46 2	-6.65 2	-1.47 2	6.68 2
9.26352	9.32703	3.40	14.00	7.79 1	-6.13 2	-7.88 1	6.16 2
9.21533	9.32744	2.20	43.00	8.92 0	-5.87 2	-9.24 0	5.90 2
9.27230	9.32933	4.20	9.80	2.08 2	-7.19 2	-2.09 2	7.22 2
9.26935	9.32965	3.70	12.00	1.15 2	-6.39 2	-1.16 2	6.42 2
9.23634	9.33825	2.30	37.00	1.16 1	-5.95 2	-1.19 1	5.98 2
9.28290	9.33833	4.60	8.60	3.33 2	-8.35 2	-3.36 2	8.39 2
9.27203	9.34460	2.90	19.50	3.78 1	-5.96 2	-3.84 1	5.99 2
9.29153	9.34947	4.00	10.50	1.66 2	-6.82 2	-1.67 2	6.85 2
9.22625	9.35030	2.10	50.00	6.83 0	-5.73 2	-7.12 0	5.76 2
9.28151	9.35153	3.00	18.00	4.45 1	-5.98 2	-4.51 1	6.00 2
9.29320	9.35418	3.60	12.50	1.02 2	-6.30 2	-1.03 2	6.33 2
9.21233	9.36361	1.95	65.00	4.26 0	-5.22 2	-4.51 0	5.26 2
9.27768	9.37103	2.40	32.00	1.49 1	-5.98 2	-1.52 1	6.01 2
9.23317	9.37315	2.00	59.00	5.07 0	-5.46 2	-5.33 0	5.49 2
9.29889	9.37383	2.80	21.00	3.24 1	-5.96 2	-3.30 1	5.99 2
9.32026	9.37401	5.40	7.00	1.01 3	-1.48 3	-1.02 3	1.49 3
9.29666	9.37494	2.70	23.00	2.72 1	-5.97 2	-2.77 1	5.99 2
9.21887	9.38180	1.90	71.00	3.59 0	-4.96 2	-3.83 0	5.00 2
9.27447	9.38456	2.20	42.00	9.20 0	-5.89 2	-9.52 0	5.93 2
9.32052	9.38623	3.20	15.50	6.08 1	-6.04 2	-6.16 1	6.07 2
9.21475	9.39221	1.85	78.00	2.99 0	-4.62 2	-3.21 0	4.65 2
9.33211	9.39371	3.50	13.00	9.16 1	-6.23 2	-9.26 1	6.25 2
9.20178	9.39735	1.80	86.00	2.44 0	-4.19 2	-2.65 0	4.22 2
9.27653	9.39855	2.10	49.00	7.02 0	-5.76 2	-7.31 0	5.79 2
9.33127	9.39858	3.10	16.50	5.29 1	-6.01 2	-5.36 1	6.03 2
9.34380	9.39943	4.40	9.00	2.72 2	-7.78 2	-2.74 2	7.81 2
9.25153	9.40065	1.95	64.00	4.35 0	-5.27 2	-4.60 0	5.31 2
9.33794	9.40193	3.30	14.50	7.05 1	-6.09 2	-7.13 1	6.12 2
9.35217	9.40661	4.80	8.00	4.44 2	-9.41 2	-4.47 2	9.45 2
9.30675	9.40662	2.30	36.00	1.20 1	-5.97 2	-1.23 1	6.00 2
9.32064	9.40713	2.50	28.00	1.88 1	-5.99 2	-1.92 1	6.01 2
9.35155	9.40793	4.20	9.60	2.16 2	-7.27 2	-2.18 2	7.30 2
9.35466	9.40869	5.00	7.60	5.76 2	-1.07 3	-5.80 2	1.07 3
9.35913	9.41237	6.00	6.20	2.20 3	-2.31 3	-2.21 3	2.32 3
9.27591	9.41381	2.00	58.00	5.20 0	-5.50 2	-5.46 0	5.53 2
9.25547	9.41615	1.90	70.00	3.67 0	-5.01 2	-3.91 0	5.05 2
9.33813	9.41955	2.60	25.00	2.31 1	-5.98 2	-2.35 1	6.01 2
9.35024	9.42161	2.90	19.00	3.92 1	-5.97 2	-3.98 1	6.00 2
9.24912	9.42418	1.85	77.00	3.05 0	-4.68 2	-3.27 0	4.71 2
9.37407	9.42721	5.80	6.40	1.57 3	-1.82 3	-1.58 3	1.83 3
9.23444	9.42741	1.80	85.00	2.49 0	-4.25 2	-2.70 0	4.28 2
9.37849	9.43323	4.60	8.40	3.52 2	-8.52 2	-3.54 2	8.56 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.36858	9.43738	3.00	17.50	4.63 1	-5.99 2	-4.69 1	6.02 2
9.29134	9.43833	1.95	63.00	4.46 0	-5.32 2	-4.71 0	5.35 2
9.38665	9.44020	5.20	7.20	7.85 2	-1.27 3	-7.90 2	1.27 3
9.33542	9.44350	2.20	41.00	9.50 0	-5.92 2	-9.82 0	5.95 2
9.32804	9.44804	2.10	48.00	7.22 0	-5.79 2	-7.51 0	5.82 2
9.38605	9.44821	3.40	13.50	8.24 1	-6.17 2	-8.33 1	6.20 2
9.29254	9.45099	1.90	69.00	3.76 0	-5.06 2	-3.99 0	5.10 2
9.36177	9.45305	2.40	31.00	1.55 1	-5.99 2	-1.59 1	6.02 2
9.31945	9.45528	2.00	57.00	5.33 0	-5.54 2	-5.59 0	5.57 2
9.28383	9.45653	1.85	76.00	3.11 0	-4.73 2	-3.34 0	4.77 2
9.40409	9.45718	5.60	6.60	1.53 3	-1.95 3	-1.54 3	1.96 3
9.26734	9.45773	1.80	84.00	2.54 0	-4.31 2	-2.75 0	4.34 2
9.33180	9.47666	1.95	62.00	4.56 0	-5.36 2	-4.81 0	5.40 2
9.37979	9.47763	2.30	35.00	1.25 1	-5.98 2	-1.28 1	6.01 2
9.42144	9.48029	3.70	11.50	1.23 2	-6.47 2	-1.24 2	6.50 2
9.42224	9.48033	3.80	11.00	1.39 2	-6.60 2	-1.40 2	6.63 2
9.33011	9.48636	1.90	68.00	3.84 0	-5.11 2	-4.08 0	5.15 2
9.30049	9.48834	1.80	83.00	2.59 0	-4.37 2	-2.81 0	4.40 2
9.43365	9.48861	4.40	8.80	2.85 2	-7.90 2	-2.87 2	7.94 2
9.43352	9.48926	4.20	9.40	2.25 2	-7.36 2	-2.27 2	7.39 2
9.31891	9.48927	1.85	75.00	3.18 0	-4.79 2	-3.41 0	4.82 2
9.42738	9.49180	3.20	15.00	6.38 1	-6.06 2	-6.46 1	6.09 2
9.42947	9.49552	3.10	16.00	5.53 1	-6.03 2	-5.60 1	6.05 2
9.43698	9.49654	3.60	12.00	1.09 2	-6.36 2	-1.10 2	6.39 2
9.44003	9.49729	3.90	10.50	1.58 2	-6.76 2	-1.60 2	6.79 2
9.36383	9.49760	2.00	56.00	5.46 0	-5.58 2	-5.72 0	5.61 2
9.38086	9.49885	2.10	47.00	7.43 0	-5.82 2	-7.71 0	5.85 2
9.42488	9.50091	2.70	22.00	2.89 1	-5.98 2	-2.94 1	6.01 2
9.43156	9.50175	2.90	18.50	4.07 1	-5.98 2	-4.13 1	6.01 2
9.44960	9.50255	5.40	6.80	1.12 3	-1.57 3	-1.12 3	1.58 3
9.39830	9.50437	2.20	40.00	9.82 0	-5.94 2	-1.01 1	5.97 2
9.42024	9.50461	2.50	27.00	1.97 1	-6.00 2	-2.01 1	6.03 2
9.45873	9.51243	4.80	7.80	4.74 2	-9.69 2	-4.78 2	9.74 2
9.37293	9.51569	1.95	61.00	4.67 0	-5.41 2	-4.92 0	5.44 2
9.44354	9.51617	2.80	20.00	3.47 1	-5.98 2	-3.52 1	6.00 2
9.45517	9.51784	3.30	14.00	7.43 1	-6.12 2	-7.51 1	6.15 2
9.33390	9.51923	1.80	82.00	2.65 0	-4.43 2	-2.86 0	4.46 2
9.36819	9.52225	1.90	67.00	3.93 0	-5.16 2	-4.16 0	5.20 2
9.35437	9.52242	1.85	74.00	3.25 0	-4.84 2	-3.47 0	4.87 2
9.46950	9.52279	5.00	7.40	6.25 2	-1.11 3	-6.29 2	1.12 3
9.45947	9.52705	3.00	17.00	4.82 1	-6.00 2	-4.88 1	6.03 2
9.46850	9.52871	3.50	12.50	9.75 1	-6.28 2	-9.85 1	6.31 2
9.47792	9.53195	4.60	8.20	3.73 2	-8.72 2	-3.75 2	8.76 2
9.47573	9.53211	4.00	10.00	1.81 2	-6.97 2	-1.83 2	7.00 2
9.45341	9.53265	2.60	24.00	2.43 1	-5.99 2	-2.48 1	6.02 2
9.44967	9.53887	2.40	30.00	1.62 1	-6.01 2	-1.66 1	6.04 2
9.40910	9.54082	2.00	55.00	5.60 0	-5.62 2	-5.86 0	5.65 2
9.33876	9.54295	1.75	90.00	2.16 0	-3.98 2	-2.36 0	4.01 2
9.36758	9.55044	1.80	81.00	2.70 0	-4.48 2	-2.92 0	4.52 2
9.43505	9.55105	2.10	46.00	7.64 0	-5.85 2	-7.93 0	5.88 2
9.45568	9.55148	2.30	34.00	1.29 1	-6.00 2	-1.33 1	6.03 2
9.41476	9.55543	1.95	60.00	4.78 0	-5.45 2	-5.03 0	5.48 2
9.39023	9.55599	1.85	73.00	3.32 0	-4.89 2	-3.55 0	4.93 2
9.40682	9.55871	1.90	66.00	4.02 0	-5.21 2	-4.25 0	5.25 2
9.51119	9.56396	5.20	7.00	8.69 2	-1.35 3	-8.74 2	1.35 3
9.46323	9.56730	2.20	39.00	1.02 1	-5.97 2	-1.05 1	6.00 2
9.37116	9.57262	1.75	89.00	2.21 0	-4.04 2	-2.41 0	4.07 2
9.51838	9.57346	4.20	9.20	2.35 2	-7.45 2	-2.37 2	7.49 2
9.52225	9.57458	5.80	6.20	2.03 3	-2.24 3	-2.04 3	2.25 3
9.51584	9.57664	3.40	13.00	8.74 1	-6.21 2	-8.83 1	6.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.52692	9.58119	4.40	8.60	3.00 2	-8.04 2	-3.02 2	8.08 2
9.40155	9.58196	1.80	80.00	2.76 0	-4.54 2	-2.97 0	4.58 2
9.45529	9.58498	2.00	54.00	5.74 0	-5.65 2	-6.01 0	5.69 2
9.51623	9.58522	2.90	18.00	4.23 1	-5.99 2	-4.29 1	6.02 2
9.42650	9.58999	1.85	72.00	3.39 0	-4.95 2	-3.62 0	4.98 2
9.51993	9.59140	2.80	19.50	3.59 1	-5.99 2	-3.64 1	6.01 2
9.44601	9.59575	1.90	65.00	4.11 0	-5.26 2	-4.34 0	5.29 2
9.45734	9.59592	1.95	59.00	4.90 0	-5.49 2	-5.15 0	5.53 2
9.53244	9.59724	3.10	15.50	5.79 1	-6.05 2	-5.86 1	6.07 2
9.54588	9.59814	5.60	6.40	1.69 3	-2.06 3	-1.70 3	2.07 3
9.40376	9.60252	1.75	88.00	2.25 0	-4.10 2	-2.45 0	4.13 2
9.53984	9.60296	3.20	14.50	6.71 1	-6.09 2	-6.79 1	6.12 2
9.49071	9.60471	2.10	45.00	7.87 0	-5.88 2	-8.16 0	5.91 2
9.52518	9.60741	2.50	26.00	2.07 1	-6.01 2	-2.11 1	6.04 2
9.55362	9.60938	4.00	9.80	1.89 2	-7.04 2	-1.90 2	7.07 2
9.43583	9.61382	1.80	79.00	2.82 0	-4.60 2	-3.03 0	4.63 2
9.55448	9.62082	3.00	16.50	5.03 1	-6.02 2	-5.09 1	6.04 2
9.56993	9.62290	4.80	7.60	5.09 2	-1.00 3	-5.12 2	1.01 3
9.46322	9.62446	1.85	71.00	3.47 0	-5.00 2	-3.69 0	5.03 2
9.53463	9.62839	2.30	33.00	1.34 1	-6.02 2	-1.38 1	6.05 2
9.54171	9.62882	2.40	29.00	1.69 1	-6.02 2	-1.73 1	6.05 2
9.50246	9.63013	2.00	53.00	5.90 0	-5.69 2	-6.16 0	5.73 2
9.53036	9.63242	2.20	38.00	1.05 1	-5.99 2	-1.08 1	6.02 2
9.43655	9.63266	1.75	87.00	2.30 0	-4.16 2	-2.50 0	4.19 2
9.48580	9.63341	1.90	64.00	4.20 0	-5.31 2	-4.44 0	5.34 2
9.58144	9.63477	4.60	8.00	3.96 2	-8.94 2	-3.98 2	8.98 2
9.56187	9.63564	2.70	21.00	3.08 1	-5.99 2	-3.13 1	6.02 2
9.50068	9.63721	1.95	58.00	5.02 0	-5.53 2	-5.27 0	5.57 2
9.58558	9.63771	5.40	6.60	1.24 3	-1.67 3	-1.25 3	1.68 3
9.57906	9.64040	3.30	13.50	7.85 1	-6.16 2	-7.94 1	6.19 2
9.58437	9.64175	3.70	11.00	1.33 2	-6.56 2	-1.34 2	6.59 2
9.58968	9.64221	5.00	7.20	6.83 2	-1.17 3	-6.87 2	1.17 3
9.47043	9.64602	1.80	78.00	2.88 0	-4.66 2	-3.09 0	4.69 2
9.59052	9.64864	3.60	11.50	1.17 2	-6.44 2	-1.18 2	6.46 2
9.59583	9.65242	3.80	10.50	1.51 2	-6.71 2	-1.52 2	6.74 2
9.57581	9.65284	2.60	23.00	2.58 1	-6.00 2	-2.62 1	6.03 2
9.50039	9.65941	1.85	70.00	3.54 0	-5.05 2	-3.77 0	5.08 2
9.54792	9.65992	2.10	44.00	8.11 0	-5.91 2	-8.40 0	5.94 2
9.46956	9.66304	1.75	86.00	2.35 0	-4.22 2	-2.55 0	4.26 2
9.59928	9.66957	2.80	19.00	3.72 1	-5.99 2	-3.78 1	6.02 2
9.52621	9.67170	1.90	63.00	4.30 0	-5.35 2	-4.54 0	5.39 2
9.55066	9.67631	2.00	52.00	6.05 0	-5.73 2	-6.31 0	5.76 2
9.50536	9.67859	1.80	77.00	2.94 0	-4.71 2	-3.15 0	4.75 2
9.54485	9.67931	1.95	57.00	5.14 0	-5.58 2	-5.39 0	5.61 2
9.50279	9.69369	1.75	85.00	2.40 0	-4.28 2	-2.60 0	4.32 2
9.53804	9.69486	1.85	69.00	3.62 0	-5.10 2	-3.85 0	5.14 2
9.59983	9.69989	2.20	37.00	1.09 1	-6.01 2	-1.12 1	6.04 2
9.56727	9.71065	1.90	62.00	4.40 0	-5.40 2	-4.64 0	5.43 2
9.54065	9.71153	1.80	76.00	3.00 0	-4.77 2	-3.21 0	4.80 2
9.58986	9.72229	1.95	56.00	5.27 0	-5.62 2	-5.52 0	5.65 2
9.59994	9.72358	2.00	51.00	6.22 0	-5.76 2	-6.48 0	5.80 2
9.53626	9.72461	1.75	84.00	2.45 0	-4.34 2	-2.65 0	4.38 2
9.57620	9.73082	1.85	68.00	3.70 0	-5.15 2	-3.93 0	5.19 2
9.57630	9.74487	1.80	75.00	3.07 0	-4.82 2	-3.28 0	4.86 2
9.56998	9.75581	1.75	83.00	2.50 0	-4.40 2	-2.70 0	4.43 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.60	10.00						
9.60629	9.66072	4.20	9.00	2.46 2	-7.56 2	-2.48 2	7.59 2
9.60449	9.67228	2.90	17.50	4.40 1	-6.01 2	-4.46 1	6.03 2
9.61372	9.67252	3.50	12.00	1.04 2	-6.34 2	-1.05 2	6.36 2
9.62381	9.67740	4.40	8.40	3.16 2	-8.19 2	-3.18 2	8.23 2
9.62577	9.68149	3.90	10.00	1.73 2	-6.90 2	-1.74 2	6.93 2
9.63412	9.68924	4.00	9.60	1.96 2	-7.11 2	-1.98 2	7.14 2
9.64190	9.69388	5.20	6.80	9.58 2	-1.42 3	-9.64 2	1.43 3
9.64061	9.70413	3.10	15.00	6.07 1	-6.07 2	-6.14 1	6.09 2
9.61689	9.70860	2.30	32.00	1.40 1	-6.03 2	-1.44 1	6.06 2
9.65366	9.71308	3.40	12.50	9.29 1	-6.26 2	-9.39 1	6.29 2
9.63600	9.71609	2.50	25.00	2.18 1	-6.02 2	-2.22 1	6.05 2
9.60676	9.71678	2.10	43.00	8.37 0	-5.94 2	-8.65 0	5.97 2
9.65394	9.71905	3.00	16.00	5.26 1	-6.03 2	-5.32 1	6.06 2
9.65843	9.72024	3.20	14.00	7.07 1	-6.12 2	-7.15 1	6.14 2
9.63827	9.72329	2.40	28.00	1.77 1	-6.03 2	-1.81 1	6.06 2
9.67893	9.73038	5.80	6.00	1.16 3	-1.22 3	-1.17 3	1.23 3
9.68614	9.73838	4.80	7.40	5.49 2	-1.04 3	-5.53 2	1.05 3
9.68934	9.74195	4.60	7.80	4.21 2	-9.17 2	-4.24 2	9.21 2
9.69546	9.74692	5.60	6.20	2.46 3	-2.86 3	-2.48 3	2.87 3
9.60901	9.75031	1.90	61.00	4.51 0	-5.44 2	-4.74 0	5.48 2
9.68178	9.75090	2.80	18.50	3.86 1	-6.00 2	-3.92 1	6.03 2
9.69745	9.75122	4.20	8.80	2.58 2	-7.67 2	-2.60 2	7.71 2
9.70431	9.75941	3.90	9.80	1.79 2	-6.96 2	-1.81 2	6.99 2
9.69662	9.76319	2.90	17.00	4.58 1	-6.02 2	-4.64 1	6.04 2
9.63577	9.76617	1.95	55.00	5.41 0	-5.65 2	-5.66 0	5.69 2
9.61488	9.76733	1.85	67.00	3.79 0	-5.20 2	-4.01 0	5.23 2
9.71561	9.76737	5.00	7.00	7.49 2	-1.23 3	-7.54 2	1.24 3
9.67182	9.76988	2.20	36.00	1.13 1	-6.03 2	-1.16 1	6.06 2
9.71027	9.77026	3.30	13.00	8.32 1	-6.20 2	-8.41 1	6.22 2
9.71739	9.77187	4.00	9.40	2.04 2	-7.18 2	-2.06 2	7.21 2
9.65036	9.77200	2.00	50.00	6.39 0	-5.80 2	-6.65 0	5.83 2
9.66735	9.77538	2.10	42.00	8.63 0	-5.96 2	-8.92 0	5.99 2
9.72458	9.77748	4.40	8.20	3.34 2	-8.37 2	-3.36 2	8.40 2
9.61234	9.77861	1.80	74.00	3.13 0	-4.88 2	-3.34 0	4.91 2
9.72877	9.78008	5.40	6.40	1.37 3	-1.77 3	-1.38 3	1.77 3
9.70876	9.78025	2.70	20.00	3.29 1	-6.01 2	-3.34 1	6.03 2
9.70615	9.78096	2.60	22.00	2.73 1	-6.01 2	-2.78 1	6.04 2
9.60396	9.78730	1.75	82.00	2.55 0	-4.46 2	-2.75 0	4.49 2
9.65147	9.79069	1.90	60.00	4.62 0	-5.49 2	-4.85 0	5.52 2
9.70271	9.79239	2.30	31.00	1.46 1	-6.05 2	-1.49 1	6.08 2
9.65411	9.80441	1.85	66.00	3.87 0	-5.25 2	-4.10 0	5.28 2
9.68262	9.81099	1.95	54.00	5.55 0	-5.69 2	-5.80 0	5.73 2
9.75499	9.81166	3.60	11.00	1.26 2	-6.52 2	-1.27 2	6.55 2
9.64879	9.81279	1.80	73.00	3.20 0	-4.93 2	-3.41 0	4.96 2
9.75953	9.81542	3.70	10.50	1.44 2	-6.66 2	-1.45 2	6.69 2
9.75443	9.81667	3.10	14.50	6.38 1	-6.09 2	-6.46 1	6.12 2
9.63823	9.81911	1.75	81.00	2.60 0	-4.52 2	-2.80 0	4.55 2
9.70198	9.82162	2.00	49.00	6.56 0	-5.83 2	-6.82 0	5.86 2
9.75824	9.82209	3.00	15.50	5.50 1	-6.05 2	-5.57 1	6.08 2
9.73977	9.82269	2.40	27.00	1.86 1	-6.04 2	-1.90 1	6.07 2
9.62239	9.82434	1.70	90.00	2.08 0	-4.01 2	-2.27 0	4.04 2
9.76877	9.82615	3.50	11.50	1.12 2	-6.40 2	-1.13 2	6.43 2
9.77930	9.83048	5.20	6.60	1.07 3	-1.52 3	-1.07 3	1.52 3
9.75333	9.83125	2.50	24.00	2.30 1	-6.03 2	-2.34 1	6.06 2
9.69467	9.83183	1.90	59.00	4.73 0	-5.53 2	-4.96 0	5.56 2
9.76767	9.83561	2.80	18.00	4.01 1	-6.01 2	-4.06 1	6.04 2
9.72979	9.83584	2.10	41.00	8.91 0	-5.99 2	-9.20 0	6.02 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.78317	9.83823	3.80	10.00	1.65 2	-6.84 2	-1.66 2	6.87 2
9.78547	9.83994	3.90	9.60	1.87 2	-7.03 2	-1.88 2	7.06 2
9.69391	9.84209	1.85	65.00	3.96 0	-5.30 2	-4.18 0	5.33 2
9.74650	9.84255	2.20	35.00	1.17 1	-6.05 2	-1.20 1	6.07 2
9.78373	9.84423	3.20	13.50	7.47 1	-6.15 2	-7.55 1	6.18 2
9.79206	9.84517	4.20	8.60	2.71 2	-7.80 2	-2.73 2	7.83 2
9.68566	9.84741	1.80	72.00	3.27 0	-4.98 2	-3.48 0	5.02 2
9.67279	9.85124	1.75	80.00	2.66 0	-4.58 2	-2.86 0	4.61 2
9.80194	9.85383	4.60	7.60	4.50 2	-9.44 2	-4.52 2	9.48 2
9.65539	9.85462	1.70	89.00	2.12 0	-4.07 2	-2.31 0	4.11 2
9.78632	9.85666	2.70	19.50	3.40 1	-6.01 2	-3.45 1	6.04 2
9.73045	9.85682	1.95	53.00	5.69 0	-5.73 2	-5.94 0	5.76 2
9.80357	9.85741	4.00	9.20	2.13 2	-7.26 2	-2.14 2	7.30 2
9.79291	9.85827	2.90	16.50	4.78 1	-6.03 2	-4.84 1	6.04 2
9.80037	9.85840	3.40	12.00	9.92 1	-6.32 2	-1.00 2	6.34 2
9.80773	9.85922	4.80	7.20	5.96 2	-1.08 3	-5.99 2	1.09 3
9.75486	9.87252	2.00	48.00	6.75 0	-5.86 2	-7.01 0	5.89 2
9.73866	9.87377	1.90	58.00	4.85 0	-5.57 2	-5.08 0	5.61 2
9.79242	9.88004	2.30	30.00	1.52 1	-6.06 2	-1.56 1	6.09 2
9.73432	9.88037	1.85	64.00	4.05 0	-5.35 2	-4.28 0	5.38 2
9.82949	9.88170	4.40	8.00	3.54 2	-8.55 2	-3.56 2	8.59 2
9.72298	9.88250	1.80	71.00	3.34 0	-5.04 2	-3.55 0	5.07 2
9.70765	9.88370	1.75	79.00	2.71 0	-4.64 2	-2.91 0	4.67 2
9.68857	9.88514	1.70	88.00	2.17 0	-4.14 2	-2.35 0	4.17 2
9.79419	9.89826	2.10	40.00	9.21 0	-6.01 2	-9.49 0	6.04 2
9.84776	9.89874	5.00	6.80	8.22 2	-1.30 3	-8.27 2	1.30 3
9.77933	9.90370	1.95	52.00	5.85 0	-5.77 2	-6.09 0	5.80 2
9.85360	9.90421	5.60	6.00	3.24 3	-3.58 3	-3.25 3	3.60 3
9.84957	9.90820	3.30	12.50	8.85 1	-6.24 2	-8.93 1	6.27 2
9.72196	9.91589	1.70	87.00	2.21 0	-4.20 2	-2.40 0	4.23 2
9.74285	9.91652	1.75	78.00	2.77 0	-4.69 2	-2.97 0	4.73 2
9.78347	9.91655	1.90	57.00	4.97 0	-5.61 2	-5.20 0	5.65 2
9.86238	9.91682	3.80	9.80	1.71 2	-6.90 2	-1.72 2	6.93 2
9.84538	9.91796	2.60	21.00	2.91 1	-6.02 2	-2.96 1	6.05 2
9.76075	9.91807	1.80	70.00	3.42 0	-5.09 2	-3.63 0	5.12 2
9.82407	9.91812	2.20	34.00	1.22 1	-6.06 2	-1.25 1	6.09 2
9.77535	9.91931	1.85	63.00	4.15 0	-5.39 2	-4.37 0	5.43 2
9.86941	9.92325	3.90	9.40	1.94 2	-7.10 2	-1.96 2	7.13 2
9.85719	9.92395	2.80	17.50	4.17 1	-6.02 2	-4.23 1	6.05 2
9.80908	9.92476	2.00	47.00	6.94 0	-5.89 2	-7.20 0	5.93 2
9.84669	9.92751	2.40	26.00	1.95 1	-6.06 2	-1.99 1	6.08 2
9.87982	9.93033	5.40	6.20	1.70 3	-2.09 3	-1.71 3	2.10 3
9.86777	9.93037	3.00	15.00	5.77 1	-6.07 2	-5.84 1	6.10 2
9.87444	9.93538	3.10	14.00	6.73 1	-6.12 2	-6.80 1	6.14 2
9.86687	9.93606	2.70	19.00	3.53 1	-6.02 2	-3.58 1	6.04 2
9.89035	9.94278	4.20	8.40	2.85 2	-7.93 2	-2.87 2	7.96 2
9.89284	9.94604	4.00	9.00	2.22 2	-7.36 2	-2.24 2	7.39 2
9.75556	9.94689	1.70	86.00	2.26 0	-4.26 2	-2.44 0	4.29 2
9.77838	9.94971	1.75	77.00	2.83 0	-4.75 2	-3.03 0	4.78 2
9.82930	9.95168	1.95	51.00	6.00 0	-5.80 2	-6.25 0	5.83 2
9.87787	9.95362	2.50	23.00	2.43 1	-6.04 2	-2.48 1	6.07 2
9.79902	9.95415	1.80	69.00	3.49 0	-5.14 2	-3.70 0	5.17 2
9.89371	9.95784	2.90	16.00	4.99 1	-6.05 2	-5.05 1	6.07 2
9.81704	9.95892	1.85	62.00	4.25 0	-5.44 2	-4.47 0	5.47 2
9.82914	9.96020	1.90	56.00	5.09 0	-5.65 2	-5.32 0	5.69 2
9.86069	9.96279	2.10	39.00	9.52 0	-6.03 2	-9.80 0	6.06 2
9.91960	9.97076	4.60	7.40	4.83 2	-9.75 2	-4.86 2	9.80 2
9.88633	9.97190	2.30	29.00	1.59 1	-6.07 2	-1.63 1	6.10 2
9.92397	9.97434	5.20	6.40	1.19 3	-1.61 3	-1.19 3	1.62 3
9.91643	9.97558	3.20	13.00	7.91 1	-6.19 2	-7.99 1	6.21 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
9.78939	9.97816	1.70	85.00	2.30 0	-4.32 2	-2.49 0	4.35 2
9.86471	9.97842	2.00	46.00	7.15 0	-5.92 2	-7.41 0	5.96 2
9.81427	9.98327	1.75	76.00	2.89 0	-4.81 2	-3.09 0	4.84 2
9.93512	9.98586	4.80	7.00	6.49 2	-1.13 3	-6.53 2	1.14 3
9.93178	9.98697	3.60	10.50	1.37 2	-6.61 2	-1.38 2	6.64 2
9.93883	9.99033	4.40	7.80	3.75 2	-8.75 2	-3.78 2	8.79 2
9.83779	9.99075	1.80	68.00	3.57 0	-5.19 2	-3.78 0	5.22 2
9.93484	9.99078	3.50	11.00	1.20 2	-6.48 2	-1.21 2	6.51 2
9.90476	9.99680	2.20	33.00	1.26 1	-6.08 2	-1.30 1	6.11 2
9.94423	9.99805	3.80	9.60	1.77 2	-6.96 2	-1.79 2	6.99 2
9.85943	9.99923	1.85	61.00	4.35 0	-5.48 2	-4.57 0	5.52 2
9.88042	10.0008	1.95	50.00	6.17 0	-5.84 2	-6.41 0	5.87 2
9.94853	10.0029	3.70	10.00	1.57 2	-6.78 2	-1.58 2	6.81 2
9.87573	10.0048	1.90	55.00	5.22 0	-5.69 2	-5.45 0	5.72 2
9.95629	10.0095	3.90	9.20	2.02 2	-7.18 2	-2.04 2	7.21 2
9.82346	10.0097	1.70	84.00	2.35 0	-4.38 2	-2.54 0	4.41 2
9.95700	10.0136	3.40	11.50	1.06 2	-6.38 2	-1.07 2	6.40 2
9.95063	10.0162	2.80	17.00	4.34 1	-6.03 2	-4.40 1	6.06 2
9.85053	10.0172	1.75	75.00	2.95 0	-4.86 2	-3.15 0	4.89 2
9.95062	10.0186	2.70	18.50	3.66 1	-6.03 2	-3.71 1	6.05 2
9.87710	10.0279	1.80	67.00	3.65 0	-5.24 2	-3.86 0	5.27 2
9.92943	10.0296	2.10	38.00	9.85 0	-6.05 2	-1.01 1	6.08 2
9.92183	10.0336	2.00	45.00	7.36 0	-5.95 2	-7.62 0	5.98 2
9.98665	10.0369	5.00	6.60	9.09 2	-1.37 3	-9.14 2	1.38 3
9.98541	10.0380	4.00	8.80	2.33 2	-7.46 2	-2.34 2	7.49 2
9.95959	10.0383	2.40	25.00	2.06 1	-6.07 2	-2.09 1	6.09 2
9.90254	10.0403	1.85	60.00	4.45 0	-5.53 2	-4.67 0	5.56 2
9.85778	10.0415	1.70	83.00	2.40 0	-4.44 2	-2.59 0	4.47 2
9.99256	10.0443	4.20	8.20	3.00 2	-8.08 2	-3.02 2	8.11 2
9.98303	10.0444	3.00	14.50	6.06 1	-6.09 2	-6.13 1	6.12 2
9.92326	10.0503	1.90	54.00	5.36 0	-5.73 2	-5.59 0	5.76 2
9.93275	10.0512	1.95	49.00	6.34 0	-5.87 2	-6.58 0	5.90 2
9.88718	10.0516	1.75	74.00	3.02 0	-4.92 2	-3.21 0	4.95 2
9.99785	10.0551	3.30	12.00	9.43 1	-6.29 2	-9.52 1	6.32 2
9.99939	10.0623	2.90	15.50	5.22 1	-6.06 2	-5.28 1	6.09 2
9.99465	10.0650	2.60	20.00	3.11 1	-6.04 2	-3.16 1	6.06 2
9.91696	10.0656	1.80	66.00	3.73 0	-5.29 2	-3.94 0	5.32 2
9.98484	10.0683	2.30	28.00	1.67 1	-6.09 2	-1.70 1	6.11 2
9.89238	10.0737	1.70	82.00	2.45 0	-4.50 2	-2.64 0	4.53 2
9.98882	10.0788	2.20	32.00	1.32 1	-6.09 2	-1.35 1	6.12 2
9.94640	10.0821	1.85	59.00	4.56 0	-5.57 2	-4.78 0	5.60 2
9.92425	10.0864	1.75	73.00	3.08 0	-4.97 2	-3.28 0	5.00 2
9.98053	10.0903	2.00	44.00	7.58 0	-5.98 2	-7.84 0	6.01 2
9.97179	10.0968	1.90	53.00	5.50 0	-5.77 2	-5.73 0	5.80 2
9.98636	10.1028	1.95	48.00	6.52 0	-5.90 2	-6.76 0	5.93 2
9.95740	10.1040	1.80	65.00	3.82 0	-5.34 2	-4.03 0	5.37 2
9.92726	10.1061	1.70	81.00	2.50 0	-4.56 2	-2.69 0	4.59 2
9.96174	10.1217	1.75	72.00	3.15 0	-5.02 2	-3.34 0	5.06 2
9.99106	10.1247	1.85	58.00	4.67 0	-5.61 2	-4.89 0	5.64 2
9.92608	10.1257	1.65	90.00	2.00 0	-4.05 2	-2.17 0	4.08 2
9.96243	10.1389	1.70	80.00	2.56 0	-4.62 2	-2.74 0	4.65 2
9.99846	10.1429	1.80	64.00	3.91 0	-5.39 2	-4.11 0	5.42 2
9.95969	10.1566	1.65	89.00	2.04 0	-4.11 2	-2.21 0	4.14 2
9.99969	10.1574	1.75	71.00	3.22 0	-5.08 2	-3.41 0	5.11 2
9.99792	10.1720	1.70	79.00	2.61 0	-4.67 2	-2.79 0	4.71 2
9.99350	10.1878	1.65	88.00	2.08 0	-4.17 2	-2.26 0	4.20 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.00	10.50						
10.0012	10.0609	3.10	13.50	7.10 1	-6.15 2	-7.17 1	6.17 2
10.0211	10.0709	5.60	5.80	-3.91 3	4.11 3	3.92 3	-4.13 3
10.0289	10.0821	3.80	9.40	1.85 2	-7.03 2	-1.86 2	7.05 2
10.0284	10.0822	3.70	9.80	1.62 2	-6.84 2	-1.64 2	6.86 2
10.0105	10.0840	2.50	22.00	2.58 1	-6.05 2	-2.63 1	6.08 2
10.0395	10.0892	5.40	6.00	1.88 3	-2.20 3	-1.89 3	2.21 3
10.0427	10.0931	4.60	7.20	5.21 2	-1.01 3	-5.24 2	1.01 3
10.0006	10.0987	2.10	37.00	1.02 1	-6.07 2	-1.05 1	6.10 2
10.0463	10.0989	3.90	9.00	2.11 2	-7.26 2	-2.13 2	7.29 2
10.0529	10.1037	4.40	7.60	4.00 2	-8.97 2	-4.02 2	9.01 2
10.0378	10.1047	2.70	18.00	3.80 1	-6.04 2	-3.85 1	6.06 2
10.0483	10.1126	2.80	16.50	4.53 1	-6.05 2	-4.58 1	6.07 2
10.0573	10.1151	3.20	12.50	8.41 1	-6.23 2	-8.49 1	6.25 2
10.0688	10.1188	4.80	6.80	7.08 2	-1.19 3	-7.12 2	1.19 3
10.0766	10.1261	5.20	6.20	1.42 3	-1.85 3	-1.43 3	1.86 3
10.0815	10.1334	4.00	8.60	2.44 2	-7.56 2	-2.46 2	7.59 2
10.0734	10.1426	2.60	19.50	3.22 1	-6.04 2	-3.26 1	6.07 2
10.0214	10.1444	1.90	52.00	5.64 0	-5.81 2	-5.87 0	5.84 2
10.0409	10.1487	2.00	43.00	7.82 0	-6.01 2	-8.08 0	6.04 2
10.0989	10.1500	4.20	8.00	3.17 2	-8.24 2	-3.19 2	8.27 2
10.0791	10.1557	2.40	24.00	2.17 1	-6.08 2	-2.21 1	6.10 2
10.0413	10.1558	1.95	47.00	6.71 0	-5.93 2	-6.95 0	5.96 2
10.1110	10.1642	3.70	9.60	1.69 2	-6.89 2	-1.70 2	6.92 2
10.0765	10.1645	2.20	31.00	1.37 1	-6.11 2	-1.40 1	6.13 2
10.1045	10.1646	3.00	14.00	6.39 1	-6.12 2	-6.45 1	6.14 2
10.1133	10.1678	3.50	10.50	1.30 2	-6.57 2	-1.31 2	6.60 2
10.0366	10.1682	1.85	57.00	4.79 0	-5.65 2	-5.01 0	5.69 2
10.1165	10.1690	3.80	9.20	1.92 2	-7.10 2	-1.94 2	7.13 2
10.0884	10.1698	2.30	27.00	1.75 1	-6.10 2	-1.78 1	6.12 2
10.0743	10.1704	2.10	36.00	1.06 1	-6.09 2	-1.09 1	6.12 2
10.1104	10.1720	2.90	15.00	5.48 1	-6.08 2	-5.54 1	6.10 2
10.1225	10.1762	3.60	10.00	1.49 2	-6.73 2	-1.50 2	6.75 2
10.1247	10.1799	3.40	11.00	1.14 2	-6.45 2	-1.15 2	6.47 2
10.1329	10.1823	5.00	6.40	1.01 3	-1.45 3	-1.01 3	1.46 3
10.0401	10.1825	1.80	63.00	4.00 0	-5.43 2	-4.20 0	5.47 2
10.1396	10.1915	3.90	8.80	2.21 2	-7.35 2	-2.22 2	7.38 2
10.0721	10.1932	1.90	51.00	5.79 0	-5.84 2	-6.02 0	5.87 2
10.0381	10.1937	1.75	70.00	3.29 0	-5.13 2	-3.48 0	5.16 2
10.1355	10.1938	3.10	13.00	7.52 1	-6.18 2	-7.59 1	6.20 2
10.1287	10.1943	2.70	17.50	3.95 1	-6.05 2	-4.00 1	6.07 2
10.0337	10.2054	1.70	78.00	2.66 0	-4.73 2	-2.85 0	4.76 2
10.1031	10.2089	2.00	42.00	8.07 0	-6.03 2	-8.32 0	6.06 2
10.0977	10.2103	1.95	46.00	6.90 0	-5.96 2	-7.15 0	5.99 2
10.1561	10.2120	3.30	11.50	1.01 2	-6.35 2	-1.02 2	6.38 2
10.0829	10.2126	1.85	56.00	4.91 0	-5.70 2	-5.13 0	5.73 2
10.1505	10.2136	2.80	16.00	4.73 1	-6.06 2	-4.79 1	6.08 2
10.0275	10.2192	1.65	87.00	2.12 0	-4.23 2	-2.30 0	4.26 2
10.1716	10.2213	4.60	7.00	5.64 2	-1.05 3	-5.67 2	1.05 3
10.1721	10.2222	4.40	7.40	4.27 2	-9.24 2	-4.30 2	9.27 2
10.0825	10.2228	1.80	62.00	4.09 0	-5.48 2	-4.30 0	5.51 2
10.1553	10.2233	2.60	19.00	3.33 1	-6.05 2	-3.38 1	6.07 2
10.1521	10.2234	2.50	21.00	2.75 1	-6.06 2	-2.79 1	6.08 2
10.0770	10.2304	1.75	69.00	3.36 0	-5.18 2	-3.56 0	5.21 2
10.1812	10.2325	4.00	8.40	2.56 2	-7.68 2	-2.58 2	7.71 2
10.0699	10.2393	1.70	77.00	2.72 0	-4.79 2	-2.91 0	4.82 2
10.1239	10.2430	1.90	50.00	5.95 0	-5.88 2	-6.18 0	5.91 2
10.1507	10.2449	2.10	35.00	1.10 1	-6.11 2	-1.13 1	6.14 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.1964	10.2489	3.70	9.40	1.75 2	-6.96 2	-1.77 2	6.98 2
10.0617	10.2509	1.65	86.00	2.17 0	-4.29 2	-2.34 0	4.33 2
10.1682	10.2541	2.20	30.00	1.43 1	-6.12 2	-1.46 1	6.15 2
10.2031	10.2562	3.60	9.80	1.54 2	-6.78 2	-1.56 2	6.80 2
10.2086	10.2574	5.40	5.80	2.17 3	-2.41 3	-2.18 3	2.42 3
10.1302	10.2579	1.85	55.00	5.03 0	-5.74 2	-5.25 0	5.77 2
10.2093	10.2585	4.80	6.60	7.77 2	-1.25 3	-7.81 2	1.25 3
10.2072	10.2592	3.80	9.00	2.00 2	-7.18 2	-2.02 2	7.21 2
10.2098	10.2602	4.20	7.80	3.36 2	-8.41 2	-3.38 2	8.45 2
10.2072	10.2637	3.20	12.00	8.96 1	-6.28 2	-9.04 1	6.30 2
10.1256	10.2638	1.80	61.00	4.19 0	-5.53 2	-4.39 0	5.56 2
10.1556	10.2662	1.95	45.00	7.11 0	-5.99 2	-7.35 0	6.02 2
10.1164	10.2677	1.75	68.00	3.44 0	-5.23 2	-3.63 0	5.26 2
10.1671	10.2710	2.00	41.00	8.33 0	-6.06 2	-8.58 0	6.09 2
10.1064	10.2735	1.70	76.00	2.78 0	-4.85 2	-2.96 0	4.88 2
10.1974	10.2768	2.30	26.00	1.84 1	-6.11 2	-1.87 1	6.13 2
10.2059	10.2803	2.40	23.00	2.30 1	-6.08 2	-2.33 1	6.11 2
10.0962	10.2828	1.65	85.00	2.21 0	-4.36 2	-2.39 0	4.39 2
10.2378	10.2866	5.20	6.00	1.62 3	-2.01 3	-1.63 3	2.02 3
10.2271	10.2875	2.90	14.50	5.75 1	-6.10 2	-5.81 1	6.12 2
10.2364	10.2877	3.90	8.60	2.31 2	-7.45 2	-2.33 2	7.48 2
10.2235	10.2880	2.70	17.00	4.11 1	-6.06 2	-4.16 1	6.08 2
10.2329	10.2916	3.00	13.50	6.74 1	-6.15 2	-6.81 1	6.17 2
10.1770	10.2942	1.90	49.00	6.12 0	-5.91 2	-6.35 0	5.94 2
10.1785	10.3041	1.85	54.00	5.16 0	-5.77 2	-5.38 0	5.80 2
10.1564	10.3055	1.75	67.00	3.51 0	-5.28 2	-3.71 0	5.31 2
10.1694	10.3056	1.80	60.00	4.29 0	-5.57 2	-4.49 0	5.60 2
10.2404	10.3073	2.60	18.50	3.46 1	-6.06 2	-3.50 1	6.08 2
10.1433	10.3081	1.70	75.00	2.84 0	-4.90 2	-3.02 0	4.93 2
10.1309	10.3150	1.65	84.00	2.26 0	-4.42 2	-2.43 0	4.45 2
10.2576	10.3195	2.80	15.50	4.95 1	-6.08 2	-5.01 1	6.10 2
10.2301	10.3223	2.10	34.00	1.14 1	-6.13 2	-1.17 1	6.16 2
10.2151	10.3238	1.95	44.00	7.32 0	-6.02 2	-7.57 0	6.05 2
10.2780	10.3350	3.10	12.50	7.98 1	-6.22 2	-8.06 1	6.24 2
10.2332	10.3352	2.00	40.00	8.60 0	-6.08 2	-8.86 0	6.11 2
10.2850	10.3356	4.00	8.20	2.69 2	-7.81 2	-2.71 2	7.84 2
10.2871	10.3357	5.00	6.20	1.18 3	-1.62 3	-1.18 3	1.63 3
10.2847	10.3366	3.70	9.20	1.82 2	-7.02 2	-1.84 2	7.05 2
10.2864	10.3389	3.60	9.60	1.60 2	-6.83 2	-1.61 2	6.86 2
10.1806	10.3432	1.70	74.00	2.90 0	-4.96 2	-3.08 0	4.99 2
10.1969	10.3439	1.75	66.00	3.59 0	-5.33 2	-3.79 0	5.36 2
10.2968	10.3461	4.40	7.20	4.59 2	-9.53 2	-4.62 2	9.57 2
10.2314	10.3466	1.90	48.00	6.29 0	-5.94 2	-6.52 0	5.97 2
10.1659	10.3475	1.65	83.00	2.31 0	-4.48 2	-2.48 0	4.51 2
10.2641	10.3480	2.20	29.00	1.50 1	-6.13 2	-1.53 1	6.16 2
10.2139	10.3481	1.80	59.00	4.39 0	-5.61 2	-4.60 0	5.64 2
10.2277	10.3514	1.85	53.00	5.30 0	-5.81 2	-5.52 0	5.84 2
10.3013	10.3526	3.80	8.80	2.09 2	-7.26 2	-2.11 2	7.29 2
10.3069	10.3559	4.60	6.80	6.10 2	-1.09 3	-6.14 2	1.10 3
10.3050	10.3587	3.40	10.50	1.24 2	-6.53 2	-1.24 2	6.56 2
10.3059	10.3589	3.50	10.00	1.41 2	-6.68 2	-1.42 2	6.70 2
10.3039	10.3730	2.50	20.00	2.94 1	-6.07 2	-2.98 1	6.09 2
10.3255	10.3752	4.20	7.60	3.57 2	-8.61 2	-3.59 2	8.64 2
10.2183	10.3787	1.70	73.00	2.96 0	-5.01 2	-3.15 0	5.04 2
10.3256	10.3801	3.30	11.00	1.09 2	-6.42 2	-1.09 2	6.44 2
10.2011	10.3803	1.65	82.00	2.35 0	-4.54 2	-2.53 0	4.57 2
10.2380	10.3830	1.75	65.00	3.67 0	-5.38 2	-3.87 0	5.41 2
10.2763	10.3830	1.95	43.00	7.55 0	-6.05 2	-7.79 0	6.08 2
10.3226	10.3859	2.70	16.50	4.29 1	-6.07 2	-4.34 1	6.09 2
10.3370	10.3876	3.90	8.40	2.42 2	-7.56 2	-2.44 2	7.59 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.3125	10.3898	2.30	25.00	1.93 1	-6.12 2	-1.97 1	6.14 2
10.2593	10.3915	1.80	58.00	4.50 0	-5.66 2	-4.71 0	5.69 2
10.3289	10.3947	2.60	18.00	3.59 1	-6.06 2	-3.64 1	6.09 2
10.2780	10.3998	1.85	52.00	5.44 0	-5.85 2	-5.66 0	5.88 2
10.2871	10.4004	1.90	47.00	6.47 0	-5.97 2	-6.70 0	6.00 2
10.3014	10.4014	2.00	39.00	8.89 0	-6.11 2	-9.15 0	6.13 2
10.3127	10.4029	2.10	33.00	1.18 1	-6.14 2	-1.21 1	6.17 2
10.3572	10.4056	4.80	6.40	8.57 2	-1.31 3	-8.62 2	1.32 3
10.3502	10.4093	2.90	14.00	6.05 1	-6.12 2	-6.12 1	6.14 2
10.3409	10.4132	2.40	22.00	2.44 1	-6.09 2	-2.47 1	6.12 2
10.2366	10.4134	1.65	81.00	2.40 0	-4.60 2	-2.58 0	4.63 2
10.2565	10.4146	1.70	72.00	3.03 0	-5.07 2	-3.21 0	5.10 2
10.3672	10.4223	3.20	11.50	9.59 1	-6.33 2	-9.67 1	6.35 2
10.2798	10.4226	1.75	64.00	3.76 0	-5.43 2	-3.95 0	5.46 2
10.3726	10.4245	3.60	9.40	1.66 2	-6.89 2	-1.68 2	6.91 2
10.3688	10.4262	3.00	13.00	7.13 1	-6.18 2	-7.20 1	6.20 2
10.3762	10.4275	3.70	9.00	1.90 2	-7.10 2	-1.92 2	7.12 2
10.3701	10.4308	2.80	15.00	5.19 1	-6.09 2	-5.24 1	6.11 2
10.3055	10.4357	1.80	57.00	4.61 0	-5.70 2	-4.82 0	5.73 2
10.3880	10.4359	5.40	5.60	7.27 2	-7.68 2	-7.31 2	7.71 2
10.3872	10.4396	3.50	9.80	1.47 2	-6.72 2	-1.48 2	6.75 2
10.3930	10.4429	4.00	8.00	2.84 2	-7.94 2	-2.86 2	7.97 2
10.3393	10.4441	1.95	42.00	7.79 0	-6.07 2	-8.03 0	6.10 2
10.3647	10.4466	2.20	28.00	1.57 1	-6.14 2	-1.60 1	6.17 2
10.2725	10.4468	1.65	80.00	2.45 0	-4.66 2	-2.63 0	4.69 2
10.3295	10.4493	1.85	51.00	5.58 0	-5.88 2	-5.80 0	5.91 2
10.2520	10.4493	1.60	90.00	1.92 0	-4.08 2	-2.08 0	4.11 2
10.3989	10.4496	3.80	8.60	2.19 2	-7.36 2	-2.21 2	7.38 2
10.2951	10.4510	1.70	71.00	3.09 0	-5.12 2	-3.28 0	5.15 2
10.3840	10.4520	2.50	19.50	3.04 1	-6.08 2	-3.08 1	6.10 2
10.3443	10.4557	1.90	46.00	6.66 0	-6.01 2	-6.89 0	6.03 2
10.4086	10.4565	5.20	5.80	1.93 3	-2.27 3	-1.94 3	2.28 3
10.3222	10.4629	1.75	63.00	3.85 0	-5.48 2	-4.04 0	5.51 2
10.3719	10.4700	2.00	38.00	9.20 0	-6.13 2	-9.46 0	6.15 2
10.4274	10.4760	4.40	7.00	4.94 2	-9.86 2	-4.97 2	9.90 2
10.3086	10.4806	1.65	79.00	2.51 0	-4.71 2	-2.68 0	4.75 2
10.3526	10.4808	1.80	56.00	4.73 0	-5.74 2	-4.93 0	5.77 2
10.2863	10.4809	1.60	89.00	1.96 0	-4.15 2	-2.12 0	4.18 2
10.4296	10.4852	3.10	12.00	8.50 1	-6.26 2	-8.58 1	6.28 2
10.4212	10.4858	2.60	17.50	3.73 1	-6.07 2	-3.78 1	6.09 2
10.3987	10.4869	2.10	32.00	1.23 1	-6.16 2	-1.26 1	6.19 2
10.3342	10.4880	1.70	70.00	3.16 0	-5.17 2	-3.34 0	5.20 2
10.4262	10.4884	2.70	16.00	4.48 1	-6.08 2	-4.53 1	6.10 2
10.4415	10.4915	3.90	8.20	2.55 2	-7.68 2	-2.56 2	7.71 2
10.4463	10.4953	4.20	7.40	3.81 2	-8.83 2	-3.83 2	8.87 2
10.4491	10.4973	4.60	6.60	6.65 2	-1.14 3	-6.68 2	1.14 3
10.4501	10.4979	5.00	6.00	1.33 3	-1.75 3	-1.34 3	1.76 3
10.3821	10.4999	1.85	50.00	5.74 0	-5.92 2	-5.95 0	5.95 2
10.3652	10.5039	1.75	62.00	3.94 0	-5.52 2	-4.13 0	5.55 2
10.4042	10.5071	1.95	41.00	8.04 0	-6.10 2	-8.28 0	6.13 2
10.4344	10.5095	2.30	24.00	2.04 1	-6.12 2	-2.08 1	6.15 2
10.4030	10.5124	1.90	45.00	6.86 0	-6.03 2	-7.09 0	6.06 2
10.3208	10.5127	1.60	88.00	2.00 0	-4.21 2	-2.16 0	4.24 2
10.4617	10.5130	3.60	9.20	1.73 2	-6.95 2	-1.74 2	6.98 2
10.3451	10.5148	1.65	78.00	2.56 0	-4.77 2	-2.73 0	4.80 2
10.4711	10.5218	3.70	8.80	1.99 2	-7.18 2	-2.00 2	7.20 2
10.4713	10.5231	3.50	9.60	1.52 2	-6.77 2	-1.53 2	6.80 2
10.3738	10.5254	1.70	69.00	3.23 0	-5.22 2	-3.41 0	5.26 2
10.4006	10.5268	1.80	55.00	4.85 0	-5.78 2	-5.05 0	5.81 2
10.4672	10.5341	2.50	19.00	3.15 1	-6.08 2	-3.19 1	6.11 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.4802	10.5380	2.90	13.50	6.39 1	-6.15 2	-6.45 1	6.17 2
10.4448	10.5409	2.00	37.00	9.53 0	-6.15 2	-9.78 0	6.17 2
10.3555	10.5448	1.60	87.00	2.04 0	-4.27 2	-2.20 0	4.30 2
10.4090	10.5457	1.75	61.00	4.03 0	-5.57 2	-4.22 0	5.60 2
10.4885	10.5479	2.80	14.50	5.45 1	-6.11 2	-5.50 1	6.13 2
10.3819	10.5493	1.65	77.00	2.61 0	-4.83 2	-2.79 0	4.86 2
10.4704	10.5503	2.20	27.00	1.64 1	-6.15 2	-1.67 1	6.18 2
10.4994	10.5517	3.40	10.00	1.34 2	-6.63 2	-1.35 2	6.65 2
10.4360	10.5519	1.85	49.00	5.89 0	-5.95 2	-6.11 0	5.98 2
10.4851	10.5552	2.40	21.00	2.59 1	-6.10 2	-2.63 1	6.12 2
10.4139	10.5634	1.70	68.00	3.30 0	-5.28 2	-3.48 0	5.31 2
10.4634	10.5708	1.90	44.00	7.06 0	-6.06 2	-7.29 0	6.09 2
10.4712	10.5721	1.95	40.00	8.30 0	-6.12 2	-8.55 0	6.15 2
10.4496	10.5739	1.80	54.00	4.97 0	-5.82 2	-5.18 0	5.85 2
10.4884	10.5747	2.10	31.00	1.28 1	-6.17 2	-1.31 1	6.20 2
10.3904	10.5772	1.60	86.00	2.08 0	-4.33 2	-2.24 0	4.36 2
10.4191	10.5842	1.65	76.00	2.67 0	-4.89 2	-2.84 0	4.92 2
10.4535	10.5882	1.75	60.00	4.13 0	-5.61 2	-4.32 0	5.64 2
10.4545	10.6019	1.70	67.00	3.38 0	-5.33 2	-3.56 0	5.36 2
10.4912	10.6051	1.85	48.00	6.06 0	-5.99 2	-6.28 0	6.01 2
10.4255	10.6098	1.60	85.00	2.12 0	-4.40 2	-2.29 0	4.43 2
10.4567	10.6195	1.65	75.00	2.73 0	-4.94 2	-2.90 0	4.97 2
10.4996	10.6219	1.80	53.00	5.10 0	-5.86 2	-5.31 0	5.89 2
10.4988	10.6315	1.75	59.00	4.23 0	-5.66 2	-4.42 0	5.69 2
10.4958	10.6411	1.70	66.00	3.45 0	-5.38 2	-3.63 0	5.41 2
10.4609	10.6427	1.60	84.00	2.17 0	-4.46 2	-2.33 0	4.49 2
10.4947	10.6553	1.65	74.00	2.78 0	-5.00 2	-2.96 0	5.03 2
10.4965	10.6759	1.60	83.00	2.21 0	-4.52 2	-2.37 0	4.55 2
10.50	11.00						
10.5003	10.5503	3.80	8.40	2.30 2	-7.45 2	-2.31 2	7.48 2
10.5055	10.5547	4.00	7.80	3.00 2	-8.09 2	-3.02 2	8.12 2
10.5077	10.5607	3.30	10.50	1.17 2	-6.50 2	-1.18 2	6.52 2
10.5131	10.5607	4.80	6.20	9.77 2	-1.43 3	-9.82 2	1.44 3
10.5130	10.5691	3.00	12.50	7.57 1	-6.21 2	-7.64 1	6.23 2
10.5175	10.5809	2.60	17.00	3.89 1	-6.08 2	-3.93 1	6.10 2
10.5385	10.5922	3.20	11.00	1.03 2	-6.39 2	-1.04 2	6.41 2
10.5349	10.5959	2.70	15.50	4.68 1	-6.09 2	-4.73 1	6.11 2
10.5503	10.5996	3.90	8.00	2.68 2	-7.80 2	-2.70 2	7.83 2
10.5540	10.6047	3.60	9.00	1.80 2	-7.02 2	-1.82 2	7.05 2
10.5582	10.6094	3.50	9.40	1.58 2	-6.83 2	-1.59 2	6.85 2
10.5644	10.6123	4.40	6.80	5.33 2	-1.02 3	-5.36 2	1.02 3
10.5203	10.6146	2.00	36.00	9.87 0	-6.17 2	-1.01 1	6.19 2
10.5537	10.6194	2.50	18.50	3.26 1	-6.09 2	-3.31 1	6.11 2
10.5695	10.6196	3.70	8.60	2.08 2	-7.26 2	-2.09 2	7.29 2
10.5727	10.6210	4.20	7.20	4.08 2	-9.09 2	-4.10 2	9.12 2
10.5254	10.6310	1.90	43.00	7.28 0	-6.09 2	-7.51 0	6.12 2
10.5816	10.6333	3.40	9.80	1.39 2	-6.67 2	-1.40 2	6.70 2
10.5636	10.6367	2.30	23.00	2.16 1	-6.13 2	-2.19 1	6.16 2
10.5898	10.6369	5.20	5.60	1.47 3	-1.64 3	-1.47 3	1.64 3
10.5403	10.6393	1.95	39.00	8.58 0	-6.15 2	-8.83 0	6.17 2
10.5914	10.6457	3.10	11.50	9.09 1	-6.31 2	-9.17 1	6.33 2
10.5987	10.6461	4.60	6.40	7.27 2	-1.19 3	-7.31 2	1.19 3
10.6057	10.6550	3.80	8.20	2.41 2	-7.56 2	-2.43 2	7.59 2
10.5817	10.6596	2.20	26.00	1.72 1	-6.16 2	-1.76 1	6.19 2
10.5477	10.6597	1.85	47.00	6.23 0	-6.02 2	-6.45 0	6.05 2
10.5821	10.6664	2.10	30.00	1.34 1	-6.19 2	-1.37 1	6.21 2
10.6226	10.6696	5.00	5.80	1.55 3	-1.94 3	-1.56 3	1.94 3
10.5507	10.6711	1.80	52.00	5.24 0	-5.89 2	-5.44 0	5.92 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.6228	10.6714	4.00	7.60	3.18 2	-8.26 2	-3.20 2	8.29 2
10.6132	10.6714	2.80	14.00	5.73 1	-6.13 2	-5.79 1	6.15 2
10.6178	10.6744	2.90	13.00	6.76 1	-6.17 2	-6.82 1	6.20 2
10.5449	10.6756	1.75	58.00	4.33 0	-5.70 2	-4.52 0	5.73 2
10.6181	10.6803	2.60	16.50	4.05 1	-6.09 2	-4.10 1	6.11 2
10.5376	10.6808	1.70	65.00	3.53 0	-5.43 2	-3.71 0	5.46 2
10.5987	10.6910	2.00	35.00	1.02 1	-6.19 2	-1.05 1	6.21 2
10.5331	10.6915	1.65	73.00	2.84 0	-5.06 2	-3.01 0	5.09 2
10.5893	10.6929	1.90	42.00	7.51 0	-6.12 2	-7.74 0	6.14 2
10.6482	10.6988	3.50	9.20	1.64 2	-6.88 2	-1.65 2	6.91 2
10.6497	10.6998	3.60	8.80	1.88 2	-7.09 2	-1.89 2	7.12 2
10.6396	10.7075	2.40	20.00	2.77 1	-6.11 2	-2.80 1	6.13 2
10.6437	10.7083	2.50	18.00	3.39 1	-6.10 2	-3.43 1	6.12 2
10.6117	10.7087	1.95	38.00	8.88 0	-6.17 2	-9.12 0	6.19 2
10.6490	10.7087	2.70	15.00	4.90 1	-6.11 2	-4.96 1	6.13 2
10.5324	10.7094	1.60	82.00	2.26 0	-4.58 2	-2.42 0	4.61 2
10.6637	10.7123	3.90	7.80	2.83 2	-7.94 2	-2.85 2	7.97 2
10.6057	10.7158	1.85	46.00	6.42 0	-6.05 2	-6.63 0	6.08 2
10.6664	10.7176	3.40	9.60	1.44 2	-6.72 2	-1.45 2	6.74 2
10.5918	10.7205	1.75	57.00	4.44 0	-5.74 2	-4.63 0	5.77 2
10.6718	10.7211	3.70	8.40	2.17 2	-7.35 2	-2.19 2	7.38 2
10.5800	10.7212	1.70	64.00	3.61 0	-5.48 2	-3.79 0	5.51 2
10.6664	10.7212	3.00	12.00	8.06 1	-6.25 2	-8.13 1	6.27 2
10.6030	10.7214	1.80	51.00	5.38 0	-5.93 2	-5.58 0	5.96 2
10.6779	10.7247	4.80	6.00	1.10 3	-1.53 3	-1.10 3	1.54 3
10.5719	10.7281	1.65	72.00	2.91 0	-5.11 2	-3.08 0	5.14 2
10.5686	10.7432	1.60	81.00	2.31 0	-4.64 2	-2.47 0	4.67 2
10.7050	10.7526	4.20	7.00	4.38 2	-9.37 2	-4.40 2	9.41 2
10.7083	10.7555	4.40	6.60	5.78 2	-1.06 3	-5.81 2	1.06 3
10.7041	10.7557	3.30	10.00	1.27 2	-6.59 2	-1.28 2	6.61 2
10.6551	10.7568	1.90	41.00	7.75 0	-6.14 2	-7.98 0	6.17 2
10.6231	10.7623	1.70	63.00	3.70 0	-5.52 2	-3.88 0	5.55 2
10.6802	10.7625	2.10	29.00	1.40 1	-6.20 2	-1.43 1	6.22 2
10.7153	10.7640	3.80	8.00	2.54 2	-7.68 2	-2.55 2	7.71 2
10.6112	10.7653	1.65	71.00	2.97 0	-5.16 2	-3.14 0	5.19 2
10.6397	10.7664	1.75	56.00	4.55 0	-5.78 2	-4.74 0	5.81 2
10.6800	10.7704	2.00	34.00	1.06 1	-6.20 2	-1.09 1	6.23 2
10.7012	10.7722	2.30	22.00	2.29 1	-6.14 2	-2.32 1	6.16 2
10.6564	10.7729	1.80	50.00	5.52 0	-5.96 2	-5.73 0	5.99 2
10.6653	10.7735	1.85	45.00	6.61 0	-6.08 2	-6.82 0	6.11 2
10.7225	10.7748	3.20	10.50	1.11 2	-6.46 2	-1.12 2	6.49 2
10.6992	10.7750	2.20	25.00	1.82 1	-6.17 2	-1.85 1	6.20 2
10.6051	10.7774	1.60	80.00	2.35 0	-4.70 2	-2.51 0	4.73 2
10.6856	10.7807	1.95	37.00	9.19 0	-6.19 2	-9.44 0	6.21 2
10.7233	10.7844	2.60	16.00	4.23 1	-6.10 2	-4.27 1	6.12 2
10.7211	10.7879	2.40	19.50	2.86 1	-6.12 2	-2.90 1	6.14 2
10.7414	10.7913	3.50	9.00	1.71 2	-6.95 2	-1.72 2	6.97 2
10.7454	10.7933	4.00	7.40	3.38 2	-8.45 2	-3.40 2	8.48 2
10.6029	10.7976	1.55	90.00	1.84 0	-4.12 2	-1.99 0	4.15 2
10.7490	10.7984	3.60	8.60	1.96 2	-7.17 2	-1.98 2	7.20 2
10.7374	10.8009	2.50	17.50	3.52 1	-6.10 2	-3.56 1	6.12 2
10.7449	10.8019	2.80	13.50	6.04 1	-6.15 2	-6.10 1	6.17 2
10.6510	10.8029	1.65	70.00	3.03 0	-5.22 2	-3.20 0	5.25 2
10.7565	10.8031	4.60	6.20	8.14 2	-1.27 3	-8.18 2	1.29 3
10.6669	10.8040	1.70	62.00	3.78 0	-5.57 2	-3.96 0	5.60 2
10.7542	10.8047	3.40	9.40	1.50 2	-6.77 2	-1.51 2	6.79 2
10.6420	10.8119	1.60	79.00	2.40 0	-4.76 2	-2.56 0	4.79 2
10.6885	10.8133	1.75	55.00	4.66 0	-5.83 2	-4.85 0	5.85 2
10.7646	10.8175	3.10	11.00	9.76 1	-6.37 2	-9.83 1	6.39 2
10.7638	10.8191	2.90	12.50	7.17 1	-6.21 2	-7.23 1	6.23 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.7230	10.8228	1.90	40.00	8.01 0	-6.17 2	-8.24 0	6.19 2
10.7111	10.8257	1.80	49.00	5.67 0	-6.00 2	-5.88 0	6.03 2
10.7780	10.8268	3.70	8.20	2.28 2	-7.46 2	-2.29 2	7.48 2
10.7691	10.8275	2.70	14.50	5.15 1	-6.12 2	-5.20 1	6.14 2
10.7826	10.8289	5.20	5.40	1.61 3	-1.70 3	-1.61 3	1.71 3
10.7820	10.8299	3.90	7.60	3.00 2	-8.09 2	-3.01 2	8.12 2
10.6378	10.8300	1.55	89.00	1.87 0	-4.19 2	-2.03 0	4.22 2
10.7265	10.8328	1.85	44.00	6.81 0	-6.11 2	-7.02 0	6.13 2
10.7871	10.8381	3.30	9.80	1.32 2	-6.63 2	-1.33 2	6.65 2
10.6913	10.8411	1.65	69.00	3.10 0	-5.27 2	-3.27 0	5.30 2
10.7115	10.8465	1.70	61.00	3.87 0	-5.62 2	-4.05 0	5.65 2
10.6791	10.8467	1.60	78.00	2.45 0	-4.82 2	-2.61 0	4.85 2
10.8057	10.8518	5.00	5.60	1.50 3	-1.77 3	-1.50 3	1.78 3
10.7647	10.8530	2.00	33.00	1.11 1	-6.22 2	-1.13 1	6.24 2
10.7621	10.8553	1.95	36.00	9.53 0	-6.21 2	-9.77 0	6.23 2
10.7383	10.8611	1.75	54.00	4.78 0	-5.86 2	-4.97 0	5.89 2
10.6730	10.8626	1.55	88.00	1.91 0	-4.25 2	-2.06 0	4.28 2
10.7831	10.8634	2.10	28.00	1.47 1	-6.21 2	-1.49 1	6.23 2
10.8057	10.8714	2.40	19.00	2.96 1	-6.12 2	-3.00 1	6.14 2
10.8296	10.8776	3.80	7.80	2.68 2	-7.81 2	-2.69 2	7.84 2
10.7671	10.8798	1.80	48.00	5.83 0	-6.03 2	-6.04 0	6.06 2
10.7321	10.8798	1.65	68.00	3.17 0	-5.32 2	-3.34 0	5.35 2
10.7167	10.8820	1.60	77.00	2.51 0	-4.88 2	-2.67 0	4.90 2
10.8301	10.8836	3.00	11.50	8.61 1	-6.29 2	-8.68 1	6.32 2
10.8379	10.8873	3.50	8.80	1.78 2	-7.02 2	-1.79 2	7.04 2
10.7567	10.8898	1.70	60.00	3.96 0	-5.66 2	-4.14 0	5.69 2
10.8439	10.8907	4.20	6.80	4.71 2	-9.67 2	-4.74 2	9.71 2
10.7930	10.8909	1.90	39.00	8.28 0	-6.19 2	-8.51 0	6.21 2
10.8336	10.8935	2.60	15.50	4.42 1	-6.11 2	-4.47 1	6.13 2
10.7895	10.8938	1.85	43.00	7.02 0	-6.13 2	-7.23 0	6.16 2
10.8450	10.8949	3.40	9.20	1.55 2	-6.82 2	-1.56 2	6.85 2
10.7084	10.8954	1.55	87.00	1.95 0	-4.31 2	-2.10 0	4.34 2
10.8236	10.8973	2.20	24.00	1.91 1	-6.18 2	-1.95 1	6.20 2
10.8353	10.8976	2.50	17.00	3.66 1	-6.11 2	-3.71 1	6.13 2
10.8523	10.8983	4.80	5.80	1.25 3	-1.66 3	-1.26 3	1.66 3
10.8521	10.9009	3.60	8.40	2.06 2	-7.26 2	-2.07 2	7.28 2
10.8598	10.9062	4.40	6.40	6.30 2	-1.10 3	-6.33 2	1.11 3
10.7891	10.9100	1.75	53.00	4.91 0	-5.90 2	-5.10 0	5.93 2
10.8481	10.9169	2.30	21.00	2.44 1	-6.15 2	-2.47 1	6.17 2
10.7546	10.9176	1.60	76.00	2.56 0	-4.93 2	-2.72 0	4.96 2
10.7735	10.9191	1.65	67.00	3.24 0	-5.37 2	-3.41 0	5.40 2
10.8736	10.9208	4.00	7.20	3.61 2	-8.67 2	-3.63 2	8.70 2
10.8728	10.9232	3.30	9.60	1.36 2	-6.67 2	-1.37 2	6.69 2
10.7440	10.9285	1.55	86.00	1.99 0	-4.38 2	-2.14 0	4.41 2
10.8415	10.9328	1.95	35.00	9.88 0	-6.22 2	-1.01 1	6.25 2
10.8028	10.9339	1.70	59.00	4.06 0	-5.71 2	-4.24 0	5.73 2
10.8245	10.9353	1.80	47.00	6.00 0	-6.06 2	-6.20 0	6.09 2
10.8886	10.9367	3.70	8.00	2.40 2	-7.57 2	-2.41 2	7.59 2
10.8528	10.9392	2.00	32.00	1.15 1	-6.23 2	-1.18 1	6.26 2
10.8843	10.9400	2.80	13.00	6.39 1	-6.18 2	-6.45 1	6.20 2
10.9055	10.9527	3.90	7.40	3.18 2	-8.27 2	-3.20 2	8.30 2
10.8955	10.9528	2.70	14.00	5.41 1	-6.14 2	-5.47 1	6.16 2
10.7929	10.9537	1.60	75.00	2.61 0	-4.99 2	-2.77 0	5.02 2
10.8543	10.9567	1.85	42.00	7.24 0	-6.16 2	-7.45 0	6.19 2
10.8937	10.9583	2.40	18.50	3.07 1	-6.13 2	-3.11 1	6.15 2
10.8155	10.9590	1.65	66.00	3.31 0	-5.42 2	-3.48 0	5.45 2
10.8410	10.9600	1.75	52.00	5.03 0	-5.94 2	-5.23 0	5.97 2
10.8654	10.9614	1.90	38.00	8.56 0	-6.21 2	-8.79 0	6.23 2
10.7798	10.9618	1.55	85.00	2.03 0	-4.44 2	-2.18 0	4.47 2
10.9231	10.9690	4.60	6.00	9.01 2	-1.34 3	-9.05 2	1.34 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
10.8911	10.9694	2.10	27.00	1.54 1	-6.22 2	-1.56 1	6.24 2
10.9210	10.9718	3.20	10.00	1.20 2	-6.55 2	-1.21 2	6.57 2
10.9191	10.9731	2.90	12.00	7.62 1	-6.24 2	-7.69 1	6.26 2
10.8497	10.9788	1.70	58.00	4.16 0	-5.75 2	-4.34 0	5.78 2
10.9381	10.9868	3.50	8.60	1.86 2	-7.09 2	-1.87 2	7.12 2
10.9390	10.9883	3.40	9.00	1.62 2	-6.88 2	-1.63 2	6.91 2
10.8316	10.9902	1.60	74.00	2.67 0	-5.05 2	-2.83 0	5.08 2
10.8834	10.9923	1.80	46.00	6.18 0	-6.09 2	-6.38 0	6.12 2
10.8159	10.9954	1.55	84.00	2.08 0	-4.50 2	-2.23 0	4.53 2
10.9488	10.9962	3.80	7.60	2.83 2	-7.95 2	-2.84 2	7.98 2
10.9375	10.9987	2.50	16.50	3.82 1	-6.12 2	-3.86 1	6.14 2
10.8581	10.9995	1.65	65.00	3.39 0	-5.47 2	-3.56 0	5.50 2
10.9507	11.0022	3.10	10.50	1.05 2	-6.43 2	-1.06 2	6.46 2
10.9593	11.0074	3.60	8.20	2.16 2	-7.35 2	-2.17 2	7.38 2
10.9494	11.0082	2.60	15.00	4.63 1	-6.12 2	-4.68 1	6.14 2
10.8941	11.0111	1.75	51.00	5.17 0	-5.98 2	-5.36 0	6.00 2
10.9614	11.0112	3.30	9.40	1.42 2	-6.72 2	-1.42 2	6.74 2
10.9239	11.0132	1.95	34.00	1.03 1	-6.24 2	-1.05 1	6.27 2
10.9210	11.0216	1.85	41.00	7.47 0	-6.19 2	-7.68 0	6.21 2
10.8974	11.0246	1.70	57.00	4.26 0	-5.79 2	-4.44 0	5.82 2
10.9555	11.0271	2.20	23.00	2.02 1	-6.19 2	-2.06 1	6.21 2
10.8707	11.0271	1.60	73.00	2.73 0	-5.10 2	-2.89 0	5.13 2
10.9447	11.0292	2.00	31.00	1.20 1	-6.25 2	-1.22 1	6.27 2
10.8523	11.0294	1.55	83.00	2.12 0	-4.56 2	-2.27 0	4.59 2
10.9403	11.0344	1.90	37.00	8.86 0	-6.23 2	-9.09 0	6.25 2
10.9897	11.0358	4.20	6.60	5.10 2	-1.00 3	-5.12 2	1.01 3
10.9013	11.0407	1.65	64.00	3.47 0	-5.52 2	-3.64 0	5.55 2
10.9853	11.0487	2.40	18.00	3.19 1	-6.13 2	-3.23 1	6.15 2
10.9439	11.0508	1.80	45.00	6.36 0	-6.12 2	-6.56 0	6.15 2
10.9484	11.0635	1.75	50.00	5.31 0	-6.01 2	-5.50 0	6.04 2
10.8889	11.0636	1.55	82.00	2.16 0	-4.62 2	-2.31 0	4.65 2
10.9103	11.0646	1.60	72.00	2.78 0	-5.16 2	-2.94 0	5.19 2
10.9461	11.0713	1.70	56.00	4.37 0	-5.83 2	-4.55 0	5.86 2
10.9452	11.0826	1.65	63.00	3.55 0	-5.57 2	-3.72 0	5.60 2
10.9898	11.0885	1.85	40.00	7.71 0	-6.21 2	-7.93 0	6.23 2
10.9258	11.0982	1.55	81.00	2.21 0	-4.68 2	-2.36 0	4.71 2
10.9503	11.1025	1.60	71.00	2.85 0	-5.21 2	-3.00 0	5.24 2
10.9957	11.1190	1.70	55.00	4.48 0	-5.87 2	-4.66 0	5.90 2
10.9897	11.1251	1.65	62.00	3.63 0	-5.62 2	-3.80 0	5.65 2
10.9631	11.1331	1.55	80.00	2.25 0	-4.74 2	-2.40 0	4.77 2
10.9909	11.1409	1.60	70.00	2.91 0	-5.27 2	-3.07 0	5.30 2
10.9816	11.1738	1.50	90.00	1.76 0	-4.17 2	-1.90 0	4.19 2
11.00	11.50						
11.0005	11.0458	5.00	5.40	1.69 3	-1.89 3	-1.70 3	1.90 3
11.0038	11.0512	3.70	7.80	2.53 2	-7.68 2	-2.54 2	7.71 2
11.0078	11.0543	4.00	7.00	3.86 2	-8.91 2	-3.88 2	8.94 2
11.0048	11.0551	3.20	9.80	1.25 2	-6.58 2	-1.25 2	6.61 2
11.0053	11.0574	3.00	11.00	9.23 1	-6.35 2	-9.30 1	6.37 2
11.0195	11.0651	4.40	6.20	6.98 2	-1.17 3	-7.01 2	1.17 3
11.0054	11.0721	2.30	20.00	2.60 1	-6.16 2	-2.63 1	6.18 2
11.0346	11.0812	3.90	7.20	3.39 2	-8.47 2	-3.41 2	8.50 2
11.0049	11.0812	2.10	26.00	1.61 1	-6.23 2	-1.64 1	6.25 2
11.0373	11.0825	4.80	5.60	1.30 3	-1.64 3	-1.31 3	1.64 3
11.0291	11.0851	2.70	13.50	5.71 1	-6.16 2	-5.76 1	6.18 2
11.0365	11.0852	3.40	8.80	1.68 2	-6.95 2	-1.69 2	6.97 2
11.0322	11.0866	2.80	12.50	6.77 1	-6.21 2	-6.83 1	6.22 2
11.0421	11.0902	3.50	8.40	1.94 2	-7.17 2	-1.95 2	7.19 2
11.0096	11.0970	1.95	33.00	1.07 1	-6.26 2	-1.09 1	6.28 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.0531	11.1023	3.30	9.20	1.47 2	-6.77 2	-1.48 2	6.79 2
11.0444	11.1044	2.50	16.00	3.98 1	-6.13 2	-4.03 1	6.15 2
11.0178	11.1100	1.90	36.00	9.19 0	-6.25 2	-9.41 0	6.27 2
11.0060	11.1111	1.80	44.00	6.55 0	-6.15 2	-6.75 0	6.18 2
11.0039	11.1172	1.75	49.00	5.46 0	-6.05 2	-5.65 0	6.07 2
11.0708	11.1183	3.60	8.00	2.26 2	-7.45 2	-2.28 2	7.48 2
11.0732	11.1199	3.80	7.40	3.00 2	-8.12 2	-3.01 2	8.14 2
11.0406	11.1232	2.00	30.00	1.25 1	-6.26 2	-1.28 1	6.28 2
11.0712	11.1287	2.60	14.50	4.86 1	-6.14 2	-4.90 1	6.16 2
11.0848	11.1375	2.90	11.50	8.14 1	-6.28 2	-8.20 1	6.30 2
11.0914	11.1411	3.20	9.60	1.29 2	-6.62 2	-1.30 2	6.64 2
11.0804	11.1430	2.40	17.50	3.31 1	-6.14 2	-3.35 1	6.16 2
11.0995	11.1446	4.60	5.80	1.01 3	-1.42 3	-1.01 3	1.43 3
11.0885	11.1540	2.30	19.50	2.69 1	-6.16 2	-2.72 1	6.18 2
11.0609	11.1577	1.85	39.00	7.97 0	-6.23 2	-8.19 0	6.26 2
11.0958	11.1654	2.20	22.00	2.15 1	-6.19 2	-2.18 1	6.21 2
11.0463	11.1676	1.70	54.00	4.59 0	-5.91 2	-4.77 0	5.94 2
11.0007	11.1684	1.55	79.00	2.30 0	-4.80 2	-2.45 0	4.83 2
11.0350	11.1684	1.65	61.00	3.71 0	-5.67 2	-3.88 0	5.69 2
11.1239	11.1707	3.70	7.60	2.67 2	-7.82 2	-2.68 2	7.84 2
11.0608	11.1722	1.75	48.00	5.61 0	-6.08 2	-5.80 0	6.11 2
11.0699	11.1731	1.80	43.00	6.75 0	-6.18 2	-6.95 0	6.21 2
11.0319	11.1798	1.60	69.00	2.97 0	-5.32 2	-3.13 0	5.35 2
11.0988	11.1843	1.95	32.00	1.11 1	-6.27 2	-1.13 1	6.30 2
11.1376	11.1857	3.40	8.60	1.76 2	-7.02 2	-1.77 2	7.04 2
11.1432	11.1885	4.20	6.40	5.54 2	-1.04 3	-5.57 2	1.04 3
11.0983	11.1885	1.90	35.00	9.53 0	-6.27 2	-9.75 0	6.29 2
11.1486	11.1944	4.00	6.80	4.14 2	-9.16 2	-4.16 2	9.19 2
11.1480	11.1967	3.30	9.00	1.53 2	-6.82 2	-1.54 2	6.84 2
11.1502	11.1977	3.50	8.20	2.04 2	-7.26 2	-2.05 2	7.28 2
11.1250	11.1993	2.10	25.00	1.70 1	-6.23 2	-1.73 1	6.26 2
11.1512	11.2013	3.10	10.00	1.14 2	-6.51 2	-1.15 2	6.53 2
11.0386	11.2040	1.55	78.00	2.35 0	-4.86 2	-2.50 0	4.89 2
11.0173	11.2069	1.50	89.00	1.79 0	-4.23 2	-1.93 0	4.26 2
11.0811	11.2125	1.65	60.00	3.80 0	-5.71 2	-3.97 0	5.74 2
11.1565	11.2153	2.50	15.50	4.16 1	-6.14 2	-4.21 1	6.16 2
11.1698	11.2157	3.90	7.00	3.62 2	-8.69 2	-3.64 2	8.71 2
11.0980	11.2174	1.70	53.00	4.71 0	-5.95 2	-4.89 0	5.98 2
11.0735	11.2194	1.60	68.00	3.04 0	-5.37 2	-3.20 0	5.40 2
11.1411	11.2217	2.00	29.00	1.31 1	-6.27 2	-1.33 1	6.29 2
11.1704	11.2251	2.70	13.00	6.03 1	-6.18 2	-6.08 1	6.20 2
11.1192	11.2286	1.75	47.00	5.77 0	-6.11 2	-5.96 0	6.14 2
11.1343	11.2292	1.85	38.00	8.25 0	-6.25 2	-8.46 0	6.28 2
11.1809	11.2300	3.20	9.40	1.34 2	-6.67 2	-1.35 2	6.69 2
11.1882	11.2330	4.40	6.00	7.69 2	-1.22 3	-7.72 2	1.23 3
11.1870	11.2338	3.60	7.80	2.38 2	-7.56 2	-2.39 2	7.59 2
11.1357	11.2369	1.80	42.00	6.96 0	-6.21 2	-7.17 0	6.23 2
11.1747	11.2391	2.30	19.00	2.78 1	-6.16 2	-2.82 1	6.18 2
11.0768	11.2400	1.55	77.00	2.40 0	-4.92 2	-2.55 0	4.95 2
11.0532	11.2402	1.50	88.00	1.83 0	-4.29 2	-1.97 0	4.32 2
11.1801	11.2413	2.40	17.00	3.45 1	-6.14 2	-3.48 1	6.16 2
11.1895	11.2426	2.80	12.00	7.20 1	-6.24 2	-7.26 1	6.26 2
11.1935	11.2442	3.00	10.50	9.94 1	-6.41 2	-1.00 2	6.43 2
11.2034	11.2494	3.80	7.20	3.19 2	-8.30 2	-3.21 2	8.33 2
11.2081	11.2525	5.00	5.20	1.02 3	-1.08 3	-1.03 3	1.09 3
11.1996	11.2558	2.60	14.00	5.11 1	-6.15 2	-5.15 1	6.17 2
11.1280	11.2574	1.65	59.00	3.89 0	-5.76 2	-4.06 0	5.78 2
11.1157	11.2594	1.60	67.00	3.11 0	-5.42 2	-3.26 0	5.45 2
11.1508	11.2683	1.70	52.00	4.84 0	-5.99 2	-5.01 0	6.02 2
11.1818	11.2701	1.90	34.00	9.89 0	-6.28 2	-1.01 1	6.31 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.0893	11.2738	1.50	87.00	1.87 0	-4.36 2	-2.01 0	4.39 2
11.1919	11.2754	1.95	31.00	1.16 1	-6.29 2	-1.18 1	6.31 2
11.1155	11.2764	1.55	76.00	2.45 0	-4.98 2	-2.60 0	5.01 2
11.2341	11.2785	4.80	5.40	1.46 3	-1.75 3	-1.47 3	1.75 3
11.2360	11.2855	3.10	9.80	1.18 2	-6.55 2	-1.19 2	6.57 2
11.1790	11.2865	1.75	46.00	5.94 0	-6.14 2	-6.13 0	6.17 2
11.2426	11.2900	3.40	8.40	1.84 2	-7.09 2	-1.85 2	7.11 2
11.2464	11.2945	3.30	8.80	1.59 2	-6.88 2	-1.60 2	6.90 2
11.2494	11.2955	3.70	7.40	2.82 2	-7.97 2	-2.84 2	7.99 2
11.1584	11.3001	1.60	66.00	3.18 0	-5.48 2	-3.33 0	5.50 2
11.2034	11.3028	1.80	41.00	7.19 0	-6.23 2	-7.39 0	6.26 2
11.1757	11.3032	1.65	58.00	3.99 0	-5.80 2	-4.16 0	5.83 2
11.2102	11.3032	1.85	37.00	8.54 0	-6.27 2	-8.75 0	6.30 2
11.1257	11.3077	1.50	86.00	1.91 0	-4.42 2	-2.04 0	4.45 2
11.2627	11.3095	3.50	8.00	2.14 2	-7.35 2	-2.15 2	7.37 2
11.2456	11.3130	2.20	21.00	2.28 1	-6.20 2	-2.31 1	6.22 2
11.1545	11.3133	1.55	75.00	2.50 0	-5.04 2	-2.65 0	5.07 2
11.2621	11.3134	2.90	11.00	8.72 1	-6.33 2	-8.79 1	6.35 2
11.2047	11.3203	1.70	51.00	4.97 0	-6.03 2	-5.14 0	6.05 2
11.2735	11.3221	3.20	9.20	1.39 2	-6.71 2	-1.40 2	6.73 2
11.2520	11.3242	2.10	24.00	1.79 1	-6.24 2	-1.82 1	6.26 2
11.2464	11.3250	2.00	28.00	1.37 1	-6.28 2	-1.39 1	6.30 2
11.2642	11.3276	2.30	18.50	2.88 1	-6.17 2	-2.92 1	6.19 2
11.2867	11.3309	4.60	5.60	1.07 3	-1.43 3	-1.07 3	1.44 3
11.2741	11.3318	2.50	15.00	4.36 1	-6.15 2	-4.40 1	6.17 2
11.2018	11.3415	1.60	65.00	3.25 0	-5.53 2	-3.41 0	5.55 2
11.2965	11.3415	4.00	6.60	4.46 2	-9.45 2	-4.48 2	9.48 2
11.1622	11.3418	1.50	85.00	1.94 0	-4.48 2	-2.08 0	4.51 2
11.2840	11.3441	2.40	16.50	3.59 1	-6.15 2	-3.63 1	6.17 2
11.2404	11.3461	1.75	45.00	6.11 0	-6.17 2	-6.30 0	6.20 2
11.3049	11.3496	4.20	6.20	6.11 2	-1.10 3	-6.14 2	1.10 3
11.2242	11.3498	1.65	57.00	4.09 0	-5.84 2	-4.26 0	5.87 2
11.1940	11.3506	1.55	74.00	2.55 0	-5.10 2	-2.70 0	5.12 2
11.3081	11.3543	3.60	7.60	2.51 2	-7.69 2	-2.53 2	7.71 2
11.2686	11.3551	1.90	33.00	1.03 1	-6.30 2	-1.05 1	6.32 2
11.3116	11.3568	3.90	6.80	3.88 2	-8.92 2	-3.89 2	8.94 2
11.2890	11.3707	1.95	30.00	1.21 1	-6.30 2	-1.23 1	6.32 2
11.2732	11.3707	1.80	40.00	7.42 0	-6.26 2	-7.62 0	6.28 2
11.3235	11.3725	3.10	9.60	1.22 2	-6.58 2	-1.23 2	6.60 2
11.2599	11.3736	1.70	50.00	5.10 0	-6.06 2	-5.28 0	6.09 2
11.3203	11.3738	2.70	12.50	6.39 1	-6.21 2	-6.44 1	6.23 2
11.1991	11.3762	1.50	84.00	1.98 0	-4.55 2	-2.12 0	4.57 2
11.2888	11.3800	1.85	36.00	8.85 0	-6.29 2	-9.06 0	6.32 2
11.2458	11.3835	1.60	64.00	3.32 0	-5.57 2	-3.48 0	5.60 2
11.3396	11.3850	3.80	7.00	3.40 2	-8.50 2	-3.42 2	8.53 2
11.2339	11.3883	1.55	73.00	2.61 0	-5.15 2	-2.76 0	5.18 2
11.3350	11.3901	2.60	13.50	5.38 1	-6.17 2	-5.43 1	6.19 2
11.3485	11.3959	3.30	8.60	1.66 2	-6.94 2	-1.67 2	6.96 2
11.2737	11.3974	1.65	56.00	4.19 0	-5.88 2	-4.36 0	5.91 2
11.3516	11.3985	3.40	8.20	1.92 2	-7.17 2	-1.93 2	7.19 2
11.3035	11.4073	1.75	44.00	6.30 0	-6.20 2	-6.49 0	6.23 2
11.3573	11.4091	2.80	11.50	7.68 1	-6.27 2	-7.74 1	6.29 2
11.3667	11.4108	4.40	5.80	8.55 2	-1.29 3	-8.59 2	1.30 3
11.2362	11.4110	1.50	83.00	2.03 0	-4.61 2	-2.16 0	4.64 2
11.3694	11.4174	3.20	9.00	1.44 2	-6.76 2	-1.45 2	6.78 2
11.3574	11.4197	2.30	18.00	2.99 1	-6.17 2	-3.03 1	6.19 2
11.3805	11.4260	3.70	7.20	3.00 2	-8.13 2	-3.01 2	8.16 2
11.3799	11.4261	3.50	7.80	2.25 2	-7.45 2	-2.26 2	7.48 2
11.2905	11.4261	1.60	63.00	3.40 0	-5.62 2	-3.56 0	5.65 2
11.2743	11.4265	1.55	72.00	2.67 0	-5.21 2	-2.81 0	5.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.3163	11.4282	1.70	49.00	5.24 0	-6.10 2	-5.42 0	6.12 2
11.3570	11.4337	2.00	27.00	1.43 1	-6.29 2	-1.46 1	6.31 2
11.3453	11.4410	1.80	39.00	7.67 0	-6.28 2	-7.87 0	6.30 2
11.3590	11.4435	1.90	32.00	1.07 1	-6.31 2	-1.09 1	6.34 2
11.3963	11.4456	3.00	10.00	1.08 2	-6.48 2	-1.08 2	6.50 2
11.3242	11.4459	1.65	55.00	4.30 0	-5.93 2	-4.46 0	5.95 2
11.2736	11.4460	1.50	82.00	2.07 0	-4.67 2	-2.21 0	4.70 2
11.3928	11.4517	2.40	16.00	3.75 1	-6.16 2	-3.78 1	6.18 2
11.3978	11.4542	2.50	14.50	4.57 1	-6.16 2	-4.62 1	6.18 2
11.3867	11.4569	2.10	23.00	1.89 1	-6.25 2	-1.92 1	6.27 2
11.3704	11.4596	1.85	35.00	9.17 0	-6.31 2	-9.39 0	6.33 2
11.4140	11.4623	3.10	9.40	1.26 2	-6.62 2	-1.27 2	6.64 2
11.3151	11.4652	1.55	71.00	2.72 0	-5.26 2	-2.87 0	5.29 2
11.3359	11.4696	1.60	62.00	3.48 0	-5.67 2	-3.63 0	5.70 2
11.3683	11.4703	1.75	43.00	6.49 0	-6.23 2	-6.68 0	6.25 2
11.3907	11.4704	1.95	29.00	1.26 1	-6.31 2	-1.28 1	6.33 2
11.4060	11.4714	2.20	20.00	2.43 1	-6.21 2	-2.47 1	6.23 2
11.4346	11.4801	3.60	7.40	2.66 2	-7.82 2	-2.67 2	7.85 2
11.3113	11.4814	1.50	81.00	2.11 0	-4.73 2	-2.25 0	4.76 2
11.3742	11.4841	1.70	48.00	5.39 0	-6.13 2	-5.57 0	6.16 2
11.4439	11.4875	4.80	5.20	1.28 3	-1.44 3	-1.28 3	1.45 3
11.3757	11.4955	1.65	54.00	4.41 0	-5.97 2	-4.57 0	5.99 2
11.4520	11.4963	4.00	6.40	4.83 2	-9.78 2	-4.85 2	9.81 2
11.4545	11.5013	3.30	8.40	1.73 2	-7.01 2	-1.74 2	7.03 2
11.4525	11.5025	2.90	10.50	9.38 1	-6.39 2	-9.45 1	6.41 2
11.3564	11.5045	1.55	70.00	2.78 0	-5.32 2	-2.93 0	5.35 2
11.4606	11.5051	3.90	6.60	4.17 2	-9.18 2	-4.19 2	9.21 2
11.4651	11.5114	3.40	8.00	2.01 2	-7.26 2	-2.03 2	7.28 2
11.4198	11.5136	1.80	38.00	7.93 0	-6.30 2	-8.14 0	6.32 2
11.3820	11.5137	1.60	61.00	3.56 0	-5.72 2	-3.72 0	5.75 2
11.4545	11.5157	2.30	17.50	3.11 1	-6.18 2	-3.14 1	6.20 2
11.4688	11.5161	3.20	8.80	1.50 2	-6.82 2	-1.51 2	6.84 2
11.3493	11.5171	1.50	80.00	2.15 0	-4.79 2	-2.29 0	4.82 2
11.4757	11.5196	4.20	6.00	6.73 2	-1.15 3	-6.76 2	1.15 3
11.4825	11.5271	3.80	6.80	3.64 2	-8.71 2	-3.66 2	8.74 2
11.4856	11.5291	4.60	5.40	1.17 3	-1.49 3	-1.18 3	1.50 3
11.4820	11.5308	3.00	9.80	1.11 2	-6.51 2	-1.12 2	6.53 2
11.4797	11.5319	2.70	12.00	6.79 1	-6.24 2	-6.84 1	6.26 2
11.4784	11.5322	2.60	13.00	5.68 1	-6.19 2	-5.73 1	6.21 2
11.4351	11.5352	1.75	42.00	6.69 0	-6.26 2	-6.88 0	6.28 2
11.4533	11.5359	1.90	31.00	1.11 1	-6.33 2	-1.14 1	6.35 2
11.4334	11.5415	1.70	47.00	5.54 0	-6.16 2	-5.72 0	6.19 2
11.4550	11.5424	1.85	34.00	9.52 0	-6.33 2	-9.74 0	6.35 2
11.3983	11.5443	1.55	69.00	2.84 0	-5.37 2	-2.99 0	5.40 2
11.4283	11.5462	1.65	53.00	4.52 0	-6.00 2	-4.69 0	6.03 2
11.4735	11.5481	2.00	26.00	1.50 1	-6.30 2	-1.53 1	6.32 2
11.3877	11.5531	1.50	79.00	2.20 0	-4.85 2	-2.34 0	4.88 2
11.4907	11.5549	2.20	19.50	2.52 1	-6.21 2	-2.55 1	6.23 2
11.4289	11.5587	1.60	60.00	3.64 0	-5.76 2	-3.80 0	5.79 2
11.4974	11.5751	1.95	28.00	1.32 1	-6.32 2	-1.34 1	6.34 2
11.3916	11.5812	1.45	90.00	1.68 0	-4.21 2	-1.81 0	4.24 2
11.4407	11.5846	1.55	68.00	2.91 0	-5.42 2	-3.05 0	5.45 2
11.4968	11.5887	1.80	37.00	8.21 0	-6.32 2	-8.41 0	6.34 2
11.4264	11.5896	1.50	78.00	2.25 0	-4.91 2	-2.38 0	4.94 2
11.4820	11.5980	1.65	52.00	4.64 0	-6.04 2	-4.81 0	6.07 2
11.4942	11.6004	1.70	46.00	5.70 0	-6.19 2	-5.88 0	6.22 2
11.4766	11.6044	1.60	59.00	3.73 0	-5.81 2	-3.89 0	5.84 2
11.4281	11.6151	1.45	89.00	1.71 0	-4.28 2	-1.84 0	4.30 2
11.4837	11.6255	1.55	67.00	2.97 0	-5.48 2	-3.12 0	5.50 2
11.4654	11.6264	1.50	77.00	2.29 0	-4.97 2	-2.43 0	5.00 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.4648	11.6493	1.45	88.00	1.75 0	-4.34 2	-1.87 0	4.37 2
11.50	12.00						
11.5020	11.5476	3.50	7.60	2.37 2	-7.56 2	-2.38 2	7.59 2
11.5076	11.5554	3.10	9.20	1.31 2	-6.66 2	-1.32 2	6.68 2
11.5179	11.5626	3.70	7.00	3.20 2	-8.32 2	-3.21 2	8.35 2
11.5067	11.5644	2.40	15.50	3.91 1	-6.17 2	-3.95 1	6.19 2
11.5280	11.5833	2.50	14.00	4.80 1	-6.17 2	-4.85 1	6.19 2
11.5369	11.5874	2.80	11.00	8.23 1	-6.32 2	-8.28 1	6.34 2
11.5300	11.5982	2.10	22.00	2.01 1	-6.25 2	-2.03 1	6.27 2
11.5560	11.5993	4.40	5.60	9.25 2	-1.33 3	-9.29 2	1.33 3
11.5039	11.6021	1.75	41.00	6.91 0	-6.28 2	-7.10 0	6.31 2
11.5646	11.6107	3.30	8.20	1.81 2	-7.08 2	-1.82 2	7.11 2
11.5668	11.6116	3.60	7.20	2.82 2	-7.98 2	-2.83 2	8.00 2
11.5558	11.6158	2.30	17.00	3.23 1	-6.18 2	-3.27 1	6.20 2
11.5719	11.6186	3.20	8.60	1.56 2	-6.87 2	-1.57 2	6.89 2
11.5705	11.6187	3.00	9.60	1.15 2	-6.54 2	-1.16 2	6.56 2
11.5430	11.6285	1.85	33.00	9.90 0	-6.34 2	-1.01 1	6.37 2
11.5833	11.6289	3.40	7.80	2.12 2	-7.35 2	-2.13 2	7.37 2
11.5517	11.6324	1.90	30.00	1.16 1	-6.34 2	-1.18 1	6.36 2
11.5785	11.6417	2.20	19.00	2.61 1	-6.21 2	-2.64 1	6.23 2
11.5368	11.6510	1.65	51.00	4.76 0	-6.08 2	-4.93 0	6.11 2
11.5252	11.6511	1.60	58.00	3.82 0	-5.85 2	-3.98 0	5.88 2
11.6044	11.6517	3.10	9.00	1.36 2	-6.71 2	-1.37 2	6.73 2
11.6160	11.6596	4.00	6.20	5.29 2	-1.02 3	-5.32 2	1.03 3
11.5566	11.6610	1.70	45.00	5.87 0	-6.22 2	-6.05 0	6.25 2
11.6172	11.6610	3.90	6.40	4.50 2	-9.48 2	-4.52 2	9.51 2
11.5049	11.6637	1.50	76.00	2.34 0	-5.03 2	-2.48 0	5.06 2
11.5766	11.6666	1.80	36.00	8.51 0	-6.34 2	-8.71 0	6.36 2
11.5272	11.6671	1.55	66.00	3.04 0	-5.53 2	-3.19 0	5.56 2
11.5963	11.6690	2.00	25.00	1.58 1	-6.30 2	-1.61 1	6.32 2
11.5747	11.6711	1.75	40.00	7.13 0	-6.31 2	-7.32 0	6.33 2
11.6296	11.6745	3.50	7.40	2.50 2	-7.69 2	-2.51 2	7.72 2
11.6325	11.6765	3.80	6.60	3.91 2	-8.96 2	-3.93 2	8.99 2
11.6262	11.6828	2.40	15.00	4.10 1	-6.18 2	-4.13 1	6.19 2
11.6304	11.6830	2.60	12.50	6.02 1	-6.22 2	-6.07 1	6.23 2
11.5017	11.6837	1.45	87.00	1.78 0	-4.40 2	-1.91 0	4.43 2
11.6093	11.6851	1.95	27.00	1.38 1	-6.33 2	-1.41 1	6.35 2
11.5747	11.6986	1.60	57.00	3.92 0	-5.90 2	-4.07 0	5.92 2
11.6565	11.6996	4.20	5.80	7.50 2	-1.22 3	-7.53 2	1.22 3
11.6497	11.7007	2.70	11.50	7.24 1	-6.27 2	-7.29 1	6.29 2
11.5447	11.7013	1.50	75.00	2.39 0	-5.09 2	-2.53 0	5.12 2
11.5929	11.7052	1.65	50.00	4.89 0	-6.12 2	-5.06 0	6.14 2
11.6618	11.7059	3.70	6.80	3.41 2	-8.52 2	-3.43 2	8.54 2
11.6577	11.7063	2.90	10.00	1.01 2	-6.45 2	-1.02 2	6.47 2
11.5714	11.7093	1.55	65.00	3.11 0	-5.58 2	-3.25 0	5.61 2
11.6619	11.7096	3.00	9.40	1.19 2	-6.58 2	-1.20 2	6.60 2
11.6683	11.7109	4.80	5.00	7.53 2	-8.01 2	-7.56 2	8.04 2
11.6347	11.7182	1.85	32.00	1.03 1	-6.36 2	-1.05 1	6.38 2
11.5389	11.7184	1.45	86.00	1.82 0	-4.47 2	-1.95 0	4.50 2
11.6656	11.7196	2.50	13.50	5.06 1	-6.19 2	-5.10 1	6.21 2
11.6615	11.7205	2.30	16.50	3.37 1	-6.19 2	-3.40 1	6.21 2
11.6207	11.7232	1.70	44.00	6.05 0	-6.25 2	-6.22 0	6.28 2
11.6791	11.7247	3.30	8.00	1.90 2	-7.16 2	-1.91 2	7.18 2
11.6789	11.7250	3.20	8.40	1.63 2	-6.94 2	-1.64 2	6.96 2
11.6698	11.7319	2.20	18.50	2.70 1	-6.22 2	-2.73 1	6.23 2
11.6547	11.7335	1.90	29.00	1.21 1	-6.35 2	-1.24 1	6.37 2
11.5850	11.7395	1.50	74.00	2.44 0	-5.15 2	-2.58 0	5.18 2
11.6977	11.7403	4.60	5.20	1.13 3	-1.36 3	-1.14 3	1.37 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.6479	11.7424	1.75	39.00	7.37 0	-6.33 2	-7.56 0	6.35 2
11.6251	11.7471	1.60	56.00	4.01 0	-5.94 2	-4.17 0	5.97 2
11.6593	11.7474	1.80	35.00	8.82 0	-6.36 2	-9.03 0	6.38 2
11.6829	11.7490	2.10	21.00	2.13 1	-6.26 2	-2.16 1	6.28 2
11.7052	11.7494	3.60	7.00	3.00 2	-8.15 2	-3.01 2	8.17 2
11.7048	11.7515	3.10	8.80	1.42 2	-6.76 2	-1.42 2	6.78 2
11.7066	11.7515	3.40	7.60	2.23 2	-7.45 2	-2.24 2	7.48 2
11.6163	11.7521	1.55	64.00	3.18 0	-5.63 2	-3.32 0	5.66 2
11.5762	11.7533	1.45	85.00	1.86 0	-4.53 2	-1.98 0	4.56 2
11.6503	11.7608	1.65	49.00	5.03 0	-6.15 2	-5.19 0	6.18 2
11.6257	11.7780	1.50	73.00	2.49 0	-5.21 2	-2.63 0	5.23 2
11.7296	11.7787	2.80	10.50	8.84 1	-6.37 2	-8.90 1	6.39 2
11.6866	11.7873	1.70	43.00	6.23 0	-6.28 2	-6.41 0	6.31 2
11.6139	11.7886	1.45	84.00	1.89 0	-4.60 2	-2.02 0	4.62 2
11.7444	11.7924	2.90	9.80	1.05 2	-6.48 2	-1.06 2	6.50 2
11.6618	11.7957	1.55	63.00	3.25 0	-5.68 2	-3.40 0	5.71 2
11.6764	11.7966	1.60	55.00	4.12 0	-5.98 2	-4.27 0	6.01 2
11.7262	11.7969	2.00	24.00	1.67 1	-6.31 2	-1.69 1	6.33 2
11.7573	11.7998	4.40	5.40	1.03 3	-1.41 3	-1.04 3	1.41 3
11.7272	11.8010	1.95	26.00	1.45 1	-6.34 2	-1.47 1	6.36 2
11.7565	11.8036	3.00	9.20	1.24 2	-6.62 2	-1.24 2	6.64 2
11.7629	11.8072	3.50	7.20	2.65 2	-7.83 2	-2.66 2	7.86 2
11.7519	11.8073	2.40	14.50	4.29 1	-6.19 2	-4.33 1	6.20 2
11.7302	11.8119	1.85	31.00	1.07 1	-6.37 2	-1.09 1	6.39 2
11.7235	11.8161	1.75	38.00	7.62 0	-6.35 2	-7.81 0	6.37 2
11.6669	11.8171	1.50	72.00	2.55 0	-5.26 2	-2.68 0	5.29 2
11.7092	11.8177	1.65	48.00	5.17 0	-6.18 2	-5.33 0	6.21 2
11.6518	11.8241	1.45	83.00	1.93 0	-4.66 2	-2.06 0	4.69 2
11.7823	11.8254	3.90	6.20	4.91 2	-9.88 2	-4.93 2	9.91 2
11.7648	11.8258	2.20	18.00	2.80 1	-6.22 2	-2.83 1	6.24 2
11.7721	11.8299	2.30	16.00	3.51 1	-6.19 2	-3.55 1	6.21 2
11.7451	11.8314	1.80	34.00	9.16 0	-6.37 2	-9.36 0	6.40 2
11.7891	11.8319	4.00	6.00	5.80 2	-1.07 3	-5.83 2	1.07 3
11.7904	11.8336	3.80	6.40	4.21 2	-9.24 2	-4.23 2	9.27 2
11.7901	11.8356	3.20	8.20	1.71 2	-7.00 2	-1.72 2	7.03 2
11.7627	11.8395	1.90	28.00	1.27 1	-6.36 2	-1.29 1	6.38 2
11.7081	11.8400	1.55	62.00	3.33 0	-5.73 2	-3.47 0	5.75 2
11.7984	11.8433	3.30	7.80	1.99 2	-7.25 2	-2.00 2	7.27 2
11.7920	11.8434	2.60	12.00	6.39 1	-6.24 2	-6.44 1	6.26 2
11.7289	11.8471	1.60	54.00	4.22 0	-6.02 2	-4.38 0	6.05 2
11.7544	11.8532	1.70	42.00	6.43 0	-6.31 2	-6.60 0	6.33 2
11.8090	11.8550	3.10	8.60	1.47 2	-6.81 2	-1.48 2	6.83 2
11.8130	11.8564	3.70	6.60	3.66 2	-8.74 2	-3.67 2	8.77 2
11.7086	11.8567	1.50	71.00	2.60 0	-5.32 2	-2.74 0	5.34 2
11.6900	11.8600	1.45	82.00	1.97 0	-4.72 2	-2.10 0	4.75 2
11.8110	11.8639	2.50	13.00	5.34 1	-6.21 2	-5.39 1	6.23 2
11.7694	11.8761	1.65	47.00	5.31 0	-6.22 2	-5.48 0	6.24 2
11.8353	11.8796	3.40	7.40	2.35 2	-7.57 2	-2.36 2	7.59 2
11.8316	11.8812	2.70	11.00	7.74 1	-6.31 2	-7.80 1	6.33 2
11.8339	11.8813	2.90	9.60	1.08 2	-6.51 2	-1.09 2	6.53 2
11.7551	11.8850	1.55	61.00	3.41 0	-5.77 2	-3.55 0	5.80 2
11.8482	11.8905	4.20	5.60	8.25 2	-1.27 3	-8.29 2	1.28 3
11.8017	11.8925	1.75	37.00	7.89 0	-6.37 2	-8.08 0	6.39 2
11.8503	11.8938	3.60	6.80	3.20 2	-8.33 2	-3.21 2	8.35 2
11.7286	11.8962	1.45	81.00	2.01 0	-4.78 2	-2.14 0	4.81 2
11.7508	11.8968	1.50	70.00	2.66 0	-5.37 2	-2.80 0	5.40 2
11.7824	11.8987	1.60	53.00	4.33 0	-6.06 2	-4.48 0	6.09 2
11.8545	11.9009	3.00	9.00	1.28 2	-6.66 2	-1.29 2	6.68 2
11.8300	11.9097	1.85	30.00	1.12 1	-6.38 2	-1.14 1	6.40 2
11.8467	11.9107	2.10	20.00	2.27 1	-6.26 2	-2.30 1	6.28 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
11.8344	11.9188	1.80	33.00	9.52 0	-6.39 2	-9.72 0	6.41 2
11.8243	11.9212	1.70	41.00	6.63 0	-6.33 2	-6.81 0	6.36 2
11.8515	11.9234	1.95	25.00	1.53 1	-6.34 2	-1.55 1	6.36 2
11.8637	11.9236	2.20	17.50	2.91 1	-6.22 2	-2.94 1	6.24 2
11.8029	11.9309	1.55	60.00	3.49 0	-5.82 2	-3.63 0	5.85 2
11.8640	11.9327	2.00	23.00	1.76 1	-6.32 2	-1.79 1	6.33 2
11.7674	11.9328	1.45	80.00	2.06 0	-4.85 2	-2.18 0	4.87 2
11.8312	11.9361	1.65	46.00	5.47 0	-6.25 2	-5.63 0	6.27 2
11.7935	11.9374	1.50	69.00	2.72 0	-5.43 2	-2.85 0	5.45 2
11.8842	11.9385	2.40	14.00	4.51 1	-6.20 2	-4.55 1	6.22 2
11.8880	11.9447	2.30	15.50	3.67 1	-6.20 2	-3.70 1	6.22 2
11.9025	11.9461	3.50	7.00	2.81 2	-7.99 2	-2.83 2	8.01 2
11.9057	11.9506	3.20	8.00	1.79 2	-7.08 2	-1.79 2	7.10 2
11.8761	11.9510	1.90	27.00	1.33 1	-6.37 2	-1.35 1	6.39 2
11.8370	11.9515	1.60	52.00	4.44 0	-6.10 2	-4.60 0	6.12 2
11.9170	11.9625	3.10	8.40	1.54 2	-6.87 2	-1.55 2	6.89 2
11.9245	11.9662	4.60	5.00	9.13 2	-1.04 3	-9.17 2	1.04 3
11.9228	11.9671	3.30	7.60	2.09 2	-7.34 2	-2.10 2	7.37 2
11.8066	11.9697	1.45	79.00	2.10 0	-4.91 2	-2.23 0	4.93 2
11.8826	11.9716	1.75	36.00	8.18 0	-6.39 2	-8.36 0	6.41 2
11.9264	11.9733	2.90	9.40	1.12 2	-6.54 2	-1.13 2	6.56 2
11.8515	11.9776	1.55	59.00	3.57 0	-5.87 2	-3.72 0	5.89 2
11.8367	11.9786	1.50	68.00	2.78 0	-5.48 2	-2.91 0	5.51 2
11.9373	11.9850	2.80	10.00	9.55 1	-6.43 2	-9.61 1	6.44 2
11.8963	11.9914	1.70	40.00	6.85 0	-6.36 2	-7.02 0	6.38 2
11.9331	11.9960	2.10	19.50	2.35 1	-6.27 2	-2.38 1	6.28 2
11.8947	11.9977	1.65	45.00	5.63 0	-6.28 2	-5.79 0	6.30 2
11.9567	11.9990	3.90	6.00	5.37 2	-1.03 3	-5.39 2	1.03 3
11.9567	11.9992	3.80	6.20	4.59 2	-9.60 2	-4.61 2	9.63 2
11.9559	12.0018	3.00	8.80	1.33 2	-6.71 2	-1.34 2	6.72 2
11.8928	12.0055	1.60	51.00	4.56 0	-6.14 2	-4.72 0	6.16 2
11.8461	12.0070	1.45	78.00	2.14 0	-4.97 2	-2.27 0	4.99 2
11.9273	12.0098	1.80	32.00	9.90 0	-6.40 2	-1.01 1	6.43 2
11.9343	12.0122	1.85	29.00	1.17 1	-6.39 2	-1.19 1	6.41 2
11.9698	12.0134	3.40	7.20	2.49 2	-7.70 2	-2.50 2	7.72 2
11.9718	12.0135	4.40	5.20	1.08 3	-1.40 3	-1.09 3	1.40 3
11.9722	12.0143	4.00	5.80	6.42 2	-1.12 3	-6.44 2	1.13 3
11.9644	12.0144	2.60	11.50	6.81 1	-6.27 2	-6.86 1	6.29 2
11.9720	12.0147	3.70	6.40	3.94 2	-9.00 2	-3.95 2	9.02 2
11.9653	12.0169	2.50	12.50	5.66 1	-6.23 2	-5.70 1	6.25 2
11.8806	12.0205	1.50	67.00	2.84 0	-5.53 2	-2.98 0	5.56 2
11.8371	12.0239	1.40	90.00	1.60 0	-4.26 2	-1.72 0	4.28 2
11.9010	12.0252	1.55	58.00	3.66 0	-5.91 2	-3.80 0	5.94 2
11.9668	12.0257	2.20	17.00	3.03 1	-6.23 2	-3.06 1	6.25 2
11.8860	12.0447	1.45	77.00	2.19 0	-5.03 2	-2.31 0	5.05 2
11.9830	12.0529	1.95	24.00	1.61 1	-6.35 2	-1.63 1	6.37 2
11.9665	12.0536	1.75	35.00	8.48 0	-6.41 2	-8.67 0	6.43 2
11.8744	12.0587	1.40	89.00	1.63 0	-4.32 2	-1.75 0	4.35 2
11.9499	12.0607	1.60	50.00	4.68 0	-6.17 2	-4.84 0	6.20 2
11.9598	12.0610	1.65	44.00	5.80 0	-6.31 2	-5.96 0	6.33 2
11.9250	12.0629	1.50	66.00	2.90 0	-5.59 2	-3.04 0	5.61 2
11.9706	12.0639	1.70	39.00	7.08 0	-6.38 2	-7.25 0	6.40 2
11.9954	12.0684	1.90	26.00	1.40 1	-6.38 2	-1.42 1	6.40 2
11.9514	12.0737	1.55	57.00	3.75 0	-5.96 2	-3.89 0	5.98 2
11.9263	12.0828	1.45	76.00	2.23 0	-5.09 2	-2.36 0	5.11 2
11.9120	12.0937	1.40	88.00	1.66 0	-4.39 2	-1.78 0	4.42 2
11.9701	12.1060	1.50	65.00	2.97 0	-5.64 2	-3.10 0	5.66 2
11.9670	12.1214	1.45	75.00	2.28 0	-5.15 2	-2.41 0	5.17 2
11.9497	12.1290	1.40	87.00	1.70 0	-4.45 2	-1.82 0	4.48 2
11.9877	12.1646	1.40	86.00	1.73 0	-4.52 2	-1.85 0	4.55 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.00	12.50						
12.0027	12.0455	3.60	6.60	3.42 2	-8.54 2	-3.44 2	8.56 2
12.0096	12.0651	2.30	15.00	3.84 1	-6.21 2	-3.87 1	6.23 2
12.0220	12.0684	2.90	9.20	1.16 2	-6.58 2	-1.17 2	6.60 2
12.0261	12.0704	3.20	7.80	1.87 2	-7.16 2	-1.88 2	7.18 2
12.0250	12.0722	2.80	9.80	9.87 1	-6.45 2	-9.93 1	6.47 2
12.0293	12.0742	3.10	8.20	1.61 2	-6.93 2	-1.61 2	6.95 2
12.0268	12.0751	2.70	10.50	8.32 1	-6.35 2	-8.37 1	6.37 2
12.0239	12.0770	2.40	13.50	4.75 1	-6.21 2	-4.79 1	6.23 2
12.0105	12.0772	2.00	22.00	1.87 1	-6.32 2	-1.89 1	6.34 2
12.0227	12.0846	2.10	19.00	2.43 1	-6.27 2	-2.46 1	6.29 2
12.0488	12.0917	3.50	6.80	3.00 2	-8.16 2	-3.01 2	8.18 2
12.0519	12.0935	4.20	5.40	9.38 2	-1.37 3	-9.41 2	1.38 3
12.0526	12.0963	3.30	7.40	2.21 2	-7.45 2	-2.22 2	7.47 2
12.0241	12.1048	1.80	31.00	1.03 1	-6.42 2	-1.05 1	6.44 2
12.0611	12.1065	3.00	8.60	1.39 2	-6.75 2	-1.39 2	6.77 2
12.0084	12.1173	1.60	49.00	4.81 0	-6.21 2	-4.97 0	6.23 2
12.0437	12.1197	1.85	28.00	1.22 1	-6.40 2	-1.24 1	6.42 2
12.0027	12.1231	1.55	56.00	3.84 0	-6.00 2	-3.98 0	6.02 2
12.0268	12.1262	1.65	43.00	5.97 0	-6.34 2	-6.14 0	6.36 2
12.0745	12.1323	2.20	16.50	3.15 1	-6.23 2	-3.18 1	6.25 2
12.0473	12.1388	1.70	38.00	7.32 0	-6.40 2	-7.49 0	6.42 2
12.0536	12.1389	1.75	34.00	8.80 0	-6.42 2	-8.99 0	6.45 2
12.0158	12.1498	1.50	64.00	3.04 0	-5.69 2	-3.17 0	5.71 2
12.1105	12.1535	3.40	7.00	2.64 2	-7.84 2	-2.65 2	7.87 2
12.0082	12.1604	1.45	74.00	2.33 0	-5.20 2	-2.46 0	5.23 2
12.1155	12.1622	2.80	9.60	1.02 2	-6.48 2	-1.03 2	6.50 2
12.1211	12.1668	2.90	9.00	1.21 2	-6.62 2	-1.21 2	6.64 2
12.0551	12.1736	1.55	55.00	3.94 0	-6.04 2	-4.08 0	6.07 2
12.1322	12.1740	3.80	6.00	5.00 2	-9.98 2	-5.02 2	1.00 3
12.0682	12.1753	1.60	48.00	4.95 0	-6.24 2	-5.10 0	6.27 2
12.1158	12.1767	2.10	18.50	2.52 1	-6.27 2	-2.55 1	6.29 2
12.1293	12.1797	2.50	12.00	6.00 1	-6.75 2	-6.05 1	6.27 2
12.1396	12.1816	3.70	6.20	4.28 2	-9.33 2	-4.29 2	9.36 2
12.1411	12.1826	3.90	5.80	5.91 2	-1.08 3	-5.94 2	1.08 3
12.1223	12.1903	1.95	23.00	1.70 1	-6.35 2	-1.72 1	6.37 2
12.1461	12.1904	3.10	8.00	1.68 2	-7.00 2	-1.69 2	7.02 2
12.1374	12.1918	2.30	14.50	4.02 1	-6.22 2	-4.06 1	6.23 2
12.1212	12.1923	1.90	25.00	1.47 1	-6.38 2	-1.49 1	6.40 2
12.0957	12.1933	1.65	42.00	6.16 0	-6.36 2	-6.32 0	6.39 2
12.0623	12.1943	1.50	63.00	3.11 0	-5.74 2	-3.24 0	5.76 2
12.1517	12.1953	3.20	7.60	1.97 2	-7.24 2	-1.98 2	7.26 2
12.1487	12.1975	2.60	11.00	7.28 1	-6.31 2	-7.33 1	6.32 2
12.0498	12.1999	1.45	73.00	2.38 0	-5.26 2	-2.50 0	5.29 2
12.0260	12.2005	1.40	85.00	1.77 0	-4.58 2	-1.89 0	4.61 2
12.1252	12.2040	1.80	30.00	1.08 1	-6.43 2	-1.10 1	6.45 2
12.1630	12.2051	3.60	6.40	3.68 2	-8.77 2	-3.69 2	8.79 2
12.1664	12.2077	4.00	5.60	7.07 2	-1.18 3	-7.10 2	1.18 3
12.1675	12.2084	4.60	4.80	4.67 2	-4.98 2	-4.69 2	5.00 2
12.1704	12.2151	3.00	8.40	1.45 2	-6.81 2	-1.45 2	6.82 2
12.1267	12.2164	1.70	37.00	7.57 0	-6.42 2	-7.75 0	6.45 2
12.1717	12.2236	2.40	13.00	5.01 1	-6.23 2	-5.05 1	6.24 2
12.1085	12.2251	1.55	54.00	4.04 0	-6.08 2	-4.18 0	6.11 2
12.1442	12.2276	1.75	33.00	9.14 0	-6.44 2	-9.33 0	6.46 2
12.1883	12.2313	3.30	7.20	2.33 2	-7.57 2	-2.34 2	7.59 2
12.1668	12.2314	2.00	21.00	1.99 1	-6.32 2	-2.01 1	6.34 2
12.1585	12.2326	1.85	27.00	1.28 1	-6.41 2	-1.30 1	6.43 2
12.1295	12.2348	1.60	47.00	5.09 0	-6.27 2	-5.24 0	6.30 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.0645	12.2366	1.40	84.00	1.80 0	-4.65 2	-1.92 0	4.67 2
12.1095	12.2395	1.50	62.00	3.18 0	-5.79 2	-3.31 0	5.81 2
12.0918	12.2398	1.45	72.00	2.43 0	-5.32 2	-2.56 0	5.35 2
12.2011	12.2419	4.40	5.00	1.07 3	-1.29 3	-1.07 3	1.30 3
12.1872	12.2438	2.20	16.00	3.28 1	-6.24 2	-3.32 1	6.25 2
12.2024	12.2446	3.50	6.60	3.20 2	-8.34 2	-3.21 2	8.37 2
12.2091	12.2552	2.80	9.40	1.06 2	-6.51 2	-1.06 2	6.53 2
12.1667	12.2624	1.65	41.00	6.36 0	-6.39 2	-6.52 0	6.41 2
12.2237	12.2688	2.90	8.80	1.25 2	-6.66 2	-1.26 2	6.68 2
12.2127	12.2725	2.10	18.00	2.61 1	-6.27 2	-2.64 1	6.29 2
12.1033	12.2730	1.40	83.00	1.84 0	-4.71 2	-1.96 0	4.74 2
12.1630	12.2777	1.55	53.00	4.14 0	-6.12 2	-4.28 0	6.15 2
12.1344	12.2803	1.45	71.00	2.48 0	-5.38 2	-2.61 0	5.40 2
12.2371	12.2841	2.70	10.00	8.98 1	-6.41 2	-9.03 1	6.42 2
12.1574	12.2855	1.50	61.00	3.25 0	-5.83 2	-3.39 0	5.86 2
12.1924	12.2958	1.60	46.00	5.23 0	-6.31 2	-5.39 0	6.33 2
12.2089	12.2967	1.70	36.00	7.85 0	-6.44 2	-8.02 0	6.46 2
12.2581	12.3004	3.40	6.80	2.81 2	-8.00 2	-2.82 2	8.02 2
12.2310	12.3080	1.80	29.00	1.12 1	-6.44 2	-1.14 1	6.46 2
12.2690	12.3098	4.20	5.20	1.05 3	-1.45 3	-1.05 3	1.45 3
12.1423	12.3098	1.40	82.00	1.88 0	-4.78 2	-2.00 0	4.80 2
12.2678	12.3114	3.10	7.80	1.76 2	-7.07 2	-1.77 2	7.09 2
12.2384	12.3200	1.75	32.00	9.51 0	-6.45 2	-9.70 0	6.47 2
12.1774	12.3213	1.45	70.00	2.54 0	-5.43 2	-2.66 0	5.46 2
12.2543	12.3234	1.90	24.00	1.55 1	-6.39 2	-1.57 1	6.41 2
12.2720	12.3252	2.30	14.00	4.23 1	-6.23 2	-4.26 1	6.24 2
12.2827	12.3258	3.20	7.40	2.07 2	-7.34 2	-2.08 2	7.36 2
12.2838	12.3280	3.00	8.20	1.51 2	-6.86 2	-1.52 2	6.88 2
12.2186	12.3315	1.55	52.00	4.25 0	-6.16 2	-4.39 0	6.18 2
12.2061	12.3324	1.50	60.00	3.33 0	-5.88 2	-3.46 0	5.91 2
12.2399	12.3338	1.65	40.00	6.56 0	-6.41 2	-6.73 0	6.44 2
12.2706	12.3365	1.95	22.00	1.80 1	-6.36 2	-1.82 1	6.37 2
12.1817	12.3469	1.40	81.00	1.92 0	-4.84 2	-2.04 0	4.86 2
12.3059	12.3515	2.80	9.20	1.09 2	-6.54 2	-1.10 2	6.56 2
12.2794	12.3515	1.85	26.00	1.34 1	-6.42 2	-1.37 1	6.44 2
12.3041	12.3533	2.50	11.50	6.39 1	-6.28 2	-6.44 1	6.29 2
12.3164	12.3577	3.70	6.00	4.65 2	-9.67 2	-4.67 2	9.70 2
12.2569	12.3586	1.60	45.00	5.39 0	-6.34 2	-5.54 0	6.36 2
12.3179	12.3590	3.80	5.80	5.50 2	-1.04 3	-5.52 2	1.05 3
12.3051	12.3607	2.20	15.50	3.43 1	-6.24 2	-3.46 1	6.26 2
12.2210	12.3629	1.45	69.00	2.59 0	-5.49 2	-2.72 0	5.51 2
12.3136	12.3723	2.10	17.50	2.71 1	-6.28 2	-2.74 1	6.29 2
12.3259	12.3723	2.70	9.80	9.27 1	-6.43 2	-9.33 1	6.45 2
12.3303	12.3727	3.30	7.00	2.47 2	-7.70 2	-2.48 2	7.72 2
12.3318	12.3732	3.60	6.20	3.98 2	-9.07 2	-4.00 2	9.09 2
12.3300	12.3746	2.90	8.60	1.30 2	-6.70 2	-1.31 2	6.72 2
12.3366	12.3774	3.90	5.60	6.50 2	-1.12 3	-6.52 2	1.13 3
12.3283	12.3790	2.40	12.50	5.30 1	-6.25 2	-5.34 1	6.26 2
12.2557	12.3800	1.50	59.00	3.41 0	-5.93 2	-3.54 0	5.95 2
12.2941	12.3801	1.70	35.00	8.14 0	-6.46 2	-8.31 0	6.48 2
12.2215	12.3844	1.40	80.00	1.96 0	-4.90 2	-2.07 0	4.93 2
12.2755	12.3866	1.55	51.00	4.36 0	-6.20 2	-4.51 0	6.22 2
12.3465	12.3940	2.60	10.50	7.82 1	-6.35 2	-7.87 1	6.36 2
12.3341	12.3967	2.00	20.00	2.12 1	-6.33 2	-2.14 1	6.34 2
12.2652	12.4051	1.45	68.00	2.65 0	-5.54 2	-2.77 0	5.57 2
12.3640	12.4055	3.50	6.40	3.43 2	-8.56 2	-3.45 2	8.58 2
12.3154	12.4075	1.65	39.00	6.78 0	-6.44 2	-6.95 0	6.46 2
12.3728	12.4133	4.00	5.40	7.99 2	-1.26 3	-8.01 2	1.26 3
12.3367	12.4163	1.75	31.00	9.91 0	-6.47 2	-1.01 1	6.49 2
12.3419	12.4169	1.80	28.00	1.18 1	-6.45 2	-1.19 1	6.47 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.2615	12.4222	1.40	79.00	2.00 0	-4.96 2	-2.12 0	4.99 2
12.3232	12.4230	1.60	44.00	5.55 0	-6.37 2	-5.70 0	6.39 2
12.3062	12.4286	1.50	58.00	3.49 0	-5.97 2	-3.63 0	6.00 2
12.3945	12.4375	3.10	7.60	1.85 2	-7.15 2	-1.85 2	7.17 2
12.3336	12.4429	1.55	50.00	4.48 0	-6.23 2	-4.62 0	6.26 2
12.4018	12.4454	3.00	8.00	1.58 2	-6.92 2	-1.58 2	6.94 2
12.3100	12.4478	1.45	67.00	2.71 0	-5.59 2	-2.83 0	5.62 2
12.4061	12.4511	2.80	9.00	1.13 2	-6.58 2	-1.14 2	6.60 2
12.4130	12.4546	3.40	6.60	2.99 2	-8.17 2	-3.01 2	8.19 2
12.3019	12.4605	1.40	78.00	2.04 0	-5.02 2	-2.16 0	5.05 2
12.4197	12.4621	3.20	7.20	2.19 2	-7.45 2	-2.20 2	7.47 2
12.3954	12.4625	1.90	23.00	1.64 1	-6.39 2	-1.66 1	6.41 2
12.4176	12.4634	2.70	9.60	9.58 1	-6.46 2	-9.64 1	6.47 2
12.4140	12.4660	2.30	13.50	4.45 1	-6.24 2	-4.48 1	6.26 2
12.3825	12.4667	1.70	34.00	8.44 0	-6.48 2	-8.62 0	6.50 2
12.4187	12.4764	2.10	17.00	2.82 1	-6.28 2	-2.85 1	6.30 2
12.4069	12.4771	1.85	25.00	1.41 1	-6.42 2	-1.44 1	6.44 2
12.3576	12.4781	1.50	57.00	3.58 0	-6.02 2	-3.71 0	6.04 2
12.4289	12.4833	2.20	15.00	3.59 1	-6.25 2	-3.62 1	6.26 2
12.3934	12.4837	1.65	38.00	7.01 0	-6.46 2	-7.18 0	6.48 2
12.4224	12.4839	2.00	19.50	2.19 1	-6.33 2	-2.21 1	6.35 2
12.4404	12.4845	2.90	8.40	1.36 2	-6.75 2	-1.36 2	6.77 2
12.4469	12.4868	4.40	4.80	9.07 2	-1.04 3	-9.11 2	1.04 3
12.3913	12.4893	1.60	43.00	5.72 0	-6.39 2	-5.87 0	6.42 2
12.3553	12.4912	1.45	66.00	2.77 0	-5.65 2	-2.89 0	5.67 2
12.4287	12.4926	1.95	21.00	1.91 1	-6.36 2	-1.94 1	6.38 2
12.3427	12.4991	1.40	77.00	2.08 0	-5.09 2	-2.20 0	5.11 2
12.3931	12.5006	1.55	49.00	4.60 0	-6.27 2	-4.75 0	6.29 2
12.3228	12.5068	1.35	90.00	1.52 0	-4.31 2	-1.63 0	4.33 2
12.4392	12.5171	1.75	30.00	1.03 1	-6.48 2	-1.05 1	6.50 2
12.4792	12.5209	3.30	6.80	2.62 2	-7.84 2	-2.64 2	7.86 2
12.4099	12.5286	1.50	56.00	3.67 0	-6.06 2	-3.80 0	6.08 2
12.4583	12.5314	1.80	27.00	1.23 1	-6.46 2	-1.25 1	6.48 2
12.4014	12.5353	1.45	65.00	2.83 0	-5.70 2	-2.96 0	5.72 2
12.3839	12.5381	1.40	76.00	2.13 0	-5.15 2	-2.24 0	5.17 2
12.4911	12.5390	2.50	11.00	6.83 1	-6.31 2	-6.88 1	6.33 2
12.3611	12.5425	1.35	89.00	1.55 0	-4.38 2	-1.66 0	4.40 2
12.4948	12.5443	2.40	12.00	5.63 1	-6.27 2	-5.67 1	6.28 2
12.4744	12.5567	1.70	33.00	8.77 0	-6.49 2	-8.95 0	6.51 2
12.4614	12.5576	1.60	42.00	5.90 0	-6.42 2	-6.05 0	6.44 2
12.4540	12.5597	1.55	48.00	4.73 0	-6.30 2	-4.87 0	6.33 2
12.4740	12.5625	1.65	37.00	7.26 0	-6.48 2	-7.42 0	6.50 2
12.4256	12.5776	1.40	75.00	2.17 0	-5.21 2	-2.29 0	5.23 2
12.3995	12.5785	1.35	88.00	1.58 0	-4.44 2	-1.69 0	4.47 2
12.4481	12.5801	1.45	64.00	2.90 0	-5.75 2	-3.02 0	5.78 2
12.4633	12.5801	1.50	55.00	3.76 0	-6.10 2	-3.89 0	6.13 2
12.4382	12.6148	1.35	87.00	1.61 0	-4.51 2	-1.72 0	4.53 2
12.4676	12.6176	1.40	74.00	2.22 0	-5.26 2	-2.33 0	5.29 2
12.4955	12.6255	1.45	63.00	2.96 0	-5.80 2	-3.09 0	5.83 2
12.4771	12.6513	1.35	86.00	1.65 0	-4.57 2	-1.76 0	4.60 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.50	13.00						
12.5010	12.5409	4.20	5.00	1.17 3	-1.52 3	-1.17 3	1.53 3
12.5035	12.5440	3.70	5.80	5.10 2	-1.01 3	-5.12 2	1.01 3
12.5100	12.5507	3.60	6.00	4.32 2	-9.38 2	-4.34 2	9.41 2
12.5099	12.5543	2.80	8.80	1.18 2	-6.62 2	-1.18 2	6.63 2
12.5148	12.5551	3.80	5.60	6.04 2	-1.09 3	-6.07 2	1.09 3
12.5123	12.5576	2.70	9.40	9.91 1	-6.48 2	-9.96 1	6.50 2
12.5247	12.5676	3.00	7.80	1.65 2	-6.99 2	-1.66 2	7.01 2
12.5269	12.5692	3.10	7.40	1.94 2	-7.24 2	-1.95 2	7.26 2
12.5139	12.5745	2.00	19.00	2.26 1	-6.38 2	-2.29 1	6.35 2
12.5341	12.5750	3.50	6.20	3.71 2	-8.83 2	-3.73 2	8.85 2
12.5443	12.5843	3.90	5.40	7.30 2	-1.20 3	-7.32 2	1.20 3
12.5285	12.5851	2.10	16.50	2.94 1	-6.28 2	-2.97 1	6.30 2
12.5551	12.5986	2.90	8.20	1.42 2	-6.80 2	-1.42 2	6.82 2
12.5630	12.6048	3.20	7.00	2.31 2	-7.57 2	-2.32 2	7.59 2
12.5596	12.6057	2.60	10.00	8.43 1	-6.39 2	-8.48 1	6.41 2
12.5416	12.6099	1.85	24.00	1.49 1	-6.43 2	-1.51 1	6.45 2
12.5454	12.6105	1.90	22.00	1.73 1	-6.40 2	-1.76 1	6.41 2
12.5590	12.6123	2.20	14.50	3.76 1	-6.26 2	-3.79 1	6.27 2
12.5642	12.6150	2.30	13.00	4.69 1	-6.25 2	-4.73 1	6.27 2
12.5759	12.6168	3.40	6.40	3.21 2	-8.37 2	-3.22 2	8.39 2
12.5165	12.6203	1.55	47.00	4.86 0	-6.34 2	-5.01 0	6.36 2
12.5465	12.6225	1.75	29.00	1.08 1	-6.49 2	-1.10 1	6.51 2
12.5336	12.6280	1.60	41.00	6.08 0	-6.45 2	-6.24 0	6.47 2
12.5926	12.6324	4.00	5.20	8.97 2	-1.34 3	-9.01 2	1.34 3
12.5177	12.6327	1.50	54.00	3.85 0	-6.14 2	-3.99 0	6.17 2
12.5575	12.6442	1.65	36.00	7.52 0	-6.50 2	-7.68 0	6.52 2
12.5701	12.6506	1.70	32.00	9.12 0	-6.51 2	-9.30 0	6.53 2
12.5807	12.6520	1.80	26.00	1.29 1	-6.46 2	-1.31 1	6.48 2
12.6103	12.6550	2.70	9.20	1.03 2	-6.51 2	-1.03 2	6.53 2
12.5101	12.6580	1.40	73.00	2.27 0	-5.32 2	-2.38 0	5.35 2
12.5979	12.6597	1.95	20.00	2.04 1	-6.36 2	-2.06 1	6.38 2
12.6175	12.6613	2.80	8.60	1.22 2	-6.66 2	-1.23 2	6.67 2
12.6090	12.6685	2.00	18.50	2.34 1	-6.33 2	-2.37 1	6.35 2
12.5436	12.6718	1.45	62.00	3.03 0	-5.85 2	-3.15 0	5.87 2
12.6354	12.6765	3.30	6.60	2.80 2	-8.00 2	-2.81 2	8.02 2
12.5805	12.6825	1.55	46.00	5.00 0	-6.37 2	-5.15 0	6.39 2
12.5732	12.6864	1.50	53.00	3.95 0	-6.18 2	-4.09 0	6.21 2
12.5162	12.6880	1.35	85.00	1.68 0	-4.64 2	-1.79 0	4.67 2
12.6528	12.6951	3.00	7.60	1.73 2	-7.06 2	-1.74 2	7.08 2
12.6495	12.6951	2.60	9.80	8.70 1	-6.42 2	-8.75 1	6.43 2
12.6434	12.6988	2.10	16.00	3.06 1	-6.29 2	-3.09 1	6.30 2
12.5531	12.6989	1.40	72.00	2.31 0	-5.38 2	-2.43 0	5.41 2
12.6080	12.7006	1.60	40.00	6.28 0	-6.47 2	-6.44 0	6.49 2
12.6651	12.7069	3.10	7.20	2.05 2	-7.34 2	-2.06 2	7.36 2
12.6744	12.7173	2.90	8.00	1.48 2	-6.86 2	-1.49 2	6.88 2
12.5926	12.7188	1.45	61.00	3.10 0	-5.90 2	-3.23 0	5.92 2
12.6723	12.7205	2.40	11.50	5.99 1	-6.29 2	-6.03 1	6.30 2
12.5557	12.7251	1.35	84.00	1.72 0	-4.71 2	-1.82 0	4.73 2
12.6441	12.7289	1.65	35.00	7.80 0	-6.52 2	-7.96 0	6.54 2
12.6589	12.7330	1.75	28.00	1.13 1	-6.50 2	-1.15 1	6.52 2
12.6917	12.7383	2.50	10.50	7.33 1	-6.35 2	-7.37 1	6.36 2
12.6984	12.7384	3.60	5.80	4.73 2	-9.76 2	-4.74 2	9.78 2
12.5966	12.7404	1.40	71.00	2.36 0	-5.44 2	-2.48 0	5.46 2
12.6299	12.7413	1.50	52.00	4.06 0	-6.22 2	-4.19 0	6.25 2
12.7017	12.7415	3.70	5.60	5.60 2	-1.05 3	-5.62 2	1.05 3
12.6462	12.7464	1.55	45.00	5.15 0	-6.40 2	-5.29 0	6.42 2
12.6871	12.7480	1.95	19.50	2.11 1	-6.36 2	-2.13 1	6.38 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.6959	12.7481	2.20	14.00	3.95 1	-6.26 2	-3.98 1	6.28 2
12.6698	12.7484	1.70	31.00	9.50 0	-6.52 2	-9.68 0	6.54 2
12.7111	12.7503	4.40	4.60	7.37 2	-7.89 2	-7.40 2	7.91 2
12.6845	12.7508	1.85	23.00	1.57 1	-6.43 2	-1.60 1	6.45 2
12.7137	12.7539	3.50	6.00	4.02 2	-9.11 2	-4.03 2	9.14 2
12.7132	12.7543	3.20	6.80	2.45 2	-7.70 2	-2.46 2	7.72 2
12.7117	12.7559	2.70	9.00	1.06 2	-6.54 2	-1.07 2	6.56 2
12.5954	12.7625	1.35	83.00	1.75 0	-4.77 2	-1.86 0	4.79 2
12.7239	12.7635	3.80	5.40	6.77 2	-1.16 3	-6.80 2	1.16 3
12.7079	12.7664	2.00	18.00	2.43 1	-6.33 2	-2.46 1	6.35 2
12.6423	12.7666	1.45	60.00	3.17 0	-5.95 2	-3.30 0	5.97 2
12.7053	12.7685	1.90	21.00	1.84 1	-6.40 2	-1.86 1	6.41 2
12.7291	12.7724	2.80	8.40	1.27 2	-6.70 2	-1.28 2	6.72 2
12.7233	12.7730	2.30	12.50	4.96 1	-6.27 2	-5.00 1	6.28 2
12.6848	12.7756	1.60	39.00	6.49 0	-6.50 2	-6.64 0	6.52 2
12.7099	12.7792	1.80	25.00	1.36 1	-6.47 2	-1.38 1	6.49 2
12.6406	12.7824	1.40	70.00	2.42 0	-5.49 2	-2.53 0	5.52 2
12.7424	12.7875	2.60	9.60	8.98 1	-6.44 2	-9.04 1	6.46 2
12.7474	12.7877	3.40	6.20	3.46 2	-8.61 2	-3.47 2	8.64 2
12.7496	12.7887	4.20	4.80	1.31 3	-1.61 3	-1.32 3	1.62 3
12.6879	12.7974	1.50	51.00	4.16 0	-6.26 2	-4.30 0	6.28 2
12.6354	12.8003	1.35	82.00	1.79 0	-4.83 2	-1.89 0	4.86 2
12.7656	12.8049	3.90	5.20	8.17 2	-1.27 3	-8.20 2	1.27 3
12.7136	12.8120	1.55	44.00	5.30 0	-6.43 2	-5.45 0	6.45 2
12.6929	12.8154	1.45	59.00	3.25 0	-5.99 2	-3.37 0	6.02 2
12.7339	12.8169	1.65	34.00	8.09 0	-6.53 2	-8.25 0	6.55 2
12.7636	12.8180	2.10	15.50	3.20 1	-6.29 2	-3.23 1	6.31 2
12.6852	12.8249	1.40	69.00	2.47 0	-5.55 2	-2.58 0	5.58 2
12.7864	12.8281	3.00	7.40	1.82 2	-7.15 2	-1.83 2	7.16 2
12.6757	12.8383	1.35	81.00	1.82 0	-4.90 2	-1.93 0	4.92 2
12.7797	12.8395	1.95	19.00	2.18 1	-6.36 2	-2.20 1	6.38 2
12.7997	12.8401	3.30	6.40	2.99 2	-8.18 2	-3.00 2	8.20 2
12.7986	12.8408	2.90	7.80	1.55 2	-6.92 2	-1.55 2	6.94 2
12.7769	12.8491	1.75	27.00	1.18 1	-6.51 2	-1.20 1	6.52 2
12.7738	12.8507	1.70	30.00	9.91 0	-6.53 2	-1.01 1	6.55 2
12.8098	12.8509	3.10	7.00	2.16 2	-7.45 2	-2.17 2	7.47 2
12.7641	12.8531	1.60	38.00	6.71 0	-6.52 2	-6.86 0	6.54 2
12.7471	12.8548	1.50	50.00	4.28 0	-6.30 2	-4.41 0	6.32 2
12.8167	12.8603	2.70	8.80	1.10 2	-6.58 2	-1.11 2	6.59 2
12.7444	12.8650	1.45	58.00	3.33 0	-6.04 2	-3.45 0	6.06 2
12.8275	12.8665	4.00	5.00	1.02 3	-1.43 3	-1.02 3	1.44 3
12.7303	12.8681	1.40	68.00	2.52 0	-5.61 2	-2.64 0	5.63 2
12.8109	12.8683	2.00	17.50	2.52 1	-6.34 2	-2.55 1	6.35 2
12.7164	12.8768	1.35	80.00	1.86 0	-4.96 2	-1.97 0	4.99 2
12.7830	12.8796	1.55	43.00	5.47 0	-6.46 2	-5.61 0	6.48 2
12.8383	12.8829	2.60	9.40	9.29 1	-6.46 2	-9.34 1	6.48 2
12.8451	12.8878	2.80	8.20	1.33 2	-6.75 2	-1.33 2	6.76 2
12.8404	12.8914	2.20	13.50	4.15 1	-6.27 2	-4.18 1	6.29 2
12.8363	12.9007	1.85	22.00	1.67 1	-6.44 2	-1.69 1	6.45 2
12.8272	12.9084	1.65	33.00	8.40 0	-6.55 2	-8.57 0	6.57 2
12.8620	12.9090	2.40	11.00	6.39 1	-6.32 2	-6.43 1	6.33 2
12.8708	12.9113	3.20	6.60	2.61 2	-7.84 2	-2.62 2	7.86 2
12.7761	12.9118	1.40	67.00	2.58 0	-5.66 2	-2.69 0	5.68 2
12.8078	12.9137	1.50	49.00	4.39 0	-6.33 2	-4.53 0	6.36 2
12.8464	12.9138	1.80	24.00	1.43 1	-6.47 2	-1.45 1	6.49 2
12.7968	12.9156	1.45	57.00	3.41 0	-6.08 2	-3.53 0	6.11 2
12.7574	12.9156	1.35	79.00	1.90 0	-5.02 2	-2.01 0	5.05 2
12.8461	12.9333	1.60	37.00	6.95 0	-6.54 2	-7.10 0	6.56 2
12.8758	12.9346	1.95	18.50	2.26 1	-6.37 2	-2.28 1	6.38 2
12.8982	12.9374	3.60	5.60	5.17 2	-1.01 3	-5.19 2	1.02 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
12.8765	12.9377	1.90	20.00	1.96 1	-6.40 2	-1.98 1	6.42 2
12.8925	12.9410	2.30	12.00	5.26 1	-6.29 2	-5.30 1	6.30 2
12.8897	12.9430	2.10	15.00	3.34 1	-6.29 2	-3.37 1	6.31 2
12.9036	12.9431	3.50	5.80	4.38 2	-9.45 2	-4.40 2	9.48 2
12.8543	12.9491	1.55	42.00	5.64 0	-6.48 2	-5.78 0	6.51 2
12.9124	12.9514	3.70	5.40	6.25 2	-1.11 3	-6.27 2	1.11 3
12.9076	12.9529	2.50	10.00	7.89 1	-6.39 2	-7.94 1	6.40 2
12.7988	12.9548	1.35	78.00	1.94 0	-5.09 2	-2.05 0	5.11 2
12.8224	12.9563	1.40	66.00	2.64 0	-5.71 2	-2.75 0	5.74 2
12.8827	12.9577	1.70	29.00	1.03 1	-6.54 2	-1.05 1	6.56 2
12.8502	12.9671	1.45	56.00	3.49 0	-6.13 2	-3.62 0	6.15 2
12.9260	12.9671	3.00	7.20	1.92 2	-7.24 2	-1.92 2	7.25 2
12.9285	12.9681	3.40	6.00	3.74 2	-8.87 2	-3.75 2	8.90 2
12.9255	12.9687	2.70	8.60	1.15 2	-6.61 2	-1.15 2	6.63 2
12.9280	12.9696	2.90	7.60	1.62 2	-6.99 2	-1.63 2	7.00 2
12.9011	12.9714	1.75	26.00	1.24 1	-6.51 2	-1.26 1	6.53 2
12.8698	12.9739	1.50	48.00	4.51 0	-6.37 2	-4.65 0	6.39 2
12.9183	12.9746	2.00	17.00	2.62 1	-6.34 2	-2.65 1	6.35 2
12.9375	12.9815	2.60	9.20	9.61 1	-6.49 2	-9.66 1	6.51 2
12.9467	12.9855	3.80	5.20	7.60 2	-1.23 3	-7.62 2	1.23 3
12.8405	12.9944	1.35	77.00	1.98 0	-5.15 2	-2.09 0	5.17 2
12.8695	13.0014	1.40	65.00	2.69 0	-5.77 2	-2.81 0	5.79 2
12.9614	13.0019	3.10	6.80	2.29 2	-7.57 2	-2.30 2	7.58 2
12.9243	13.0037	1.65	32.00	8.74 0	-6.56 2	-8.90 0	6.58 2
12.9657	13.0078	2.80	8.00	1.38 2	-6.80 2	-1.39 2	6.81 2
12.9727	13.0124	3.30	6.20	3.22 2	-8.40 2	-3.23 2	8.42 2
12.9309	13.0164	1.60	36.00	7.19 0	-6.56 2	-7.35 0	6.58 2
12.9046	13.0197	1.45	55.00	3.58 0	-6.17 2	-3.71 0	6.19 2
12.9277	13.0208	1.55	41.00	5.82 0	-6.51 2	-5.96 0	6.53 2
12.9668	13.0269	1.90	19.50	2.03 1	-6.40 2	-2.05 1	6.42 2
12.9758	13.0336	1.95	18.00	2.34 1	-6.37 2	-2.37 1	6.38 2
12.8827	13.0345	1.35	76.00	2.02 0	-5.21 2	-2.13 0	5.23 2
12.8546	13.0356	1.30	90.00	1.44 0	-4.37 2	-1.54 0	4.39 2
12.9334	13.0357	1.50	47.00	4.64 0	-6.40 2	-4.77 0	6.42 2
12.9932	13.0430	2.20	13.00	4.38 1	-6.28 2	-4.41 1	6.30 2
12.9988	13.0436	2.50	9.80	8.15 1	-6.41 2	-8.19 1	6.42 2
12.9172	13.0471	1.40	64.00	2.76 0	-5.82 2	-2.87 0	5.84 2
12.9911	13.0566	1.80	23.00	1.51 1	-6.48 2	-1.53 1	6.49 2
12.9982	13.0606	1.85	21.00	1.77 1	-6.44 2	-1.79 1	6.45 2
12.9967	13.0698	1.70	28.00	1.08 1	-6.55 2	-1.10 1	6.57 2
12.8938	13.0724	1.30	89.00	1.47 0	-4.43 2	-1.57 0	4.46 2
12.9602	13.0734	1.45	54.00	3.67 0	-6.21 2	-3.80 0	6.23 2
12.9253	13.0749	1.35	75.00	2.06 0	-5.27 2	-2.17 0	5.29 2
12.9656	13.0937	1.40	63.00	2.82 0	-5.87 2	-2.93 0	5.89 2
12.9986	13.0992	1.50	46.00	4.78 0	-6.43 2	-4.91 0	6.46 2
12.9332	13.1093	1.30	88.00	1.50 0	-4.50 2	-1.60 0	4.52 2
12.9683	13.1159	1.35	74.00	2.11 0	-5.33 2	-2.21 0	5.35 2
12.9729	13.1466	1.30	87.00	1.53 0	-4.57 2	-1.63 0	4.59 2
13.00	13.50						
13.0019	13.0405	3.90	5.00	9.25 2	-1.35 3	-9.28 2	1.35 3
13.0168	13.0552	4.20	4.60	1.99 3	-2.29 3	-2.00 3	2.29 3
13.0222	13.0744	2.10	14.50	3.50 1	-6.30 2	-3.53 1	6.31 2
13.0365	13.0763	3.20	6.40	2.79 2	-8.00 2	-2.80 2	8.02 2
13.0385	13.0811	2.70	8.40	1.19 2	-6.65 2	-1.20 2	6.67 2
13.0402	13.0837	2.60	9.00	9.96 1	-6.52 2	-1.00 2	6.54 2
13.0304	13.0856	2.00	16.50	2.73 1	-6.34 2	-2.76 1	6.35 2
13.0035	13.0948	1.55	40.00	6.00 0	-6.54 2	-6.15 0	6.56 2
13.0320	13.1004	1.75	25.00	1.30 1	-6.52 2	-1.32 1	6.54 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.0189	13.1026	1.60	35.00	7.46 0	-6.58 2	-7.61 0	6.60 2
13.0256	13.1031	1.65	31.00	9.10 0	-6.58 2	-9.26 0	6.59 2
13.0630	13.1041	2.90	7.40	1.70 2	-7.06 2	-1.71 2	7.08 2
13.0655	13.1112	2.40	10.50	6.85 1	-6.35 2	-6.89 1	6.36 2
13.0721	13.1126	3.00	7.00	2.02 2	-7.33 2	-2.03 2	7.35 2
13.0791	13.1173	4.00	4.80	1.19 3	-1.57 3	-1.19 3	1.57 3
13.0604	13.1196	1.90	19.00	2.10 1	-6.40 2	-2.12 1	6.42 2
13.0728	13.1200	2.30	11.50	5.59 1	-6.31 2	-5.63 1	6.32 2
13.0168	13.1283	1.45	53.00	3.77 0	-6.25 2	-3.89 0	6.28 2
13.0912	13.1328	2.80	7.80	1.45 2	-6.85 2	-1.45 2	6.87 2
13.0799	13.1367	1.95	17.50	2.43 1	-6.37 2	-2.45 1	6.38 2
13.0929	13.1371	2.50	9.60	8.41 1	-6.43 2	-8.46 1	6.44 2
13.0148	13.1410	1.40	62.00	2.88 0	-5.92 2	-3.00 0	5.94 2
13.1048	13.1436	3.50	5.60	4.79 2	-9.80 2	-4.80 2	9.83 2
13.1103	13.1489	3.60	5.40	5.75 2	-1.07 3	-5.77 2	1.07 3
13.0118	13.1573	1.35	73.00	2.15 0	-5.39 2	-2.26 0	5.41 2
13.1199	13.1588	3.40	5.80	4.07 2	-9.18 2	-4.08 2	9.21 2
13.1205	13.1603	3.10	6.60	2.44 2	-7.70 2	-2.45 2	7.72 2
13.0656	13.1643	1.50	45.00	4.92 0	-6.47 2	-5.05 0	6.49 2
13.0816	13.1711	1.55	39.00	6.20 0	-6.56 2	-6.34 0	6.58 2
13.1367	13.1750	3.70	5.20	6.99 2	-1.18 3	-7.02 2	1.18 3
13.0127	13.1841	1.30	86.00	1.56 0	-4.63 2	-1.66 0	4.66 2
13.0747	13.1843	1.45	52.00	3.87 0	-6.29 2	-3.99 0	6.31 2
13.1164	13.1877	1.70	27.00	1.13 1	-6.56 2	-1.15 1	6.58 2
13.0648	13.1891	1.40	61.00	2.95 0	-5.97 2	-3.07 0	5.99 2
13.1465	13.1894	2.60	8.80	1.03 2	-6.55 2	-1.04 2	6.57 2
13.1102	13.1920	1.60	34.00	7.74 0	-6.59 2	-7.89 0	6.61 2
13.1552	13.1943	3.30	6.00	3.47 2	-8.63 2	-3.48 2	8.65 2
13.1559	13.1978	2.70	8.20	1.24 2	-6.70 2	-1.25 2	6.71 2
13.0558	13.1993	1.35	72.00	2.20 0	-5.45 2	-2.30 0	5.47 2
13.1475	13.2017	2.00	16.00	2.84 1	-6.34 2	-2.87 1	6.36 2
13.1551	13.2037	2.20	12.50	4.63 1	-6.30 2	-4.66 1	6.31 2
13.1312	13.2070	1.65	30.00	9.49 0	-6.59 2	-9.65 0	6.61 2
13.1448	13.2084	1.80	22.00	1.60 1	-6.48 2	-1.62 1	6.50 2
13.1617	13.2128	2.10	14.00	3.67 1	-6.31 2	-3.70 1	6.32 2
13.1577	13.2158	1.90	18.50	2.17 1	-6.40 2	-2.20 1	6.42 2
13.0529	13.2219	1.30	85.00	1.60 0	-4.70 2	-1.69 0	4.72 2
13.1847	13.2227	3.80	5.00	8.64 2	-1.31 3	-8.66 2	1.32 3
13.1343	13.2312	1.50	44.00	5.06 0	-6.50 2	-5.19 0	6.52 2
13.1715	13.2319	1.85	20.00	1.89 1	-6.44 2	-1.91 1	6.46 2
13.1901	13.2338	2.50	9.40	8.69 1	-6.45 2	-8.74 1	6.47 2
13.1703	13.2369	1.75	24.00	1.37 1	-6.52 2	-1.39 1	6.54 2
13.1156	13.2380	1.40	60.00	3.02 0	-6.02 2	-3.14 0	6.04 2
13.1338	13.2416	1.45	51.00	3.97 0	-6.33 2	-4.09 0	6.35 2
13.1003	13.2418	1.35	71.00	2.25 0	-5.51 2	-2.35 0	5.53 2
13.1885	13.2441	1.95	17.00	2.53 1	-6.37 2	-2.55 1	6.38 2
13.2041	13.2445	2.90	7.20	1.79 2	-7.14 2	-1.80 2	7.16 2
13.1622	13.2500	1.55	38.00	6.41 0	-6.58 2	-6.56 0	6.60 2
13.2111	13.2502	3.20	6.20	2.99 2	-8.20 2	-3.00 2	8.22 2
13.0933	13.2600	1.30	84.00	1.63 0	-4.77 2	-1.73 0	4.79 2
13.2221	13.2630	2.80	7.60	1.51 2	-6.91 2	-1.52 2	6.93 2
13.2252	13.2650	3.00	6.80	2.14 2	-7.44 2	-2.15 2	7.46 2
13.1453	13.2848	1.35	70.00	2.29 0	-5.56 2	-2.40 0	5.59 2
13.2050	13.2851	1.60	33.00	8.04 0	-6.61 2	-8.19 0	6.63 2
13.1673	13.2878	1.40	59.00	3.09 0	-6.06 2	-3.21 0	6.09 2
13.2552	13.2929	3.90	4.80	1.07 3	-1.46 3	-1.07 3	1.47 3
13.1340	13.2984	1.30	83.00	1.66 0	-4.83 2	-1.76 0	4.86 2
13.2568	13.2991	2.60	8.60	1.07 2	-6.58 2	-1.08 2	6.60 2
13.2049	13.3001	1.50	43.00	5.22 0	-6.52 2	-5.35 0	6.55 2
13.1942	13.3003	1.45	50.00	4.07 0	-6.37 2	-4.20 0	6.39 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.2654	13.3115	2.30	11.00	5.97 1	-6.33 2	-6.01 1	6.35 2
13.2423	13.3117	1.70	26.00	1.19 1	-6.56 2	-1.21 1	6.58 2
13.2417	13.3156	1.65	29.00	9.91 0	-6.60 2	-1.01 1	6.61 2
13.2588	13.3159	1.90	18.00	2.25 1	-6.40 2	-2.28 1	6.42 2
13.2779	13.3193	2.70	8.00	1.29 2	-6.74 2	-1.30 2	6.76 2
13.2628	13.3222	1.85	19.50	1.95 1	-6.44 2	-1.97 1	6.46 2
13.2702	13.3233	2.00	15.50	2.97 1	-6.34 2	-2.99 1	6.36 2
13.2877	13.3269	3.10	6.40	2.60 2	-7.84 2	-2.61 2	7.86 2
13.1909	13.3284	1.35	69.00	2.34 0	-5.62 2	-2.45 0	5.64 2
13.2846	13.3290	2.40	10.00	7.38 1	-6.39 2	-7.42 1	6.40 2
13.2456	13.3316	1.55	37.00	6.64 0	-6.60 2	-6.78 0	6.62 2
13.2906	13.3338	2.50	9.20	8.99 1	-6.48 2	-9.04 1	6.49 2
13.1750	13.3372	1.30	82.00	1.70 0	-4.90 2	-1.79 0	4.92 2
13.2199	13.3386	1.40	58.00	3.17 0	-6.11 2	-3.28 0	6.13 2
13.3052	13.3427	4.20	4.40	-5.20 3	5.58 3	5.21 3	-5.59 3
13.3017	13.3564	1.95	16.50	2.63 1	-6.37 2	-2.65 1	6.39 2
13.3186	13.3566	3.50	5.40	5.30 2	-1.03 3	-5.32 2	1.03 3
13.3089	13.3588	2.10	13.50	3.86 1	-6.31 2	-3.89 1	6.33 2
13.2560	13.3603	1.45	49.00	4.19 0	-6.40 2	-4.31 0	6.43 2
13.3227	13.3609	3.40	5.60	4.43 2	-9.50 2	-4.45 2	9.52 2
13.3088	13.3704	1.80	21.00	1.70 1	-6.48 2	-1.72 1	6.50 2
13.2775	13.3710	1.50	42.00	5.38 0	-6.55 2	-5.51 0	6.57 2
13.2371	13.3726	1.35	68.00	2.40 0	-5.67 2	-2.50 0	5.70 2
13.3363	13.3740	3.60	5.20	6.42 2	-1.13 3	-6.44 2	1.13 3
13.3271	13.3746	2.20	12.00	4.90 1	-6.31 2	-4.94 1	6.33 2
13.2163	13.3763	1.30	81.00	1.73 0	-4.96 2	-1.83 0	4.99 2
13.3169	13.3816	1.75	23.00	1.45 1	-6.52 2	-1.47 1	6.54 2
13.3037	13.3820	1.60	32.00	8.36 0	-6.62 2	-8.51 0	6.64 2
13.3482	13.3866	3.30	5.80	3.76 2	-8.91 2	-3.78 2	8.93 2
13.3496	13.3870	4.00	4.60	1.60 3	-1.98 3	-1.61 3	1.99 3
13.2734	13.3903	1.40	57.00	3.25 0	-6.15 2	-3.36 0	6.18 2
13.3517	13.3915	2.90	7.00	1.89 2	-7.23 2	-1.90 2	7.25 2
13.3585	13.3989	2.80	7.40	1.59 2	-6.98 2	-1.60 2	7.00 2
13.3711	13.4129	2.60	8.40	1.11 2	-6.62 2	-1.12 2	6.63 2
13.3763	13.4138	3.70	5.00	7.93 2	-1.26 3	-7.96 2	1.26 3
13.2580	13.4157	1.30	80.00	1.77 0	-5.03 2	-1.86 0	5.05 2
13.3575	13.4159	1.85	19.00	2.02 1	-6.44 2	-2.04 1	6.46 2
13.3319	13.4161	1.55	36.00	6.87 0	-6.62 2	-7.01 0	6.64 2
13.2839	13.4175	1.35	67.00	2.45 0	-5.73 2	-2.55 0	5.75 2
13.3641	13.4201	1.90	17.50	2.34 1	-6.40 2	-2.36 1	6.42 2
13.3770	13.4209	2.40	9.80	7.61 1	-6.41 2	-7.65 1	6.42 2
13.3193	13.4218	1.45	48.00	4.30 0	-6.44 2	-4.42 0	6.46 2
13.3858	13.4250	3.00	6.60	2.27 2	-7.56 2	-2.28 2	7.57 2
13.3574	13.4296	1.65	28.00	1.04 1	-6.61 2	-1.05 1	6.62 2
13.3952	13.4336	3.20	6.00	3.22 2	-8.41 2	-3.23 2	8.43 2
13.3947	13.4373	2.50	9.00	9.31 1	-6.50 2	-9.36 1	6.52 2
13.3751	13.4426	1.70	25.00	1.25 1	-6.57 2	-1.27 1	6.59 2
13.3279	13.4430	1.40	56.00	3.33 0	-6.20 2	-3.44 0	6.22 2
13.3523	13.4440	1.50	41.00	5.55 0	-6.58 2	-5.68 0	6.60 2
13.4048	13.4457	2.70	7.80	1.35 2	-6.79 2	-1.36 2	6.81 2
13.3988	13.4509	2.00	15.00	3.10 1	-6.35 2	-3.13 1	6.36 2
13.3000	13.4556	1.30	79.00	1.80 0	-5.09 2	-1.90 0	5.11 2
13.3313	13.4630	1.35	66.00	2.50 0	-5.78 2	-2.61 0	5.81 2
13.4201	13.4737	1.95	16.00	2.74 1	-6.37 2	-2.76 1	6.39 2
13.4395	13.4768	3.80	4.80	1.00 3	-1.44 3	-1.01 3	1.44 3
13.4065	13.4830	1.60	31.00	8.71 0	-6.63 2	-8.86 0	6.65 2
13.3841	13.4849	1.45	47.00	4.42 0	-6.47 2	-4.55 0	6.49 2
13.3424	13.4958	1.30	78.00	1.84 0	-5.15 2	-1.94 0	5.18 2
13.3835	13.4968	1.40	55.00	3.41 0	-6.24 2	-3.52 0	6.26 2
13.4638	13.5023	3.10	6.20	2.78 2	-8.02 2	-2.79 2	8.04 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.4214	13.5038	1.55	35.00	7.13 0	-6.64 2	-7.27 0	6.66 2
13.3794	13.5091	1.35	65.00	2.56 0	-5.84 2	-2.66 0	5.86 2
13.4644	13.5132	2.10	13.00	4.07 1	-6.32 2	-4.10 1	6.34 2
13.4559	13.5133	1.85	18.50	2.09 1	-6.44 2	-2.11 1	6.46 2
13.4724	13.5158	2.40	9.60	7.85 1	-6.42 2	-7.90 1	6.44 2
13.4720	13.5168	2.30	10.50	6.39 1	-6.36 2	-6.43 1	6.37 2
13.4294	13.5193	1.50	40.00	5.73 0	-6.60 2	-5.86 0	6.62 2
13.4738	13.5288	1.90	17.00	2.43 1	-6.40 2	-2.45 1	6.42 2
13.4899	13.5311	2.60	8.20	1.16 2	-6.66 2	-1.17 2	6.67 2
13.4727	13.5354	1.75	22.00	1.54 1	-6.53 2	-1.56 1	6.54 2
13.3852	13.5365	1.30	77.00	1.88 0	-5.22 2	-1.97 0	5.24 2
13.4842	13.5438	1.80	20.00	1.81 1	-6.48 2	-1.83 1	6.50 2
13.4789	13.5492	1.65	27.00	1.09 1	-6.61 2	-1.10 1	6.63 2
13.4506	13.5496	1.45	46.00	4.55 0	-6.51 2	-4.67 0	6.53 2
13.4402	13.5517	1.40	54.00	3.49 0	-6.28 2	-3.61 0	6.31 2
13.4282	13.5560	1.35	64.00	2.62 0	-5.89 2	-2.72 0	5.91 2
13.4284	13.5776	1.30	76.00	1.92 0	-5.28 2	-2.01 0	5.30 2
13.4777	13.6037	1.35	63.00	2.68 0	-5.94 2	-2.78 0	5.96 2
13.4980	13.6077	1.40	53.00	3.58 0	-6.33 2	-3.70 0	6.35 2
13.4393	13.6172	1.25	90.00	1.37 0	-4.43 2	-1.45 0	4.45 2
13.4720	13.6192	1.30	75.00	1.96 0	-5.34 2	-2.05 0	5.36 2
13.4795	13.6550	1.25	89.00	1.39 0	-4.49 2	-1.48 0	4.52 2
13.50	14.00						
13.5011	13.5409	2.80	7.20	1.67 2	-7.06 2	-1.68 2	7.07 2
13.5024	13.5445	2.50	8.80	9.65 1	-6.53 2	-9.70 1	6.54 2
13.5063	13.5455	2.90	6.80	1.99 2	-7.33 2	-2.00 2	7.34 2
13.5103	13.5566	2.20	11.50	5.21 1	-6.33 2	-5.24 1	6.34 2
13.5273	13.5643	3.90	4.60	1.35 3	-1.74 3	-1.35 3	1.74 3
13.5381	13.5756	3.40	5.40	4.89 2	-9.94 2	-4.91 2	9.97 2
13.5371	13.5774	2.70	7.60	1.41 2	-6.85 2	-1.42 2	6.86 2
13.5153	13.5810	1.70	24.00	1.32 1	-6.57 2	-1.33 1	6.59 2
13.5462	13.5835	3.50	5.20	5.90 2	-1.08 3	-5.92 2	1.08 3
13.5340	13.5849	2.00	14.50	3.25 1	-6.35 2	-3.28 1	6.37 2
13.5138	13.5885	1.60	30.00	9.08 0	-6.65 2	-9.23 0	6.66 2
13.5527	13.5903	3.30	5.60	4.09 2	-9.20 2	-4.10 2	9.22 2
13.5546	13.5932	3.00	6.40	2.41 2	-7.69 2	-2.42 2	7.70 2
13.5142	13.5949	1.55	34.00	7.39 0	-6.66 2	-7.53 0	6.68 2
13.5441	13.5966	1.95	15.50	2.86 1	-6.38 2	-2.88 1	6.39 2
13.5089	13.5971	1.50	39.00	5.92 0	-6.63 2	-6.05 0	6.65 2
13.5710	13.6139	2.40	9.40	8.11 1	-6.44 2	-8.16 1	6.46 2
13.5775	13.6145	3.60	5.00	7.25 2	-1.20 3	-7.27 2	1.20 3
13.5582	13.6146	1.85	18.00	2.16 1	-6.44 2	-2.19 1	6.46 2
13.5188	13.6161	1.45	45.00	4.68 0	-6.54 2	-4.80 0	6.56 2
13.5898	13.6276	3.20	5.80	3.48 2	-8.66 2	-3.50 2	8.68 2
13.5767	13.6353	1.80	19.50	1.87 1	-6.48 2	-1.89 1	6.50 2
13.5883	13.6423	1.90	16.50	2.53 1	-6.41 2	-2.55 1	6.42 2
13.5280	13.6521	1.35	62.00	2.74 0	-5.99 2	-2.84 0	6.01 2
13.6134	13.6540	2.60	8.00	1.21 2	-6.70 2	-1.21 2	6.71 2
13.6140	13.6556	2.50	8.60	1.00 2	-6.56 2	-1.01 2	6.57 2
13.5161	13.6612	1.30	74.00	2.00 0	-5.40 2	-2.10 0	5.42 2
13.5571	13.6650	1.40	52.00	3.68 0	-6.37 2	-3.79 0	6.39 2
13.6328	13.6696	3.70	4.80	9.20 2	-1.37 3	-9.23 2	1.37 3
13.6067	13.6751	1.65	26.00	1.14 1	-6.62 2	-1.15 1	6.64 2
13.6292	13.6768	2.10	12.50	4.30 1	-6.33 2	-4.33 1	6.35 2
13.3910	13.6775	1.50	38.00	6.12 0	-6.65 2	-6.25 0	6.67 2
13.6413	13.6779	4.00	4.40	2.72 3	-3.15 3	-2.73 3	3.16 3
13.5889	13.6844	1.45	44.00	4.82 0	-6.57 2	-4.94 0	6.59 2
13.6496	13.6874	3.10	6.00	2.99 2	-8.21 2	-3.00 2	8.23 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.6503	13.6894	2.80	7.00	1.76 2	-7.14 2	-1.77 2	7.15 2
13.6106	13.6895	1.55	33.00	7.68 0	-6.67 2	-7.82 0	6.69 2
13.5200	13.6931	1.25	88.00	1.42 0	-4.56 2	-1.51 0	4.59 2
13.6260	13.6989	1.60	29.00	9.48 0	-6.66 2	-9.63 0	6.67 2
13.6388	13.6996	1.75	21.00	1.63 1	-6.53 2	-1.65 1	6.54 2
13.5791	13.7014	1.35	61.00	2.80 0	-6.04 2	-2.91 0	6.06 2
13.5606	13.7037	1.30	73.00	2.04 0	-5.46 2	-2.14 0	5.48 2
13.6685	13.7071	2.90	6.60	2.11 2	-7.43 2	-2.12 2	7.45 2
13.6751	13.7148	2.70	7.40	1.48 2	-6.91 2	-1.49 2	6.92 2
13.6729	13.7153	2.40	9.20	8.39 1	-6.46 2	-8.43 1	6.48 2
13.6647	13.7201	1.85	17.50	2.25 1	-6.44 2	-2.27 1	6.46 2
13.6174	13.7235	1.40	51.00	3.77 0	-6.40 2	-3.89 0	6.43 2
13.6741	13.7255	1.95	15.00	2.99 1	-6.38 2	-3.01 1	6.39 2
13.6762	13.7261	2.00	14.00	3.41 1	-6.36 2	-3.43 1	6.37 2
13.6639	13.7277	1.70	23.00	1.39 1	-6.58 2	-1.41 1	6.59 2
13.6726	13.7302	1.80	19.00	1.94 1	-6.48 2	-1.96 1	6.50 2
13.5606	13.7314	1.25	87.00	1.45 0	-4.63 2	-1.54 0	4.65 2
13.6944	13.7379	2.30	10.00	6.88 1	-6.39 2	-6.92 1	6.41 2
13.6057	13.7468	1.30	72.00	2.08 0	-5.52 2	-2.18 0	5.54 2
13.7134	13.7499	3.80	4.60	1.27 3	-1.70 3	-1.27 3	1.71 3
13.7061	13.7512	2.20	11.00	5.56 1	-6.35 2	-5.59 1	6.36 2
13.6311	13.7515	1.35	60.00	2.87 0	-6.09 2	-2.97 0	6.11 2
13.6608	13.7546	1.45	43.00	4.97 0	-6.60 2	-5.09 0	6.62 2
13.6759	13.7606	1.50	37.00	6.33 0	-6.67 2	-6.46 0	6.69 2
13.7080	13.7609	1.90	16.00	2.63 1	-6.41 2	-2.66 1	6.42 2
13.6016	13.7700	1.25	86.00	1.48 0	-4.70 2	-1.57 0	4.72 2
13.7324	13.7703	3.00	6.20	2.58 2	-7.85 2	-2.59 2	7.87 2
13.7299	13.7709	2.50	8.40	1.04 2	-6.59 2	-1.05 2	6.61 2
13.7419	13.7819	2.60	7.80	1.26 2	-6.74 2	-1.27 2	6.76 2
13.6791	13.7835	1.40	50.00	3.88 0	-6.44 2	-3.99 0	6.46 2
13.7109	13.7881	1.55	32.00	7.99 0	-6.69 2	-8.13 0	6.70 2
13.6512	13.7904	1.30	71.00	2.13 0	-5.58 2	-2.23 0	5.60 2
13.6839	13.8025	1.35	59.00	2.94 0	-6.14 2	-3.04 0	6.16 2
13.7674	13.8041	3.40	5.20	5.43 2	-1.04 3	-5.45 2	1.04 3
13.7698	13.8067	3.30	5.40	4.50 2	-9.58 2	-4.51 2	9.61 2
13.7413	13.8079	1.65	25.00	1.20 1	-6.62 2	-1.21 1	6.64 2
13.6428	13.8088	1.25	85.00	1.51 0	-4.77 2	-1.60 0	4.79 2
13.7436	13.8147	1.60	28.00	9.91 0	-6.66 2	-1.01 1	6.68 2
13.7784	13.8202	2.40	9.00	8.68 1	-6.49 2	-8.73 1	6.50 2
13.7892	13.8257	3.50	5.00	6.64 2	-1.15 3	-6.66 2	1.15 3
13.7349	13.8269	1.45	42.00	5.12 0	-6.62 2	-5.24 0	6.64 2
13.7721	13.8288	1.80	18.50	2.00 1	-6.48 2	-2.02 1	6.50 2
13.7757	13.8300	1.85	17.00	2.33 1	-6.44 2	-2.36 1	6.46 2
13.7882	13.8313	2.30	9.80	7.09 1	-6.41 2	-7.13 1	6.42 2
13.7960	13.8330	3.20	5.60	3.78 2	-8.92 2	-3.79 2	8.94 2
13.6974	13.8345	1.30	70.00	2.18 0	-5.64 2	-2.27 0	5.66 2
13.7422	13.8448	1.40	49.00	3.98 0	-6.48 2	-4.09 0	6.50 2
13.8065	13.8450	2.80	6.80	1.86 2	-7.22 2	-1.86 2	7.24 2
13.7638	13.8467	1.50	36.00	6.56 0	-6.69 2	-6.69 0	6.71 2
13.6842	13.8480	1.25	84.00	1.54 0	-4.83 2	-1.63 0	4.86 2
13.8042	13.8507	2.10	12.00	4.56 1	-6.35 2	-4.59 1	6.36 2
13.7376	13.8544	1.35	58.00	3.01 0	-6.18 2	-3.11 0	6.21 2
13.8208	13.8570	3.90	4.40	1.80 3	-2.17 3	-1.81 3	2.17 3
13.8193	13.8584	2.70	7.20	1.56 2	-6.97 2	-1.56 2	6.99 2
13.8106	13.8610	1.95	14.50	3.13 1	-6.38 2	-3.15 1	6.39 2
13.8359	13.8721	3.60	4.80	8.36 2	-1.30 3	-8.38 2	1.30 3
13.8262	13.8750	2.00	13.50	3.58 1	-6.36 2	-3.61 1	6.38 2
13.8164	13.8753	1.75	20.00	1.74 1	-6.53 2	-1.76 1	6.54 2
13.8390	13.8769	2.90	6.40	2.25 2	-7.55 2	-2.25 2	7.57 2
13.7440	13.8792	1.30	69.00	2.22 0	-5.69 2	-2.32 0	5.72 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
13.8459	13.8831	3.10	5.80	3.23 2	-8.44 2	-3.24 2	8.48 2
13.8219	13.8837	1.70	22.00	1.47 1	-6.58 2	-1.49 1	6.59 2
13.8333	13.8852	1.90	15.50	2.75 1	-6.41 2	-2.77 1	6.42 2
13.7260	13.8876	1.25	83.00	1.57 0	-4.90 2	-1.66 0	4.92 2
13.8501	13.8906	2.50	8.20	1.08 2	-6.63 2	-1.09 2	6.64 2
13.8154	13.8908	1.55	31.00	8.31 0	-6.70 2	-8.45 0	6.72 2
13.8111	13.9014	1.45	41.00	5.28 0	-6.65 2	-5.41 0	6.67 2
13.7923	13.9073	1.35	57.00	3.08 0	-6.23 2	-3.19 0	6.25 2
13.8068	13.9076	1.40	48.00	4.09 0	-6.51 2	-4.20 0	6.54 2
13.8757	13.9152	2.60	7.60	1.32 2	-6.79 2	-1.32 2	6.81 2
13.7913	13.9246	1.30	68.00	2.27 0	-5.75 2	-2.37 0	5.77 2
13.7681	13.9274	1.25	82.00	1.60 0	-4.97 2	-1.69 0	4.99 2
13.8851	13.9276	2.30	9.60	7.32 1	-6.42 2	-7.35 1	6.44 2
13.8876	13.9289	2.40	8.80	9.00 1	-6.51 2	-9.04 1	6.53 2
13.8757	13.9313	1.80	18.00	2.08 1	-6.48 2	-2.10 1	6.50 2
13.8548	13.9360	1.50	35.00	6.80 0	-6.71 2	-6.93 0	6.73 2
13.8669	13.9362	1.60	27.00	1.04 1	-6.67 2	-1.05 1	6.69 2
13.9085	13.9445	3.70	4.60	1.14 3	-1.60 3	-1.14 3	1.60 3
13.8915	13.9448	1.85	16.50	2.43 1	-6.44 2	-2.45 1	6.46 2
13.8836	13.9484	1.65	24.00	1.26 1	-6.63 2	-1.28 1	6.64 2
13.9198	13.9571	3.00	6.00	2.77 2	-8.02 2	-2.78 2	8.04 2
13.9160	13.9599	2.20	10.50	5.95 1	-6.38 2	-5.98 1	6.39 2
13.8481	13.9613	1.35	56.00	3.16 0	-6.28 2	-3.26 0	6.30 2
13.8105	13.9676	1.25	81.00	1.64 0	-5.03 2	-1.73 0	5.05 2
13.9101	13.9679	1.75	19.50	1.80 1	-6.53 2	-1.81 1	6.54 2
13.8392	13.9706	1.30	67.00	2.32 0	-5.81 2	-2.42 0	5.83 2
13.8729	13.9720	1.40	47.00	4.21 0	-6.55 2	-4.32 0	6.57 2
13.8896	13.9782	1.45	40.00	5.46 0	-6.68 2	-5.58 0	6.70 2
13.9572	13.9929	4.00	4.20	1.40 3	-1.51 3	-1.41 3	1.52 3
13.9245	13.9981	1.55	30.00	8.67 0	-6.71 2	-8.81 0	6.73 2
13.9543	14.0035	1.95	14.00	3.28 1	-6.38 2	-3.30 1	6.40 2
13.8532	14.0082	1.25	80.00	1.67 0	-5.10 2	-1.76 0	5.12 2
13.9704	14.0083	2.80	6.60	1.97 2	-7.32 2	-1.97 2	7.33 2
13.9701	14.0086	2.70	7.00	1.64 2	-7.05 2	-1.64 2	7.06 2
13.9751	14.0151	2.50	8.00	1.13 2	-6.67 2	-1.13 2	6.68 2
13.9647	14.0155	1.90	15.00	2.87 1	-6.41 2	-2.89 1	6.42 2
13.9049	14.0163	1.35	55.00	3.24 0	-6.32 2	-3.34 0	6.34 2
13.8878	14.0172	1.30	66.00	2.37 0	-5.86 2	-2.47 0	5.88 2
13.9851	14.0271	2.30	9.40	7.56 1	-6.44 2	-7.59 1	6.45 2
13.9492	14.0287	1.50	34.00	7.05 0	-6.72 2	-7.18 0	6.74 2
13.9847	14.0323	2.00	13.00	3.77 1	-6.37 2	-3.80 1	6.38 2
13.9907	14.0360	2.10	11.50	4.84 1	-6.36 2	-4.87 1	6.37 2
13.9834	14.0381	1.80	17.50	2.16 1	-6.48 2	-2.18 1	6.50 2
13.9407	14.0381	1.40	46.00	4.33 0	-6.58 2	-4.44 0	6.60 2
13.8963	14.0492	1.25	79.00	1.71 0	-5.16 2	-1.79 0	5.18 2
13.9902	14.0501	1.70	21.00	1.56 1	-6.58 2	-1.58 1	6.59 2
13.9706	14.0574	1.45	39.00	5.64 0	-6.70 2	-5.76 0	6.72 2
13.9966	14.0641	1.60	26.00	1.09 1	-6.68 2	-1.10 1	6.69 2
13.9370	14.0646	1.30	65.00	2.43 0	-5.91 2	-2.52 0	5.94 2
13.9628	14.0724	1.35	54.00	3.32 0	-6.36 2	-3.42 0	6.38 2
13.9398	14.0906	1.25	78.00	1.74 0	-5.23 2	-1.83 0	5.25 2
13.9870	14.1127	1.30	64.00	2.48 0	-5.97 2	-2.58 0	5.99 2
13.9837	14.1324	1.25	77.00	1.78 0	-5.29 2	-1.86 0	5.31 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.00	14.50						
14.0009	14.0371	3.30	5.20	4.97 2	-1.00 3	-4.99 2	1.00 3
14.0007	14.0415	2.40	8.60	9.33 1	-6.54 2	-9.37 1	6.55 2
14.0088	14.0444	3.80	4.40	1.71 3	-2.15 3	-1.72 3	2.15 3
14.0122	14.0482	3.40	5.00	6.09 2	-1.10 3	-6.11 2	1.11 3
14.0149	14.0512	3.20	5.40	4.14 2	-9.26 2	-4.15 2	9.28 2
14.0154	14.0543	2.60	7.40	1.38 2	-6.85 2	-1.39 2	6.86 2
14.0184	14.0557	2.90	6.20	2.40 2	-7.70 2	-2.41 2	7.72 2
14.0072	14.0641	1.75	19.00	1.86 1	-6.53 2	-1.88 1	6.54 2
14.0126	14.0648	1.85	16.00	2.53 1	-6.44 2	-2.55 1	6.46 2
14.0494	14.0851	3.50	4.80	7.61 2	-1.24 3	-7.63 2	1.24 3
14.0538	14.0903	3.10	5.60	3.49 2	-8.67 2	-3.50 2	8.69 2
14.0343	14.0972	1.65	23.00	1.33 1	-6.63 2	-1.35 1	6.64 2
14.0103	14.1060	1.40	45.00	4.45 0	-6.61 2	-4.57 0	6.63 2
14.0386	14.1104	1.55	29.00	9.05 0	-6.72 2	-9.19 0	6.74 2
14.0473	14.1250	1.50	33.00	7.32 0	-6.74 2	-7.45 0	6.76 2
14.0219	14.1298	1.35	53.00	3.40 0	-6.40 2	-3.51 0	6.43 2
14.0885	14.1300	2.30	9.20	7.81 1	-6.46 2	-7.85 1	6.47 2
14.0543	14.1394	1.45	38.00	5.83 0	-6.72 2	-5.95 0	6.74 2
14.1052	14.1446	2.50	7.80	1.18 2	-6.71 2	-1.18 2	6.72 2
14.1134	14.1489	3.60	4.60	1.02 3	-1.48 3	-1.02 3	1.49 3
14.0957	14.1493	1.80	17.00	2.24 1	-6.48 2	-2.26 1	6.50 2
14.1026	14.1524	1.90	14.50	3.00 1	-6.41 2	-3.03 1	6.42 2
14.1058	14.1539	1.95	13.50	3.45 1	-6.39 2	-3.47 1	6.40 2
14.1179	14.1545	3.00	5.80	2.98 2	-8.22 2	-2.99 2	8.23 2
14.1181	14.1583	2.40	8.40	9.69 1	-6.57 2	-9.73 1	6.58 2
14.0377	14.1615	1.30	63.00	2.54 0	-6.02 2	-2.63 0	6.04 2
14.1080	14.1639	1.75	18.50	1.92 1	-6.53 2	-1.94 1	6.54 2
14.1280	14.1659	2.70	6.80	1.73 2	-7.12 2	-1.73 2	7.14 2
14.1386	14.1739	3.90	4.20	1.24 3	-1.39 3	-1.24 3	1.39 3
14.0280	14.1746	1.25	76.00	1.81 0	-5.35 2	-1.90 0	5.37 2
14.0818	14.1757	1.40	44.00	4.59 0	-6.64 2	-4.70 0	6.66 2
14.1426	14.1799	2.80	6.40	2.09 2	-7.43 2	-2.09 2	7.44 2
14.1419	14.1846	2.20	10.00	6.39 1	-6.40 2	-6.43 1	6.42 2
14.0822	14.1884	1.35	52.00	3.49 0	-6.44 2	-3.59 0	6.47 2
14.1392	14.1905	1.85	15.50	2.64 1	-6.44 2	-2.66 1	6.46 2
14.1333	14.1989	1.60	25.00	1.14 1	-6.68 2	-1.16 1	6.70 2
14.1526	14.1991	2.00	12.50	3.99 1	-6.38 2	-4.01 1	6.39 2
14.1612	14.1995	2.60	7.20	1.45 2	-6.91 2	-1.46 2	6.92 2
14.0892	14.2112	1.30	62.00	2.60 0	-6.07 2	-2.69 0	6.09 2
14.0727	14.2173	1.25	75.00	1.85 0	-5.41 2	-1.94 0	5.44 2
14.1407	14.2241	1.45	37.00	6.03 0	-6.74 2	-6.15 0	6.76 2
14.1493	14.2253	1.50	32.00	7.61 0	-6.75 2	-7.74 0	6.77 2
14.1580	14.2280	1.55	28.00	9.46 0	-6.73 2	-9.60 0	6.74 2
14.1702	14.2282	1.70	20.00	1.66 1	-6.58 2	-1.68 1	6.59 2
14.1898	14.2339	2.10	11.00	5.16 1	-6.38 2	-5.19 1	6.39 2
14.1954	14.2364	2.30	9.00	8.08 1	-6.48 2	-8.12 1	6.49 2
14.2058	14.2410	3.70	4.40	1.49 3	-1.94 3	-1.49 3	1.95 3
14.2077	14.2443	2.90	6.00	2.57 2	-7.85 2	-2.57 2	7.87 2
14.1552	14.2474	1.40	43.00	4.72 0	-6.67 2	-4.84 0	6.69 2
14.1439	14.2482	1.35	51.00	3.58 0	-6.48 2	-3.69 0	6.51 2
14.1945	14.2555	1.65	22.00	1.41 1	-6.63 2	-1.42 1	6.65 2
14.0851	14.2598	1.20	90.00	1.29 0	-4.49 2	-1.37 0	4.51 2
14.1179	14.2605	1.25	74.00	1.89 0	-5.48 2	-1.98 0	5.50 2
14.1415	14.2616	1.30	61.00	2.66 0	-6.12 2	-2.75 0	6.14 2
14.2129	14.2655	1.80	16.50	2.33 1	-6.48 2	-2.35 1	6.49 2
14.2128	14.2677	1.75	18.00	1.99 1	-6.53 2	-2.01 1	6.54 2
14.2372	14.2793	2.20	9.80	6.59 1	-6.42 2	-6.63 1	6.43 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.2408	14.2795	2.50	7.60	1.23 2	-6.75 2	-1.23 2	6.76 2
14.2400	14.2797	2.40	8.20	1.01 2	-6.60 2	-1.01 2	6.61 2
14.2476	14.2831	3.30	5.00	5.55 2	-1.05 3	-5.57 2	1.06 3
14.2478	14.2835	3.20	5.20	4.56 2	-9.64 2	-4.57 2	9.66 2
14.2478	14.2965	1.90	14.00	3.15 1	-6.41 2	-3.17 1	6.43 2
14.1265	14.2988	1.20	89.00	1.32 0	-4.56 2	-1.40 0	4.58 2
14.1636	14.3042	1.25	73.00	1.93 0	-5.54 2	-2.02 0	5.56 2
14.2069	14.3095	1.35	50.00	3.68 0	-6.52 2	-3.78 0	6.54 2
14.2743	14.3096	3.40	4.80	6.95 2	-1.18 3	-6.97 2	1.19 3
14.2746	14.3104	3.10	5.40	3.81 2	-8.98 2	-3.83 2	9.00 2
14.2302	14.3118	1.45	36.00	6.24 0	-6.76 2	-6.36 0	6.78 2
14.2658	14.3129	1.95	13.00	3.63 1	-6.39 2	-3.65 1	6.41 2
14.1946	14.3130	1.30	60.00	2.72 0	-6.17 2	-2.81 0	6.19 2
14.2307	14.3212	1.40	42.00	4.87 0	-6.70 2	-4.98 0	6.72 2
14.2650	14.3221	1.70	19.50	1.72 1	-6.58 2	-1.74 1	6.59 2
14.2721	14.3222	1.85	15.00	2.76 1	-6.44 2	-2.78 1	6.46 2
14.2557	14.3299	1.50	31.00	7.93 0	-6.77 2	-8.06 0	6.78 2
14.2937	14.3309	2.70	6.60	1.82 2	-7.21 2	-1.83 2	7.22 2
14.1681	14.3380	1.20	88.00	1.34 0	-4.63 2	-1.42 0	4.65 2
14.2777	14.3415	1.60	24.00	1.20 1	-6.69 2	-1.22 1	6.70 2
14.3062	14.3467	2.30	8.80	8.37 1	-6.50 2	-8.41 1	6.52 2
14.2098	14.3484	1.25	72.00	1.97 0	-5.60 2	-2.06 0	5.62 2
14.3137	14.3515	2.60	7.00	1.52 2	-6.98 2	-1.53 2	6.99 2
14.2833	14.3515	1.55	27.00	9.90 0	-6.74 2	-1.00 1	6.75 2
14.3238	14.3605	2.80	6.20	2.22 2	-7.56 2	-2.23 2	7.57 2
14.3285	14.3633	3.80	4.20	1.63 3	-1.90 3	-1.64 3	1.91 3
14.3277	14.3637	3.00	5.60	3.22 2	-8.42 2	-3.23 2	8.44 2
14.3288	14.3639	3.50	4.60	9.11 2	-1.39 3	-9.13 2	1.39 3
14.2487	14.3652	1.30	59.00	2.78 0	-6.22 2	-2.88 0	6.24 2
14.2713	14.3722	1.35	49.00	3.78 0	-6.56 2	-3.88 0	6.58 2
14.3219	14.3758	1.75	17.50	2.07 1	-6.52 2	-2.09 1	6.54 2
14.3309	14.3763	2.00	12.00	4.22 1	-6.39 2	-4.25 1	6.40 2
14.3355	14.3772	2.20	9.60	6.80 1	-6.43 2	-6.83 1	6.44 2
14.2099	14.3775	1.20	87.00	1.37 0	-4.70 2	-1.45 0	4.72 2
14.3353	14.3869	1.80	16.00	2.43 1	-6.48 2	-2.45 1	6.49 2
14.2565	14.3932	1.25	71.00	2.01 0	-5.66 2	-2.10 0	5.68 2
14.3084	14.3972	1.40	41.00	5.02 0	-6.73 2	-5.14 0	6.75 2
14.3229	14.4028	1.45	35.00	6.47 0	-6.78 2	-6.59 0	6.80 2
14.3666	14.4058	2.40	8.00	1.05 2	-6.63 2	-1.05 2	6.65 2
14.2519	14.4172	1.20	86.00	1.40 0	-4.77 2	-1.48 0	4.79 2
14.3037	14.4184	1.30	58.00	2.85 0	-6.27 2	-2.95 0	6.29 2
14.3634	14.4195	1.70	19.00	1.78 1	-6.57 2	-1.80 1	6.59 2
14.3821	14.4203	2.50	7.40	1.29 2	-6.80 2	-1.29 2	6.81 2
14.3651	14.4242	1.65	21.00	1.50 1	-6.63 2	-1.51 1	6.64 2
14.3373	14.4365	1.35	48.00	3.88 0	-6.60 2	-3.99 0	6.62 2
14.3038	14.4385	1.25	70.00	2.06 0	-5.72 2	-2.14 0	5.74 2
14.3666	14.4390	1.50	30.00	8.26 0	-6.78 2	-8.39 0	6.80 2
14.4076	14.4436	2.90	5.80	2.76 2	-8.03 2	-2.77 2	8.05 2
14.4033	14.4462	2.10	10.50	5.52 1	-6.40 2	-5.55 1	6.41 2
14.4126	14.4474	3.60	4.40	1.28 3	-1.74 3	-1.28 3	1.74 3
14.4009	14.4485	1.90	13.50	3.31 1	-6.42 2	-3.33 1	6.43 2
14.2942	14.4573	1.20	85.00	1.43 0	-4.84 2	-1.51 0	4.86 2
14.4115	14.4606	1.85	14.50	2.88 1	-6.45 2	-2.91 1	6.46 2
14.4209	14.4609	2.30	8.60	8.67 1	-6.53 2	-8.71 1	6.54 2
14.3597	14.4726	1.30	57.00	2.92 0	-6.31 2	-3.01 0	6.34 2
14.3885	14.4756	1.40	40.00	5.19 0	-6.75 2	-5.30 0	6.77 2
14.4371	14.4782	2.20	9.40	7.02 1	-6.45 2	-7.05 1	6.46 2
14.4354	14.4814	1.95	12.50	3.83 1	-6.40 2	-3.86 1	6.41 2
14.4150	14.4815	1.55	26.00	1.04 1	-6.74 2	-1.05 1	6.76 2
14.3517	14.4844	1.25	69.00	2.10 0	-5.77 2	-2.19 0	5.80 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.4355	14.4884	1.75	17.00	2.15 1	-6.52 2	-2.17 1	6.54 2
14.4306	14.4926	1.60	23.00	1.27 1	-6.69 2	-1.29 1	6.70 2
14.4190	14.4972	1.45	34.00	6.71 0	-6.80 2	-6.83 0	6.82 2
14.3368	14.4976	1.20	84.00	1.45 0	-4.91 2	-1.53 0	4.93 2
14.4048	14.5023	1.35	47.00	3.99 0	-6.63 2	-4.10 0	6.65 2
14.4677	14.5043	2.70	6.40	1.93 2	-7.31 2	-1.94 2	7.32 2
14.4734	14.5106	2.60	6.80	1.61 2	-7.05 2	-1.61 2	7.06 2
14.4635	14.5140	1.80	15.50	2.53 1	-6.48 2	-2.55 1	6.49 2
14.4842	14.5185	3.90	4.00	3.55 2	-3.69 2	-3.56 2	3.70 2
14.4655	14.5206	1.70	18.50	1.84 1	-6.57 2	-1.86 1	6.59 2
14.4167	14.5279	1.30	56.00	2.99 0	-6.36 2	-3.09 0	6.38 2
14.4001	14.5310	1.25	68.00	2.15 0	-5.83 2	-2.23 0	5.85 2
14.4965	14.5314	3.20	5.00	5.07 2	-1.01 3	-5.08 2	1.01 3
14.4984	14.5370	2.40	7.80	1.09 2	-6.67 2	-1.10 2	6.68 2
14.3797	14.5383	1.20	83.00	1.48 0	-4.97 2	-1.56 0	5.00 2
14.4825	14.5532	1.50	29.00	8.62 0	-6.79 2	-8.75 0	6.80 2
14.4711	14.5565	1.40	39.00	5.36 0	-6.78 2	-5.47 0	6.80 2
14.4741	14.5699	1.35	46.00	4.11 0	-6.66 2	-4.21 0	6.68 2
14.4492	14.5782	1.25	67.00	2.20 0	-5.89 2	-2.28 0	5.91 2
14.4230	14.5794	1.20	82.00	1.51 0	-5.04 2	-1.59 0	5.06 2
14.4748	14.5842	1.30	55.00	3.07 0	-6.40 2	-3.16 0	6.43 2
14.4665	14.6208	1.20	81.00	1.55 0	-5.11 2	-1.62 0	5.13 2
14.4990	14.6261	1.25	66.00	2.24 0	-5.94 2	-2.33 0	5.97 2
14.50	15.00						
14.5095	14.5446	3.10	5.20	4.19 2	-9.31 2	-4.20 2	9.33 2
14.5117	14.5464	3.30	4.80	6.29 2	-1.12 3	-6.30 2	1.12 3
14.5150	14.5510	2.80	6.00	2.37 2	-7.69 2	-2.38 2	7.71 2
14.5275	14.5619	3.70	4.20	1.58 3	-1.93 3	-1.59 3	1.93 3
14.5208	14.5650	2.00	11.50	4.48 1	-6.40 2	-4.51 1	6.41 2
14.5297	14.5673	2.50	7.20	1.35 2	-6.86 2	-1.35 2	6.87 2
14.5400	14.5794	2.30	8.40	9.00 1	-6.55 2	-9.04 1	6.57 2
14.5421	14.5827	2.20	9.20	7.25 1	-6.46 2	-7.28 1	6.48 2
14.5505	14.5857	3.00	5.40	3.50 2	-8.69 2	-3.51 2	8.71 2
14.5558	14.5903	3.40	4.60	8.23 2	-1.31 3	-8.25 2	1.32 3
14.5189	14.5954	1.45	33.00	6.97 0	-6.81 2	-7.09 0	6.83 2
14.5476	14.6048	1.65	20.00	1.59 1	-6.63 2	-1.61 1	6.64 2
14.5541	14.6060	1.75	16.50	2.23 1	-6.52 2	-2.25 1	6.54 2
14.5583	14.6063	1.85	14.00	3.02 1	-6.45 2	-3.05 1	6.46 2
14.5626	14.6091	1.90	13.00	3.49 1	-6.42 2	-3.51 1	6.43 2
14.5538	14.6185	1.55	25.00	1.09 1	-6.74 2	-1.11 1	6.76 2
14.5717	14.6258	1.70	18.00	1.91 1	-6.57 2	-1.92 1	6.59 2
14.5451	14.6392	1.35	45.00	4.23 0	-6.70 2	-4.33 0	6.72 2
14.5563	14.6400	1.40	38.00	5.54 0	-6.80 2	-5.65 0	6.82 2
14.5340	14.6417	1.30	54.00	3.14 0	-6.45 2	-3.24 0	6.47 2
14.5978	14.6473	1.80	15.00	2.64 1	-6.48 2	-2.66 1	6.49 2
14.5931	14.6532	1.60	22.00	1.35 1	-6.69 2	-1.36 1	6.70 2
14.6194	14.6547	2.90	5.60	2.97 2	-8.22 2	-2.98 2	8.23 2
14.6154	14.6602	1.95	12.00	4.06 1	-6.41 2	-4.08 1	6.42 2
14.5104	14.6626	1.20	80.00	1.58 0	-5.17 2	-1.66 0	5.20 2
14.6301	14.6644	3.50	4.40	1.12 3	-1.60 3	-1.12 3	1.60 3
14.6039	14.6729	1.50	28.00	9.02 0	-6.80 2	-9.14 0	6.81 2
14.6357	14.6737	2.40	7.60	1.14 2	-6.71 2	-1.15 2	6.72 2
14.6329	14.6746	2.10	10.00	5.93 1	-6.42 2	-5.96 1	6.43 2
14.5495	14.6747	1.25	65.00	2.29 0	-6.00 2	-2.38 0	6.02 2
14.6409	14.6775	2.60	6.60	1.69 2	-7.12 2	-1.70 2	7.14 2
14.6508	14.6869	2.70	6.20	2.06 2	-7.42 2	-2.06 2	7.44 2
14.6506	14.6908	2.20	9.00	7.50 1	-6.48 2	-7.53 1	6.49 2
14.6227	14.6975	1.45	32.00	7.25 0	-6.83 2	-7.37 0	6.85 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.6437	14.7000	1.65	19.50	1.64 1	-6.63 2	-1.66 1	6.64 2
14.5945	14.7005	1.30	53.00	3.22 0	-6.49 2	-3.32 0	6.51 2
14.6635	14.7024	2.30	8.20	9.35 1	-6.58 2	-9.39 1	6.59 2
14.5547	14.7047	1.20	79.00	1.61 0	-5.24 2	-1.69 0	5.26 2
14.6761	14.7101	3.80	4.00	1.36 3	-1.48 3	-1.37 3	1.48 3
14.6181	14.7104	1.35	44.00	4.35 0	-6.73 2	-4.45 0	6.75 2
14.6840	14.7211	2.50	7.00	1.42 2	-6.92 2	-1.42 2	6.93 2
14.6006	14.7241	1.25	64.00	2.35 0	-6.05 2	-2.43 0	6.07 2
14.6445	14.7264	1.40	37.00	5.73 0	-6.82 2	-5.84 0	6.84 2
14.6780	14.7289	1.75	16.00	2.32 1	-6.52 2	-2.34 1	6.54 2
14.6821	14.7353	1.70	17.50	1.98 1	-6.57 2	-2.00 1	6.58 2
14.5994	14.7473	1.20	78.00	1.64 0	-5.30 2	-1.72 0	5.33 2
14.7169	14.7523	2.80	5.80	2.55 2	-7.85 2	-2.55 2	7.87 2
14.7130	14.7599	1.85	13.50	3.18 1	-6.45 2	-3.20 1	6.46 2
14.6562	14.7604	1.30	52.00	3.31 0	-6.53 2	-3.40 0	6.55 2
14.7005	14.7633	1.55	24.00	1.15 1	-6.75 2	-1.16 1	6.76 2
14.7235	14.7666	2.00	11.00	4.77 1	-6.41 2	-4.80 1	6.42 2
14.7365	14.7704	3.60	4.20	1.42 3	-1.80 3	-1.42 3	1.80 3
14.7297	14.7710	2.10	9.80	6.11 1	-6.44 2	-6.14 1	6.45 2
14.6526	14.7742	1.25	63.00	2.40 0	-6.11 2	-2.49 0	6.13 2
14.7338	14.7792	1.90	12.50	3.68 1	-6.43 2	-3.70 1	6.44 2
14.6930	14.7837	1.35	43.00	4.48 0	-6.76 2	-4.58 0	6.78 2
14.7388	14.7873	1.80	14.50	2.77 1	-6.48 2	-2.79 1	6.49 2
14.6444	14.7903	1.20	77.00	1.68 0	-5.37 2	-1.76 0	5.39 2
14.7602	14.7946	3.10	5.00	4.63 2	-9.72 2	-4.65 2	9.74 2
14.7626	14.7968	3.20	4.80	5.70 2	-1.07 3	-5.72 2	1.07 3
14.7313	14.7985	1.50	27.00	9.44 0	-6.80 2	-9.57 0	6.82 2
14.7434	14.7987	1.65	19.00	1.70 1	-6.63 2	-1.72 1	6.64 2
14.7630	14.8027	2.20	8.80	7.76 1	-6.50 2	-7.80 1	6.51 2
14.7309	14.8040	1.45	31.00	7.54 0	-6.84 2	-7.66 0	6.86 2
14.7356	14.8159	1.40	36.00	5.93 0	-6.84 2	-6.04 0	6.86 2
14.7788	14.8163	2.40	7.40	1.19 2	-6.76 2	-1.20 2	6.77 2
14.7192	14.8217	1.30	51.00	3.39 0	-6.57 2	-3.49 0	6.59 2
14.7874	14.8220	3.00	5.20	3.83 2	-8.98 2	-3.84 2	9.00 2
14.7662	14.8244	1.60	21.00	1.43 1	-6.69 2	-1.44 1	6.70 2
14.7053	14.8251	1.25	62.00	2.45 0	-6.16 2	-2.54 0	6.18 2
14.7952	14.8292	3.30	4.60	7.34 2	-1.23 3	-7.36 2	1.23 3
14.7919	14.8303	2.30	8.00	9.73 1	-6.61 2	-9.77 1	6.62 2
14.6899	14.8338	1.20	76.00	1.71 0	-5.43 2	-1.79 0	5.45 2
14.7972	14.8494	1.70	17.00	2.05 1	-6.57 2	-2.07 1	6.58 2
14.8071	14.8508	1.95	11.50	4.30 1	-6.42 2	-4.33 1	6.43 2
14.8168	14.8528	2.60	6.40	1.79 2	-7.21 2	-1.80 2	7.22 2
14.8077	14.8575	1.75	15.50	2.42 1	-6.52 2	-2.44 1	6.53 2
14.7701	14.8591	1.35	42.00	4.62 0	-6.79 2	-4.72 0	6.81 2
14.8297	14.8704	2.10	9.60	6.30 1	-6.45 2	-6.33 1	6.46 2
14.7589	14.8769	1.25	61.00	2.51 0	-6.21 2	-2.60 0	6.23 2
14.7359	14.8777	1.20	75.00	1.75 0	-5.50 2	-1.83 0	5.52 2
14.8441	14.8788	2.90	5.40	3.23 2	-8.46 2	-3.24 2	8.47 2
14.8439	14.8793	2.70	6.00	2.19 2	-7.54 2	-2.20 2	7.56 2
14.8456	14.8821	2.50	6.80	1.49 2	-6.98 2	-1.50 2	6.99 2
14.7836	14.8844	1.30	50.00	3.48 0	-6.61 2	-3.58 0	6.63 2
14.8592	14.8929	3.40	4.40	9.96 2	-1.49 3	-9.99 2	1.49 3
14.8616	14.8952	3.80	3.90	-2.88 3	2.99 3	2.88 3	-3.00 3
14.8469	14.9012	1.65	18.50	1.76 1	-6.62 2	-1.78 1	6.64 2
14.8301	14.9087	1.40	35.00	6.15 0	-6.86 2	-6.26 0	6.88 2
14.8773	14.9108	3.70	4.00	1.72 3	-1.94 3	-1.72 3	1.94 3
14.8438	14.9151	1.45	30.00	7.86 0	-6.85 2	-7.98 0	6.87 2
14.8557	14.9168	1.55	23.00	1.21 1	-6.75 2	-1.23 1	6.76 2
14.8795	14.9186	2.20	8.60	8.04 1	-6.52 2	-8.08 1	6.53 2
14.7823	14.9222	1.20	74.00	1.78 0	-5.56 2	-1.86 0	5.58 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
14.8764	14.9223	1.85	13.00	3.34 1	-6.45 2	-3.37 1	6.47 2
14.8134	14.9296	1.25	60.00	2.57 0	-6.26 2	-2.66 0	6.28 2
14.8652	14.9306	1.50	26.00	9.90 0	-6.81 2	-1.00 1	6.82 2
14.8872	14.9346	1.80	14.00	2.90 1	-6.48 2	-2.92 1	6.49 2
14.8494	14.9367	1.35	41.00	4.77 0	-6.81 2	-4.87 0	6.83 2
14.8495	14.9486	1.30	49.00	3.58 0	-6.65 2	-3.67 0	6.67 2
14.9157	14.9599	1.90	12.00	3.89 1	-6.44 2	-3.92 1	6.45 2
14.9255	14.9633	2.30	7.80	1.01 2	-6.64 2	-1.02 2	6.66 2
14.9283	14.9652	2.40	7.20	1.25 2	-6.80 2	-1.25 2	6.82 2
14.9307	14.9654	2.80	5.60	2.74 2	-8.02 2	-2.75 2	8.03 2
14.8292	14.9671	1.20	73.00	1.82 0	-5.62 2	-1.90 0	5.64 2
14.9172	14.9684	1.70	16.50	2.14 1	-6.57 2	-2.15 1	6.58 2
14.9329	14.9731	2.10	9.40	6.50 1	-6.46 2	-6.53 1	6.47 2
14.8023	14.9736	1.15	90.00	1.21 0	-4.56 2	-1.29 0	4.59 2
14.9408	14.9827	2.00	10.50	5.10 1	-6.43 2	-5.13 1	6.44 2
14.8688	14.9832	1.25	59.00	2.63 0	-6.31 2	-2.72 0	6.33 2
14.9561	14.9895	3.50	4.20	1.27 3	-1.69 3	-1.28 3	1.69 3
14.9436	14.9924	1.75	15.00	2.53 1	-6.52 2	-2.55 1	6.53 2
14.9280	15.0049	1.40	34.00	6.38 0	-6.88 2	-6.49 0	6.90 2
14.9512	15.0076	1.60	20.00	1.52 1	-6.68 2	-1.54 1	6.70 2
14.9544	15.0078	1.65	18.00	1.82 1	-6.62 2	-1.84 1	6.64 2
14.8766	15.0126	1.20	72.00	1.86 0	-5.68 2	-1.94 0	5.70 2
14.8449	15.0138	1.15	89.00	1.24 0	-4.64 2	-1.31 0	4.66 2
14.9169	15.0144	1.30	48.00	3.68 0	-6.68 2	-3.77 0	6.70 2
14.9311	15.0167	1.35	40.00	4.92 0	-6.84 2	-5.02 0	6.86 2
14.9618	15.0314	1.45	29.00	8.21 0	-6.86 2	-8.33 0	6.88 2
14.9251	15.0378	1.25	58.00	2.69 0	-6.36 2	-2.78 0	6.38 2
14.8876	15.0542	1.15	88.00	1.26 0	-4.71 2	-1.34 0	4.73 2
14.9246	15.0586	1.20	71.00	1.90 0	-5.74 2	-1.98 0	5.76 2
14.9860	15.0817	1.30	47.00	3.78 0	-6.72 2	-3.87 0	6.74 2
14.9824	15.0933	1.25	57.00	2.76 0	-6.40 2	-2.85 0	6.42 2
14.9306	15.0950	1.15	87.00	1.29 0	-4.78 2	-1.36 0	4.80 2
14.9731	15.1052	1.20	70.00	1.94 0	-5.80 2	-2.02 0	5.82 2
14.9739	15.1360	1.15	86.00	1.32 0	-4.85 2	-1.39 0	4.87 2
15.00	15.70						
15.0020	15.0373	2.60	6.20	1.91 2	-7.32 2	-1.91 2	7.33 2
15.0003	15.0388	2.20	8.40	8.34 1	-6.55 2	-8.38 1	6.56 2
15.0150	15.0509	2.50	6.60	1.57 2	-7.05 2	-1.58 2	7.06 2
15.0117	15.0543	1.95	11.00	4.58 1	-6.43 2	-4.61 1	6.44 2
15.0285	15.0622	3.10	4.80	5.19 2	-1.02 3	-5.20 2	1.03 3
15.0063	15.0699	1.50	25.00	1.04 1	-6.81 2	-1.05 1	6.83 2
15.0402	15.0741	3.00	5.00	4.22 2	-9.34 2	-4.23 2	9.36 2
15.0395	15.0793	2.10	9.20	6.71 1	-6.47 2	-6.74 1	6.49 2
15.0206	15.0798	1.55	22.00	1.28 1	-6.75 2	-1.30 1	6.76 2
15.0484	15.0819	3.20	4.60	6.58 2	-1.16 3	-6.60 2	1.16 3
15.0479	15.0827	2.70	5.80	2.35 2	-7.68 2	-2.36 2	7.70 2
15.0436	15.0899	1.80	13.50	3.05 1	-6.48 2	-3.07 1	6.50 2
15.0427	15.0929	1.70	16.00	2.22 1	-6.57 2	-2.24 1	6.58 2
15.0494	15.0942	1.85	12.50	3.53 1	-6.46 2	-3.55 1	6.47 2
15.0639	15.0971	3.70	3.90	4.26 3	-4.62 3	-4.27 3	4.63 3
15.0154	15.0993	1.35	39.00	5.08 0	-6.86 2	-5.18 0	6.88 2
15.0646	15.1019	2.30	7.60	1.06 2	-6.68 2	-1.06 2	6.69 2
15.0487	15.1041	1.60	19.50	1.57 1	-6.68 2	-1.59 1	6.70 2
15.0298	15.1050	1.40	33.00	6.62 0	-6.89 2	-6.73 0	6.91 2
15.0832	15.1172	2.90	5.20	3.52 2	-8.72 2	-3.53 2	8.73 2
15.0663	15.1187	1.65	17.50	1.89 1	-6.62 2	-1.91 1	6.63 2
15.0845	15.1208	2.40	7.00	1.31 2	-6.86 2	-1.32 2	6.87 2
15.0884	15.1215	3.60	4.00	1.62 3	-1.91 3	-1.63 3	1.91 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.0862	15.1341	1.75	14.50	2.65 1	-6.52 2	-2.67 1	6.53 2
15.1008	15.1341	3.30	4.40	8.71 2	-1.36 3	-8.73 2	1.37 3
15.0408	15.1500	1.25	56.00	2.83 0	-6.45 2	-2.91 0	6.47 2
15.0568	15.1508	1.30	46.00	3.89 0	-6.75 2	-3.98 0	6.77 2
15.1092	15.1524	1.90	11.50	4.13 1	-6.44 2	-4.16 1	6.46 2
15.0222	15.1525	1.20	69.00	1.98 0	-5.86 2	-2.06 0	5.88 2
15.0853	15.1531	1.45	28.00	8.58 0	-6.87 2	-8.70 0	6.89 2
15.1256	15.1637	2.20	8.20	8.67 1	-6.57 2	-8.70 1	6.58 2
15.0175	15.1773	1.15	85.00	1.34 0	-4.92 2	-1.41 0	4.94 2
15.1024	15.1846	1.35	38.00	5.25 0	-6.89 2	-5.35 0	6.90 2
15.1498	15.1891	2.10	9.00	6.94 1	-6.49 2	-6.97 1	6.50 2
15.1575	15.1916	2.80	5.40	2.97 2	-8.23 2	-2.97 2	8.24 2
15.0720	15.2003	1.20	68.00	2.03 0	-5.92 2	-2.10 0	5.94 2
15.1498	15.2043	1.60	19.00	1.62 1	-6.68 2	-1.64 1	6.69 2
15.1003	15.2078	1.25	55.00	2.90 0	-6.50 2	-2.98 0	6.52 2
15.1356	15.2091	1.40	32.00	6.89 0	-6.91 2	-7.00 0	6.92 2
15.1744	15.2151	2.00	10.00	5.48 1	-6.45 2	-5.50 1	6.46 2
15.1552	15.2171	1.50	24.00	1.10 1	-6.81 2	-1.11 1	6.83 2
15.0613	15.2189	1.15	84.00	1.37 0	-4.98 2	-1.44 0	5.01 2
15.1874	15.2204	3.40	4.20	1.15 3	-1.60 3	-1.16 3	1.61 3
15.1294	15.2218	1.30	45.00	4.00 0	-6.79 2	-4.09 0	6.81 2
15.1739	15.2231	1.70	15.50	2.32 1	-6.57 2	-2.34 1	6.58 2
15.1930	15.2283	2.50	6.40	1.66 2	-7.13 2	-1.67 2	7.14 2
15.1971	15.2319	2.60	6.00	2.03 2	-7.43 2	-2.04 2	7.44 2
15.1829	15.2343	1.65	17.00	1.96 1	-6.62 2	-1.98 1	6.63 2
15.2096	15.2464	2.30	7.40	1.11 2	-6.72 2	-1.11 2	6.73 2
15.1224	15.2489	1.20	67.00	2.07 0	-5.98 2	-2.15 0	6.00 2
15.1963	15.2537	1.55	21.00	1.36 1	-6.75 2	-1.38 1	6.76 2
15.2087	15.2540	1.80	13.00	3.21 1	-6.49 2	-3.23 1	6.50 2
15.1054	15.2609	1.15	83.00	1.40 0	-5.05 2	-1.47 0	5.07 2
15.1610	15.2667	1.25	54.00	2.97 0	-6.54 2	-3.06 0	6.56 2
15.2310	15.2724	1.95	10.50	4.90 1	-6.45 2	-4.92 1	6.46 2
15.1923	15.2729	1.35	37.00	5.43 0	-6.91 2	-5.54 0	6.93 2
15.2331	15.2768	1.85	12.00	3.73 1	-6.46 2	-3.76 1	6.48 2
15.2149	15.2809	1.45	27.00	8.98 0	-6.88 2	-9.10 0	6.89 2
15.2363	15.2831	1.75	14.00	2.78 1	-6.52 2	-2.80 1	6.53 2
15.2481	15.2838	2.40	6.80	1.38 2	-6.92 2	-1.38 2	6.93 2
15.2593	15.2920	3.70	3.80	1.29 3	-1.34 3	-1.29 3	1.34 3
15.2559	15.2934	2.20	8.00	9.01 1	-6.60 2	-9.05 1	6.61 2
15.2039	15.2946	1.30	44.00	4.12 0	-6.82 2	-4.21 0	6.84 2
15.2638	15.2979	2.70	5.60	2.52 2	-7.83 2	-2.53 2	7.84 2
15.1734	15.2981	1.20	66.00	2.12 0	-6.03 2	-2.19 0	6.06 2
15.2640	15.3027	2.10	8.80	7.18 1	-6.51 2	-7.21 1	6.52 2
15.1499	15.3032	1.15	82.00	1.43 0	-5.12 2	-1.50 0	5.14 2
15.2547	15.3082	1.60	18.50	1.68 1	-6.68 2	-1.70 1	6.69 2
15.2762	15.3089	3.60	3.90	2.30 3	-2.60 3	-2.30 3	2.61 3
15.2729	15.3132	2.00	9.80	5.64 1	-6.46 2	-5.67 1	6.47 2
15.2458	15.3176	1.40	31.00	7.17 0	-6.92 2	-7.28 0	6.94 2
15.2229	15.3269	1.25	53.00	3.05 0	-6.58 2	-3.13 0	6.60 2
15.3103	15.3430	3.50	4.00	1.51 3	-1.87 3	-1.52 3	1.87 3
15.3107	15.3439	3.00	4.80	4.70 2	-9.78 2	-4.71 2	9.80 2
15.1947	15.3459	1.15	81.00	1.45 0	-5.19 2	-1.53 0	5.21 2
15.2252	15.3481	1.20	65.00	2.16 0	-6.09 2	-2.24 0	6.11 2
15.3165	15.3495	3.10	4.60	5.94 2	-1.10 3	-5.95 2	1.10 3
15.3045	15.3550	1.65	16.50	2.04 1	-6.62 2	-2.06 1	6.63 2
15.3158	15.3579	1.90	11.00	4.40 1	-6.46 2	-4.42 1	6.47 2
15.3114	15.3596	1.70	15.00	2.42 1	-6.56 2	-2.44 1	6.58 2
15.2853	15.3642	1.35	36.00	5.63 0	-6.93 2	-5.73 0	6.95 2
15.2805	15.3695	1.30	43.00	4.24 0	-6.85 2	-4.34 0	6.87 2
15.3383	15.3716	2.90	5.00	3.87 2	-9.03 2	-3.88 2	9.05 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.3130	15.3730	1.50	23.00	1.16 1	-6.82 2	-1.17 1	6.83 2
15.2860	15.3884	1.25	52.00	3.12 0	-6.62 2	-3.21 0	6.64 2
15.2398	15.3890	1.15	80.00	1.48 0	-5.26 2	-1.56 0	5.28 2
15.3562	15.3890	3.20	4.40	7.70 2	-1.27 3	-7.72 2	1.27 3
15.3611	15.3972	2.30	7.20	1.16 2	-6.76 2	-1.16 2	6.78 2
15.2777	15.3988	1.20	64.00	2.21 0	-6.14 2	-2.29 0	6.17 2
15.3746	15.4143	2.00	9.60	5.81 1	-6.47 2	-5.84 1	6.48 2
15.3802	15.4149	2.50	6.20	1.76 2	-7.22 2	-1.77 2	7.24 2
15.3510	15.4154	1.45	26.00	9.42 0	-6.88 2	-9.54 0	6.90 2
15.3637	15.4163	1.60	18.00	1.74 1	-6.68 2	-1.76 1	6.69 2
15.3822	15.4205	2.10	8.60	7.44 1	-6.53 2	-7.47 1	6.54 2
15.3836	15.4278	1.80	12.50	3.38 1	-6.49 2	-3.40 1	6.50 2
15.3914	15.4284	2.20	7.80	9.38 1	-6.63 2	-9.42 1	6.64 2
15.3607	15.4308	1.40	30.00	7.47 0	-6.93 2	-7.58 0	6.95 2
15.3988	15.4322	2.80	5.20	3.23 2	-8.46 2	-3.23 2	8.47 2
15.2854	15.4324	1.15	79.00	1.51 0	-5.32 2	-1.59 0	5.35 2
15.4033	15.4374	2.60	5.80	2.17 2	-7.55 2	-2.18 2	7.57 2
15.3841	15.4396	1.55	20.00	1.45 1	-6.75 2	-1.46 1	6.76 2
15.3945	15.4402	1.75	13.50	2.92 1	-6.52 2	-2.93 1	6.53 2
15.3592	15.4466	1.30	42.00	4.37 0	-6.88 2	-4.47 0	6.90 2
15.3310	15.4503	1.20	63.00	2.26 0	-6.20 2	-2.34 0	6.22 2
15.3505	15.4512	1.25	51.00	3.21 0	-6.67 2	-3.29 0	6.69 2
15.4196	15.4548	2.40	6.60	1.45 2	-6.98 2	-1.46 2	6.99 2
15.3816	15.4588	1.35	35.00	5.83 0	-6.95 2	-5.93 0	6.96 2
15.4314	15.4638	3.30	4.20	1.00 3	-1.46 3	-1.00 3	1.46 3
15.4286	15.4712	1.85	11.50	3.96 1	-6.47 2	-3.98 1	6.48 2
15.3313	15.4763	1.15	78.00	1.55 0	-5.39 2	-1.62 0	5.41 2
15.4315	15.4810	1.65	16.00	2.13 1	-6.62 2	-2.14 1	6.63 2
15.3851	15.5026	1.20	62.00	2.31 0	-6.25 2	-2.39 0	6.27 2
15.4558	15.5030	1.70	14.50	2.53 1	-6.56 2	-2.55 1	6.58 2
15.4728	15.5050	3.60	3.80	1.48 3	-1.61 3	-1.49 3	1.62 3
15.4667	15.5070	1.95	10.00	5.26 1	-6.47 2	-5.28 1	6.48 2
15.4165	15.5154	1.25	50.00	3.29 0	-6.71 2	-3.38 0	6.72 2
15.4795	15.5188	2.00	9.40	6.00 1	-6.48 2	-6.02 1	6.49 2
15.3777	15.5206	1.15	77.00	1.58 0	-5.46 2	-1.65 0	5.48 2
15.4402	15.5260	1.30	41.00	4.51 0	-6.91 2	-4.60 0	6.92 2
15.4929	15.5264	2.70	5.40	2.72 2	-8.01 2	-2.73 2	8.03 2
15.4771	15.5288	1.60	17.50	1.81 1	-6.68 2	-1.82 1	6.69 2
15.4994	15.5316	3.50	3.90	1.93 3	-2.28 3	-1.93 3	2.29 3
15.4829	15.5375	1.55	19.50	1.50 1	-6.74 2	-1.51 1	6.76 2
15.4804	15.5387	1.50	22.00	1.22 1	-6.82 2	-1.24 1	6.83 2
15.5049	15.5426	2.10	8.40	7.71 1	-6.55 2	-7.74 1	6.56 2
15.4809	15.5492	1.40	29.00	7.79 0	-6.94 2	-7.90 0	6.96 2
15.5193	15.5549	2.30	7.00	1.21 2	-6.81 2	-1.22 2	6.82 2
15.4401	15.5558	1.20	61.00	2.37 0	-6.30 2	-2.45 0	6.32 2
15.4945	15.5570	1.45	25.00	9.89 0	-6.89 2	-1.00 1	6.90 2
15.4815	15.5570	1.35	34.00	6.05 0	-6.96 2	-6.15 0	6.98 2
15.4244	15.5654	1.15	76.00	1.61 0	-5.52 2	-1.68 0	5.54 2
15.5324	15.5689	2.20	7.60	9.78 1	-6.66 2	-9.82 1	6.67 2
15.5440	15.5762	3.40	4.00	1.41 3	-1.82 3	-1.41 3	1.82 3
15.5372	15.5781	1.90	10.50	4.70 1	-6.47 2	-4.72 1	6.48 2
15.4839	15.5812	1.25	49.00	3.38 0	-6.74 2	-3.47 0	6.76 2
15.5661	15.6059	1.95	9.80	5.41 1	-6.48 2	-5.44 1	6.49 2
15.5615	15.6062	1.75	13.00	3.07 1	-6.52 2	-3.09 1	6.53 2
15.5237	15.6078	1.30	40.00	4.66 0	-6.93 2	-4.75 0	6.95 2
15.4959	15.6099	1.20	60.00	2.42 0	-6.36 2	-2.50 0	6.38 2
15.4717	15.6107	1.15	75.00	1.64 0	-5.59 2	-1.71 0	5.61 2
15.5776	15.6117	2.50	6.00	1.88 2	-7.32 2	-1.88 2	7.34 2
15.5692	15.6124	1.80	12.00	3.58 1	-6.50 2	-3.60 1	6.51 2
15.5644	15.6129	1.65	15.50	2.22 1	-6.61 2	-2.23 1	6.63 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.5879	15.6267	2.00	9.20	6.19 1	-6.49 2	-6.22 1	6.50 2
15.6011	15.6335	3.00	4.60	5.33 2	-1.04 3	-5.34 2	1.04 3
15.5997	15.6343	2.40	6.40	1.54 2	-7.05 2	-1.54 2	7.06 2
15.5855	15.6391	1.55	19.00	1.55 1	-6.74 2	-1.56 1	6.75 2
15.6111	15.6437	2.90	4.80	4.29 2	-9.42 2	-4.30 2	9.43 2
15.5953	15.6459	1.60	17.00	1.87 1	-6.67 2	-1.89 1	6.69 2
15.5529	15.6485	1.25	48.00	3.47 0	-6.78 2	-3.56 0	6.80 2
15.6077	15.6538	1.70	14.00	2.66 1	-6.56 2	-2.67 1	6.57 2
15.6214	15.6549	2.60	5.60	2.32 2	-7.69 2	-2.33 2	7.70 2
15.5194	15.6565	1.15	74.00	1.68 0	-5.65 2	-1.75 0	5.67 2
15.6267	15.6590	3.10	4.40	6.87 2	-1.19 3	-6.89 2	1.19 3
15.5852	15.6591	1.35	33.00	6.28 0	-6.98 2	-6.38 0	7.00 2
15.5527	15.6649	1.20	59.00	2.48 0	-6.41 2	-2.56 0	6.43 2
15.6322	15.6694	2.10	8.20	8.00 1	-6.57 2	-8.03 1	6.58 2
15.6066	15.6733	1.40	28.00	8.15 0	-6.95 2	-8.26 0	6.96 2
15.6373	15.6787	1.85	11.00	4.22 1	-6.48 2	-4.24 1	6.49 2
15.6562	15.6889	2.80	5.00	3.53 2	-8.73 2	-3.54 2	8.75 2
15.6098	15.6922	1.30	39.00	4.81 0	-6.96 2	-4.90 0	6.97 2
15.5676	15.7028	1.15	73.00	1.71 0	-5.71 2	-1.78 0	5.73 2
15.6459	15.7067	1.45	24.00	1.04 1	-6.89 2	-1.05 1	6.90 2
15.6687	15.7080	1.95	9.60	5.58 1	-6.48 2	-5.60 1	6.50 2
15.6786	15.7104	3.60	3.70	7.33 2	-7.65 2	-7.35 2	7.66 2
15.6588	15.7153	1.50	21.00	1.30 1	-6.81 2	-1.31 1	6.83 2
15.6795	15.7154	2.20	7.40	1.02 2	-6.69 2	-1.03 2	6.71 2
15.6236	15.7175	1.25	47.00	3.57 0	-6.82 2	-3.66 0	6.84 2
15.6850	15.7200	2.30	6.80	1.27 2	-6.86 2	-1.28 2	6.87 2
15.6105	15.7210	1.20	58.00	2.54 0	-6.45 2	-2.62 0	6.47 2
15.6892	15.7212	3.20	4.20	8.82 2	-1.35 3	-8.84 2	1.35 3
15.6971	15.7289	3.50	3.80	1.66 3	-1.89 3	-1.66 3	1.89 3
15.6919	15.7446	1.55	18.50	1.60 1	-6.74 2	-1.62 1	6.75 2
15.6164	15.7496	1.15	72.00	1.75 0	-5.77 2	-1.82 0	5.80 2
15.6931	15.7653.	1.35	32.00	6.53 0	-6.99 2	-6.63 0	7.01 2
15.6031	15.7709	1.10	90.00	1.14 0	-4.64 2	-1.20 0	4.66 2
15.6693	15.7780	1.20	57.00	2.60 0	-6.50 2	-2.68 0	6.52 2
15.6986	15.7793	1.30	38.00	4.97 0	-6.98 2	-5.06 0	7.00 2
15.6960	15.7883	1.25	46.00	3.67 0	-6.85 2	-3.76 0	6.87 2
15.6657	15.7970	1.15	71.00	1.79 0	-5.84 2	-1.86 0	5.86 2
15.6470	15.8124	1.10	89.00	1.16 0	-4.72 2	-1.23 0	4.74 2
15.6911	15.8542	1.10	88.00	1.19 0	-4.79 2	-1.25 0	4.81 2
15.70	16.40						
15.7001	15.7384	2.00	9.00	6.40 1	-6.51 2	-6.42 1	6.52 2
15.7037	15.7511	1.65	15.00	2.31 1	-6.61 2	-2.33 1	6.62 2
15.7343	15.7660	3.40	3.90	1.74 3	-2.15 3	-1.74 3	2.16 3
15.7185	15.7682	1.60	16.50	1.95 1	-6.67 2	-1.96 1	6.68 2
15.7366	15.7694	2.70	5.20	2.95 2	-8.21 2	-2.96 2	8.23 2
15.7383	15.7819	1.75	12.50	3.24 1	-6.53 2	-3.26 1	6.54 2
15.7644	15.8011	2.10	8.00	8.32 1	-6.59 2	-8.35 1	6.60 2
15.7384	15.8034	1.40	27.00	8.53 0	-6.96 2	-8.64 0	6.97 2
15.7667	15.8088	1.80	11.50	3.79 1	-6.50 2	-3.81 1	6.51 2
15.7677	15.8127	1.70	13.50	2.79 1	-6.56 2	-2.81 1	6.57 2
15.7745	15.8133	1.95	9.40	5.75 1	-6.50 2	-5.78 1	6.51 2
15.7751	15.8148	1.90	10.00	5.04 1	-6.49 2	-5.06 1	6.50 2
15.7859	15.8194	2.50	5.80	2.00 2	-7.44 2	-2.01 2	7.45 2
15.7905	15.8221	3.30	4.00	1.20 3	-1.62 3	-1.20 3	1.62 3
15.7891	15.8231	2.40	6.20	1.63 2	-7.13 2	-1.63 2	7.15 2
15.7291	15.8362	1.20	56.00	2.67 0	-6.55 2	-2.74 0	6.57 2
15.7155	15.8450	1.15	70.00	1.83 0	-5.90 2	-1.90 0	5.92 2
15.8161	15.8540	2.00	8.80	6.62 1	-6.52 2	-6.64 1	6.53 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
15.8024	15.8542	1.55	18.00	1.66 1	-6.74 2	-1.67 1	6.75 2
15.7703	15.8609	1.25	45.00	3.78 0	-6.88 2	-3.86 0	6.90 2
15.8062	15.8653	1.45	23.00	1.10 1	-6.89 2	-1.11 1	6.90 2
15.8330	15.8684	2.20	7.20	1.07 2	-6.73 2	-1.07 2	6.74 2
15.7904	15.8695	1.30	37.00	5.14 0	-7.00 2	-5.24 0	7.02 2
15.8054	15.8759	1.35	31.00	6.79 0	-7.01 2	-6.90 0	7.02 2
15.8528	15.8857	2.60	5.40	2.51 2	-7.85 2	-2.51 2	7.87 2
15.8587	15.8931	2.30	6.60	1.34 2	-6.92 2	-1.35 2	6.93 2
15.7660	15.8936	1.15	69.00	1.87 0	-5.96 2	-1.94 0	5.98 2
15.7901	15.8955	1.20	55.00	2.73 0	-6.60 2	-2.81 0	6.62 2
15.8472	15.8959	1.60	16.00	2.03 1	-6.67 2	-2.04 1	6.68 2
15.7354	15.8963	1.10	87.00	1.21 0	-4.86 2	-1.27 0	4.88 2
15.8498	15.8963	1.65	14.50	2.42 1	-6.61 2	-2.44 1	6.62 2
15.8608	15.9011	1.85	10.50	4.50 1	-6.49 2	-4.52 1	6.50 2
15.8494	15.9040	1.50	20.00	1.38 1	-6.81 2	-1.39 1	6.82 2
15.8754	15.9147	1.90	9.80	5.19 1	-6.49 2	-5.21 1	6.50 2
15.8839	15.9223	1.95	9.20	5.94 1	-6.51 2	-5.96 1	6.52 2
15.8465	15.9355	1.25	44.00	3.89 0	-6.92 2	-3.98 0	6.93 2
15.9043	15.9356	3.50	3.70	1.33 3	-1.46 3	-1.34 3	1.46 3
15.9039	15.9358	2.90	4.60	4.83 2	-9.94 2	-4.84 2	9.96 2
15.9019	15.9381	2.10	7.80	8.65 1	-6.62 2	-8.69 1	6.63 2
15.7800	15.9387	1.10	86.00	1.23 0	-4.93 2	-1.30 0	4.95 2
15.8770	15.9402	1.40	26.00	8.94 0	-6.96 2	-9.05 0	6.98 2
15.8171	15.9429	1.15	68.00	1.91 0	-6.02 2	-1.98 0	6.04 2
15.9138	15.9455	3.00	4.40	6.09 2	-1.11 3	-6.11 2	1.11 3
15.8523	15.9560	1.20	54.00	2.80 0	-6.64 2	-2.88 0	6.66 2
15.8853	15.9628	1.30	36.00	5.32 0	-7.02 2	-5.42 0	7.04 2
15.9315	15.9635	2.80	4.80	3.90 2	-9.06 2	-3.91 2	9.08 2
15.9333	15.9647	3.40	3.80	1.74 3	-2.07 3	-1.74 3	2.07 3
15.9175	15.9683	1.55	17.50	1.72 1	-6.73 2	-1.74 1	6.75 2
15.9259	15.9685	1.75	12.00	3.42 1	-6.53 2	-3.44 1	6.54 2
15.9363	15.9737	2.00	8.60	6.85 1	-6.54 2	-6.88 1	6.55 2
15.9366	15.9807	1.70	13.00	2.93 1	-6.56 2	-2.95 1	6.57 2
15.8249	15.9813	1.10	85.00	1.26 0	-5.00 2	-1.32 0	5.02 2
15.9225	15.9914	1.35	30.00	7.08 0	-7.02 2	-7.18 0	7.03 2
15.8689	15.9929	1.15	67.00	1.95 0	-6.08 2	-2.02 0	6.10 2
15.9622	15.9937	3.10	4.20	7.84 2	-1.26 3	-7.86 2	1.25 3
15.9498	16.0035	1.50	19.50	1.43 1	-6.81 2	-1.44 1	6.82 2
15.9248	16.0121	1.25	43.00	4.01 0	-6.95 2	-4.09 0	6.97 2
15.9820	16.0133	3.30	3.90	1.39 3	-1.80 3	-1.39 3	1.81 3
15.9789	16.0177	1.90	9.60	5.35 1	-6.50 2	-5.37 1	6.51 2
15.9157	16.0177	1.20	53.00	2.87 0	-6.68 2	-2.95 0	6.70 2
15.9776	16.0185	1.80	11.00	4.04 1	-6.51 2	-4.06 1	6.52 2
15.9887	16.0222	2.40	6.00	1.73 2	-7.22 2	-1.73 2	7.24 2
15.8700	16.0243	1.10	84.00	1.28 0	-5.07 2	-1.35 0	5.09 2
15.9934	16.0282	2.20	7.00	1.12 2	-6.78 2	-1.12 2	6.79 2
15.9964	16.0285	2.70	5.00	3.22 2	-8.45 2	-3.23 2	8.47 2
15.9818	16.0295	1.60	15.50	2.11 1	-6.67 2	-2.13 1	6.68 2
15.9764	16.0337	1.45	22.00	1.16 1	-6.89 2	-1.17 1	6.90 2
15.9970	16.0349	1.95	9.00	6.13 1	-6.52 2	-6.16 1	6.53 2
16.0065	16.0393	2.50	5.60	2.14 2	-7.56 2	-2.15 2	7.57 2
15.9214	16.0435	1.15	66.00	1.99 0	-6.13 2	-2.06 0	6.15 2
16.0035	16.0490	1.65	14.00	2.54 1	-6.61 2	-2.55 1	6.62 2
15.9836	16.0594	1.30	35.00	5.52 0	-7.04 2	-5.61 0	7.06 2
15.9155	16.0677	1.10	83.00	1.31 0	-5.14 2	-1.37 0	5.16 2
16.0410	16.0749	2.30	6.40	1.42 2	-6.98 2	-1.42 2	7.00 2
16.0450	16.0807	2.10	7.60	9.02 1	-6.65 2	-9.05 1	6.68 2
15.9805	16.0808	1.20	52.00	2.95 0	-6.73 2	-3.02 0	6.75 2
16.0508	16.0820	3.20	4.00	1.04 3	-1.48 3	-1.04 3	1.48 3
16.0229	16.0845	1.40	25.00	9.39 0	-6.97 2	-9.50 0	6.98 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.0372	16.0871	1.55	17.00	1.79 1	-6.73 2	-1.80 1	6.74 2
16.0053	16.0910	1.25	42.00	4.13 0	-6.98 2	-4.22 0	6.99 2
15.9746	16.0949	1.15	65.00	2.03 0	-6.19 2	-2.10 0	6.21 2
16.0610	16.0978	2.00	8.40	7.10 1	-6.55 2	-7.13 1	6.56 2
16.0539	16.1066	1.50	19.00	1.47 1	-6.81 2	-1.49 1	6.82 2
15.9613	16.1114	1.10	82.00	1.34 0	-5.21 2	-1.40 0	5.23 2
16.0449	16.1121	1.35	29.00	7.39 0	-7.03 2	-7.49 0	7.04 2
16.0857	16.1240	1.90	9.40	5.51 1	-6.51 2	-5.54 1	6.52 2
16.0989	16.1311	2.60	5.20	2.71 2	-8.03 2	-2.72 2	8.05 2
16.1010	16.1402	1.85	10.00	4.83 1	-6.51 2	-4.85 1	6.52 2
16.0466	16.1452	1.20	51.00	3.02 0	-6.77 2	-3.10 0	6.79 2
16.0285	16.1471	1.15	64.00	2.08 0	-6.25 2	-2.15 0	6.27 2
16.1141	16.1514	1.95	8.80	6.34 1	-6.53 2	-6.37 1	6.54 2
16.1216	16.1525	3.50	3.60	9.35 2	-9.77 2	-9.37 2	9.78 2
16.0075	16.1555	1.10	81.00	1.36 0	-5.28 2	-1.43 0	5.30 2
16.1154	16.1584	1.70	12.50	3.09 1	-6.56 2	-3.11 1	6.58 2
16.0856	16.1597	1.30	34.00	5.72 0	-7.06 2	-5.81 0	7.07 2
16.1255	16.1670	1.75	11.50	3.63 1	-6.53 2	-3.65 1	6.54 2
16.1229	16.1696	1.60	15.00	2.21 1	-6.66 2	-2.22 1	6.67 2
16.0882	16.1722	1.25	41.00	4.26 0	-7.00 2	-4.35 0	7.02 2
16.1418	16.1727	3.40	3.70	1.77 3	-2.02 3	-1.77 3	2.02 3
16.1613	16.1956	2.20	6.80	1.18 2	-6.82 2	-1.18 2	6.83 2
16.0540	16.1999	1.10	80.00	1.39 0	-5.35 2	-1.46 0	5.37 2
16.0833	16.2001	1.15	63.00	2.13 0	-6.30 2	-2.20 0	6.32 2
16.1655	16.2099	1.65	13.50	2.66 1	-6.61 2	-2.68 1	6.62 2
16.1622	16.2111	1.55	16.40	1.86 1	-6.73 2	-1.87 1	6.74 2
16.1141	16.2111	1.20	50.00	3.10 0	-6.81 2	-3.18 0	6.83 2
16.1576	16.2131	1.45	21.00	1.23 1	-6.89 2	-1.25 1	6.90 2
16.1824	16.2132	3.30	3.80	1.42 3	-1.77 3	-1.42 3	1.78 3
16.1618	16.2137	1.50	18.50	1.52 1	-6.80 2	-1.54 1	6.82 2
16.1903	16.2266	2.00	8.20	7.36 1	-6.57 2	-7.39 1	6.58 2
16.1943	16.2294	2.10	7.40	9.41 1	-6.68 2	-9.44 1	6.69 2
16.1995	16.2323	2.40	5.80	1.84 2	-7.33 2	-1.85 2	7.34 2
16.1961	16.2339	1.90	9.20	5.69 1	-6.52 2	-5.71 1	6.53 2
16.1770	16.2368	1.40	24.00	9.89 0	-6.97 2	-1.00 1	6.98 2
16.1730	16.2385	1.35	28.00	7.72 0	-7.04 2	-7.82 0	7.05 2
16.2022	16.2410	1.85	9.80	4.97 1	-6.51 2	-4.99 1	6.52 2
16.2033	16.2431	1.80	10.50	4.31 1	-6.52 2	-4.33 1	6.53 2
16.1009	16.2448	1.10	79.00	1.42 0	-5.42 2	-1.48 0	5.44 2
16.2192	16.2504	2.90	4.40	5.48 2	-1.06 3	-5.49 2	1.06 3
16.1388	16.2539	1.15	62.00	2.18 0	-6.36 2	-2.25 0	6.38 2
16.1735	16.2559	1.25	40.00	4.40 0	-7.03 2	-4.48 0	7.05 2
16.2269	16.2582	2.80	4.60	4.36 2	-9.51 2	-4.37 2	9.52 2
16.1914	16.2639	1.30	33.00	5.94 0	-7.07 2	-6.03 0	7.09 2
16.2328	16.2661	2.30	6.20	1.50 2	-7.06 2	-1.50 2	7.07 2
16.2353	16.2722	1.95	8.60	6.57 1	-6.55 2	-6.59 1	6.56 2
16.2404	16.2726	2.50	5.40	2.31 2	-7.71 2	-2.31 2	7.72 2
16.2437	16.2745	3.20	3.90	1.18 3	-1.61 3	-1.18 3	1.61 3
16.1832	16.2786	1.20	49.00	3.19 0	-6.85 2	-3.26 0	6.87 2
16.2519	16.2829	3.00	4.20	6.90 2	-1.17 3	-6.91 2	1.17 3
16.1482	16.2901	1.10	78.00	1.45 0	-5.49 2	-1.51 0	5.51 2
16.2742	16.3057	2.70	4.80	3.54 2	-8.74 2	-3.55 2	8.75 2
16.1953	16.3086	1.15	61.00	2.23 0	-6.41 2	-2.30 0	6.43 2
16.2709	16.3166	1.60	14.50	2.31 1	-6.66 2	-2.32 1	6.67 2
16.2740	16.3249	1.50	18.00	1.58 1	-6.80 2	-1.59 1	6.81 2
16.1959	16.3358	1.10	77.00	1.48 0	-5.55 2	-1.54 0	5.57 2
16.2926	16.3406	1.55	16.00	1.93 1	-6.72 2	-1.95 1	6.74 2
16.2614	16.3423	1.25	39.00	4.54 0	-7.06 2	-4.63 0	7.07 2
16.3067	16.3449	1.85	9.60	5.12 1	-6.52 2	-5.14 1	6.53 2
16.3051	16.3471	1.70	12.00	3.27 1	-6.57 2	-3.29 1	6.58 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.3102	16.3476	1.90	9.00	5.88 1	-6.53 2	-5.90 1	6.54 2
16.2539	16.3476	1.20	48.00	3.27 0	-6.89 2	-3.35 0	6.90 2
16.3265	16.3572	3.10	4.00	9.20 2	-1.37 3	-9.22 2	1.38 3
16.3246	16.3604	2.00	8.00	7.65 1	-6.59 2	-7.68 1	6.60 2
16.2526	16.3642	1.15	60.00	2.28 0	-6.46 2	-2.35 0	6.48 2
16.3373	16.3710	2.20	6.60	1.24 2	-6.87 2	-1.24 2	6.88 2
16.3073	16.3711	1.35	27.00	8.08 0	-7.04 2	-8.18 0	7.06 2
16.3014	16.3723	1.30	32.00	6.18 0	-7.09 2	-6.27 0	7.10 2
16.3386	16.3789	1.75	11.00	3.86 1	-6.54 2	-3.88 1	6.55 2
16.3364	16.3798	1.65	13.00	2.80 1	-6.61 2	-2.82 1	6.62 2
16.2441	16.3821	1.10	76.00	1.51 0	-5.62 2	-1.57 0	5.64 2
16.3500	16.3846	2.10	7.20	9.84 1	-6.71 2	-9.87 1	6.72 2
16.3605	16.3910	3.40	3.60	1.93 3	-2.12 3	-1.94 3	2.12 3
16.3613	16.3928	2.60	5.00	2.95 2	-8.25 2	-2.96 2	8.26 2
16.3610	16.3974	1.95	8.40	6.80 1	-6.56 2	-6.83 1	6.57 2
16.3401	16.3981	1.40	23.00	1.04 1	-6.97 2	-1.05 1	6.98 2
16.3513	16.4050	1.45	20.00	1.31 1	-6.88 2	-1.32 1	6.89 2
16.3263	16.4183	1.20	47.00	3.37 0	-6.92 2	-3.44 0	6.94 2
16.3110	16.4208	1.15	59.00	2.33 0	-6.51 2	-2.40 0	6.53 2
16.3922	16.4227	3.30	3.70	1.45 3	-1.74 3	-1.45 3	1.74 3
16.2927	16.4288	1.10	75.00	1.54 0	-5.68 2	-1.61 0	5.70 2
16.3522	16.4314	1.25	38.00	4.69 0	-7.08 2	-4.78 0	7.10 2
16.3907	16.4407	1.50	17.50	1.64 1	-6.80 2	-1.65 1	6.81 2
16.3419	16.4760	1.10	74.00	1.57 0	-5.75 2	-1.64 0	5.77 2
16.3703	16.4784	1.15	58.00	2.39 0	-6.56 2	-2.46 0	6.58 2
16.3915	16.5237	1.10	73.00	1.61 0	-5.81 2	-1.67 0	5.83 2
16.40	17.20						
16.4145	16.4523	1.85	9.40	5.28 1	-6.53 2	-5.30 1	6.54 2
16.4225	16.4547	2.40	5.60	1.97 2	-7.43 2	-1.97 2	7.45 2
16.4283	16.4652	1.90	8.80	6.07 1	-6.55 2	-6.10 1	6.55 2
16.4349	16.4676	2.30	6.00	1.59 2	-7.14 2	-1.60 2	7.15 2
16.4265	16.4713	1.60	14.00	2.42 1	-6.66 2	-2.43 1	6.67 2
16.4455	16.4759	3.20	3.80	1.23 3	-1.61 3	-1.23 3	1.61 3
16.4290	16.4760	1.55	15.50	2.01 1	-6.72 2	-2.03 1	6.73 2
16.4459	16.4846	1.80	10.00	4.62 1	-6.53 2	-4.64 1	6.54 2
16.4160	16.4852	1.30	31.00	6.43 0	-7.10 2	-6.52 0	7.12 2
16.4004	16.4909	1.20	46.00	3.46 0	-6.96 2	-3.54 0	6.98 2
16.4643	16.4996	2.00	7.80	7.96 1	-6.62 2	-7.98 1	6.63 2
16.4532	16.5060	1.45	19.50	1.35 1	-6.88 2	-1.37 1	6.89 2
16.4484	16.5105	1.35	26.00	8.47 0	-7.05 2	-8.57 0	7.06 2
16.4890	16.5206	2.50	5.20	2.49 2	-7.88 2	-2.50 2	7.89 2
16.4460	16.5236	1.25	37.00	4.85 0	-7.10 2	-4.94 0	7.12 2
16.4914	16.5273	1.95	8.20	7.06 1	-6.58 2	-7.08 1	6.59 2
16.4306	16.5371	1.15	57.00	2.45 0	-6.61 2	-2.52 0	6.63 2
16.5127	16.5467	2.10	7.00	1.03 2	-6.75 2	-1.03 2	6.76 2
16.5070	16.5478	1.70	11.50	3.47 1	-6.57 2	-3.48 1	6.58 2
16.5208	16.5511	3.10	3.90	1.02 3	-1.47 3	-1.03 3	1.47 3
16.5220	16.5552	2.20	6.40	1.30 2	-6.93 2	-1.31 2	6.94 2
16.5173	16.5597	1.65	12.50	2.95 1	-6.61 2	-2.97 1	6.62 2
16.5122	16.5613	1.50	17.00	1.70 1	-6.79 2	-1.71 1	6.80 2
16.5259	16.5632	1.85	9.20	5.44 1	-6.54 2	-5.47 1	6.55 2
16.4765	16.5653	1.20	45.00	3.56 0	-6.99 2	-3.64 0	7.01 2
16.5131	16.5694	1.40	22.00	1.10 1	-6.97 2	-1.11 1	6.98 2
16.4417	16.5720	1.10	72.00	1.64 0	-5.88 2	-1.70 0	5.90 2
16.5449	16.5755	2.80	4.40	4.91 2	-1.00 3	-4.92 2	1.00 3
16.5481	16.5863	1.80	9.80	4.75 1	-6.54 2	-4.77 1	6.55 2
16.5506	16.5870	1.90	8.60	6.29 1	-6.56 2	-6.31 1	6.57 2
16.5601	16.5905	2.90	4.20	6.19 2	-1.11 3	-6.20 2	1.11 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.4921	16.5969	1.15	56.00	2.51 0	-6.66 2	-2.57 0	6.68 2
16.5723	16.6030	2.70	4.60	3.93 2	-9.11 2	-3.94 2	9.12 2
16.5355	16.6031	1.30	30.00	6.70 0	-7.11 2	-6.79 0	7.13 2
16.5667	16.6059	1.75	10.50	4.17 1	-6.55 2	-4.14 1	6.56 2
16.5589	16.6107	1.45	19.00	1.40 1	-6.88 2	-1.41 1	6.89 2
16.5720	16.6180	1.55	15.00	2.10 1	-6.72 2	-2.12 1	6.73 2
16.5430	16.6190	1.25	36.00	5.03 0	-7.12 2	-5.11 0	7.14 2
16.5903	16.6203	3.40	3.50	2.25 3	-2.35 3	-2.25 3	2.36 3
16.4924	16.6209	1.10	71.00	1.68 0	-5.94 2	-1.74 0	5.96 2
16.5905	16.6342	1.60	13.50	2.54 1	-6.66 2	-2.55 1	6.67 2
16.5546	16.6417	1.20	44.00	3.67 0	-7.02 2	-3.74 0	7.04 2
16.6123	16.6424	3.30	3.60	1.46 3	-1.67 3	-1.46 3	1.67 3
16.6097	16.6445	2.00	7.60	8.28 1	-6.64 2	-8.31 1	6.65 2
16.6190	16.6492	3.00	4.00	7.97 2	-1.25 3	-7.98 2	1.26 3
16.5970	16.6574	1.35	25.00	8.90 0	-7.05 2	-9.00 0	7.06 2
16.5547	16.6578	1.15	55.00	2.57 0	-6.71 2	-2.64 0	6.72 2
16.6268	16.6622	1.95	8.00	7.33 1	-6.60 2	-7.35 1	6.61 2
16.5031	16.6670	1.05	90.00	1.07 0	-4.73 2	-1.12 0	4.75 2
16.5438	16.6704	1.10	70.00	1.71 0	-6.00 2	-1.78 0	6.02 2
16.6418	16.6727	2.60	4.80	3.24 2	-8.51 2	-3.24 2	8.52 2
16.6410	16.6779	1.85	9.00	5.62 1	-6.55 2	-5.65 1	6.56 2
16.6482	16.6803	2.30	5.80	1.69 2	-7.23 2	-1.70 2	7.24 2
16.6568	16.6867	3.20	3.70	1.28 3	-1.61 3	-1.28 3	1.61 3
16.6389	16.6870	1.50	16.50	1.77 1	-6.79 2	-1.78 1	6.80 2
16.6590	16.6906	2.40	5.40	2.11 2	-7.57 2	-2.12 2	7.58 2
16.6536	16.6913	1.80	9.60	4.89 1	-6.54 2	-4.92 1	6.55 2
16.5483	16.7100	1.05	89.00	1.09 0	-4.81 2	-1.14 0	4.83 2
16.6773	16.7132	1.90	8.40	6.51 1	-6.57 2	-6.54 1	6.58 2
16.6830	16.7165	2.10	6.80	1.08 2	-6.79 2	-1.08 2	6.80 2
16.6435	16.7178	1.25	35.00	5.21 0	-7.14 2	-5.29 0	7.16 2
16.6685	16.7195	1.45	18.50	1.45 1	-6.87 2	-1.46 1	6.88 2
16.6185	16.7200	1.15	54.00	2.63 0	-6.75 2	-2.70 0	6.77 2
16.6347	16.7203	1.20	43.00	3.78 0	-7.06 2	-3.85 0	7.07 2
16.5957	16.7205	1.10	69.00	1.75 0	-6.06 2	-1.81 0	6.08 2
16.6603	16.7262	1.30	29.00	6.99 0	-7.12 2	-7.08 0	7.14 2
16.7163	16.7489	2.20	6.20	1.38 2	-7.00 2	-1.38 2	7.01 2
16.7092	16.7506	1.65	12.00	3.12 1	-6.61 2	-3.14 1	6.62 2
16.6973	16.7519	1.40	21.00	1.17 1	-6.96 2	-1.18 1	6.98 2
16.5938	16.7533	1.05	88.00	1.11 0	-4.88 2	-1.17 0	4.90 2
16.7240	16.7539	3.10	3.80	1.08 3	-1.49 3	-1.08 3	1.50 3
16.7223	16.7621	1.70	11.00	3.69 1	-6.58 2	-3.70 1	6.58 2
16.7219	16.7670	1.55	14.50	2.20 1	-6.71 2	-2.21 1	6.73 2
16.6483	16.7713	1.10	68.00	1.79 0	-6.12 2	-1.85 0	6.14 2
16.6836	16.7834	1.15	53.00	2.70 0	-6.80 2	-2.77 0	6.81 2
16.7541	16.7850	2.50	5.00	2.71 2	-8.07 2	-2.71 2	8.08 2
16.7612	16.7955	2.00	7.40	8.64 1	-6.67 2	-8.67 1	6.68 2
16.7602	16.7966	1.85	8.80	5.81 1	-6.56 2	-5.83 1	6.57 2
16.6396	16.7968	1.05	87.00	1.13 0	-4.95 2	-1.19 0	4.97 2
16.7624	16.7997	1.80	9.40	5.05 1	-6.55 2	-5.07 1	6.56 2
16.7171	16.8011	1.20	42.00	3.89 0	-7.09 2	-3.97 0	7.10 2
16.7676	16.8025	1.95	7.80	7.62 1	-6.62 2	-7.64 1	6.63 2
16.7635	16.8062	1.60	13.00	2.67 1	-6.65 2	-2.68 1	6.66 2
16.7538	16.8125	1.35	24.00	9.37 0	-7.05 2	-9.47 0	7.07 2
16.7712	16.8184	1.50	16.00	1.84 1	-6.79 2	-1.85 1	6.80 2
16.7476	16.8203	1.25	34.00	5.40 0	-7.16 2	-5.48 0	7.18 2
16.7016	16.8228	1.10	67.00	1.83 0	-6.18 2	-1.89 0	6.20 2
16.7824	16.8324	1.45	18.00	1.50 1	-6.87 2	-1.51 1	6.88 2
16.6856	16.8407	1.05	86.00	1.15 0	-5.03 2	-1.21 0	5.04 2
16.8088	16.8443	1.90	8.20	6.75 1	-6.59 2	-6.78 1	6.60 2
16.8147	16.8445	3.00	3.90	8.72 2	-1.32 3	-8.74 2	1.32 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
16.7500	16.8482	1.15	52.00	2.77 0	-6.84 2	-2.84 0	6.86 2
16.8117	16.8498	1.75	10.00	4.41 1	-6.56 2	-4.43 1	6.57 2
16.7909	16.8551	1.30	28.00	7.30 0	-7.13 2	-7.39 0	7.14 2
16.8436	16.8732	3.30	3.50	1.20 3	-1.32 3	-1.20 3	1.32 3
16.7556	16.8750	1.10	66.00	1.87 0	-6.24 2	-1.93 0	6.26 2
16.8019	16.8843	1.20	41.00	4.01 0	-7.11 2	-4.09 0	7.13 2
16.7319	16.8848	1.05	85.00	1.18 0	-5.10 2	-1.23 0	5.12 2
16.8614	16.8944	2.10	6.60	1.14 2	-6.83 2	-1.14 2	6.84 2
16.8738	16.9053	2.30	5.60	1.81 2	-7.33 2	-1.81 2	7.34 2
16.8783	16.9079	3.20	3.60	1.32 3	-1.59 3	-1.32 3	1.59 3
16.8749	16.9117	1.80	9.20	5.20 1	-6.56 2	-5.23 1	6.57 2
16.8178	16.9144	1.15	51.00	2.84 0	-6.88 2	-2.91 0	6.90 2
16.8886	16.9185	2.80	4.20	5.52 2	-1.05 3	-5.53 2	1.05 3
16.8836	16.9195	1.85	8.60	6.01 1	-6.57 2	-6.04 1	6.58 2
16.8931	16.9232	2.70	4.40	4.40 2	-9.53 2	-4.41 2	9.55 2
16.8796	16.9236	1.55	14.00	2.30 1	-6.71 2	-2.32 1	6.72 2
16.8557	16.9268	1.25	33.00	5.61 0	-7.18 2	-5.69 0	7.19 2
16.8103	16.9280	1.10	65.00	1.91 0	-6.30 2	-1.97 0	6.32 2
16.7786	16.9293	1.05	84.00	1.20 0	-5.17 2	-1.26 0	5.19 2
16.9104	16.9413	2.40	5.20	2.28 2	-7.71 2	-2.29 2	7.72 2
16.8941	16.9469	1.40	20.00	1.24 1	-6.96 2	-1.26 1	6.97 2
16.9142	16.9485	1.95	7.60	7.93 1	-6.64 2	-7.96 1	6.65 2
16.9008	16.9500	1.45	17.50	1.56 1	-6.87 2	-1.57 1	6.88 2
16.9150	16.9526	1.75	9.80	4.54 1	-6.56 2	-4.56 1	6.57 2
16.9209	16.9529	2.20	6.00	1.46 2	-7.07 2	-1.46 2	7.08 2
16.9193	16.9530	2.00	7.20	9.03 1	-6.70 2	-9.05 1	6.71 2
16.9134	16.9536	1.65	11.50	3.31 1	-6.61 2	-3.32 1	6.62 2
16.9095	16.9558	1.50	15.50	1.92 1	-6.78 2	-1.93 1	6.79 2
16.9300	16.9597	2.90	4.00	7.12 2	-1.18 3	-7.13 2	1.19 3
16.9368	16.9663	3.10	3.70	1.15 3	-1.52 3	-1.15 3	1.53 3
16.8892	16.9700	1.20	40.00	4.14 0	-7.14 2	-4.22 0	7.16 2
16.9427	16.9729	2.60	4.60	3.59 2	-8.84 2	-3.59 2	8.85 2
16.8255	16.9742	1.05	83.00	1.23 0	-5.24 2	-1.28 0	5.26 2
16.9198	16.9768	1.35	23.00	9.88 0	-7.05 2	-9.98 0	7.07 2
16.9454	16.9803	1.90	8.00	7.01 1	-6.61 2	-7.04 1	6.62 2
16.8658	16.9817	1.10	64.00	1.95 0	-6.36 2	-2.01 0	6.38 2
16.8871	16.9820	1.15	50.00	2.92 0	-6.92 2	-2.98 0	6.94 2
16.9466	16.9883	1.60	12.50	2.81 1	-6.65 2	-2.83 1	6.66 2
16.9278	16.9904	1.30	27.00	7.64 0	-7.14 2	-7.73 0	7.15 2
16.9528	16.9915	1.70	10.50	3.93 1	-6.58 2	-3.95 1	6.59 2
16.8727	17.0194	1.05	82.00	1.25 0	-5.31 2	-1.31 0	5.33 2
16.9911	17.0275	1.80	9.00	5.37 1	-6.57 2	-5.40 1	6.58 2
16.9221	17.0363	1.10	63.00	1.99 0	-6.41 2	-2.06 0	6.43 2
16.9680	17.0375	1.25	32.00	5.83 0	-7.19 2	-5.91 0	7.21 2
17.0114	17.0469	1.85	8.40	6.23 1	-6.59 2	-6.25 1	6.59 2
17.0194	17.0488	3.00	3.80	9.21 2	-1.34 3	-9.23 2	1.34 3
16.9977	17.0496	1.40	19.50	1.29 1	-6.96 2	-1.30 1	6.97 2
16.9580	17.0513	1.15	49.00	2.99 0	-6.96 2	-3.06 0	6.98 2
16.9793	17.0584	1.20	39.00	4.28 0	-7.17 2	-4.35 0	7.18 2
17.0215	17.0587	1.75	9.60	4.68 1	-6.57 2	-4.70 1	6.58 2
16.9204	17.0649	1.05	81.00	1.28 0	-5.38 2	-1.33 0	5.40 2
17.0374	17.0677	2.50	4.80	2.96 2	-8.30 2	-2.97 2	8.31 2
17.0241	17.0724	1.45	17.00	1.61 1	-6.86 2	-1.63 1	6.87 2
17.0487	17.0811	2.10	6.40	1.20 2	-6.88 2	-1.20 2	6.89 2
17.0457	17.0887	1.55	13.50	2.42 1	-6.71 2	-2.43 1	6.72 2
16.9793	17.0918	1.10	62.00	2.04 0	-6.47 2	-2.10 0	6.49 2
17.0544	17.0997	1.50	15.00	2.00 1	-6.78 2	-2.01 1	6.79 2
17.0669	17.1008	1.95	7.40	8.27 1	-6.67 2	-8.30 1	6.68 2
16.9683	17.1109	1.05	80.00	1.30 0	-5.45 2	-1.36 0	5.47 2
17.0868	17.1160	3.30	3.40	4.45 2	-4.66 2	-4.46 2	4.67 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_1/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.0844	17.1177	2.00	7.00	9.44 1	-6.73 2	-9.47 1	6.74 2
17.0874	17.1218	1.90	7.80	7.29 1	-6.62 2	-7.31 1	6.63 2
17.0304	17.1221	1.15	48.00	3.08 0	-7.00 2	-3.14 0	7.02 2
17.0716	17.1325	1.30	26.00	8.01 0	-7.14 2	-8.10 0	7.16 2
17.1111	17.1402	3.20	3.50	1.22 3	-1.40 3	-1.22 3	1.40 3
17.1130	17.1439	2.30	5.40	1.94 2	-7.45 2	-1.94 2	7.46 2
17.1114	17.1473	1.80	8.80	5.55 1	-6.58 2	-5.58 1	6.59 2
17.0373	17.1481	1.10	61.00	2.09 0	-6.52 2	-2.15 0	6.54 2
17.0721	17.1497	1.20	38.00	4.42 0	-7.19 2	-4.50 0	7.21 2
17.0959	17.1511	1.35	22.00	1.04 1	-7.05 2	-1.05 1	7.06 2
17.0850	17.1529	1.25	31.00	6.06 0	-7.20 2	-6.15 0	7.22 2
17.1051	17.1561	1.40	19.00	1.33 1	-6.95 2	-1.34 1	6.96 2
17.1273	17.1566	2.90	3.90	7.75 2	-1.24 3	-7.76 2	1.24 3
17.0167	17.1573	1.05	79.00	1.33 0	-5.52 2	-1.38 0	5.54 2
17.1314	17.1682	1.75	9.40	4.82 1	-6.58 2	-4.84 1	6.59 2
17.1369	17.1683	2.20	5.80	1.55 2	-7.15 2	-1.56 2	7.16 2
17.1311	17.1703	1.65	11.00	.51 1	-6.61 2	-3.53 1	6.62 2
17.1441	17.1791	1.85	8.20	6.46 1	-6.60 2	-6.48 1	6.61 2
17.1408	17.1815	1.60	12.00	2.97 1	-6.65 2	-2.99 1	6.66 2
17.1599	17.1890	3.10	3.60	1.22 3	-1.54 3	-1.22 3	1.55 3
17.1047	17.1948	1.15	47.00	3.16 0	-7.04 2	-3.23 0	7.06 2
17.1527	17.2000	1.45	16.50	1.68 1	-6.86 2	-1.69 1	6.87 2
17.0655	17.2041	1.05	78.00	1.36 0	-5.59 2	-1.41 0	5.61 2
17.0963	17.2054	1.10	60.00	2.14 0	-6.58 2	-2.20 0	6.60 2
17.1782	17.2086	2.40	5.00	2.47 2	-7.89 2	-2.48 2	7.90 2
17.1681	17.2440	1.20	37.00	4.57 0	-7.21 2	-4.65 0	7.23 2
17.1147	17.2514	1.05	77.00	1.38 0	-5.66 2	-1.44 0	5.68 2
17.1562	17.2636	1.10	59.00	2.19 0	-6.63 2	-2.25 0	6.65 2
17.1807	17.2692	1.15	46.00	3.25 0	-7.07 2	-3.32 0	7.09 2
17.1644	17.2992	1.05	76.00	1.41 0	-5.73 2	-1.47 0	5.75 2
17.20	18.00						
17.2004	17.2380	1.70	10.00	4.21 1	-6.59 2	-4.23 1	6.60 2
17.2065	17.2507	1.50	14.50	2.09 1	-6.77 2	-2.10 1	6.78 2
17.2262	17.2596	1.95	7.20	8.63 1	-6.70 2	-8.66 1	6.70 2
17.2337	17.2627	3.00	3.70	9.74 2	-1.36 3	-9.76 2	1.36 3
17.2209	17.2630	1.55	13.00	2.54 1	-6.71 2	-2.55 1	6.72 2
17.2165	17.2665	1.40	18.50	1.37 1	-6.95 2	-1.39 1	6.96 2
17.2352	17.2691	1.90	7.60	7.58 1	-6.65 2	-7.61 1	6.65 2
17.2398	17.2691	2.70	4.20	4.92 2	-9.91 2	-4.93 2	9.93 2
17.2359	17.2713	1.80	8.60	5.74 1	-6.59 2	-5.77 1	6.60 2
17.2070	17.2732	1.25	30.00	6.32 0	-7.22 2	-6.40 0	7.23 2
17.2456	17.2774	2.10	6.20	1.26 2	-6.95 2	-1.27 2	6.95 2
17.2449	17.2813	1.75	9.20	4.97 1	-6.58 2	-4.99 1	6.59 2
17.2230	17.2822	1.30	25.00	8.41 0	-7.15 2	-8.50 0	7.16 2
17.2572	17.2899	2.00	6.80	9.90 1	-6.77 2	-9.93 1	6.77 2
17.2616	17.2907	2.80	4.00	6.29 2	-1.11 3	-6.30 2	1.11 3
17.2665	17.2960	2.60	4.40	4.00 2	-9.21 2	-4.01 2	9.23 2
17.2819	17.3163	1.85	8.00	6.70 1	-6.62 2	-6.72 1	6.62 2
17.2172	17.3230	1.10	58.00	2.24 0	-6.68 2	-2.30 0	6.70 2
17.2869	17.3333	1.45	16.00	1.75 1	-6.85 2	-1.76 1	6.86 2
17.2833	17.3368	1.35	21.00	1.11 1	-7.05 2	-1.12 1	7.06 2
17.2673	17.3417	1.20	36.00	4.73 0	-7.23 2	-4.81 0	7.25 2
17.3048	17.3419	1.70	9.80	4.33 1	-6.59 2	-4.35 1	6.60 2
17.2587	17.3456	1.15	45.00	3.35 0	-7.11 2	-3.41 0	7.13 2
17.2146	17.3475	1.05	75.00	1.44 0	-5.79 2	-1.50 0	5.81 2
17.3335	17.3624	2.90	3.80	8.23 2	-1.26 3	-8.24 2	1.27 3
17.3412	17.3709	2.50	4.60	3.27 2	-8.60 2	-3.28 2	8.61 2
17.3321	17.3813	1.40	18.00	1.42 1	-6.95 2	-1.43 1	6.96 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.2792	17.3833	1.10	57.00	2.29 0	-6.73 2	-2.35 0	6.75 2
17.3559	17.3846	3.20	3.40	7.89 2	-8.69 2	-7.91 2	8.71 2
17.3474	17.3870	1.60	11.50	3.15 1	-6.65 2	-3.16 1	6.66 2
17.3653	17.3961	2.20	5.60	1.65 2	-7.24 2	-1.66 2	7.25 2
17.2652	17.3962	1.05	74.00	1.47 0	-5.86 2	-1.53 0	5.88 2
17.3672	17.3975	2.30	5.20	2.08 2	-7.58 2	-2.09 2	7.59 2
17.3623	17.3982	1.75	9.00	5.13 1	-6.59 2	-5.15 1	6.60 2
17.3343	17.3989	1.25	29.00	6.59 0	-7.23 2	-6.67 0	7.24 2
17.3650	17.3999	1.80	8.40	5.95 1	-6.60 2	-5.97 1	6.61 2
17.3642	17.4023	1.65	10.50	3.75 1	-6.62 2	-3.76 1	6.63 2
17.3663	17.4096	1.50	14.00	2.19 1	-6.77 2	-2.20 1	6.78 2
17.3892	17.4226	1.90	7.40	7.90 1	-6.67 2	-7.93 1	6.68 2
17.3942	17.4229	3.10	3.50	1.21 3	-1.47 3	-1.21 3	1.47 3
17.3387	17.4240	1.15	44.00	3.44 0	-7.14 2	-3.51 0	7.16 2
17.3927	17.4255	1.95	7.00	9.03 1	-6.73 2	-9.06 1	6.73 2
17.3827	17.4403	1.30	24.00	8.85 0	-7.15 2	-8.94 0	7.16 2
17.3700	17.4428	1.20	35.00	4.90 0	-7.25 2	-4.98 0	7.27 2
17.3424	17.4448	1.10	56.00	2.35 0	-6.78 2	-2.41 0	6.80 2
17.3164	17.4456	1.05	73.00	1.50 0	-5.93 2	-1.56 0	5.95 2
17.4063	17.4473	1.55	12.50	2.68 1	-6.70 2	-2.69 1	6.71 2
17.4124	17.4491	1.70	9.60	4.46 1	-6.60 2	-4.48 1	6.61 2
17.4251	17.4591	1.85	7.80	6.96 1	-6.63 2	-6.99 1	6.64 2
17.4383	17.4704	2.00	6.60	1.04 2	-6.80 2	-1.04 2	6.81 2
17.4273	17.4727	1.45	15.50	1.82 1	-6.85 2	-1.83 1	6.86 2
17.4529	17.4842	2.10	6.00	1.34 2	-7.01 2	-1.34 2	7.02 2
17.4584	17.4870	3.00	3.60	1.03 3	-1.37 3	-1.03 3	1.37 3
17.4604	17.4892	2.80	3.90	6.80 2	-1.15 3	-6.81 2	1.15 3
17.4645	17.4942	2.40	4.80	2.70 2	-8.09 2	-2.70 2	8.10 2
17.3682	17.4955	1.05	72.00	1.53 0	-5.99 2	-1.59 0	6.01 2
17.4524	17.5007	1.40	17.50	1.47 1	-6.94 2	-1.49 1	6.95 2
17.4208	17.5046	1.15	43.00	3.55 0	-7.17 2	-3.62 0	7.19 2
17.4067	17.5075	1.10	55.00	2.41 0	-6.83 2	-2.47 0	6.85 2
17.4837	17.5191	1.75	8.80	5.30 1	-6.60 2	-5.32 1	6.61 2
17.4676	17.5306	1.25	28.00	6.89 0	-7.23 2	-6.97 0	7.25 2
17.4988	17.5333	1.80	8.20	6.17 1	-6.62 2	-6.19 1	6.62 2
17.4834	17.5352	1.35	20.00	1.18 1	-7.04 2	-1.19 1	7.05 2
17.4205	17.5460	1.05	71.00	1.57 0	-6.06 2	-1.62 0	6.07 2
17.4764	17.5476	1.20	34.00	5.08 0	-7.27 2	-5.16 0	7.29 2
17.5234	17.5597	1.70	9.40	4.60 1	-6.60 2	-4.61 1	6.61 2
17.4723	17.5715	1.10	54.00	2.47 0	-6.87 2	-2.53 0	6.89 2
17.5345	17.5768	1.50	13.50	2.30 1	-6.77 2	-2.31 1	6.79 2
17.5494	17.5779	2.90	3.70	8.77 2	-1.29 3	-8.78 2	1.29 3
17.5498	17.5827	1.90	7.20	8.25 1	-6.69 2	-8.28 1	6.70 2
17.5053	17.5875	1.15	42.00	3.65 0	-7.20 2	-3.72 0	7.22 2
17.4734	17.5971	1.05	70.00	1.60 0	-6.12 2	-1.66 0	6.14 2
17.5668	17.5991	1.95	6.80	9.46 1	-6.76 2	-9.49 1	6.77 2
17.5676	17.6062	1.60	11.00	3.35 1	-6.66 2	-3.36 1	6.66 2
17.5741	17.6076	1.85	7.60	7.24 1	-6.65 2	-7.27 1	6.66 2
17.5517	17.6076	1.30	23.00	9.34 0	-7.15 2	-9.43 0	7.16 2
17.5743	17.6187	1.45	15.00	1.90 1	-6.84 2	-1.91 1	6.85 2
17.5777	17.6250	1.40	17.00	1.53 1	-6.94 2	-1.54 1	6.95 2
17.5392	17.6367	1.10	53.00	2.53 0	-6.92 2	-2.59 0	6.94 2
17.6074	17.6376	2.20	5.40	1.77 2	-7.34 2	-1.78 2	7.35 2
17.5888	17.6397	1.35	19.50	1.22 1	-7.04 2	-1.23 1	7.05 2
17.6140	17.6422	3.20	3.30	4.63 2	-4.87 2	-4.64 2	4.87 2
17.6029	17.6429	1.55	12.00	2.83 1	-6.70 2	-2.84 1	6.71 2
17.6094	17.6443	1.75	8.60	5.48 1	-6.61 2	-5.50 1	6.62 2
17.6159	17.6445	2.70	4.00	5.57 2	-1.04 3	-5.58 2	1.04 3
17.6163	17.6451	2.60	4.20	4.46 2	-9.57 2	-4.47 2	9.58 2
17.5269	17.6488	1.05	69.00	1.63 0	-6.18 2	-1.69 0	6.20 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.6144	17.6515	1.65	10.00	4.01 1	-6.62 2	-4.03 1	6.63 2
17.5869	17.6566	1.20	33.00	5.28 0	-7.29 2	-5.35 0	7.30 2
17.6282	17.6599	2.00	6.40	1.09 2	-6.85 2	-1.10 2	6.86 2
17.6381	17.6678	2.30	5.00	2.25 2	-7.73 2	-2.26 2	7.74 2
17.6072	17.6686	1.25	27.00	7.21 0	-7.24 2	-7.29 0	7.25 2
17.6407	17.6689	3.10	3.40	1.01 3	-1.17 3	-1.01 3	1.17 3
17.6378	17.6718	1.80	8.00	6.40 1	-6.63 2	-6.42 1	6.64 2
17.5922	17.6728	1.15	41.00	3.77 0	-7.23 2	-3.84 0	7.25 2
17.6381	17.6739	1.70	9.20	4.74 1	-6.61 2	-4.76 1	6.62 2
17.5213	17.6813	1.00	90.00	9.94-1	-4.83 2	-1.04 0	4.85 2
17.6682	17.6966	2.80	3.80	7.22 2	-1.17 3	-7.23 2	1.18 3
17.6681	17.6971	2.50	4.40	3.64 2	-8.94 2	-3.64 2	8.95 2
17.5811	17.7013	1.05	68.00	1.67 0	-6.24 2	-1.73 0	6.26 2
17.6717	17.7024	2.10	5.80	1.42 2	-7.08 2	-1.42 2	7.09 2
17.6074	17.7034	1.10	52.00	2.59 0	-6.96 2	-2.66 0	6.98 2
17.6944	17.7226	3.00	3.50	1.04 3	-1.32 3	-1.04 3	1.33 3
17.5682	17.7259	1.00	89.00	1.01 0	-4.91 2	-1.06 0	4.92 2
17.6979	17.7479	1.35	19.00	1.26 1	-7.04 2	-1.27 1	7.05 2
17.7176	17.7500	1.90	7.00	8.63 1	-6.72 2	-8.65 1	6.73 2
17.7121	17.7534	1.50	13.00	2.41 1	-6.76 2	-2.43 1	6.77 2
17.6360	17.7544	1.05	67.00	1.71 0	-6.30 2	-1.76 0	6.32 2
17.7082	17.7547	1.40	16.50	1.59 1	-6.93 2	-1.60 1	6.94 2
17.7199	17.7565	1.65	9.80	4.13 1	-6.63 2	-4.14 1	6.64 2
17.6816	17.7606	1.15	40.00	3.89 0	-7.26 2	-3.96 0	7.28 2
17.7294	17.7624	1.85	7.40	7.55 1	-6.67 2	-7.57 1	6.68 2
17.7018	17.7698	1.20	32.00	5.48 0	-7.30 2	-5.56 0	7.32 2
17.6152	17.7707	1.00	88.00	1.03 0	-4.98 2	-1.08 0	5.00 2
17.6771	17.7714	1.10	51.00	2.66 0	-7.01 2	-2.72 0	7.02 2
17.7284	17.7720	1.45	14.50	1.98 1	-6.84 2	-2.00 1	6.85 2
17.7397	17.7741	1.75	8.40	5.67 1	-6.62 2	-5.69 1	6.63 2
17.7492	17.7810	1.95	6.60	9.93 1	-6.79 2	-9.96 1	6.80 2
17.7310	17.7852	1.30	22.00	9.87 0	-7.14 2	-9.96 0	7.16 2
17.7566	17.7920	1.70	9.00	4.89 1	-6.62 2	-4.91 1	6.63 2
17.7715	17.8005	2.40	4.60	2.97 2	-8.35 2	-2.97 2	8.36 2
17.7758	17.8039	2.90	3.60	9.35 2	-1.32 3	-9.36 2	1.32 3
17.6917	17.8083	1.05	66.00	1.74 0	-6.36 2	-1.80 0	6.38 2
17.7539	17.8136	1.25	26.00	7.55 0	-7.24 2	-7.64 0	7.26 2
17.7823	17.8158	1.80	7.80	6.65 1	-6.64 2	-6.67 1	6.65 2
17.6626	17.8159	1.00	87.00	1.05 0	-5.06 2	-1.10 0	5.07 2
17.8033	17.8408	1.60	10.50	3.57 1	-6.66 2	-3.58 1	6.67 2
17.7482	17.8410	1.10	50.00	2.73 0	-7.05 2	-2.79 0	7.07 2
17.8164	17.8446	2.70	3.90	5.97 2	-1.07 3	-5.98 2	1.08 3
17.8119	17.8509	1.55	11.50	2.99 1	-6.70 2	-3.01 1	6.71 2
17.7738	17.8513	1.15	39.00	4.02 0	-7.29 2	-4.08 0	7.30 2
17.8279	17.8590	2.00	6.20	1.15 2	-6.90 2	-1.16 2	6.91 2
17.8111	17.8603	1.35	18.50	1.30 1	-7.03 2	-1.31 1	7.04 2
17.7101	17.8614	1.00	86.00	1.08 0	-5.13 2	-1.13 0	5.15 2
17.7480	17.8630	1.05	65.00	1.78 0	-6.42 2	-1.84 0	6.44 2
17.8286	17.8648	1.65	9.60	4.25 1	-6.63 2	-4.27 1	6.64 2
17.8213	17.8877	1.20	31.00	5.71 0	-7.32 2	-5.78 0	7.33 2
17.8445	17.8900	1.40	16.00	1.65 1	-6.93 2	-1.67 1	6.94 2
17.8646	17.8943	2.20	5.20	1.90 2	-7.46 2	-1.91 2	7.47 2
17.7580	17.9071	1.00	85.00	1.10 0	-5.20 2	-1.15 0	5.22 2
17.8748	17.9088	1.75	8.20	5.88 1	-6.63 2	-5.90 1	6.64 2
17.8210	17.9122	1.10	49.00	2.80 0	-7.09 2	-2.87 0	7.11 2
17.8858	17.9138	2.80	3.70	7.69 2	-1.20 3	-7.70 2	1.20 3
17.8792	17.9141	1.70	8.80	5.05 1	-6.63 2	-5.07 1	6.63 2
17.8052	17.9184	1.05	64.00	1.82 0	-6.48 2	-1.88 0	6.50 2
17.8913	17.9238	1.85	7.20	7.88 1	-6.70 2	-7.90 1	6.70 2
17.8930	17.9249	1.90	6.80	9.03 1	-6.75 2	-9.06 1	6.76 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
17.9004	17.9283	3.10	3.30	8.46 2	-9.35 2	-8.48 2	9.37 2
17.8905	17.9330	1.45	14.00	2.08 1	-6.83 2	-2.09 1	6.84 2
17.9031	17.9332	2.10	5.60	1.51 2	-7.16 2	-1.51 2	7.17 2
17.8999	17.9402	1.50	12.50	2.54 1	-6.76 2	-2.56 1	6.77 2
17.8689	17.9448	1.15	38.00	4.15 0	-7.31 2	-4.22 0	7.33 2
17.8062	17.9533	1.00	84.00	1.12 0	-5.28 2	-1.17 0	5.30 2
17.9275	17.9565	2.30	4.80	2.45 2	-7.91 2	-2.46 2	7.92 2
17.9326	17.9656	1.80	7.60	6.91 1	-6.66 2	-6.93 1	6.67 2
17.9083	17.9664	1.25	25.00	7.93 0	-7.25 2	-8.01 0	7.26 2
17.9426	17.9704	3.00	3.40	9.38 2	-1.15 3	-9.40 2	1.15 3
17.9406	17.9718	1.95	6.40	1.04 2	-6.84 2	-1.05 2	6.84 2
17.9218	17.9743	1.30	21.00	1.05 1	-7.14 2	-1.06 1	7.15 2
17.8632	17.9747	1.05	63.00	1.86 0	-6.54 2	-1.92 0	6.56 2
17.9408	17.9765	1.65	9.40	4.38 1	-6.64 2	-4.39 1	6.65 2
17.9287	17.9770	1.35	18.00	1.35 1	-7.03 2	-1.36 1	7.04 2
17.8954	17.9851	1.10	48.00	2.88 0	-7.13 2	-2.94 0	7.15 2
17.8547	17.9997	1.00	83.00	1.14 0	-5.35 2	-1.19 0	5.37 2
17.9459	18.0107	1.20	30.00	5.94 0	-7.33 2	-6.02 0	7.34 2
17.9957	18.0238	2.60	4.00	5.04 2	-1.00 3	-5.05 2	1.00 3
17.9869	18.0315	1.40	15.50	1.72 1	-6.92 2	-1.73 1	6.93 2
17.9221	18.0319	1.05	62.00	1.91 0	-6.60 2	-1.96 0	6.61 2
17.9672	18.0415	1.15	37.00	4.29 0	-7.34 2	-4.36 0	7.35 2
17.9036	18.0466	1.00	82.00	1.17 0	-5.42 2	-1.21 0	5.44 2
17.9716	18.0597	1.10	47.00	2.96 0	-7.17 2	-3.02 0	7.18 2
17.9819	18.0900	1.05	61.00	1.95 0	-6.65 2	-2.01 0	6.67 2
17.9528	18.0938	1.00	81.00	1.19 0	-5.50 2	-1.24 0	5.51 2
17.9671	18.1253	0.98	90.00	9.65-1	-4.87 2	-1.01 0	4.89 2
18.00	18.80						
18.0062	18.0406	1.70	8.60	5.22 1	-6.63 2	-5.24 1	6.64 2
18.0135	18.0412	2.90	3.50	9.74 2	-1.32 3	-9.75 2	1.32 3
18.0151	18.0486	1.75	8.00	6.10 1	-6.64 2	-6.12 1	6.65 2
18.0212	18.0494	2.50	4.20	4.05 2	-9.27 2	-4.06 2	9.29 2
18.0259	18.0538	2.70	3.80	6.33 2	-1.09 3	-6.34 2	1.09 3
18.0382	18.0687	2.00	6.00	1.22 2	-6.96 2	-1.22 2	6.96 2
18.0349	18.0728	1.55	11.00	3.18 1	-6.70 2	-3.20 1	6.71 2
18.0567	18.0919	1.65	9.20	4.51 1	-6.64 2	-4.53 1	6.65 2
18.0605	18.0925	1.85	7.00	8.23 1	-6.72 2	-8.26 1	6.73 2
18.0564	18.0928	1.60	10.00	3.82 1	-6.66 2	-3.83 1	6.67 2
18.0510	18.0983	1.35	17.50	1.40 1	-7.02 2	-1.41 1	7.03 2
18.0610	18.1026	1.45	13.50	2.18 1	-6.83 2	-2.19 1	6.84 2
18.0769	18.1082	1.90	6.60	9.48 1	-6.79 2	-9.50 1	6.80 2
18.0892	18.1218	1.80	7.40	7.20 1	-6.68 2	-7.22 1	6.69 2
18.0712	18.1276	1.25	24.00	8.35 0	-7.25 2	-8.43 0	7.26 2
18.1016	18.1300	2.40	4.40	3.28 2	-8.64 2	-3.29 2	8.65 2
18.0497	18.1362	1.10	46.00	3.04 0	-7.20 2	-3.11 0	7.22 2
18.0990	18.1383	1.50	12.00	2.69 1	-6.76 2	-2.70 1	6.76 2
18.0760	18.1392	1.20	29.00	6.20 0	-7.34 2	-6.28 0	7.35 2
18.0024	18.1414	1.00	80.00	1.21 0	-5.57 2	-1.26 0	5.59 2
18.0687	18.1415	1.15	36.00	4.44 0	-7.36 2	-4.51 0	7.37 2
18.1139	18.1415	2.80	3.60	8.19 2	-1.23 3	-8.21 2	1.23 3
18.0426	18.1491	1.05	60.00	1.99 0	-6.71 2	-2.05 0	6.72 2
18.1386	18.1677	2.20	5.00	2.05 2	-7.59 2	-2.06 2	7.60 2
18.0146	18.1706	0.98	89.00	9.84-1	-4.95 2	-1.03 0	4.97 2
18.1377	18.1716	1.70	8.40	5.41 1	-6.64 2	-5.43 1	6.65 2
18.1418	18.1725	1.95	6.20	1.10 2	-6.88 2	-1.10 2	6.89 2
18.1255	18.1763	1.30	20.00	1.11 1	-7.14 2	-1.12 1	7.15 2
18.1482	18.1778	2.10	5.40	1.61 2	-7.25 2	-1.62 2	7.26 2
18.1361	18.1798	1.40	15.00	1.80 1	-6.92 2	-1.81 1	6.93 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.0524	18.1895	1.00	79.00	1.24 0	-5.64 2	-1.29 0	5.66 2
18.1609	18.1939	1.75	7.80	6.33 1	-6.66 2	-6.36 1	6.67 2
18.1630	18.1990	1.60	9.80	3.93 1	-6.67 2	-3.94 1	6.67 2
18.1747	18.2021	3.10	3.20	5.28 2	-5.55 2	-5.29 2	5.56 2
18.1043	18.2092	1.05	59.00	2.04 0	-6.76 2	-2.10 0	6.78 2
18.1765	18.2112	1.65	9.00	4.66 1	-6.65 2	-4.67 1	6.66 2
18.1297	18.2146	1.10	45.00	3.13 0	-7.24 2	-3.19 0	7.26 2
18.0623	18.2162	0.98	88.00	1.00 0	-5.03 2	-1.05 0	5.04 2
18.1782	18.2247	1.35	17.00	1.45 1	-7.02 2	-1.46 1	7.03 2
18.1979	18.2256	2.60	3.90	5.41 2	-1.03 3	-5.42 2	1.04 3
18.2041	18.2314	3.00	3.30	8.39 2	-9.77 2	-8.40 2	9.78 2
18.1028	18.2380	1.00	78.00	1.26 0	-5.71 2	-1.31 0	5.73 2
18.1739	18.2451	1.15	35.00	4.60 0	-7.38 2	-4.67 0	7.39 2
18.1103	18.2620	0.98	87.00	1.02 0	-5.10 2	-1.07 0	5.12 2
18.2377	18.2661	2.30	4.60	2.69 2	-8.14 2	-2.70 2	8.15 2
18.2374	18.2689	1.85	6.80	8.62 1	-6.75 2	-8.64 1	6.76 2
18.1671	18.2703	1.05	58.00	2.09 0	-6.81 2	-2.15 0	6.83 2
18.2452	18.2727	2.70	3.70	6.72 2	-1.11 3	-6.74 2	1.12 3
18.2121	18.2737	1.20	28.00	6.48 0	-7.35 2	-6.55 0	7.36 2
18.2410	18.2816	1.45	13.00	2.29 1	-6.83 2	-2.30 1	6.83 2
18.2327	18.2826	1.30	19.50	1.15 1	-7.13 2	-1.16 1	7.14 2
18.2526	18.2846	1.80	7.20	7.51 1	-6.70 2	-7.53 1	6.71 2
18.1536	18.2869	1.00	77.00	1.29 0	-5.78 2	-1.34 0	5.80 2
18.2600	18.2900	2.00	5.80	1.29 2	-7.02 2	-1.30 2	7.03 2
18.2634	18.2907	2.90	3.40	9.53 2	-1.23 3	-9.55 2	1.23 3
18.2118	18.2952	1.10	44.00	3.22 0	-7.27 2	-3.29 0	7.29 2
18.2434	18.2982	1.25	23.00	8.80 0	-7.25 2	-8.88 0	7.26 2
18.2697	18.3006	1.90	6.40	9.96 1	-6.83 2	-9.99 1	6.83 2
18.2741	18.3076	1.70	8.20	5.60 1	-6.65 2	-5.62 1	6.66 2
18.1585	18.3082	0.98	86.00	1.04 0	-5.18 2	-1.09 0	5.19 2
18.2729	18.3085	1.60	9.60	4.04 1	-6.67 2	-4.06 1	6.68 2
18.2733	18.3102	1.55	10.50	3.39 1	-6.70 2	-3.41 1	6.71 2
18.2309	18.3325	1.05	57.00	2.14 0	-6.86 2	-2.20 0	6.88 2
18.3003	18.3347	1.65	8.80	4.81 1	-6.65 2	-4.83 1	6.66 2
18.2925	18.3353	1.40	14.50	1.88 1	-6.91 2	-1.89 1	6.92 2
18.2050	18.3364	1.00	76.00	1.32 0	-5.85 2	-1.36 0	5.87 2
18.3125	18.3451	1.75	7.60	6.59 1	-6.67 2	-6.61 1	6.68 2
18.3106	18.3490	1.50	11.50	2.84 1	-6.75 2	-2.86 1	6.76 2
18.2828	18.3525	1.15	34.00	4.77 0	-7.40 2	-4.84 0	7.41 2
18.2071	18.3546	0.98	85.00	1.07 0	-5.25 2	-1.11 0	5.27 2
18.3108	18.3564	1.35	16.50	1.50 1	-7.01 2	-1.51 1	7.02 2
18.2961	18.3780	1.10	43.00	3.32 0	-7.31 2	-3.38 0	7.32 2
18.3534	18.3806	2.80	3.50	8.60 2	-1.23 3	-8.61 2	1.23 3
18.3535	18.3837	1.95	6.00	1.16 2	-6.94 2	-1.17 2	6.94 2
18.2568	18.3863	1.00	75.00	1.34 0	-5.92 2	-1.39 0	5.94 2
18.3437	18.3928	1.30	19.00	1.19 1	-7.13 2	-1.20 1	7.14 2
18.2959	18.3959	1.05	56.00	2.19 0	-6.91 2	-2.25 0	6.93 2
18.2559	18.4014	0.98	84.00	1.09 0	-5.32 2	-1.13 0	5.34 2
18.3547	18.4147	1.20	27.00	6.78 0	-7.35 2	-6.85 0	7.37 2
18.3863	18.4214	1.60	9.40	4.16 1	-6.67 2	-4.18 1	6.68 2
18.4041	18.4316	2.50	4.00	4.57 2	-9.71 2	-4.58 2	9.72 2
18.4092	18.4365	2.60	3.80	5.75 2	-1.06 3	-5.76 2	1.06 3
18.3091	18.4368	1.00	74.00	1.37 0	-5.98 2	-1.42 0	6.00 2
18.4086	18.4376	2.10	5.20	1.73 2	-7.35 2	-1.74 2	7.36 2
18.3051	18.4486	0.98	83.00	1.11 0	-5.40 2	-1.16 0	5.42 2
18.4157	18.4487	1.70	8.00	5.81 1	-6.66 2	-5.83 1	6.67 2
18.4227	18.4536	1.85	6.60	9.03 1	-6.78 2	-9.06 1	6.79 2
18.4232	18.4547	1.80	7.00	7.85 1	-6.73 2	-7.87 1	6.74 2
18.4313	18.4598	2.20	4.80	2.23 2	-7.76 2	-2.23 2	7.77 2
18.3622	18.4606	1.05	55.00	2.25 0	-6.96 2	-2.30 0	6.98 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.4285	18.4624	1.65	8.60	4.97 1	-6.66 2	-4.99 1	6.67 2
18.3828	18.4631	1.10	42.00	3.42 0	-7.34 2	-3.48 0	7.35 2
18.3959	18.4640	1.15	33.00	4.95 0	-7.41 2	-5.02 0	7.43 2
18.4313	18.4710	1.45	12.50	2.41 1	-6.82 2	-2.42 1	6.83 2
18.4261	18.4792	1.25	22.00	9.30 0	-7.25 2	-9.39 0	7.26 2
18.4581	18.4858	2.40	4.20	3.65 2	-8.94 2	-3.65 2	8.95 2
18.3620	18.4879	1.00	73.00	1.40 0	-6.05 2	-1.45 0	6.07 2
18.4492	18.4939	1.35	16.00	1.56 1	-7.01 2	-1.57 1	7.02 2
18.3546	18.4961	0.98	82.00	1.13 0	-5.47 2	-1.18 0	5.49 2
18.4569	18.4987	1.40	14.00	1.97 1	-6.91 2	-1.98 1	6.92 2
18.4751	18.5022	2.70	3.60	7.15 2	-1.13 3	-7.16 2	1.14 3
18.4705	18.5026	1.75	7.40	6.86 1	-6.69 2	-6.88 1	6.70 2
18.4724	18.5027	1.90	6.20	1.05 2	-6.87 2	-1.05 2	6.88 2
18.4801	18.5070	3.00	3.20	6.18 2	-6.85 2	-6.19 2	6.86 2
18.4589	18.5071	1.30	18.50	1.23 1	-7.12 2	-1.24 1	7.13 2
18.4945	18.5239	2.00	5.60	1.37 2	-7.09 2	-1.38 2	7.09 2
18.4296	18.5264	1.05	54.00	2.30 0	-7.01 2	-2.36 0	7.03 2
18.5034	18.5381	1.60	9.20	4.29 1	-6.68 2	-4.31 1	6.68 2
18.4154	18.5395	1.00	72.00	1.43 0	-6.12 2	-1.48 0	6.14 2
18.4045	18.5440	0.98	81.00	1.15 0	-5.54 2	-1.20 0	5.56 2
18.4719	18.5506	1.10	41.00	3.53 0	-7.37 2	-3.59 0	7.38 2
18.5267	18.5536	2.90	3.30	9.39 2	-1.16 3	-9.40 2	1.16 3
18.5044	18.5628	1.20	26.00	7.10 0	-7.36 2	-7.18 0	7.37 2
18.5293	18.5651	1.55	10.00	3.63 1	-6.71 2	-3.64 1	6.71 2
18.5363	18.5736	1.50	11.00	3.02 1	-6.75 2	-3.03 1	6.76 2
18.5134	18.5799	1.15	32.00	5.15 0	-7.43 2	-5.22 0	7.44 2
18.4694	18.5917	1.00	71.00	1.46 0	-6.18 2	-1.51 0	6.20 2
18.4548	18.5924	0.98	80.00	1.18 0	-5.62 2	-1.22 0	5.64 2
18.4984	18.5936	1.05	53.00	2.36 0	-7.06 2	-2.42 0	7.07 2
18.4374	18.5940	0.96	90.00	9.37-1	-4.92 2	-9.82-1	4.94 2
18.5614	18.5948	1.65	8.40	5.14 1	-6.67 2	-5.16 1	6.68 2
18.5629	18.5954	1.70	7.80	6.03 1	-6.68 2	-6.05 1	6.68 2
18.5713	18.5991	2.30	4.40	2.97 2	-8.40 2	-2.98 2	8.41 2
18.5769	18.6065	1.95	5.80	1.23 2	-7.00 2	-1.24 2	7.00 2
18.5785	18.6258	1.30	18.00	1.27 1	-7.12 2	-1.28 1	7.13 2
18.6052	18.6320	2.80	3.40	8.68 2	-1.19 3	-8.70 2	1.19 3
18.6015	18.6326	1.80	6.80	8.21 1	-6.75 2	-8.23 1	6.76 2
18.6080	18.6352	2.50	3.90	4.89 2	-1.00 3	-4.90 2	1.00 3
18.5939	18.6377	1.35	15.50	1.63 1	-7.00 2	-1.64 1	7.01 2
18.4856	18.6400	0.96	89.00	9.55-1	-4.99 2	-1.00 0	5.01 2
18.5637	18.6408	1.10	40.00	3.64 0	-7.40 2	-3.70 0	7.41 2
18.5055	18.6411	0.98	79.00	1.20 0	-5.69 2	-1.25 0	5.71 2
18.5240	18.6446	1.00	70.00	1.49 0	-6.25 2	-1.54 0	6.27 2
18.6171	18.6475	1.85	6.40	9.49 1	-6.82 2	-9.52 1	6.82 2
18.6303	18.6573	2.60	3.70	6.13 2	-1.08 3	-6.14 2	1.08 3
18.6244	18.6587	1.60	9.00	4.43 1	-6.68 2	-4.44 1	6.69 2
18.5686	18.6623	1.05	52.00	2.42 0	-7.10 2	-2.48 0	7.12 2
18.6353	18.6669	1.75	7.20	7.15 1	-6.71 2	-7.17 1	6.72 2
18.6299	18.6708	1.40	13.50	2.06 1	-6.90 2	-2.07 1	6.91 2
18.6331	18.6717	1.45	12.00	2.55 1	-6.82 2	-2.56 1	6.83 2
18.6205	18.6719	1.25	21.00	9.86 0	-7.24 2	-9.95 0	7.25 2
18.6371	18.6725	1.55	9.80	3.73 1	-6.71 2	-3.74 1	6.72 2
18.5340	18.6862	0.96	88.00	9.74-1	-5.07 2	-1.02 0	5.09 2
18.5566	18.6903	0.98	78.00	1.23 0	-5.76 2	-1.27 0	5.78 2
18.5793	18.6981	1.00	69.00	1.52 0	-6.31 2	-1.57 0	6.33 2
18.6357	18.7006	1.15	31.00	5.36 0	-7.44 2	-5.42 0	7.45 2
18.6860	18.7143	2.10	5.00	1.87 2	-7.48 2	-1.87 2	7.48 2
18.6857	18.7155	1.90	6.00	1.11 2	-6.92 2	-1.11 2	6.93 2
18.6620	18.7188	1.20	25.00	7.46 0	-7.36 2	-7.53 0	7.37 2
18.6991	18.7321	1.65	8.20	5.33 1	-6.68 2	-5.35 1	6.69 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.6403	18.7324	1.05	51.00	2.48 0	-7.15 2	-2.54 0	7.16 2
18.5827	18.7328	0.96	87.00	9.94-1	-5.15 2	-1.04 0	5.17 2
18.6582	18.7338	1.10	39.00	3.76 0	-7.42 2	-3.82 0	7.44 2
18.6082	18.7400	0.98	77.00	1.25 0	-5.83 2	-1.30 0	5.85 2
18.7164	18.7431	2.70	3.50	7.53 2	-1.14 3	-7.54 2	1.14 3
18.7160	18.7480	1.70	7.60	6.27 1	-6.69 2	-6.29 1	6.70 2
18.7028	18.7492	1.30	17.50	1.32 1	-7.11 2	-1.33 1	7.12 2
18.6353	18.7523	1.00	68.00	1.55 0	-6.38 2	-1.60 0	6.39 2
18.7429	18.7717	2.00	5.40	1.47 2	-7.17 2	-1.47 2	7.18 2
18.7450	18.7728	2.20	4.60	2.44 2	-7.96 2	-2.44 2	7.97 2
18.6317	18.7796	0.96	86.00	1.01 0	-5.22 2	-1.06 0	5.24 2
18.7482	18.7832	1.55	9.60	3.84 1	-6.71 2	-3.85 1	6.72 2
18.7496	18.7834	1.60	8.80	4.57 1	-6.69 2	-4.59 1	6.69 2
18.7454	18.7882	1.35	15.00	1.70 1	-7.00 2	-1.71 1	7.01 2
18.6602	18.7902	0.98	76.00	1.28 0	-5.90 2	-1.32 0	5.92 2
18.7720	18.7984	3.00	3.10	2.64 2	-2.79 2	-2.65 2	2.79 2
18.7135	18.8040	1.05	50.00	2.55 0	-7.19 2	-2.60 0	7.21 2
18.6919	18.8073	1.00	67.00	1.59 0	-6.44 2	-1.64 0	6.46 2
18.7776	18.8139	1.50	10.50	3.22 1	-6.75 2	-3.23 1	6.76 2
18.7883	18.8189	1.80	6.60	8.61 1	-6.78 2	-8.63 1	6.79 2
18.7631	18.8265	1.15	30.00	5.58 0	-7.45 2	-5.65 0	7.47 2
18.6809	18.8268	0.96	85.00	1.03 0	-5.30 2	-1.08 0	5.32 2
18.7557	18.8298	1.10	38.00	3.88 0	-7.45 2	-3.95 0	7.46 2
18.7127	18.8408	0.98	75.00	1.30 0	-5.97 2	-1.35 0	5.99 2
18.7493	18.8630	1.00	66.00	1.62 0	-6.50 2	-1.67 0	6.52 2
18.7304	18.8743	0.96	84.00	1.05 0	-5.37 2	-1.10 0	5.39 2
18.7883	18.8773	1.05	49.00	2.62 0	-7.23 2	-2.67 0	7.25 2
18.7657	18.8920	0.98	74.00	1.33 0	-6.04 2	-1.38 0	6.06 2
18.7803	18.9222	0.96	83.00	1.08 0	-5.45 2	-1.12 0	5.47 2
18.80	19.60						
18.8047	18.8311	2.90	3.20	8.41 2	-9.86 2	-8.43 2	9.87 2
18.8074	18.8385	1.75	7.00	7.47 1	-6.73 2	-7.49 1	6.74 2
18.8130	18.8421	1.95	5.60	1.31 2	-7.06 2	-1.31 2	7.07 2
18.8212	18.8480	2.50	3.80	5.21 2	-1.02 3	-5.22 2	1.02 3
18.8213	18.8512	1.85	6.20	1.00 2	-6.86 2	-1.00 2	6.87 2
18.8124	18.8523	1.40	13.00	2.17 1	-6.89 2	-2.18 1	6.90 2
18.8446	18.8716	2.40	4.00	4.10 2	-9.32 2	-4.10 2	9.33 2
18.8421	18.8746	1.65	8.00	5.52 1	-6.69 2	-5.54 1	6.70 2
18.8279	18.8777	1.25	20.00	1.05 1	-7.24 2	-1.06 1	7.25 2
18.8322	18.8777	1.30	17.00	1.37 1	-7.11 2	-1.38 1	7.12 2
18.8281	18.8834	1.20	24.00	7.85 0	-7.36 2	-7.92 0	7.37 2
18.8475	18.8852	1.45	11.50	2.69 1	-6.81 2	-2.71 1	6.82 2
18.8621	18.8887	2.60	3.60	6.56 2	-1.11 3	-6.57 2	1.11 3
18.8704	18.8968	2.80	3.30	8.80 2	-1.15 3	-8.82 2	1.15 3
18.8629	18.8975	1.55	9.40	3.95 1	-6.71 2	-3.97 1	6.72 2
18.8754	18.9070	1.70	7.40	6.53 1	-6.71 2	-6.55 1	6.71 2
18.8791	18.9125	1.60	8.60	4.72 1	-6.69 2	-4.74 1	6.70 2
18.8075	18.9195	1.00	65.00	1.66 0	-6.56 2	-1.71 0	6.58 2
18.8564	18.9290	1.10	37.00	4.02 0	-7.47 2	-4.08 0	7.48 2
18.9108	18.9400	1.90	5.80	1.17 2	-6.97 2	-1.18 2	6.98 2
18.8193	18.9438	0.98	73.00	1.36 0	-6.11 2	-1.41 0	6.12 2
18.9042	18.9461	1.35	14.50	1.78 1	-6.99 2	-1.79 1	7.00 2
18.8648	18.9523	1.05	48.00	2.69 0	-7.27 2	-2.74 0	7.29 2
18.8961	18.9579	1.15	29.00	5.82 0	-7.46 2	-5.89 0	7.48 2
18.9314	18.9585	2.30	4.20	3.29 2	-8.66 2	-3.29 2	8.67 2
18.8306	18.9705	0.96	82.00	1.10 0	-5.52 2	-1.14 0	5.54 2
18.8665	18.9768	1.00	64.00	1.70 0	-6.62 2	-1.75 0	6.64 2
18.9370	18.9859	1.25	19.50	1.08 1	-7.23 2	-1.09 1	7.24 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
18.8734	18.9962	0.98	72.00	1.39 0	-6.17 2	-1.43 0	6.19 2
18.9701	18.9965	2.70	3.40	7.71 2	-1.12 3	-7.72 2	1.12 3
18.9821	19.0099	2.10	4.80	2.02 2	-7.62 2	-2.03 2	7.63 2
18.9670	19.0117	1.30	16.50	1.42 1	-7.10 2	-1.43 1	7.11 2
18.9843	19.0143	1.80	6.40	9.04 1	-6.81 2	-9.06 1	6.82 2
18.9813	19.0154	1.55	9.20	4.07 1	-6.72 2	-4.09 1	6.72 2
18.9873	19.0179	1.75	6.80	7.81 1	-6.76 2	-7.83 1	6.76 2
18.8811	19.0191	0.96	81.00	1.12 0	-5.60 2	-1.16 0	5.61 2
18.9907	19.0227	1.65	7.80	5.73 1	-6.70 2	-5.75 1	6.71 2
18.9432	19.0291	1.05	47.00	2.76 0	-7.31 2	-2.82 0	7.33 2
18.9605	19.0316	1.10	36.00	4.16 0	-7.49 2	-4.22 0	7.51 2
19.0067	19.0350	2.00	5.20	1.57 2	-7.26 2	-1.57 2	7.27 2
18.9264	19.0350	1.00	63.00	1.73 0	-6.68 2	-1.78 0	6.70 2
19.0054	19.0443	1.40	12.50	2.28 1	-6.89 2	-2.29 1	6.90 2
19.0133	19.0463	1.60	8.40	4.89 1	-6.70 2	-4.90 1	6.71 2
18.9282	19.0492	0.98	71.00	1.42 0	-6.24 2	-1.46 0	6.26 2
19.0039	19.0575	1.20	23.00	8.27 0	-7.36 2	-8.35 0	7.37 2
19.0363	19.0656	1.85	6.00	1.06 2	-6.90 2	-1.06 2	6.91 2
18.9321	19.0682	0.96	80.00	1.14 0	-5.67 2	-1.19 0	5.69 2
19.0443	19.0707	2.50	3.70	5.58 2	-1.05 3	-5.58 2	1.05 3
19.0367	19.0719	1.50	10.00	3.44 1	-6.75 2	-3.45 1	6.76 2
19.0417	19.0728	1.70	7.20	6.80 1	-6.72 2	-6.82 1	6.73 2
19.0505	19.0771	2.40	3.90	4.37 2	-9.56 2	-4.38 2	9.57 2
18.9345	19.0893	0.94	90.00	9.08-1	-4.97 2	-9.51-1	4.98 2
19.0631	19.0916	1.95	5.40	1.40 2	-7.13 2	-1.40 2	7.14 2
18.9871	19.0941	1.00	62.00	1.77 0	-6.74 2	-1.82 0	6.76 2
19.0352	19.0955	1.15	28.00	6.08 0	-7.47 2	-6.14 0	7.48 2
19.0501	19.0981	1.25	19.00	1.12 1	-7.23 2	-1.13 1	7.24 2
18.9835	19.1028	0.98	70.00	1.45 0	-6.31 2	-1.49 0	6.32 2
19.0234	19.1078	1.05	46.00	2.84 0	-7.35 2	-2.90 0	7.36 2
19.0822	19.1094	2.20	4.40	2.68 2	-8.18 2	-2.69 2	8.19 2
19.0710	19.1120	1.35	14.00	1.86 1	-6.98 2	-1.87 1	6.99 2
19.0760	19.1127	1.45	11.00	2.86 1	-6.81 2	-2.87 1	6.82 2
18.9835	19.1176	0.96	79.00	1.17 0	-5.74 2	-1.21 0	5.76 2
19.0985	19.1245	2.90	3.10	6.04 2	-6.73 2	-6.05 2	6.73 2
19.1054	19.1316	2.60	3.50	6.99 2	-1.13 3	-7.00 2	1.13 3
18.9834	19.1360	0.94	89.00	9.27-1	-5.04 2	-9.69-1	5.06 2
19.1037	19.1374	1.55	9.00	4.20 1	-6.72 2	-4.22 1	6.73 2
19.0683	19.1378	1.10	35.00	4.31 0	-7.51 2	-4.37 0	7.53 2
19.1077	19.1514	1.30	16.00	1.48 1	-7.10 2	-1.49 1	7.11 2
19.0487	19.1541	1.00	61.00	1.81 0	-6.79 2	-1.86 0	6.81 2
19.0396	19.1571	0.98	69.00	1.48 0	-6.37 2	-1.52 0	6.39 2
19.0353	19.1676	0.96	78.00	1.19 0	-5.81 2	-1.23 0	5.83 2
19.1503	19.1763	2.80	3.20	8.44 2	-1.05 3	-8.45 2	1.05 3
19.1452	19.1768	1.65	7.60	5.96 1	-6.71 2	-5.98 1	6.72 2
19.1486	19.1772	1.90	5.60	1.25 2	-7.03 2	-1.25 2	7.04 2
19.1457	19.1806	1.50	9.80	3.54 1	-6.75 2	-3.55 1	6.76 2
19.0325	19.1830	0.94	88.00	9.45-1	-5.12 2	-9.87-1	5.14 2
19.1525	19.1850	1.60	8.20	5.06 1	-6.71 2	-5.08 1	6.71 2
19.1057	19.1885	1.05	45.00	2.92 0	-7.38 2	-2.98 0	7.40 2
19.1757	19.2057	1.75	6.60	8.19 1	-6.78 2	-8.21 1	6.79 2
19.0963	19.2120	0.98	68.00	1.51 0	-6.43 2	-1.56 0	6.45 2
19.1673	19.2145	1.25	18.50	1.16 1	-7.22 2	-1.16 1	7.23 2
19.1114	19.2151	1.00	60.00	1.86 0	-6.85 2	-1.91 0	6.87 2
19.0876	19.2180	0.96	77.00	1.21 0	-5.89 2	-1.26 0	5.90 2
19.1901	19.2196	1.80	6.20	9.52 1	-6.85 2	-9.54 1	6.86 2
19.0819	19.2303	0.94	87.00	9.64-1	-5.20 2	-1.01 0	5.21 2
19.1809	19.2396	1.15	27.00	6.36 0	-7.48 2	-6.43 0	7.49 2
19.1902	19.2422	1.20	22.00	8.75 0	-7.36 2	-8.82 0	7.37 2
19.2153	19.2459	1.70	7.00	7.10 1	-6.74 2	-7.12 1	6.75 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.2099	19.2479	1.40	12.00	2.41 1	-6.88 2	-2.42 1	6.89 2
19.1799	19.2479	1.10	34.00	4.47 0	-7.53 2	-4.53 0	7.55 2
19.2374	19.2633	2.70	3.30	7.94 2	-1.10 3	-7.95 2	1.10 3
19.2302	19.2634	1.55	8.80	4.34 1	-6.72 2	-4.35 1	6.73 2
19.1537	19.2678	0.98	67.00	1.54 0	-6.50 2	-1.59 0	6.52 2
19.1404	19.2689	0.96	76.00	1.24 0	-5.96 2	-1.28 0	5.97 2
19.1900	19.2713	1.05	44.00	3.01 0	-7.42 2	-3.06 0	7.43 2
19.1750	19.2771	1.00	59.00	1.90 0	-6.91 2	-1.95 0	6.92 2
19.1316	19.2779	0.94	86.00	9.83-1	-5.27 2	-1.03 0	5.29 2
19.2466	19.2867	1.35	13.50	1.95 1	-6.98 2	-1.96 1	6.99 2
19.2630	19.2918	1.85	5.80	1.12 2	-6.95 2	-1.12 2	6.96 2
19.2656	19.2919	2.40	3.80	4.65 2	-9.77 2	-4.66 2	9.78 2
19.2582	19.2926	1.50	9.60	3.64 1	-6.76 2	-3.65 1	6.76 2
19.2547	19.2976	1.30	15.50	1.54 1	-7.09 2	-1.55 1	7.10 2
19.2780	19.3041	2.50	3.60	5.99 2	-1.08 3	-5.99 2	1.08 3
19.2875	19.3152	2.00	5.00	1.69 2	-7.36 2	-1.69 2	7.37 2
19.1936	19.3203	0.96	75.00	1.26 0	-6.03 2	-1.31 0	6.04 2
19.2118	19.3242	0.98	66.00	1.58 0	-6.56 2	-1.62 0	6.58 2
19.1815	19.3258	0.94	85.00	1.00 0	-5.35 2	-1.05 0	5.37 2
19.2994	19.3266	2.10	4.60	2.20 2	-7.79 2	-2.21 2	7.80 2
19.2969	19.3289	1.60	8.00	5.25 1	-6.72 2	-5.26 1	6.72 2
19.2890	19.3354	1.25	18.00	1.20 1	-7.22 2	-1.21 1	7.23 2
19.3062	19.3373	1.65	7.40	6.20 1	-6.72 2	-6.22 1	6.73 2
19.2397	19.3403	1.00	58.00	1.95 0	-6.96 2	-1.99 0	6.98 2
19.3217	19.3481	2.30	4.00	3.68 2	-9.00 2	-3.69 2	9.01 2
19.3204	19.3560	1.45	10.50	3.05 1	-6.81 2	-3.06 1	6.82 2
19.2767	19.3564	1.05	43.00	3.10 0	-7.45 2	-3.15 0	7.47 2
19.3287	19.3566	1.95	5.20	1.49 2	-7.22 2	-1.50 2	7.23 2
19.2957	19.3622	1.10	33.00	4.63 0	-7.55 2	-4.70 0	7.56 2
19.2474	19.3723	0.96	74.00	1.29 0	-6.10 2	-1.34 0	6.11 2
19.2318	19.3741	0.94	84.00	1.02 0	-5.43 2	-1.07 0	5.44 2
19.2708	19.3815	0.98	65.00	1.61 0	-6.62 2	-1.66 0	6.64 2
19.3611	19.3869	2.60	3.40	7.34 2	-1.13 3	-7.35 2	1.13 3
19.3339	19.3910	1.15	26.00	6.66 0	-7.48 2	-6.73 0	7.49 2
19.3611	19.3939	1.55	8.60	4.48 1	-6.73 2	-4.50 1	6.74 2
19.3732	19.4028	1.75	6.40	8.59 1	-6.81 2	-8.62 1	6.82 2
19.3056	19.4045	1.00	57.00	1.99 0	-7.01 2	-2.04 0	7.03 2
19.3742	19.4081	1.50	9.40	3.75 1	-6.76 2	-3.76 1	6.76 2
19.2824	19.4227	0.94	83.00	1.04 0	-5.50 2	-1.09 0	5.52 2
19.3017	19.4248	0.96	73.00	1.32 0	-6.16 2	-1.36 0	6.18 2
19.3967	19.4269	1.70	6.80	7.43 1	-6.76 2	-7.45 1	6.77 2
19.4004	19.4285	1.90	5.40	1.33 2	-7.10 2	-1.33 2	7.11 2
19.4099	19.4355	2.90	3.00	4.78 2	-5.04 2	-4.78 2	5.05 2
19.4068	19.4358	1.80	6.00	1.00 2	-6.89 2	-1.01 2	6.90 2
19.3883	19.4387	1.20	21.00	9.27 0	-7.35 2	-9.34 0	7.36 2
19.3305	19.4396	0.98	64.00	1.65 0	-6.68 2	-1.69 0	6.70 2
19.3657	19.4439	1.05	42.00	3.19 0	-7.48 2	-3.25 0	7.50 2
19.4086	19.4506	1.30	15.00	1.60 1	-7.08 2	-1.61 1	7.09 2
19.4155	19.4610	1.25	17.50	1.24 1	-7.21 2	-1.25 1	7.22 2
19.4272	19.4642	1.40	11.50	2.55 1	-6.88 2	-2.56 1	6.89 2
19.3726	19.4700	1.00	56.00	2.04 0	-7.06 2	-2.09 0	7.08 2
19.4318	19.4709	1.35	13.00	2.05 1	-6.97 2	-2.06 1	6.98 2
19.3334	19.4717	0.94	82.00	1.06 0	-5.58 2	-1.11 0	5.59 2
19.4461	19.4717	2.80	3.10	7.13 2	-8.41 2	-7.14 2	8.42 2
19.4461	19.4726	2.20	4.20	2.96 2	-8.42 2	-2.97 2	8.43 2
19.3566	19.4779	0.96	72.00	1.35 0	-6.23 2	-1.39 0	6.25 2
19.4470	19.4785	1.60	7.80	5.44 1	-6.72 2	-5.46 1	6.73 2
19.4161	19.4810	1.10	32.00	4.82 0	-7.56 2	-4.88 0	7.58 2
19.3911	19.4986	0.98	63.00	1.68 0	-6.74 2	-1.73 0	6.76 2
19.4740	19.5046	1.65	7.20	6.46 1	-6.74 2	-6.48 1	6.75 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.4906	19.5166	2.40	3.70	4.96 2	-1.00 3	-4.97 2	1.00 3
19.3847	19.5211	0.94	81.00	1.09 0	-5.65 2	-1.13 0	5.67 2
19.4939	19.5275	1.50	9.20	3.86 1	-6.76 2	-3.87 1	6.77 2
19.4967	19.5291	1.55	8.40	4.64 1	-6.73 2	-4.65 1	6.74 2
19.5025	19.5308	1.85	5.60	1.19 2	-7.01 2	-1.19 2	7.01 2
19.4121	19.5317	0.96	71.00	1.37 0	-6.30 2	-1.42 0	6.32 2
19.4572	19.5340	1.05	41.00	3.29 0	-7.51 2	-3.35 0	7.53 2
19.4408	19.5366	1.00	55.00	2.09 0	-7.11 2	-2.14 0	7.13 2
19.5193	19.5448	2.70	3.20	7.86 2	-1.04 3	-7.87 2	1.04 3
19.5233	19.5490	2.50	3.50	6.43 2	-1.11 3	-6.43 2	1.11 3
19.4949	19.5504	1.15	25.00	6.99 0	-7.49 2	-7.06 0	7.50 2
19.5295	19.5556	2.30	3.90	3.92 2	-9.22 2	-3.93 2	9.23 2
19.4527	19.5585	0.98	62.00	1.72 0	-6.80 2	-1.77 0	6.82 2
19.4364	19.5709	0.94	80.00	1.11 0	-5.72 2	-1.15 0	5.74 2
19.4682	19.5861	0.96	70.00	1.40 0	-6.37 2	-1.45 0	6.38 2
19.5471	19.5918	1.25	17.00	1.29 1	-7.21 2	-1.30 1	7.22 2
19.5104	19.6046	1.00	54.00	2.14 0	-7.16 2	-2.19 0	7.18 2
19.5412	19.6047	1.10	31.00	5.01 0	-7.58 2	-5.07 0	7.59 2
19.5808	19.6098	1.75	6.20	9.04 1	-6.85 2	-9.07 1	6.85 2
19.5699	19.6110	1.30	14.50	1.68 1	-7.08 2	-1.68 1	7.09 2
19.4605	19.6135	0.92	90.00	8.80-1	-5.01 2	-9.20-1	5.03 2
19.5874	19.6145	2.00	4.80	1.83 2	-7.48 2	-1.83 2	7.49 2
19.5868	19.6164	1.70	6.60	7.78 1	-6.79 2	-7.80 1	6.79 2
19.5826	19.6172	1.45	10.00	3.26 1	-6.81 2	-3.27 1	6.82 2
19.5151	19.6193	0.98	61.00	1.76 0	-6.86 2	-1.81 0	6.87 2
19.4885	19.6211	0.94	79.00	1.13 0	-5.80 2	-1.17 0	5.82 2
19.5514	19.6267	1.05	40.00	3.40 0	-7.54 2	-3.45 0	7.56 2
19.5250	19.6411	0.96	69.00	1.43 0	-6.43 2	-1.48 0	6.45 2
19.5998	19.6484	1.20	20.00	9.85 0	-7.35 2	-9.93 0	7.36 2
19.5102	19.6610	0.92	89.00	8.98-1	-5.09 2	-9.38-1	5.11 2
19.5411	19.6718	0.94	78.00	1.15 0	-5.87 2	-1.20 0	5.89 2
19.5812	19.6740	1.00	53.00	2.20 0	-7.21 2	-2.24 0	7.23 2
19.5785	19.6811	0.98	60.00	1.80 0	-6.91 2	-1.85 0	6.93 2
19.5824	19.6969	0.96	68.00	1.46 0	-6.50 2	-1.51 0	6.51 2
19.5600	19.7087	0.92	88.00	9.16-1	-5.17 2	-9.56-1	5.19 2
19.5941	19.7230	0.94	77.00	1.18 0	-5.94 2	-1.22 0	5.96 2
19.60	20.40						
19.6031	19.6341	1.60	7.60	5.66 1	-6.73 2	-5.67 1	6.74 2
19.6114	19.6388	1.95	5.00	1.61 2	-7.31 2	-1.61 2	7.32 2
19.6177	19.6508	1.50	9.00	3.98 1	-6.76 2	-4.00 1	6.77 2
19.6304	19.6558	2.60	3.30	7.78 2	-1.15 3	-7.80 2	1.15 3
19.6352	19.6637	1.80	5.80	1.06 2	-6.94 2	-1.06 2	6.95 2
19.6275	19.6657	1.35	12.50	2.16 1	-6.97 2	-2.17 1	6.97 2
19.6405	19.6670	2.10	4.40	2.42 2	-7.99 2	-2.42 2	8.00 2
19.6374	19.6693	1.55	8.20	4.80 1	-6.74 2	-4.81 1	6.75 2
19.6492	19.6793	1.65	7.00	6.74 1	-6.76 2	-6.76 1	6.76 2
19.6588	19.6948	1.40	11.00	2.71 1	-6.88 2	-2.72 1	6.88 2
19.6678	19.6954	1.90	5.20	1.42 2	-7.18 2	-1.42 2	7.19 2
19.6646	19.7185	1.15	24.00	7.36 0	-7.49 2	-7.43 0	7.50 2
19.6485	19.7222	1.05	39.00	3.51 0	-7.57 2	-3.56 0	7.58 2
19.6930	19.7272	1.45	9.80	3.35 1	-6.81 2	-3.36 1	6.82 2
19.6843	19.7280	1.25	16.50	1.34 1	-7.20 2	-1.35 1	7.21 2
19.6717	19.7336	1.10	30.00	5.22 0	-7.59 2	-5.28 0	7.60 2
19.6430	19.7440	0.98	59.00	1.84 0	-6.97 2	-1.89 0	6.99 2
19.6536	19.7447	1.00	52.00	2.25 0	-7.26 2	-2.30 0	7.27 2
19.7264	19.7520	2.40	3.60	5.32 2	-1.03 3	-5.33 2	1.03 3
19.6406	19.7534	0.96	67.00	1.50 0	-6.56 2	-1.54 0	6.58 2
19.6101	19.7568	0.92	87.00	9.34-1	-5.25 2	-9.74-1	5.27 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.7110	19.7588	1.20	19.50	1.02 1	-7.34 2	-1.02 1	7.35 2
19.7467	19.7724	2.30	3.80	4.17 2	-9.41 2	-4.17 2	9.42 2
19.6476	19.7747	0.94	76.00	1.20 0	-6.01 2	-1.24 0	6.03 2
19.7456	19.7783	1.50	8.80	4.11 1	-6.76 2	-4.12 1	6.77 2
19.7393	19.7795	1.30	14.00	1.75 1	-7.07 2	-1.76 1	7.08 2
19.7562	19.7840	1.85	5.40	1.26 2	-7.07 2	-1.26 2	7.08 2
19.7596	19.7848	2.80	3.00	6.08 2	-6.81 2	-6.09 2	6.81 2
19.7656	19.7962	1.60	7.40	5.88 1	-6.75 2	-5.90 1	6.75 2
19.6606	19.8051	0.92	86.00	9.53-1	-5.33 2	-9.93-1	5.34 2
19.7811	19.8064	2.50	3.40	6.85 2	-1.13 3	-6.86 2	1.13 3
19.7086	19.8080	0.98	58.00	1.89 0	-7.02 2	-1.93 0	7.04 2
19.6996	19.8107	0.96	66.00	1.53 0	-6.62 2	-1.57 0	6.64 2
19.7833	19.8147	1.55	8.00	4.97 1	-6.75 2	-4.99 1	6.75 2
19.7860	19.8151	1.70	6.40	8.16 1	-6.81 2	-8.18 1	6.82 2
19.7274	19.8170	1.00	51.00	2.31 0	-7.30 2	-2.36 0	7.32 2
19.7486	19.8209	1.05	38.00	3.62 0	-7.60 2	-3.68 0	7.61 2
19.7016	19.8268	0.94	75.00	1.23 0	-6.08 2	-1.27 0	6.10 2
19.7992	19.8277	1.75	6.00	9.54 1	-6.88 2	-9.56 1	6.89 2
19.8068	19.8406	1.45	9.60	3.45 1	-6.81 2	-3.46 1	6.82 2
19.8173	19.8424	2.70	3.10	7.20 2	-9.01 2	-7.21 2	9.02 2
19.7113	19.8538	0.92	85.00	9.72-1	-5.40 2	-1.01 0	5.42 2
19.8323	19.8620	1.65	6.80	7.05 1	-6.78 2	-7.07 1	6.78 2
19.8404	19.8663	2.20	4.00	3.31 2	-8.72 2	-3.31 2	8.73 2
19.8078	19.8682	1.10	29.00	5.44 0	-7.60 2	-5.50 0	7.61 2
19.7593	19.8688	0.96	65.00	1.56 0	-6.68 2	-1.61 0	6.70 2
19.8274	19.8703	1.25	16.00	1.39 1	-7.20 2	-1.40 1	7.20 2
19.8349	19.8722	1.35	12.00	2.28 1	-6.96 2	-2.29 1	6.97 2
19.7752	19.8731	0.98	57.00	1.93 0	-7.08 2	-1.98 0	7.09 2
19.8261	19.8731	1.20	19.00	1.05 1	-7.34 2	-1.06 1	7.35 2
19.7561	19.8796	0.94	74.00	1.25 0	-6.16 2	-1.29 0	6.17 2
19.8028	19.8909	1.00	50.00	2.37 0	-7.35 2	-2.42 0	7.36 2
19.8440	19.8964	1.15	23.00	7.76 0	-7.49 2	-7.82 0	7.50 2
19.7623	19.9029	0.92	84.00	9.91-1	-5.48 2	-1.03 0	5.50 2
19.8766	19.9045	1.80	5.60	1.13 2	-6.99 2	-1.13 2	6.99 2
19.8780	19.9102	1.50	8.60	4.25 1	-6.77 2	-4.26 1	6.78 2
19.8520	19.9227	1.05	37.00	3.75 0	-7.62 2	-3.80 0	7.63 2
19.8198	19.9277	0.96	64.00	1.60 0	-6.75 2	-1.64 0	6.76 2
19.8112	19.9329	0.94	73.00	1.28 0	-6.22 2	-1.32 0	6.24 2
19.9086	19.9351	2.00	4.60	1.99 2	-7.64 2	-1.99 2	7.65 2
19.8431	19.9394	0.98	56.00	1.98 0	-7.13 2	-2.03 0	7.14 2
19.9144	19.9395	2.60	3.20	8.11 2	-1.14 3	-8.12 2	1.14 3
19.9132	19.9400	1.95	4.80	1.73 2	-7.43 2	-1.74 2	7.44 2
19.9063	19.9413	1.40	10.50	2.88 1	-6.87 2	-2.89 1	6.88 2
19.8136	19.9522	0.92	83.00	1.01 0	-5.56 2	-1.05 0	5.57 2
19.9176	19.9569	1.30	13.50	1.84 1	-7.06 2	-1.85 1	7.07 2
19.9242	19.9575	1.45	9.40	3.55 1	-6.81 2	-3.56 1	6.82 2
19.9350	19.9651	1.60	7.20	6.13 1	-6.76 2	-6.15 1	6.77 2
19.9349	19.9659	1.55	7.80	5.16 1	-6.75 2	-5.18 1	6.76 2
19.8798	19.9664	1.00	49.00	2.44 0	-7.39 2	-2.48 0	7.40 2
19.9525	19.9795	1.90	5.00	1.52 2	-7.27 2	-1.53 2	7.28 2
19.8669	19.9868	0.94	72.00	1.30 0	-6.29 2	-1.35 0	6.31 2
19.8813	19.9875	0.96	63.00	1.63 0	-6.81 2	-1.68 0	6.82 2
19.9456	19.9917	1.20	18.50	1.09 1	-7.33 2	-1.09 1	7.34 2
19.9738	19.9991	2.40	3.50	5.71 2	-1.05 3	-5.72 2	1.06 3
19.9738	19.9992	2.30	3.70	4.44 2	-9.63 2	-4.45 2	9.64 2
19.8653	20.0020	0.92	82.00	1.03 0	-5.63 2	-1.07 0	5.65 2
19.9122	20.0069	0.98	55.00	2.03 0	-7.18 2	-2.07 0	7.19 2
19.9502	20.0090	1.10	28.00	5.68 0	-7.61 2	-5.74 0	7.62 2
19.9769	20.0189	1.25	15.50	1.45 1	-7.19 2	-1.46 1	7.20 2
19.9953	20.0239	1.70	6.20	8.58 1	-6.85 2	-8.60 1	6.85 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
19.9588	20.0281	1.05	36.00	3.88 0	-7.64 2	-3.93 0	7.66 2
20.0084	20.0343	2.10	4.20	2.66 2	-8.20 2	-2.67 2	8.21 2
19.9231	20.0414	0.94	71.00	1.33 0	-6.36 2	-1.37 0	6.38 2
19.9586	20.0437	1.00	48.00	2.50 0	-7.43 2	-2.55 0	7.45 2
20.0151	20.0469	1.50	8.40	4.39 1	-6.77 2	-4.40 1	6.78 2
19.9436	20.0482	0.96	62.00	1.67 0	-6.86 2	-1.71 0	6.88 2
19.9174	20.0522	0.92	81.00	1.05 0	-5.71 2	-1.09 0	5.72 2
20.0255	20.0527	1.85	5.20	1.35 2	-7.14 2	-1.35 2	7.15 2
20.0240	20.0532	1.65	6.60	7.38 1	-6.80 2	-7.40 1	6.80 2
20.0294	20.0574	1.75	5.80	1.01 2	-6.93 2	-1.01 2	6.93 2
19.9826	20.0758	0.98	54.00	2.08 0	-7.23 2	-2.12 0	7.24 2
20.0503	20.0759	2.20	3.90	3.51 2	-8.91 2	-3.52 2	8.92 2
20.0525	20.0775	2.50	3.30	7.40 2	-1.16 3	-7.41 2	1.16 3
20.0453	20.0783	1.45	9.20	3.65 1	-6.81 2	-3.67 1	6.82 2
20.0342	20.0849	1.15	22.00	8.20 0	-7.48 2	-8.27 0	7.49 2
20.0553	20.0916	1.35	11.50	2.41 1	-6.95 2	-2.42 1	6.96 2
19.9800	20.0965	0.94	70.00	1.36 0	-6.43 2	-1.40 0	6.45 2
19.9699	20.1028	0.92	80.00	1.07 0	-5.78 2	-1.11 0	5.80 2
20.0069	20.1099	0.96	61.00	1.71 0	-6.92 2	-1.75 0	6.94 2
20.0695	20.1148	1.20	18.00	1.12 1	-7.33 2	-1.13 1	7.34 2
20.0924	20.1171	2.80	2.90	2.75 2	-2.91 2	-2.76 2	2.92 2
20.0393	20.1229	1.00	47.00	2.57 0	-7.47 2	-2.62 0	7.48 2
20.0925	20.1231	1.55	7.60	5.36 1	-6.76 2	-5.37 1	6.77 2
20.0693	20.1371	1.05	35.00	4.02 0	-7.66 2	-4.07 0	7.68 2
20.1118	20.1415	1.60	7.00	6.39 1	-6.78 2	-6.41 1	6.78 2
20.1056	20.1440	1.30	13.00	1.93 1	-7.06 2	-1.94 1	7.06 2
20.0544	20.1461	0.98	53.00	2.13 0	-7.28 2	-2.18 0	7.29 2
20.0376	20.1524	0.94	69.00	1.39 0	-6.49 2	-1.43 0	6.51 2
20.0228	20.1538	0.92	79.00	1.10 0	-5.86 2	-1.13 0	5.87 2
20.0993	20.1565	1.10	27.00	5.94 0	-7.62 2	-6.01 0	7.63 2
20.1329	20.1576	2.70	3.00	6.54 2	-7.77 2	-6.55 2	7.78 2
20.1322	20.1595	1.80	5.40	1.20 2	-7.05 2	-1.20 2	7.06 2
20.0181	20.1692	0.90	90.00	8.52-1	-5.07 2	-8.90-1	5.08 2
20.0711	20.1726	0.96	60.00	1.75 0	-6.98 2	-1.79 0	7.00 2
20.1333	20.1744	1.25	15.00	1.51 1	-7.18 2	-1.52 1	7.19 2
20.1572	20.1886	1.50	8.20	4.54 1	-6.78 2	-4.56 1	6.78 2
20.1705	20.2030	1.45	9.00	3.77 1	-6.81 2	-3.78 1	6.82 2
20.1219	20.2040	1.00	46.00	2.64 0	-7.51 2	-2.69 0	7.52 2
20.0761	20.2053	0.92	78.00	1.12 0	-5.93 2	-1.16 0	5.95 2
20.1718	20.2058	1.40	10.00	3.08 1	-6.87 2	-3.09 1	6.88 2
20.0959	20.2090	0.94	68.00	1.42 0	-6.56 2	-1.46 0	6.58 2
20.0685	20.2174	0.90	89.00	8.69-1	-5.15 2	-9.07-1	5.16 2
20.1276	20.2177	0.98	52.00	2.19 0	-7.32 2	-2.23 0	7.34 2
20.1365	20.2363	0.96	59.00	1.79 0	-7.04 2	-1.83 0	7.05 2
20.2118	20.2368	2.30	3.60	4.76 2	-9.88 2	-4.77 2	9.89 2
20.2146	20.2393	2.60	3.10	8.14 2	-1.08 3	-8.15 2	1.09 3
20.1983	20.2428	1.20	17.50	1.17 1	-7.32 2	-1.17 1	7.33 2
20.2155	20.2436	1.70	6.00	9.05 1	-6.88 2	-9.07 1	6.89 2
20.1838	20.2501	1.05	34.00	4.16 0	-7.68 2	-4.22 0	7.70 2
20.2250	20.2537	1.65	6.40	7.74 1	-6.82 2	-7.76 1	6.83 2
20.1299	20.2573	0.92	77.00	1.14 0	-6.00 2	-1.18 0	6.02 2
20.2339	20.2587	2.40	3.40	6.10 2	-1.08 3	-6.11 2	1.08 3
20.2364	20.2626	1.95	4.60	1.88 2	-7.57 2	-1.89 2	7.58 2
20.1191	20.2660	0.90	88.00	8.87-1	-5.23 2	-9.24-1	5.24 2
20.1549	20.2663	0.94	67.00	1.45 0	-6.62 2	-1.49 0	6.64 2
20.2537	20.2796	2.00	4.40	2.17 2	-7.81 2	-2.17 2	7.82 2
20.2563	20.2827	1.90	4.80	1.64 2	-7.38 2	-1.65 2	7.38 2
20.2363	20.2855	1.15	21.00	8.69 0	-7.48 2	-8.75 0	7.49 2
20.2567	20.2868	1.55	7.40	5.57 1	-6.77 2	-5.59 1	6.78 2
20.2065	20.2871	1.00	45.00	2.72 0	-7.55 2	-2.77 0	7.56 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
20.2023	20.2910	0.98	51.00	2.24 0	-7.37 2	-2.29 0	7.38 2
20.2696	20.2948	2.20	3.80	3.73 2	-9.08 2	-3.73 2	9.09 2
20.2726	20.3001	1.75	5.60	1.07 2	-6.97 2	-1.07 2	6.98 2
20.2029	20.3011	0.96	58.00	1.83 0	-7.09 2	-1.87 0	7.11 2
20.1842	20.3097	0.92	76.00	1.16 0	-6.08 2	-1.20 0	6.09 2
20.2557	20.3115	1.10	26.00	6.23 0	-7.62 2	-6.29 0	7.63 2
20.1700	20.3148	0.90	87.00	9.04-1	-5.30 2	-9.42-1	5.32 2
20.2836	20.3172	1.40	9.80	3.17 1	-6.87 2	-3.18 1	6.88 2
20.2146	20.3244	0.94	66.00	1.48 0	-6.69 2	-1.52 0	6.70 2
20.2900	20.3253	1.35	11.00	2.55 1	-6.95 2	-2.56 1	6.96 2
20.2967	20.3258	1.60	6.80	6.68 1	-6.79 2	-6.70 1	6.80 2
20.2999	20.3320	1.45	8.80	3.89 1	-6.81 2	-3.90 1	6.82 2
20.3047	20.3356	1.50	8.00	4.71 1	-6.78 2	-4.72 1	6.79 2
20.2973	20.3375	1.25	14.50	1.58 1	-7.17 2	-1.58 1	7.18 2
20.3121	20.3387	1.85	5.00	1.45 2	-7.23 2	-1.45 2	7.23 2
20.3043	20.3417	1.30	12.50	2.03 1	-7.05 2	-2.04 1	7.06 2
20.2390	20.3627	0.92	75.00	1.19 0	-6.15 2	-1.23 0	6.16 2
20.3388	20.3634	2.50	3.20	7.96 2	-1.19 3	-7.97 2	1.19 3
20.2212	20.3640	0.90	86.00	9.22-1	-5.38 2	-9.60-1	5.40 2
20.2787	20.3658	0.98	50.00	2.30 0	-7.41 2	-2.35 0	7.43 2
20.2704	20.3671	0.96	57.00	1.87 0	-7.14 2	-1.92 0	7.16 2
20.3026	20.3674	1.05	33.00	4.32 0	-7.70 2	-4.38 0	7.71 2
20.2933	20.3725	1.00	44.00	2.80 0	-7.58 2	-2.85 0	7.60 2
20.3323	20.3760	1.20	17.00	1.21 1	-7.32 2	-1.22 1	7.33 2
20.2752	20.3833	0.94	65.00	1.51 0	-6.75 2	-1.56 0	6.77 2
20.2727	20.4135	0.90	85.00	9.41-1	-5.46 2	-9.78-1	5.48 2
20.2943	20.4163	0.92	74.00	1.21 0	-6.22 2	-1.25 0	6.23 2
20.3988	20.4320	1.40	9.60	3.26 1	-6.87 2	-3.27 1	6.88 2
20.3391	20.4343	0.96	56.00	1.92 0	-7.20 2	-1.96 0	7.21 2
20.3567	20.4423	0.98	49.00	2.36 0	-7.46 2	-2.41 0	7.47 2
20.3365	20.4431	0.94	64.00	1.55 0	-6.81 2	-1.59 0	6.83 2
20.3825	20.4601	1.00	43.00	2.88 0	-7.62 2	-2.93 0	7.63 2
20.3245	20.4633	0.90	84.00	9.60-1	-5.54 2	-9.97-1	5.56 2
20.3502	20.4704	0.92	73.00	1.24 0	-6.29 2	-1.28 0	6.30 2
20.3988	20.5038	0.94	63.00	1.58 0	-6.87 2	-1.62 0	6.89 2
20.3766	20.5135	0.90	83.00	9.79-1	-5.62 2	-1.02 0	5.63 2
20.40	21.20						
20.4034	20.4302	1.80	5.20	1.28 2	-7.11 2	-1.28 2	7.12 2
20.4069	20.4322	2.10	4.00	2.96 2	-8.46 2	-2.97 2	8.47 2
20.4277	20.4574	1.55	7.20	5.80 1	-6.79 2	-5.82 1	6.79 2
20.4361	20.4643	1.65	6.20	8.14 1	-6.85 2	-8.16 1	6.86 2
20.4338	20.4655	1.45	8.60	4.02 1	-6.82 2	-4.03 1	6.82 2
20.4203	20.4745	1.10	25.00	6.54 0	-7.62 2	-6.60 0	7.63 2
20.4476	20.4752	1.70	5.80	9.56 1	-6.92 2	-9.58 1	6.92 2
20.4614	20.4861	2.30	3.50	5.11 2	-1.01 3	-5.11 2	1.02 3
20.4579	20.4884	1.50	7.80	4.88 1	-6.79 2	-4.90 1	6.80 2
20.4260	20.4893	1.05	32.00	4.49 0	-7.72 2	-4.54 0	7.73 2
20.4680	20.4923	2.70	2.90	4.37 2	-4.92 2	-4.38 2	4.92 2
20.4520	20.4995	1.15	20.00	9.23 0	-7.47 2	-9.30 0	7.48 2
20.4091	20.5028	0.96	55.00	1.97 0	-7.25 2	-2.01 0	7.26 2
20.4695	20.5088	1.25	14.00	1.65 1	-7.17 2	-1.66 1	7.17 2
20.4719	20.5147	1.20	16.50	1.26 1	-7.31 2	-1.26 1	7.32 2
20.4901	20.5188	1.60	6.60	6.99 1	-6.81 2	-7.01 1	6.82 2
20.4364	20.5205	0.98	48.00	2.43 0	-7.50 2	-2.47 0	7.51 2
20.4990	20.5238	2.20	3.70	3.97 2	-9.27 2	-3.97 2	9.28 2
20.4066	20.5251	0.92	72.00	1.26 0	-6.36 2	-1.30 0	6.37 2
20.5076	20.5320	2.40	3.30	6.60 2	-1.11 3	-6.61 2	1.11 3
20.4740	20.5502	1.00	42.00	2.97 0	-7.65 2	-3.02 0	7.66 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
20.5176	20.5504	1.40	9.40	3.35 1	-6.87 2	-3.36 1	6.88 2
20.5147	20.5512	1.30	12.00	2.14 1	-7.04 2	-2.15 1	7.05 2
20.5326	20.5568	2.60	3.00	8.40 2	-1.06 3	-8.41 2	1.06 3
20.5301	20.5571	1.75	5.40	1.14 2	-7.03 2	-1.14 2	7.03 2
20.4291	20.5641	0.90	82.00	9.99-1	-5.69 2	-1.04 0	5.71 2
20.4620	20.5653	0.94	62.00	1.62 0	-6.93 2	-1.66 0	6.95 2
20.4804	20.5726	0.96	54.00	2.02 0	-7.30 2	-2.06 0	7.31 2
20.5409	20.5752	1.35	10.50	2.72 1	-6.94 2	-2.73 1	6.95 2
20.4637	20.5805	0.92	71.00	1.29 0	-6.43 2	-1.33 0	6.44 2
20.5180	20.6007	0.98	47.00	2.49 0	-7.54 2	-2.54 0	7.55 2
20.5725	20.6037	1.45	8.40	4.15 1	-6.82 2	-4.16 1	6.83 2
20.5815	20.6073	1.90	4.60	1.78 2	-7.51 2	-1.79 2	7.51 2
20.5836	20.6092	1.95	4.40	2.06 2	-7.73 2	-2.06 2	7.74 2
20.5654	20.6121	1.15	19.50	9.53 0	-7.47 2	-9.60 0	7.48 2
20.4820	20.6150	0.90	81.00	1.02 0	-5.77 2	-1.06 0	5.78 2
20.5543	20.6161	1.05	31.00	4.67 0	-7.73 2	-4.72 0	7.74 2
20.5261	20.6279	0.94	61.00	1.66 0	-6.99 2	-1.70 0	7.01 2
20.6063	20.6355	1.55	7.00	6.05 1	-6.80 2	-6.07 1	6.80 2
20.5214	20.6365	0.92	70.00	1.32 0	-6.49 2	-1.36 0	6.51 2
20.5682	20.6428	1.00	41.00	3.06 0	-7.68 2	-3.11 0	7.69 2
20.5531	20.6437	0.96	53.00	2.07 0	-7.35 2	-2.11 0	7.36 2
20.6180	20.6440	1.85	4.80	1.56 2	-7.32 2	-1.56 2	7.33 2
20.6191	20.6440	2.10	3.90	3.14 2	-8.63 2	-3.15 2	8.64 2
20.5938	20.6464	1.10	24.00	6.88 0	-7.62 2	-6.94 0	7.63 2
20.6172	20.6472	1.50	7.60	5.07 1	-6.80 2	-5.08 1	6.80 2
20.6258	20.6511	2.00	4.20	2.38 2	-7.99 2	-2.39 2	7.99 2
20.6175	20.6595	1.20	16.00	1.31 1	-7.30 2	-1.31 1	7.31 2
20.6414	20.6655	2.50	3.10	8.45 2	-1.20 3	-8.46 2	1.20 3
20.5352	20.6664	0.90	80.00	1.04 0	-5.84 2	-1.08 0	5.86 2
20.6403	20.6726	1.40	9.20	3.45 1	-6.87 2	-3.46 1	6.88 2
20.6016	20.6828	0.98	46.00	2.56 0	-7.58 2	-2.61 0	7.59 2
20.6582	20.6858	1.65	6.00	8.57 1	-6.88 2	-8.59 1	6.89 2
20.6506	20.6891	1.25	13.50	1.73 1	-7.16 2	-1.74 1	7.17 2
20.5912	20.6915	0.94	60.00	1.69 0	-7.05 2	-1.74 0	7.06 2
20.5798	20.6932	0.92	69.00	1.35 0	-6.56 2	-1.39 0	6.58 2
20.6273	20.7164	0.96	52.00	2.12 0	-7.39 2	-2.16 0	7.41 2
20.5889	20.7183	0.90	79.00	1.06 0	-5.92 2	-1.10 0	5.94 2
20.6920	20.7183	1.80	5.00	1.37 2	-7.19 2	-1.37 2	7.20 2
20.6928	20.7198	1.70	5.60	1.01 2	-6.96 2	-1.01 2	6.97 2
20.6929	20.7212	1.60	6.40	7.33 1	-6.83 2	-7.35 1	6.84 2
20.6828	20.7288	1.15	19.00	9.84 0	-7.46 2	-9.91 0	7.47 2
20.6650	20.7383	1.00	40.00	3.16 0	-7.71 2	-3.21 0	7.72 2
20.7162	20.7470	1.45	8.20	4.30 1	-6.82 2	-4.31 1	6.83 2
20.7237	20.7480	2.30	3.40	5.47 2	-1.04 3	-5.48 2	1.04 3
20.6880	20.7483	1.05	30.00	4.86 0	-7.74 2	-4.92 0	7.76 2
20.6389	20.7506	0.92	68.00	1.37 0	-6.63 2	-1.41 0	6.64 2
20.6574	20.7561	0.94	59.00	1.73 0	-7.11 2	-1.77 0	7.12 2
20.6100	20.7591	0.88	90.00	8.25-1	-5.12 2	-8.60-1	5.14 2
20.7392	20.7637	2.20	3.60	4.25 2	-9.50 2	-4.25 2	9.51 2
20.6873	20.7670	0.98	45.00	2.64 0	-7.62 2	-2.68 0	7.63 2
20.6430	20.7706	0.90	78.00	1.08 0	-5.99 2	-1.12 0	6.01 2
20.7383	20.7738	1.30	11.50	2.27 1	-7.04 2	-2.28 1	7.04 2
20.7030	20.7905	0.96	51.00	2.17 0	-7.44 2	-2.22 0	7.46 2
20.7670	20.7989	1.40	9.00	3.56 1	-6.87 2	-3.57 1	6.88 2
20.6611	20.8082	0.88	89.00	8.41-1	-5.20 2	-8.77-1	5.22 2
20.6987	20.8088	0.92	67.00	1.40 0	-6.69 2	-1.44 0	6.71 2
20.7697	20.8107	1.20	15.50	1.36 1	-7.30 2	-1.37 1	7.31 2
20.7830	20.8126	1.50	7.40	5.27 1	-6.80 2	-5.28 1	6.81 2
20.7962	20.8203	2.40	3.20	7.13 2	-1.14 3	-7.14 2	1.14 3
20.7929	20.8216	1.55	6.80	6.32 1	-6.81 2	-6.34 1	6.82 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
20.7247	20.8218	0.94	58.00	1.77 0	-7.16 2	-1.82 0	7.18 2
20.6976	20.8234	0.90	77.00	1.10 0	-6.07 2	-1.14 0	6.08 2
20.7771	20.8282	1.10	23.00	7.25 0	-7.62 2	-7.31 0	7.63 2
20.8034	20.8298	1.75	5.20	1.21 2	-7.09 2	-1.21 2	7.09 2
20.7648	20.8366	1.00	39.00	3.26 0	-7.74 2	-3.31 0	7.75 2
20.8099	20.8432	1.35	10.00	2.90 1	-6.94 2	-2.91 1	6.95 2
20.8247	20.8485	2.70	2.80	2.18 2	-2.32 2	-2.19 2	2.32 2
20.8046	20.8497	1.15	18.50	1.02 1	-7.46 2	-1.02 1	7.47 2
20.7751	20.8534	0.98	44.00	2.71 0	-7.65 2	-2.76 0	7.67 2
20.7126	20.8576	0.88	88.00	8.58-1	-5.28 2	-8.93-1	5.30 2
20.8406	20.8652	2.10	3.80	3.33 2	-8.78 2	-3.33 2	8.79 2
20.7802	20.8663	0.96	50.00	2.23 0	-7.49 2	-2.27 0	7.50 2
20.7593	20.8678	0.92	66.00	1.44 0	-6.76 2	-1.47 0	6.77 2
20.7527	20.8767	0.90	76.00	1.13 0	-6.14 2	-1.16 0	6.16 2
20.8416	20.8791	1.25	13.00	1.82 1	-7.15 2	-1.82 1	7.16 2
20.8275	20.8863	1.05	29.00	5.07 0	-7.75 2	-5.13 0	7.77 2
20.7931	20.8887	0.94	57.00	1.82 0	-7.21 2	-1.86 0	7.23 2
20.8701	20.8939	2.60	2.90	7.41 2	-8.86 2	-7.42 2	8.87 2
20.8653	20.8957	1.45	8.00	4.45 1	-6.83 2	-4.46 1	6.83 2
20.7643	20.9073	0.88	87.00	8.75-1	-5.36 2	-9.10-1	5.38 2
20.8922	20.9194	1.65	5.80	9.05 1	-6.92 2	-9.07 1	6.92 2
20.8207	20.9276	0.92	65.00	1.47 0	-6.82 2	-1.51 0	6.84 2
20.8979	20.9294	1.40	8.80	3.67 1	-6.87 2	-3.68 1	6.88 2
20.8083	20.9305	0.90	75.00	1.15 0	-6.21 2	-1.19 0	6.23 2
20.9059	20.9336	1.60	6.20	7.70 1	-6.86 2	-7.72 1	6.86 2
20.8677	20.9380	1.00	38.00	3.37 0	-7.76 2	-3.42 0	7.78 2
20.8653	20.9421	0.98	43.00	2.79 0	-7.69 2	-2.84 0	7.70 2
20.8592	20.9438	0.96	49.00	2.29 0	-7.53 2	-2.33 0	7.54 2
20.9231	20.9561	1.35	9.80	2.99 1	-6.94 2	-3.00 1	6.95 2
20.9309	20.9561	1.90	4.40	1.94 2	-7.65 2	-1.95 2	7.66 2
20.8628	20.9568	0.94	56.00	1.86 0	-7.27 2	-1.90 0	7.28 2
20.8163	20.9572	0.88	86.00	8.92-1	-5.44 2	-9.28-1	5.46 2
20.9288	20.9690	1.20	15.00	1.42 1	-7.29 2	-1.42 1	7.30 2
20.9453	20.9708	1.85	4.60	1.69 2	-7.44 2	-1.69 2	7.45 2
20.9309	20.9752	1.15	18.00	1.05 1	-7.45 2	-1.06 1	7.46 2
20.9523	20.9788	1.70	5.40	1.08 2	-7.01 2	-1.08 2	7.02 2
20.9580	20.9830	1.95	4.20	2.25 2	-7.90 2	-2.26 2	7.90 2
20.8644	20.9849	0.90	74.00	1.17 0	-6.28 2	-1.21 0	6.30 2
20.9559	20.9850	1.50	7.20	5.49 1	-6.81 2	-5.50 1	6.82 2
20.9617	20.9855	2.50	3.00	9.33 2	-1.26 3	-9.34 2	1.26 3
20.8829	20.9882	0.92	64.00	1.50 0	-6.88 2	-1.54 0	6.90 2
20.8685	21.0076	0.88	85.00	9.10-1	-5.52 2	-9.46-1	5.54 2
20.9763	21.0109	1.30	11.00	2.41 1	-7.03 2	-2.42 1	7.04 2
20.9912	21.0153	2.20	3.50	4.55 2	-9.75 2	-4.56 2	9.76 2
20.9882	21.0164	1.55	6.60	6.61 1	-6.83 2	-6.63 1	6.84 2
20.9714	21.0209	1.10	22.00	7.66 0	-7.62 2	-7.72 0	7.63 2
20.9400	21.0231	0.96	48.00	2.35 0	-7.57 2	-2.40 0	7.59 2
20.9998	21.0238	2.30	3.30	5.93 2	-1.07 3	-5.94 2	1.07 3
21.0000	21.0257	1.80	4.80	1.47 2	-7.28 2	-1.48 2	7.29 2
20.9337	21.0262	0.94	55.00	1.91 0	-7.32 2	-1.95 0	7.34 2
20.9733	21.0306	1.05	28.00	5.30 0	-7.76 2	-5.35 0	7.77 2
20.9580	21.0332	0.98	42.00	2.88 0	-7.72 2	-2.93 0	7.73 2
20.9211	21.0399	0.90	73.00	1.20 0	-6.36 2	-1.24 0	6.37 2
20.9740	21.0428	1.00	37.00	3.48 0	-7.79 2	-3.53 0	7.80 2
20.9461	21.0497	0.92	63.00	1.53 0	-6.94 2	-1.57 0	6.96 2
21.0202	21.0501	1.45	7.80	4.61 1	-6.83 2	-4.63 1	6.84 2
21.0288	21.0535	2.00	4.00	2.64 2	-8.21 2	-2.64 2	8.22 2
20.9211	21.0582	0.88	84.00	9.28-1	-5.60 2	-9.64-1	5.62 2
21.0334	21.0645	1.40	8.60	3.79 1	-6.87 2	-3.80 1	6.88 2
21.0398	21.0723	1.35	9.60	3.07 1	-6.94 2	-3.08 1	6.94 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.0433	21.0800	1.25	12.50	1.91 1	-7.14 2	-1.92 1	7.15 2
20.9784	21.0954	0.90	72.00	1.22 0	-6.43 2	-1.26 0	6.44 2
21.0723	21.0966	2.10	3.70	3.54 2	-8.95 2	-3.54 2	8.96 2
21.0059	21.0970	0.94	54.00	1.95 0	-7.37 2	-1.99 0	7.39 2
21.0226	21.1043	0.96	47.00	2.42 0	-7.61 2	-2.46 0	7.63 2
21.0622	21.1056	1.15	17.50	1.09 1	-7.45 2	-1.10 1	7.45 2
20.9741	21.1092	0.88	83.00	9.47-1	-5.68 2	-9.82-1	5.69 2
21.0101	21.1122	0.92	62.00	1.57 0	-7.00 2	-1.61 0	7.02 2
21.0941	21.1200	1.75	5.00	1.30 2	-7.16 2	-1.30 2	7.16 2
21.1011	21.1248	2.40	3.10	7.66 2	-1.17 3	-7.67 2	1.17 3
21.0532	21.1270	0.98	41.00	2.97 0	-7.75 2	-3.01 0	7.77 2
21.0956	21.1349	1.20	14.50	1.48 1	-7.28 2	-1.49 1	7.29 2
21.0837	21.1511	1.00	36.00	3.60 0	-7.81 2	-3.65 0	7.83 2
21.0363	21.1516	0.90	71.00	1.25 0	-6.49 2	-1.29 0	6.51 2
21.1299	21.1571	1.60	6.00	8.11 1	-6.88 2	-8.13 1	6.89 2
21.0274	21.1606	0.88	82.00	9.66-1	-5.75 2	-1.00 0	5.77 2
21.1362	21.1649	1.50	7.00	5.72 1	-6.83 2	-5.73 1	6.83 2
21.1394	21.1660	1.65	5.60	9.58 1	-6.95 2	-9.60 1	6.96 2
21.0796	21.1691	0.94	53.00	2.00 0	-7.42 2	-2.04 0	7.44 2
21.0751	21.1757	0.92	61.00	1.60 0	-7.06 2	-1.64 0	7.08 2
21.1260	21.1818	1.05	27.00	5.54 0	-7.77 2	-5.59 0	7.78 2
21.1072	21.1874	0.96	46.00	2.49 0	-7.65 2	-2.53 0	7.67 2
21.1602	21.1923	1.35	9.40	3.16 1	-6.94 2	-3.17 1	6.94 2
21.1737	21.2043	1.40	8.40	3.92 1	-6.87 2	-3.93 1	6.88 2
21.0949	21.2085	0.90	70.00	1.28 0	-6.56 2	-1.31 0	6.58 2
21.1812	21.2107	1.45	7.60	4.79 1	-6.84 2	-4.80 1	6.84 2
21.0811	21.2125	0.88	81.00	9.85-1	-5.83 2	-1.02 0	5.85 2
21.1929	21.2207	1.55	6.40	6.93 1	-6.85 2	-6.95 1	6.85 2
21.1512	21.2236	0.98	40.00	3.06 0	-7.78 2	-3.11 0	7.80 2
21.1779	21.2258	1.10	21.00	8.11 0	-7.61 2	-8.18 0	7.62 2
21.1412	21.2401	0.92	60.00	1.64 0	-7.12 2	-1.68 0	7.14 2
21.1987	21.2414	1.15	17.00	1.13 1	-7.44 2	-1.14 1	7.45 2
21.1547	21.2427	0.94	52.00	2.05 0	-7.47 2	-2.09 0	7.48 2
21.1973	21.2632	1.00	35.00	3.73 0	-7.83 2	-3.78 0	7.85 2
21.1352	21.2647	0.88	80.00	1.01 0	-5.91 2	-1.04 0	5.92 2
21.1541	21.2661	0.90	69.00	1.30 0	-6.63 2	-1.34 0	6.65 2
21.1939	21.2727	0.96	45.00	2.56 0	-7.69 2	-2.60 0	7.70 2
21.1897	21.3174	0.88	79.00	1.03 0	-5.98 2	-1.06 0	6.00 2
21.20	22.00						
21.2292	21.2526	2.60	2.80	6.57 2	-7.42 2	-6.58 2	7.43 2
21.2276	21.2537	1.70	5.20	1.15 2	-7.06 2	-1.15 2	7.07 2
21.2307	21.2643	1.30	10.50	2.56 1	-7.02 2	-2.57 1	7.03 2
21.2433	21.2676	2.00	3.90	2.79 2	-8.35 2	-2.80 2	8.36 2
21.2559	21.2797	2.20	3.40	4.88 2	-9.98 2	-4.88 2	9.99 2
21.2570	21.2927	1.25	12.00	2.02 1	-7.13 2	-2.02 1	7.14 2
21.2082	21.3057	0.92	59.00	1.68 0	-7.18 2	-1.72 0	7.19 2
21.2707	21.3092	1.20	14.00	1.55 1	-7.27 2	-1.56 1	7.28 2
21.2909	21.3145	2.30	3.20	6.44 2	-1.11 3	-6.45 2	1.11 3
21.2843	21.3161	1.35	9.20	3.25 1	-6.94 2	-3.27 1	6.94 2
21.2313	21.3179	0.94	51.00	2.11 0	-7.52 2	-2.15 0	7.53 2
21.2970	21.3219	1.85	4.40	1.84 2	-7.58 2	-1.84 2	7.58 2
21.2522	21.3231	0.98	39.00	3.16 0	-7.81 2	-3.21 0	7.82 2
21.2141	21.3244	0.90	68.00	1.33 0	-6.70 2	-1.37 0	6.71 2
21.3017	21.3251	2.50	2.90	9.62 2	-1.23 3	-9.63 2	1.23 3
21.3075	21.3322	1.90	4.20	2.13 2	-7.81 2	-2.13 2	7.81 2
21.3149	21.3389	2.10	3.60	3.78 2	-9.16 2	-3.78 2	9.17 2
21.2862	21.3405	1.05	26.00	5.80 0	-7.77 2	-5.86 0	7.79 2
21.3191	21.3493	1.40	8.20	4.05 1	-6.88 2	-4.07 1	6.88 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.3247	21.3529	1.50	6.80	5.97 1	-6.84 2	-5.99 1	6.84 2
21.3296	21.3547	1.80	4.60	1.60 2	-7.39 2	-1.60 2	7.40 2
21.2828	21.3601	0.96	44.00	2.63 0	-7.73 2	-2.67 0	7.74 2
21.2446	21.3705	0.88	78.00	1.05 0	-6.06 2	-1.08 0	6.08 2
21.2764	21.3723	0.92	58.00	1.72 0	-7.24 2	-1.76 0	7.25 2
21.3488	21.3778	1.45	7.40	4.98 1	-6.85 2	-4.99 1	6.85 2
21.3149	21.3793	1.00	34.00	3.87 0	-7.85 2	-3.92 0	7.87 2
21.3409	21.3827	1.15	16.50	1.18 1	-7.43 2	-1.18 1	7.44 2
21.2747	21.3835	0.90	67.00	1.36 0	-6.76 2	-1.40 0	6.78 2
21.2394	21.3866	0.86	90.00	7.97-1	-5.18 2	-8.31-1	5.20 2
21.3633	21.3877	1.95	4.00	2.49 2	-8.10 2	-2.50 2	8.11 2
21.3659	21.3927	1.60	5.80	8.56 1	-6.92 2	-8.57 1	6.92 2
21.3096	21.3947	0.94	50.00	2.16 0	-7.56 2	-2.20 0	7.58 2
21.3001	21.4242	0.88	77.00	1.07 0	-6.13 2	-1.10 0	6.15 2
21.3562	21.4257	0.98	38.00	3.27 0	-7.84 2	-3.31 0	7.85 2
21.4010	21.4271	1.65	5.40	1.02 2	-7.00 2	-1.02 2	7.00 2
21.4043	21.4296	1.75	4.80	1.39 2	-7.24 2	-1.40 2	7.25 2
21.4078	21.4351	1.55	6.20	7.28 1	-6.87 2	-7.29 1	6.88 2
21.2914	21.4365	0.86	89.00	8.13-1	-5.26 2	-8.47-1	5.28 2
21.3458	21.4402	0.92	57.00	1.76 0	-7.29 2	-1.80 0	7.31 2
21.3362	21.4433	0.90	66.00	1.39 0	-6.83 2	-1.43 0	6.85 2
21.4126	21.4439	1.35	9.00	3.35 1	-6.94 2	-3.37 1	6.94 2
21.3980	21.4444	1.10	20.00	8.62 0	-7.61 2	-8.68 0	7.62 2
21.4240	21.4473	2.40	3.00	8.50 2	-1.23 3	-8.51 2	1.23 3
21.3741	21.4499	0.96	43.00	2.71 0	-7.76 2	-2.75 0	7.78 2
21.3896	21.4732	0.94	49.00	2.22 0	-7.60 2	-2.26 0	7.62 2
21.3560	21.4783	0.88	76.00	1.09 0	-6.21 2	-1.12 0	6.22 2
21.3436	21.4867	0.86	88.00	8.29-1	-5.34 2	-8.63-1	5.36 2
21.4672	21.4912	2.00	3.80	2.95 2	-8.48 2	-2.96 2	8.49 2
21.4548	21.4924	1.20	13.50	1.62 1	-7.26 2	-1.63 1	7.27 2
21.4699	21.4997	1.40	8.00	4.20 1	-6.88 2	-4.21 1	6.89 2
21.4368	21.4998	1.00	33.00	4.01 0	-7.87 2	-4.06 0	7.88 2
21.3985	21.5040	0.90	65.00	1.42 0	-6.89 2	-1.46 0	6.91 2
21.4546	21.5074	1.05	25.00	6.09 0	-7.78 2	-6.14 0	7.79 2
21.4164	21.5093	0.92	56.00	1.80 0	-7.34 2	-1.84 0	7.36 2
21.4839	21.5187	1.25	11.50	2.13 1	-7.13 2	-2.14 1	7.13 2
21.4892	21.5302	1.15	16.00	1.22 1	-7.42 2	-1.23 1	7.43 2
21.4637	21.5317	0.98	37.00	3.38 0	-7.86 2	-3.42 0	7.88 2
21.4124	21.5330	0.88	75.00	1.11 0	-6.28 2	-1.15 0	6.30 2
21.5034	21.5360	1.30	10.00	2.73 1	-7.02 2	-2.74 1	7.02 2
21.3962	21.5373	0.86	87.00	8.46-1	-5.42 2	-8.79-1	5.44 2
21.4679	21.5422	0.96	42.00	2.79 0	-7.80 2	-2.83 0	7.81 2
21.5205	21.5460	1.70	5.00	1.23 2	-7.13 2	-1.23 2	7.13 2
21.5219	21.5496	1.50	6.60	6.24 1	-6.85 2	-6.26 1	6.86 2
21.5234	21.5520	1.45	7.20	5.18 1	-6.85 2	-5.19 1	6.86 2
21.4714	21.5535	0.94	48.00	2.28 0	-7.65 2	-2.32 0	7.66 2
21.5345	21.5579	2.20	3.30	5.28 2	-1.03 3	-5.29 2	1.03 3
21.5138	21.5594	1.10	19.50	8.90 0	-7.60 2	-8.96 0	7.61 2
21.4616	21.5655	0.90	64.00	1.45 0	-6.96 2	-1.49 0	6.97 2
21.5452	21.5761	1.35	8.80	3.46 1	-6.94 2	-3.47 1	6.94 2
21.4883	21.5796	0.92	55.00	1.85 0	-7.40 2	-1.88 0	7.41 2
21.4490	21.5881	0.86	86.00	8.63-1	-5.50 2	-8.96-1	5.52 2
21.4694	21.5883	0.88	74.00	1.14 0	-6.35 2	-1.17 0	6.37 2
21.5694	21.5929	2.10	3.50	4.04 2	-9.37 2	-4.04 2	9.38 2
21.5790	21.6030	1.95	3.90	2.63 2	-8.23 2	-2.64 2	8.24 2
21.5983	21.6216	2.30	3.10	6.98 2	-1.14 3	-6.99 2	1.14 3
21.5635	21.6250	1.00	32.00	4.17 0	-7.89 2	-4.22 0	7.90 2
21.5256	21.6280	0.90	63.00	1.48 0	-7.02 2	-1.52 0	7.03 2
21.6122	21.6393	2.60	2.70	1.33 3	-1.42 3	-1.33 3	1.42 3
21.5551	21.6357	0.94	47.00	2.34 0	-7.69 2	-2.38 0	7.70 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.5642	21.6372	0.96	41.00	2.88 0	-7.83 2	-2.92 0	7.84 2
21.5021	21.6393	0.86	85.00	8.80-1	-5.58 2	-9.13-1	5.60 2
21.5747	21.6412	0.98	36.00	3.49 0	-7.89 2	-3.54 0	7.90 2
21.6152	21.6414	1.60	5.60	9.05 1	-6.95 2	-9.07 1	6.95 2
21.5270	21.6441	0.88	73.00	1.16 0	-6.43 2	-1.19 0	6.44 2
21.6181	21.6504	1.30	9.80	2.81 1	-7.01 2	-2.82 1	7.02 2
21.5615	21.6513	0.92	54.00	1.89 0	-7.45 2	-1.93 0	7.46 2
21.6265	21.6559	1.40	7.80	4.35 1	-6.88 2	-4.36 1	6.89 2
21.6338	21.6606	1.55	6.00	7.66 1	-6.89 2	-7.68 1	6.90 2
21.6336	21.6784	1.10	19.00	9.19 0	-7.60 2	-9.25 0	7.61 2
21.6321	21.6834	1.05	24.00	6.41 0	-7.78 2	-6.46 0	7.79 2
21.6441	21.6843	1.15	15.50	1.27 1	-7.42 2	-1.28 1	7.42 2
21.6489	21.6856	1.20	13.00	1.70 1	-7.25 2	-1.71 1	7.26 2
21.6633	21.6864	2.50	2.80	1.10 3	-1.32 3	-1.10 3	1.32 3
21.5556	21.6908	0.86	84.00	8.98-1	-5.66 2	-9.31-1	5.68 2
21.5906	21.6914	0.90	62.00	1.52 0	-7.08 2	-1.55 0	7.10 2
21.6760	21.7003	1.85	4.20	2.01 2	-7.72 2	-2.01 2	7.72 2
21.5851	21.7006	0.88	72.00	1.18 0	-6.50 2	-1.22 0	6.51 2
21.6785	21.7041	1.65	5.20	1.08 2	-7.05 2	-1.08 2	7.05 2
21.6835	21.7081	1.80	4.40	1.73 2	-7.51 2	-1.74 2	7.52 2
21.6823	21.7128	1.35	8.60	3.57 1	-6.94 2	-3.58 1	6.94 2
21.6407	21.7200	0.94	46.00	2.41 0	-7.73 2	-2.45 0	7.74 2
21.6361	21.7245	0.92	53.00	1.94 0	-7.50 2	-1.98 0	7.51 2
21.7013	21.7250	2.00	3.70	3.13 2	-8.63 2	-3.14 2	8.64 2
21.7056	21.7338	1.45	7.00	5.40 1	-6.86 2	-5.41 1	6.87 2
21.6634	21.7349	0.96	40.00	2.97 0	-7.86 2	-3.01 0	7.87 2
21.7153	21.7393	1.90	4.00	2.35 2	-8.00 2	-2.35 2	8.01 2
21.6093	21.7427	0.86	83.00	9.15-1	-5.74 2	-9.49-1	5.76 2
21.6895	21.7546	0.98	35.00	3.62 0	-7.91 2	-3.66 0	7.92 2
21.6952	21.7553	1.00	31.00	4.34 0	-7.90 2	-4.38 0	7.91 2
21.6565	21.7558	0.90	61.00	1.55 0	-7.14 2	-1.59 0	7.16 2
21.7285	21.7558	1.50	6.40	6.54 1	-6.87 2	-6.56 1	6.87 2
21.6439	21.7577	0.88	71.00	1.21 0	-6.57 2	-1.24 0	6.58 2
21.7255	21.7593	1.25	11.00	2.26 1	-7.12 2	-2.27 1	7.12 2
21.7362	21.7609	1.75	4.60	1.51 2	-7.34 2	-1.51 2	7.35 2
21.7364	21.7682	1.30	9.60	2.89 1	-7.01 2	-2.90 1	7.02 2
21.7665	21.7895	2.40	2.90	9.04 2	-1.24 3	-9.05 2	1.24 3
21.6635	21.7950	0.86	82.00	9.34-1	-5.82 2	-9.67-1	5.84 2
21.7122	21.7991	0.92	52.00	1.99 0	-7.55 2	-2.03 0	7.56 2
21.7579	21.8018	1.10	18.50	9.50 0	-7.59 2	-9.56 0	7.60 2
21.7285	21.8063	0.94	45.00	2.48 0	-7.77 2	-2.52 0	7.78 2
21.7033	21.8155	0.88	70.00	1.23 0	-6.64 2	-1.27 0	6.65 2
21.7893	21.8182	1.40	7.60	4.52 1	-6.89 2	-4.53 1	6.89 2
21.7235	21.8212	0.90	60.00	1.59 0	-7.20 2	-1.62 0	7.21 2
21.8042	21.8279	1.95	3.80	2.78 2	-8.35 2	-2.79 2	8.36 2
21.7655	21.8356	0.96	39.00	3.06 0	-7.89 2	-3.11 0	7.90 2
21.8062	21.8454	1.15	15.00	1.33 1	-7.41 2	-1.33 1	7.42 2
21.7180	21.8476	0.86	81.00	9.53-1	-5.90 2	-9.86-1	5.92 2
21.8281	21.8512	2.20	3.20	5.74 2	-1.07 3	-5.74 2	1.07 3
21.8243	21.8543	1.35	8.40	3.69 1	-6.94 2	-3.70 1	6.94 2
21.8329	21.8579	1.70	4.80	1.32 2	-7.20 2	-1.32 2	7.21 2
21.8366	21.8598	2.10	3.40	4.33 2	-9.59 2	-4.33 2	9.60 2
21.8197	21.8694	1.05	23.00	6.75 0	-7.78 2	-6.80 0	7.79 2
21.8084	21.8721	0.98	34.00	3.75 0	-7.93 2	-3.80 0	7.94 2
21.7634	21.8739	0.88	69.00	1.26 0	-6.71 2	-1.29 0	6.72 2
21.7899	21.8753	0.92	51.00	2.04 0	-7.59 2	-2.08 0	7.61 2
21.7915	21.8877	0.90	59.00	1.62 0	-7.26 2	-1.66 0	7.27 2
21.8583	21.8898	1.30	9.40	2.97 1	-7.01 2	-2.98 1	7.02 2
21.8539	21.8898	1.20	12.50	1.79 1	-7.25 2	-1.80 1	7.25 2
21.8324	21.8910	1.00	30.00	4.52 0	-7.92 2	-4.56 0	7.93 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
21.8186	21.8949	0.94	44.00	2.55 0	-7.80 2	-2.59 0	7.82 2
21.8720	21.8983	1.55	5.80	8.08 1	-6.92 2	-8.09 1	6.93 2
21.7730	21.9008	0.86	80.00	9.72-1	-5.98 2	-1.00 0	5.99 2
21.8789	21.9047	1.60	5.40	9.60 1	-6.99 2	-9.62 1	7.00 2
21.8960	21.9237	1.45	6.80	5.63 1	-6.87 2	-5.65 1	6.88 2
21.8867	21.9299	1.10	18.00	9.83 0	-7.59 2	-9.89 0	7.60 2
21.8243	21.9331	0.88	68.00	1.29 0	-6.77 2	-1.32 0	6.79 2
21.8708	21.9395	0.96	38.00	3.17 0	-7.91 2	-3.21 0	7.93 2
21.9238	21.9466	2.30	3.00	7.79 2	-1.21 3	-7.80 2	1.21 3
21.8692	21.9531	0.92	50.00	2.09 0	-7.64 2	-2.13 0	7.65 2
21.8283	21.9543	0.86	79.00	9.91-1	-6.05 2	-1.02 0	6.07 2
21.8606	21.9553	0.90	58.00	1.66 0	-7.31 2	-1.70 0	7.33 2
21.9322	21.9559	1.90	3.90	2.48 2	-8.12 2	-2.48 2	8.12 2
21.9465	21.9698	2.00	3.60	3.33 2	-8.80 2	-3.34 2	8.81 2
21.9455	21.9722	1.50	6.20	6.87 1	-6.89 2	-6.88 1	6.89 2
21.9109	21.9858	0.94	43.00	2.63 0	-7.84 2	-2.67 0	7.85 2
21.9587	21.9872	1.40	7.40	4.69 1	-6.89 2	-4.71 1	6.90 2
21.8858	21.9931	0.88	67.00	1.31 0	-6.84 2	-1.35 0	6.86 2
21.9317	21.9939	0.98	33.00	3.89 0	-7.95 2	-3.94 0	7.96 2
21.9736	21.9987	1.65	5.00	1.16 2	-7.11 2	-1.16 2	7.11 2
21.9714	22.0011	1.35	8.20	3.82 1	-6.94 2	-3.83 1	6.95 2
21.8842	22.0084	0.86	78.00	1.01 0	-6.13 2	-1.04 0	6.15 2
21.9759	22.0143	1.15	14.50	1.38 1	-7.40 2	-1.39 1	7.41 2
21.9841	22.0152	1.30	9.20	3.06 1	-7.01 2	-3.07 1	7.02 2
21.9835	22.0164	1.25	10.50	2.40 1	-7.11 2	-2.41 1	7.12 2
21.9310	22.0241	0.90	57.00	1.70 0	-7.37 2	-1.74 0	7.38 2
21.9755	22.0326	1.00	29.00	4.71 0	-7.93 2	-4.76 0	7.94 2
21.9502	22.0327	0.92	49.00	2.15 0	-7.68 2	-2.19 0	7.70 2
21.9795	22.0467	0.96	37.00	3.27 0	-7.94 2	-3.32 0	7.95 2
21.9482	22.0539	0.88	66.00	1.34 0	-6.91 2	-1.38 0	6.92 2
21.9099	22.0550	0.84	90.00	7.70-1	-5.24 2	-8.02-1	5.26 2
21.9405	22.0629	0.86	77.00	1.03 0	-6.21 2	-1.07 0	6.22 2
21.9627	22.1059	0.84	89.00	7.86-1	-5.33 2	-8.17-1	5.34 2
21.9972	22.1179	0.86	76.00	1.05 0	-6.28 2	-1.09 0	6.30 2
22.00	22.80						
22.0396	22.0629	1.95	3.70	2.95 2	-8.49 2	-2.95 2	8.50 2
22.0206	22.0630	1.10	17.50	1.02 1	-7.58 2	-1.02 1	7.59 2
22.0184	22.0666	1.05	22.00	7.13 0	-7.77 2	-7.19 0	7.78 2
22.0490	22.0717	2.50	2.70	2.94 3	-3.34 3	-2.94 3	3.34 3
22.0058	22.0793	0.94	42.00	2.70 0	-7.87 2	-2.75 0	7.89 2
22.0650	22.0889	1.80	4.20	1.89 2	-7.64 2	-1.90 2	7.65 2
22.0025	22.0942	0.90	56.00	1.74 0	-7.42 2	-1.78 0	7.44 2
22.0710	22.1059	1.20	12.00	1.89 1	-7.24 2	-1.90 1	7.24 2
22.0862	22.1099	1.85	4.00	2.21 2	-7.89 2	-2.21 2	7.90 2
22.0330	22.1141	0.92	48.00	2.21 0	-7.73 2	-2.25 0	7.74 2
22.0114	22.1155	0.88	65.00	1.37 0	-6.97 2	-1.41 0	6.99 2
22.0925	22.1167	1.75	4.40	1.63 2	-7.45 2	-1.64 2	7.46 2
22.0597	22.1205	0.98	32.00	4.04 0	-7.96 2	-4.09 0	7.97 2
22.0952	22.1224	1.45	6.60	5.89 1	-6.88 2	-5.90 1	6.89 2
22.1178	22.1407	2.10	3.30	4.68 2	-9.89 2	-4.68 2	9.90 2
22.1140	22.1447	1.30	9.00	3.16 1	-7.01 2	-3.16 1	7.02 2
22.1234	22.1492	1.55	5.60	8.54 1	-6.95 2	-8.55 1	6.96 2
22.1240	22.1532	1.35	8.00	3.95 1	-6.94 2	-3.96 1	6.95 2
22.1309	22.1534	2.40	2.80	1.02 3	-1.32 3	-1.02 3	1.32 3
22.0159	22.1570	0.84	88.00	8.01-1	-5.41 2	-8.32-1	5.42 2
22.0918	22.1576	0.96	36.00	3.39 0	-7.96 2	-3.43 0	7.98 2
22.1382	22.1609	2.20	3.10	6.25 2	-1.10 3	-6.26 2	1.10 3
22.1353	22.1633	1.40	7.20	4.88 1	-6.90 2	-4.90 1	6.91 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
22.0754	22.1656	0.90	55.00	1.79 0	-7.48 2	-1.82 0	7.49 2
22.0546	22.1735	0.86	75.00	1.07 0	-6.35 2	-1.11 0	6.37 2
22.1034	22.1754	0.94	41.00	2.79 0	-7.91 2	-2.83 0	7.92 2
22.0754	22.1780	0.88	64.00	1.40 0	-7.04 2	-1.44 0	7.05 2
22.1250	22.1807	1.00	28.00	4.92 0	-7.94 2	-4.96 0	7.95 2
22.1586	22.1820	1.90	3.80	2.62 2	-8.23 2	-2.62 2	8.23 2
22.1587	22.1839	1.60	5.20	1.02 2	-7.03 2	-1.02 2	7.04 2
22.1672	22.1916	1.70	4.60	1.42 2	-7.29 2	-1.42 2	7.30 2
22.1541	22.1916	1.15	14.00	1.45 1	-7.39 2	-1.45 1	7.40 2
22.1178	22.1974	0.92	47.00	2.27 0	-7.77 2	-2.31 0	7.78 2
22.1736	22.1999	1.50	6.00	7.22 1	-6.91 2	-7.24 1	6.91 2
22.1598	22.2014	1.10	17.00	1.06 1	-7.57 2	-1.06 1	7.58 2
22.0693	22.2084	0.84	87.00	8.17-1	-5.49 2	-8.48-1	5.51 2
22.2035	22.2265	2.00	3.50	3.55 2	-8.98 2	-3.56 2	8.99 2
22.1124	22.2297	0.86	74.00	1.10 0	-6.43 2	-1.13 0	6.44 2
22.1496	22.2383	0.90	54.00	1.83 0	-7.53 2	-1.87 0	7.54 2
22.1404	22.2414	0.88	63.00	1.43 0	-7.10 2	-1.47 0	7.11 2
22.1929	22.2522	0.98	31.00	4.21 0	-7.98 2	-4.25 0	7.99 2
22.1229	22.2601	0.84	86.00	8.33-1	-5.57 2	-8.64-1	5.59 2
22.2079	22.2723	0.96	35.00	3.51 0	-7.99 2	-3.55 0	8.00 2
22.2038	22.2744	0.94	40.00	2.88 0	-7.94 2	-2.92 0	7.95 2
22.2294	22.2761	1.05	21.00	7.55 0	-7.77 2	-7.61 0	7.78 2
22.2483	22.2785	1.30	8.80	3.25 1	-7.01 2	-3.26 1	7.01 2
22.2046	22.2828	0.92	46.00	2.33 0	-7.81 2	-2.37 0	7.82 2
22.1709	22.2864	0.86	73.00	1.12 0	-6.50 2	-1.15 0	6.52 2
22.2691	22.2915	2.30	2.90	8.53 2	-1.25 3	-8.54 2	1.25 3
22.2600	22.2920	1.25	10.00	2.57 1	-7.10 2	-2.58 1	7.11 2
22.2063	22.3057	0.88	62.00	1.47 0	-7.16 2	-1.50 0	7.18 2
22.2860	22.3091	1.95	3.60	3.13 2	-8.65 2	-3.14 2	8.66 2
22.2824	22.3113	1.35	7.80	4.10 1	-6.94 2	-4.11 1	6.95 2
22.1769	22.3122	0.84	85.00	8.50-1	-5.65 2	-8.81-1	5.67 2
22.2252	22.3125	0.90	53.00	1.88 0	-7.58 2	-1.91 0	7.59 2
22.2884	22.3129	1.65	4.80	1.24 2	-7.17 2	-1.24 2	7.18 2
22.3044	22.3277	1.85	3.90	2.33 2	-8.00 2	-2.33 2	8.00 2
22.3039	22.3307	1.45	6.40	6.17 1	-6.90 2	-6.18 1	6.90 2
22.3014	22.3354	1.20	11.50	2.00 1	-7.23 2	-2.01 1	7.23 2
22.2815	22.3358	1.00	27.00	5.14 0	-7.94 2	-5.19 0	7.95 2
22.2299	22.3438	0.86	72.00	1.14 0	-6.57 2	-1.18 0	6.59 2
22.3048	22.3456	1.10	16.50	1.10 1	-7.57 2	-1.10 1	7.57 2
22.3194	22.3471	1.40	7.00	5.09 1	-6.91 2	-5.10 1	6.91 2
22.2312	22.3646	0.84	84.00	8.67-1	-5.73 2	-8.98-1	5.75 2
22.2935	22.3702	0.92	45.00	2.40 0	-7.85 2	-2.44 0	7.86 2
22.2732	22.3711	0.88	61.00	1.50 0	-7.22 2	-1.54 0	7.24 2
22.3071	22.3763	0.94	39.00	2.97 0	-7.97 2	-3.01 0	7.98 2
22.3414	22.3781	1.15	13.50	1.52 1	-7.38 2	-1.52 1	7.39 2
22.3024	22.3881	0.90	52.00	1.92 0	-7.63 2	-1.96 0	7.64 2
22.3315	22.3894	0.98	30.00	4.38 0	-7.99 2	-4.42 0	8.00 2
22.3282	22.3911	0.96	34.00	3.64 0	-8.01 2	-3.68 0	8.02 2
22.2896	22.4018	0.86	71.00	1.17 0	-6.64 2	-1.20 0	6.66 2
22.3764	22.4080	1.25	9.80	2.64 1	-7.10 2	-2.65 1	7.11 2
22.3894	22.4146	1.55	5.40	9.05 1	-6.99 2	-9.07 1	6.99 2
22.3871	22.4170	1.30	8.60	3.36 1	-7.01 2	-3.37 1	7.01 2
22.2859	22.4174	0.84	83.00	8.84-1	-5.81 2	-9.15-1	5.83 2
22.3953	22.4184	1.90	3.70	2.77 2	-8.35 2	-2.77 2	8.36 2
22.4141	22.4366	2.10	3.20	5.07 2	-1.02 3	-5.08 2	1.02 3
22.3411	22.4375	0.88	60.00	1.54 0	-7.28 2	-1.57 0	7.30 2
22.4138	22.4397	1.50	5.80	7.61 1	-6.93 2	-7.63 1	6.94 2
22.3846	22.4600	0.92	44.00	2.47 0	-7.89 2	-2.51 0	7.90 2
22.3499	22.4605	0.86	70.00	1.19 0	-6.71 2	-1.22 0	6.73 2
22.3811	22.4654	0.90	51.00	1.97 0	-7.68 2	-2.01 0	7.69 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
22.3409	22.4706	0.84	82.00	9.02-1	-5.89 2	-9.33-1	5.91 2
22.4471	22.4755	1.35	7.60	4.25 1	-6.95 2	-4.26 1	6.95 2
22.4562	22.4808	1.60	5.00	1.09 2	-7.09 2	-1.09 2	7.09 2
22.4137	22.4815	0.94	38.00	3.07 0	-7.99 2	-3.11 0	8.01 2
22.4616	22.4838	2.50	2.60	-9.43 3	1.01 4	9.44 3	-1.01 4
22.4664	22.4887	2.20	3.00	6.96 2	-1.17 3	-6.97 2	1.17 3
22.4560	22.4959	1.10	16.00	1.14 1	-7.56 2	-1.15 1	7.57 2
22.4734	22.4961	2.00	3.40	3.80 2	-9.17 2	-3.80 2	9.18 2
22.4457	22.4985	1.00	26.00	5.39 0	-7.95 2	-5.43 0	7.96 2
22.4544	22.4995	1.05	20.00	8.03 0	-7.76 2	-8.08 0	7.77 2
22.4764	22.5000	1.75	4.20	1.78 2	-7.57 2	-1.78 2	7.57 2
22.4777	22.5011	1.80	4.00	2.08 2	-7.80 2	-2.09 2	7.81 2
22.4101	22.5050	0.88	59.00	1.57 0	-7.34 2	-1.61 0	7.35 2
22.4529	22.5143	0.96	33.00	3.77 0	-8.02 2	-3.82 0	8.04 2
22.4109	22.5199	0.86	69.00	1.22 0	-6.78 2	-1.25 0	6.80 2
22.3964	22.5241	0.84	81.00	9.20-1	-5.97 2	-9.51-1	5.99 2
22.4962	22.5274	1.25	9.60	2.71 1	-7.10 2	-2.72 1	7.10 2
22.4761	22.5326	0.98	29.00	4.57 0	-8.00 2	-4.61 0	8.01 2
22.5118	22.5390	1.40	6.80	5.31 1	-6.92 2	-5.32 1	6.92 2
22.5194	22.5415	2.40	2.70	1.45 3	-1.76 3	-1.45 3	1.77 3
22.4614	22.5443	0.90	50.00	2.03 0	-7.72 2	-2.06 0	7.74 2
22.5229	22.5492	1.45	6.20	6.47 1	-6.92 2	-6.49 1	6.92 2
22.5260	22.5498	1.70	4.40	1.54 2	-7.40 2	-1.54 2	7.40 2
22.4782	22.5521	0.92	43.00	2.54 0	-7.92 2	-2.58 0	7.94 2
22.5321	22.5552	1.85	3.80	2.46 2	-8.10 2	-2.46 2	8.10 2
22.5309	22.5603	1.30	8.40	3.47 1	-7.01 2	-3.48 1	7.01 2
22.5444	22.5671	1.95	3.50	3.34 2	-8.82 2	-3.34 2	8.83 2
22.4802	22.5736	0.88	58.00	1.61 0	-7.40 2	-1.64 0	7.41 2
22.5388	22.5747	1.15	13.00	1.59 1	-7.37 2	-1.60 1	7.38 2
22.4522	22.5782	0.84	80.00	9.38-1	-6.05 2	-9.69-1	6.07 2
22.5467	22.5798	1.20	11.00	2.12 1	-7.22 2	-2.13 1	7.22 2
22.4727	22.5801	0.86	68.00	1.24 0	-6.85 2	-1.28 0	6.87 2
22.5236	22.5900	0.94	37.00	3.17 0	-8.02 2	-3.21 0	8.03 2
22.5726	22.6170	1.05	19.50	8.28 0	-7.76 2	-8.34 0	7.76 2
22.5435	22.6250	0.90	49.00	2.08 0	-7.77 2	-2.12 0	7.78 2
22.5084	22.6326	0.84	79.00	9.57-1	-6.13 2	-9.88-1	6.14 2
22.5352	22.6410	0.86	67.00	1.27 0	-6.92 2	-1.30 0	6.94 2
22.5823	22.6424	0.96	32.00	3.92 0	-8.04 2	-3.96 0	8.05 2
22.5515	22.6434	0.88	57.00	1.65 0	-7.45 2	-1.68 0	7.47 2
22.6185	22.6464	1.35	7.40	4.42 1	-6.95 2	-4.43 1	6.96 2
22.5743	22.6468	0.92	42.00	2.62 0	-7.96 2	-2.66 0	7.97 2
22.6251	22.6491	1.65	4.60	1.34 2	-7.26 2	-1.34 2	7.26 2
22.6198	22.6506	1.25	9.40	2.79 1	-7.10 2	-2.80 1	7.10 2
22.6138	22.6529	1.10	15.50	1.19 1	-7.55 2	-1.19 1	7.56 2
22.6362	22.6583	2.30	2.80	9.83 2	-1.36 3	-9.84 2	1.37 3
22.6431	22.6659	1.90	3.60	2.94 2	-8.50 2	-2.94 2	8.51 2
22.6183	22.6696	1.00	25.00	5.65 0	-7.95 2	-5.70 0	7.96 2
22.6272	22.6822	0.98	28.00	4.77 0	-8.01 2	-4.81 0	8.02 2
22.5652	22.6876	0.84	78.00	9.77-1	-6.20 2	-1.01 0	6.22 2
22.6675	22.6928	1.50	5.60	8.04 1	-6.96 2	-8.05 1	6.96 2
22.6714	22.6962	1.55	5.20	9.62 1	-7.03 2	-9.64 1	7.03 2
22.6372	22.7022	0.94	36.00	3.28 0	-8.05 2	-3.32 0	8.06 2
22.5985	22.7027	0.86	66.00	1.30 0	-6.99 2	-1.33 0	7.00 2
22.6275	22.7075	0.90	48.00	2.14 0	-7.81 2	-2.17 0	7.83 2
22.6798	22.7089	1.30	8.20	3.59 1	-7.01 2	-3.60 1	7.01 2
22.6241	22.7145	0.88	56.00	1.69 0	-7.51 2	-1.72 0	7.52 2
22.6972	22.7203	1.80	3.90	2.19 2	-7.90 2	-2.20 2	7.91 2
22.6951	22.7386	1.05	19.00	8.55 0	-7.75 2	-8.61 0	7.76 2
22.7130	22.7398	1.40	6.60	5.55 1	-6.93 2	-5.56 1	6.93 2
22.6224	22.7431	0.84	77.00	9.97-1	-6.28 2	-1.03 0	6.30 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
22.6730	22.7441	0.92	41.00	2.70 0	-7.99 2	-2.74 0	8.00 2
22.7270	22.7492	2.10	3.10	5.52 2	-1.06 3	-5.53 2	1.06 3
22.6626	22.7653	0.86	65.00	1.33 0	-7.05 2	-1.36 0	7.07 2
22.6254	22.7685	0.82	90.00	7.43-1	-5.31 2	-7.73-1	5.33 2
22.7169	22.7756	0.96	31.00	4.08 0	-8.06 2	-4.12 0	8.07 2
22.7473	22.7778	1.25	9.20	2.87 1	-7.09 2	-2.88 1	7.10 2
22.7532	22.7790	1.45	6.00	6.80 1	-6.93 2	-6.82 1	6.94 2
22.7573	22.7796	2.00	3.30	4.09 2	-9.41 2	-4.09 2	9.42 2
22.7473	22.7822	1.15	12.50	1.67 1	-7.36 2	-1.68 1	7.37 2
22.6980	22.7869	0.88	55.00	1.73 0	-7.56 2	-1.76 0	7.58 2
22.7133	22.7919	0.90	47.00	2.19 0	-7.86 2	-2.23 0	7.87 2
22.7702	22.7929	1.85	3.70	2.60 2	-8.21 2	-2.60 2	8.22 2
22.7733	22.7975	1.60	4.80	1.17 2	-7.15 2	-1.17 2	7.15 2
22.6800	22.7990	0.84	76.00	1.02 0	-6.36 2	-1.05 0	6.37 2
22.7789	22.8172	1.10	15.00	1.24 1	-7.54 2	-1.24 1	7.55 2
22.7547	22.8182	0.94	35.00	3.40 0	-8.07 2	-3.44 0	8.08 2
22.6792	22.8203	0.82	89.00	7.58-1	-5.39 2	-7.87-1	5.41 2
22.7970	22.8245	1.35	7.20	4.59 1	-6.96 2	-4.61 1	6.96 2
22.7276	22.8287	0.86	64.00	1.36 0	-7.12 2	-1.39 0	7.13 2
22.7854	22.8389	0.98	27.00	4.99 0	-8.02 2	-5.03 0	8.03 2
22.7746	22.8443	0.92	40.00	2.78 0	-8.02 2	-2.82 0	8.03 2
22.7383	22.8555	0.84	75.00	1.04 0	-6.43 2	-1.07 0	6.45 2
22.7732	22.8607	0.88	54.00	1.77 0	-7.62 2	-1.80 0	7.63 2
22.7332	22.8723	0.82	88.00	7.73-1	-5.48 2	-8.02-1	5.49 2
22.7935	22.8931	0.86	63.00	1.39 0	-7.18 2	-1.42 0	7.20 2
22.7970	22.9126	0.84	74.00	1.06 0	-6.51 2	-1.09 0	6.52 2
22.7875	22.9246	0.82	87.00	7.88-1	-5.56 2	-8.18-1	5.57 2
22.80	23.60						
22.8145	22.8365	2.20	2.90	7.68 2	-1.22 3	-7.69 2	1.22 3
22.8157	22.8381	1.95	3.40	3.56 2	-9.00 2	-3.57 2	9.00 2
22.8086	22.8407	1.20	10.50	2.25 1	-7.21 2	-2.26 1	7.21 2
22.8001	22.8500	1.00	24.00	5.94 0	-7.95 2	-5.99 0	7.96 2
22.8343	22.8629	1.30	8.00	3.72 1	-7.01 2	-3.72 1	7.02 2
22.8219	22.8647	1.05	18.50	8.84 0	-7.75 2	-8.89 0	7.75 2
22.8013	22.8784	0.90	46.00	2.26 0	-7.90 2	-2.29 0	7.91 2
22.8790	22.9090	1.25	9.00	2.96 1	-7.09 2	-2.97 1	7.10 2
22.8571	22.9143	0.96	30.00	4.24 0	-8.07 2	-4.29 0	8.08 2
22.8918	22.9148	1.75	4.00	1.96 2	-7.71 2	-1.96 2	7.72 2
22.9029	22.9253	1.90	3.50	3.13 2	-8.65 2	-3.13 2	8.66 2
22.9125	22.9357	1.70	4.20	1.68 2	-7.50 2	-1.68 2	7.51 2
22.8499	22.9359	0.88	53.00	1.81 0	-7.67 2	-1.85 0	7.68 2
22.8764	22.9385	0.94	34.00	3.52 0	-8.09 2	-3.56 0	8.10 2
22.8793	22.9476	0.92	39.00	2.87 0	-8.05 2	-2.91 0	8.06 2
22.9263	22.9491	1.80	3.80	2.31 2	-7.99 2	-2.31 2	8.00 2
22.9239	22.9501	1.40	6.40	5.81 1	-6.94 2	-5.82 1	6.94 2
22.9347	22.9565	2.40	2.60	1.33 3	-1.52 3	-1.33 3	1.52 3
22.8604	22.9585	0.86	62.00	1.42 0	-7.25 2	-1.45 0	7.26 2
22.9358	22.9606	1.50	5.40	8.52 1	-6.99 2	-8.53 1	6.99 2
22.8913	22.9671	0.90	45.00	2.32 0	-7.94 2	-2.36 0	7.95 2
22.8564	22.9703	0.84	73.00	1.08 0	-6.58 2	-1.11 0	6.60 2
22.8421	22.9773	0.82	86.00	8.04-1	-5.64 2	-8.33-1	5.66 2
22.9518	22.9892	1.10	14.50	1.29 1	-7.53 2	-1.30 1	7.54 2
22.9535	22.9955	1.05	18.00	9.15 0	-7.74 2	-9.20 0	7.75 2
22.9713	22.9956	1.55	5.00	1.03 2	-7.07 2	-1.03 2	7.08 2
22.9679	23.0020	1.15	12.00	1.77 1	-7.35 2	-1.77 1	7.36 2
22.9512	23.0034	0.98	26.00	5.22 0	-8.02 2	-5.27 0	8.03 2
22.9864	23.0098	1.65	4.40	1.45 2	-7.35 2	-1.45 2	7.35 2
22.9832	23.0103	1.35	7.00	4.79 1	-6.96 2	-4.80 1	6.97 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
22.9281	23.0127	0.88	52.00	1.86 0	-7.72 2	-1.89 0	7.73 2
22.9957	23.0211	1.45	5.80	7.17 1	-6.95 2	-7.18 1	6.96 2
22.9946	23.0229	1.30	7.80	3.85 1	-7.01 2	-3.86 1	7.02 2
22.9283	23.0248	0.86	61.00	1.45 0	-7.31 2	-1.48 0	7.32 2
22.9164	23.0286	0.84	72.00	1.10 0	-6.65 2	-1.13 0	6.67 2
22.8970	23.0303	0.82	85.00	8.20-1	-5.72 2	-8.49-1	5.74 2
22.9922	23.0405	1.00	23.00	6.26 0	-7.95 2	-6.31 0	7.96 2
23.0193	23.0418	1.85	3.60	2.75 2	-8.34 2	-2.75 2	8.35 2
23.0150	23.0447	1.25	8.80	3.05 1	-7.09 2	-3.06 1	7.10 2
23.0276	23.0493	2.30	2.70	1.30 3	-1.70 3	-1.30 3	1.70 3
22.9871	23.0540	0.92	38.00	2.97 0	-8.08 2	-3.01 0	8.09 2
22.9837	23.0580	0.90	44.00	2.39 0	-7.97 2	-2.42 0	7.99 2
23.0032	23.0590	0.96	29.00	4.42 0	-8.08 2	-4.47 0	8.09 2
23.0025	23.0632	0.94	33.00	3.65 0	-8.11 2	-3.69 0	8.12 2
23.0565	23.0784	2.00	3.20	4.42 2	-9.69 2	-4.42 2	9.69 2
23.0580	23.0799	2.10	3.00	6.13 2	-1.11 3	-6.13 2	1.11 3
22.9522	23.0836	0.82	84.00	8.36-1	-5.81 2	-8.66-1	5.82 2
22.9770	23.0876	0.84	71.00	1.13 0	-6.73 2	-1.16 0	6.74 2
23.0079	23.0911	0.88	51.00	1.91 0	-7.77 2	-1.94 0	7.78 2
22.9972	23.0922	0.86	60.00	1.48 0	-7.37 2	-1.52 0	7.38 2
23.0892	23.1204	1.20	10.00	2.40 1	-7.20 2	-2.41 1	7.21 2
23.1010	23.1230	1.95	3.30	3.83 2	-9.22 2	-3.83 2	9.23 2
23.0901	23.1314	1.05	17.50	9.47 0	-7.73 2	-9.53 0	7.74 2
23.1126	23.1354	1.75	3.90	2.06 2	-7.80 2	-2.06 2	7.81 2
23.1125	23.1362	1.60	4.60	1.26 2	-7.22 2	-1.26 2	7.23 2
23.0078	23.1374	0.82	83.00	8.53-1	-5.89 2	-8.82-1	5.90 2
23.0382	23.1473	0.84	70.00	1.15 0	-6.80 2	-1.18 0	6.81 2
23.0784	23.1514	0.90	43.00	2.46 0	-8.01 2	-2.49 0	8.02 2
23.0672	23.1607	0.86	59.00	1.52 0	-7.43 2	-1.55 0	7.44 2
23.0984	23.1639	0.92	37.00	3.07 0	-8.11 2	-3.11 0	8.12 2
23.1332	23.1698	1.10	14.00	1.35 1	-7.52 2	-1.36 1	7.53 2
23.1451	23.1709	1.40	6.20	6.09 1	-6.95 2	-6.10 1	6.96 2
23.0893	23.1711	0.88	50.00	1.96 0	-7.81 2	-1.99 0	7.83 2
23.1256	23.1762	0.98	25.00	5.48 0	-8.03 2	-5.52 0	8.04 2
23.1557	23.1849	1.25	8.60	3.15 1	-7.09 2	-3.16 1	7.09 2
23.1658	23.1882	1.80	3.70	2.44 2	-8.10 2	-2.44 2	8.11 2
23.1613	23.1891	1.30	7.60	3.99 1	-7.01 2	-4.00 1	7.02 2
23.0638	23.1915	0.82	82.00	8.70-1	-5.97 2	-8.99-1	5.98 2
23.1334	23.1927	0.94	32.00	3.80 0	-8.12 2	-3.84 0	8.14 2
23.1756	23.1977	1.90	3.40	3.34 2	-8.82 2	-3.34 2	8.82 2
23.1776	23.2043	1.35	6.80	4.99 1	-6.97 2	-5.00 1	6.97 2
23.1845	23.2061	2.20	2.80	8.85 2	-1.33 3	-8.86 2	1.33 3
23.1002	23.2077	0.84	69.00	1.18 0	-6.87 2	-1.21 0	6.88 2
23.1559	23.2103	0.96	28.00	4.62 0	-8.09 2	-4.66 0	8.10 2
23.1383	23.2304	0.86	58.00	1.55 0	-7.49 2	-1.59 0	7.50 2
23.2020	23.2352	1.15	11.50	1.87 1	-7.34 2	-1.87 1	7.35 2
23.2072	23.2381	1.20	9.80	2.47 1	-7.20 2	-2.48 1	7.20 2
23.1955	23.2424	1.00	22.00	6.62 0	-7.95 2	-6.66 0	7.96 2
23.2203	23.2446	1.50	5.20	9.05 1	-7.02 2	-9.06 1	7.03 2
23.1201	23.2460	0.82	81.00	8.88-1	-6.05 2	-9.17-1	6.06 2
23.1757	23.2473	0.90	42.00	2.53 0	-8.05 2	-2.57 0	8.06 2
23.1726	23.2529	0.88	49.00	2.01 0	-7.86 2	-2.04 0	7.87 2
23.1629	23.2688	0.84	68.00	1.20 0	-6.94 2	-1.23 0	6.95 2
23.2322	23.2727	1.05	17.00	9.82 0	-7.72 2	-9.88 0	7.73 2
23.2517	23.2766	1.45	5.60	7.57 1	-6.98 2	-7.58 1	6.98 2
23.2133	23.2774	0.92	36.00	3.17 0	-8.13 2	-3.21 0	8.14 2
23.1768	23.3010	0.82	80.00	9.05-1	-6.13 2	-9.34-1	6.14 2
23.2107	23.3013	0.86	57.00	1.59 0	-7.54 2	-1.62 0	7.56 2
23.2805	23.3026	1.85	3.50	2.92 2	-8.48 2	-2.93 2	8.49 2
23.2910	23.3147	1.55	4.80	1.10 2	-7.13 2	-1.10 2	7.13 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
23.2695	23.3274	0.94	31.00	3.95 0	-8.14 2	-3.99 0	8.15 2
23.3013	23.3301	1.25	8.40	3.25 1	-7.09 2	-3.26 1	7.09 2
23.2264	23.3307	0.84	67.00	1.23 0	-7.01 2	-1.26 0	7.02 2
23.2576	23.3365	0.88	48.00	2.06 0	-7.90 2	-2.10 0	7.92 2
23.2757	23.3459	0.90	41.00	2.61 0	-8.08 2	-2.65 0	8.09 2
23.3305	23.3532	1.70	4.00	1.84 2	-7.63 2	-1.84 2	7.64 2
23.2340	23.3564	0.82	79.00	9.24-1	-6.21 2	-9.53-1	6.22 2
23.3092	23.3584	0.98	24.00	5.76 0	-8.03 2	-5.81 0	8.04 2
23.3288	23.3593	1.20	9.60	2.54 1	-7.19 2	-2.55 1	7.20 2
23.3239	23.3597	1.10	13.50	1.41 1	-7.51 2	-1.42 1	7.52 2
23.3346	23.3620	1.30	7.40	4.15 1	-7.02 2	-4.16 1	7.02 2
23.3431	23.3656	1.75	3.80	2.16 2	-7.89 2	-2.17 2	7.89 2
23.3158	23.3687	0.96	27.00	4.83 0	-8.10 2	-4.87 0	8.11 2
23.2843	23.3734	0.86	56.00	1.63 0	-7.60 2	-1.66 0	7.61 2
23.2907	23.3934	0.84	66.00	1.25 0	-7.07 2	-1.28 0	7.09 2
23.3723	23.3939	2.00	3.10	4.79 2	-9.98 2	-4.79 2	9.99 2
23.3322	23.3949	0.92	35.00	3.29 0	-8.15 2	-3.33 0	8.17 2
23.3755	23.3984	1.65	4.20	1.57 2	-7.44 2	-1.58 2	7.45 2
23.3802	23.4014	2.40	2.50	4.51 2	-4.82 2	-4.51 2	4.83 2
23.3776	23.4030	1.40	6.00	6.40 1	-6.97 2	-6.41 1	6.98 2
23.3810	23.4072	1.35	6.60	5.21 1	-6.98 2	-5.23 1	6.98 2
23.2917	23.4123	0.82	78.00	9.42-1	-6.28 2	-9.71-1	6.30 2
23.3801	23.4198	1.05	16.50	1.02 1	-7.72 2	-1.03 1	7.72 2
23.3446	23.4222	0.88	47.00	2.12 0	-7.95 2	-2.16 0	7.96 2
23.4016	23.4233	1.95	3.20	4.13 2	-9.48 2	-4.14 2	9.48 2
23.4091	23.4305	2.10	2.90	6.78 2	-1.17 3	-6.79 2	1.17 3
23.4164	23.4385	1.80	3.60	2.58 2	-8.22 2	-2.59 2	8.23 2
23.3592	23.4469	0.86	55.00	1.67 0	-7.65 2	-1.70 0	7.67 2
23.3786	23.4474	0.90	40.00	2.69 0	-8.11 2	-2.73 0	8.12 2
23.4115	23.4569	1.00	21.00	7.01 0	-7.94 2	-7.05 0	7.95 2
23.3558	23.4570	0.84	65.00	1.28 0	-7.14 2	-1.31 0	7.16 2
23.4460	23.4673	2.30	2.60	1.38 3	-1.70 3	-1.38 3	1.70 3
23.4112	23.4677	0.94	30.00	4.11 0	-8.15 2	-4.15 0	8.16 2
23.3498	23.4687	0.82	77.00	9.62-1	-6.36 2	-9.91-1	6.38 2
23.4521	23.4806	1.25	8.20	3.36 1	-7.09 2	-3.37 1	7.09 2
23.4512	23.4835	1.15	11.00	1.98 1	-7.33 2	-1.99 1	7.33 2
23.4624	23.4841	1.90	3.30	3.58 2	-9.02 2	-3.58 2	9.02 2
23.4541	23.4842	1.20	9.40	2.61 1	-7.19 2	-2.62 1	7.20 2
23.4765	23.4995	1.60	4.40	1.36 2	-7.30 2	-1.36 2	7.31 2
23.4337	23.5098	0.88	46.00	2.18 0	-7.99 2	-2.21 0	8.00 2
23.4553	23.5166	0.92	34.00	3.41 0	-8.18 2	-3.45 0	8.19 2
23.4218	23.5214	0.84	64.00	1.31 0	-7.21 2	-1.34 0	7.22 2
23.4355	23.5218	0.86	54.00	1.71 0	-7.71 2	-1.74 0	7.72 2
23.4084	23.5256	0.82	76.00	9.81-1	-6.44 2	-1.01 0	6.45 2
23.3907	23.5315	0.80	90.00	7.17-1	-5.38 2	-7.44-1	5.40 2
23.4834	23.5348	0.96	26.00	5.06 0	-8.10 2	-5.10 0	8.11 2
23.5152	23.5422	1.30	7.20	4.31 1	-7.02 2	-4.32 1	7.03 2
23.5226	23.5464	1.50	5.00	9.64 1	-7.06 2	-9.66 1	7.07 2
23.5224	23.5468	1.45	5.40	8.01 1	-7.00 2	-8.03 1	7.01 2
23.5031	23.5509	0.98	23.00	6.07 0	-8.03 2	-6.12 0	8.03 2
23.4846	23.5519	0.90	39.00	2.78 0	-8.14 2	-2.82 0	8.15 2
23.5248	23.5597	1.10	13.00	1.48 1	-7.50 2	-1.49 1	7.51 2
23.5343	23.5732	1.05	16.00	1.06 1	-7.71 2	-1.07 1	7.72 2
23.5528	23.5752	1.70	3.90	1.93 2	-7.71 2	-1.93 2	7.72 2
23.5547	23.5765	1.85	3.40	3.11 2	-8.62 2	-3.11 2	8.63 2
23.4676	23.5831	0.82	75.00	1.00 0	-6.52 2	-1.03 0	6.53 2
23.4454	23.5843	0.80	89.00	7.31-1	-5.47 2	-7.58-1	5.48 2
23.4887	23.5868	0.84	63.00	1.34 0	-7.27 2	-1.37 0	7.29 2
23.5133	23.5981	0.86	53.00	1.75 0	-7.76 2	-1.78 0	7.77 2
23.5250	23.5997	0.88	45.00	2.24 0	-8.03 2	-2.28 0	8.04 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
23.5790	23.6002	2.20	2.70	1.11 3	-1.56 3	-1.11 3	1.57 3
23.5840	23.6061	1.75	3.70	2.28 2	-7.98 2	-2.29 2	7.99 2
23.5834	23.6131	1.20	9.20	2.69 1	-7.19 2	-2.70 1	7.19 2
23.5590	23.6141	0.94	29.00	4.28 0	-8.16 2	-4.32 0	8.17 2
23.5940	23.6198	1.35	6.40	5.46 1	-6.99 2	-5.47 1	6.99 2
23.5003	23.6373	0.80	88.00	7.45-1	-5.55 2	-7.73-1	5.56 2
23.5273	23.6412	0.82	74.00	1.02 0	-6.59 2	-1.05 0	6.61 2
23.5829	23.6428	0.92	33.00	3.54 0	-8.19 2	-3.57 0	8.21 2
23.5566	23.6532	0.84	62.00	1.37 0	-7.34 2	-1.40 0	7.35 2
23.5937	23.6597	0.90	38.00	2.87 0	-8.17 2	-2.91 0	8.18 2
23.5926	23.6760	0.86	52.00	1.80 0	-7.81 2	-1.83 0	7.82 2
23.5556	23.6906	0.80	87.00	7.60-1	-5.63 2	-7.87-1	5.65 2
23.5876	23.6999	0.82	73.00	1.04 0	-6.67 2	-1.07 0	6.68 2
23.60	24.40						
23.6086	23.6366	1.25	8.00	3.48 1	-7.09 2	-3.49 1	7.09 2
23.6225	23.6474	1.40	5.80	6.74 1	-6.99 2	-6.75 1	6.99 2
23.6328	23.6560	1.55	4.60	1.18 2	-7.19 2	-1.18 2	7.20 2
23.6416	23.6855	1.00	20.00	7.44 0	-7.93 2	-7.49 0	7.94 2
23.6186	23.6919	0.88	44.00	2.31 0	-8.07 2	-2.34 0	8.08 2
23.6790	23.7008	1.80	3.50	2.74 2	-8.35 2	-2.74 2	8.35 2
23.6595	23.7095	0.96	25.00	5.31 0	-8.11 2	-5.35 0	8.11 2
23.6254	23.7206	0.84	61.00	1.40 0	-7.40 2	-1.43 0	7.41 2
23.7063	23.7276	2.00	3.00	5.27 2	-1.04 3	-5.27 2	1.04 3
23.7035	23.7300	1.30	7.00	4.49 1	-7.02 2	-4.50 1	7.03 2
23.6953	23.7333	1.05	15.50	1.10 1	-7.70 2	-1.11 1	7.71 2
23.7189	23.7403	1.95	3.10	4.47 2	-9.75 2	-4.48 2	9.75 2
23.6111	23.7442	0.80	86.00	7.75-1	-5.72 2	-8.02-1	5.73 2
23.7169	23.7462	1.20	9.00	2.77 1	-7.18 2	-2.78 1	7.19 2
23.7171	23.7486	1.15	10.50	2.10 1	-7.32 2	-2.11 1	7.32 2
23.7084	23.7547	0.98	22.00	6.41 0	-8.02 2	-6.46 0	8.03 2
23.6735	23.7555	0.86	51.00	1.84 0	-7.86 2	-1.88 0	7.87 2
23.6486	23.7592	0.82	72.00	1.06 0	-6.74 2	-1.09 0	6.76 2
23.7133	23.7670	0.94	28.00	4.47 0	-8.17 2	-4.51 0	8.18 2
23.7369	23.7709	1.10	12.50	1.56 1	-7.49 2	-1.57 1	7.50 2
23.7064	23.7710	0.90	37.00	2.97 0	-8.20 2	-3.00 0	8.21 2
23.7153	23.7738	0.92	32.00	3.67 0	-8.21 2	-3.71 0	8.22 2
23.7645	23.7859	1.90	3.20	3.85 2	-9.25 2	-3.86 2	9.25 2
23.7146	23.7865	0.88	43.00	2.38 0	-8.10 2	-2.41 0	8.12 2
23.6954	23.7891	0.84	60.00	1.43 0	-7.46 2	-1.46 0	7.47 2
23.6669	23.7981	0.80	85.00	7.91-1	-5.80 2	-8.18-1	5.82 2
23.7709	23.7985	1.25	7.80	3.61 1	-7.09 2	-3.62 1	7.09 2
23.7822	23.8033	2.10	2.80	7.74 2	-1.26 3	-7.74 2	1.26 3
23.7625	23.8056	1.00	19.50	7.68 0	-7.93 2	-7.72 0	7.94 2
23.7847	23.8068	1.70	3.80	2.03 2	-7.79 2	-2.03 2	7.79 2
23.7964	23.8187	1.65	4.00	1.72 2	-7.56 2	-1.73 2	7.57 2
23.7101	23.8191	0.82	71.00	1.09 0	-6.81 2	-1.12 0	6.83 2
23.8094	23.8333	1.45	5.20	8.51 1	-7.04 2	-8.52 1	7.04 2
23.7561	23.8367	0.86	50.00	1.89 0	-7.91 2	-1.92 0	7.92 2
23.8175	23.8429	1.35	6.20	5.72 1	-7.00 2	-5.73 1	7.01 2
23.7231	23.8525	0.80	84.00	8.06-1	-5.88 2	-8.34-1	5.90 2
23.8361	23.8579	1.75	3.60	2.41 2	-8.09 2	-2.42 2	8.09 2
23.7664	23.8586	0.84	59.00	1.46 0	-7.52 2	-1.50 0	7.53 2
23.8430	23.8644	1.85	3.30	3.33 2	-8.81 2	-3.34 2	8.81 2
23.8449	23.8682	1.50	4.80	1.03 2	-7.11 2	-1.03 2	7.12 2
23.7724	23.8798	0.82	70.00	1.11 0	-6.89 2	-1.14 0	6.90 2
23.8131	23.8837	0.88	42.00	2.45 0	-8.14 2	-2.48 0	8.15 2
23.8548	23.8837	1.20	8.80	2.86 1	-7.18 2	-2.86 1	7.19 2
23.8227	23.8860	0.90	36.00	3.07 0	-8.22 2	-3.11 0	8.23 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
23.8684	23.8909	1.60	4.20	1.48 2	-7.39 2	-1.48 2	7.39 2
23.8450	23.8936	0.96	24.00	5.58 0	-8.11 2	-5.62 0	8.12 2
23.8636	23.9008	1.05	15.00	1.15 1	-7.69 2	-1.15 1	7.70 2
23.8808	23.9053	1.40	5.60	7.11 1	-7.01 2	-7.12 1	7.01 2
23.7796	23.9072	0.80	83.00	8.22-1	-5.97 2	-8.50-1	5.98 2
23.8530	23.9101	0.92	31.00	3.82 0	-8.23 2	-3.86 0	8.24 2
23.8945	23.9154	2.30	2.50	9.98 2	-1.15 3	-9.99 2	1.15 3
23.8405	23.9197	0.86	49.00	1.94 0	-7.95 2	-1.97 0	7.97 2
23.9001	23.9262	1.30	6.80	4.68 1	-7.03 2	-4.69 1	7.03 2
23.8749	23.9271	0.94	27.00	4.68 0	-8.18 2	-4.72 0	8.19 2
23.8386	23.9294	0.84	58.00	1.50 0	-7.58 2	-1.53 0	7.59 2
23.8877	23.9300	1.00	19.00	7.93 0	-7.92 2	-7.98 0	7.93 2
23.8353	23.9412	0.82	69.00	1.13 0	-6.96 2	-1.16 0	6.97 2
23.8365	23.9622	0.80	82.00	8.39-1	-6.05 2	-8.66-1	6.06 2
23.9396	23.9668	1.25	7.60	3.74 1	-7.09 2	-3.75 1	7.09 2
23.9265	23.9713	0.98	21.00	6.79 0	-8.02 2	-6.83 0	8.02 2
23.9547	23.9761	1.80	3.40	2.91 2	-8.48 2	-2.92 2	8.49 2
23.9144	23.9836	0.88	41.00	2.52 0	-8.17 2	-2.56 0	8.19 2
23.9613	23.9945	1.10	12.00	1.65 1	-7.48 2	-1.65 1	7.48 2
23.9121	24.0013	0.84	57.00	1.53 0	-7.64 2	-1.57 0	7.65 2
23.8990	24.0033	0.82	68.00	1.16 0	-7.03 2	-1.19 0	7.04 2
23.9267	24.0045	0.86	48.00	1.99 0	-8.00 2	-2.03 0	8.01 2
23.9431	24.0049	0.90	35.00	3.18 0	-8.25 2	-3.22 0	8.26 2
23.8938	24.0178	0.80	81.00	8.56-1	-6.13 2	-8.83-1	6.14 2
24.0005	24.0213	2.20	2.60	1.24 3	-1.64 3	-1.24 3	1.64 3
23.9994	24.0221	1.55	4.40	1.28 2	-7.27 2	-1.28 2	7.27 2
23.9973	24.0259	1.20	8.60	2.95 1	-7.18 2	-2.95 1	7.19 2
24.0020	24.0325	1.15	10.00	2.24 1	-7.31 2	-2.25 1	7.31 2
24.0201	24.0421	1.65	3.90	1.81 2	-7.63 2	-1.81 2	7.64 2
24.0271	24.0488	1.70	3.70	2.14 2	-7.87 2	-2.14 2	7.88 2
23.9963	24.0520	0.92	30.00	3.98 0	-8.24 2	-4.01 0	8.25 2
24.0173	24.0589	1.00	18.50	8.19 0	-7.92 2	-8.24 0	7.92 2
23.9635	24.0662	0.82	67.00	1.18 0	-7.10 2	-1.21 0	7.11 2
23.9515	24.0737	0.80	80.00	8.73-1	-6.21 2	-9.00-1	6.22 2
23.9867	24.0746	0.84	56.00	1.57 0	-7.69 2	-1.60 0	7.71 2
24.0545	24.0756	1.95	3.00	4.90 2	-1.01 3	-4.91 2	1.01 3
24.0398	24.0762	1.05	14.50	1.20 1	-7.68 2	-1.21 1	7.69 2
24.0524	24.0773	1.35	6.00	6.01 1	-7.01 2	-6.02 1	7.02 2
24.0605	24.0814	2.00	2.90	5.79 2	-1.08 3	-5.79 2	1.08 3
24.0186	24.0864	0.88	40.00	2.60 0	-8.21 2	-2.64 0	8.22 2
24.0408	24.0880	0.96	23.00	5.88 0	-8.10 2	-5.92 0	8.11 2
24.0149	24.0913	0.86	47.00	2.05 0	-8.04 2	-2.08 0	8.06 2
24.0443	24.0951	0.94	26.00	4.90 0	-8.19 2	-4.94 0	8.20 2
24.0834	24.1044	1.90	3.10	4.16 2	-9.49 2	-4.17 2	9.50 2
24.1002	24.1217	1.75	3.50	2.56 2	-8.20 2	-2.56 2	8.21 2
24.0676	24.1281	0.90	34.00	3.30 0	-8.27 2	-3.33 0	8.28 2
24.0288	24.1300	0.82	66.00	1.21 0	-7.17 2	-1.24 0	7.18 2
24.0096	24.1301	0.80	79.00	8.90-1	-6.29 2	-9.17-1	6.30 2
24.1057	24.1314	1.30	6.60	4.89 1	-7.04 2	-4.90 1	7.04 2
24.1143	24.1377	1.45	5.00	9.06 1	-7.07 2	-9.07 1	7.08 2
24.1150	24.1418	1.25	7.40	3.88 1	-7.09 2	-3.89 1	7.10 2
24.0628	24.1492	0.84	55.00	1.61 0	-7.75 2	-1.64 0	7.76 2
24.1218	24.1519	1.15	9.80	2.30 1	-7.30 2	-2.31 1	7.31 2
24.1467	24.1678	1.85	3.20	3.58 2	-9.00 2	-3.58 2	9.01 2
24.1449	24.1731	1.20	8.40	3.04 1	-7.18 2	-3.05 1	7.18 2
24.1540	24.1780	1.40	5.40	7.53 1	-7.03 2	-7.54 1	7.04 2
24.1052	24.1803	0.86	46.00	2.11 0	-8.09 2	-2.14 0	8.10 2
24.0683	24.1870	0.80	78.00	9.08-1	-6.37 2	-9.35-1	6.38 2
24.1259	24.1924	0.88	39.00	2.69 0	-8.24 2	-2.72 0	8.25 2
24.1518	24.1926	1.00	18.00	8.48 0	-7.91 2	-8.53 0	7.92 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
24.0949	24.1946	0.82	65.00	1.24 0	-7.23 2	-1.26 0	7.25 2
24.1457	24.2001	0.92	29.00	4.14 0	-8.25 2	-4.18 0	8.26 2
24.1798	24.2005	2.10	2.70	9.32 2	-1.43 3	-9.33 2	1.43 3
24.1588	24.2021	0.98	20.00	7.21 0	-8.01 2	-7.26 0	8.02 2
24.1894	24.2122	1.50	4.60	1.11 2	-7.17 2	-1.11 2	7.17 2
24.1402	24.2252	0.84	54.00	1.65 0	-7.80 2	-1.68 0	7.82 2
24.1993	24.2317	1.10	11.50	1.74 1	-7.47 2	-1.74 1	7.47 2
24.1274	24.2444	0.80	77.00	9.27-1	-6.45 2	-9.54-1	6.46 2
24.1967	24.2558	0.90	33.00	3.42 0	-8.29 2	-3.46 0	8.30 2
24.1619	24.2601	0.82	64.00	1.26 0	-7.30 2	-1.29 0	7.32 2
24.2247	24.2603	1.05	14.00	1.25 1	-7.67 2	-1.26 1	7.68 2
24.2445	24.2657	1.80	3.30	3.11 2	-8.64 2	-3.12 2	8.65 2
24.1977	24.2714	0.86	45.00	2.17 0	-8.13 2	-2.20 0	8.14 2
24.2222	24.2716	0.94	25.00	5.14 0	-8.19 2	-5.18 0	8.20 2
24.2452	24.2749	1.15	9.60	2.37 1	-7.30 2	-2.38 1	7.30 2
24.2535	24.2752	1.65	3.80	1.90 2	-7.70 2	-1.90 2	7.71 2
24.2482	24.2939	0.96	22.00	6.21 0	-8.10 2	-6.25 0	8.11 2
24.2365	24.3016	0.88	38.00	2.77 0	-8.27 2	-2.81 0	8.28 2
24.2806	24.3021	1.70	3.60	2.26 2	-7.97 2	-2.26 2	7.97 2
24.1870	24.3024	0.80	76.00	9.46-1	-6.53 2	-9.73-1	6.54 2
24.2191	24.3027	0.84	53.00	1.69 0	-7.86 2	-1.72 0	7.87 2
24.2921	24.3140	1.60	4.00	1.61 2	-7.49 2	-1.62 2	7.50 2
24.2808	24.3233	0.98	19.50	7.44 0	-8.00 2	-7.48 0	8.01 2
24.2997	24.3241	1.35	5.80	6.33 1	-7.03 2	-6.34 1	7.03 2
24.2977	24.3241	1.25	7.20	4.04 1	-7.09 2	-4.05 1	7.10 2
24.2977	24.3255	1.20	8.20	3.15 1	-7.18 2	-3.15 1	7.18 2
24.2299	24.3266	0.82	63.00	1.29 0	-7.37 2	-1.32 0	7.38 2
24.2914	24.3315	1.00	17.50	8.78 0	-7.90 2	-8.83 0	7.91 2
24.3211	24.3463	1.30	6.40	5.12 1	-7.04 2	-5.13 1	7.05 2
24.2106	24.3493	0.78	90.00	6.90-1	-5.46 2	-7.16-1	5.47 2
24.3018	24.3547	0.92	28.00	4.33 0	-8.26 2	-4.37 0	8.27 2
24.2471	24.3608	0.80	75.00	9.65-1	-6.60 2	-9.92-1	6.62 2
24.2926	24.3648	0.86	44.00	2.23 0	-8.17 2	-2.26 0	8.18 2
24.2995	24.3817	0.84	52.00	1.73 0	-7.91 2	-1.76 0	7.92 2
24.3307	24.3884	0.90	32.00	3.55 0	-8.30 2	-3.59 0	8.31 2
24.2988	24.3940	0.82	62.00	1.32 0	-7.43 2	-1.35 0	7.45 2
24.3771	24.3976	2.30	2.40	1.07 3	-1.15 3	-1.07 3	1.15 3
24.3774	24.3986	1.75	3.40	2.72 2	-8.32 2	-2.72 2	8.33 2
24.3723	24.4017	1.15	9.40	2.44 1	-7.30 2	-2.44 1	7.30 2
24.2663	24.4030	0.78	89.00	7.04-1	-5.54 2	-7.29-1	5.56 2
24.3506	24.4143	0.88	37.00	2.87 0	-8.29 2	-2.90 0	8.30 2
24.3942	24.4163	1.55	4.20	1.38 2	-7.34 2	-1.39 2	7.35 2
24.3078	24.4199	0.80	74.00	9.85-1	-6.68 2	-1.01 0	6.70 2
24.3222	24.4570	0.78	88.00	7.18-1	-5.63 2	-7.43-1	5.64 2
24.3898	24.4607	0.86	43.00	2.29 0	-8.20 2	-2.33 0	8.22 2
24.3816	24.4624	0.84	51.00	1.78 0	-7.96 2	-1.81 0	7.97 2
24.3688	24.4625	0.82	61.00	1.35 0	-7.49 2	-1.38 0	7.51 2
24.3691	24.4796	0.80	73.00	1.01 0	-6.76 2	-1.03 0	6.77 2
24.3784	24.5113	0.78	87.00	7.32-1	-5.71 2	-7.58-1	5.73 2
24.40	25.20						
24.4103	24.4310	1.95	2.90	5.38 2	-1.05 3	-5.38 2	1.05 3
24.4206	24.4413	1.90	3.00	4.55 2	-9.85 2	-4.55 2	9.85 2
24.4071	24.4489	0.98	19.00	7.68 0	-8.00 2	-7.73 0	8.01 2
24.4189	24.4538	1.05	13.50	1.31 1	-7.66 2	-1.32 1	7.66 2
24.4368	24.4574	2.00	2.80	6.50 2	-1.15 3	-6.50 2	1.15 3
24.4096	24.4576	0.94	24.00	5.40 0	-8.19 2	-5.44 0	8.20 2
24.4392	24.4622	1.45	4.80	9.68 1	-7.11 2	-9.70 1	7.12 2
24.4436	24.4670	1.40	5.20	7.99 1	-7.06 2	-8.00 1	7.07 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
24.4523	24.4727	2.20	2.50	1.18 3	-1.47 3	-1.18 3	1.47 3
24.4365	24.4758	1.00	17.00	9.10 0	-7.90 2	-9.15 0	7.90 2
24.4562	24.4836	1.20	8.00	3.25 1	-7.18 2	-3.26 1	7.18 2
24.4526	24.4841	1.10	11.00	1.84 1	-7.45 2	-1.85 1	7.46 2
24.4671	24.4879	1.85	3.10	3.85 2	-9.22 2	-3.86 2	9.23 2
24.4683	24.5126	0.96	21.00	6.58 0	-8.10 2	-6.62 0	8.10 2
24.4883	24.5142	1.25	7.00	4.20 1	-7.10 2	-4.21 1	7.10 2
24.4651	24.5166	0.92	27.00	4.52 0	-8.27 2	-4.56 0	8.28 2
24.4973	24.5188	1.65	3.70	2.60 2	-7.78 2	-2.00 2	7.78 2
24.4700	24.5263	0.90	31.00	3.69 0	-8.32 2	-3.73 0	8.33 2
24.4684	24.5307	0.88	36.00	2.97 0	-8.32 2	-3.00 0	8.33 2
24.4398	24.5320	0.82	60.00	1.38 0	-7.56 2	-1.41 0	7.57 2
24.5035	24.5325	1.15	9.20	2.51 1	-7.29 2	-2.51 1	7.30 2
24.5173	24.5389	1.60	3.90	1.69 2	-7.56 2	-1.69 2	7.56 2
24.4311	24.5399	0.80	72.00	1.03 0	-6.83 2	-1.05 0	6.85 2
24.4654	24.5448	0.84	50.00	1.83 0	-8.01 2	-1.86 0	8.02 2
24.4897	24.5593	0.86	42.00	2.36 0	-8.24 2	-2.40 0	8.25 2
24.4349	24.5659	0.78	86.00	7.47-1	-5.80 2	-7.72-1	5.81 2
24.5463	24.5674	1.70	3.50	2.39 2	-8.07 2	-2.39 2	8.08 2
24.5498	24.5706	1.80	3.20	3.34 2	-8.83 2	-3.34 2	8.83 2
24.5470	24.5718	1.30	6.20	5.36 1	-7.05 2	-5.37 1	7.06 2
24.5379	24.5789	0.98	18.50	7.94 0	-7.99 2	-7.98 0	8.00 2
24.5588	24.5811	1.50	4.40	1.20 2	-7.23 2	-1.20 2	7.24 2
24.5606	24.5845	1.35	5.60	6.67 1	-7.05 2	-6.68 1	7.05 2
24.4936	24.6009	0.80	71.00	1.05 0	-6.91 2	-1.07 0	6.92 2
24.5119	24.6027	0.82	59.00	1.41 0	-7.62 2	-1.44 0	7.63 2
24.4918	24.6209	0.78	85.00	7.61-1	-5.88 2	-7.87-1	5.90 2
24.6045	24.6249	2.10	2.60	1.06 3	-1.52 3	-1.06 3	1.52 3
24.5876	24.6261	1.00	16.50	9.45 0	-7.89 2	-9.49 0	7.89 2
24.5509	24.6290	0.84	49.00	1.87 0	-8.05 2	-1.90 0	8.07 2
24.6206	24.6476	1.20	7.80	3.37 1	-7.17 2	-3.38 1	7.18 2
24.5902	24.6511	0.88	35.00	3.07 0	-8.34 2	-3.11 0	8.35 2
24.6075	24.6540	0.94	23.00	5.69 0	-8.19 2	-5.73 0	8.20 2
24.6235	24.6575	1.05	13.00	1.38 1	-7.65 2	-1.38 1	7.65 2
24.5924	24.6605	0.86	41.00	2.44 0	-8.27 2	-2.47 0	8.29 2
24.5569	24.6626	0.80	70.00	1.07 0	-6.98 2	-1.10 0	6.99 2
24.6389	24.6675	1.15	9.00	2.58 1	-7.29 2	-2.59 1	7.29 2
24.6149	24.6699	0.90	30.00	3.84 0	-8.33 2	-3.88 0	8.34 2
24.5852	24.6745	0.82	58.00	1.45 0	-7.68 2	-1.47 0	7.69 2
24.5489	24.6762	0.78	84.00	7.77-1	-5.97 2	-8.02-1	5.98 2
24.6363	24.6864	0.92	26.00	4.74 0	-8.27 2	-4.78 0	8.28 2
24.6688	24.6897	1.75	3.30	2.90 2	-8.47 2	-2.90 2	8.47 2
24.6872	24.7127	1.25	6.80	4.38 1	-7.10 2	-4.39 1	7.10 2
24.6735	24.7139	0.98	18.00	8.21 0	-7.98 2	-8.26 0	7.99 2
24.6384	24.7150	0.84	48.00	1.92 0	-8.10 2	-1.95 0	8.11 2
24.6209	24.7250	0.80	69.00	1.09 0	-7.05 2	-1.12 0	7.07 2
24.6064	24.7319	0.78	83.00	7.92-1	-6.05 2	-8.17-1	6.07 2
24.7028	24.7456	0.96	20.00	6.98 0	-8.09 2	-7.03 0	8.10 2
24.6597	24.7476	0.82	57.00	1.48 0	-7.74 2	-1.51 0	7.75 2
24.7228	24.7535	1.10	10.50	1.96 1	-7.44 2	-1.96 1	7.45 2
24.6979	24.7648	0.86	40.00	2.51 0	-8.31 2	-2.54 0	8.32 2
24.7522	24.7736	1.60	3.80	1.78 2	-7.62 2	-1.78 2	7.62 2
24.7524	24.7736	1.65	3.60	2.11 2	-7.86 2	-2.11 2	7.87 2
24.7512	24.7742	1.40	5.00	8.50 1	-7.09 2	-8.51 1	7.10 2
24.7162	24.7759	0.88	34.00	3.18 0	-8.36 2	-3.22 0	8.37 2
24.7450	24.7827	1.00	16.00	9.82 0	-7.88 2	-9.86 0	7.88 2
24.6643	24.7880	0.78	82.00	8.08-1	-6.13 2	-8.33-1	6.15 2
24.6856	24.7882	0.80	68.00	1.12 0	-7.12 2	-1.14 0	7.14 2
24.7780	24.7984	1.90	2.90	4.97 2	-1.02 3	-4.98 2	1.02 3
24.7279	24.8031	0.84	47.00	1.98 0	-8.14 2	-2.01 0	8.16 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
24.7787	24.8070	1.15	8.80	2.66 1	-7.28 2	-2.67 1	7.29 2
24.7883	24.8086	1.95	2.80	6.01 2	-1.11 3	-6.02 2	1.11 3
24.7843	24.8086	1.30	6.00	5.63 1	-7.07 2	-5.64 1	7.07 2
24.7865	24.8089	1.45	4.60	1.04 2	-7.17 2	-1.04 2	7.17 2
24.7914	24.8180	1.20	7.60	3.49 1	-7.17 2	-3.50 1	7.18 2
24.7661	24.8197	0.90	29.00	4.01 0	-8.35 2	-4.04 0	8.35 2
24.7355	24.8220	0.82	56.00	1.52 0	-7.80 2	-1.54 0	7.81 2
24.8060	24.8264	1.85	3.00	4.19 2	-9.52 2	-4.20 2	9.53 2
24.8208	24.8424	1.55	4.00	1.51 2	-7.44 2	-1.51 2	7.44 2
24.7226	24.8445	0.78	81.00	8.24-1	-6.22 2	-8.49-1	6.23 2
24.8251	24.8459	1.70	3.40	2.53 2	-8.18 2	-2.54 2	8.18 2
24.7511	24.8522	0.80	67.00	1.14 0	-7.19 2	-1.17 0	7.21 2
24.8144	24.8539	0.98	17.50	8.51 0	-7.98 2	-8.55 0	7.98 2
24.8377	24.8579	2.00	2.70	7.55 2	-1.26 3	-7.56 2	1.26 3
24.8364	24.8598	1.35	5.40	7.06 1	-7.07 2	-7.07 1	7.07 2
24.8169	24.8620	0.94	22.00	6.01 0	-8.19 2	-6.05 0	8.19 2
24.8162	24.8649	0.92	25.00	4.97 0	-8.28 2	-5.01 0	8.29 2
24.8260	24.8680	0.96	19.50	7.20 0	-8.08 2	-7.25 0	8.09 2
24.8066	24.8721	0.86	39.00	2.59 0	-8.34 2	-2.63 0	8.35 2
24.8395	24.8726	1.05	12.50	1.45 1	-7.63 2	-1.45 1	7.64 2
24.8718	24.8923	1.80	3.10	3.59 2	-9.03 2	-3.60 2	9.03 2
24.8194	24.8933	0.84	46.00	2.03 0	-8.19 2	-2.06 0	8.20 2
24.8127	24.8978	0.82	55.00	1.55 0	-7.85 2	-1.58 0	7.87 2
24.7813	24.9015	0.78	80.00	8.40-1	-6.30 2	-8.66-1	6.31 2
24.8469	24.9052	0.88	33.00	3.30 0	-8.38 2	-3.34 0	8.39 2
24.8174	24.9170	0.80	66.00	1.16 0	-7.26 2	-1.19 0	7.28 2
24.8951	24.9202	1.25	6.60	4.57 1	-7.10 2	-4.58 1	7.11 2
24.9093	24.9462	1.00	15.50	1.02 1	-7.87 2	-1.03 1	7.87 2
24.9233	24.9512	1.15	8.60	2.75 1	-7.28 2	-2.75 1	7.29 2
24.9382	24.9583	2.20	2.40	1.47 3	-1.70 3	-1.47 3	1.70 3
24.8404	24.9589	0.78	79.00	8.57-1	-6.38 2	-8.83-1	6.39 2
24.8913	24.9750	0.82	54.00	1.59 0	-7.91 2	-1.62 0	7.92 2
24.9239	24.9761	0.90	28.00	4.18 0	-8.35 2	-4.22 0	8.36 2
24.9565	24.9782	1.50	4.20	1.29 2	-7.30 2	-1.30 2	7.30 2
24.8846	24.9827	0.80	65.00	1.19 0	-7.33 2	-1.22 0	7.35 2
24.9186	24.9827	0.86	38.00	2.68 0	-8.37 2	-2.71 0	8.38 2
24.9132	24.9857	0.84	45.00	2.09 0	-8.23 2	-2.12 0	8.24 2
24.9534	24.9947	0.96	19.00	7.44 0	-8.08 2	-7.48 0	8.08 2
24.9691	24.9952	1.20	7.40	3.63 1	-7.17 2	-3.64 1	7.18 2
24.9757	24.9962	1.75	3.20	3.10 2	-8.63 2	-3.10 2	8.63 2
24.9608	24.9996	0.98	17.00	8.82 0	-7.97 2	-8.86 0	7.98 2
24.9000	25.0169	0.78	78.00	8.75-1	-6.46 2	-9.00-1	6.47 2
24.9976	25.0187	1.60	3.70	1.87 2	-7.69 2	-1.87 2	7.69 2
24.9825	25.0394	0.88	32.00	3.43 0	-8.40 2	-3.46 0	8.41 2
25.0197	25.0405	1.65	3.50	2.23 2	-7.95 2	-2.23 2	7.96 2
25.0122	25.0419	1.10	10.00	2.09 1	-7.43 2	-2.09 1	7.43 2
24.9527	25.0493	0.80	64.00	1.22 0	-7.40 2	-1.24 0	7.42 2
25.0056	25.0529	0.92	24.00	5.23 0	-8.28 2	-5.26 0	8.29 2
24.9713	25.0536	0.82	53.00	1.63 0	-7.96 2	-1.66 0	7.97 2
25.0341	25.0580	1.30	5.80	5.92 1	-7.08 2	-5.93 1	7.08 2
25.0475	25.0688	1.55	3.90	1.58 2	-7.49 2	-1.58 2	7.50 2
24.9601	25.0753	0.78	77.00	8.92-1	-6.54 2	-9.18-1	6.55 2
25.0598	25.0797	2.10	2.50	1.13 3	-1.52 3	-1.13 3	1.52 3
25.0093	25.0805	0.84	44.00	2.15 0	-8.27 2	-2.18 0	8.28 2
25.0392	25.0829	0.94	21.00	6.36 0	-8.18 2	-6.40 0	8.19 2
25.0341	25.0969	0.86	37.00	2.77 0	-8.39 2	-2.80 0	8.41 2
25.0679	25.1002	1.05	12.00	1.53 1	-7.62 2	-1.53 1	7.63 2
25.0729	25.1004	1.15	8.40	2.84 1	-7.28 2	-2.84 1	7.28 2
25.0789	25.1014	1.40	4.80	9.08 1	-7.13 2	-9.09 1	7.14 2
25.0217	25.1169	0.80	63.00	1.24 0	-7.47 2	-1.27 0	7.48 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
25.0810	25.1171	1.00	15.00	1.06 1	-7.86 2	-1.07 1	7.86 2
25.0855	25.1260	0.96	18.50	7.69 0	-8.07 2	-7.73 0	8.08 2
25.0530	25.1339	0.82	52.00	1.67 0	-8.01 2	-1.70 0	8.03 2
25.0208	25.1343	0.78	76.80	9.11-1	-6.62 2	-9.36-1	6.63 2
25.1128	25.1375	1.25	6.40	4.78 1	-7.11 2	-4.79 1	7.11 2
25.1181	25.1387	1.70	3.30	2.70 2	-8.31 2	-2.70 2	8.31 2
25.0890	25.1399	0.90	27.00	4.37 0	-8.36 2	-4.41 0	8.37 2
25.1131	25.1512	0.98	16.50	9.15 0	-7.96 2	-9.20 0	7.97 2
25.1286	25.1516	1.35	5.20	7.48 1	-7.09 2	-7.50 1	7.10 2
25.1338	25.1632	1.10	9.80	2.14 1	-7.42 2	-2.15 1	7.43 2
25.1577	25.1777	1.90	2.80	5.52 2	-1.07 3	-5.53 2	1.07 3
25.1079	25.1778	0.84	43.00	2.21 0	-8.31 2	-2.24 0	8.32 2
25.1234	25.1790	0.88	31.00	3.57 0	-8.42 2	-3.60 0	8.43 2
25.1540	25.1798	1.20	7.20	3.77 1	-7.18 2	-3.78 1	7.18 2
25.1589	25.1808	1.45	4.40	1.12 2	-7.23 2	-1.12 2	7.23 2
25.1650	25.1852	1.85	2.90	4.57 2	-9.81 2	-4.57 2	9.82 2
25.0917	25.1854	0.80	62.00	1.27 0	-7.53 2	-1.30 0	7.55 2
25.0819	25.1938	0.78	75.00	9.29-1	-6.70 2	-9.54-1	6.71 2
25.1909	25.2108	1.95	2.70	6.90 2	-1.20 3	-6.91 2	1.20 3
25.1534	25.2149	0.86	36.00	2.86 0	-8.42 2	-2.90 0	8.43 2
25.1362	25.2158	0.82	51.00	1.71 0	-8.06 2	-1.74 0	8.08 2
25.0912	25.2275	0.76	90.00	6.64-1	-5.54 2	-6.88-1	5.55 2
25.1437	25.2539	0.78	74.00	9.48-1	-6.78 2	-9.74-1	6.79 2
25.1628	25.2550	0.80	61.00	1.30 0	-7.60 2	-1.33 0	7.61 2
25.1479	25.2822	0.76	89.00	6.77-1	-5.62 2	-7.01-1	5.64 2
25.20	26.00						
25.2124	25.2325	1.80	3.00	3.90 2	-9.29 2	-3.90 2	9.30 2
25.2055	25.2514	0.92	23.00	5.50 0	-8.28 2	-5.54 0	8.29 2
25.2278	25.2549	1.15	8.20	2.93 1	-7.28 2	-2.94 1	7.28 2
25.2224	25.2622	0.96	18.00	7.95 0	-8.06 2	-8.00 0	8.07 2
25.2543	25.2751	1.60	3.60	1.97 2	-7.76 2	-1.97 2	7.77 2
25.2092	25.2776	0.84	42.00	2.28 0	-8.34 2	-2.31 0	8.36 2
25.2659	25.2857	2.00	2.60	8.42 2	-1.32 3	-8.43 2	1.32 3
25.2591	25.2881	1.10	9.60	2.20 1	-7.42 2	-2.21 1	7.43 2
25.2607	25.2961	1.00	14.50	1.11 1	-7.85 2	-1.12 1	7.85 2
25.2212	25.2994	0.82	50.00	1.76 0	-8.11 2	-1.79 0	8.13 2
25.2840	25.3050	1.55	3.80	1.66 2	-7.54 2	-1.66 2	7.55 2
25.2719	25.3092	0.98	16.00	9.51 0	-7.95 2	-9.55 0	7.96 2
25.2621	25.3116	0.90	26.00	4.58 0	-8.37 2	-4.62 0	8.38 2
25.2060	25.3147	0.78	73.00	9.68-1	-6.85 2	-9.93-1	6.87 2
25.2760	25.3182	0.94	20.00	6.76 0	-8.17 2	-6.80 0	8.18 2
25.2995	25.3197	1.75	3.10	3.33 2	-8.80 2	-3.33 2	8.81 2
25.3001	25.3206	1.65	3.40	2.36 2	-8.05 2	-2.36 2	8.05 2
25.2976	25.3210	1.30	5.60	6.25 1	-7.09 2	-6.26 1	7.10 2
25.2701	25.3243	0.88	30.00	3.71 0	-8.43 2	-3.75 0	8.44 2
25.2349	25.3257	0.80	60.00	1.33 0	-7.66 2	-1.36 0	7.68 2
25.2768	25.3368	0.86	35.00	2.97 0	-8.44 2	-3.00 0	8.45 2
25.2048	25.3373	0.76	88.00	6.91-1	-5.71 2	-7.14-1	5.73 2
25.3101	25.3416	1.05	11.50	1.61 1	-7.61 2	-1.62 1	7.61 2
25.3412	25.3655	1.25	6.20	5.01 1	-7.12 2	-5.02 1	7.12 2
25.3468	25.3722	1.20	7.00	3.92 1	-7.18 2	-3.93 1	7.18 2
25.2690	25.3761	0.78	72.00	9.88-1	-6.93 2	-1.01 0	6.94 2
25.3132	25.3803	0.84	41.00	2.35 0	-8.38 2	-2.38 0	8.39 2
25.3080	25.3848	0.82	49.00	1.81 0	-8.16 2	-1.83 0	8.17 2
25.2620	25.3926	0.76	87.00	7.04-1	-5.80 2	-7.28-1	5.81 2
25.3081	25.3975	0.80	59.00	1.36 0	-7.72 2	-1.39 0	7.74 2
25.3645	25.4035	0.96	17.50	8.23 0	-8.06 2	-8.28 0	8.06 2
25.3862	25.4074	1.50	4.00	1.41 2	-7.38 2	-1.41 2	7.39 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
25.3884	25.4151	1.15	8.00	3.03 1	-7.27 2	-3.04 1	7.28 2
25.3882	25.4168	1.10	9.40	2.27 1	-7.42 2	-2.27 1	7.42 2
25.3326	25.4381	0.78	71.00	1.01 0	-7.01 2	-1.03 0	7.02 2
25.4003	25.4418	0.94	19.50	6.97 0	-8.17 2	-7.01 0	8.17 2
25.4267	25.4469	1.70	3.20	2.88 2	-8.45 2	-2.88 2	8.45 2
25.3195	25.4483	0.76	86.00	7.18-1	-5.88 2	-7.42-1	5.90 2
25.4291	25.4511	1.40	4.60	9.74 1	-7.18 2	-9.75 1	7.18 2
25.4390	25.4615	1.35	5.00	7.96 1	-7.12 2	-7.97 1	7.13 2
25.4170	25.4615	0.92	22.00	5.81 0	-8.27 2	-5.85 0	8.28 2
25.4044	25.4631	0.86	34.00	3.07 0	-8.47 2	-3.11 0	8.48 2
25.3826	25.4705	0.80	58.00	1.39 0	-7.78 2	-1.42 0	7.80 2
25.3967	25.4722	0.82	48.00	1.85 0	-8.21 2	-1.88 0	8.22 2
25.4376	25.4741	0.98	15.50	9.89 0	-7.94 2	-9.94 0	7.95 2
25.4230	25.4758	0.88	29.00	3.87 0	-8.44 2	-3.90 0	8.45 2
25.4627	25.4823	2.20	2.30	1.09 3	-1.18 3	-1.10 3	1.18 3
25.4492	25.4838	1.00	14.00	1.16 1	-7.84 2	-1.17 1	7.84 2
25.4201	25.4860	0.84	40.00	2.42 0	-8.41 2	-2.45 0	8.42 2
25.4439	25.4920	0.90	25.00	4.80 0	-8.37 2	-4.84 0	8.38 2
25.3969	25.5009	0.78	70.00	1.03 0	-7.08 2	-1.06 0	7.09 2
25.3774	25.5043	0.76	85.00	7.33-1	-5.97 2	-7.56-1	5.98 2
25.5232	25.5437	1.60	3.50	2.08 2	-7.84 2	-2.08 2	7.85 2
25.4583	25.5448	0.80	57.00	1.43 0	-7.84 2	-1.45 0	7.86 2
25.5213	25.5496	1.10	9.20	2.33 1	-7.41 2	-2.34 1	7.42 2
25.5122	25.5505	0.96	17.00	8.54 0	-8.05 2	-8.58 0	8.05 2
25.5310	25.5517	1.55	3.70	1.74 2	-7.60 2	-1.74 2	7.61 2
25.4356	25.5607	0.76	84.00	7.47-1	-6.06 2	-7.71-1	6.07 2
25.4875	25.5616	0.82	47.00	1.91 0	-8.25 2	-1.93 0	8.27 2
25.4620	25.5644	0.78	69.00	1.05 0	-7.15 2	-1.08 0	7.17 2
25.5465	25.5662	1.85	2.80	5.03 2	-1.02 3	-5.04 2	1.02 3
25.5492	25.5688	2.10	2.40	1.40 3	-1.76 3	-1.40 3	1.76 3
25.5290	25.5697	0.94	19.00	7.20 0	-8.16 2	-7.24 0	8.17 2
25.5481	25.5731	1.20	6.80	4.09 1	-7.18 2	-4.10 1	7.18 2
25.5596	25.5809	1.45	4.20	1.21 2	-7.28 2	-1.21 2	7.29 2
25.5550	25.5813	1.15	7.80	3.14 1	-7.27 2	-3.15 1	7.28 2
25.5620	25.5817	1.90	2.70	6.27 2	-1.14 3	-6.28 2	1.14 3
25.5732	25.5930	1.80	2.90	4.23 2	-9.55 2	-4.24 2	9.56 2
25.5367	25.5941	0.86	33.00	3.19 0	-8.49 2	-3.22 0	8.50 2
25.5303	25.5948	0.84	39.00	2.50 0	-8.44 2	-2.53 0	8.46 2
25.5677	25.5983	1.05	11.00	1.71 1	-7.60 2	-1.71-1	7.60 2
25.5760	25.5990	1.30	5.40	6.60 1	-7.11 2	-6.61 1	7.12 2
25.5811	25.6049	1.25	6.00	5.26 1	-7.13 2	-5.27 1	7.13 2
25.5948	25.6150	1.65	3.30	2.51 2	-8.16 2	-2.51 2	8.17 2
25.4941	25.6175	0.76	83.00	7.62-1	-6.14 2	-7.85-1	6.16 2
25.5352	25.6203	0.80	56.00	1.46 0	-7.90 2	-1.49 0	7.92 2
25.5278	25.6287	0.78	68.00	1.07 0	-7.23 2	-1.10 0	7.24 2
25.5826	25.6341	0.88	28.00	4.04 0	-8.45 2	-4.07 0	8.46 2
25.6145	25.6354	1.50	3.90	1.48 2	-7.43 2	-1.48 2	7.44 2
25.6208	25.6404	1.95	2.60	7.69 2	-1.26 3	-7.70 2	1.26 3
25.6107	25.6464	0.98	15.00	1.03 1	-7.93 2	-1.04 1	7.94 2
25.5803	25.6531	0.82	46.00	1.96 0	-8.30 2	-1.99 0	8.31 2
25.6417	25.6616	1.75	3.00	3.60 2	-9.03 2	-3.60 2	9.04 2
25.5530	25.6746	0.76	82.00	7.77-1	-6.23 2	-8.01-1	6.24 2
25.6473	25.6811	1.00	13.50	1.22 1	-7.82 2	-1.22 1	7.83 2
25.6353	25.6820	0.90	24.00	5.05 0	-8.37 2	-5.09 0	8.38 2
25.6416	25.6846	0.92	21.00	6.15 0	-8.27 2	-6.19 0	8.28 2
25.6587	25.6866	1.10	9.00	2.40 1	-7.41 2	-2.41 1	7.41 2
25.5943	25.6938	0.78	67.00	1.10 0	-7.30 2	-1.12 0	7.31 2
25.6136	25.6973	0.80	55.00	1.50 0	-7.96 2	-1.52 0	7.97 2
25.6623	25.7023	0.94	18.50	7.44 0	-8.15 2	-7.48 0	8.16 2
25.6659	25.7034	0.96	16.50	8.86 0	-8.04 2	-8.90 0	8.05 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
25.6437	25.7069	0.84	38.00	2.58 0	-8.47 2	-2.61 0	8.49 2
25.6739	25.7300	0.86	32.00	3.31 0	-8.50 2	-3.34 0	8.52 2
25.6123	25.7322	0.76	81.00	7.93-1	-6.31 2	-8.16-1	6.32 2
25.7246	25.7441	2.00	2.50	9.04 2	-1.32 3	-9.04 2	1.33 3
25.6754	25.7468	0.82	45.00	2.01 0	-8.34 2	-2.04 0	8.35 2
25.7280	25.7540	1.15	7.60	3.26 1	-7.27 2	-3.26 1	7.27 2
25.6618	25.7597	0.78	66.00	1.12 0	-7.37 2	-1.15 0	7.38 2
25.7522	25.7720	1.70	3.10	3.09 2	-8.60 2	-3.09 2	8.61 2
25.6933	25.7757	0.80	54.00	1.53 0	-8.02 2	-1.56 0	8.03 2
25.7585	25.7830	1.20	6.60	4.27 1	-7.18 2	-4.28 1	7.19 2
25.6720	25.7902	0.76	80.00	8.08-1	-6.39 2	-8.32-1	6.41 2
25.7696	25.7916	1.35	4.80	8.50 1	-7.16 2	-8.51 1	7.16 2
25.7496	25.7997	0.88	27.00	4.22 0	-8.46 2	-4.26 0	8.47 2
25.7894	25.8098	1.55	3.60	1.83 2	-7.67 2	-1.83 2	7.67 2
25.7608	25.8226	0.84	37.00	2.67 0	-8.50 2	-2.70 0	8.51 2
25.8053	25.8255	1.60	3.40	2.20 2	-7.92 2	-2.20 2	7.93 2
25.8044	25.8259	1.40	4.40	1.05 2	-7.23 2	-1.05 2	7.24 2
25.7300	25.8265	0.78	65.00	1.15 0	-7.44 2	-1.17 0	7.45 2
25.7919	25.8269	0.98	14.50	1.08 1	-7.92 2	-1.08 1	7.93 2
25.8006	25.8281	1.10	8.80	2.48 1	-7.40 2	-2.48 1	7.41 2
25.8004	25.8397	0.94	18.00	7.69 0	-8.15 2	-7.73 0	8.15 2
25.7729	25.8430	0.82	44.00	2.07 0	-8.38 2	-2.10 0	8.39 2
25.7322	25.8487	0.76	79.00	8.25-1	-6.48 2	-8.48-1	6.49 2
25.7746	25.8556	0.80	53.00	1.57 0	-8.07 2	-1.60 0	8.08 2
25.8335	25.8569	1.25	5.80	5.53 1	-7.14 2	-5.54 1	7.14 2
25.8260	25.8628	0.96	16.00	9.20 0	-8.03 2	-9.25 0	8.04 2
25.8166	25.8713	0.86	31.00	3.44 0	-8.52 2	-3.47 0	8.53 2
25.8424	25.8722	1.05	10.50	1.82 1	-7.58 2	-1.82 1	7.59 2
25.8526	25.8732	1.50	3.80	1.54 2	-7.48 2	-1.55 2	7.48 2
25.8374	25.8826	0.90	23.00	5.32 0	-8.37 2	-5.36 0	8.38 2
25.8558	25.8888	1.00	13.00	1.28 1	-7.81 2	-1.28 1	7.82 2
25.8710	25.8936	1.30	5.20	7.00 1	-7.14 2	-7.01 1	7.14 2
25.7992	25.8942	0.78	64.00	1.17 0	-7.51 2	-1.20 0	7.52 2
25.7929	25.9077	0.76	78.00	8.41-1	-6.56 2	-8.65-1	6.57 2
25.8806	25.9223	0.92	20.00	6.53 0	-8.26 2	-6.57 0	8.27 2
25.9051	25.9250	1.65	3.20	2.68 2	-8.29 2	-2.68 2	8.29 2
25.9080	25.9335	1.15	7.40	3.38 1	-7.27 2	-3.39 1	7.27 2
25.8574	25.9370	0.80	52.00	1.61 0	-8.12 2	-1.64 0	8.14 2
25.8729	25.9416	0.82	43.00	2.13 0	-8.42 2	-2.16 0	8.43 2
25.8816	25.9421	0.84	36.00	2.76 0	-8.53 2	-2.79 0	8.54 2
25.8694	25.9629	0.78	63.00	1.20 0	-7.58 2	-1.22 0	7.59 2
25.8540	25.9672	0.76	77.00	8.58-1	-6.64 2	-8.82-1	6.65 2
25.9526	25.9720	1.85	2.70	5.65 2	-1.08 3	-5.66 2	1.08 3
25.9246	25.9734	0.88	26.00	4.42 0	-8.47 2	-4.46 0	8.48 2
25.9473	25.9744	1.10	8.60	2.55 1	-7.40 2	-2.56 1	7.40 2
25.9564	25.9759	1.80	2.80	4.65 2	-9.92 2	-4.66 2	9.93 2
25.9438	25.9824	0.94	17.50	7.97 0	-8.14 2	-8.01 0	8.15 2
25.9787	26.0029	1.20	6.40	4.46 1	-7.19 2	-4.47 1	7.19 2
25.9938	26.0131	1.90	2.60	6.95 2	-1.19 3	-6.96 2	1.19 3
25.9924	26.0132	1.45	4.00	1.32 2	-7.36 2	-1.32 2	7.36 2
25.9820	26.0161	0.98	14.00	1.12 1	-7.91 2	-1.13 1	7.91 2
25.9650	26.0184	0.86	30.00	3.58 0	-8.54 2	-3.62 0	8.55 2
25.9420	26.0202	0.80	51.00	1.65 0	-8.18 2	-1.68 0	8.19 2
25.9157	26.0273	0.76	76.00	8.76-1	-6.72 2	-8.99-1	6.73 2
25.9931	26.0291	0.96	15.50	9.58 0	-8.02 2	-9.62 0	8.03 2
25.9405	26.0326	0.78	62.00	1.22 0	-7.64 2	-1.25 0	7.66 2
25.9755	26.0429	0.82	42.00	2.20 0	-8.46 2	-2.23 0	8.47 2
25.9780	26.0879	0.76	75.00	8.94-1	-6.80 2	-9.17-1	6.81 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
26.00	26.80						
26.0043	26.0238	1.75	2.90	3.90 2	-9.26 2	-3.90 2	9.26 2
26.0062	26.0471	0.92	19.50	6.74 0	-8.25 2	-6.78 0	8.26 2
26.0065	26.0657	0.84	35.00	2.86 0	-8.55 2	-2.89 0	8.56 2
26.0599	26.0801	1.55	3.50	1.93 2	-7.74 2	-1.93 2	7.74 2
26.0511	26.0950	0.90	22.00	5.62 0	-8.37 2	-5.65 0	8.38 2
26.0773	26.0964	2.10	2.30	1.47 3	-1.72 3	-1.47 3	1.72 3
26.0814	26.1006	1.95	2.50	8.33 2	-1.28 3	-8.34 2	1.28 3
26.0127	26.1033	0.78	61.00	1.25 0	-7.71 2	-1.28 0	7.72 2
26.0282	26.1051	0.80	50.00	1.69 0	-8.23 2	-1.72 0	8.24 2
26.0758	26.1080	1.00	12.50	1.34 1	-7.80 2	-1.35 1	7.80 2
26.0962	26.1157	1.70	3.00	3.33 2	-8.80 2	-3.33 2	8.81 2
26.0953	26.1205	1.15	7.20	3.51 1	-7.27 2	-3.52 1	7.27 2
26.1017	26.1216	1.60	3.30	2.33 2	-8.02 2	-2.33 2	8.03 2
26.1012	26.1216	1.50	3.70	1.62 2	-7.53 2	-1.62 2	7.53 2
26.0997	26.1226	1.25	5.60	5.83 1	-7.15 2	-5.84 1	7.16 2
26.0990	26.1258	1.10	8.40	2.64 1	-7.39 2	-2.64 1	7.40 2
26.0929	26.1307	0.94	17.00	8.26 0	-8.13 2	-8.30 0	8.14 2
26.1227	26.1443	1.35	4.60	9.11 1	-7.20 2	-9.12 1	7.20 2
26.0809	26.1470	0.82	41.00	2.27 0	-8.49 2	-2.29 0	8.50 2
26.0408	26.1491	0.76	74.00	9.12-1	-6.88 2	-9.36-1	6.89 2
26.1085	26.1558	0.88	25.00	4.64 0	-8.47 2	-4.67 0	8.48 2
26.1365	26.1654	1.05	10.00	1.94 1	-7.57 2	-1.94 1	7.57 2
26.1197	26.1717	0.86	29.00	3.74 0	-8.55 2	-3.77 0	8.56 2
26.0389	26.1729	0.74	90.00	6.38-1	-5.62 2	-6.60-1	5.64 2
26.0859	26.1752	0.78	60.00	1.28 0	-7.77 2	-1.31 0	7.79 2
26.1361	26.1763	0.92	19.00	6.96 0	-8.25 2	-7.00 0	8.26 2
26.1163	26.1918	0.80	49.00	1.74 0	-8.28 2	-1.77 0	8.29 2
26.1358	26.1936	0.84	34.00	2.96 0	-8.58 2	-2.99 0	8.59 2
26.1677	26.2030	0.96	15.00	9.98 0	-8.01 2	-1.00 1	8.01 2
26.1843	26.2064	1.30	5.00	7.44 1	-7.16 2	-7.45 1	7.17 2
26.1042	26.2110	0.76	73.00	9.31-1	-6.96 2	-9.54-1	6.97 2
26.1816	26.2150	0.98	13.50	1.18 1	-7.90 2	-1.18 1	7.90 2
26.0967	26.2287	0.74	89.00	6.51-1	-5.71 2	-6.73-1	5.73 2
26.2082	26.2292	1.40	4.20	1.13 2	-7.29 2	-1.14 2	7.29 2
26.2096	26.2333	1.20	6.20	4.67 1	-7.19 2	-4.68 1	7.20 2
26.2177	26.2368	2.00	2.40	1.04 3	-. 42 3	-1.04 3	1.42 3
26.2223	26.2429	1.45	3.90	1.38 2	-7.40 2	-1.38 2	7.41 2
26.1604	26.2482	0.78	59.00	1.31 0	-7.84 2	-1.33 0	7.85 2
26.2323	26.2519	1.65	3.10	2.86 2	-8.42 2	-2.86 2	8.43 2
26.1894	26.2541	0.82	40.00	2.34 0	-8.53 2	-2.36 0	8.54 2
26.1682	26.2734	0.76	72.00	9.50-1	-7.03 2	-9.74-1	7.05 2
26.2063	26.2805	0.80	48.00	1.79 0	-8.32 2	-1.81 0	8.34 2
26.2561	26.2825	1.10	8.20	2.72 1	-7.39 2	-2.73 1	7.40 2
26.1547	26.2848	0.74	88.00	6.64-1	-5.80 2	-6.86-1	5.82 2
26.2479	26.2850	0.94	16.50	8.57 0	-8.12 2	-8.61 0	8.13 2
26.2601	26.2886	1.05	9.80	1.99 1	-7.56 2	-1.99 1	7.57 2
26.2706	26.3101	0.92	18.50	7.19 0	-8.24 2	-7.23 0	8.25 2
26.2905	26.3153	1.15	7.00	3.65 1	-7.27 2	-3.66 1	7.27 2
26.2779	26.3204	0.90	21.00	5.95 0	-8.36 2	-5.98 0	8.37 2
26.2360	26.3224	0.78	58.00	1.34 0	-7.90 2	-1.37 0	7.91 2
26.2697	26.3262	0.84	33.00	3.08 0	-8.60 2	-3.11 0	8.61 2
26.2812	26.3319	0.86	28.00	3.90 0	-8.56 2	-3.93 0	8.57 2
26.2329	26.3366	0.76	71.00	9.70-1	-7.11 2	-9.94-1	7.13 2
26.3084	26.3398	1.00	12.00	1.41 1	-7.78 2	-1.42 1	7.79 2
26.2130	26.3413	0.74	87.00	6.77-1	-5.89 2	-6.99-1	5.90 2
26.3020	26.3480	0.88	24.00	4.88 0	-8.47 2	-4.91 0	8.48 2
26.3438	26.3636	1.55	3.40	2.04 2	-7.81 2	-2.04 2	7.82 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
26.3010	26.3644	0.82	39.00	2.41 0	-8.56 2	-2.44 0	8.57 2
26.2984	26.3712	0.80	47.00	1.84 0	-8.37 2	-1.86 0	8.38 2
26.3613	26.3813	1.50	3.60	1.70 2	-7.58 2	-1.71 2	7.59 2
26.3643	26.3835	1.80	2.70	5.19 2	-1.04 3	-5.20 2	1.04 3
26.3504	26.3849	0.96	14.50	1.04 1	-8.00 2	-1.05 1	8.00 2
26.3128	26.3979	0.78	57.00	1.37 0	-7.96 2	-1.40 0	7.97 2
26.2715	26.3980	0.74	86.00	6.90-1	-5.98 2	-7.12-1	5.99 2
26.2983	26.4005	0.76	70.00	9.91-1	-7.19 2	-1.01 0	7.20 2
26.3809	26.4034	1.25	5.40	6.16 1	-7.17 2	-6.17 1	7.17 2
26.3862	26.4053	1.85	2.60	6.21 2	-1.12 3	-6.22 2	1.12 3
26.3893	26.4085	1.75	2.80	4.26 2	-9.57 2	-4.27 2	9.57 2
26.3873	26.4155	1.05	9.60	2.04 1	-7.56 2	-2.05 1	7.56 2
26.3917	26.4243	0.98	13.00	1.23 1	-7.88 2	-1.24 1	7.89 2
26.4137	26.4333	1.60	3.20	2.48 2	-8.13 2	-2.48 2	8.14 2
26.4189	26.4450	1.10	8.00	2.82 1	-7.39 2	-2.82 1	7.39 2
26.4095	26.4458	0.94	16.00	8.90 0	-8.11 2	-8.94 0	8.12 2
26.4101	26.4488	0.92	18.00	7.44 0	-8.23 2	-7.48 0	8.24 2
26.3304	26.4551	0.74	85.00	7.04-1	-6.06 2	-7.26-1	6.08 2
26.4087	26.4639	0.84	32.00	3.19 0	-8.62 2	-3.22 0	8.63 2
26.3926	26.4641	0.80	46.00	1.89 0	-8.41 2	-1.91 0	8.43 2
26.3645	26.4651	0.76	69.00	1.01 0	-7.26 2	-1.03 0	7.28 2
26.3910	26.4747	0.78	56.00	1.41 0	-8.02 2	-1.43 0	8.03 2
26.4562	26.4752	1.90	2.50	7.54 2	-1.21 3	-7.55 2	1.21 3
26.4521	26.4754	1.20	6.00	4.90 1	-7.20 2	-4.91 1	7.20 2
26.4160	26.4781	0.82	38.00	2.49 0	-8.59 2	-2.52 0	8.60 2
26.4606	26.4798	1.70	2.90	3.59 2	-9.00 2	-3.60 2	9.00 2
26.4621	26.4824	1.45	3.80	1.44 2	-7.44 2	-1.44 2	7.45 2
26.4501	26.4995	0.86	27.00	4.08 0	-8.57 2	-4.11 0	8.57 2
26.3897	26.5126	0.74	84.00	7.18-1	-6.15 2	-7.40-1	6.17 2
26.4943	26.5186	1.15	6.80	3.80 1	-7.27 2	-3.81 1	7.27 2
26.5012	26.5222	1.35	4.40	9.80 1	-7.25 2	-9.81 1	7.25 2
26.4314	26.5305	0.76	68.00	1.03 0	-7.34 2	-1.06 0	7.35 2
26.5179	26.5395	1.30	4.80	7.94 1	-7.19 2	-7.95 1	7.20 2
26.5184	26.5463	1.05	9.40	2.10 1	-7.55 2	-2.11 1	7.56 2
26.5061	26.5508	0.88	23.00	5.14 0	-8.47 2	-5.17 0	8.48 2
26.4706	26.5529	0.78	55.00	1.44 0	-8.08 2	-1.46 0	8.09 2
26.4890	26.5592	0.80	45.00	1.94 0	-8.46 2	-1.97 0	8.47 2
26.5194	26.5605	0.90	20.00	6.31 0	-8.35 2	-6.35 0	8.36 2
26.4493	26.5704	0.74	83.00	7.32-1	-6.24 2	-7.54-1	6.25 2
26.5420	26.5758	0.96	14.00	1.09 1	-7.98 2	-1.09 1	7.99 2
26.5550	26.5856	1.00	11.50	1.49 1	-7.77 2	-1.50 1	7.77 2
26.5548	26.5928	0.92	17.50	7.70 0	-8.23 2	-7.74 0	8.23 2
26.5764	26.5952	1.95	2.40	9.55 2	-1.37 3	-9.56 2	1.37 3
26.5345	26.5954	0.82	37.00	2.57 0	-8.62 2	-2.60 0	8.63 2
26.4991	26.5968	0.76	67.00	1.06 0	-7.41 2	-1.08 0	7.42 2
26.5782	26.5974	1.65	3.00	3.08 2	-8.60 2	-3.08 2	8.61 2
26.5531	26.6069	0.84	31.00	3.32 0	-8.63 2	-3.35 0	8.64 2
26.5878	26.6135	1.10	7.80	2.92 1	-7.38 2	-2.92 1	7.39 2
26.5780	26.6136	0.94	15.50	9.26 0	-8.10 2	-9.30 0	8.11 2
26.5093	26.6287	0.74	82.00	7.47-1	-6.32 2	-7.69-1	6.34 2
26.5516	26.6325	0.78	54.00	1.47 0	-8.13 2	-1.50 0	8.15 2
26.6134	26.6452	0.98	12.50	1.30 1	-7.87 2	-1.30 1	7.87 2
26.6336	26.6533	1.50	3.50	1.79 2	-7.64 2	-1.80 2	7.65 2
26.5879	26.6568	0.80	44.00	2.00 0	-8.50 2	-2.02 0	8.51 2
26.6419	26.6615	1.55	3.30	2.16 2	-7.90 2	-2.17 2	7.90 2
26.5676	26.6638	0.76	66.00	1.08 0	-7.48 2	-1.10 0	7.50 2
26.6443	26.6648	1.40	4.00	1.23 2	-7.35 2	-1.23 2	7.36 2
26.6493	26.6680	2.10	2.20	1.13 3	-1.23 3	-1.13 3	1.23 3
26.6271	26.6751	0.86	26.00	4.27 0	-8.57 2	-4.30 0	8.58 2
26.6536	26.6811	1.05	9.20	2.16 1	-7.55 2	-2.17 1	7.55 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
26.6462	26.6866	0.90	19.50	6.51 0	-8.35 2	-6.55 0	8.35 2
26.5696	26.6874	0.74	81.00	7.62-1	-6.41 2	-7.83-1	6.42 2
26.6788	26.7008	1.25	5.20	6.53 1	-7.19 2	-6.54 1	7.19 2
26.6341	26.7137	0.78	53.00	1.51 0	-8.19 2	-1.54 0	8.20 2
26.6570	26.7165	0.82	36.00	2.66 0	-8.64 2	-2.69 0	8.65 2
26.7073	26.7302	1.20	5.80	5.15 1	-7.21 2	-5.16 1	7.21 2
26.7072	26.7311	1.15	6.60	3.97 1	-7.27 2	-3.98 1	7.27 2
26.6370	26.7318	0.76	65.00	1.10 0	-7.55 2	-1.13 0	7.57 2
26.7124	26.7324	1.45	3.70	1.51 2	-7.49 2	-1.51 2	7.49 2
26.7052	26.7425	0.92	17.00	7.98 0	-8.22 2	-8.02 0	8.22 2
26.6305	26.7465	0.74	80.00	7.77-1	-6.49 2	-7.99-1	6.51 2
26.7033	26.7558	0.84	30.00	3.46 0	-8.65 2	-3.49 0	8.66 2
26.6893	26.7569	0.80	43.00	2.05 0	-8.54 2	-2.08 0	8.55 2
26.7428	26.7620	1.60	3.10	2.65 2	-8.25 2	-2.65 2	8.25 2
26.7221	26.7654	0.88	22.00	5.42 0	-8.47 2	-5.46 0	8.47 2
26.7496	26.7683	2.00	2.30	1.07 3	-1.36 3	-1.07 3	1.36 3
26.7433	26.7762	0.96	13.50	1.14 1	-7.97 2	-1.14 1	7.98 2
26.7632	26.7885	1.10	7.60	3.02 1	-7.38 2	-3.03 1	7.38 2
26.7541	26.7889	0.94	15.00	9.65 0	-8.09 2	-9.69 0	8.10 2
26.7182	26.7964	0.78	52.00	1.55 0	-8.24 2	-1.57 0	8.26 2
26.7074	26.8007	0.76	64.00	1.13 0	-7.62 2	-1.15 0	7.64 2
26.6917	26.8061	0.74	79.00	7.92-1	-6.58 2	-8.14-1	6.59 2
26.7774	26.8170	0.90	19.00	6.72 0	-8.34 2	-6.76 0	8.35 2
26.7992	26.8180	1.75	2.70	4.72 2	-9.98 2	-4.73 2	9.98 2
26.7999	26.8186	1.80	2.60	5.69 2	-1.07 3	-5.70 2	1.08 3
26.7931	26.8203	1.05	9.00	2.23 1	-7.54 2	-2.23 1	7.55 2
26.7835	26.8417	0.82	35.00	2.76 0	-8.67 2	-2.78 0	8.68 2
26.7933	26.8596	0.80	42.00	2.12 0	-8.58 2	-2.14 0	8.59 2
26.7535	26.8662	0.74	78.00	8.08-1	-6.66 2	-8.30-1	6.68 2
26.7787	26.8706	0.76	63.00	1.15 0	-7.69 2	-1.17 0	7.71 2
26.80	27.60						
26.8172	26.8469	1.00	11.00	1.58 1	-7.75 2	-1.58 1	7.76 2
26.8130	26.8597	0.86	25.00	4.48 0	-8.58 2	-4.51 0	8.58 2
26.8474	26.8663	1.70	2.80	3.91 2	-9.26 2	-3.92 2	9.26 2
26.8506	26.8693	1.85	2.50	6.72 2	-1.13 3	-6.72 2	1.13 3
26.8478	26.8788	0.98	12.00	1.37 1	-7.85 2	-1.37 1	7.86 2
26.8040	26.8809	0.78	51.00	1.59 0	-8.30 2	-1.61 0	8.31 2
26.8741	26.8952	1.30	4.60	8.50 1	-7.23 2	-8.51 1	7.23 2
26.8759	26.8961	1.40	3.90	1.29 2	-7.39 2	-1.29 2	7.40 2
26.8617	26.8982	0.92	16.50	8.28 0	-8.21 2	-8.32 0	8.22 2
26.8598	26.9111	0.84	29.00	3.60 0	-8.66 2	-3.63 0	8.67 2
26.8157	26.9269	0.74	77.00	8.25-1	-6.74 2	-8.47-1	6.76 2
26.9082	26.9287	1.35	4.20	1.06 2	-7.30 2	-1.06 2	7.30 2
26.9192	26.9386	1.50	3.40	1.89 2	-7.70 2	-1.89 2	7.71 2
26.8510	26.9414	0.76	62.00	1.18 0	-7.76 2	-1.20 0	7.77 2
26.9132	26.9521	0.90	18.50	6.95 0	-8.33 2	-6.98 0	8.34 2
26.9300	26.9536	1.15	6.40	4.15 1	-7.27 2	-4.16 1	7.28 2
26.9444	26.9633	1.65	2.90	3.32 2	-8.77 2	-3.32 2	8.77 2
26.9372	26.9640	1.05	8.80	2.29 1	-7.54 2	-2.30 1	7.54 2
26.9003	26.9653	0.80	41.00	2.18 0	-8.61 2	-2.21 0	8.62 2
26.8915	26.9671	0.78	50.00	1.63 0	-8.35 2	-1.66 0	8.36 2
26.9455	26.9704	1.10	7.40	3.14 1	-7.38 2	-3.14 1	7.38 2
26.9144	26.9714	0.82	34.00	2.86 0	-8.69 2	-2.88 0	8.70 2
26.9532	26.9717	1.90	2.40	8.54 2	-1.28 3	-8.55 2	1.28 3
26.9384	26.9724	0.94	14.50	1.01 1	-8.08 2	-1.01 1	8.08 2
26.9558	26.9750	1.55	3.20	2.30 2	-7.99 2	-2.30 2	8.00 2
26.9551	26.9872	0.96	13.00	1.19 1	-7.96 2	-1.20 1	7.96 2
26.8785	26.9880	0.74	76.00	8.42-1	-6.83 2	-8.63-1	6.84 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
26.9513	26.9932	0.88	21.00	5.74 0	-8.46 2	-5.77 0	8.47 2
26.9742	26.9939	1.45	3.60	1.59 2	-7.54 2	-1.59 2	7.54 2
26.9763	26.9987	1.20	5.60	5.43 1	-7.22 2	-5.44 1	7.22 2
26.9243	27.0134	0.76	61.00	1.20 0	-7.83 2	-1.23 0	7.84 2
26.9950	27.0166	1.25	5.00	6.94 1	-7.21 2	-6.95 1	7.21 2
26.9418	27.0498	0.74	75.00	8.59-1	-6.91 2	-8.81-1	6.92 2
27.0087	27.0540	0.86	24.00	4.71 0	-8.58 2	-4.74 0	8.58 2
26.9809	27.0552	0.78	49.00	1.67 0	-8.40 2	-1.70 0	8.41 2
27.0247	27.0605	0.92	16.00	8.61 0	-8.20 2	-8.64 0	8.21 2
27.0233	27.0732	0.84	28.00	3.76 0	-8.67 2	-3.79 0	8.68 2
27.0102	27.0739	0.80	40.00	2.25 0	-8.65 2	-2.28 0	8.66 2
26.9988	27.0865	0.76	60.00	1.23 0	-7.89 2	-1.25 0	7.91 2
27.0540	27.0922	0.90	18.00	7.19 0	-8.33 2	-7.22 0	8.33 2
27.0501	27.1057	0.82	33.00	2.96 0	-8.71 2	-2.99 0	8.72 2
27.0905	27.1094	1.60	3.00	2.84 2	-8.40 2	-2.84 2	8.40 2
27.0057	27.1121	0.74	74.00	8.76-1	-6.99 2	-8.98-1	7.00 2
27.0860	27.1125	1.05	8.60	2.37 1	-7.53 2	-2.37 1	7.54 2
27.0967	27.1256	1.00	10.50	1.68 1	-7.74 2	-1.68 1	7.74 2
27.0962	27.1264	0.98	11.50	1.44 1	-7.84 2	-1.45 1	7.85 2
27.1103	27.1287	1.95	2.30	1.01 3	-1.35 3	-1.01 3	1.35 3
27.1174	27.1373	1.40	3.80	1.35 2	-7.43 2	-1.35 2	7.44 2
27.0723	27.1452	0.78	48.00	1.72 0	-8.45 2	-1.74 0	8.46 2
27.1353	27.1598	1.10	7.20	3.26 1	-7.38 2	-3.26 1	7.38 2
27.0744	27.1607	0.76	59.00	1.26 0	-7.96 2	-1.28 0	7.97 2
27.1316	27.1649	0.94	14.00	1.05 1	-8.07 2	-1.06 1	8.07. 2
27.0702	27.1751	0.74	73.00	8.94-1	-7.07 2	-9.16-1	7.08 2
27.1233	27.1857	0.80	39.00	2.32 0	-8.68 2	-2.35 0	8.69 2
27.1636	27.1867	1.15	6.20	4.34 1	-7.28 2	-4.35 1	7.28 2
27.0615	27.1930	0.72	90.00	6.13-1	-5.72 2	-6.33-1	5.73 2
27.1785	27.2098	0.96	12.50	1.26 1	-7.94 2	-1.26 1	7.95 2
27.1947	27.2298	0.92	15.50	8.95 0	-8.19 2	-8.99 0	8.19 2
27.1953	27.2357	0.88	20.00	6.09 0	-8.45 2	-6.13 0	8.46 2
27.1512	27.2361	0.76	58.00	1.29 0	-8.02 2	-1.31 0	8.03 2
27.1657	27.2373	0.78	47.00	1.77 0	-8.49 2	-1.79 0	8.51 2
27.2001	27.2376	0.90	17.50	7.44 0	-8.32 2	-7.48 0	8.33 2
27.2192	27.2383	1.50	3.30	2.00 2	-7.78 2	-2.01 2	7.78 2
27.1354	27.2387	0.74	72.00	9.13-1	-7.15 2	-9.35-1	7.16 2
27.1942	27.2428	0.84	27.00	3.93 0	-8.68 2	-3.96 0	8.69 2
27.1908	27.2451	0.82	32.00	3.08 0	-8.73 2	-3.11 0	8.74 2
27.1204	27.2499	0.72	89.00	6.25-1	-5.81 2	-6.45-1	5.82 2
27.2366	27.2551	1.75	2.60	5.16 2	-1.02 3	-5.16 2	1.02 3
27.2151	27.2590	0.86	23.00	4.96 0	-8.58 2	-4.99 0	8.58 2
27.2400	27.2661	1.05	8.40	2.44 1	-7.53 2	-2.45 1	7.53 2
27.2483	27.2677	1.45	3.50	1.67 2	-7.60 2	-1.67 2	7.60 2
27.2557	27.2764	1.30	4.40	9.14 1	-7.27 2	-9.15 1	7.28 2
27.2592	27.2778	1.70	2.70	4.31 2	-9.60 2	-4.31 2	9.60 2
27.2604	27.2824	1.20	5.40	5.73 1	-7.23 2	-5.74 1	7.24 2
27.2662	27.2846	1.80	2.50	6.18 2	-1.09 3	-6.19 2	1.09 3
27.2399	27.3010	0.80	38.00	2.40 0	-8.71 2	-2.42 0	8.72 2
27.2012	27.3031	0.74	71.00	9.32-1	-7.23 2	-9.54-1	7.24 2
27.2867	27.3056	1.55	3.10	2.45 2	-8.10 2	-2.45 2	8.10 2
27.1795	27.3072	0.72	88.00	6.37-1	-5.90 2	-6.58-1	5.91 2
27.2293	27.3129	0.76	57.00	1.32 0	-8.08 2	-1.34 0	8.10 2
27.2613	27.3316	0.78	46.00	1.82 0	-8.54 2	-1.84 0	8.55 2
27.3256	27.3438	2.00	2.20	8.95 2	-1.06 3	-8.96 2	1.06 3
27.3332	27.3518	1.65	2.80	3.60 2	-8.99 2	-3.60 2	8.99 2
27.3317	27.3528	1.25	4.80	7.39 1	-7.24 2	-7.40 1	7.24 2
27.3330	27.3571	1.10	7.00	3.39 1	-7.37 2	-3.39 1	7.38 2
27.3233	27.3631	0.88	19.50	6.29 0	-8.45 2	-6.32 0	8.45 2
27.2389	27.3647	0.72	87.00	6.50-1	-5.99 2	-6.70-1	6.00 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
27.3345	27.3670	0.94	13.50	1.10 1	-8.05 2	-1.11 1	8.06 2
27.3476	27.3676	1.35	4.00	1.15 2	-7.36 2	-1.15 2	7.36 2
27.3495	27.3678	1.85	2.40	7.48 2	-1.17 3	-7.48 2	1.18 3
27.2678	27.3681	0.74	70.00	9.52-1	-7.30 2	-9.73-1	7.32 2
27.3519	27.3887	0.90	17.00	7.71 0	-8.31 2	-7.75 0	8.32 2
27.3695	27.3891	1.40	3.70	1.41 2	-7.48 2	-1.41 2	7.48 2
27.3602	27.3896	0.98	11.00	1.53 1	-7.82 2	-1.53 1	7.83 2
27.3370	27.3900	0.82	31.00	3.20 0	-8.75 2	-3.23 0	8.76 2
27.3087	27.3909	0.76	56.00	1.35 0	-8.14 2	-1.37 0	8.16 2
27.3723	27.4067	0.92	15.00	9.32 0	-8.18 2	-9.36 0	8.18 2
27.3601	27.4199	0.80	37.00	2.48 0	-8.74 2	-2.50 0	8.75 2
27.3733	27.4205	0.84	26.00	4.11 0	-8.68 2	-4.14 0	8.69 2
27.2985	27.4226	0.72	86.00	6.63-1	-6.08 2	-6.83-1	6.09 2
27.3957	27.4238	1.00	10.00	1.79 1	-7.72 2	-1.79 1	7.73 2
27.3994	27.4251	1.05	8.20	2.52 1	-7.52 2	-2.53 1	7.53 2
27.3592	27.4282	0.78	45.00	1.87 0	-8.58 2	-1.89 0	8.59 2
27.4088	27.4316	1.15	6.00	4.55 1	-7.28 2	-4.56 1	7.29 2
27.3351	27.4339	0.74	69.00	9.72-1	-7.38 2	-9.93-1	7.39 2
27.4146	27.4452	0.96	12.00	1.32 1	-7.93 2	-1.33 1	7.94 2
27.3896	27.4704	0.76	55.00	1.38 0	-8.20 2	-1.41 0	8.22 2
27.4334	27.4760	0.86	22.00	5.23 0	-8.57 2	-5.26 0	8.58 2
27.4586	27.4772	1.60	2.90	3.05 2	-8.54 2	-3.05 2	8.55 2
27.3585	27.4809	0.72	85.00	6.76-1	-6.17 2	-6.96-1	6.18 2
27.4558	27.4948	0.88	19.00	6.49 0	-8.44 2	-6.52 0	8.45 2
27.4031	27.5005	0.74	68.00	9.92-1	-7.46 2	-1.01 0	7.47 2
27.4890	27.5071	1.90	2.30	9.10 2	-1.27 3	-9.11 2	1.27 3
27.4595	27.5272	0.78	44.00	1.92 0	-8.62 2	-1.95 0	8.64 2
27.4189	27.5395	0.72	84.00	6.89-1	-6.26 2	-7.09-1	6.27 2
27.4891	27.5408	0.82	30.00	3.33 0	-8.76 2	-3.36 0	8.77 2
27.4842	27.5427	0.80	36.00	2.56 0	-8.77 2	-2.59 0	8.78 2
27.5098	27.5458	0.90	16.50	8.00 0	-8.30 2	-8.04 0	8.31 2
27.5213	27.5491	1.00	9.80	1.84 1	-7.72 2	-1.84 1	7.72 2
27.4718	27.5513	0.76	54.00	1.42 0	-8.26 2	-1.44 0	8.27 2
27.5348	27.5537	1.50	3.20	2.13 2	-7.86 2	-2.13 2	7.86 2
27.5357	27.5548	1.45	3.40	1.76 2	-7.65 2	-1.76 2	7.66 2
27.5393	27.5631	1.10	6.80	3.53 1	-7.37 2	-3.54 1	7.38 2
27.4720	27.5679	0.74	67.00	1.01 0	-7.53 2	-1.04 0	7.54 2
27.5480	27.5797	0.94	13.00	1.15 1	-8.04 2	-1.16 1	8.05 2
27.5613	27.5828	1.20	5.20	6.07 1	-7.25 2	-6.08 1	7.25 2
27.5645	27.5899	1.05	8.00	2.61 1	-7.52 2	-2.61 1	7.52 2
27.5582	27.5918	0.92	14.50	9.73 0	-8.17 2	-9.77 0	8.17 2
27.4796	27.5985	0.72	83.00	7.03-1	-6.34 2	-7.23-1	6.36 2
27.5809	27.6007	1.35	3.90	1.20 2	-7.40 2	-1.20 2	7.40 2
27.5613	27.6072	0.84	25.00	4.32 0	-8.69 2	-4.35 0	8.70 2
27.5623	27.6288	0.78	43.00	1.98 0	-8.66 2	-2.00 0	8.68 2
27.5929	27.6313	0.88	18.50	6.71 0	-8.43 2	-6.74 0	8.44 2
27.5556	27.6338	0.76	53.00	1.45 0	-8.32 2	-1.48 0	8.33 2
27.5417	27.6361	0.74	66.00	1.04 0	-7.60 2	-1.06 0	7.62 2
27.5407	27.6579	0.72	82.00	7.17-1	-6.43 2	-7.37-1	6.44 2
27.60	28.40						
27.6330	27.6524	1.40	3.60	1.48 2	-7.52 2	-1.48 2	7.53 2
27.6362	27.6549	1.55	3.00	2.62 2	-8.22 2	-2.62 2	8.23 2
27.6124	27.6696	0.80	35.00	2.65 0	-8.79 2	-2.68 0	8.80 2
27.6417	27.6702	0.98	10.50	1.62 1	-7.81 2	-1.63 1	7.81 2
27.6507	27.6781	1.00	9.60	1.89 1	-7.71 2	-1.89 1	7.72 2
27.6661	27.6862	1.30	4.20	9.86 1	-7.32 2	-9.88 1	7.32 2
27.6668	27.6891	1.15	5.80	4.79 1	-7.29 2	-4.79 1	7.29 2
27.6649	27.6947	0.96	11.50	1.40 1	-7.91 2	-1.40 1	7.92 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
27.6476	27.6980	0.82	29.00	3.47 0	-8.78 2	-3.50 0	8.79 2
27.6123	27.7053	0.74	65.00	1.06 0	-7.68 2	-1.08 0	7.69 2
27.6650	27.7062	0.86	21.00	5.54 0	-8.57 2	-5.57 0	8.57 2
27.6882	27.7062	1.95	2.20	9.40 2	-1.16 3	-9.41 2	1.16 3
27.6743	27.7096	0.90	16.00	8.31 0	-8.29 2	-8.35 0	8.30 2
27.6911	27.7118	1.25	4.60	7.92 1	-7.27 2	-7.93 1	7.27 2
27.6986	27.7168	1.70	2.60	4.69 2	-9.82 2	-4.69 2	9.82 2
27.6022	27.7177	0.72	81.00	7.31-1	-6.52 2	-7.51-1	6.53 2
27.6411	27.7179	0.76	52.00	1.49 0	-8.37 2	-1.51 0	8.38 2
27.7049	27.7230	1.75	2.50	5.58 2	-1.04 3	-5.59 2	1.04 3
27.6679	27.7331	0.78	42.00	2.04 0	-8.70 2	-2.06 0	8.71 2
27.7358	27.7608	1.05	7.80	2.70 1	-7.51 2	-2.70 1	7.52 2
27.7469	27.7652	1.65	2.70	3.94 2	-9.27 2	-3.94 2	9.28 2
27.7351	27.7727	0.88	18.00	6.93 0	-8.43 2	-6.97 0	8.43 2
27.6838	27.7754	0.74	64.00	1.08 0	-7.75 2	-1.10 0	7.76 2
27.6641	27.7780	0.72	80.00	7.46-1	-6.60 2	-7.66-1	6.62 2
27.7549	27.7782	1.10	6.60	3.68 1	-7.37 2	-3.69 1	7.38 2
27.7671	27.7851	1.80	2.40	6.88 2	-1.14 3	-6.88 2	1.14 3
27.7530	27.7859	0.92	14.00	1.02 1	-8.15 2	-1.02 1	8.16 2
27.7450	27.8010	0.80	34.00	2.75 0	-8.82 2	-2.78 0	8.83 2
27.7591	27.8037	0.84	24.00	4.54 0	-8.69 2	-4.57 0	8.70 2
27.7282	27.8037	0.76	51.00	1.53 0	-8.43 2	-1.55 0	8.44 2
27.7731	27.8041	0.94	12.50	1.21 1	-8.02 2	-1.22 1	8.03 2
27.7839	27.8110	1.00	9.40	1.94 1	-7.71 2	-1.94 1	7.71 2
27.7265	27.8387	0.72	79.00	7.61-1	-6.69 2	-7.81-1	6.70 2
27.7764	27.8402	0.78	41.00	2.10 0	-8.74 2	-2.12 0	8.75 2
27.8242	27.8437	1.35	3.80	1.26 2	-7.43 2	-1.26 2	7.43 2
27.7563	27.8465	0.74	63.00	1.11 0	-7.82 2	-1.13 0	7.83 2
27.8375	27.8564	1.45	3.30	1.86 2	-7.72 2	-1.87 2	7.72 2
27.8130	27.8621	0.82	28.00	3.62 0	-8.79 2	-3.65 0	8.80 2
27.8494	27.8676	1.60	2.80	3.30 2	-8.73 2	-3.30 2	8.73 2
27.8458	27.8804	0.90	15.50	8.64 0	-8.28 2	-8.68 0	8.29 2
27.8676	27.8862	1.50	3.10	2.26 2	-7.94 2	-2.26 2	7.95 2
27.8171	27.8913	0.76	50.00	1.57 0	-8.48 2	-1.59 0	8.49 2
27.7894	27.9000	0.72	78.00	7.76-1	-6.77 2	-7.96-1	6.79 2
27.8806	27.9017	1.20	5.00	6.45 1	-7.27 2	-6.46 1	7.27 2
27.8873	27.9052	1.85	2.30	7.90 2	-1.16 3	-7.91 2	1.16 3
27.8298	27.9186	0.74	62.00	1.13 0	-7.89 2	-1.15 0	7.90 2
27.8826	27.9195	0.88	17.50	7.18 0	-8.42 2	-7.21 0	8.42 2
27.9089	27.9280	1.40	3.50	1.56 2	-7.57 2	-1.56 2	7.58 2
27.8824	27.9371	0.80	33.00	2.85 0	-8.84 2	-2.88 0	8.85 2
27.9136	27.9382	1.05	7.60	2.80 1	-7.51 2	-2.80 1	7.51 2
27.9213	27.9480	1.00	9.20	1.99 1	-7.70 2	-2.00 1	7.70 2
27.8878	27.9504	0.78	40.00	2.16 0	-8.78 2	-2.19 0	8.79 2
27.9114	27.9513	0.86	20.00	5.88 0	-8.56 2	-5.91 0	8.56 2
27.9309	27.9598	0.96	11.00	1.48 1	-7.90 2	-1.48 1	7.90 2
27.9387	27.9606	1.15	5.60	5.04 1	-7.29 2	-5.05 1	7.30 2
27.8528	27.9618	0.72	77.00	7.92-1	-6.86 2	-8.12-1	6.87 2
27.9520	27.9698	2.00	2.10	4.04 2	-4.40 2	-4.05 2	4.40 2
27.9428	27.9705	0.98	10.00	1.73 1	-7.79 2	-1.73 1	7.80 2
27.9079	27.9808	0.76	49.00	1.61 0	-8.53 2	-1.63 0	8.54 2
27.9576	27.9897	0.92	13.50	1.06 1	-8.14 2	-1.07 1	8.14 2
27.9044	27.9918	0.74	61.00	1.16 0	-7.95 2	-1.18 0	7.97 2
27.9804	28.0034	1.10	6.40	3.84 1	-7.37 2	-3.85 1	7.38 2
27.9678	28.0111	0.84	23.00	4.78 0	-8.69 2	-4.81 0	8.70 2
27.9167	28.0241	0.72	76.00	8.08-1	-6.94 2	-8.28-1	6.96 2
28.0063	28.0246	1.55	2.90	2.81 2	-8.34 2	-2.81 2	8.35 2
27.9859	28.0337	0.82	27.00	3.79 0	-8.80 2	-3.81 0	8.80 2
28.0111	28.0413	0.94	12.00	1.28 1	-8.01 2	-1.28 1	8.02 2
28.0250	28.0589	0.90	15.00	9.00 0	-8.27 2	-9.04 0	8.28 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
28.0026	28.0639	0.78	39.00	2.23 0	-8.81 2	-2.26 0	8.82 2
27.9801	28.0662	0.74	60.00	1.18 0	-8.02 2	-1.20 0	8.03 2
28.0359	28.0721	0.88	17.00	7.44 0	-8.41 2	-7.47 0	8.42 2
28.0006	28.0723	0.76	48.00	1.65 0	-8.58 2	-1.68 0	8.59 2
28.0250	28.0784	0.80	32.00	2.96 0	-8.86 2	-2.99 0	8.87 2
28.0408	28.0800	0.86	19.50	6.06 0	-8.55 2	-6.09 0	8.56 2
28.0690	28.0867	1.90	2.20	8.86 2	-1.14 3	-8.87 2	1.15 3
27.9811	28.0870	0.72	75.00	8.24-1	-7.03 2	-8.44-1	7.04 2
28.0630	28.0893	1.00	9.00	2.05 1	-7.69 2	-2.06 1	7.70 2
28.0760	28.0962	1.25	4.40	8.50 1	-7.31 2	-8.51 1	7.31 2
28.0693	28.0967	0.98	9.80	1.78 1	-7.79 2	-1.78 1	7.79 2
28.0780	28.0973	1.35	3.70	1.32 2	-7.47 2	-1.32 2	7.47 2
28.0985	28.1227	1.05	7.40	2.90 1	-7.50 2	-2.91 1	7.51 2
28.1089	28.1286	1.30	4.00	1.07 2	-7.37 2	-1.07 2	7.38 2
28.0570	28.1416	0.74	59.00	1.21 0	-8.09 2	-1.23 0	8.10 2
28.0462	28.1506	0.72	74.00	8.41-1	-7.11 2	-8.61-1	7.12 2
28.0955	28.1658	0.76	47.00	1.70 0	-8.63 2	-1.72 0	8.64 2
28.1551	28.1737	1.45	3.20	1.98 2	-7.79 2	-1.98 2	7.80 2
28.1207	28.1808	0.78	38.00	2.31 0	-8.84 2	-2.33 0	8.85 2
28.1689	28.1868	1.70	2.50	5.06 2	-9.93 2	-5.07 2	9.93 2
28.1729	28.2042	0.92	13.00	1.12 1	-8.12 2	-1.12 1	8.13 2
28.1884	28.2063	1.65	2.60	4.27 2	-9.45 2	-4.28 2	9.46 2
28.1746	28.2131	0.86	19.00	6.26 0	-8.55 2	-6.29 0	8.55 2
28.1671	28.2136	0.82	26.00	3.96 0	-8.80 2	-3.99 0	8.81 2
28.1119	28.2147	0.72	73.00	8.58-1	-7.19 2	-8.79-1	7.20 2
28.1982	28.2170	1.40	3.40	1.64 2	-7.63 2	-1.64 2	7.63 2
28.1351	28.2184	0.74	58.00	1.24 0	-8.15 2	-1.26 0	8.16 2
28.1730	28.2252	0.80	31.00	3.08 0	-8.87 2	-3.11 0	8.88 2
28.2078	28.2256	1.75	2.40	6.15 2	-1.07 3	-6.16 2	1.07 3
28.1995	28.2265	0.98	9.60	1.82 1	-7.78 2	-1.83 1	7.78 2
28.1885	28.2304	0.84	22.00	5.04 0	-8.68 2	-5.07 0	8.69 2
28.1952	28.2307	0.88	16.50	7.72 0	-8.40 2	-7.75 0	8.41 2
28.2093	28.2353	1.00	8.80	2.12 1	-7.69 2	-2.12 1	7.69 2
28.2191	28.2374	1.50	3.00	2.41 2	-8.05 2	-2.41 2	8.05 2
28.2168	28.2393	1.10	6.20	4.02 1	-7.38 2	-4.03 1	7.38 2
28.2204	28.2411	1.20	4.80	6.87 1	-7.29 2	-6.88 1	7.29 2
28.2144	28.2425	0.96	10.50	1.57 1	-7.88 2	-1.57 1	7.89 2
28.2125	28.2456	0.90	14.50	9.39 0	-8.26 2	-9.43 0	8.26 2
28.2259	28.2473	1.15	5.40	5.32 1	-7.30 2	-5.33 1	7.31 2
28.1925	28.2615	0.76	46.00	1.74 0	-8.67 2	-1.77 0	8.68 2
28.1782	28.2795	0.72	72.00	8.76-1	-7.27 2	-8.96-1	7.28 2
28.2651	28.2830	1.60	2.70	3.60 2	-8.96 2	-3.60 2	8.97 2
28.2633	28.2927	0.94	11.50	1.35 1	-7.99 2	-1.35 1	8.00 2
28.2144	28.2964	0.74	57.00	1.27 0	-8.21 2	-1.29 0	8.23 2
28.1677	28.2965	0.70	90.00	5.88-1	-5.82 2	-6.07-1	5.83 2
28.2426	28.3014	0.78	37.00	2.38 0	-8.87 2	-2.41 0	8.88 2
28.2908	28.3146	1.05	7.20	3.01 1	-7.50 2	-3.02 1	7.50 2
28.3070	28.3246	1.80	2.30	7.36 2	-1.13 3	-7.37 2	1.13 3
28.3167	28.3343	1.95	2.10	6.05 2	-6.89 2	-6.06 2	6.89 2
28.2452	28.3451	0.72	71.00	8.94-1	-7.35 2	-9.15-1	7.36 2
28.3131	28.3509	0.86	18.50	6.47 0	-8.54 2	-6.50 0	8.54 2
28.2277	28.3547	0.70	89.00	5.99-1	-5.91 2	-6.18-1	5.93 2
28.2918	28.3596	0.76	45.00	1.79 0	-8.72 2	-1.82 0	8.73 2
28.3336	28.3603	0.98	9.40	1.88 1	-7.77 2	-1.88 1	7.78 2
28.3434	28.3624	1.35	3.60	1.38 2	-7.51 2	-1.38 2	7.52 2
28.3440	28.3634	1.30	3.90	1.12 2	-7.41 2	-1.12 2	7.41 2
28.2951	28.3758	0.74	56.00	1.30 0	-8.28 2	-1.32 0	8.29 2
28.3270	28.3779	0.80	30.00	3.20 0	-8.89 2	-3.23 0	8.90 2
28.3604	28.3861	1.00	8.60	2.18 1	-7.68 2	-2.19 1	7.68 2
28.3612	28.3960	0.88	16.00	8.02 0	-8.39 2	-8.05 0	8.40 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
28.3573	28.4025	0.82	25.00	4.16 0	-8.81 2	-4.18 0	8.81 2
28.3129	28.4113	0.72	70.00	9.13-1	-7.43 2	-9.33-1	7.44 2
28.2879	28.4131	0.70	88.00	6.11-1	-6.00 2	-6.30-1	6.02 2
28.3991	28.4171	1.55	2.80	3.03 2	-8.50 2	-3.03 2	8.50 2
28.3683	28.4258	0.78	36.00	2.47 0	-8.90 2	-2.49 0	8.91 2
28.3998	28.4303	0.92	12.50	1.17 1	-8.11 2	-1.18 1	8.12 2
28.3773	28.4566	0.74	55.00	1.33 0	-8.34 2	-1.35 0	8.35 2
28.3936	28.4601	0.76	44.00	1.85 0	-8.76 2	-1.87 0	8.77 2
28.3484	28.4718	0.70	87.00	6.23-1	-6.10 2	-6.42-1	6.11 2
28.3814	28.4783	0.72	69.00	9.32-1	-7.51 2	-9.53-1	7.52 2
28.40	29.20						
28.4090	28.4414	0.90	14.00	9.81 0	-8.24 2	-9.85 0	8.25 2
28.4226	28.4631	0.84	21.00	5.34 0	-8.68 2	-5.37 0	8.68 2
28.4694	28.4869	1.85	2.70	7.73 2	-1.05 3	-7.73 2	1.05 3
28.4649	28.4870	1.10	6.00	4.22 1	-7.38 2	-4.22 1	7.38 2
28.4567	28.4938	0.86	18.00	6.69 0	-8.53 2	-6.72 0	8.54 2
28.4719	28.4982	0.98	9.20	1.93 1	-7.77 2	-1.93 1	7.77 2
28.4898	28.5081	1.45	3.10	2.10 2	-7.87 2	-2.10 2	7.87 2
28.4898	28.5095	1.25	4.20	9.17 1	-7.35 2	-9.18 1	7.35 2
28.4911	28.5146	1.05	7.00	3.13 1	-7.50 2	-3.14 1	7.50 2
28.5019	28.5204	1.40	3.30	1.74 2	-7.69 2	-1.74 2	7.69 2
28.4093	28.5309	0.70	86.00	6.35-1	-6.19 2	-6.54-1	6.20 2
28.4875	28.5370	0.80	29.00	3.34 0	-8.90 2	-3.37 0	8.91 2
28.4609	28.5389	0.74	54.00	1.36 0	-8.40 2	-1.38 0	8.41 2
28.5167	28.5420	1.00	8.40	2.25 1	-7.67 2	-2.26 1	7.68 2
28.5176	28.5449	0.96	10.00	1.67 1	-7.86 2	-1.68 1	7.87 2
28.4506	28.5461	0.72	68.00	9.52-1	-7.58 2	-9.72-1	7.60 2
28.5298	28.5509	1.15	5.20	5.63 1	-7.32 2	-5.64 1	7.32 2
28.4983	28.5545	0.78	35.00	2.55 0	-8.93 2	-2.58 0	8.93 2
28.5312	28.5598	0.94	11.00	1.43 1	-7.98 2	-1.43 1	7.98 2
28.4980	28.5632	0.76	43.00	1.90 0	-8.80 2	-1.92 0	8.81 2
28.5343	28.5684	0.88	15.50	8.34 0	-8.38 2	-8.37 0	8.38 2
28.4704	28.5903	0.70	85.00	6.48-1	-6.28 2	-6.67-1	6.29 2
28.5574	28.6013	0.82	24.00	4.37 0	-8.81 2	-4.40 0	8.82 2
28.5831	28.6033	1.20	4.60	7.35 1	-7.32 2	-7.36 1	7.32 2
28.5891	28.6082	1.30	3.80	1.17 2	-7.44 2	-1.17 2	7.44 2
28.5912	28.6092	1.50	2.90	2.58 2	-8.15 2	-2.58 2	8.15 2
28.5207	28.6148	0.72	67.00	9.73-1	-7.66 2	-9.93-1	7.67 2
28.5460	28.6227	0.74	53.00	1.40 0	-8.45 2	-1.42 0	8.47 2
28.6212	28.6399	1.35	3.50	1.45 2	-7.56 2	-1.45 2	7.57 2
28.6145	28.6405	0.98	9.00	1.99 1	-7.76 2	-1.99 1	7.76 2
28.6056	28.6420	0.86	17.50	6.92 0	-8.52 2	-6.95 0	8.53 2
28.6153	28.6469	0.90	13.50	1.03 1	-8.23 2	-1.03 1	8.24 2
28.5319	28.6501	0.70	84.00	6.61-1	-6.37 2	-6.79-1	6.38 2
28.6051	28.6690	0.76	42.00	1.96 0	-8.84 2	-1.98 0	8.85 2
28.6397	28.6694	0.92	12.00	1.23 1	-8.09 2	-1.24 1	8.10 2
28.6449	28.6719	0.96	9.80	1.72 1	-7.86 2	-1.72 1	7.86 2
28.6607	28.6783	1.65	2.50	4.61 2	-9.55 2	-4.61 2	9.56 2
28.5916	28.6843	0.72	66.00	9.94-1	-7.73 2	-1.01 0	7.75 2
28.6327	28.6877	0.78	34.00	2.64 0	-8.95 2	-2.67 0	8.96 2
28.6740	28.6915	1.70	2.40	5.55 2	-1.02 3	-5.55 2	1.02 3
28.6549	28.7032	0.80	28.00	3.49 0	-8.91 2	-3.51 0	8.92 2
28.6785	28.7034	1.00	8.20	2.33 1	-7.67 2	-2.33 1	7.67 2
28.6328	28.7082	0.74	52.00	1.43 0	-8.51 2	-1.45 0	8.52 2
28.5938	28.7103	0.70	83.00	6.74-1	-6.46 2	-6.93-1	6.47 2
28.6716	28.7108	0.84	20.00	5.66 0	-8.67 2	-5.69 0	8.68 2
28.6996	28.7169	1.90	2.10	6.74 2	-8.04 2	-6.75 2	8.04 2
28.7001	28.7232	1.05	6.80	3.26 1	-7.49 2	-3.27 1	7.50 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
28.7086	28.7262	1.60	2.60	3.89 2	-9.11 2	-3.89 2	9.11 2
28.7258	28.7476	1.10	5.80	4.43 1	-7.38 2	-4.44 1	7.39 2
28.7152	28.7485	0.88	15.00	8.69 0	-8.37 2	-8.72 0	8.37 2
28.6634	28.7547	0.72	65.00	1.02 0	-7.81 2	-1.04 0	7.82 2
28.7499	28.7672	1.75	2.30	6.58 2	-1.06 3	-6.58 2	1.06 3
28.6560	28.7709	0.70	82.00	6.87-1	-6.55 2	-7.06-1	6.56 2
28.7151	28.7778	0.76	41.00	2.02 0	-8.88 2	-2.04 0	8.89 2
28.7617	28.7874	0.98	8.80	2.05 1	-7.75 2	-2.05 1	7.76 2
28.7213	28.7954	0.74	51.00	1.47 0	-8.56 2	-1.49 0	8.58 2
28.7603	28.7960	0.86	17.00	7.17 0	-8.51 2	-7.21 0	8.52 2
28.7760	28.8026	0.96	9.60	1.76 1	-7.85 2	-1.77 1	7.86 2
28.7685	28.8110	0.82	23.00	4.60 0	-8.81 2	-4.63 0	8.81 2
28.7720	28.8257	0.78	33.00	2.74 0	-8.97 2	-2.77 0	8.98 2
28.7362	28.8260	0.72	64.00	1.04 0	-7.88 2	-1.06 0	7.89 2
28.7187	28.8319	0.70	81.00	7.01-1	-6.63 2	-7.20-1	6.65 2
28.8168	28.8345	1.55	2.70	3.29 2	-8.69 2	-3.29 2	8.69 2
28.8215	28.8397	1.40	3.20	1.84 2	-7.76 2	-1.84 2	7.76 2
28.8023	28.8408	0.84	19.50	5.84 0	-8.66 2	-5.87 0	8.67 2
28.8168	28.8446	0.94	10.50	1.52 1	-7.96 2	-1.52 1	7.97 2
28.8434	28.8613	1.45	3.00	2.24 2	-7.97 2	-2.24 2	7.97 2
28.8323	28.8632	0.90	13.00	1.08 1	-8.22 2	-1.08 1	8.22 2
28.8448	28.8637	1.30	3.70	1.22 2	-7.48 2	-1.22 2	7.48 2
28.8461	28.8707	1.00	8.00	2.40 1	-7.66 2	-2.41 1	7.67 2
28.8523	28.8729	1.15	5.00	5.98 1	-7.33 2	-5.98 1	7.34 2
28.8300	28.8770	0.80	27.00	3.64 0	-8.92 2	-3.67 0	8.93 2
28.8116	28.8844	0.74	50.00	1.51 0	-8.62 2	-1.53 0	8.63 2
28.8282	28.8896	0.76	40.00	2.08 0	-8.91 2	-2.10 0	8.93 2
28.7818	28.8934	0.70	80.00	7.15-1	-6.72 2	-7.34-1	6.74 2
28.8099	28.8984	0.72	63.00	1.06 0	-7.95 2	-1.08 0	7.97 2
28.8912	28.9085	1.80	2.20	7.49 2	-1.07 3	-7.50 2	1.07 3
28.8938	28.9227	0.92	11.50	1.30 1	-8.08 2	-1.31 1	8.08 2
28.9124	28.9308	1.35	3.40	1.53 2	-7.61 2	-1.53 2	7.61 2
28.9043	28.9369	0.88	14.50	9.06 0	-8.35 2	-9.10 0	8.36 2
28.9110	28.9373	0.96	9.40	1.81 1	-7.84 2	-1.82 1	7.85 2
28.9138	28.9391	0.98	8.60	2.11 1	-7.75 2	-2.11 1	7.75 2
28.9184	28.9411	1.05	6.60	3.40 1	-7.49 2	-3.41 1	7.50 2
28.8453	28.9553	0.70	79.00	7.29-1	-6.81 2	-7.48-1	6.82 2
28.9362	28.9554	1.25	4.00	9.94 1	-7.40 2	-9.95 1	7.40 2
28.9212	28.9562	0.86	16.50	7.44 0	-8.50 2	-7.47 0	8.51 2
28.9164	28.9688	0.78	32.00	2.85 0	-8.99 2	-2.87 0	9.00 2
28.8847	28.9718	0.72	62.00	1.08 0	-8.02 2	-1.10 0	8.04 2
28.9038	28.9753	0.74	49.00	1.54 0	-8.67 2	-1.57 0	8.68 2
28.9375	28.9753	0.84	19.00	6.03 0	-8.66 2	-6.06 0	8.66 2
28.9715	28.9912	1.20	4.40	7.89 1	-7.35 2	-7.90 1	7.36 2
28.9860	29.0037	1.50	2.80	2.77 2	-8.28 2	-2.78 2	8.28 2
28.9445	29.0047	0.76	39.00	2.15 0	-8.95 2	-2.17 0	8.96 2
28.9094	29.0178	0.70	78.00	7.44-1	-6.90 2	-7.63-1	6.91 2
29.0034	29.0205	1.95	2.00	3.05 2	-3.19 2	-3.05 2	3.19 2
29.0007	29.0221	1.10	5.60	4.66 1	-7.39 2	-4.67 1	7.39 2
28.9916	29.0328	0.82	22.00	4.86 0	-8.80 2	-4.88 0	8.81 2
29.0199	29.0441	1.00	7.80	2.49 1	-7.66 2	-2.49 1	7.66 2
28.9606	29.0463	0.72	61.00	1.11 0	-8.09 2	-1.13 0	8.11 2
29.0133	29.0590	0.80	26.00	3.81 0	-8.93 2	-3.84 0	8.94 2
28.9980	29.0682	0.74	48.00	1.59 0	-8.72 2	-1.61 0	8.73 2
29.0501	29.0762	0.96	9.20	1.86 1	-7.84 2	-1.87 1	7.84 2
28.9739	29.0808	0.70	77.00	7.59-1	-6.98 2	-7.78-1	7.00 2
29.0611	29.0912	0.90	12.50	1.13 1	-8.20 2	-1.14 1	8.21 2
29.0711	29.0960	0.98	8.40	2.18 1	-7.74 2	-2.18 1	7.74 2
29.0774	29.1146	0.84	18.50	6.23 0	-8.65 2	-6.26 0	8.66 2
29.0663	29.1175	0.78	31.00	2.96 0	-9.01 2	-2.99 0	9.02 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
29.1022	29.1193	1.85	2.10	6.35 2	-7.94 2	-6.35 2	7.94 2
29.0375	29.1219	0.72	60.00	1.13 0	-8.16 2	-1.15 0	8.17 2
29.0888	29.1230	0.86	16.00	7.73 0	-8.49 2	-7.76 0	8.50 2
29.0644	29.1233	0.76	38.00	2.22 0	-8.98 2	-2.24 0	8.99 2
29.1121	29.1307	1.30	3.60	1.28 2	-7.52 2	-1.28 2	7.52 2
29.1025	29.1344	0.88	14.00	9.47 0	-8.34 2	-9.50 0	8.35 2
29.0390	29.1443	0.70	76.00	7.74-1	-7.07 2	-7.93-1	7.08 2
29.1221	29.1491	0.94	10.00	1.62 1	-7.94 2	-1.62 1	7.95 2
29.0943	29.1633	0.74	47.00	1.63 0	-8.77 2	-1.65 0	8.78 2
29.1468	29.1691	1.05	6.40	3.55 1	-7.49 2	-3.56 1	7.49 2
29.1582	29.1761	1.40	3.10	1.95 2	-7.83 2	-1.95 2	7.84 2
29.1679	29.1851	1.65	2.40	5.03 2	-9.74 2	-5.04 2	9.74 2
29.1637	29.1919	0.92	11.00	1.38 1	-8.06 2	-1.38 1	8.07 2
29.1731	29.1921	1.25	3.90	1.04 2	-7.43 2	-1.04 2	7.43 2
29.1157	29.1987	0.72	59.00	1.16 0	-8.23 2	-1.18 0	8.24 2
29.1831	29.2003	1.60	2.50	4.19 2	-9.19 2	-4.19 2	9.19 2
29.1047	29.2085	0.70	75.00	7.90-1	-7.15 2	-8.09-1	7.17 2
29.1954	29.2156	1.15	4.80	6.36 1	-7.35 2	-6.37 1	7.35 2
29.1937	29.2194	0.96	9.00	1.92 1	-7.83 2	-1.92 1	7.83 2
29.1879	29.2456	0.76	37.00	2.29 0	-9.01 2	-2.31 0	9.02 2
29.1928	29.2605	0.74	46.00	1.67 0	-8.82 2	-1.70 0	8.83 2
29.1709	29.2732	0.70	74.00	8.06-1	-7.24 2	-8.25-1	7.25 2
29.1951	29.2768	0.72	58.00	1.19 0	-8.29 2	-1.21 0	8.31 2
29.20	30.00						
29.2002	29.2241	1.00	7.60	2.58 1	-7.65 2	-2.58 1	7.65 2
29.2175	29.2351	1.45	2.90	2.39 2	-8.06 2	-2.39 2	8.07 2
29.2181	29.2352	1.70	2.30	5.94 2	-1.01 3	-5.95 2	1.01 3
29.2181	29.2362	1.35	3.30	1.61 2	-7.67 2	-1.62 2	7.67 2
29.2058	29.2502	0.80	25.00	4.00 0	-8.93 2	-4.03 0	8.94 2
29.2338	29.2584	0.98	8.20	2.25 1	-7.73 2	-2.25 1	7.74 2
29.2224	29.2589	0.84	18.00	6.44 0	-8.64 2	-6.47 0	8.65 2
29.2282	29.2681	0.82	21.00	5.14 0	-8.80 2	-5.17 0	8.80 2
29.2223	29.2722	0.78	30.00	3.08 0	-9.02 2	-3.11 0	9.03 2
29.2503	29.2770	0.94	9.80	1.66 1	-7.94 2	-1.66 1	7.94 2
29.2624	29.2798	1.55	2.60	3.55 2	-8.81 2	-3.55 2	8.81 2
29.2635	29.2970	0.86	15.50	8.04 0	-8.48 2	-8.07 0	8.49 2
29.2910	29.3119	1.10	5.40	4.92 1	-7.39 2	-4.93 1	7.40 2
29.3029	29.3322	0.90	12.00	1.19 1	-8.18 2	-1.20 1	8.19 2
29.2378	29.3386	0.70	73.00	8.23-1	-7.32 2	-8.41-1	7.33 2
29.3105	29.3417	0.88	13.50	9.91 0	-8.33 2	-9.94 0	8.33 2
29.3363	29.3533	1.75	2.20	6.74 2	-1.01 3	-6.75 2	1.01 3
29.2758	29.3561	0.72	57.00	1.22 0	-8.36 2	-1.24 0	8.37 2
29.2936	29.3601	0.74	45.00	1.72 0	-8.86 2	-1.74 0	8.87 2
29.3419	29.3672	0.96	8.80	1.98 1	-7.82 2	-1.98 1	7.83 2
29.3154	29.3719	0.76	36.00	2.37 0	-9.04 2	-2.39 0	9.05 2
29.3053	29.4046	0.70	72.00	8.40-1	-7.40 2	-8.58-1	7.42 2
29.3884	29.4053	1.90	2.00	4.36 2	-4.77 2	-4.36 2	4.77 2
29.3860	29.4080	1.05	6.20	3.71 1	-7.49 2	-3.72 1	7.49 2
29.3888	29.4080	1.20	4.20	8.50 1	-7.39 2	-8.51 1	7.39 2
29.3728	29.4086	0.84	17.50	6.67 0	-8.63 2	-6.70 0	8.64 2
29.3823	29.4086	0.94	9.60	1.70 1	-7.93 2	-1.71 1	7.93 2
29.3917	29.4101	1.30	3.50	1.35 2	-7.56 2	-1.35 2	7.56 2
29.3877	29.4112	1.00	7.40	2.67 1	-7.65 2	-2.68 1	7.65 2
29.4059	29.4232	1.50	2.70	3.00 2	-8.43 2	-3.00 2	8.43 2
29.4024	29.4267	0.98	8.00	2.32 1	-7.73 2	-2.33 1	7.73 2
29.3848	29.4335	0.78	29.00	3.21 0	-9.04 2	-3.24 0	9.05 2
29.3578	29.4369	0.72	56.00	1.24 0	-8.42 2	-1.26 0	8.43 2
29.4200	29.4387	1.25	3.80	1.08 2	-7.46 2	-1.08 2	7.46 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
29.4082	29.4513	0.80	24.00	4.20 0	-8.94 2	-4.23 0	8.94 2
29.3969	29.4622	0.74	44.00	1.77 0	-8.91 2	-1.79 0	8.92 2
29.3736	29.4714	0.70	71.00	8.57-1	-7.48 2	-8.76-1	7.50 2
29.4514	29.4787	0.92	10.50	1.46 1	-8.04 2	-1.47 1	8.05 2
29.4459	29.4788	0.86	15.00	8.37 0	-8.47 2	-8.41 0	8.48 2
29.3675	29.4936	0.68	90.00	5.63-1	-5.93 2	-5.80-1	5.94 2
29.4472	29.5024	0.76	35.00	2.45 0	-9.07 2	-2.47 0	9.08 2
29.4799	29.5185	0.82	20.00	5.45 0	-8.79 2	-5.48 0	8.79 2
29.4413	29.5191	0.72	55.00	1.27 0	-8.48 2	-1.29 0	8.49 2
29.4949	29.5199	0.96	8.60	2.04 1	-7.82 2	-2.04 1	7.82 2
29.5137	29.5314	1.40	3.00	2.08 2	-7.93 2	-2.08 2	7.93 2
29.4425	29.5389	0.70	70.00	8.75-1	-7.56 2	-8.94-1	7.58 2
29.5262	29.5430	1.80	2.10	6.74 2	-8.85 2	-6.74 2	8.85 2
29.5182	29.5442	0.94	9.40	1.75 1	-7.92 2	-1.76 1	7.93 2
29.4287	29.5530	0.68	89.00	5.74-1	-6.02 2	-5.91-1	6.04 2
29.5396	29.5575	1.35	3.20	1.71 2	-7.73 2	-1.71 2	7.74 2
29.5294	29.5598	0.88	13.00	1.04 1	-8.31 2	-1.04 1	8.32 2
29.5290	29.5641	0.84	17.00	6.91 0	-8.62 2	-6.94 0	8.63 2
29.5029	29.5668	0.74	43.00	1.82 0	-8.95 2	-1.84 0	8.96 2
29.5615	29.5812	1.15	4.60	6.80 1	-7.38 2	-6.81 1	7.38 2
29.5590	29.5875	0.90	11.50	1.26 1	-8.17 2	-1.26 1	8.17 2
29.5772	29.6011	0.98	7.80	2.40 1	-7.72 2	-2.41 1	7.72 2
29.5543	29.6017	0.78	28.00	3.35 0	-9.05 2	-3.38 0	9.06 2
29.5262	29.6027	0.72	54.00	1.31 0	-8.54 2	-1.33 0	8.55 2
29.5826	29.6058	1.00	7.20	2.77 1	-7.64 2	-2.78 1	7.64 2
29.5122	29.6072	0.70	69.00	8.94-1	-7.64 2	-9.12-1	7.66 2
29.4901	29.6127	0.68	88.00	5.85-1	-6.12 2	-6.03-1	6.13 2
29.5981	29.6186	1.10	5.20	5.20 1	-7.40 2	-5.21 1	7.41 2
29.6143	29.6317	1.45	2.80	2.57 2	-8.18 2	-2.57 2	8.18 2
29.5834	29.6374	0.76	34.00	2.54 0	-9.09 2	-2.56 0	9.10 2
29.6120	29.6499	0.82	19.50	5.62 0	-8.78 2	-5.65 0	8.79 2
29.6371	29.6586	1.05	6.00	3.89 1	-7.49 2	-3.90 1	7.49 2
29.6217	29.6635	0.80	23.00	4.43 0	-8.93 2	-4.45 0	8.94 2
29.6368	29.6689	0.86	14.50	8.73 0	-8.46 2	-8.77 0	8.46 2
29.5518	29.6726	0.68	87.00	5.97-1	-6.21 2	-6.14-1	6.22 2
29.6115	29.6743	0.74	42.00	1.88 0	-8.99 2	-1.90 0	9.00 2
29.5827	29.6762	0.70	68.00	9.13-1	-7.72 2	-9.31-1	7.73 2
29.6532	29.6778	0.96	8.40	2.10 1	-7.81 2	-2.11 1	7.81 2
29.6583	29.6840	0.94	9.20	1.80 1	-7.91 2	-1.81 1	7.92 2
29.6128	29.6880	0.72	53.00	1.34 0	-8.60 2	-1.36 0	8.61 2
29.6776	29.6961	1.25	3.70	1.13 2	-7.49 2	-1.14 2	7.49 2
29.6849	29.7029	1.30	3.40	1.42 2	-7.60 2	-1.42 2	7.61 2
29.6924	29.7093	1.60	2.40	4.55 2	-9.33 2	-4.56 2	9.33 2
29.6915	29.7259	0.84	16.50	7.17 0	-8.61 2	-7.20 0	8.62 2
29.7142	29.7311	1.65	2.30	5.40 2	-9.71 2	-5.40 2	9.72 2
29.6138	29.7329	0.68	86.00	6.09-1	-6.30 2	-6.26-1	6.32 2
29.6540	29.7461	0.70	67.00	9.32-1	-7.80 2	-9.51-1	7.81 2
29.7391	29.7561	1.55	2.50	3.81 2	-8.87 2	-3.81 2	8.87 2
29.7575	29.7742	1.90	1.95	1.93 2	-2.02 2	-1.93 2	2.02 2
29.7010	29.7749	0.72	52.00	1.37 0	-8.66 2	-1.39 0	8.67 2
29.7245	29.7773	0.76	33.00	2.63 0	-9.11 2	-2.66 0	9.12 2
29.7315	29.7777	0.78	27.00	3.50 0	-9.06 2	-3.53 0	9.07 2
29.7586	29.7822	0.98	7.60	2.49 1	-7.71 2	-2.49 1	7.72 2
29.7232	29.7847	0.74	41.00	1.94 0	-9.03 2	-1.96 0	9.04 2
29.7588	29.7854	0.92	10.00	1.56 1	-8.02 2	-1.56 1	8.03 2
29.7486	29.7858	0.82	19.00	5.80 0	-8.78 2	-5.83 0	8.78 2
29.7600	29.7897	0.88	12.50	1.09 1	-8.30 2	-1.09 1	8.30 2
29.6761	29.7935	0.68	85.00	6.21-1	-6.40 2	-6.38-1	6.41 2
29.7857	29.8085	1.00	7.00	2.88 1	-7.64 2	-2.89 1	7.64 2
29.7932	29.8099	1.85	2.00	4.42 2	-5.07 2	-4.42 2	5.08 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
29.7262	29.8169	0.70	66.00	9.52-1	-7.88 2	-9.71-1	7.89 2
29.8067	29.8235	1.70	2.20	6.16 2	-9.73 2	-6.17 2	9.74 2
29.8028	29.8281	0.94	9.00	1.85 1	-7.91 2	-1.86 1	7.91 2
29.8169	29.8412	0.96	8.20	2.17 1	-7.80 2	-2.18 1	7.81 2
29.7388	29.8546	0.68	84.00	6.33-1	-6.49 2	-6.50-1	6.50 2
29.8388	29.8576	1.20	4.00	9.20 1	-7.43 2	-9.21 1	7.43 2
29.8310	29.8587	0.90	11.00	1.33 1	-8.15 2	-1.33 1	8.15 2
29.7909	29.8635	0.72	51.00	1.41 0	-8.72 2	-1.43 0	8.73 2
29.8367	29.8681	0.86	14.00	9.12 0	-8.44 2	-9.15 0	8.45 2
29.8536	29.8706	1.50	2.60	3.22 2	-8.51 2	-3.23 2	8.52 2
29.8473	29.8878	0.80	22.00	4.67 0	-8.93 2	-4.70 0	8.94 2
29.7993	29.8886	0.70	65.00	9.73-1	-7.95 2	-9.92-1	7.96 2
29.8606	29.8943	0.84	16.00	7.45 0	-8.60 2	-7.48 0	8.61 2
29.8783	29.8959	1.35	3.10	1.81 2	-7.80 2	-1.82 2	7.81 2
29.8379	29.8982	0.74	40.00	2.00 0	-9.06 2	-2.02 0	9.07 2
29.8899	29.9073	1.40	2.90	2.22 2	-8.01 2	-2.23 2	8.02 2
29.8880	29.9142	0.92	9.80	1.60 1	-8.02 2	-1.60 1	8.02 2
29.8019	29.9160	0.68	83.00	6.45-1	-6.58 2	-6.63-1	6.59 2
29.9010	29.9222	1.05	5.80	4.09 1	-7.49 2	-4.09 1	7.50 2
29.8709	29.9223	0.76	32.00	2.74 0	-9.13 2	-2.76 0	9.14 2
29.8899	29.9264	0.82	18.50	6.00 0	-8.77 2	-6.02 0	8.78 2
29.9239	29.9440	1.10	5.00	5.52 1	-7.42 2	-5.53 1	7.42 2
29.8826	29.9540	0.72	50.00	1.44 0	-8.77 2	-1.46 0	8.78 2
29.8733	29.9613	0.70	64.00	9.94-1	-8.03 2	-1.01 0	8.04 2
29.9171	29.9620	0.78	26.00	3.67 0	-9.07 2	-3.69 0	9.07 2
29.9468	29.9650	1.25	3.60	1.19 2	-7.53 2	-1.19 2	7.53 2
29.9471	29.9703	0.98	7.40	2.58 1	-7.71 2	-2.59 1	7.71 2
29.9534	29.9726	1.15	4.40	7.29 1	-7.40 2	-7.30 1	7.41 2
29.9519	29.9769	0.94	8.80	1.91 1	-7.90 2	-1.91 1	7.90 2
29.8653	29.9778	0.68	82.00	6.58-1	-6.67 2	-6.75-1	6.68 2
29.9734	29.9900	1.75	2.10	6.33 2	-8.75 2	-6.33 2	8.75 2
29.9926	30.0104	1.30	3.30	1.50 2	-7.66 2	-1.50 2	7.66 2
29.9865	30.0105	0.96	8.00	2.24 1	-7.79 2	-2.25 1	7.80 2
29.9560	30.0150	0.74	39.00	2.06 0	-9.10 2	-2.08 0	9.11 2
29.9975	30.0199	1.00	6.80	3.00 1	-7.63 2	-3.01 1	7.63 2
29.9483	30.0350	0.70	63.00	1.02 0	-8.10 2	-1.03 0	8.11 2
29.9292	30.0400	0.68	81.00	6.71-1	-6.76 2	-6.88-1	6.77 2
29.9763	30.0464	0.72	49.00	1.48 0	-8.82 2	-1.50 0	8.83 2
30.00	31.00						
30.0037	30.0326	0.88	12.00	1.15 1	-8.28 2	-1.15 1	8.28 2
30.0208	30.0468	0.92	9.60	1.64 1	-8.01 2	-1.65 1	8.01 2
30.0363	30.0534	1.45	2.70	2.77 2	-8.32 2	-2.78 2	8.32 2
30.0369	30.0699	0.84	15.50	7.74 0	-8.59 2	-7.77 0	8.60 2
30.0364	30.0722	0.82	18.00	6.20 0	-8.76 2	-6.23 0	8.77 2
30.0228	30.0730	0.76	31.00	2.84 0	-9.15 2	-2.87 0	9.16 2
30.0466	30.0772	0.86	13.50	9.55 0	-8.43 2	-9.58 0	8.43 2
30.0776	30.0961	1.20	3.90	9.60 1	-7.46 2	-9.61 1	7.46 2
30.0244	30.1097	0.70	62.00	1.04 0	-8.17 2	-1.06 0	8.18 2
30.0865	30.1257	0.80	21.00	4.94 0	-8.92 2	-4.97 0	8.93 2
30.1060	30.1306	0.94	8.60	1.97 1	-7.89 2	-1.97 1	7.89 2
30.0775	30.1353	0.74	38.00	2.13 0	-9.13 2	-2.15 0	9.14 2
30.0720	30.1408	0.72	48.00	1.52 0	-8.87 2	-1.54 0	8.89 2
30.1207	30.1477	0.90	10.50	1.41 1	-8.13 2	-1.42 1	8.14 2
30.1119	30.1555	0.78	25.00	3.84 0	-9.07 2	-3.87 0	9.08 2
30.0583	30.1659	0.68	79.00	6.98-1	-6.94 2	-7.15-1	6.95 2
30.1432	30.1660	0.98	7.20	2.68 1	-7.70 2	-2.68 1	7.71 2
30.1635	30.1799	1.85	1.95	2.68 2	-2.95 2	-2.69 2	2.95 2
30.1577	30.1833	0.92	9.40	1.69 1	-8.00 2	-1.69 1	8.01 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
30.1015	30.1855	0.70	61.00	1.06 0	-8.24 2	-1.08 0	8.25 2
30.1624	30.1860	0.96	7.80	2.32 1	-7.79 2	-2.33 1	7.79 2
30.1791	30.1998	1.05	5.60	4.30 1	-7.49 2	-4.30 1	7.50 2
30.1883	30.2235	0.82	17.50	6.42 0	-8.75 2	-6.45 0	8.76 2
30.1235	30.2296	0.68	78.00	7.12-1	-7.03 2	-7.29-1	7.04 2
30.1808	30.2298	0.76	30.00	2.96 0	-9.17 2	-2.98 0	9.18 2
30.2195	30.2359	1.80	2.00	5.56 2	-6.70 2	-5.56 2	6.71 2
30.1697	30.2374	0.72	47.00	1.56 0	-8.92 2	-1.58 0	8.94 2
30.2186	30.2406	1.00	6.60	3.13 1	-7.63 2	-3.13 1	7.63 2
30.2285	30.2464	1.25	3.50	1.25 2	-7.57 2	-1.25 2	7.57 2
30.2360	30.2533	1.35	3.00	1.93 2	-7.89 2	-1.93 2	7.90 2
30.2211	30.2534	0.84	15.00	8.06 0	-8.58 2	-8.09 0	8.59 2
30.2409	30.2575	1.60	2.30	4.88 2	-9.30 2	-4.88 2	9.30 2
30.2028	30.2594	0.74	37.00	2.20 0	-9.16 2	-2.22 0	9.17 2
30.1798	30.2625	0.70	60.00	1.09 0	-8.31 2	-1.11 0	8.32 2
30.2506	30.2672	1.55	2.40	4.13 2	-8.97 2	-4.13 2	8.98 2
30.2652	30.2895	0.94	8.40	2.03 1	-7.88 2	-2.03 1	7.89 2
30.2618	30.2900	0.88	11.50	1.21 1	-8.26 2	-1.22 1	8.27 2
30.2704	30.2900	1.10	4.80	5.87 1	-7.43 2	-5.88 1	7.43 2
30.1893	30.2939	0.68	77.00	7.27-1	-7.12 2	-7.44-1	7.13 2
30.2672	30.2972	0.86	13.00	1.00 1	-8.41 2	-1.00 1	8.42 2
30.2889	30.3060	1.40	2.80	2.39 2	-8.13 2	-2.39 2	8.13 2
30.3051	30.3215	1.65	2.20	5.64 2	-9.42 2	-5.65 2	9.42 2
30.2987	30.3240	0.92	9.20	1.74 1	-7.99 2	-1.74 1	8.00 2
30.3161	30.3336	1.30	3.20	1.58 2	-7.72 2	-1.59 2	7.72 2
30.2698	30.3362	0.72	46.00	1.61 0	-8.97 2	-1.63 0	8.98 2
30.2593	30.3406	0.70	59.00	1.11 0	-8.38 2	-1.13 0	8.39 2
30.3264	30.3447	1.20	3.80	1.00 2	-7.48 2	-1.00 2	7.49 2
30.3324	30.3491	1.50	2.50	3.46 2	-8.55 2	-3.46 2	8.56 2
30.2556	30.3587	0.68	76.00	7.41-1	-7.20 2	-7.58-1	7.22 2
30.3167	30.3590	0.78	24.00	4.04 0	-9.07 2	-4.06 0	9.08 2
30.3449	30.3681	0.96	7.60	2.40 1	-7.78 2	-2.41 1	7.78 2
30.3474	30.3699	0.98	7.00	2.79 1	-7.70 2	-2.79 1	7.70 2
30.3409	30.3788	0.80	20.00	5.24 0	-8.92 2	-5.27 0	8.92 2
30.3460	30.3805	0.82	17.00	6.65 0	-8.74 2	-6.68 0	8.75 2
30.3321	30.3875	0.74	36.00	2.27 0	-9.19 2	-2.29 0	9.20 2
30.3743	30.3931	1.15	4.20	7.85 1	-7.43 2	-7.86 1	7.44 2
30.3454	30.3931	0.76	29.00	3.08 0	-9.18 2	-3.11 0	9.19 2
30.3401	30.4201	0.70	58.00	1.14 0	-8.45 2	-1.16 0	8.46 2
30.3225	30.4241	0.68	75.00	7.56-1	-7.29 2	-7.74-1	7.30 2
30.3722	30.4373	0.72	45.00	1.65 0	-9.02 2	-1.67 0	9.03 2
30.4136	30.4452	0.84	14.50	8.41 0	-8.57 2	-8.44 0	8.57 2
30.4300	30.4540	0.94	8.20	2.10 1	-7.88 2	-2.10 1	7.88 2
30.4304	30.4566	0.90	10.00	1.50 1	-8.11 2	-1.51 1	8.12 2
30.4462	30.4625	1.70	2.10	5.97 2	-8.69 2	-5.97 2	8.70 2
30.4442	30.4691	0.92	9.00	1.79 1	-7.99 2	-1.79 1	7.99 2
30.4499	30.4715	1.00	6.40	3.26 1	-7.62 2	-3.27 1	7.63 2
30.3900	30.4901	0.68	74.00	7.72-1	-7.38 2	-7.89-1	7.39 2
30.4725	30.4929	1.05	5.40	4.53 1	-7.50 2	-4.54 1	7.50 2
30.4221	30.5008	0.70	57.00	1.16 0	-8.51 2	-1.18 0	8.52 2
30.4862	30.5029	1.45	2.60	2.98 2	-8.41 2	-2.98 2	8.41 2
30.4744	30.5116	0.80	19.50	5.41 0	-8.91 2	-5.43 0	8.92 2
30.4657	30.5198	0.74	35.00	2.35 0	-9.22 2	-2.37 0	9.23 2
30.4998	30.5290	0.86	12.50	1.05 1	-8.40 2	-1.05 1	8.40 2
30.4771	30.5410	0.72	44.00	1.70 0	-9.06 2	-1.72 0	9.07 2
30.5236	30.5413	1.25	3.40	1.31 2	-7.61 2	-1.31 2	7.61 2
30.5101	30.5439	0.82	16.50	6.90 0	-8.73 2	-6.93 0	8.74 2
30.4581	30.5567	0.68	73.00	7.88-1	-7.46 2	-8.05-1	7.47 2
30.5344	30.5573	0.96	7.40	2.49 1	-7.77 2	-2.50 1	7.78 2
30.5359	30.5633	0.88	11.00	1.28 1	-8.24 2	-1.29 1	8.25 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
30.5171	30.5636	0.76	28.00	3.22 0	-9.20 2	-3.24 0	9.20 2
30.5520	30.5681	1.85	1.90	1.13 2	-1.19 2	-1.14 2	1.19 2
30.5326	30.5736	0.78	23.00	4.25 0	-9.07 2	-4.28 0	9.08 2
30.5603	30.5824	0.98	6.80	2.90 1	-7.69 2	-2.90 1	7.69 2
30.5055	30.5830	0.70	56.00	1.19 0	-8.58 2	-1.21 0	8.59 2
30.5605	30.5864	0.90	9.80	1.54 1	-8.10 2	-1.55 1	8.11 2
30.5860	30.6040	1.20	3.70	1.05 2	-7.51 2	-1.05 2	7.52 2
30.5908	30.6070	1.80	1.95	4.17 2	-4.82 2	-4.18 2	4.82 2
30.5943	30.6189	0.92	8.80	1.84 1	-7.98 2	-1.85 1	7.98 2
30.5269	30.6241	0.68	72.00	8.04-1	-7.55 2	-8.21-1	7.56 2
30.6006	30.6243	0.94	8.00	2.17 1	-7.87 2	-2.17 1	7.87 2
30.6143	30.6313	1.35	2.90	2.06 2	-7.98 2	-2.07 2	7.98 2
30.6153	30.6462	0.84	14.00	8.78 0	-8.55 2	-8.81 0	8.56 2
30.5846	30.6473	0.72	43.00	1.75 0	-9.11 2	-1.77 0	9.12 2
30.6124	30.6490	0.80	19.00	5.58 0	-8.90 2	-5.61 0	8.91 2
30.6038	30.6567	0.74	34.00	2.44 0	-9.25 2	-2.46 0	9.25 2
30.6400	30.6592	1.10	4.60	6.27 1	-7.45 2	-6.28 1	7.45 2
30.5904	30.6666	0.70	55.00	1.22 0	-8.64 2	-1.24 0	8.65 2
30.6570	30.6742	1.30	3.10	1.68 2	-7.79 2	-1.68 2	7.79 2
30.6690	30.6852	1.75	2.00	5.52 2	-7.01 2	-5.52 2	7.01 2
30.5964	30.6921	0.68	71.00	8.21-1	-7.63 2	-8.38-1	7.64 2
30.6921	30.7134	1.00	6.20	3.41 1	-7.62 2	-3.42 1	7.62 2
30.6808	30.7139	0.82	16.00	7.16 0	-8.72 2	-7.19 0	8.73 2
30.6943	30.7198	0.90	9.60	1.59 1	-8.10 2	-1.59 1	8.10 2
30.7131	30.7298	1.40	2.70	2.58 2	-8.26 2	-2.58 2	8.27 2
30.6965	30.7418	0.76	27.00	3.36 0	-9.20 2	-3.39 0	9.21 2
30.6768	30.7517	0.70	54.00	1.25 0	-8.70 2	-1.27 0	8.71 2
30.7316	30.7542	0.96	7.20	2.59 1	-7.77 2	-2.59 1	7.77 2
30.6950	30.7564	0.72	42.00	1.80 0	-9.15 2	-1.82 0	9.16 2
30.6666	30.7609	0.68	70.00	8.38-1	-7.71 2	-8.55-1	7.72 2
30.7493	30.7736	0.92	8.60	1.90 1	-7.97 2	-1.90 1	7.97 2
30.7455	30.7739	0.86	12.00	1.11 1	-8.38 2	-1.11 1	8.38 2
30.7552	30.7911	0.80	18.50	5.77 0	-8.90 2	-5.79 0	8.90 2
30.6726	30.7959	0.66	90.00	5.39-1	-6.05 2	-5.54-1	6.06 2
30.7469	30.7986	0.74	33.00	2.53 0	-9.27 2	-2.55 0	9.28 2
30.7608	30.8006	0.78	22.00	4.49 0	-9.07 2	-4.51 0	9.07 2
30.7775	30.8008	0.94	7.80	2.24 1	-7.86 2	-2.25 1	7.86 2
30.7829	30.8029	1.05	5.20	4.79 1	-7.50 2	-4.80 1	7.51 2
30.7826	30.8043	0.98	6.60	3.02 1	-7.69 2	-3.03 1	7.69 2
30.8014	30.8177	1.55	2.30	4.42 2	-8.94 2	-4.42 2	8.94 2
30.7376	30.8305	0.68	69.00	8.56-1	-7.79 2	-8.73-1	7.80 2
30.7648	30.8384	0.70	53.00	1.28 0	-8.76 2	-1.30 0	8.77 2
30.8281	30.8464	1.15	4.00	8.49 1	-7.47 2	-8.50 1	7.47 2
30.8341	30.8503	1.60	2.20	5.12 2	-9.04 2	-5.12 2	9.05 2
30.8333	30.8508	1.25	3.30	1.39 2	-7.66 2	-1.39 2	7.66 2
30.8278	30.8544	0.88	10.50	1.36 1	-8.22 2	-1.37 1	8.23 2
30.7350	30.8565	0.66	89.00	5.49-1	-6.15 2	-5.65-1	6.16 2
30.8270	30.8572	0.84	13.50	9.19 0	-8.54 2	-9.22 0	8.54 2
30.8321	30.8573	0.90	9.40	1.63 1	-8.09 2	-1.63 1	8.09 2
30.8462	30.8625	1.50	2.40	3.73 2	-8.63 2	-3.73 2	8.63 2
30.8083	30.8685	0.72	41.00	1.86 0	-9.19 2	-1.88 0	9.20 2
30.8571	30.8749	1.20	3.60	1.10 2	-7.55 2	-1.10 2	7.55 2
30.8588	30.8913	0.82	15.50	7.45 0	-8.71 2	-7.48 0	8.72 2
30.8093	30.9009	0.68	68.00	8.74-1	-7.87 2	-8.91-1	7.88 2
30.7976	30.9175	0.66	88.00	5.60-1	-6.24 2	-5.76-1	6.25 2
30.8544	30.9268	0.70	52.00	1.31 0	-8.82 2	-1.33 0	8.83 2
30.8844	30.9284	0.76	26.00	3.52 0	-9.21 2	-3.54 0	9.22 2
30.9096	30.9335	0.92	8.40	1.96 1	-7.96 2	-1.96 1	7.97 2
30.9032	30.9384	0.80	18.00	5.96 0	-8.89 2	-5.99 0	8.89 2
30.8952	30.9457	0.74	32.00	2.62 0	-9.29 2	-2.65 0	9.30 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
30.9369	30.9591	0.96	7.00	2.69 1	-7.76 2	-2.69 1	7.77 2
30.9468	30.9629	1.65	2.10	5.61 2	-8.64 2	-5.62 2	8.64 2
30.9462	30.9671	1.00	6.00	3.58 1	-7.62 2	-3.58 1	7.62 2
30.8819	30.9721	0.68	67.00	8.92-1	-7.95 2	-9.09-1	7.96 2
30.8606	30.9787	0.66	87.00	5.71-1	-6.34 2	-5.87-1	6.35 2
30.9673	30.9837	1.45	2.50	3.20 2	-8.46 2	-3.20 2	8.46 2
30.9247	30.9838	0.72	40.00	1.91 0	-9.23 2	-1.93 0	9.24 2
30.9611	30.9840	0.94	7.60	2.32 1	-7.85 2	-2.33 1	7.86 2
30.9805	30.9965	1.80	1.90	2.82 2	-3.11 2	-2.82 2	3.11 2
30.9740	30.9990	0.90	9.20	1.68 1	-8.08 2	-1.68 1	8.08 2
30.9458	31.0169	0.70	51.00	1.35 0	-8.88 2	-1.37 0	8.89 2
30.9238	31.0403	0.66	86.00	5.82-1	-6.43 2	-5.98-1	6.45 2
30.9554	31.0442	0.68	66.00	9.12-1	-8.03 2	-9.29-1	8.04 2
30.9874	31.1022	0.66	85.00	5.94-1	-6.53 2	-6.09-1	6.54 2
31.00	32.00						
31.0154	31.0321	1.35	2.80	2.21 2	-8.08 2	-2.22 2	8.09 2
31.0056	31.0333	0.86	11.50	1.17 1	-8.36 2	-1.17 1	8.37 2
31.0167	31.0336	1.30	3.00	1.79 2	-7.87 2	-1.79 2	7.87 2
31.0150	31.0364	0.98	6.40	3.15 1	-7.68 2	-3.16 1	7.68 2
31.0027	31.0412	0.78	21.00	4.75 0	-9.06 2	-4.77 0	9.07 2
31.0354	31.0542	1.10	4.40	6.72 1	-7.47 2	-6.73 1	7.48 2
31.0415	31.0575	1.75	1.95	4.54 2	-5.51 2	-4.54 2	5.51 2
31.0446	31.0764	0.82	15.00	7.76 0	-8.70 2	-7.79 0	8.70 2
31.0496	31.0790	0.84	13.00	9.63 0	-8.52 2	-9.67 0	8.53 2
31.0688	31.0868	1.15	3.90	8.85 1	-7.49 2	-8.86 1	7.50 2
31.0566	31.0912	0.80	17.50	6.17 0	-8.88 2	-6.20 0	8.89 2
31.0492	31.0984	0.74	31.00	2.73 0	-9.31 2	-2.75 0	9.32 2
31.0754	31.0990	0.92	8.20	2.02 1	-7.95 2	-2.03 1	7.96 2
31.0445	31.1023	0.72	39.00	1.97 0	-9.26 2	-1.99 0	9.27 2
31.0390	31.1089	0.70	50.00	1.38 0	-8.93 2	-1.40 0	8.94 2
31.0298	31.1172	0.68	65.00	9.31-1	-8.11 2	-9.49-1	8.12 2
31.0815	31.1242	0.76	25.00	3.69 0	-9.22 2	-3.71 0	9.22 2
31.1121	31.1316	1.05	5.00	5.08 1	-7.51 2	-5.09 1	7.52 2
31.1205	31.1451	0.90	9.00	1.72 1	-8.07 2	-1.73 1	8.08 2
31.1408	31.1583	1.20	3.50	1.15 2	-7.58 2	-1.15 2	7.58 2
31.1440	31.1600	1.70	2.00	5.47 2	-7.32 2	-5.47 2	7.32 2
31.0513	31.1644	0.66	84.00	6.05-1	-6.62 2	-6.21-1	6.63 2
31.1398	31.1656	0.88	10.00	1.45 1	-8.20 2	-1.45 1	8.21 2
31.1510	31.1728	0.96	6.80	2.80 1	-7.76 2	-2.80 1	7.76 2
31.1518	31.1744	0.94	7.40	2.41 1	-7.85 2	-2.41 1	7.85 2
31.1590	31.1761	1.25	3.20	1.47 2	-7.71 2	-1.47 2	7.72 2
31.1652	31.1816	1.40	2.60	2.77 2	-8.36 2	-2.77 2	8.36 2
31.1051	31.1912	0.68	64.00	9.52-1	-8.18 2	-9.69-1	8.19 2
31.1342	31.2028	0.70	49.00	1.42 0	-8.99 2	-1.44 0	9.00 2
31.1678	31.2245	0.72	38.00	2.04 0	-9.30 2	-2.06 0	9.30 2
31.1156	31.2271	0.66	83.00	6.17-1	-6.71 2	-6.33-1	6.73 2
31.2133	31.2339	1.00	5.80	3.75 1	-7.62 2	-3.76 1	7.62 2
31.2160	31.2499	0.80	17.00	6.39 0	-8.87 2	-6.42 0	8.88 2
31.2092	31.2573	0.74	30.00	2.84 0	-9.32 2	-2.86 0	9.33 2
31.1815	31.2663	0.68	63.00	9.73-1	-8.26 2	-9.90-1	8.27 2
31.2390	31.2700	0.82	14.50	8.09 0	-8.68 2	-8.12 0	8.69 2
31.2471	31.2704	0.92	8.00	2.09 1	-7.95 2	-2.09 1	7.95 2
31.2585	31.2795	0.98	6.20	3.30 1	-7.68 2	-3.30 1	7.68 2
31.1803	31.2902	0.66	82.00	6.29-1	-6.81 2	-6.45-1	6.82 2
31.2716	31.2958	0.90	8.80	1.78 1	-8.06 2	-1.78 1	8.07 2
31.2707	31.2963	0.88	9.80	1.49 1	-8.20 2	-1.49 1	8.20 2
31.2599	31.2971	0.78	20.00	5.04 0	-9.05 2	-5.06 0	9.06 2
31.2314	31.2988	0.70	48.00	1.46 0	-9.04 2	-1.48 0	9.05 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
31.2818	31.3088	0.86	11.00	1.24 1	-8.34 2	-1.24 1	8.35 2
31.2841	31.3128	0.84	12.50	1.01 1	-8.51 2	-1.02 1	8.51 2
31.2887	31.3302	0.76	24.00	3.88 0	-9.22 2	-3.90 0	9.22 2
31.3195	31.3374	1.15	3.80	9.24 1	-7.52 2	-9.25 1	7.52 2
31.2589	31.3424	0.68	62.00	9.95-1	-8.33 2	-1.01 0	8.34 2
31.2949	31.3504	0.72	37.00	2.11 0	-9.33 2	-2.13 0	9.34 2
31.2454	31.3537	0.66	81.00	6.42-1	-6.90 2	-6.58-1	6.91 2
31.3500	31.3723	0.94	7.20	2.50 1	-7.84 2	-2.50 1	7.84 2
31.3745	31.3959	0.96	6.60	2.92 1	-7.75 2	-2.92 1	7.75 2
31.3307	31.3969	0.70	47.00	1.50 0	-9.09 2	-1.52 0	9.10 2
31.3899	31.4057	1.80	1.85	2.16 2	-2.27 2	-2.16 2	2.27 2
31.3968	31.4127	1.55	2.20	4.65 2	-8.72 2	-4.66 2	8.73 2
31.3972	31.4138	1.30	2.90	1.91 2	-7.95 2	-1.91 2	7.95 2
31.3816	31.4148	0.80	16.50	6.63 0	-8.86 2	-6.66 0	8.86 2
31.3993	31.4153	1.50	2.30	3.99 2	-8.58 2	-3.99 2	8.58 2
31.3110	31.4177	0.66	80.00	6.55-1	-6.99 2	-6.70-1	7.00 2
31.3374	31.4196	0.68	61.00	1.02 0	-8.40 2	-1.03 0	8.42 2
31.3760	31.4228	0.74	29.00	2.96 0	-9.34 2	-2.98 0	9.35 2
31.4055	31.4307	0.88	9.60	1.53 1	-8.19 2	-1.53 1	8.19 2
31.3948	31.4313	0.78	19.50	5.20 0	-9.05 2	-5.22 0	9.05 2
31.4250	31.4480	0.92	7.80	2.16 1	-7.94 2	-2.17 1	7.94 2
31.4324	31.4481	1.75	1.90	3.49 2	-4.04 2	-3.49 2	4.04 2
31.4276	31.4516	0.90	8.60	1.83 1	-8.05 2	-1.83 1	8.06 2
31.4379	31.4552	1.20	3.40	1.21 2	-7.62 2	-1.21 2	7.62 2
31.4418	31.4582	1.35	2.70	2.39 2	-8.21 2	-2.39 2	8.22 2
31.4425	31.4728	0.82	14.00	8.45 0	-8.67 2	-8.48 0	8.67 2
31.4600	31.4783	1.10	4.20	7.23 1	-7.50 2	-7.24 1	7.50 2
31.4261	31.4803	0.72	36.00	2.18 0	-9.36 2	-2.20 0	9.37 2
31.4621	31.4812	1.05	4.80	5.40 1	-7.52 2	-5.41 1	7.53 2
31.3770	31.4822	0.66	79.00	6.68-1	-7.08 2	-6.84-1	7.10 2
31.4781	31.4939	1.60	2.10	5.17 2	-8.43 2	-5.17 2	8.43 2
31.4323	31.4973	0.70	46.00	1.54 0	-9.14 2	-1.56 0	9.15 2
31.4171	31.4979	0.68	60.00	1.04 0	-8.47 2	-1.06 0	8.49 2
31.4833	31.4994	1.45	2.40	3.46 2	-8.54 2	-3.46 2	8.54 2
31.4946	31.5147	1.00	5.60	3.95 1	-7.62 2	-3.95 1	7.62 2
31.5019	31.5188	1.25	3.10	1.55 2	-7.78 2	-1.55 2	7.78 2
31.5178	31.5335	1.70	1.95	4.78 2	-6.12 2	-4.78 2	6.12 2
31.5139	31.5345	0.98	6.00	3.45 1	-7.67 2	-3.46 1	7.68 2
31.4435	31.5472	0.66	78.00	6.81-1	-7.17 2	-6.97-1	7.19 2
31.5072	31.5474	0.76	23.00	4.08 0	-9.22 2	-4.11 0	9.22 2
31.5318	31.5598	0.84	12.00	1.07 1	-8.49 2	-1.07 1	8.49 2
31.5442	31.5691	0.88	9.40	1.57 1	-8.18 2	-1.57 1	8.18 2
31.5342	31.5701	0.78	19.00	5.36 0	-9.04 2	-5.39 0	9.05 2
31.4980	31.5775	0.68	59.00	1.06 0	-8.54 2	-1.08 0	8.56 2
31.5565	31.5784	0.94	7.00	2.59 1	-7.83 2	-2.60 1	7.84 2
31.5540	31.5865	0.80	16.00	6.89 0	-8.85 2	-6.91 0	8.85 2
31.5498	31.5954	0.74	28.00	3.09 0	-9.35 2	-3.11 0	9.36 2
31.5810	31.5986	1.15	3.70	9.66 1	-7.54 2	-9.67 1	7.55 2
31.5363	31.6001	0.70	45.00	1.58 0	-9.19 2	-1.60 0	9.20 2
31.5760	31.6021	0.86	10.50	1.31 1	-8.32 2	-1.31 1	8.33 2
31.5889	31.6125	0.90	8.40	1.89 1	-8.05 2	-1.89 1	8.05 2
31.5105	31.6128	0.66	77.00	6.95-1	-7.26 2	-7.11-1	7.28 2
31.5615	31.6146	0.72	35.00	2.26 0	-9.39 2	-2.28 0	9.39 2
31.6081	31.6292	0.96	6.40	3.04 1	-7.74 2	-3.05 1	7.75 2
31.6097	31.6323	0.92	7.60	2.24 1	-7.93 2	-2.24 1	7.93 2
31.5801	31.6584	0.68	58.00	1.09 0	-8.61 2	-1.11 0	8.62 2
31.6470	31.6627	1.65	2.00	5.35 2	-7.57 2	-5.36 2	7.57 2
31.6485	31.6646	1.40	2.50	2.98 2	-8.42 2	-2.98 2	8.43 2
31.5781	31.6789	0.66	76.00	7.09-1	-7.35 2	-7.25-1	7.37 2
31.6560	31.6857	0.82	13.50	8.84 0	-8.65 2	-8.87 0	8.66 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
31.6429	31.7054	0.70	44.00	1.63 0	-9.23 2	-1.65 0	9.24 2
31.6872	31.7118	0.88	9.20	1.61 1	-8.17 2	-1.62 1	8.17 2
31.6786	31.7138	0.78	18.50	5.54 0	-9.03 2	-5.56 0	9.04 2
31.6636	31.7406	0.68	57.00	1.11 0	-8.68 2	-1.13 0	8.69 2
31.6463	31.7456	0.66	75.00	7.23-1	-7.44 2	-7.39-1	7.45 2
31.7016	31.7534	0.72	34.00	2.34 0	-9.41 2	-2.36 0	9.42 2
31.7337	31.7656	0.80	15.50	7.16 0	-8.84 2	-7.19 0	8.84 2
31.7497	31.7668	1.20	3.30	1.28 2	-7.67 2	-1.28 2	7.67 2
31.7315	31.7759	0.74	27.00	3.23 0	-9.36 2	-3.25 0	9.37 2
31.7380	31.7770	0.76	22.00	4.31 0	-9.21 2	-4.33 0	9.22 2
31.7557	31.7790	0.90	8.20	1.95 1	-8.04 2	-1.95 1	8.04 2
31.7717	31.7933	0.94	6.80	2.70 1	-7.82 2	-2.70 1	7.83 2
31.7822	31.8025	0.98	5.80	3.62 1	-7.67 2	-3.63 1	7.68 2
31.7913	31.8111	1.00	5.40	4.16 1	-7.62 2	-4.16 1	7.62 2
31.7151	31.8129	0.66	74.00	7.38-1	-7.53 2	-7.54-1	7.54 2
31.7521	31.8134	0.70	43.00	1.67 0	-9.28 2	-1.69 0	9.29 2
31.8005	31.8169	1.30	2.80	2.05 2	-8.05 2	-2.05 2	8.05 2
31.7940	31.8213	0.84	11.50	1.12 1	-8.47 2	-1.13 1	8.47 2
31.8015	31.8238	0.92	7.40	2.32 1	-7.92 2	-2.32 1	7.93 2
31.7484	31.8242	0.68	56.00	1.14 0	-8.75 2	-1.16 0	8.76 2
31.8352	31.8539	1.05	4.60	5.76 1	-7.54 2	-5.77 1	7.54 2
31.8429	31.8585	1.75	1.85	2.71 2	-3.00 2	-2.72 2	3.00 2
31.8346	31.8588	0.88	9.00	1.66 1	-8.16 2	-1.67 1	8.17 2
31.8280	31.8626	0.78	18.00	5.73 0	-9.02 2	-5.75 0	9.03 2
31.8542	31.8716	1.15	3.60	1.01 2	-7.57 2	-1.01 2	7.57 2
31.8528	31.8736	0.96	6.20	3.18 1	-7.74 2	-3.18 1	7.74 2
31.8638	31.8804	1.25	3.00	1.65 2	-7.85 2	-1.65 2	7.85 2
31.7845	31.8809	0.66	73.00	7.53-1	-7.62 2	-7.69-1	7.63 2
31.8466	31.8973	0.72	33.00	2.42 0	-9.44 2	-2.44 0	9.44 2
31.8347	31.9092	0.68	55.00	1.17 0	-8.81 2	-1.19 0	8.82 2
31.8805	31.9095	0.82	13.00	9.27 0	-8.64 2	-9.29 0	8.64 2
31.8961	31.9122	1.35	2.60	2.57 2	-8.31 2	-2.57 2	8.31 2
31.8902	31.9156	0.86	10.00	1.40 1	-8.30 2	-1.40 1	8.30 2
31.8641	31.9243	0.70	42.00	1.72 0	-9.32 2	-1.74 0	9.33 2
31.9097	31.9252	1.70	1.90	4.00 2	-4.89 2	-4.00 2	4.89 2
31.9176	31.9355	1.10	4.00	7.82 1	-7.53 2	-7.82 1	7.53 2
31.8546	31.9495	0.66	72.00	7.69-1	-7.70 2	-7.84-1	7.71 2
31.9285	31.9515	0.90	8.00	2.01 1	-8.03 2	-2.02 1	8.03 2
31.9213	31.9525	0.80	15.00	7.46 0	-8.82 2	-7.48 0	8.83 2
31.9217	31.9649	0.74	26.00	3.38 0	-9.37 2	-3.40 0	9.38 2
31.9226	31.9958	0.68	54.00	1.20 0	-8.87 2	-1.21 0	8.89 2
31.9867	32.0106	0.88	8.80	1.71 1	-8.15 2	-1.71 1	8.16 2
31.9970	32.0127	1.50	2.20	4.21 2	-8.40 2	-4.21 2	8.40 2
31.9831	32.0170	0.78	17.50	5.93 0	-9.01 2	-5.95 0	9.02 2
31.9964	32.0176	0.94	6.60	2.81 1	-7.82 2	-2.82 1	7.82 2
31.9253	32.0189	0.66	71.00	7.85-1	-7.79 2	-8.00-1	7.80 2
31.9826	32.0204	0.76	21.00	4.56 0	-9.21 2	-4.58 0	9.21 2
31.9791	32.0381	0.70	41.00	1.78 0	-9.36 2	-1.80 0	9.37 2
31.9969	32.0464	0.72	32.00	2.52 0	-9.46 2	-2.54 0	9.47 2
31.9968	32.0890	0.66	70.00	8.01-1	-7.87 2	-8.17-1	7.88 2

Part 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
32.00	33.00						
32.0009	32.0228	0.92	7.20	2.41 1	-7.91 2	-2.41 1	7.92 2
32.0219	32.0374	1.65	1.95	4.90 2	-6.62 2	-4.90 2	6.63 2
32.0221	32.0472	0.86	9.80	1.43 1	-8.29 2	-1.44 1	8.30 2
32.0387	32.0544	1.45	2.30	3.72 2	-8.53 2	-3.72 2	8.53 2
32.0432	32.0587	1.55	2.10	4.76 2	-8.24 2	-4.76 2	8.24 2
32.0120	32.0840	0.68	53.00	1.23 0	-8.94 2	-1.24 0	8.95 2
32.0648	32.0847	0.98	5.60	3.81 1	-7.67 2	-3.81 1	7.67 2
32.0775	32.0942	1.20	3.20	1.35 2	-7.71 2	-1.35 2	7.72 2
32.0724	32.0989	0.84	11.00	1.19 1	-8.45 2	-1.19 1	8.45 2
32.1051	32.1245	1.00	5.20	4.39 1	-7.62 2	-4.40 1	7.62 2
32.1095	32.1298	0.96	6.00	3.33 1	-7.74 2	-3.33 1	7.74 2
32.1075	32.1302	0.90	7.80	2.08 1	-8.02 2	-2.09 1	8.02 2
32.1170	32.1453	0.82	12.50	9.73 0	-8.62 2	-9.76 0	8.62 2
32.1174	32.1479	0.80	14.50	7.77 0	-8.81 2	-7.80 0	8.81 2
32.0973	32.1551	0.70	40.00	1.83 0	-9.40 2	-1.85 0	9.41 2
32.1399	32.1570	1.15	3.50	1.06 2	-7.60 2	-1.06 2	7.60 2
32.0691	32.1599	0.66	69.00	8.18-1	-7.95 2	-8.34-1	7.97 2
32.1213	32.1632	0.74	25.00	3.54 0	-9.37 2	-3.56 0	9.38 2
32.1438	32.1674	0.88	8.60	1.76 1	-8.14 2	-1.77 1	8.15 2
32.1031	32.1739	0.68	52.00	1.26 0	-9.00 2	-1.27 0	9.01 2
32.1440	32.1773	0.78	17.00	6.14 0	-9.00 2	-6.16 0	9.01 2
32.1603	32.1779	1.10	3.90	8.14 1	-7.55 2	-8.15 1	7.55 2
32.1668	32.1826	1.40	2.40	3.23 2	-8.52 2	-3.23 2	8.53 2
32.1578	32.1826	0.86	9.60	1.47 1	-8.28 2	-1.47 1	8.29 2
32.1807	32.1961	1.60	2.00	5.05 2	-7.56 2	-5.05 2	7.56 2
32.1530	32.2013	0.72	31.00	2.61 0	-9.48 2	-2.63 0	9.48 2
32.0965	32.2169	0.64	90.00	5.14-1	-6.18 2	-5.29-1	6.19 2
32.2085	32.2301	0.92	7.00	2.50 1	-7.91 2	-2.51 1	7.91 2
32.1422	32.2317	0.66	68.00	8.35-1	-8.04 2	-8.51-1	8.05 2
32.2291	32.2452	1.30	2.70	2.21 2	-8.17 2	-2.21 2	8.18 2
32.2313	32.2521	0.94	6.40	2.93 1	-7.81 2	-2.94 1	7.82 2
32.2344	32.2526	1.05	4.40	6.17 1	-7.56 2	-6.18 1	7.56 2
32.2464	32.2628	1.25	2.90	1.76 2	-7.93 2	-1.76 2	7.93 2
32.1960	32.2656	0.68	51.00	1.29 0	-9.05 2	-1.31 0	9.07 2
32.2188	32.2755	0.70	39.00	1.89 0	-9.44 2	-1.91 0	9.45 2
32.1601	32.2788	0.64	89.00	5.25-1	-6.28 2	-5.39-1	6.29 2
32.2426	32.2791	0.76	20.00	4.83 0	-9.20 2	-4.86 0	9.20 2
32.2750	32.2903	1.75	1.80	1.10 2	-1.15 2	-1.10 2	1.15 2
32.2162	32.3042	0.66	67.00	8.53-1	-8.12 2	-8.69-1	8.13 2
32.2933	32.3156	0.90	7.60	2.16 1	-8.01 2	-2.16 1	8.01 2
32.2975	32.3220	0.86	9.40	1.51 1	-8.27 2	-1.51 1	8.28 2
32.3061	32.3294	0.88	8.40	1.82 1	-8.13 2	-1.82 1	8.14 2
32.3215	32.3368	1.70	1.85	3.37 2	-3.93 2	-3.38 2	3.93 2
32.2241	32.3411	0.64	88.00	5.35-1	-6.38 2	-5.49-1	6.39 2
32.3113	32.3439	0.78	16.50	6.37 0	-8.99 2	-6.39 0	9.00 2
32.3227	32.3526	0.80	14.00	8.12 0	-8.79 2	-8.15 0	8.80 2
32.2908	32.3591	0.68	50.00	1.32 0	-9.11 2	-1.34 0	9.12 2
32.3152	32.3623	0.72	30.00	2.72 0	-9.49 2	-2.74 0	9.50 2
32.3310	32.3717	0.74	24.00	3.72 0	-9.37 2	-3.74 0	9.38 2
32.2910	32.3777	0.66	66.00	8.72-1	-8.20 2	-8.87-1	8.21 2
32.3629	32.3824	0.98	5.40	4.01 1	-7.67 2	-4.02 1	7.67 2
32.3668	32.3943	0.82	12.00	1.02 1	-8.60 2	-1.03 1	8.61 2
32.3687	32.3945	0.84	10.50	1.26 1	-8.43 2	-1.26 1	8.43 2
32.3817	32.3975	1.35	2.50	2.77 2	-8.39 2	-2.77 2	8.40 2
32.3791	32.3991	0.96	5.80	3.49 1	-7.73 2	-3.50 1	7.73 2
32.3440	32.3994	0.70	38.00	1.95 0	-9.47 2	-1.97 0	9.48 2
32.2883	32.4036	0.64	87.00	5.45-1	-6.48 2	-5.60-1	6.49 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
32.3790	32.4148	0.76	19.50	4.99 0	-9.19 2	-5.01 0	9.20 2
32.4151	32.4304	1.65	1.90	4.34 2	-5.60 2	-4.34 2	5.61 2
32.4130	32.4304	1.10	3.80	8.49 1	-7.57 2	-8.50 1	7.57 2
32.4225	32.4390	1.20	3.10	1.43 2	-7.77 2	-1.43 2	7.77 2
32.4249	32.4462	0.92	6.80	2.60 1	-7.90 2	-2.61 1	7.90 2
32.3667	32.4522	0.66	65.00	8.90-1	-8.28 2	-9.06-1	8.29 2
32.3875	32.4546	0.68	49.00	1.36 0	-9.17 2	-1.37 0	9.18 2
32.4391	32.4560	1.15	3.40	1.11 2	-7.63 2	-1.12 2	7.64 2
32.4378	32.4567	1.00	5.00	4.65 1	-7.62 2	-4.66 1	7.63 2
32.4415	32.4656	0.86	9.20	1.55 1	-8.27 2	-1.56 1	8.27 2
32.3528	32.4665	0.64	86.00	5.56-1	-6.57 2	-5.70-1	6.59 2
32.4740	32.4970	0.88	8.20	1.88 1	-8.13 2	-1.88 1	8.13 2
32.4772	32.4977	0.94	6.20	3.07 1	-7.81 2	-3.07 1	7.81 2
32.4862	32.5082	0.90	7.40	2.24 1	-8.00 2	-2.24 1	8.01 2
32.4854	32.5173	0.78	16.00	6.61 0	-8.98 2	-6.64 0	8.99 2
32.4730	32.5272	0.70	37.00	2.02 0	-9.51 2	-2.04 0	9.51 2
32.4434	32.5276	0.66	64.00	9.10-1	-8.35 2	-9.26-1	8.37 2
32.4177	32.5297	0.64	85.00	5.67-1	-6.67 2	-5.81-1	6.68 2
32.4841	32.5300	0.72	29.00	2.83 0	-9.51 2	-2.85 0	9.52 2
32.4863	32.5522	0.68	48.00	1.39 0	-9.22 2	-1.41 0	9.23 2
32.5200	32.5552	0.76	19.00	5.15 0	-9.19 2	-5.17 0	9.19 2
32.5382	32.5673	0.80	13.50	8.49 0	-8.78 2	-8.52 0	8.78 2
32.5568	32.5720	1.60	1.95	4.76 2	-6.82 2	-4.77 2	6.82 2
32.5521	32.5915	0.74	23.00	3.91 0	-9.37 2	-3.94 0	9.38 2
32.4829	32.5933	0.64	84.00	5.78-1	-6.77 2	-5.93-1	6.78 2
32.5212	32.6040	0.66	63.00	9.30-1	-8.43 2	-9.46-1	8.44 2
32.5899	32.6137	0.86	9.00	1.60 1	-8.26 2	-1.60 1	8.26 2
32.5872	32.6520	0.68	47.00	1.43 0	-9.27 2	-1.45 0	9.28 2
32.6388	32.6542	1.45	2.20	3.96 2	-8.42 2	-3.96 2	8.42 2
32.5485	32.6573	0.64	83.00	5.89-1	-6.86 2	-6.04-1	6.87 2
32.6311	32.6579	0.82	11.50	1.08 1	-8.58 2	-1.08 1	8.59 2
32.6060	32.6591	0.70	36.00	2.09 0	-9.54 2	-2.10 0	9.55 2
32.6458	32.6610	1.50	2.10	4.33 2	-7.98 2	-4.34 2	7.98 2
32.6520	32.6680	1.25	2.80	1.89 2	-8.02 2	-1.89 2	8.03 2
32.6478	32.6705	0.88	8.00	1.94 1	-8.12 2	-1.94 1	8.12 2
32.6508	32.6717	0.92	6.60	2.71 1	-7.89 2	-2.71 1	7.89 2
32.6627	32.6805	1.05	4.20	6.63 1	-7.58 2	-6.64 1	7.58 2
32.6000	32.6815	0.66	62.00	9.51-1	-8.51 2	-9.66-1	8.52 2
32.6630	32.6826	0.96	5.60	3.67 1	-7.73 2	-3.68 1	7.73 2
32.6765	32.6937	1.10	3.70	8.87 1	-7.59 2	-8.88 1	7.59 2
32.6780	32.6971	0.98	5.20	4.24 1	-7.67 2	-4.24 1	7.67 2
32.6668	32.6981	0.78	15.50	6.88 0	-8.97 2	-6.90 0	8.98 2
32.6658	32.7004	0.76	18.50	5.31 0	-9.18 2	-5.34 0	9.18 2
32.6857	32.7015	1.30	2.60	2.37 2	-8.27 2	-2.38 2	8.28 2
32.6603	32.7049	0.72	28.00	2.96 0	-9.52 2	-2.98 0	9.53 2
32.6868	32.7084	0.90	7.20	2.32 1	-7.99 2	-2.32 1	8.00 2
32.6853	32.7103	0.84	10.00	1.34 1	-8.41 2	-1.35 1	8.41 2
32.6144	32.7217	0.64	82.00	6.01-1	-6.96 2	-6.16-1	6.97 2
32.7245	32.7400	1.40	2.30	3.49 2	-8.57 2	-3.49 2	8.58 2
32.6905	32.7540	0.68	46.00	1.47 0	-9.32 2	-1.49 0	9.33 2
32.7352	32.7553	0.94	6.00	3.21 1	-7.80 2	-3.21 1	7.80 2
32.6799	32.7601	0.66	61.00	9.72-1	-8.58 2	-9.88-1	8.59 2
32.7482	32.7633	1.55	2.00	4.75 2	-7.54 2	-4.75 2	7.55 2
32.7430	32.7665	0.86	8.80	1.65 1	-8.25 2	-1.65 1	8.25 2
32.7530	32.7697	1.15	3.30	1.17 2	-7.67 2	-1.17 2	7.68 2
32.7548	32.7698	1.70	1.80	2.05 2	-2.28 2	-2.06 2	2.28 2
32.6809	32.7866	0.64	81.00	6.13-1	-7.05 2	-6.27-1	7.06 2
32.7646	32.7931	0.80	13.00	8.90 0	-8.76 2	-8.93 0	8.77 2
32.7434	32.7953	0.70	35.00	2.16 0	-9.56 2	-2.18 0	9.57 2
32.7866	32.8028	1.20	3.00	1.52 2	-7.84 2	-1.52 2	7.84 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
32.7913	32.8098	1.00	4.80	4.94 1	-7.63 2	-4.95 1	7.63 2
32.7856	32.8238	0.74	22.00	4.13 0	-9.37 2	-4.15 0	9.38 2
32.7609	32.8399	0.66	60.00	9.94-1	-8.65 2	-1.01 0	8.66 2
32.8181	32.8428	0.84	9.80	1.38 1	-8.40 2	-1.38 1	8.40 2
32.8281	32.8431	1.65	1.85	3.88 2	-4.78 2	-3.89 2	4.78 2
32.8280	32.8503	0.88	7.80	2.01 1	-8.11 2	-2.01 1	8.11 2
32.8169	32.8508	0.76	18.00	5.49 0	-9.17 2	-5.52 0	9.18 2
32.7477	32.8519	0.64	80.00	6.25-1	-7.15 2	-6.40-1	7.16 2
32.7961	32.8585	0.68	45.00	1.51 0	-9.37 2	-1.53 0	9.38 2
32.8562	32.8868	0.78	15.00	7.16 0	-8.96 2	-7.18 0	8.96 2
32.8443	32.8878	0.72	27.00	3.09 0	-9.53 2	-3.11 0	9.54 2
32.8869	32.9075	0.92	6.40	2.83 1	-7.88 2	-2.83 1	7.89 2
32.8956	32.9169	0.90	7.00	2.41 1	-7.99 2	-2.41 1	7.99 2
32.8150	32.9177	0.64	79.00	6.38-1	-7.24 2	-6.52-1	7.25 2
32.9023	32.9178	1.35	2.40	3.01 2	-8.51 2	-3.01 2	8.51 2
32.8432	32.9210	0.66	59.00	1.02 0	-8.72 2	-1.03 0	8.74 2
32.9011	32.9243	0.86	8.60	1.70 1	-8.24 2	-1.70 1	8.24 2
32.8855	32.9362	0.70	34.00	2.24 0	-9.59 2	-2.26 0	9.60 2
32.9116	32.9377	0.82	11.00	1.14 1	-8.56 2	-1.15 1	8.57 2
32.9043	32.9655	0.68	44.00	1.56 0	-9.42 2	-1.57 0	9.43 2
32.9512	32.9662	1.60	1.90	4.38 2	-5.99 2	-4.38 2	5.99 2
32.9517	32.9687	1.10	3.60	9.28 1	-7.61 2	-9.29 1	7.62 2
32.9548	32.9792	0.84	9.60	1.41 1	-8.39 2	-1.42 1	8.39 2
32.9624	32.9817	0.96	5.40	3.87 1	-7.73 2	-3.87 1	7.73 2
32.8828	32.9841	0.64	78.00	6.50-1	-7.33 2	-6.65-1	7.34 2
32.9268	33.0033	0.66	58.00	1.04 0	-8.79 2	-1.06 0	8.81 2
32.9735	33.0068	0.76	17.50	5.69 0	-9.16 2	-5.71 0	9.17 2
32.9512	33.0509	0.64	77.00	6.64-1	-7.42 2	-6.78-1	7.44 2
33.00	34.00						
33.0061	33.0258	0.94	5.80	3.37 1	-7.80 2	-3.37 1	7.80 2
33.0121	33.0308	0.98	5.00	4.49 1	-7.67 2	-4.49 1	7.68 2
33.0032	33.0309	0.80	12.50	9.35 0	-8.74 2	-9.37 0	8.75 2
33.0149	33.0368	0.88	7.60	2.08 1	-8.10 2	-2.08 1	8.10 2
33.0330	33.0700	0.74	21.00	4.37 0	-9.36 2	-4.39 0	9.37 2
33.0152	33.0752	0.68	43.00	1.60 0	-9.47 2	-1.62 0	9.48 2
33.0369	33.0792	0.72	26.00	3.23 0	-9.54 2	-3.25 0	9.55 2
33.0325	33.0821	0.70	33.00	2.32 0	-9.62 2	-2.34 0	9.62 2
33.0541	33.0840	0.78	14.50	7.46 0	-8.94 2	-7.49 0	8.95 2
33.0117	33.0870	0.66	57.00	1.07 0	-8.86 2	-1.08 0	8.88 2
33.0645	33.0874	0.86	8.40	1.75 1	-8.23 2	-1.75 1	8.23 2
33.0828	33.0986	1.25	2.70	2.03 2	-8.14 2	-2.03 2	8.14 2
33.0829	33.0993	1.15	3.20	1.24 2	-7.72 2	-1.24 2	7.72 2
33.0201	33.1184	0.64	76.00	6.77-1	-7.52 2	-6.91-1	7.53 2
33.0955	33.1196	0.84	9.40	1.45 1	-8.38 2	-1.46 1	8.38 2
33.1132	33.1341	0.90	6.80	2.51 1	-7.98 2	-2.51 1	7.98 2
33.1255	33.1404	1.55	1.95	4.56 2	-6.94 2	-4.57 2	6.94 2
33.1242	33.1416	1.05	4.00	7.16 1	-7.60 2	-7.17 1	7.60 2
33.1341	33.1543	0.92	6.20	2.95 1	-7.88 2	-2.96 1	7.88 2
33.1360	33.1687	0.76	17.00	5.89 0	-9.15 2	-5.91 0	9.16 2
33.0981	33.1720	0.66	56.00	1.09 0	-8.93 2	-1.11 0	8.94 2
33.1681	33.1862	1.00	4.60	5.27 1	-7.64 2	-5.28 1	7.64 2
33.0896	33.1864	0.64	75.00	6.91-1	-7.61 2	-7.05-1	7.62 2
33.1715	33.1874	1.20	2.90	1.62 2	-7.91 2	-1.62 2	7.91 2
33.1290	33.1878	0.68	42.00	1.65 0	-9.51 2	-1.67 0	9.52 2
33.1736	33.1891	1.30	2.50	2.56 2	-8.36 2	-2.56 2	8.36 2
33.2115	33.2263	1.70	1.75	1.07 2	-1.12 2	-1.07 2	1.12 2
33.2089	33.2305	0.88	7.40	2.15 1	-8.09 2	-2.15 1	8.09 2
33.1849	33.2333	0.70	32.00	2.41 0	-9.64 2	-2.43 0	9.65 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
33.2103	33.2356	0.82	10.50	1.21 1	-8.54 2	-1.22 1	8.54 2
33.1597	33.2551	0.64	74.00	7.05-1	-7.70 2	-7.19-1	7.71 2
33.2334	33.2560	0.86	8.20	1.81 1	-8.22 2	-1.81 1	8.22 2
33.2395	33.2562	1.10	3.50	9.73 1	-7.64 2	-9.74 1	7.64 2
33.1858	33.2586	0.66	55.00	1.12 0	-9.00 2	-1.13 0	9.01 2
33.2405	33.2642	0.84	9.20	1.49 1	-8.37 2	-1.50 1	8.37 2
33.2626	33.2774	1.65	1.80	2.83 2	-3.32 2	-2.83 2	3.32 2
33.2389	33.2800	0.72	25.00	3.39 0	-9.54 2	-3.41 0	9.55 2
33.2550	33.2820	0.80	12.00	9.84 0	-8.72 2	-9.86 0	8.73 2
33.2613	33.2906	0.78	14.00	7.79 0	-8.93 2	-7.82 0	8.93 2
33.2790	33.2978	0.96	5.20	4.08 1	-7.73 2	-4.09 1	7.73 2
33.2458	33.3034	0.68	41.00	1.70 0	-9.55 2	-1.72 0	9.56 2
33.2899	33.3049	1.45	2.10	4.15 2	-8.14 2	-4.15 2	8.14 2
33.2913	33.3107	0.94	5.60	3.54 1	-7.79 2	-3.54 1	7.79 2
33.2304	33.3245	0.64	73.00	7.19-1	-7.78 2	-7.34-1	7.80 2
33.2959	33.3316	0.74	20.00	4.63 0	-9.36 2	-4.66 0	9.36 2
33.3050	33.3370	0.76	16.50	6.11 0	-9.14 2	-6.13 0	9.15 2
33.3270	33.3421	1.40	2.20	3.75 2	-8.54 2	-3.75 2	8.54 2
33.2752	33.3467	0.66	54.00	1.14 0	-9.06 2	-1.16 0	9.07 2
33.3403	33.3609	0.90	6.60	2.61 1	-7.97 2	-2.61 1	7.97 2
33.3531	33.3680	1.50	2.00	4.37 2	-7.39 2	-4.38 2	7.39 2
33.3654	33.3802	1.60	1.85	4.04 2	-5.27 2	-4.04 2	5.27 2
33.3670	33.3854	0.98	4.80	4.77 1	-7.68 2	-4.77 1	7.68 2
33.3688	33.3860	1.05	3.90	7.46 1	-7.62 2	-7.47 1	7.62 2
33.3431	33.3903	0.70	31.00	2.50 0	-9.66 2	-2.52 0	9.67 2
33.3018	33.3945	0.64	72.00	7.34-1	-7.87 2	-7.48-1	7.89 2
33.3933	33.4131	0.92	6.00	3.09 1	-7.87 2	-3.10 1	7.87 2
33.3899	33.4133	0.84	9.00	1.54 1	-8.36 2	-1.54 1	8.36 2
33.3657	33.4223	0.68	40.00	1.75 0	-9.59 2	-1.77 0	9.60 2
33.4084	33.4306	0.86	8.00	1.87 1	-8.21 2	-1.87 1	8.21 2
33.4106	33.4319	0.88	7.20	2.23 1	-8.08 2	-2.24 1	8.08 2
33.3661	33.4365	0.66	53.00	1.17 0	-9.13 2	-1.19 0	9.14 2
33.4301	33.4462	1.15	3.10	1.31 2	-7.77 2	-1.31 2	7.77 2
33.3739	33.4652	0.64	71.00	7.49-1	-7.96 2	-7.64-1	7.97 2
33.4337	33.4689	0.74	19.50	4.78 0	-9.35 2	-4.80 0	9.36 2
33.4624	33.4776	1.35	2.30	3.26 2	-8.58 2	-3.26 2	8.59 2
33.4512	33.4911	0.72	24.00	3.56 0	-9.55 2	-3.58 0	9.55 2
33.4787	33.5073	0.78	13.50	8.15 0	-8.91 2	-8.18 0	8.92 2
33.4808	33.5121	0.76	16.00	6.34 0	-9.13 2	-6.37 0	9.13 2
33.4588	33.5280	0.66	52.00	1.20 0	-9.19 2	-1.22 0	9.20 2
33.5211	33.5358	1.55	1.90	4.31 2	-6.26 2	-4.32 2	6.26 2
33.4468	33.5367	0.64	70.00	7.65-1	-8.05 2	-7.79-1	8.06 2
33.4891	33.5445	0.68	39.00	1.81 0	-9.63 2	-1.83 0	9.64 2
33.5215	33.5478	0.80	11.50	1.04 1	-8.70 2	-1.04 1	8.71 2
33.5075	33.5536	0.70	30.00	2.60 0	-9.68 2	-2.62 0	9.68 2
33.5292	33.5539	0.82	10.00	1.29 1	-8.52 2	-1.29 1	8.52 2
33.5417	33.5572	1.25	2.60	2.19 2	-8.23 2	-2.19 2	8.23 2
33.5408	33.5573	1.10	3.40	1.02 2	-7.67 2	-1.02 2	7.67 2
33.5440	33.5672	0.84	8.80	1.58 1	-8.35 2	-1.59 1	8.35 2
33.5709	33.5886	1.00	4.40	5.64 1	-7.65 2	-5.65 1	7.66 2
33.5792	33.5949	1.20	2.80	1.73 2	-7.99 2	-1.73 2	8.00 2
33.5777	33.5979	0.90	6.40	2.72 1	-7.96 2	-2.73 1	7.96 2
33.5204	33.6090	0.64	69.00	7.81-1	-8.13 2	-7.95-1	8.14 2
33.5762	33.6107	0.74	19.00	4.93 0	-9.34 2	-4.95 0	9.35 2
33.5921	33.6111	0.94	5.40	3.73 1	-7.79 2	-3.73 1	7.79 2
33.5896	33.6116	0.86	7.80	1.93 1	-8.20 2	-1.93 1	8.20 2
33.5533	33.6212	0.66	51.00	1.23 0	-9.25 2	-1.25 0	9.26 2
33.6144	33.6329	0.96	5.00	4.32 1	-7.73 2	-4.33 1	7.73 2
33.6236	33.6405	1.05	3.80	7.77 1	-7.63 2	-7.78 1	7.63 2
33.6206	33.6416	0.88	7.00	2.32 1	-8.07 2	-2.32 1	8.07 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
33.6161	33.6703	0.68	38.00	1.87 0	-9.66 2	-1.88 0	9.67 2
33.5949	33.6822	0.64	68.00	7.97-1	-8.22 2	-8.12-1	8.23 2
33.6656	33.6850	0.92	5.80	3.24 1	-7.87 2	-3.25 1	7.87 2
33.6630	33.6873	0.82	9.80	1.32 1	-8.51 2	-1.33 1	8.51 2
33.6640	33.6947	0.76	15.50	6.59 0	-9.12 2	-6.62 0	9.12 2
33.6965	33.7117	1.30	2.40	2.78 2	-8.49 2	-2.78 2	8.49 2
33.6749	33.7135	0.72	23.00	3.75 0	-9.55 2	-3.77 0	9.55 2
33.6496	33.7164	0.66	50.00	1.26 0	-9.31 2	-1.28 0	9.32 2
33.6787	33.7235	0.70	29.00	2.71 0	-9.69 2	-2.73 0	9.70 2
33.7032	33.7260	0.84	8.60	1.63 1	-8.34 2	-1.63 1	8.34 2
33.7071	33.7350	0.78	13.00	8.54 0	-8.89 2	-8.57 0	8.90 2
33.7205	33.7351	1.65	1.75	2.00 2	-2.23 2	-2.00 2	2.23 2
33.7316	33.7463	1.50	1.95	4.27 2	-6.90 2	-4.27 2	6.91 2
33.6702	33.7562	0.64	67.00	8.15-1	-8.30 2	-8.29-1	8.31 2
33.7236	33.7575	0.74	18.50	5.09 0	-9.34 2	-5.11 0	9.34 2
33.7453	33.7632	0.98	4.60	5.08 1	-7.69 2	-5.09 1	7.69 2
33.6550	33.7724	0.62	90.00	4.91-1	-6.33 2	-5.04-1	6.34 2
33.7776	33.7992	0.86	7.60	2.00 1	-8.19 2	-2.00 1	8.19 2
33.7470	33.8001	0.68	37.00	1.93 0	-9.70 2	-1.95 0	9.71 2
33.7964	33.8122	1.15	3.00	1.39 2	-7.83 2	-1.39 2	7.83 2
33.7479	33.8135	0.66	49.00	1.30 0	-9.36 2	-1.31 0	9.37 2
33.8011	33.8156	1.60	1.80	3.25 2	-4.04 2	-3.26 2	4.04 2
33.8006	33.8246	0.82	9.60	1.36 1	-8.50 2	-1.36 1	8.50 2
33.8042	33.8298	0.80	11.00	1.10 1	-8.68 2	-1.10 1	8.69 2
33.7464	33.8311	0.64	66.00	8.32-1	-8.38 2	-8.46-1	8.39 2
33.7200	33.8357	0.62	89.00	5.00-1	-6.43 2	-5.14-1	6.44 2
33.8261	33.8460	0.90	6.20	2.84 1	-7.95 2	-2.85 1	7.96 2
33.8394	33.8600	0.88	6.80	2.41 1	-8.06 2	-2.41 1	8.06 2
33.8568	33.8730	1.10	3.30	1.08 2	-7.70 2	-1.08 2	7.71 2
33.8551	33.8852	0.76	15.00	6.86 0	-9.10 2	-6.89 0	9.11 2
33.8676	33.8901	0.84	8.40	1.68 1	-8.33 2	-1.69 1	8.33 2
33.7852	33.8993	0.62	88.00	5.10-1	-6.53 2	-5.23-1	6.54 2
33.8571	33.9008	0.70	28.00	2.83 0	-9.71 2	-2.85 0	9.71 2
33.8891	33.9058	1.05	3.70	8.12 1	-7.65 2	-8.13 1	7.65 2
33.8236	33.9069	0.64	65.00	8.50-1	-8.46 2	-8.64-1	8.47 2
33.8763	33.9095	0.74	18.00	5.27 0	-9.33 2	-5.29 0	9.33 2
33.8483	33.9127	0.66	48.00	1.33 0	-9.42 2	-1.35 0	9.43 2
33.9100	33.9286	0.94	5.20	3.93 1	-7.79 2	-3.94 1	7.79 2
33.8820	33.9339	0.68	36.00	1.99 0	-9.73 2	-2.01 0	9.74 2
33.9111	33.9486	0.72	22.00	3.96 0	-9.54 2	-3.98 0	9.55 2
33.9365	33.9510	1.55	1.85	4.08 2	-5.64 2	-4.08 2	5.65 2
33.8508	33.9632	0.62	87.00	5.20-1	-6.63 2	-5.33-1	6.64 2
33.9423	33.9660	0.82	9.40	1.40 1	-8.49 2	-1.40 1	8.49 2
33.9521	33.9712	0.92	5.60	3.41 1	-7.86 2	-3.41 1	7.86 2
33.9477	33.9749	0.78	12.50	8.97 0	-8.88 2	-8.99 0	8.88 2
33.9017	33.9837	0.64	64.00	8.69-1	-8.54 2	-8.83-1	8.55 2
33.9708	33.9889	0.96	4.80	4.59 1	-7.73 2	-4.60 1	7.73 2
33.9728	33.9941	0.86	7.40	2.07 1	-8.18 2	-2.07 1	8.18 2
33.9805	33.9952	1.40	2.10	3.99 2	-8.39 2	-4.00 2	8.39 2
33.9509	34.0141	0.66	47.00	1.37 0	-9.47 2	-1.38 0	9.48 2
33.9997	34.0143	1.45	2.00	4.29 2	-7.74 2	-4.29 2	7.74 2
33.9166	34.0274	0.62	86.00	5.30-1	-6.73 2	-5.44-1	6.74 2
33.9808	34.0616	0.64	63.00	8.88-1	-8.62 2	-9.02-1	8.63 2
33.9828	34.0920	0.62	85.00	5.41-1	-6.83 2	-5.54-1	6.84 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
34.00	35.00						
34.0031	34.0204	1.00	4.20	6.06 1	-7.67 2	-6.06 1	7.67 2
34.0123	34.0277	1.20	2.70	1.86 2	-8.10 2	-1.86 2	8.10 2
34.0319	34.0471	1.25	2.50	2.36 2	-8.32 2	-2.36 2	8.32 2
34.0377	34.0599	0.84	8.20	1.74 1	-8.32 2	-1.74 1	8.32 2
34.0345	34.0671	0.74	17.50	5.45 0	-9.32 2	-5.47 0	9.32 2
34.0214	34.0721	0.68	35.00	2.06 0	-9.76 2	-2.08 0	9.77 2
34.0672	34.0821	1.35	2.20	3.53 2	-8.61 2	-3.53 2	8.62 2
34.0549	34.0843	0.76	14.50	7.16 0	-9.09 2	-7.18 0	9.09 2
34.0435	34.0860	0.70	27.00	2.96 0	-9.72 2	-2.98 0	9.72 2
34.0678	34.0880	0.88	6.60	2.51 1	-8.05 2	-2.51 1	8.05 2
34.0866	34.1061	0.90	6.00	2.98 1	-7.95 2	-2.98 1	7.95 2
34.0883	34.1117	0.82	9.20	1.44 1	-8.48 2	-1.44 1	8.48 2
34.0558	34.1179	0.66	46.00	1.41 0	-9.52 2	-1.42 0	9.53 2
34.1051	34.1300	0.80	10.50	1.16 1	-8.66 2	-1.17 1	8.66 2
34.0611	34.1406	0.64	62.00	9.08-1	-8.70 2	-9.22-1	8.71 2
34.1285	34.1429	1.50	1.90	4.11 2	-6.35 2	-4.11 2	6.35 2
34.0494	34.1570	0.62	84.00	5.51-1	-6.93 2	-5.65-1	6.94 2
34.1497	34.1672	0.98	4.40	5.43 1	-7.70 2	-5.44 1	7.70 2
34.1664	34.1828	1.05	3.60	8.49 1	-7.67 2	-8.50 1	7.67 2
34.1757	34.1967	0.86	7.20	2.15 1	-8.17 2	-2.15 1	8.17 2
34.1614	34.1976	0.72	21.00	4.18 0	-9.54 2	-4.20 0	9.54 2
34.1834	34.1990	1.15	2.90	1.48 2	-7.89 2	-1.48 2	7.89 2
34.1888	34.2048	1.10	3.20	1.13 2	-7.74 2	-1.14 2	7.74 2
34.1655	34.2151	0.68	34.00	2.14 0	-9.79 2	-2.16 0	9.80 2
34.2040	34.2184	1.65	1.70	1.05 2	-1.11 2	-1.05 2	1.11 2
34.1424	34.2207	0.64	61.00	9.28-1	-8.77 2	-9.42-1	8.78 2
34.1163	34.2223	0.62	83.00	5.62-1	-7.02 2	-5.75-1	7.04 2
34.1632	34.2241	0.66	45.00	1.45 0	-9.57 2	-1.46 0	9.58 2
34.2016	34.2281	0.78	12.00	9.44 0	-8.86 2	-9.46 0	8.86 2
34.1988	34.2307	0.74	17.00	5.64 0	-9.31 2	-5.67 0	9.31 2
34.2137	34.2356	0.84	8.00	1.79 1	-8.31 2	-1.80 1	8.31 2
34.2387	34.2618	0.82	9.00	1.48 1	-8.47 2	-1.48 1	8.47 2
34.2469	34.2651	0.94	5.00	4.16 1	-7.79 2	-4.17 1	7.79 2
34.2543	34.2730	0.92	5.40	3.59 1	-7.86 2	-3.59 1	7.86 2
34.2589	34.2738	1.30	2.30	3.02 2	-8.58 2	-3.03 2	8.58 2
34.2602	34.2746	1.60	1.75	2.58 2	-3.04 2	-2.58 2	3.04 2
34.2386	34.2799	0.70	26.00	3.09 0	-9.72 2	-3.11 0	9.73 2
34.1836	34.2881	0.62	82.00	5.73-1	-7.12 2	-5.86-1	7.13 2
34.2641	34.2928	0.76	14.00	7.47 0	-9.07 2	-7.50 0	9.08 2
34.2249	34.3020	0.64	60.00	9.49-1	-8.85 2	-9.63-1	8.86 2
34.3064	34.3263	0.88	6.40	2.62 1	-8.04 2	-2.62 1	8.04 2
34.2731	34.3328	0.66	44.00	1.49 0	-9.62 2	-1.50 0	9.63 2
34.2513	34.3543	0.62	81.00	5.85-1	-7.22 2	-5.98-1	7.23 2
34.3146	34.3630	0.68	33.00	2.22 0	-9.81 2	-2.23 0	9.82 2
34.3506	34.3682	0.96	4.60	4.89 1	-7.74 2	-4.90 1	7.74 2
34.3602	34.3793	0.90	5.80	3.12 1	-7.94 2	-3.12 1	7.94 2
34.3087	34.3845	0.64	59.00	9.71-1	-8.92 2	-9.85-1	8.93 2
34.3734	34.3877	1.55	1.80	3.51 2	-4.62 2	-3.51 2	4.62 2
34.3794	34.3938	1.45	1.95	4.27 2	-7.37 2	-4.28 2	7.37 2
34.3694	34.4007	0.74	16.50	5.85 0	-9.30 2	-5.87 0	9.30 2
34.3869	34.4075	0.86	7.00	2.23 1	-8.16 2	-2.23 1	8.16 2
34.3939	34.4167	0.82	8.80	1.52 1	-8.46 2	-1.52 1	8.46 2
34.3961	34.4177	0.84	7.80	1.85 1	-8.30 2	-1.86 1	8.30 2
34.3195	34.4210	0.62	80.00	5.96-1	-7.32 2	-6.09-1	7.33 2
34.3857	34.4443	0.66	43.00	1.53 0	-9.67 2	-1.55 0	9.68 2
34.4264	34.4506	0.80	10.00	1.24 1	-8.64 2	-1.24 1	8.64 2
34.4272	34.4622	0.72	20.00	4.44 0	-9.53 2	-4.46 0	9.53 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
34.3937	34.4683	0.64	58.00	9.93-1	-8.99 2	-1.01 0	9.01 2
34.4562	34.4724	1.05	3.50	8.89 1	-7.69 2	-8.90 1	7.70 2
34.4431	34.4833	0.70	25.00	3.24 0	-9.73 2	-3.26 0	9.74 2
34.4685	34.4854	1.00	4.00	6.53 1	-7.68 2	-6.54 1	7.69 2
34.3882	34.4882	0.62	79.00	6.08-1	-7.41 2	-6.21-1	7.42 2
34.4735	34.4886	1.20	2.60	2.00 2	-8.19 2	-2.00 2	8.19 2
34.4703	34.4961	0.78	11.50	9.95 0	-8.83 2	-9.98 0	8.84 2
34.4834	34.5114	0.76	13.50	7.81 0	-9.05 2	-7.84 0	9.06 2
34.4691	34.5164	0.68	32.00	2.30 0	-9.84 2	-2.32 0	9.84 2
34.4802	34.5535	0.64	57.00	1.02 0	-9.06 2	-1.03 0	9.08 2
34.5382	34.5539	1.10	3.10	1.20 2	-7.78 2	-1.20 2	7.79 2
34.4573	34.5560	0.62	78.00	6.20-1	-7.51 2	-6.33-1	7.52 2
34.5013	34.5587	0.66	42.00	1.58 0	-9.71 2	-1.59 0	9.72 2
34.5451	34.5593	1.50	1.85	3.95 2	-5.82 2	-3.95 2	5.82 2
34.5572	34.5720	1.25	2.40	2.56 2	-8.45 2	-2.57 2	8.45 2
34.5561	34.5757	0.88	6.20	2.73 1	-8.03 2	-2.74 1	8.04 2
34.5541	34.5766	0.82	8.60	1.57 1	-8.45 2	-1.57 1	8.45 2
34.5470	34.5777	0.74	16.00	6.08 0	-9.28 2	-6.10 0	9.29 2
34.5612	34.5851	0.80	9.80	1.27 1	-8.63 2	-1.27 1	8.63 2
34.5736	34.5920	0.92	5.20	3.79 1	-7.85 2	-3.79 1	7.85 2
34.5834	34.6005	0.98	4.20	5.83 1	-7.71 2	-5.84 1	7.71 2
34.5666	34.6010	0.72	19.50	4.58 0	-9.52 2	-4.60 0	9.53 2
34.5852	34.6065	0.84	7.60	1.92 1	-8.29 2	-1.92 1	8.29 2
34.5934	34.6088	1.15	2.80	1.58 2	-7.96 2	-1.58 2	7.97 2
34.6048	34.6226	0.94	4.80	4.42 1	-7.79 2	-4.43 1	7.79 2
34.5270	34.6242	0.62	77.00	6.33-1	-7.60 2	-6.46-1	7.61 2
34.6069	34.6272	0.86	6.80	2.32 1	-8.15 2	-2.32 1	8.15 2
34.5680	34.6401	0.64	56.00	1.04 0	-9.13 2	-1.06 0	9.15 2
34.6480	34.6669	0.90	5.60	3.28 1	-7.93 2	-3.28 1	7.93 2
34.6295	34.6756	0.68	31.00	2.39 0	-9.86 2	-2.41 0	9.87 2
34.6199	34.6762	0.66	41.00	1.62 0	-9.76 2	-1.64 0	9.77 2
34.5973	34.6930	0.62	76.00	6.46-1	-7.69 2	-6.59-1	7.71 2
34.6580	34.6970	0.70	24.00	3.41 0	-9.73 2	-3.43 0	9.74 2
34.6927	34.7070	1.40	2.00	4.24 2	-8.17 2	-4.24 2	8.17 2
34.6998	34.7234	0.80	9.60	1.30 1	-8.62 2	-1.31 1	8.62 2
34.6573	34.7283	0.64	55.00	1.07 0	-9.20 2	-1.08 0	9.21 2
34.7151	34.7318	1.00	3.90	6.80 1	-7.70 2	-6.80 1	7.70 2
34.7231	34.7376	1.35	2.10	3.80 2	-8.56 2	-3.80 2	8.56 2
34.7138	34.7412	0.76	13.00	8.19 0	-9.04 2	-8.21 0	9.04 2
34.7196	34.7418	0.82	8.40	1.61 1	-8.44 2	-1.62 1	8.44 2
34.7106	34.7444	0.72	19.00	4.72 0	-9.51 2	-4.74 0	9.52 2
34.7449	34.7590	1.60	1.70	1.77 2	-1.98 2	-1.77 2	1.98 2
34.7319	34.7620	0.74	15.50	6.32 0	-9.27 2	-6.34 0	9.28 2
34.6681	34.7625	0.62	75.00	6.59-1	-7.79 2	-6.72-1	7.80 2
34.7564	34.7737	0.96	4.40	5.23 1	-7.74 2	-5.23 1	7.75 2
34.7596	34.7756	1.05	3.40	9.33 1	-7.72 2	-9.34 1	7.72 2
34.7553	34.7804	0.78	11.00	1.05 1	-8.81 2	-1.05 1	8.82 2
34.7774	34.7917	1.45	1.90	4.22 2	-6.95 2	-4.22 2	6.96 2
34.7417	34.7968	0.66	40.00	1.67 0	-9.80 2	-1.69 0	9.81 2
34.7815	34.8025	0.84	7.40	1.99 1	-8.28 2	-1.99 1	8.28 2
34.7482	34.8180	0.64	54.00	1.09 0	-9.27 2	-1.11 0	9.28 2
34.7396	34.8326	0.62	74.00	6.72-1	-7.88 2	-6.85-1	7.89 2
34.8179	34.8371	0.88	6.00	2.86 1	-8.02 2	-2.87 1	8.03 2
34.7962	34.8411	0.68	30.00	2.49 0	-9.88 2	-2.51 0	9.88 2
34.8338	34.8479	1.55	1.75	2.99 2	-3.74 2	-2.99 2	3.74 2
34.8365	34.8564	0.86	6.60	2.41 1	-8.14 2	-2.42 1	8.14 2
34.8425	34.8658	0.80	9.40	1.34 1	-8.61 2	-1.34 1	8.61 2
34.8661	34.8807	1.30	2.20	3.29 2	-8.66 2	-3.29 2	8.66 2
34.8596	34.8928	0.72	18.50	4.88 0	-9.51 2	-4.90 0	9.51 2
34.8117	34.9033	0.62	73.00	6.86-1	-7.97 2	-6.99-1	7.98 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
34.8407	34.9093	0.64	53.00	1.12 0	-9.33 2	-1.13 0	9.34 2
34.8908	34.9126	0.82	8.20	1.67 1	-8.43 2	-1.67 1	8.43 2
34.8669	34.9210	0.66	39.00	1.73 0	-9.84 2	-1.74 0	9.85 2
34.9067	34.9221	1.10	3.00	1.27 2	-7.84 2	-1.27 2	7.84 2
34.8844	34.9222	0.70	23.00	3.59 0	-9.73 2	-3.61 0	9.74 2
34.9119	34.9299	0.92	5.00	4.01 1	-7.85 2	-4.01 1	7.85 2
34.9249	34.9543	0.74	15.00	6.57 0	-9.26 2	-6.60 0	9.26 2
34.9516	34.9700	0.90	5.40	3.45 1	-7.93 2	-3.45 1	7.93 2
34.8845	34.9747	0.62	72.00	7.00-1	-8.06 2	-7.13-1	8.07 2
34.9660	34.9808	1.20	2.50	2.16 2	-8.28 2	-2.16 2	8.28 2
34.9565	34.9832	0.76	12.50	8.60 0	-9.02 2	-8.62 0	9.02 2
34.9719	34.9883	1.00	3.80	7.08 1	-7.71 2	-7.09 1	7.71 2
34.9832	34.9973	1.50	1.80	3.54 2	-4.96 2	-3.54 2	4.96 2
34.9350	35.0024	0.64	52.00	1.15 0	-9.40 2	-1.16 0	9.41 2
34.9860	35.0034	0.94	4.60	4.71 1	-7.79 2	-4.71 1	7.79 2
34.9856	35.0062	0.84	7.20	2.06 1	-8.27 2	-2.06 1	8.27 2
34.9895	35.0125	0.80	9.20	1.38 1	-8.60 2	-1.38 1	8.60 2
34.9696	35.0134	0.68	29.00	2.59 0	-9.89 2	-2.61 0	9.90 2
34.9580	35.0469	0.62	71.00	7.14-1	-8.15 2	-7.28-1	8.16 2
34.9959	35.0488	0.66	38.00	1.78 0	-9.87 2	-1.80 0	9.88 2
35.00	36.00						
35.0288	35.0438	1.15	2.70	1.70 2	-8.06 2	-1.70 2	8.06 2
35.0139	35.0464	0.72	18.00	5.04 0	-9.50 2	-5.06 0	9.50 2
35.0504	35.0670	0.98	4.00	6.29 1	-7.72 2	-6.29 1	7.72 2
35.0585	35.0829	0.78	10.50	1.12 1	-8.79 2	-1.12 1	8.79 2
35.0736	35.0878	1.40	1.95	4.30 2	-7.93 2	-4.30 2	7.93 2
35.0679	35.0894	0.82	8.00	1.72 1	-8.42 2	-1.72 1	8.42 2
35.0778	35.0935	1.05	3.30	9.81 1	-7.75 2	-9.82 1	7.75 2
35.0763	35.0959	0.86	6.40	2.52 1	-8.13 2	-2.52 1	8.13 2
35.0310	35.0973	0.64	51.00	1.18 0	-9.46 2	-1.19 0	9.47 2
35.0928	35.1117	0.88	5.80	3.00 1	-8.02 2	-3.00 1	8.02 2
35.0322	35.1198	0.62	70.00	7.29-1	-8.24 2	-7.42-1	8.25 2
35.1219	35.1365	1.25	2.30	2.79 2	-8.56 2	-2.79 2	8.56 2
35.1266	35.1553	0.74	14.50	6.85 0	-9.24 2	-6.88 0	9.25 2
35.1234	35.1600	0.70	22.00	3.78 0	-9.73 2	-3.80 0	9.74 2
35.1410	35.1636	0.80	9.00	1.42 1	-8.59 2	-1.42 1	8.59 2
35.1287	35.1805	0.66	37.00	1.84 0	-9.91 2	-1.86 0	9.92 2
35.1504	35.1931	0.68	28.00	2.71 0	-9.91 2	-2.72 0	9.91 2
35.1073	35.1936	0.62	69.00	7.45-1	-8.33 2	-7.58-1	8.34 2
35.1290	35.1941	0.64	50.00	1.21 0	-9.52 2	-1.22 0	9.53 2
35.1738	35.2057	0.72	17.50	5.22 0	-9.49 2	-5.24 0	9.49 2
35.1917	35.2085	0.96	4.20	5.61 1	-7.75 2	-5.62 1	7.75 2
35.1953	35.2093	1.45	1.85	4.18 2	-6.56 2	-4.18 2	6.56 2
35.1980	35.2183	0.84	7.00	2.14 1	-8.26 2	-2.14 1	8.26 2
35.2125	35.2385	0.76	12.00	9.04 0	-9.00 2	-9.07 0	9.00 2
35.2395	35.2557	1.00	3.70	7.39 1	-7.72 2	-7.39 1	7.72 2
35.1831	35.2681	0.62	68.00	7.60-1	-8.41 2	-7.73-1	8.42 2
35.2575	35.2714	1.60	1.65	8.50 1	-9.00 1	-8.50 1	8.99 1
35.2514	35.2726	0.82	7.80	1.78 1	-8.40 2	-1.78 1	8.41 2
35.2712	35.2888	0.92	4.80	4.25 1	-7.85 2	-4.26 1	7.85 2
35.2723	35.2904	0.90	5.20	3.64 1	-7.92 2	-3.64 1	7.92 2
35.2289	35.2928	0.64	49.00	1.24 0	-9.58 2	-1.25 0	9.59 2
35.2959	35.3111	1.10	2.90	1.35 2	-7.89 2	-1.35 2	7.89 2
35.2978	35.3142	0.98	3.90	6.54 1	-7.73 2	-6.55 1	7.73 2
35.2657	35.3163	0.66	36.00	1.91 0	-9.94 2	-1.92 0	9.95 2
35.2972	35.3196	0.80	8.80	1.46 1	-8.58 2	-1.46 1	8.58 2
35.3197	35.3335	1.55	1.70	2.33 2	-2.77 2	-2.33 2	2.77 2
35.2599	35.3436	0.62	67.00	7.77-1	-8.50 2	-7.90-1	8.51 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
35.3273	35.3466	0.86	6.20	2.63 1	-8.12 2	-2.63 1	8.12 2
35.3376	35.3657	0.74	14.00	7.16 0	-9.23 2	-7.18 0	9.23 2
35.3397	35.3710	0.72	17.00	5.40 0	-9.48 2	-5.42 0	9.48 2
35.3392	35.3808	0.68	27.00	2.83 0	-9.92 2	-2.84 0	9.92 2
35.3310	35.3938	0.64	48.00	1.27 0	-9.63 2	-1.29 0	9.64 2
35.3820	35.4005	0.88	5.60	3.15 1	-8.01 2	-3.15 1	8.01 2
35.3822	35.4059	0.78	10.00	1.19 1	-8.76 2	-1.19 1	8.77 2
35.3933	35.4104	0.94	4.40	5.03 1	-7.80 2	-5.04 1	7.80 2
35.3765	35.4120	0.70	21.00	4.00 0	-9.72 2	-4.02 0	9.73 2
35.3375	35.4199	0.62	66.00	7.93-1	-8.58 2	-8.06-1	8.59 2
35.4119	35.4275	1.05	3.20	1.03 2	-7.78 2	-1.03 2	7.78 2
35.4192	35.4392	0.84	6.80	2.23 1	-8.25 2	-2.23 1	8.25 2
35.4377	35.4518	1.35	2.00	4.10 2	-8.49 2	-4.10 2	8.49 2
35.4071	35.4566	0.66	35.00	1.97 0	-9.97 2	-1.99 0	9.98 2
35.4448	35.4586	1.50	1.75	3.14 2	-4.18 2	-3.14 2	4.19 2
35.4417	35.4626	0.82	7.60	1.84 1	-8.39 2	-1.84 1	8.40 2
35.4585	35.4805	0.80	8.60	1.50 1	-8.56 2	-1.51 1	8.57 2
35.3667	35.4809	0.60	90.00	4.67-1	-6.49 2	-4.79-1	6.50 2
35.4728	35.4868	1.40	1.90	4.35 2	-7.66 2	-4.35 2	7.66 2
35.4352	35.4969	0.64	47.00	1.31 0	-9.69 2	-1.32 0	9.70 2
35.4161	35.4972	0.62	65.00	8.10-1	-8.67 2	-8.23-1	8.68 2
35.4922	35.5070	1.15	2.60	1.82 2	-8.13 2	-1.83 2	8.14 2
35.4936	35.5081	1.20	2.40	2.35 2	-8.40 2	-2.35 2	8.40 2
35.4834	35.5087	0.76	11.50	9.54 0	-8.98 2	-9.56 0	8.98 2
35.5188	35.5347	1.00	3.60	7.72 1	-7.74 2	-7.73 1	7.74 2
35.5244	35.5386	1.30	2.10	3.57 2	-8.68 2	-3.58 2	8.68 2
35.5179	35.5413	0.78	9.80	1.22 1	-8.75 2	-1.22 1	8.76 2
35.5121	35.5428	0.72	16.50	5.60 0	-9.47 2	-5.62 0	9.47 2
35.4330	35.5456	0.60	89.00	4.77-1	-6.59 2	-4.89-1	6.60 2
35.5553	35.5715	0.98	3.80	6.81 1	-7.74 2	-6.82 1	7.74 2
35.4956	35.5756	0.62	64.00	8.28-1	-8.75 2	-8.41-1	8.76 2
35.5368	35.5772	0.68	26.00	2.96 0	-9.93 2	-2.97 0	9.93 2
35.5589	35.5864	0.74	13.50	7.48 0	-9.21 2	-7.50 0	9.21 2
35.5532	35.6016	0.66	34.00	2.04 0	-1.00 3	-2.06 0	1.00 3
35.5419	35.6024	0.64	46.00	1.34 0	-9.74 2	-1.36 0	9.75 2
35.5904	35.6093	0.86	6.00	2.75 1	-8.11 2	-2.75 1	8.11 2
35.4997	35.6106	0.60	88.00	4.86-1	-6.69 2	-4.98-1	6.70 2
35.6120	35.6297	0.90	5.00	3.85 1	-7.92 2	-3.86 1	7.92 2
35.6250	35.6468	0.80	8.40	1.55 1	-8.55 2	-1.55 1	8.56 2
35.6346	35.6484	1.45	1.80	3.92 2	-5.86 2	-3.92 2	5.87 2
35.5762	35.6549	0.62	63.00	8.46-1	-8.83 2	-8.59-1	8.84 2
35.6392	35.6598	0.82	7.40	1.91 1	-8.38 2	-1.91 1	8.38 2
35.6500	35.6696	0.84	6.60	2.32 1	-8.23 2	-2.32 1	8.24 2
35.6539	35.6711	0.92	4.60	4.53 1	-7.85 2	-4.53 1	7.85 2
35.5666	35.6759	0.60	87.00	4.95-1	-6.80 2	-5.07-1	6.81 2
35.6602	35.6767	0.96	4.00	6.05 1	-7.76 2	-6.05 1	7.76 2
35.6454	35.6796	0.70	20.00	4.24 0	-9.71 2	-4.26 0	9.72 2
35.6576	35.6807	0.78	9.60	1.25 1	-8.74 2	-1.25 1	8.75 2
35.6869	35.7051	0.88	5.40	3.32 1	-8.00 2	-3.32 1	8.00 2
35.6509	35.7103	0.64	45.00	1.38 0	-9.80 2	-1.39 0	9.80 2
35.6914	35.7215	0.72	16.00	5.82 0	-9.46 2	-5.84 0	9.46 2
35.7082	35.7231	1.10	2.80	1.44 2	-7.96 2	-1.44 2	7.96 2
35.6579	35.7354	0.62	62.00	8.65-1	-8.91 2	-8.78-1	8.92 2
35.6338	35.7415	0.60	86.00	5.05-1	-6.90 2	-5.17-1	6.91 2
35.7315	35.7457	1.25	2.20	3.04 2	-8.66 2	-3.05 2	8.66 2
35.7045	35.7518	0.66	33.00	2.12 0	-1.00 3	-2.13 0	1.00 3
35.7635	35.7788	1.05	3.10	1.09 2	-7.81 2	-1.09 2	7.82 2
35.7438	35.7831	0.68	25.00	3.10 0	-9.93 2	-3.12 0	9.94 2
35.7706	35.7953	0.76	11.00	1.01 1	-8.95 2	-1.01 1	8.96 2
35.7013	35.8075	0.60	85.00	5.15-1	-7.00 2	-5.27-1	7.01 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
35.7408	35.8170	0.62	61.00	8.85-1	-8.99 2	-8.98-1	9.00 2
35.7914	35.8182	0.74	13.00	7.84 0	-9.19 2	-7.86 0	9.19 2
35.7973	35.8187	0.80	8.20	1.60 1	-8.54 2	-1.60 1	8.54 2
35.7863	35.8200	0.70	19.50	4.38 0	-9.71 2	-4.39 0	9.71 2
35.7626	35.8209	0.64	44.00	1.42 0	-9.85 2	-1.43 0	9.85 2
35.8013	35.8241	0.78	9.40	1.28 1	-8.73 2	-1.29 1	8.74 2
35.8107	35.8264	1.00	3.50	8.08 1	-7.75 2	-8.09 1	7.75 2
35.8198	35.8337	1.35	1.95	4.22 2	-8.36 2	-4.22 2	8.36 2
35.8237	35.8397	0.98	3.70	7.10 1	-7.75 2	-7.11 1	7.75 2
35.8301	35.8468	0.94	4.20	5.40 1	-7.80 2	-5.40 1	7.80 2
35.8335	35.8471	1.55	1.65	1.55 2	-1.74 2	-1.55 2	1.74 2
35.8444	35.8647	0.82	7.20	1.98 1	-8.37 2	-1.98 1	8.37 2
35.7692	35.8739	0.60	84.00	5.25-1	-7.10 2	-5.37-1	7.11 2
35.8666	35.8852	0.86	5.80	2.88 1	-8.10 2	-2.88 1	8.10 2
35.8248	35.8998	0.62	60.00	9.05-1	-9.06 2	-9.18-1	9.07 2
35.8918	35.9056	1.40	1.85	4.42 2	-7.43 2	-4.43 2	7.43 2
35.8612	35.9073	0.66	32.00	2.20 0	-1.01 3	-2.21 0	1.01 3
35.8782	35.9076	0.72	15.50	6.04 0	-9.44 2	-6.07 0	9.45 2
35.8911	35.9104	0.84	6.40	2.42 1	-8.22 2	-2.42 1	8.23 2
35.9084	35.9247	0.96	3.90	6.29 1	-7.77 2	-6.29 1	7.77 2
35.8771	35.9342	0.64	43.00	1.46 0	-9.89 2	-1.47 0	9.90 2
35.8375	35.9407	0.60	83.00	5.35-1	-7.20 2	-5.47-1	7.21 2
35.9319	35.9455	1.50	1.70	2.63 2	-3.33 2	-2.63 2	3.33 2
35.9319	35.9650	0.70	19.00	4.52 0	-9.70 2	-4.53 0	9.71 2
35.9493	35.9718	0.78	9.20	1.32 1	-8.72 2	-1.32 1	8.73 2
35.9100	35.9839	0.62	59.00	9.25-1	-9.14 2	-9.38-1	9.15 2
35.9728	35.9901	0.90	4.80	4.09 1	-7.91 2	-4.09 1	7.92 2
35.9755	35.9967	0.80	8.00	1.65 1	-8.53 2	-1.65 1	8.53 2
35.9614	35.9995	0.68	24.00	3.26 0	-9.93 2	-3.27 0	9.94 2
35.9870	36.0015	1.15	2.50	1.97 2	-8.21 2	-1.97 2	8.22 2
35.9062	36.0079	0.60	82.00	5.46-1	-7.30 2	-5.58-1	7.31 2
35.9944	36.0504	0.64	42.00	1.50 0	-9.94 2	-1.52 0	9.95 2
35.9966	36.0692	0.62	58.00	9.47-1	-9.21 2	-9.60-1	9.22 2
35.9753	36.0755	0.60	81.00	5.57-1	-7.40 2	-5.69-1	7.41 2
36.00	37.00						
36.0090	36.0268	0.88	5.20	3.50 1	-7.99 2	-3.50 1	8.00 2
36.0361	36.0623	0.74	12.50	8.23 0	-9.17 2	-8.25 0	9.17 2
36.0238	36.0688	0.66	31.00	2.28 0	-1.01 3	-2.30 0	1.01 3
36.0607	36.0749	1.20	2.30	2.55 2	-8.50 2	-2.55 2	8.51 2
36.0580	36.0779	0.82	7.00	2.05 1	-8.36 2	-2.06 1	8.36 2
36.0628	36.0796	0.92	4.40	4.84 1	-7.85 2	-4.84 1	7.86 2
36.0762	36.1001	0.76	10.50	1.07 1	-8.93 2	-1.07 1	8.93 2
36.0730	36.1018	0.72	15.00	6.29 0	-9.43 2	-6.31 0	9.43 2
36.0973	36.1110	1.45	1.75	3.69 2	-5.24 2	-3.69 2	5.24 2
36.0825	36.1149	0.70	18.50	4.66 0	-9.69 2	-4.68 0	9.70 2
36.1038	36.1196	0.98	3.60	7.42 1	-7.76 2	-7.43 1	7.77 2
36.1018	36.1240	0.78	9.00	1.36 1	-8.71 2	-1.36 1	8.71 2
36.1162	36.1317	1.00	3.40	8.47 1	-7.77 2	-8.48 1	7.77 2
36.0449	36.1436	0.60	80.00	5.68-1	-7.50 2	-5.80-1	7.51 2
36.1341	36.1491	1.05	3.00	1.16 2	-7.86 2	-1.16 2	7.86 2
36.0846	36.1560	0.62	57.00	9.69-1	-9.29 2	-9.82-1	9.30 2
36.1457	36.1604	1.10	2.70	1.55 2	-8.04 2	-1.55 2	8.04 2
36.1434	36.1624	0.84	6.20	2.52 1	-8.21 2	-2.53 1	8.21 2
36.1148	36.1697	0.64	41.00	1.55 0	-9.98 2	-1.56 0	9.99 2
36.1572	36.1754	0.86	5.60	3.02 1	-8.09 2	-3.03 1	8.09 2
36.1601	36.1810	0.80	7.80	1.71 1	-8.52 2	-1.71 1	8.52 2
36.1668	36.1828	0.96	3.80	6.55 1	-7.78 2	-6.55 1	7.78 2
36.1149	36.2122	0.60	79.00	5.79-1	-7.60 2	-5.91-1	7.61 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
36.1905	36.2275	0.68	23.00	3.43 0	-9.93 2	-3.44 0	9.94 2
36.2202	36.2339	1.35	1.90	4.35 2	-8.22 2	-4.35 2	8.22 2
36.1927	36.2366	0.66	30.00	2.38 0	-1.01 3	-2.39 0	1.01 3
36.1739	36.2442	0.62	56.00	9.92-1	-9.36 2	-1.01 0	9.37 2
36.2413	36.2552	1.30	2.00	3.91 2	-8.71 2	-3.91 2	8.72 2
36.2384	36.2702	0.70	18.00	4.82 0	-9.68 2	-4.84 0	9.69 2
36.2590	36.2810	0.78	8.80	1.40 1	-8.70 2	-1.40 1	8.70 2
36.1855	36.2814	0.60	78.00	5.91-1	-7.70 2	-6.03-1	7.71 2
36.2385	36.2923	0.64	40.00	1.60 0	-1.00 3	-1.61 0	1.00 3
36.2804	36.3001	0.82	6.80	7.13 1	-8.35 2	-2.14 1	8.35 2
36.2766	36.3047	0.72	14.50	6.56 0	-9.41 2	-6.58 0	9.42 2
36.3002	36.3165	0.94	4.00	5.81 1	-7.81 2	-5.82 1	7.81 2
36.2943	36.3198	0.74	12.00	8.66 0	-9.15 2	-8.68 0	9.15 2
36.2648	36.3339	0.62	55.00	1.02 0	-9.43 2	-1.03 0	9.44 2
36.3324	36.3460	1.40	1.80	4.33 2	-6.92 2	-4.33 2	6.92 2
36.2566	36.3511	0.60	77.00	6.03-1	-7.80 2	-6.14-1	7.81 2
36.3501	36.3676	0.88	5.00	3.70 1	-7.99 2	-3.70 1	7.99 2
36.3516	36.3721	0.80	7.60	1.77 1	-8.50 2	-1.77 1	8.51 2
36.3569	36.3739	0.90	4.60	4.35 1	-7.91 2	-4.35 1	7.92 2
36.3780	36.3914	1.55	1.60	7.86 1	-8.35 1	-7.87 1	8.35 1
36.3921	36.4060	1.25	2.10	3.32 2	-8.73 2	-3.33 2	8.73 2
36.3685	36.4113	0.66	29.00	2.48 0	-1.01 3	-2.49 0	1.01 3
36.3965	36.4121	0.98	3.50	7.77 1	-7.78 2	-7.77 1	7.78 2
36.3657	36.4184	0.64	39.00	1.65 0	-1.01 3	-1.66 0	1.01 3
36.3282	36.4213	0.60	76.00	6.15-1	-7.89 2	-6.27-1	7.90 2
36.3573	36.4252	0.62	54.00	1.04 0	-9.50 2	-1.05 0	9.51 2
36.4023	36.4255	0.76	10.00	1.14 1	-8.90 2	-1.14 1	8.91 2
36.4078	36.4264	0.84	6.00	2.64 1	-8.20 2	-2.64 1	8.20 2
36.4000	36.4312	0.70	17.50	4.99 0	-9.68 2	-5.01 0	9.68 2
36.4214	36.4430	0.78	8.60	1.44 1	-8.69 2	-1.44 1	8.69 2
36.4364	36.4517	1.00	3.30	8.90 1	-7.79 2	-8.91 1	7.80 2
36.4360	36.4518	0.96	3.70	6.83 1	-7.79 2	-6.83 1	7.79 2
36.4469	36.4603	1.50	1.65	2.00 2	-2.39 2	-2.00 2	2.39 2
36.4324	36.4682	0.68	22.00	3.62 0	-9.93 2	-3.63 0	9.94 2
36.4635	36.4813	0.86	5.40	3.18 1	-8.08 2	-3.19 1	8.08 2
36.4004	36.4922	0.60	75.00	6.27-1	-7.99 2	-6.39-1	8.00 2
36.4896	36.5171	0.72	14.00	6.85 0	-9.40 2	-6.87 0	9.40 2
36.5011	36.5175	0.92	4.20	5.18 1	-7.86 2	-5.19 1	7.86 2
36.4514	36.5182	0.62	53.00	1.07 0	-9.56 2	-1.08 0	9.57 2
36.5169	36.5311	1.15	2.40	2.13 2	-8.32 2	-2.13 2	8.32 2
36.5125	36.5318	0.82	6.60	2.22 1	-8.33 2	-2.22 1	8.34 2
36.5255	36.5403	1.05	2.90	1.23 2	-7.90 2	-1.23 2	7.91 2
36.4966	36.5482	0.64	38.00	1.70 0	-1.01 3	-1.71 0	1.01 3
36.5390	36.5620	0.76	9.80	1.17 1	-8.89 2	-1.17 1	8.90 2
36.4733	36.5637	0.60	74.00	6.40-1	-8.08 2	-6.52-1	8.09 2
36.5492	36.5652	0.94	3.90	6.04 1	-7.82 2	-6.05 1	7.82 2
36.5502	36.5705	0.80	7.40	1.83 1	-8.49 2	-1.83 1	8.50 2
36.5674	36.5922	0.74	11.50	9.13 0	-9.13 2	-9.15 0	9.13 2
36.5517	36.5933	0.66	28.00	2.58 0	-1.01 3	-2.60 0	1.01 3
36.5676	36.5982	0.70	17.00	5.17 0	-9.66 2	-5.18 0	9.67 2
36.5856	36.5990	1.45	1.70	3.35 2	-4.51 2	-3.35 2	4.51 2
36.5890	36.6104	0.78	8.40	1.48 1	-8.68 2	-1.49 1	8.68 2
36.5473	36.6129	0.62	52.00	1.09 0	-9.63 2	-1.11 0	9.64 2
36.6114	36.6258	1.10	2.60	1.66 2	-8.11 2	-1.66 2	8.12 2
36.5468	36.6359	0.60	73.00	6.53-1	-8.18 2	-6.65-1	8.19 2
36.6246	36.6382	1.30	1.95	4.06 2	-8.66 2	-4.06 2	8.67 2
36.6404	36.6540	1.35	1.85	4.50 2	-8.12 2	-4.51 2	8.13 2
36.6314	36.6819	0.64	37.00	1.76 0	-1.01 3	-1.77 0	1.01 3
36.6725	36.6864	1.20	2.20	2.79 2	-8.62 2	-2.79 2	8.62 2
36.6796	36.7023	0.76	9.60	1.20 1	-8.88 2	-1.20 1	8.88 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
36.6853	36.7036	0.84	5.80	2.76 1	-8.19 2	-2.77 1	8.19 2
36.6210	36.7088	0.60	72.00	6.66-1	-8.27 2	-6.78-1	8.28 2
36.6449	36.7094	0.62	51.00	1.12 0	-9.69 2	-1.13 0	9.70 2
36.7029	36.7182	0.98	3.40	8.14 1	-7.79 2	-8.14 1	7.80 2
36.6884	36.7230	0.68	21.00	3.82 0	-9.93 2	-3.84 0	9.93 2
36.7123	36.7294	0.88	4.80	3.92 1	-7.98 2	-3.93 1	7.99 2
36.7169	36.7325	0.96	3.60	7.13 1	-7.80 2	-7.13 1	7.80 2
36.7129	36.7397	0.72	13.50	7.16 0	-9.38 2	-7.18 0	9.38 2
36.7417	36.7717	0.70	16.50	5.36 0	-9.65 2	-5.37 0	9.66 2
36.7548	36.7738	0.82	6.40	2.32 1	-8.32 2	-2.32 1	8.32 2
36.7567	36.7766	0.80	7.20	1.90 1	-8.48 2	-1.90 1	8.48 2
36.6959	36.7824	0.60	71.00	6.80-1	-8.36 2	-6.92-1	8.37 2
36.7624	36.7834	0.78	8.20	1.53 1	-8.66 2	-1.53 1	8.67 2
36.7429	36.7835	0.66	27.00	2.70 0	-1.01 3	-2.71 0	1.01 3
36.7673	36.7838	0.90	4.40	4.64 1	-7.92 2	-4.65 1	7.92 2
36.7727	36.7877	1.00	3.20	9.37 1	-7.82 2	-9.38 1	7.82 2
36.7870	36.8045	0.86	5.20	3.36 1	-8.07 2	-3.36 1	8.07 2
36.7446	36.8079	0.62	50.00	1.15 0	-9.75 2	-1.16 0	9.76 2
36.7963	36.8097	1.40	1.75	4.27 2	-6.49 2	-4.27 2	6.49 2
36.7704	36.8198	0.64	36.00	1.82 0	-1.02 3	-1.83 0	1.02 3
36.8083	36.8242	0.94	3.80	6.29 1	-7.82 2	-6.30 1	7.82 2
36.8244	36.8467	0.76	9.40	1.23 1	-8.87 2	-1.23 1	8.87 2
36.7716	36.8568	0.60	70.00	6.94-1	-8.45 2	-7.06-1	8.46 2
36.8569	36.8810	0.74	11.00	9.65 0	-9.10 2	-9.67 0	9.11 2
36.8462	36.9084	0.62	49.00	1.18 0	-9.81 2	-1.19 0	9.82 2
36.8481	36.9320	0.60	69.00	7.09-1	-8.54 2	-7.21-1	8.55 2
36.9228	36.9522	0.70	16.00	5.56 0	-9.64 2	-5.58 0	9.65 2
36.9399	36.9545	1.05	2.80	1.31 2	-7.96 2	-1.31 2	7.97 2
36.9139	36.9621	0.64	35.00	1.88 0	-1.02 3	-1.89 0	1.02 3
36.9417	36.9625	0.78	8.00	1.58 1	-8.65 2	-1.58 1	8.65 2
36.9474	36.9736	0.72	13.00	7.50 0	-9.36 2	-7.52 0	9.36 2
36.9430	36.9824	0.66	26.00	2.82 0	-1.01 3	-2.84 0	1.02 3
36.9727	36.9887	0.92	4.00	5.58 1	-7.86 2	-5.59 1	7.86 2
36.9714	36.9910	0.80	7.00	1.97 1	-8.47 2	-1.97 1	8.47 2
36.9603	36.9938	0.68	20.00	4.05 0	-9.92 2	-4.07 0	9.92 2
36.9772	36.9952	0.84	5.60	2.90 1	-8.18 2	-2.90 1	8.18 2
36.9734	36.9955	0.76	9.20	1.26 1	-8.86 2	-1.27 1	8.86 2
36.9925	37.0057	1.50	1.60	1.35 2	-1.52 2	-1.35 2	1.52 2
36.9254	37.0080	0.60	68.00	7.24-1	-8.63 2	-7.36-1	8.64 2
36.9499	37.0111	0.62	48.00	1.21 0	-9.87 2	-1.22 0	9.88 2
37.00	38.00						
37.0104	37.0258	0.96	3.50	7.46 1	-7.81 2	-7.46 1	7.81 2
37.0084	37.0270	0.82	6.20	2.42 1	-8.31 2	-2.42 1	8.31 2
37.0240	37.0391	0.98	3.30	8.54 1	-7.81 2	-8.55 1	7.82 2
37.0261	37.0396	1.30	1.90	4.24 2	-8.63 2	-4.24 2	8.63 2
37.0036	37.0850	0.60	67.00	7.39-1	-8.72 2	-7.51-1	8.73 2
37.0784	37.0940	0.94	3.70	6.56 1	-7.83 2	-6.56 1	7.83 2
37.0821	37.0955	1.35	1.80	4.54 2	-7.80 2	-4.54 2	7.80 2
37.0862	37.1001	1.15	2.30	2.32 2	-8.42 2	-2.32 2	8.43 2
37.0621	37.1093	0.64	34.00	1.95 0	-1.02 3	-1.96 0	1.02 3
37.0979	37.1146	0.88	4.60	4.17 1	-7.98 2	-4.18 1	7.98 2
37.1018	37.1150	1.45	1.65	2.87 2	-3.67 2	-2.88 2	3.67 2
37.0559	37.1159	0.62	47.00	1.24 0	-9.93 2	-1.26 0	9.94 2
37.1084	37.1226	1.10	2.50	1.79 2	-8.18 2	-1.79 2	8.19 2
37.1113	37.1248	1.25	2.00	3.67 2	-8.84 2	-3.67 2	8.84 2
37.1028	37.1357	0.68	19.50	4.18 0	-9.91 2	-4.20 0	9.92 2
37.1114	37.1402	0.70	15.50	5.78 0	-9.63 2	-5.80 0	9.63 2
37.1263	37.1412	1.00	3.10	9.89 1	-7.85 2	-9.89 1	7.85 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
37.1295	37.1467	0.86	5.00	3.55 1	-8.06 2	-3.55 1	8.07 2
37.1275	37.1479	0.78	7.80	1.63 1	-8.64 2	-1.64 1	8.64 2
37.1269	37.1487	0.76	9.00	1.30 1	-8.85 2	-1.30 1	8.85 2
37.0827	37.1628	0.60	66.00	7.55-1	-8.81 2	-7.67-1	8.82 2
37.1648	37.1883	0.74	10.50	1.02 1	-9.08 2	-1.02 1	9.08 2
37.1527	37.1910	0.66	25.00	2.96 0	-1.02 3	-2.97 0	1.02 3
37.1951	37.2144	0.80	6.80	2.05 1	-8.45 2	-2.05 1	8.46 2
37.1942	37.2198	0.72	12.50	7.87 0	-9.34 2	-7.89 0	9.34 2
37.1643	37.2232	0.62	46.00	1.28 0	-9.98 2	-1.29 0	9.99 2
37.2071	37.2233	0.90	4.20	4.98 1	-7.92 2	-4.98 1	7.92 2
37.2225	37.2383	0.92	3.90	5.80 1	-7.87 2	-5.81 1	7.87 2
37.1627	37.2416	0.60	65.00	7.71-1	-8.89 2	-7.83-1	8.90 2
37.2155	37.2616	0.64	33.00	2.02 0	-1.03 3	-2.03 0	1.03 3
37.2500	37.2823	0.68	19.00	4.31 0	-9.90 2	-4.33 0	9.91 2
37.2741	37.2924	0.82	6.00	2.53 1	-8.30 2	-2.53 1	8.30 2
37.2857	37.2989	1.40	1.70	4.14 2	-5.97 2	-4.15 2	5.98 2
37.2849	37.3025	0.84	5.40	3.05 1	-8.17 2	-3.06 1	8.17 2
37.2852	37.3068	0.76	8.80	1.34 1	-8.83 2	-1.34 1	8.84 2
37.2438	37.3214	0.60	64.00	7.88-1	-8.98 2	-8.00-1	8.99 2
37.3176	37.3327	0.96	3.40	7.81 1	-7.82 2	-7.82 1	7.83 2
37.2751	37.3329	0.62	45.00	1.31 0	-1.00 3	-1.33 0	1.00 3
37.3081	37.3363	0.70	15.00	6.01 0	-9.61 2	-6.03 0	9.62 2
37.3200	37.3402	0.78	7.60	1.69 1	-8.63 2	-1.69 1	8.63 2
37.3354	37.3490	1.20	2.10	3.06 2	-8.72 2	-3.06 2	8.72 2
37.2534	37.3642	0.58	90.00	4.45-1	-6.66 2	-4.55-1	6.67 2
37.3601	37.3755	0.94	3.60	6.85 1	-7.84 2	-6.85 1	7.84 2
37.3610	37.3759	0.98	3.20	8.99 1	-7.84 2	-9.00 1	7.84 2
37.3797	37.3940	1.05	2.70	1.40 2	-8.04 2	-1.40 2	8.04 2
37.3259	37.4023	0.60	63.00	8.06-1	-9.06 2	-8.17-1	9.07 2
37.3729	37.4101	0.66	24.00	3.11 0	-1.02 3	-3.12 0	1.02 3
37.3745	37.4194	0.64	32.00	2.10 0	-1.03 3	-2.11 0	1.03 3
37.3212	37.4304	0.58	89.00	4.53-1	-6.77 2	-4.64-1	6.78 2
37.4022	37.4339	0.68	18.50	4.45 0	-9.90 2	-4.47 0	9.90 2
37.3886	37.4453	0.62	44.00	1.35 0	-1.01 3	-1.36 0	1.01 3
37.4283	37.4473	0.80	6.60	2.13 1	-8.44 2	-2.13 1	8.44 2
37.4475	37.4608	1.30	1.85	4.45 2	-8.65 2	-4.46 2	8.66 2
37.4486	37.4699	0.76	8.60	1.38 1	-8.82 2	-1.38 1	8.83 2
37.4545	37.4795	0.72	12.00	8.28 0	-9.32 2	-8.30 0	9.32 2
37.4091	37.4843	0.60	62.00	8.23-1	-9.14 2	-8.35-1	9.15 2
37.3892	37.4968	0.58	88.00	4.62-1	-6.88 2	-4.73-1	6.89 2
37.4824	37.4980	0.92	3.80	6.04 1	-7.87 2	-6.04 1	7.87 2
37.4957	37.5091	1.25	1.95	3.84 2	-8.86 2	-3.84 2	8.86 2
37.4931	37.5099	0.86	4.80	3.76 1	-8.06 2	-3.76 1	8.06 2
37.4991	37.5137	1.00	3.00	1.05 2	-7.88 2	-1.05 2	7.89 2
37.4933	37.5161	0.74	10.00	1.09 1	-9.05 2	-1.09 1	9.05 2
37.5098	37.5261	0.88	4.40	4.46 1	-7.98 2	-4.46 1	7.98 2
37.5199	37.5397	0.78	7.40	1.75 1	-8.61 2	-1.75 1	8.62 2
37.5135	37.5411	0.70	14.50	6.27 0	-9.60 2	-6.29 0	9.60 2
37.5471	37.5603	1.35	1.75	4.64 2	-7.57 2	-4.64 2	7.57 2
37.5049	37.5605	0.62	43.00	1.39 0	-1.01 3	-1.40 0	1.01 3
37.4575	37.5636	0.58	87.00	4.71-1	-6.98 2	-4.82-1	6.99 2
37.4934	37.5675	0.60	61.00	8.42-1	-9.22 2	-8.54-1	9.23 2
37.5529	37.5709	0.82	5.80	2.65 1	-8.28 2	-2.65 1	8.29 2
37.5393	37.5832	0.64	31.00	2.18 0	-1.03 3	-2.19 0	1.03 3
37.5720	37.5850	1.50	1.55	6.50 1	-6.92 1	-6.51 1	6.92 1
37.5597	37.5908	0.68	18.00	4.60 0	-9.89 2	-4.62 0	9.89 2
37.6097	37.6270	0.84	5.20	3.22 1	-8.16 2	-3.22 1	8.16 2
37.5261	37.6307	0.58	86.00	4.80-1	-7.09 2	-4.91-1	7.10 2
37.6174	37.6383	0.76	8.40	1.42 1	-8.81 2	-1.42 1	8.81 2
37.6048	37.6409	0.66	23.00	3.27 0	-1.02 3	-3.29 0	1.02 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
37.5789	37.6518	0.60	60.00	8.61-1	-9.30 2	-8.73-1	9.31 2
37.6310	37.6535	0.74	9.80	1.12 1	-9.04 2	-1.12 1	9.04 2
37.6405	37.6544	1.10	2.40	1.94 2	-8.28 2	-1.94 2	8.29 2
37.6395	37.6544	0.96	3.30	8.20 1	-7.84 2	-8.21 1	7.84 2
37.6486	37.6616	1.45	1.60	2.37 2	-2.85 2	-2.37 2	2.85 2
37.6544	37.6696	0.94	3.50	7.16 1	-7.85 2	-7.16 1	7.85 2
37.6241	37.6786	0.62	42.00	1.43 0	-1.02 3	-1.44 0	1.02 3
37.6720	37.6906	0.80	6.40	2.22 1	-8.43 2	-2.22 1	8.43 2
37.6803	37.6961	0.90	4.00	5.36 1	-7.92 2	-5.36 1	7.92 2
37.5951	37.6981	0.58	85.00	4.90-1	-7.19 2	-5.01-1	7.20 2
37.7003	37.7139	1.15	2.20	2.53 2	-8.53 2	-2.53 2	8.53 2
37.7155	37.7302	0.98	3.10	9.48 1	-7.86 2	-9.49 1	7.86 2
37.6657	37.7375	0.60	59.00	8.81-1	-9.38 2	-8.93-1	9.39 2
37.7275	37.7470	0.78	7.20	1.81 1	-8.60 2	-1.82 1	8.60 2
37.7105	37.7533	0.64	30.00	2.27 0	-1.03 3	-2.28 0	1.03 3
37.7230	37.7535	0.68	17.50	4.76 0	-9.88 2	-4.78 0	9.88 2
37.7298	37.7541	0.72	11.50	8.73 0	-9.29 2	-8.75 0	9.30 2
37.7285	37.7554	0.70	14.00	6.54 0	-9.58 2	-6.56 0	9.59 2
37.6644	37.7659	0.58	84.00	4.99-1	-7.30 2	-5.10-1	7.31 2
37.7532	37.7686	0.92	3.70	6.29 1	-7.88 2	-6.30 1	7.88 2
37.7727	37.7949	0.74	9.60	1.14 1	-9.03 2	-1.15 1	9.03 2
37.7464	37.7998	0.62	41.00	1.48 0	-1.02 3	-1.49 0	1.02 3
37.7918	37.8125	0.76	8.20	1.47 1	-8.80 2	-1.47 1	8.80 2
37.8030	37.8160	1.40	1.65	3.91 2	-5.33 2	-3.91 2	5.33 2
37.7539	37.8244	0.60	58.00	9.01-1	-9.45 2	-9.13-1	9.46 2
37.7341	37.8342	0.58	83.00	5.09-1	-7.40 2	-5.20-1	7.41 2
37.8475	37.8616	1.05	2.60	1.50 2	-8.10 2	-1.50 2	8.10 2
37.8461	37.8638	0.82	5.60	2.78 1	-8.27 2	-2.78 1	8.27 2
37.8495	37.8845	0.66	22.00	3.45 0	-1.02 3	-3.46 0	1.02 3
37.8802	37.8966	0.86	4.60	4.00 1	-8.05 2	-4.00 1	8.05 2
37.8041	37.9028	0.58	82.00	5.19-1	-7.50 2	-5.30-1	7.52 2
37.8903	37.9034	1.30	1.80	4.59 2	-8.49 2	-4.59 2	8.49 2
37.8926	37.9070	1.00	2.90	1.11 2	-7.92 2	-1.11 2	7.92 2
37.8983	37.9116	1.25	1.90	4.03 2	-8.88 2	-4.03 2	8.88 2
37.8434	37.9128	0.60	57.00	9.22-1	-9.53 2	-9.34-1	9.54 2
37.8923	37.9222	0.68	17.00	4.93 0	-9.87 2	-4.95 0	9.87 2
37.8720	37.9243	0.62	40.00	1.52 0	-1.03 3	-1.53 0	1.03 3
37.8887	37.9304	0.64	29.00	2.36 0	-1.03 3	-2.37 0	1.04 3
37.9184	37.9403	0.74	9.40	1.18 1	-9.02 2	-1.18 1	9.02 2
37.9268	37.9451	0.80	6.20	2.32 1	-8.42 2	-2.32 1	8.42 2
37.9308	37.9464	0.90	3.90	5.57 1	-7.92 2	-5.57 1	7.93 2
37.9434	37.9626	0.78	7.00	1.88 1	-8.58 2	-1.89 1	8.59 2
37.9511	37.9670	0.88	4.20	4.77 1	-7.98 2	-4.78 1	7.98 2
37.9537	37.9706	0.84	5.00	3.40 1	-8.15 2	-3.40 1	8.15 2
37.8747	37.9719	0.58	81.00	5.29-1	-7.61 2	-5.40-1	7.62 2
37.9624	37.9773	0.94	3.40	7.50 1	-7.86 2	-7.50 1	7.86 2
37.9538	37.9801	0.70	13.50	6.84 0	-9.56 2	-6.86 0	9.57 2
37.9774	37.9921	0.96	3.20	8.63 1	-7.86 2	-8.63 1	7.86 2
37.9723	37.9926	0.76	8.00	1.51 1	-8.78 2	-1.52 1	8.79 2
37.9343	38.0026	0.60	56.00	9.44-1	-9.60 2	-9.56-1	9.61 2
37.9456	38.0415	0.58	80.00	5.40-1	-7.71 2	-5.51-1	7.72 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
38.00	39.50						
38.0216	38.0452	0.72	11.00	9.22 0	-9.27 2	-9.24 0	9.27 2
38.0376	38.0507	1.35	1.70	4.71 2	-7.28 2	-4.71 2	7.28 2
38.0357	38.0509	0.92	3.60	6.57 1	-7.89 2	-6.57 1	7.89 2
38.0011	38.0524	0.62	39.00	1.57 0	-1.03 3	-1.58 0	1.03 3
38.0568	38.0701	1.20	2.00	3.38 2	-8.86 2	-3.38 2	8.86 2
38.0684	38.0901	0.74	9.20	1.21 1	-9.00 2	-1.21 1	9.01 2
38.0268	38.0939	0.60	55.00	9.67-1	-9.68 2	-9.79-1	9.69 2
38.0682	38.0975	0.68	16.50	5.11 0	-9.86 2	-5.13 0	9.86 2
38.0891	38.1035	0.98	3.00	1.00 2	-7.89 2	-1.00 2	7.89 2
38.0171	38.1115	0.58	79.00	5.51-1	-7.81 2	-5.61-1	7.82 2
38.0743	38.1149	0.64	28.00	2.46 0	-1.04 3	-2.48 0	1.04 3
38.1085	38.1423	0.66	21.00	3.65 0	-1.01 3	-3.66 0	1.02 3
38.1551	38.1724	0.82	5.40	2.92 1	-8.26 2	-2.93 1	8.26 2
38.1591	38.1792	0.76	7.80	1.56 1	-8.77 2	-1.57 1	8.77 2
38.0891	38.1821	0.58	78.00	5.62-1	-7.91 2	-5.72-1	7.92 2
38.1340	38.1842	0.62	38.00	1.62 0	-1.04 3	-1.63 0	1.04 3
38.1209	38.1869	0.60	54.00	9.90-1	-9.75 2	-1.00 0	9.76 2
38.1683	38.1872	0.78	6.80	1.96 1	-8.57 2	-1.96 1	8.57 2
38.1915	38.2069	0.90	3.80	5.79 1	-7.92 2	-5.80 1	7.93 2
38.1937	38.2117	0.80	6.00	2.42 1	-8.40 2	-2.42 1	8.40 2
38.1904	38.2160	0.70	13.00	7.16 0	-9.54 2	-7.18 0	9.55 2
38.2120	38.2256	1.10	2.30	2.10 2	-8.38 2	-2.10 2	8.38 2
38.2292	38.2420	1.45	1.55	1.82 2	-2.06 2	-1.82 2	2.06 2
38.2230	38.2444	0.74	9.00	1.24 1	-8.99 2	-1.24 1	9.00 2
38.1616	38.2533	0.58	77.00	5.73-1	-8.01 2	-5.84-1	8.02 2
38.2511	38.2798	0.68	16.00	5.31 0	-9.84 2	-5.32 0	9.85 2
38.2166	38.2815	0.60	53.00	1.01 0	-9.81 2	-1.03 0	9.82 2
38.2851	38.2998	0.94	3.30	7.87 1	-7.88 2	-7.87 1	7.88 2
38.2681	38.3076	0.64	27.00	2.57 0	-1.04 3	-2.59 0	1.04 3
38.2935	38.3095	0.86	4.40	4.27 1	-8.05 2	-4.27 1	8.05 2
38.2708	38.3199	0.62	37.00	1.67 0	-1.04 3	-1.69 0	1.04 3
38.3091	38.3233	1.00	2.80	1.18 2	-7.97 2	-1.18 2	7.97 2
38.2346	38.3250	0.58	76.00	5.84-1	-8.11 2	-5.95-1	8.12 2
38.3208	38.3338	1.25	1.85	4.28 2	-8.99 2	-4.28 2	8.99 2
38.3187	38.3352	0.84	4.80	3.61 1	-8.14 2	-3.61 1	8.14 2
38.3308	38.3458	0.92	3.50	6.87 1	-7.89 2	-6.87 1	7.90 2
38.3327	38.3472	0.96	3.10	9.09 1	-7.88 2	-9.10 1	7.88 2
38.3319	38.3548	0.72	10.50	9.78 0	-9.24 2	-9.80 0	9.25 2
38.3467	38.3605	1.05	2.50	1.61 2	-8.16 2	-1.62 2	8.16 2
38.3509	38.3638	1.40	1.60	3.71 2	-4.78 2	-3.71 2	4.78 2
38.3564	38.3694	1.30	1.75	4.81 2	-8.45 2	-4.81 2	8.46 2
38.3528	38.3726	0.76	7.60	1.62 1	-8.76 2	-1.62 1	8.76 2
38.3141	38.3779	0.60	52.00	1.04 0	-9.88 2	-1.05 0	9.89 2
38.3653	38.3786	1.15	2.10	2.78 2	-8.63 2	-2.78 2	8.64 2
38.3083	38.3973	0.58	75.00	5.96-1	-8.21 2	-6.07-1	8.22 2
38.3824	38.4034	0.74	8.80	1.28 1	-8.98 2	-1.28 1	8.98 2
38.3835	38.4161	0.66	20.00	3.87 0	-1.01 3	-3.88 0	1.01 3
38.4028	38.4214	0.78	6.60	2.04 1	-8.56 2	-2.04 1	8.56 2
38.4258	38.4414	0.88	4.00	5.13 1	-7.98 2	-5.14 1	7.98 2
38.4423	38.4554	1.20	1.95	3.56 2	-8.91 2	-3.56 2	8.91 2
38.4119	38.4599	0.62	36.00	1.73 0	-1.04 3	-1.74 0	1.04 3
38.4393	38.4643	0.70	12.50	7.52 0	-9.52 2	-7.54 0	9.53 2
38.4415	38.4696	0.68	15.50	5.52 0	-9.83 2	-5.53 0	9.84 2
38.3826	38.4703	0.58	74.00	6.08-1	-8.31 2	-6.19-1	8.32 2
38.4135	38.4761	0.60	51.00	1.07 0	-9.95 2	-1.08 0	9.96 2
38.4631	38.4782	0.90	3.70	6.03 1	-7.93 2	-6.04 1	7.93 2
38.4739	38.4916	0.80	5.80	2.53 1	-8.39 2	-2.54 1	8.39 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
38.4835	38.4977	0.98	2.90	1.06 2	-7.93 2	-1.06 2	7.93 2
38.4814	38.4983	0.82	5.20	3.08 1	-8.25 2	-3.08 1	8.25 2
38.4707	38.5091	0.64	26.00	2.69 0	-1.04 3	-2.70 0	1.04 3
38.4575	38.5440	0.58	73.00	6.21-1	-8.40 2	-6.32-1	8.42 2
38.5275	38.5596	0.66	19.50	3.99 0	-1.01 3	-4.00 0	1.01 3
38.5468	38.5676	0.74	8.60	1.32 1	-8.97 2	-1.32 1	8.97 2
38.5560	38.5689	1.35	1.65	4.74 2	-6.95 2	-4.74 2	6.95 2
38.5538	38.5733	0.76	7.40	1.67 1	-8.74 2	-1.68 1	8.75 2
38.5148	38.5763	0.60	50.00	1.09 0	-1.00 3	-1.11 0	1.00 3
38.5574	38.6044	0.62	35.00	1.79 0	-1.05 3	-1.80 0	1.05 3
38.5332	38.6183	0.58	72.00	6.33-1	-8.50 2	-6.44-1	8.51 2
38.6238	38.6383	0.94	3.20	8.27 1	-7.89 2	-8.28 1	7.90 2
38.6396	38.6543	0.92	3.40	7.19 1	-7.90 2	-7.19 1	7.90 2
38.6476	38.6659	0.78	6.40	2.12 1	-8.54 2	-2.12 1	8.54 2
38.6401	38.6676	0.68	15.00	5.74 0	-9.82 2	-5.76 0	9.82 2
38.6181	38.6786	0.60	49.00	1.12 0	-1.01 3	-1.13 0	1.01 3
38.6628	38.6850	0.72	10.00	1.04 1	-9.22 2	-1.04 1	9.22 2
38.6771	38.6924	0.88	3.90	5.33 1	-7.98 2	-5.34 1	7.98 2
38.6096	38.6934	0.58	71.00	6.47-1	-8.59 2	-6.57-1	8.61 2
38.6763	38.7078	0.66	19.00	4.11 0	-1.01 3	-4.13 0	1.01 3
38.6830	38.7203	0.64	25.00	2.82 0	-1.04 3	-2.83 0	1.04 3
38.7070	38.7213	0.96	3.00	9.61 1	-7.91 2	-9.62 1	7.91 2
38.7072	38.7234	0.84	4.60	3.83 1	-8.13 2	-3.84 1	8.14 2
38.7018	38.7262	0.70	12.00	7.91 0	-9.50 2	-7.93 0	9.51 2
38.7166	38.7372	0.74	8.40	1.36 1	-8.95 2	-1.36 1	8.96 2
38.7363	38.7520	0.86	4.20	4.57 1	-8.04 2	-4.57 1	8.04 2
38.7078	38.7537	0.62	34.00	1.85 0	-1.05 3	-1.87 0	1.05 3
38.7464	38.7613	0.90	3.60	6.30 1	-7.93 2	-6.30 1	7.94 2
38.7510	38.7649	1.00	2.70	1.26 2	-8.02 2	-1.26 2	8.03 2
38.6867	38.7693	0.58	70.00	6.60-1	-8.69 2	-6.71-1	8.70 2
38.7646	38.7775	1.25	1.80	4.47 2	-8.94 2	-4.47 2	8.94 2
38.7626	38.7817	0.76	7.20	1.74 1	-8.73 2	-1.74 1	8.73 2
38.7236	38.7830	0.60	48.00	1.15 0	-1.01 3	-1.16 0	1.01 3
38.7684	38.7858	0.80	5.60	2.66 1	-8.37 2	-2.66 1	8.38 2
38.8015	38.8235	0.72	9.80	1.07 1	-9.21 2	-1.07 1	9.21 2
38.8282	38.8415	1.10	2.20	2.29 2	-8.47 2	-2.29 2	8.48 2
38.8267	38.8433	0.82	5.00	3.26 1	-8.24 2	-3.26 1	8.24 2
38.7647	38.8460	0.58	69.00	6.74-1	-8.78 2	-6.85-1	8.79 2
38.8460	38.8590	1.20	1.90	3.75 2	-8.97 2	-3.75 2	8.98 2
38.8471	38.8598	1.45	1.50	1.77 2	-1.89 2	-1.77 2	1.89 2
38.8480	38.8608	1.30	1.70	5.04 2	-8.41 2	-5.04 2	8.41 2
38.8301	38.8611	0.66	18.50	4.25 0	-1.01 3	-4.26 0	1.01 3
38.8474	38.8743	0.68	14.50	5.98 0	-9.80 2	-6.00 0	9.80 2
38.8313	38.8896	0.60	47.00	1.18 0	-1.02 3	-1.20 0	1.02 3
38.8809	38.8944	1.05	2.40	1.75 2	-8.24 2	-1.75 2	8.25 2
38.8634	38.9082	0.62	33.00	1.92 0	-1.05 3	-1.94 0	1.05 3
38.8922	38.9124	0.74	8.20	1.40 1	-8.94 2	-1.40 1	8.94 2
38.9008	38.9148	0.98	2.80	1.13 2	-7.97 2	-1.13 2	7.97 2
38.9037	38.9217	0.78	6.20	2.21 1	-8.53 2	-2.22 1	8.53 2
38.8434	38.9236	0.58	68.00	6.88-1	-8.87 2	-6.99-1	8.88 2
38.9059	38.9422	0.64	24.00	2.96 0	-1.04 3	-2.98 0	1.04 3
38.9325	38.9452	1.40	1.55	3.61 2	-4.38 2	-3.61 2	4.38 2
38.9385	38.9537	0.88	3.80	5.55 1	-7.98 2	-5.55 1	7.98 2
38.9441	38.9658	0.72	9.60	1.09 1	-9.19 2	-1.10 1	9.20 2
38.9630	38.9776	0.92	3.30	7.54 1	-7.91 2	-7.55 1	7.92 2
38.9799	38.9942	0.94	3.10	8.72 1	-7.91 2	-8.72 1	7.91 2
38.9797	38.9986	0.76	7.00	1.80 1	-8.71 2	-1.80 1	8.72 2
38.9415	38.9987	0.60	46.00	1.22 0	-1.03 3	-1.23 0	1.03 3
38.9231	39.0020	0.58	67.00	7.03-1	-8.96 2	-7.13-1	8.97 2
38.9793	39.0030	0.70	11.50	8.33 0	-9.48 2	-8.35 0	9.48 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
38.9893	39.0197	0.66	18.00	4.39 0	-1.01 3	-4.41 0	1.01 3
37.0423	39.0570	0.90	3.50	6.58 1	-7.94 2	-6.58 1	7.94 2
39.0245	39.0683	0.62	32.00	2.00 0	-1.05 3	-2.01 0	1.06 3
39.0037	39.0814	0.58	66.00	7.18-1	-9.05 2	-7.28-1	9.06 2
39.0643	39.0906	0.68	14.00	6.24 0	-9.78 2	-6.26 0	9.79 2
39.0737	39.0936	0.74	8.00	1.45 1	-8.93 2	-1.45 1	8.93 2
39.0787	39.0957	0.80	5.40	2.80 1	-8.36 2	-2.80 1	8.36 2
39.0889	39.1019	1.15	2.00	3.07 2	-8.77 2	-3.07 2	8.78 2
39.0541	39.1102	0.60	45.00	1.25 0	-1.03 3	-1.26 0	1.03 3
39.0908	39.1123	0.72	9.40	1.12 1	-9.18 2	-1.13 1	9.18 2
39.1022	39.1162	0.96	2.90	1.02 2	-7.94 2	-1.02 2	7.94 2
39.1050	39.1176	1.35	1.60	4.89 2	-6.77 2	-4.90 2	6.77 2
39.1219	39.1377	0.84	4.40	4.09 1	-8.13 2	-4.09 1	8.13 2
39.0852	39.1617	0.58	65.00	7.33-1	-9.14 2	-7.44-1	9.15 2
39.1406	39.1757	0.64	23.00	3.12 0	-1.04 3	-3.13 0	1.04 3
39.1543	39.1840	0.66	17.50	4.54 0	-1.01 3	-4.56 0	1.01 3
39.1719	39.1896	0.78	6.00	2.31 1	-8.51 2	-2.32 1	8.51 2
39.1931	39.2093	0.82	4.80	3.45 1	-8.23 2	-3.45 1	8.23 2
39.2058	39.2243	0.76	6.80	1.87 1	-8.70 2	-1.87 1	8.70 2
39.1694	39.2245	0.60	44.00	1.29 0	-1.04 3	-1.30 0	1.04 3
39.2109	39.2258	0.88	3.70	5.78 1	-7.98 2	-5.78 1	7.98 2
39.2125	39.2278	0.86	4.00	4.91 1	-8.04 2	-4.92 1	8.04 2
39.1917	39.2344	0.62	31.00	2.07 0	-1.06 3	-2.09 0	1.06 3
39.2209	39.2345	1.00	2.60	1.35 2	-8.07 2	-1.35 2	8.07 2
39.1678	39.2431	0.58	64.00	7.49-1	-9.23 2	-7.60-1	9.24 2
39.2318	39.2445	1.25	1.75	4.75 2	-9.03 2	-4.75 2	9.03 2
39.2419	39.2631	0.72	9.20	1.15 1	-9.17 2	-1.16 1	9.17 2
39.2617	39.2813	0.74	7.80	1.49 1	-8.91 2	-1.50 1	8.91 2
39.2695	39.2823	1.20	1.85	3.99 2	-9.11 2	-3.99 2	9.11 2
39.2733	39.2964	0.70	11.00	8.81 0	-9.45 2	-8.83 0	9.46 2
39.3025	39.3168	0.92	3.20	7.93 1	-7.93 2	-7.93 1	7.93 2
39.2916	39.3173	0.68	13.50	6.53 0	-9.76 2	-6.54 0	9.77 2
39.2514	39.3255	0.58	63.00	7.66-1	-9.31 2	-7.76-1	9.32 2
39.2875	39.3415	0.60	43.00	1.32 0	-1.04 3	-1.33 0	1.04 3
39.3253	39.3545	0.66	17.00	4.70 0	-1.01 3	-4.72 0	1.01 3
39.3434	39.3572	0.98	2.70	1.21 2	-8.02 2	-1.21 2	8.02 2
39.3518	39.3663	0.90	3.40	6.89 1	-7.95 2	-6.89 1	7.95 2
39.3550	39.3691	0.94	3.00	9.21 1	-7.94 2	-9.22 1	7.94 2
39.3674	39.3800	1.30	1.65	5.30 2	-8.36 2	-5.30 2	8.36 2
39.3652	39.4069	0.62	30.00	2.16 0	-1.06 3	-2.17 0	1.06 3
39.3361	39.4091	0.58	62.00	7.83-1	-9.40 2	-7.93-1	9.41 2
39.3975	39.4184	0.72	9.00	1.19 1	-9.16 2	-1.19 1	9.16 2
39.3882	39.4222	0.64	22.00	3.29 0	-1.04 3	-3.30 0	1.04 3
39.4063	39.4230	0.80	5.20	2.95 1	-8.35 2	-2.95 1	8.35 2
39.3409	39.4483	0.56	90.00	4.22-1	-6.86 2	-4.32-1	6.87 2
39.4415	39.4597	0.76	6.60	1.95 1	-8.68 2	-1.95 1	8.68 2
39.4086	39.4615	0.60	42.00	1.36 0	-1.05 3	-1.37 0	1.05 3
39.4545	39.4677	1.05	2.30	1.90 2	-8.33 2	-1.90 2	8.33 2
39.4533	39.4707	0.78	5.80	2.42 1	-8.50 2	-2.43 1	8.50 2
39.4565	39.4759	0.74	7.60	1.54 1	-8.90 2	-1.55 1	8.90 2
39.4645	39.4796	0.86	3.90	5.10 1	-8.04 2	-5.11 1	8.04 2
39.4754	39.4882	1.15	1.95	3.23 2	-8.83 2	-3.23 2	8.83 2
39.4220	39.4938	0.58	61.00	8.00-1	-9.48 2	-8.11-1	9.49 2
39.4953	39.5083	1.10	2.10	2.51 2	-8.57 2	-2.51 2	8.58 2
39.4949	39.5096	0.88	3.60	6.03 1	-7.98 2	-6.03 1	7.99 2
39.4101	39.5159	0.56	89.00	4.30-1	-6.97 2	-4.40-1	6.98 2
39.4796	39.5838	0.56	88.00	4.39-1	-7.08 2	-4.49-1	7.09 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
39.50	41.00						
39.5030	39.5316	0.66	16.50	4.88 0	-1.01 3	-4.89 0	1.01 3
39.5203	39.5341	0.96	2.80	1.08 2	-7.98 2	-1.08 2	7.98 2
39.5302	39.5553	0.68	13.00	6.84 0	-9.74 2	-6.85 0	9.75 2
39.5514	39.5640	1.40	1.50	5.60 2	-6.39 2	-5.60 2	6.39 2
39.5579	39.5785	0.72	8.80	1.22 1	-9.14 2	-1.22 1	9.15 2
39.5091	39.5798	0.58	60.00	8.18-1	-9.56 2	-8.29-1	9.57 2
39.5662	39.5816	0.84	4.20	4.38 1	-8.12 2	-4.38 1	8.12 2
39.5328	39.5847	0.60	41.00	1.40 0	-1.05 3	-1.41 0	1.05 3
39.5457	39.5863	0.62	29.00	2.25 0	-1.06 3	-2.26 0	1.06 3
39.5830	39.5989	0.82	4.60	3.67 1	-8.21 2	-3.67 1	8.22 2
39.5859	39.6084	0.70	10.50	9.33 0	-9.43 2	-9.35 0	9.43 2
39.5493	39.6521	0.56	87.00	4.47-1	-7.19 2	-4.57-1	7.20 2
39.5974	39.6670	0.58	59.00	8.37-1	-9.64 2	-8.48-1	9.65 2
39.6594	39.6735	0.92	3.10	8.35 1	-7.95 2	-8.35 1	7.95 2
39.6586	39.6777	0.74	7.40	1.60 1	-8.88 2	-1.60 1	8.88 2
39.6502	39.6831	0.64	21.00	3.47 0	-1.04 3	-3.49 0	1.04 3
39.6760	39.6903	0.90	3.30	7.22 1	-7.96 2	-7.23 1	7.96 2
39.6876	39.7001	1.35	1.55	5.38 2	-7.01 2	-5.38 2	7.01 2
39.6875	39.7055	0.76	6.40	2.03 1	-8.67 2	-2.03 1	8.67 2
39.6603	39.7112	0.60	40.00	1.45 0	-1.06 3	-1.46 0	1.06 3
39.6876	39.7156	0.66	16.00	5.06 0	-1.01 3	-5.08 0	1.01 3
39.6194	39.7206	0.56	86.00	4.56-1	-7.30 2	-4.66-1	7.31 2
39.7143	39.7270	1.20	1.80	4.21 2	-9.15 2	-4.22 2	9.15 2
39.7221	39.7354	1.00	2.50	1.45 2	-8.12 2	-1.45 2	8.12 2
39.7244	39.7370	1.25	1.70	5.09 2	-9.17 2	-5.09 2	9.17 2
39.7267	39.7416	0.86	3.80	5.31 1	-8.04 2	-5.31 1	8.04 2
39.7234	39.7437	0.72	8.60	1.26 1	-9.13 2	-1.26 1	9.13 2
39.6871	39.7556	0.58	58.00	8.56-1	-9.72 2	-8.67-1	9.73 2
39.7510	39.7648	0.94	2.90	9.75 1	-7.96 2	-9.76 1	7.96 2
39.7492	39.7662	0.78	5.60	2.54 1	-8.48 2	-2.54 1	8.48 2
39.7530	39.7693	0.80	5.00	3.11 1	-8.33 2	-3.12 1	8.33 2
39.7338	39.7733	0.62	28.00	2.34 0	-1.06 3	-2.36 0	1.06 3
39.6898	39.7896	0.56	85.00	4.65-1	-7.41 2	-4.75-1	7.42 2
39.7813	39.8057	0.68	12.50	7.17 0	-9.72 2	-7.19 0	9.73 2
39.7915	39.8061	0.88	3.50	6.30 1	-7.99 2	-6.30 1	7.99 2
39.8141	39.8276	0.98	2.60	1.29 2	-8.06 2	-1.29 2	8.06 2
39.7914	39.8412	0.60	39.00	1.49 0	-1.06 3	-1.50 0	1.06 3
39.7782	39.8455	0.58	57.00	8.76-1	-9.80 2	-8.87-1	9.81 2
39.7605	39.8589	0.56	84.00	4.74-1	-7.52 2	-4.84-1	7.53 2
39.8685	39.8873	0.74	7.20	1.66 1	-8.87 2	-1.66 1	8.87 2
39.8801	39.8928	1.15	1.90	3.41 2	-8.90 2	-3.41 2	8.90 2
39.8799	39.9073	0.66	15.50	5.26 0	-1.01 3	-5.27 0	1.01 3
39.8943	39.9143	0.72	8.40	1.30 1	-9.11 2	-1.30 1	9.12 2
39.8316	39.9285	0.56	83.00	4.83-1	-7.62 2	-4.93-1	7.63 2
39.9173	39.9298	1.30	1.60	5.78 2	-8.61 2	-5.78 2	8.61 2
39.8708	39.9370	0.58	56.00	8.97-1	-9.88 2	-9.08-1	9.89 2
39.9192	39.9410	0.70	10.00	9.92 0	-9.40 2	-9.94 0	9.40 2
39.9282	39.9600	0.64	20.00	3.68 0	-1.04 3	-3.70 0	1.04 3
39.9448	39.9625	0.76	6.20	2.12 1	-8.65 2	-2.12 1	8.65 2
39.9301	39.9685	0.62	27.00	2.45 0	-1.06 3	-2.46 0	1.06 3
39.9263	39.9750	0.60	38.00	1.54 0	-1.06 3	-1.55 0	1.06 3
39.9638	39.9773	0.96	2.70	1.15 2	-8.02 2	-1.15 2	8.02 2
39.9032	39.9987	0.56	82.00	4.93-1	-7.73 2	-5.03-1	7.74 2
39.9997	40.0144	0.86	3.70	5.53 1	-8.04 2	-5.53 1	8.04 2
39.9991	40.0147	0.82	4.40	3.91 1	-8.21 2	-3.91 1	8.21 2
39.9649	40.0300	0.58	55.00	9.18-1	-9.95 2	-9.29-1	9.96 2
40.0162	40.0303	0.90	3.20	7.59 1	-7.97 2	-7.59 1	7.97 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
40.0353	40.0492	0.92	3.00	8.82 1	-7.97 2	-8.82 1	7.97 2
40.0438	40.0588	0.84	4.00	4.70 1	-8.11 2	-4.71 1	8.12 2
39.9751	40.0692	0.56	81.00	5.03-1	-7.84 2	-5.12-1	7.85 2
40.0459	40.0697	0.68	12.00	7.54 0	-9.70 2	-7.56 0	9.70 2
40.0608	40.0774	0.78	5.40	2.67 1	-8.47 2	-2.67 1	8.47 2
40.0589	40.0804	0.70	9.80	1.02 1	-9.38 2	-1.02 1	9.39 2
40.0727	40.0856	1.05	2.20	2.07 2	-8.42 2	-2.07 2	8.42 2
40.0708	40.0907	0.72	8.20	1.34 1	-9.10 2	-1.34 1	9.10 2
40.0738	40.1050	0.64	19.50	3.80 0	-1.04 3	-3.81 0	1.04 3
40.0868	40.1053	0.74	7.00	1.72 1	-8.85 2	-1.72 1	8.85 2
40.0803	40.1072	0.66	15.00	5.47 0	-1.00 3	-5.49 0	1.00 3
40.0652	40.1128	0.60	37.00	1.59 0	-1.07 3	-1.60 0	1.07 3
40.1018	40.1161	0.88	3.40	6.59 1	-7.99 2	-6.59 1	7.99 2
40.0606	40.1246	0.58	54.00	9.41-1	-1.00 3	-9.52-1	1.00 3
40.1208	40.1367	0.80	4.80	3.30 1	-8.32 2	-3.30 1	8.32 2
40.0475	40.1403	0.56	80.00	5.13-1	-7.94 2	-5.22-1	7.95 2
40.1353	40.1726	0.62	26.00	2.56 0	-1.07 3	-2.57 0	1.07 3
40.1699	40.1835	0.94	2.80	1.04 2	-8.00 2	-1.04 2	8.00 2
40.1825	40.1950	1.20	1.75	4.51 2	-9.31 2	-4.51 2	9.31 2
40.1204	40.2118	0.56	79.00	5.23-1	-8.05 2	-5.33-1	8.06 2
40.1580	40.2209	0.58	53.00	9.64-1	-1.01 3	-9.75-1	1.01 3
40.2025	40.2237	0.70	9.60	1.04 1	-9.37 2	-1.05 1	9.38 2
40.2115	40.2239	1.40	1.45	1.18 3	-1.26 3	-1.18 3	1.26 3
40.2143	40.2316	0.76	6.00	2.21 1	-8.63 2	-2.21 1	8.64 2
40.2209	40.2336	1.10	2.00	2.78 2	-8.72 2	-2.78 2	8.72 2
40.2241	40.2548	0.64	19.00	3.92 0	-1.04 3	-3.93 0	1.04 3
40.2083	40.2549	0.60	36.00	1.65 0	-1.07 3	-1.66 0	1.07 3
40.2448	40.2572	1.25	1.65	5.48 2	-9.36 2	-5.49 2	9.36 2
40.2582	40.2713	1.00	2.40	1.56 2	-8.19 2	-1.56 2	8.19 2
40.2535	40.2730	0.72	8.00	1.38 1	-9.09 2	-1.38 1	9.09 2
40.1938	40.2839	0.56	78.00	5.33-1	-8.15 2	-5.43-1	8.16 2
40.2845	40.2990	0.86	3.60	5.76 1	-8.04 2	-5.77 1	8.04 2
40.2965	40.3114	0.84	3.90	4.88 1	-8.11 2	-4.89 1	8.11 2
40.2896	40.3158	0.66	14.50	5.70 0	-1.00 3	-5.72 0	1.00 3
40.3045	40.3171	1.15	1.85	3.63 2	-9.04 2	-3.63 2	9.04 2
40.2572	40.3190	0.58	52.00	9.88-1	-1.02 3	-9.99-1	1.02 3
40.3074	40.3198	1.35	1.50	9.23 2	-1.13 3	-9.24 2	1.13 3
40.3161	40.3293	0.98	2.50	1.38 2	-8.10 2	-1.38 2	8.10 2
40.3140	40.3322	0.74	6.80	1.79 1	-8.83 2	-1.79 1	8.84 2
40.3256	40.3488	0.68	11.50	7.95 0	-9.68 2	-7.97 0	9.68 2
40.2678	40.3565	0.56	77.00	5.44-1	-8.25 2	-5.54-1	8.27 2
40.3502	40.3712	0.70	9.40	1.07 1	-9.36 2	-1.07 1	9.36 2
40.3502	40.3865	0.62	25.00	2.68 0	-1.07 3	-2.70 0	1.07 3
40.3739	40.3878	0.90	3.10	7.99 1	-7.98 2	-7.99 1	7.98 2
40.3560	40.4016	0.60	35.00	1.70 0	-1.07 3	-1.71 0	1.08 3
40.3897	40.4060	0.78	5.20	2.81 1	-8.45 2	-2.82 1	8.45 2
40.3796	40.4097	0.64	18.50	4.04 0	-1.04 3	-4.06 0	1.04 3
40.3582	40.4189	0.58	51.00	1.01 0	-1.02 3	-1.02 0	1.02 3
40.3423	40.4297	0.56	76.00	5.55-1	-8.36 2	-5.65-1	8.37 2
40.4268	40.4409	0.88	3.30	6.90 1	-8.00 2	-6.91 1	8.00 2
40.4320	40.4457	0.92	2.90	9.33 1	-7.98 2	-9.33 1	7.99 2
40.4352	40.4485	0.96	2.60	1.23 2	-8.06 2	-1.23 2	8.06 2
40.4448	40.4599	0.82	4.20	4.18 1	-8.19 2	-4.18 1	8.20 2
40.4426	40.4618	0.72	7.80	1.43 1	-9.07 2	-1.43 1	9.07 2
40.4174	40.5036	0.56	75.00	5.66-1	-8.46 2	-5.76-1	8.47 2
40.5009	40.5131	1.30	1.55	6.78 2	-9.52 2	-6.78 2	9.52 2
40.4970	40.5140	0.76	5.80	2.31 1	-8.62 2	-2.32 1	8.62 2
40.4612	40.5209	0.58	50.00	1.04 0	-1.03 3	-1.05 0	1.03 3
40.5022	40.5230	0.70	9.20	1.10 1	-9.35 2	-1.10 1	9.35 2
40.5120	40.5276	0.80	4.60	3.50 1	-8.31 2	-3.51 1	8.31 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
40.5084	40.5341	0.66	14.00	5.95 0	-1.00 3	-5.97 0	1.00 3
40.5085	40.5531	0.60	34.00	1.76 0	-1.08 3	-1.78 0	1.08 3
40.5509	40.5688	0.74	6.60	1.86 1	-8.82 2	-1.86 1	8.82 2
40.5405	40.5700	0.64	18.00	4.18 0	-1.04 3	-4.19 0	1.04 3
40.5594	40.5741	0.84	3.80	5.08 1	-8.11 2	-5.08 1	8.11 2
40.4932	40.5781	0.56	74.00	5.77-1	-8.56 2	-5.87-1	8.57 2
40.5819	40.5962	0.86	3.50	6.02 1	-8.04 2	-6.02 1	8.04 2
40.5759	40.6111	0.62	24.00	2.82 0	-1.07 3	-2.83 0	1.07 3
40.6083	40.6208	1.10	1.95	2.93 2	-8.78 2	-2.93 2	8.78 2
40.5663	40.6249	0.58	49.00	1.07 0	-1.04 3	-1.08 0	1.04 3
40.6140	40.6274	0.94	2.70	1.10 2	-8.03 2	-1.10 2	8.04 2
40.6219	40.6445	0.68	11.00	8.40 0	-9.65 2	-8.42 0	9.66 2
40.5696	40.6532	0.56	73.00	5.89-1	-8.66 2	-5.99-1	8.67 2
40.6385	40.6574	0.72	7.60	1.47 1	-9.06 2	-1.48 1	9.06 2
40.6589	40.6793	0.70	9.00	1.13 1	-9.33 2	-1.13 1	9.34 2
40.6760	40.6883	1.20	1.70	4.86 2	-9.52 2	-4.86 2	9.52 2
40.6663	40.7098	0.60	33.00	1.83 0	-1.08 3	-1.84 0	1.08 3
40.6467	40.7291	0.56	72.00	6.01-1	-8.76 2	-6.11-1	8.77 2
40.6735	40.7310	0.58	48.00	1.09 0	-1.04 3	-1.11 0	1.04 3
40.7071	40.7361	0.64	17.50	4.32 0	-1.03 3	-4.34 0	1.03 3
40.7376	40.7536	0.78	5.00	2.97 1	-8.43 2	-2.97 1	8.44 2
40.7417	40.7543	1.05	2.10	2.26 2	-8.51 2	-2.26 2	8.51 2
40.7503	40.7627	1.15	1.80	3.84 2	-9.09 2	-3.84 2	9.09 2
40.7377	40.7628	0.66	13.50	6.22 0	-9.98 2	-6.24 0	9.99 2
40.7505	40.7642	0.90	3.00	8.43 1	-8.00 2	-8.44 1	8.00 2
40.7677	40.7816	0.88	3.20	7.25 1	-8.01 2	-7.26 1	8.01 2
40.7246	40.8057	0.56	71.00	6.14-1	-8.86 2	-6.23-1	8.87 2
40.7956	40.8078	1.25	1.60	6.13 2	-9.88 2	-6.13 2	9.88 2
40.7941	40.8107	0.76	5.60	2.43 1	-8.60 2	-2.43 1	8.60 2
40.7982	40.8158	0.74	6.40	1.93 1	-8.80 2	-1.94 1	8.80 2
40.7830	40.8395	0.58	47.00	1.12 0	-1.05 3	-1.13 0	1.05 3
40.8203	40.8405	0.70	8.80	1.17 1	-9.32 2	-1.17 1	9.32 2
40.8337	40.8465	1.00	2.30	1.69 2	-8.25 2	-1.69 2	8.25 2
40.8133	40.8475	0.62	23.00	2.96 0	-1.07 3	-2.98 0	1.07 3
40.8332	40.8477	0.84	3.70	5.28 1	-8.11 2	-5.29 1	8.11 2
40.8417	40.8604	0.72	7.40	1.53 1	-9.04 2	-1.53 1	9.04 2
40.8516	40.8651	0.92	2.80	9.90 1	-8.01 2	-9.91 1	8.02 2
40.8529	40.8659	0.98	2.40	1.49 2	-8.16 2	-1.49 2	8.16 2
40.8297	40.8721	0.60	32.00	1.90 0	-1.08 3	-1.91 0	1.08 3
40.8032	40.8831	0.56	70.00	6.26-1	-8.95 2	-6.36-1	8.96 2
40.8928	40.9069	0.86	3.40	6.29 1	-8.04 2	-6.30 1	8.04 2
40.8798	40.9083	0.64	17.00	4.48 0	-1.03 3	-4.49 0	1.03 3
40.9238	40.9386	0.82	4.00	4.49 1	-8.18 2	-4.49 1	8.19 2
40.9295	40.9448	0.80	4.40	3.73 1	-8.29 2	-3.74 1	8.30 2
40.8949	40.9503	0.58	46.00	1.15 0	-1.05 3	-1.17 0	1.06 3
40.9379	40.9509	0.96	2.50	1.32 2	-8.09 2	-1.32 2	8.09 2
40.9368	40.9587	0.68	10.50	8.90 0	-9.62 2	-8.92 0	9.63 2
40.8826	40.9613	0.56	69.00	6.39-1	-9.05 2	-6.49-1	9.06 2
40.9684	40.9806	1.35	1.45	2.13 3	-2.44 3	-2.13 3	2.44 3
40.9783	41.0028	0.66	13.00	6.51 0	-9.96 2	-6.53 0	9.97 2
40.9868	41.0067	0.70	8.60	1.20 1	-9.31 2	-1.20 1	9.31 2
40.9629	41.0404	0.56	68.00	6.53-1	-9.14 2	-6.63-1	9.15 2
40.9991	41.0405	0.60	31.00	1.97 0	-1.09 3	-1.98 0	1.09 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
41.00	42.50						
41.0139	41.0263	1.10	1.90	3.10 2	-8.86 2	-3.10 2	8.86 2
41.0094	41.0638	0.58	45.00	1.19 0	-1.06 3	-1.20 0	1.06 3
41.0528	41.0711	0.72	7.20	1.58 1	-9.02 2	-1.58 1	9.03 2
41.0567	41.0740	0.74	6.20	2.02 1	-8.78 2	-2.02 1	8.78 2
41.0592	41.0871	0.64	16.50	4.64 0	-1.03 3	-4.66 0	1.03 3
41.0638	41.0969	0.62	22.00	3.13 0	-1.07 3	-3.14 0	1.07 3
41.0862	41.0993	0.94	2.60	1.18 2	-8.07 2	-1.18 2	8.07 2
41.0440	41.1204	0.56	67.00	6.67-1	-9.24 2	-6.77-1	9.25 2
41.1067	41.1224	0.78	4.80	3.15 1	-8.42 2	-3.15 1	8.42 2
41.1069	41.1233	0.76	5.40	2.55 1	-8.58 2	-2.55 1	8.58 2
41.1187	41.1329	0.84	3.60	5.51 1	-8.11 2	-5.51 1	8.11 2
41.1215	41.1336	1.30	1.50	1.18 3	-1.56 3	-1.18 3	1.56 3
41.1261	41.1398	0.88	3.10	7.63 1	-8.02 2	-7.63 1	8.02 2
41.1479	41.1614	0.90	2.90	8.92 1	-8.01 2	-8.92 1	8.02 2
41.1587	41.1784	0.70	8.40	1.24 1	-9.29 2	-1.24 1	9.29 2
41.1265	41.1799	0.58	44.00	1.22 0	-1.07 3	-1.23 0	1.07 3
41.1772	41.1918	0.82	3.90	4.66 1	-8.18 2	-4.67 1	8.18 2
41.1261	41.2013	0.56	66.00	6.81-1	-9.33 2	-6.91-1	9.34 2
41.1972	41.2093	1.20	1.65	5.30 2	-9.82 2	-5.30 2	9.82 2
41.1750	41.2154	0.60	30.00	2.05 0	-1.09 3	-2.06 0	1.09 3
41.2193	41.2315	1.15	1.75	4.11 2	-9.26 2	-4.11 2	9.27 2
41.2185	41.2324	0.86	3.30	6.59 1	-8.04 2	-6.60 1	8.04 2
41.2314	41.2553	0.66	12.50	6.83 0	-9.94 2	-6.85 0	9.95 2
41.2457	41.2730	0.64	16.00	4.82 0	-1.03 3	-4.83 0	1.03 3
41.2092	41.2832	0.56	65.00	6.96-1	-9.42 2	-7.05-1	9.43 2
41.2722	41.2902	0.72	7.00	1.64 1	-9.01 2	-1.64 1	9.01 2
41.2724	41.2937	0.68	10.00	9.46 0	-9.59 2	-9.48 0	9.60 2
41.2465	41.2988	0.58	43.00	1.26 0	-1.07 3	-1.27 0	1.07 3
41.2965	41.3097	0.92	2.70	1.05 2	-8.05 2	-1.06 2	8.05 2
41.3274	41.3443	0.74	6.00	2.11 1	-8.76 2	-2.11 1	8.77 2
41.3364	41.3558	0.70	8.20	1.28 1	-9.28 2	-1.28 1	9.28 2
41.3287	41.3607	0.62	21.00	3.30 0	-1.07 3	-3.32 0	1.07 3
41.2933	41.3661	0.56	64.00	7.11-1	-9.51 2	-7.21-1	9.52 2
41.3765	41.3914	0.80	4.20	3.99 1	-8.28 2	-3.99 1	8.28 2
41.3800	41.3920	1.25	1.55	7.40 2	-1.12 3	-7.40 2	1.12 3
41.3579	41.3973	0.60	29.00	2.14 0	-1.09 3	-2.15 0	1.09 3
41.3694	41.4207	0.58	42.00	1.29 0	-1.08 3	-1.30 0	1.08 3
41.4167	41.4308	0.84	3.50	5.75 1	-8.11 2	-5.76 1	8.11 2
41.4130	41.4341	0.68	9.80	9.70 0	-9.58 2	-9.72 0	9.59 2
41.4291	41.4418	0.98	2.30	1.61 2	-8.21 2	-1.61 2	8.22 2
41.3784	41.4502	0.56	63.00	7.26-1	-9.60 2	-7.36-1	9.61 2
41.4392	41.4514	1.10	1.85	3.29 2	-9.00 2	-3.30 2	9.00 2
41.4371	41.4531	0.76	5.20	2.69 1	-8.56 2	-2.69 1	8.57 2
41.4408	41.4552	0.82	3.80	4.84 1	-8.17 2	-4.85 1	8.18 2
41.4537	41.4663	1.00	2.20	1.84 2	-8.32 2	-1.84 2	8.32 2
41.4397	41.4665	0.64	15.50	5.01 0	-1.03 3	-5.02 0	1.03 3
41.4689	41.4813	1.05	2.00	2.50 2	-8.64 2	-2.50 2	8.64 2
41.4754	41.4882	0.96	2.40	1.42 2	-8.15 2	-1.42 2	8.15 2
41.4993	41.5146	0.78	4.60	3.34 1	-8.40 2	-3.34 1	8.40 2
41.5034	41.5169	0.88	3.00	8.05 1	-8.03 2	-8.05 1	8.03 2
41.5005	41.5183	0.72	6.80	1.70 1	-8.99 2	-1.71 1	8.99 2
41.4982	41.5214	0.66	12.00	7.19 0	-9.92 2	-7.20 0	9.92 2
41.4647	41.5353	0.56	62.00	7.43-1	-9.69 2	-7.52-1	9.70 2
41.5201	41.5392	0.70	8.00	1.32 1	-9.26 2	-1.32 1	9.27 2
41.4956	41.5458	0.58	41.00	1.33 0	-1.08 3	-1.34 0	1.08 3
41.5602	41.5739	0.86	3.20	6.92 1	-8.05 2	-6.92 1	8.05 2
41.5576	41.5784	0.68	9.60	9.95 0	-9.57 2	-9.97 0	9.57 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
41.5682	41.5815	0.90	2.80	9.46 1	-8.04 2	-9.47 1	8.04 2
41.5484	41.5867	0.60	28.00	2.23 0	-1.09 3	-2.24 0	1.09 3
41.5895	41.6024	0.94	2.50	1.26 2	-8.10 2	-1.26 2	8.10 2
41.5521	41.6216	0.56	61.00	7.59-1	-9.77 2	-7.69-1	9.78 2
41.6112	41.6279	0.74	5.80	2.21 1	-8.74 2	-2.21 1	8.75 2
41.6098	41.6407	0.62	20.00	3.50 0	-1.07 3	-3.52 0	1.07 3
41.6420	41.6682	0.64	15.00	5.21 0	-1.03 3	-5.22 0	1.03 3
41.6250	41.6743	0.58	40.00	1.37 0	-1.09 3	-1.38 0	1.09 3
41.6754	41.6873	1.35	1.40	2.82 3	-3.02 3	-2.82 3	3.02 3
41.6408	41.7092	0.56	60.00	7.76-1	-9.86 2	-7.86-1	9.87 2
41.7136	41.7257	1.15	1.70	4.42 2	-9.45 2	-4.42 2	9.45 2
41.7063	41.7268	0.68	9.40	1.02 1	-9.56 2	-1.02 1	9.56 2
41.7102	41.7290	0.70	7.80	1.36 1	-9.25 2	-1.36 1	9.25 2
41.7152	41.7295	0.82	3.70	5.04 1	-8.17 2	-5.04 1	8.17 2
41.7284	41.7423	0.84	3.40	6.01 1	-8.10 2	-6.02 1	8.11 2
41.7386	41.7561	0.72	6.60	1.77 1	-8.97 2	-1.77 1	8.97 2
41.7488	41.7608	1.20	1.60	5.94 2	-1.04 3	-5.95 2	1.04 3
41.6601	41.7637	0.54	90.00	4.00-1	-7.08 2	-4.09-1	7.10 2
41.7694	41.7823	0.92	2.60	1.13 2	-8.08 2	-1.13 2	8.08 2
41.7472	41.7845	0.60	27.00	2.33 0	-1.09 3	-2.34 0	1.09 3
41.7569	41.7873	0.62	19.50	3.61 0	-1.06 3	-3.62 0	1.06 3
41.7833	41.7953	1.30	1.45	2.56 3	-3.17 3	-2.56 3	3.17 3
41.7307	41.7980	0.56	59.00	7.94-1	-9.94 2	-8.04-1	9.95 2
41.7863	41.8020	0.76	5.00	2.83 1	-8.54 2	-2.84 1	8.55 2
41.7800	41.8026	0.66	11.50	7.57 0	-9.90 2	-7.59 0	9.90 2
41.7581	41.8063	0.58	39.00	1.42 0	-1.09 3	-1.43 0	1.09 3
41.7307	41.8329	0.54	89.00	4.08-1	-7.20 2	-4.17-1	7.21 2
41.8572	41.8694	1.05	1.95	2.63 2	-8.70 2	-2.63 2	8.70 2
41.8568	41.8714	0.80	4.00	4.28 1	-8.27 2	-4.29 1	8.27 2
41.8532	41.8787	0.64	14.50	5.43 0	-1.03 3	-5.44 0	1.03 3
41.8593	41.8796	0.68	9.20	1.05 1	-9.54 2	-1.05 1	9.55 2
41.8220	41.8882	0.56	58.00	8.12-1	-1.00 3	-8.22-1	1.00 3
41.8858	41.8979	1.10	1.80	3.49 2	-9.07 2	-3.49 2	9.07 2
41.8016	41.9023	0.54	88.00	4.16-1	-7.31 2	-4.25-1	7.32 2
41.9015	41.9148	0.88	2.90	8.51 1	-8.04 2	-8.51 1	8.05 2
41.9072	41.9258	0.70	7.60	1.41 1	-9.23 2	-1.41 1	9.23 2
41.9096	41.9259	0.74	5.60	2.31 1	-8.72 2	-2.32 1	8.73 2
41.9192	41.9327	0.86	3.10	7.28 1	-8.05 2	-7.28 1	8.06 2
41.9181	41.9331	0.78	4.40	3.56 1	-8.39 2	-3.56 1	8.39 2
41.9089	41.9387	0.62	19.00	3.73 0	-1.06 3	-3.74 0	1.06 3
41.8950	41.9422	0.58	38.00	1.46 0	-1.09 3	-1.47 0	1.10 3
41.8728	41.9720	0.54	87.00	4.24-1	-7.43 2	-4.33-1	7.44 2
41.9147	41.9798	0.56	57.00	8.31-1	-1.01 3	-8.41-1	1.01 3
41.9549	41.9912	0.60	26.00	2.43 0	-1.09 3	-2.44 0	1.10 3
41.9870	42.0042	0.72	6.40	1.85 1	-8.95 2	-1.85 1	8.96 2
42.0013	42.0133	1.25	1.50	1.18 3	-1.68 3	-1.18 3	1.68 3
42.0014	42.0154	0.82	3.60	5.25 1	-8.17 2	-5.26 1	8.17 2
42.0138	42.0268	0.90	2.70	1.01 2	-8.07 2	-1.01 2	8.07 2
42.0169	42.0369	0.68	9.00	1.08 1	-9.53 2	-1.08 1	9.53 2
41.9443	42.0421	0.54	86.00	4.32-1	-7.54 2	-4.41-1	7.55 2
42.0497	42.0622	0.98	2.20	1.75 2	-8.27 2	-1.75 2	8.28 2
42.0523	42.0648	0.96	2.30	1.54 2	-8.19 2	-1.54 2	8.19 2
42.0547	42.0684	0.84	3.30	6.30 1	-8.10 2	-6.30 1	8.11 2
42.0089	42.0729	0.56	56.00	8.51-1	-1.02 3	-8.61-1	1.02 3
42.0359	42.0821	0.58	37.00	1.51 0	-1.10 3	-1.52 0	1.10 3
42.0660	42.0952	0.62	18.50	3.85 0	-1.06 3	-3.86 0	1.06 3
42.0739	42.0989	0.64	14.00	5.66 0	-1.02 3	-5.68 0	1.02 3
42.0785	42.1006	0.66	11.00	8.00 0	-9.87 2	-8.02 0	9.87 2
42.0162	42.1125	0.54	85.00	4.41-1	-7.65 2	-4.50-1	7.66 2
42.1109	42.1253	0.80	3.90	4.45 1	-8.26 2	-4.45 1	8.26 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
42.1115	42.1298	0.70	7.40	1.46 1	-9.21 2	-1.46 1	9.22 2
42.1243	42.1366	1.00	2.10	2.01 2	-8.39 2	-2.01 2	8.39 2
42.1277	42.1404	0.94	2.40	1.36 2	-8.14 2	-1.36 2	8.14 2
42.1046	42.1676	0.56	55.00	8.71-1	-1.03 3	-8.81-1	1.03 3
42.1567	42.1720	0.76	4.80	3.00 1	-8.53 2	-3.00 1	8.53 2
42.0884	42.1833	0.54	84.00	4.49-1	-7.76 2	-4.58-1	7.77 2
42.1793	42.1991	0.68	8.80	1.11 1	-9.51 2	-1.11 1	9.52 2
42.1725	42.2077	0.60	25.00	2.55 0	-1.10 3	-2.56 0	1.10 3
42.1811	42.2263	0.58	36.00	1.56 0	-1.10 3	-1.57 0	1.10 3
42.2236	42.2397	0.74	5.40	2.43 1	-8.71 2	-2.43 1	8.71 2
42.2356	42.2474	1.15	1.65	4.81 2	-9.74 2	-4.82 2	9.74 2
42.1609	42.2545	0.54	83.00	4.58-1	-7.87 2	-4.67-1	7.88 2
42.2284	42.2572	0.62	18.00	3.97 0	-1.06 3	-3.99 0	1.06 3
42.2466	42.2635	0.72	6.20	1.92 1	-8.93 2	-1.93 1	8.94 2
42.2020	42.2639	0.56	54.00	8.92-1	-1.03 3	-9.02-1	1.03 3
42.2636	42.2757	1.05	1.90	2.78 2	-8.78 2	-2.78 2	8.78 2
42.2733	42.2860	0.92	2.50	1.20 2	-8.10 2	-1.20 2	8.10 2
42.2972	42.3104	0.86	3.00	7.67 1	-8.06 2	-7.68 1	8.07 2
42.3001	42.3139	0.82	3.50	5.48 1	-8.16 2	-5.49 1	8.17 2
42.2339	42.3261	0.54	82.00	4.67-1	-7.98 2	-4.76-1	7.99 2
42.3051	42.3296	0.64	13.50	5.92 0	-1.02 3	-5.93 0	1.02 3
42.3225	42.3355	0.88	2.80	9.02 1	-8.06 2	-9.03 1	8.06 2
42.3237	42.3416	0.70	7.20	1.51 1	-9.20 2	-1.51 1	9.20 2
42.3339	42.3457	1.20	1.55	7.06 2	-1.16 3	-7.06 2	1.17 3
42.3010	42.3619	0.56	53.00	9.14-1	-1.04 3	-9.24-1	1.04 3
42.3469	42.3663	0.68	8.60	1.14 1	-9.50 2	-1.15 1	9.50 2
42.3555	42.3674	1.10	1.75	3.74 2	-9.24 2	-3.74 2	9.24 2
42.3309	42.3750	0.58	35.00	1.62 0	-1.11 3	-1.63 0	1.11 3
42.3664	42.3810	0.78	4.20	3.80 1	-8.37 2	-3.81 1	8.37 2
42.3752	42.3893	0.80	3.80	4.62 1	-8.25 2	-4.62 1	8.25 2
42.3073	42.3982	0.54	81.00	4.76-1	-8.09 2	-4.85-1	8.10 2
42.3970	42.4105	0.84	3.20	6.61 1	-8.11 2	-6.61 1	8.11 2
42.3957	42.4171	0.66	10.50	8.47 0	-9.84 2	-8.49 0	9.84 2
42.3967	42.4249	0.62	17.50	4.11 0	-1.06 3	-4.12 0	1.06 3
42.4008	42.4350	0.60	24.00	2.68 0	-1.10 3	-2.69 0	1.10 3
42.4019	42.4617	0.56	52.00	9.37-1	-1.05 3	-9.47-1	1.05 3
42.3812	42.4707	0.54	80.00	4.86-1	-8.20 2	-4.95-1	8.21 2
42.4873	42.5000	0.90	2.60	1.07 2	-8.09 2	-1.07 2	8.09 2
42.4909	42.5027	1.30	1.40	8.25 3	-9.54 3	-8.25 3	9.54 3
42.4856	42.5287	0.58	34.00	1.67 0	-1.11 3	-1.68 0	1.11 3
42.4555	42.5438	0.54	79.00	4.95-1	-8.31 2	-5.04-1	8.32 2
42.50	44.00						
42.5185	42.5351	0.72	6.00	2.01 1	-8.91 2	-2.01 1	8.92 2
42.5198	42.5390	0.68	8.40	1.18 1	-9.49 2	-1.18 1	9.49 2
42.5442	42.5619	0.70	7.00	1.56 1	-9.18 2	-1.57 1	9.18 2
42.5046	42.5633	0.56	51.00	9.61-1	-1.06 3	-9.71-1	1.06 3
42.5505	42.5655	0.76	4.60	3.18 1	-8.51 2	-3.19 1	8.51 2
42.5550	42.5707	0.74	5.20	2.56 1	-8.69 2	-2.56 1	8.69 2
42.5478	42.5716	0.64	13.00	6.20 0	-1.02 3	-6.21 0	1.02 3
42.5712	42.5988	0.62	17.00	4.26 0	-1.06 3	-4.27 0	1.06 3
42.5304	42.6173	0.54	78.00	5.05-1	-8.42 2	-5.14-1	8.43 2
42.6124	42.6260	0.82	3.40	5.73 1	-8.16 2	-5.73 1	8.16 2
42.6502	42.6642	0.80	3.70	4.81 1	-8.25 2	-4.81 1	8.25 2
42.6093	42.6670	0.56	50.00	9.85-1	-1.06 3	-9.95-1	1.06 3
42.6410	42.6742	0.60	23.00	2.82 0	-1.10 3	-2.83 0	1.10 3
42.6638	42.6755	1.25	1.45	2.06 3	-2.76 3	-2.06 3	2.76 3
42.6735	42.6857	0.96	2.20	1.67 2	-8.24 2	-1.67 2	8.24 2
42.6455	42.6877	0.58	33.00	1.74 0	-1.11 3	-1.75 0	1.11 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
42.6058	42.6915	0.54	77.00	5.15-1	-8.53 2	-5.24-1	8.54 2
42.6896	42.7015	1.05	1.85	2.95 2	-8.90 2	-2.95 2	8.90 2
42.6959	42.7090	0.86	2.90	8.11 1	-8.07 2	-8.11 1	8.07 2
42.6985	42.7174	0.68	8.20	1.22 1	-9.47 2	-1.22 1	9.47 2
42.7052	42.7175	0.94	2.30	1.47 2	-8.18 2	-1.47 2	8.19 2
42.7210	42.7331	0.98	2.10	1.91 2	-8.33 2	-1.91 2	8.33 2
42.7336	42.7544	0.66	10.00	9.00 0	-9.81 2	-9.02 0	9.81 2
42.6818	42.7662	0.54	76.00	5.26-1	-8.63 2	-5.35-1	8.64 2
42.7567	42.7700	0.84	3.10	6.95 1	-8.11 2	-6.95 1	8.11 2
42.7161	42.7728	0.56	49.00	1.01 0	-1.07 3	-1.02 0	1.07 3
42.7523	42.7794	0.62	16.50	4.41 0	-1.06 3	-4.43 0	1.06 3
42.7686	42.7814	0.88	2.70	9.59 1	-8.09 2	-9.60 1	8.09 2
42.7736	42.7911	0.70	6.80	1.62 1	-9.16 2	-1.63 1	9.16 2
42.7878	42.7995	1.15	1.60	5.36 2	-1.02 3	-5.36 2	1.02 3
42.8035	42.8198	0.72	5.80	2.10 1	-8.89 2	-2.11 1	8.90 2
42.8121	42.8246	0.92	2.40	1.29 2	-8.14 2	-1.30 2	8.14 2
42.8029	42.8261	0.64	12.50	6.50 0	-1.02 3	-6.52 0	1.02 3
42.7584	42.8415	0.54	75.00	5.36-1	-8.74 2	-5.45-1	8.75 2
42.8111	42.8523	0.58	32.00	1.80 0	-1.12 3	-1.81 0	1.12 3
42.8505	42.8622	1.10	1.70	4.03 2	-9.44 2	-4.03 2	9.45 2
42.8480	42.8622	0.78	4.00	4.08 1	-8.35 2	-4.08 1	8.35 2
42.8531	42.8651	1.00	2.00	2.21 2	-8.49 2	-2.21 2	8.49 2
42.8251	42.8807	0.56	48.00	1.04 0	-1.08 3	-1.05 0	1.08 3
42.8752	42.8957	0.66	9.80	9.24 0	-9.80 2	-9.25 0	9.80 2
42.8832	42.9019	0.68	8.00	1.25 1	-9.45 2	-1.26 1	9.46 2
42.8356	42.9175	0.54	74.00	5.47-1	-8.84 2	-5.56-1	8.85 2
42.9055	42.9208	0.74	5.00	2.70 1	-8.66 2	-2.70 1	8.67 2
42.8944	42.9265	0.60	22.00	2.97 0	-1.10 3	-2.98 0	1.10 3
42.9370	42.9508	0.80	3.60	5.01 1	-8.24 2	-5.01 1	8.24 2
42.9394	42.9528	0.82	3.30	6.00 1	-8.16 2	-6.00 1	8.16 2
42.9405	42.9670	0.62	16.00	4.58 0	-1.06 3	-4.59 0	1.06 3
42.9559	42.9675	1.20	1.50	1.01 3	-1.57 3	-1.01 3	1.57 3
42.9705	42.9852	0.76	4.40	3.39 1	-8.49 2	-3.39 1	8.49 2
42.9363	42.9910	0.56	47.00	1.07 0	-1.08 3	-1.08 0	1.08 3
42.9135	42.9942	0.54	73.00	5.58-1	-8.95 2	-5.67-1	8.96 2
42.9918	43.0044	0.90	2.50	1.15 2	-8.11 2	-1.15 2	8.11 2
42.9828	43.0230	0.58	31.00	1.87 0	-1.12 3	-1.88 0	1.12 3
43.0128	43.0299	0.70	6.60	1.69 1	-9.14 2	-1.69 1	9.14 2
43.0207	43.0409	0.66	9.60	9.48 0	-9.78 2	-9.49 0	9.79 2
42.9921	43.0716	0.54	72.00	5.70-1	-9.05 2	-5.79-1	9.06 2
43.0744	43.0928	0.68	7.80	1.30 1	-9.44 2	-1.30 1	9.44 2
43.0717	43.0944	0.64	12.00	6.83 0	-1.02 3	-6.85 0	1.02 3
43.0501	43.1037	0.56	46.00	1.10 0	-1.09 3	-1.10 0	1.09 3
43.1027	43.1168	0.78	3.90	4.23 1	-8.34 2	-4.24 1	8.34 2
43.1030	43.1190	0.72	5.60	2.21 1	-8.87 2	-2.21 1	8.88 2
43.1175	43.1303	0.86	2.80	8.59 1	-8.09 2	-8.59 1	8.09 2
43.1353	43.1483	0.84	3.00	7.32 1	-8.12 2	-7.32 1	8.12 2
43.1368	43.1486	1.05	1.80	3.13 2	-8.97 2	-3.13 2	8.98 2
43.0714	43.1498	0.54	71.00	5.81-1	-9.15 2	-5.90-1	9.16 2
43.1363	43.1623	0.62	15.50	4.76 0	-1.06 3	-4.77 0	1.06 3
43.1703	43.1903	0.66	9.40	9.73 0	-9.77 2	-9.75 0	9.77 2
43.1622	43.1933	0.60	21.00	3.14 0	-1.10 3	-3.15 0	1.10 3
43.1610	43.2002	0.58	30.00	1.95 0	-1.12 3	-1.96 0	1.12 3
43.1663	43.2189	0.56	45.00	1.13 0	-1.09 3	-1.14 0	1.09 3
43.1516	43.2287	0.54	70.00	5.94-1	-9.25 2	-6.02-1	9.26 2
43.2363	43.2499	0.80	3.50	5.22 1	-8.23 2	-5.23 1	8.23 2
43.2420	43.2539	1.00	1.95	2.32 2	-8.53 2	-2.32 2	8.53 2
43.2427	43.2553	0.88	2.60	1.02 2	-8.10 2	-1.02 2	8.10 2
43.2498	43.2614	1.30	1.35	-1.89 3	2.03 3	1.89 3	-2.03 3
43.2623	43.2791	0.70	6.40	1.76 1	-9.12 2	-1.76 1	9.12 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
43.2724	43.2905	0.68	7.60	1.34 1	-9.42 2	-1.34 1	9.42 2
43.2770	43.2921	0.74	4.80	2.86 1	-8.64 2	-2.86 1	8.64 2
43.2823	43.2955	0.82	3.20	6.29 1	-8.15 2	-6.29 1	8.16 2
43.2325	43.3084	0.54	69.00	6.06-1	-9.35 2	-6.15-1	9.36 2
43.2853	43.3369	0.56	44.00	1.16 0	-1.10 3	-1.17 0	1.10 3
43.3269	43.3390	0.94	2.20	1.59 2	-8.22 2	-1.59 2	8.23 2
43.3243	43.3440	0.66	9.20	1.00 1	-9.76 2	-1.00 1	9.76 2
43.3452	43.3572	0.96	2.10	1.81 2	-8.29 2	-1.82 2	8.29 2
43.3404	43.3658	0.62	15.00	4.95 0	-1.05 3	-4.96 0	1.06 3
43.3556	43.3777	0.64	11.50	7.20 0	-1.01 3	-7.22 0	1.01 3
43.3675	43.3814	0.78	3.80	4.40 1	-8.33 2	-4.40 1	8.33 2
43.3719	43.3835	1.25	1.40	3.79 3	-4.74 3	-3.79 3	4.74 3
43.3463	43.3845	0.58	29.00	2.03 0	-1.12 3	-2.04 0	1.12 3
43.3730	43.3846	1.10	1.65	4.37 2	-9.71 2	-4.38 2	9.71 2
43.3735	43.3850	1.15	1.55	6.19 2	-1.11 3	-6.19 2	1.11 3
43.3143	43.3891	0.54	68.00	6.19-1	-9.45 2	-6.27-1	9.46 2
43.3901	43.4023	0.92	2.30	1.40 2	-8.18 2	-1.40 2	8.18 2
43.4182	43.4339	0.72	5.40	2.32 1	-8.85 2	-2.32 1	8.86 2
43.4200	43.4344	0.76	4.20	3.62 1	-8.47 2	-3.62 1	8.47 2
43.4071	43.4577	0.56	43.00	1.19 0	-1.10 3	-1.20 0	1.11 3
43.4502	43.4621	0.98	2.00	2.10 2	-8.42 2	-2.10 2	8.42 2
43.3969	43.4706	0.54	67.00	6.32-1	-9.55 2	-6.41-1	9.56 2
43.4462	43.4763	0.60	20.00	3.33 0	-1.09 3	-3.34 0	1.10 3
43.4778	43.4956	0.68	7.40	1.39 1	-9.40 2	-1.39 1	9.41 2
43.4828	43.5023	0.66	9.00	1.03 1	-9.74 2	-1.03 1	9.75 2
43.5231	43.5396	0.70	6.20	1.83 1	-9.10 2	-1.84 1	9.11 2
43.5312	43.5435	0.90	2.40	1.23 2	-8.15 2	-1.23 2	8.15 2
43.5346	43.5474	0.84	2.90	7.73 1	-8.12 2	-7.73 1	8.12 2
43.4805	43.5531	0.54	66.00	6.45-1	-9.64 2	-6.54-1	9.65 2
43.5492	43.5626	0.80	3.40	5.45 1	-8.23 2	-5.46 1	8.23 2
43.5393	43.5764	0.58	28.00	2.11 0	-1.12 3	-2.12 0	1.12 3
43.5642	43.5768	0.86	2.70	9.12 1	-8.10 2	-9.13 1	8.10 2
43.5534	43.5783	0.62	14.50	5.16 0	-1.05 3	-5.17 0	1.05 3
43.5319	43.5815	0.56	42.00	1.23 0	-1.11 3	-1.24 0	1.11 3
43.6071	43.6187	1.05	1.75	3.34 2	-9.12 2	-3.35 2	9.12 2
43.5949	43.6244	0.60	19.50	3.43 0	-1.09 3	-3.44 0	1.09 3
43.6188	43.6303	1.20	1.45	1.44 3	-2.09 3	-1.44 3	2.09 3
43.5651	43.6365	0.54	65.00	6.59-1	-9.74 2	-6.68-1	9.75 2
43.6425	43.6555	0.82	3.10	6.61 1	-8.15 2	-6.61 1	8.15 2
43.6432	43.6569	0.78	3.70	4.57 1	-8.32 2	-4.58 1	8.33 2
43.6490	43.6607	1.00	1.90	2.45 2	-8.59 2	-2.45 2	8.59 2
43.6462	43.6655	0.66	8.80	1.06 1	-9.73 2	-1.06 1	9.73 2
43.6563	43.6778	0.64	11.00	7.61 0	-1.01 3	-7.62 0	1.01 3
43.6720	43.6867	0.74	4.60	3.03 1	-8.62 2	-3.03 1	8.62 2
43.6909	43.7085	0.68	7.20	1.44 1	-9.39 2	-1.44 1	9.39 2
43.6600	43.7086	0.56	41.00	1.26 0	-1.12 3	-1.27 0	1.12 3
43.6507	43.7210	0.54	64.00	6.73-1	-9.83 2	-6.82-1	9.84 2
43.7478	43.7601	0.88	2.50	1.09 2	-8.12 2	-1.09 2	8.12 2
43.7508	43.7661	0.72	5.20	2.44 1	-8.83 2	-2.44 1	8.83 2
43.7405	43.7766	0.58	27.00	2.21 0	-1.13 3	-2.22 0	1.13 3
43.7485	43.7774	0.60	19.00	3.54 0	-1.09 3	-3.55 0	1.09 3
43.7760	43.8003	0.62	14.00	5.38 0	-1.05 3	-5.39 0	1.05 3
43.7374	43.8066	0.54	63.00	6.88-1	-9.92 2	-6.97-1	9.93 2
43.7960	43.8122	0.70	6.00	1.92 1	-9.08 2	-1.92 1	9.09 2
43.8147	43.8337	0.66	8.60	1.09 1	-9.71 2	-1.09 1	9.72 2
43.7914	43.8390	0.56	40.00	1.30 0	-1.12 3	-1.31 0	1.12 3
43.8394	43.8511	0.98	1.95	2.20 2	-8.45 2	-2.20 2	8.45 2
43.8768	43.8900	0.80	3.30	5.71 1	-8.22 2	-5.71 1	8.22 2
43.8252	43.8933	0.54	62.00	7.03-1	-1.00 3	-7.12-1	1.00 3
43.9028	43.9168	0.76	4.00	3.88 1	-8.45 2	-3.89 1	8.45 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
43.9125	43.9298	0.68	7.00	1.49 1	-9.37 2	-1.49 1	9.37 2
43.9071	43.9355	0.60	18.50	3.65 0	-1.09 3	-3.66 0	1.09 3
43.9257	43.9372	1.10	1.60	4.85 2	-1.02 3	-4.85 2	1.02 3
43.9305	43.9441	0.78	3.60	4.76 1	-8.31 2	-4.76 1	8.31 2
43.9567	43.9693	0.84	2.80	8.18 1	-8.13 2	-8.19 1	8.13 2
43.9265	43.9731	0.56	39.00	1.34 0	-1.12 3	-1.35 0	1.13 3
43.9142	43.9812	0.54	61.00	7.19-1	-1.01 3	-7.28-1	1.01 3
43.9508	43.9859	0.58	26.00	2.31 0	-1.13 3	-2.32 0	1.13 3
43.9756	43.9965	0.64	10.50	8.06 0	-1.01 3	-8.07 0	1.01 3
43.9959	44.0073	1.15	1.50	7.95 2	-1.35 3	-7.95 2	1.35 3
43.9886	44.0074	0.66	8.40	1.12 1	-9.70 2	-1.12 1	9.70 2
43.9991	44.0110	0.94	2.10	1.73 2	-8.27 2	-1.73 2	8.27 2
44.00	45.50						
44.0123	44.0243	0.92	2.20	1.51 2	-8.21 2	-1.51 2	8.21 2
44.0092	44.0329	0.62	13.50	5.62 0	-1.05 3	-5.64 0	1.05 3
44.0216	44.0345	0.82	3.00	6.96 1	-8.15 2	-6.96 1	8.16 2
44.0388	44.0511	0.86	2.60	9.72 1	-8.11 2	-9.72 1	8.12 2
44.0044	44.0704	0.54	60.00	7.35-1	-1.02 3	-7.44-1	1.02 3
44.0749	44.0866	0.96	2.00	1.99 2	-8.36 2	-1.99 2	8.36 2
44.0755	44.0871	1.00	1.85	2.59 2	-8.68 2	-2.59 2	8.68 2
44.0822	44.0981	0.70	5.80	2.00 1	-9.06 2	-2.01 1	9.06 2
44.0712	44.0991	0.60	18.00	3.77 0	-1.09 3	-3.79 0	1.09 3
44.0932	44.1076	0.74	4.40	3.23 1	-8.60 2	-3.23 1	8.60 2
44.0653	44.1109	0.56	38.00	1.39 0	-1.13 3	-1.40 0	1.13 3
44.1025	44.1140	1.05	1.70	3.60 2	-9.30 2	-3.60 2	9.31 2
44.1023	44.1174	0.72	5.00	2.57 1	-8.81 2	-2.57 1	8.81 2
44.1096	44.1216	0.90	2.30	1.33 2	-8.17 2	-1.33 2	8.17 2
44.1312	44.1426	1.25	1.35	-2.35 4	2.74 4	2.35 4	-2.74 4
44.1430	44.1600	0.68	6.80	1.55 1	-9.35 2	-1.55 1	9.35 2
44.0960	44.1608	0.54	59.00	7.52-1	-1.03 3	-7.61-1	1.03 3
44.1581	44.1719	0.76	3.90	4.03 1	-8.44 2	-4.03 1	8.44 2
44.1683	44.1867	0.66	8.20	1.16 1	-9.68 2	-1.16 1	9.68 2
44.1710	44.2051	0.58	25.00	2.42 0	-1.13 3	-2.43 0	1.13 3
44.2202	44.2333	0.80	3.20	5.98 1	-8.21 2	-5.99 1	8.22 2
44.2304	44.2438	0.78	3.50	4.97 1	-8.30 2	-4.97 1	8.31 2
44.1888	44.2527	0.54	58.00	7.69-1	-1.04 3	-7.78-1	1.04 3
44.2082	44.2529	0.56	37.00	1.43 0	-1.13 3	-1.44 0	1.13 3
44.2465	44.2581	0.98	1.90	2.32 2	-8.50 2	-2.32 2	8.50 2
44.2411	44.2685	0.60	17.50	3.90 0	-1.09 3	-3.91 0	1.09 3
44.2537	44.2769	0.62	13.00	5.89 0	-1.05 3	-5.90 0	1.05 3
44.2876	44.2997	0.88	2.40	1.17 2	-8.14 2	-1.17 2	8.14 2
44.3158	44.3360	0.64	10.00	8.56 0	-1.00 3	-8.57 0	1.01 3
44.3273	44.3386	1.20	1.40	1.89 3	-2.57 3	-1.89 3	2.57 3
44.2831	44.3459	0.54	57.00	7.87-1	-1.04 3	-7.96-1	1.05 3
44.2475	44.3473	0.52	90.00	3.79-1	-7.34 2	-3.87-1	7.35 2
44.3540	44.3722	0.66	8.00	1.19 1	-9.67 2	-1.19 1	9.67 2
44.3827	44.3984	0.70	5.60	2.10 1	-9.04 2	-2.10 1	9.04 2
44.3555	44.3991	0.56	36.00	1.48 0	-1.14 3	-1.49 0	1.14 3
44.3832	44.3999	0.68	6.60	1.61 1	-9.33 2	-1.61 1	9.33 2
44.4039	44.4163	0.84	2.70	8.69 1	-8.14 2	-8.70 1	8.15 2
44.3196	44.4179	0.52	89.00	3.86-1	-7.46 2	-3.94-1	7.47 2
44.4215	44.4341	0.82	2.90	7.34 1	-8.15 2	-7.35 1	8.16 2
44.4020	44.4351	0.58	24.00	2.54 0	-1.13 3	-2.55 0	1.13 3
44.4235	44.4371	0.76	3.80	4.18 1	-8.42 2	-4.19 1	8.42 2
44.3789	44.4407	0.54	56.00	8.06-1	-1.05 3	-8.15-1	1.05 3
44.4172	44.4441	0.60	17.00	4.04 0	-1.09 3	-4.05 0	1.09 3
44.4642	44.4758	0.96	1.95	2.09 2	-8.39 2	-2.09 2	8.39 2
44.4582	44.4782	0.64	9.80	8.78 0	-1.00 3	-8.79 0	1.00 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
44.3920	44.4889	0.52	88.00	3.94-1	-7.57 2	-4.02-1	7.58 2
44.4750	44.4898	0.72	4.80	2.72 1	-8.79 2	-2.72 1	8.79 2
44.5117	44.5230	1.10	1.55	5.52 2	-1.09 3	-5.52 2	1.09 3
44.5108	44.5334	0.62	12.50	6.17 0	-1.04 3	-6.19 0	1.05 3
44.5232	44.5346	1.00	1.80	2.74 2	-8.73 2	-2.74 2	8.73 2
44.4763	44.5370	0.54	55.00	8.25-1	-1.06 3	-8.34-1	1.06 3
44.5074	44.5500	0.56	35.00	1.53 0	-1.14 3	-1.54 0	1.14 3
44.5443	44.5565	0.86	2.50	1.04 2	-8.12 2	-1.04 2	8.12 2
44.5439	44.5570	0.78	3.40	5.18 1	-8.29 2	-5.19 1	8.30 2
44.5438	44.5579	0.74	4.20	3.44 1	-8.57 2	-3.45 1	8.58 2
44.4647	44.5601	0.52	87.00	4.01-1	-7.69 2	-4.09-1	7.70 2
44.5461	44.5641	0.66	7.80	1.23 1	-9.65 2	-1.23 1	9.65 2
44.5810	44.5938	0.80	3.10	6.28 1	-8.21 2	-6.29 1	8.21 2
44.6046	44.6244	0.64	9.60	9.01 0	-1.00 3	-9.02 0	1.00 3
44.6000	44.6263	0.60	16.50	4.19 0	-1.09 3	-4.20 0	1.09 3
44.5376	44.6317	0.52	86.00	4.09-1	-7.81 2	-4.17-1	7.82 2
44.5753	44.6350	0.54	54.00	8.45-1	-1.07 3	-8.54-1	1.07 3
44.6254	44.6367	1.05	1.65	3.90 2	-9.54 2	-3.90 2	9.54 2
44.6337	44.6502	0.68	6.40	1.67 1	-9.31 2	-1.68 1	9.31 2
44.6591	44.6703	1.15	1.45	9.82 2	-1.56 3	-9.82 2	1.56 3
44.6449	44.6770	0.58	23.00	2.67 0	-1.13 3	-2.68 0	1.13 3
44.6732	44.6846	0.98	1.85	2.45 2	-8.57 2	-2.45 2	8.57 2
44.6849	44.6966	0.92	2.10	1.64 2	-8.24 2	-1.64 2	8.24 2
44.6109	44.7036	0.52	85.00	4.17-1	-7.92 2	-4.25-1	7.94 2
44.6642	44.7059	0.56	34.00	1.59 0	-1.14 3	-1.60 0	1.15 3
44.6997	44.7132	0.76	3.70	4.35 1	-8.41 2	-4.35 1	8.41 2
44.6990	44.7144	0.70	5.40	2.20 1	-9.02 2	-2.21 1	9.02 2
44.6760	44.7346	0.54	53.00	8.66-1	-1.08 3	-8.75-1	1.08 3
44.7291	44.7407	0.94	2.00	1.89 2	-8.33 2	-1.90 2	8.33 2
44.7322	44.7440	0.90	2.20	1.44 2	-8.20 2	-1.44 2	8.20 2
44.7451	44.7628	0.66	7.60	1.27 1	-9.63 2	-1.28 1	9.63 2
44.7552	44.7747	0.64	9.40	9.25 0	-1.00 3	-9.26 0	1.00 3
44.6846	44.7759	0.52	84.00	4.25-1	-8.04 2	-4.33-1	8.05 2
44.7816	44.8036	0.62	12.00	6.49 0	-1.04 3	-6.50 0	1.04 3
44.7899	44.8157	0.60	16.00	4.35 0	-1.09 3	-4.36 0	1.09 3
44.7785	44.8361	0.54	52.00	8.87-1	-1.08 3	-8.96-1	1.08 3
44.7586	44.8486	0.52	83.00	4.34-1	-8.16 2	-4.42-1	8.17 2
44.8440	44.8565	0.82	2.80	7.77 1	-8.16 2	-7.77 1	8.16 2
44.8263	44.8671	0.56	33.00	1.64 0	-1.15 3	-1.65 0	1.15 3
44.8664	44.8783	0.88	2.30	1.26 2	-8.16 2	-1.26 2	8.16 2
44.8715	44.8829	0.96	1.90	2.20 2	-8.43 2	-2.20 2	8.43 2
44.8719	44.8849	0.78	3.30	5.42 1	-8.28 2	-5.42 1	8.29 2
44.8711	44.8855	0.72	4.60	2.89 1	-8.76 2	-2.89 1	8.76 2
44.8789	44.8911	0.84	2.60	9.25 1	-8.15 2	-9.25 1	8.15 2
44.8955	44.9117	0.68	6.20	1.74 1	-9.29 2	-1.75 1	9.29 2
44.8330	44.9217	0.52	82.00	4.42-1	-8.27 2	-4.50-1	8.28 2
44.9100	44.9293	0.64	9.20	9.50 0	-9.99 2	-9.51 0	1.00 3
44.9010	44.9321	0.58	22.00	2.82 0	-1.13 3	-2.83 0	1.13 3
44.8829	44.9395	0.54	51.00	9.10-1	-1.09 3	-9.19-1	1.09 3
44.9480	44.9591	1.25	1.30	-3.03 3	3.28 3	3.04 3	-3.28 3
44.9515	44.9689	0.66	7.40	1.32 1	-9.61 2	-1.32 1	9.62 2
44.9606	44.9732	0.80	3.00	6.61 1	-8.21 2	-6.62 1	8.21 2
44.9079	44.9953	0.52	81.00	4.51-1	-8.39 2	-4.59-1	8.40 2
44.9876	45.0008	0.76	3.60	4.53 1	-8.40 2	-4.53 1	8.40 2
44.9938	45.0051	1.00	1.75	2.92 2	-8.84 2	-2.92 2	8.84 2
44.9875	45.0127	0.60	15.50	4.51 0	-1.09 3	-4.53 0	1.09 3
44.9941	45.0339	0.56	32.00	1.71 0	-1.15 3	-1.72 0	1.15 3
45.0277	45.0414	0.74	4.00	3.69 1	-8.55 2	-3.69 1	8.55 2
44.9893	45.0450	0.54	50.00	9.33-1	-1.10 3	-9.42-1	1.10 3
45.0326	45.0477	0.70	5.20	2.32 1	-8.99 2	-2.32 1	9.00 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
44.9832	45.0694	0.52	80.00	4.60-1	-8.50 2	-4.68-1	8.51 2
45.0695	45.0885	0.64	9.00	9.76 0	-9.98 2	-9.78 0	9.98 2
45.0676	45.0890	0.62	11.50	6.84 0	-1.04 3	-6.85 0	1.04 3
45.0845	45.0964	0.86	2.40	1.11 2	-8.14 2	-1.11 2	8.14 2
45.0868	45.0979	1.20	1.35	2.79 3	-3.52 3	-2.79 3	3.53 3
45.1186	45.1300	0.94	1.95	1.99 2	-8.35 2	-1.99 2	8.36 2
45.1209	45.1322	0.98	1.80	2.59 2	-8.61 2	-2.59 2	8.61 2
45.0590	45.1439	0.52	79.00	4.69-1	-8.61 2	-4.77-1	8.62 2
45.1344	45.1455	1.10	1.50	6.74 2	-1.25 3	-6.74 2	1.25 3
45.0978	45.1525	0.54	49.00	9.57-1	-1.11 3	-9.66-1	1.11 3
45.1656	45.1828	0.66	7.20	1.37 1	-9.59 2	-1.37 1	9.60 2
45.1695	45.1854	0.68	6.00	1.82 1	-9.27 2	-1.82 1	9.27 2
45.1784	45.1895	1.05	1.60	4.28 2	-9.90 2	-4.28 2	9.90 2
45.1716	45.2017	0.58	21.00	2.98 0	-1.13 3	-2.99 0	1.13 3
45.1680	45.2068	0.56	31.00	1.77 0	-1.15 3	-1.78 0	1.15 3
45.1933	45.2180	0.60	15.00	4.70 0	-1.08 3	-4.71 0	1.08 3
45.1353	45.2190	0.52	78.00	4.78-1	-8.72 2	-4.86-1	8.73 2
45.2159	45.2286	0.78	3.20	5.68 1	-8.27 2	-5.68 1	8.28 2
45.2338	45.2526	0.64	8.80	1.00 1	-9.96 2	-1.01 1	9.97 2
45.2085	45.2622	0.54	48.00	9.83-1	-1.11 3	-9.91-1	1.11 3
45.2122	45.2946	0.52	77.00	4.88-1	-8.83 2	-4.96-1	8.85 2
45.2835	45.2970	0.74	3.90	3.83 1	-8.53 2	-3.83 1	8.54 2
45.2879	45.3010	0.76	3.50	4.72 1	-8.39 2	-4.72 1	8.39 2
45.2917	45.3039	0.82	2.70	8.24 1	-8.17 2	-8.25 1	8.17 2
45.2933	45.3074	0.72	4.40	3.07 1	-8.74 2	-3.07 1	8.74 2
45.2983	45.3096	0.96	1.85	2.32 2	-8.49 2	-2.32 2	8.49 2
45.2897	45.3709	0.52	76.00	4.97-1	-8.95 2	-5.05-1	8.96 2
45.3609	45.3733	0.80	2.90	6.97 1	-8.20 2	-6.98 1	8.20 2
45.3216	45.3742	0.54	47.00	1.01 0	-1.12 3	-1.02 0	1.12 3
45.3678	45.3788	1.15	1.40	1.12 3	-1.65 3	-1.12 3	1.65 3
45.3485	45.3864	0.56	30.00	1.84 0	-1.16 3	-1.85 0	1.16 3
45.3703	45.3912	0.62	11.00	7.22 0	-1.04 3	-7.24 0	1.04 3
45.3849	45.3968	0.84	2.50	9.86 1	-8.15 2	-9.87 1	8.15 2
45.3853	45.4000	0.70	5.00	2.45 1	-8.97 2	-2.45 1	8.97 2
45.3882	45.4050	0.66	7.00	1.42 1	-9.58 2	-1.42 1	9.58 2
45.4051	45.4166	0.90	2.10	1.56 2	-8.23 2	-1.56 2	8.23 2
45.4032	45.4217	0.64	8.60	1.03 1	-9.95 2	-1.04 1	9.95 2
45.4152	45.4266	0.92	2.00	1.80 2	-8.29 2	-1.80 2	8.29 2
45.4081	45.4322	0.60	14.50	4.89 0	-1.08 3	-4.90 0	1.08 3
45.3677	45.4477	0.52	75.00	5.07-1	-9.05 2	-5.15-1	9.07 2
45.4567	45.4723	0.68	5.80	1.91 1	-9.24 2	-1.91 1	9.25 2
45.4586	45.4877	0.58	20.00	3.15 0	-1.13 3	-3.16 0	1.13 3
45.4370	45.4887	0.54	46.00	1.04 0	-1.12 3	-1.05 0	1.13 3
45.4895	45.5006	1.00	1.70	3.12 2	-8.97 2	-3.12 2	8.97 2
45.4893	45.5009	0.88	2.20	1.36 2	-8.18 2	-1.36 2	8.18 2
45.4464	45.5252	0.52	74.00	5.18-1	-9.16 2	-5.26-1	9.17 2
45.50	47.00						
45.5260	45.5373	0.94	1.90	2.09 2	-8.39 2	-2.09 2	8.39 2
45.5493	45.5627	0.74	3.80	3.97 1	-8.52 2	-3.97 1	8.52 2
45.5361	45.5730	0.56	29.00	1.92 0	-1.16 3	-1.93 0	1.16 3
45.5770	45.5896	0.78	3.10	5.96 1	-8.27 2	-5.97 1	8.27 2
45.5781	45.5963	0.64	8.40	1.07 1	-9.93 2	-1.07 1	9.93 2
45.5916	45.6028	0.98	1.75	2.75 2	-8.70 2	-2.75 2	8.70 2
45.5258	45.6034	0.52	73.00	5.28-1	-9.27 2	-5.36-1	9.28 2
45.5551	45.6058	0.54	45.00	1.07 0	-1.13 3	-1.07 0	1.13 3
45.6018	45.6147	0.76	3.40	4.92 1	-8.37 2	-4.93 1	8.38 2
45.6197	45.6363	0.66	6.80	1.47 1	-9.56 2	-1.47 1	9.56 2
45.6088	45.6374	0.58	19.50	3.25 0	-1.13 3	-3.26 0	1.13 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
45.6325	45.6561	0.60	14.00	5.10 0	-1.08 3	-5.12 0	1.08 3
45.6637	45.6753	0.86	2.30	1.19 2	-8.15 2	-1.19 2	8.15 2
45.6058	45.6823	0.52	72.00	5.39-1	-9.38 2	-5.47-1	9.39 2
45.6917	45.7120	0.62	10.50	7.65 0	-1.03 3	-7.66 0	1.03 3
45.6759	45.7256	0.54	44.00	1.10 0	-1.14 3	-1.10 0	1.14 3
45.7461	45.7572	0.96	1.80	2.45 2	-8.52 2	-2.45 2	8.53 2
45.7450	45.7587	0.72	4.20	3.28 1	-8.71 2	-3.28 1	8.71 2
45.6867	45.7620	0.52	71.00	5.50-1	-9.48 2	-5.58-1	9.49 2
45.7315	45.7673	0.56	28.00	2.00 0	-1.16 3	-2.01 0	1.16 3
45.7589	45.7734	0.70	4.80	2.59 1	-8.94 2	-2.59 1	8.95 2
45.7583	45.7736	0.68	5.60	2.00 1	-9.22 2	-2.00 1	9.22 2
45.7645	45.7755	1.05	1.55	4.80 2	-1.05 3	-4.80 2	1.05 3
45.7586	45.7766	0.64	8.20	1.10 1	-9.91 2	-1.10 1	9.92 2
45.7670	45.7790	0.82	2.60	8.76 1	-8.16 2	-8.76 1	8.17 2
45.7639	45.7919	0.58	19.00	3.35 0	-1.13 3	-3.36 0	1.13 3
45.7838	45.7960	0.80	2.80	7.37 1	-8.20 2	-7.38 1	8.20 2
45.7977	45.8086	1.10	1.45	7.91 2	-1.38 3	-7.91 2	1.38 3
45.8047	45.8160	0.92	1.95	1.88 2	-8.31 2	-1.88 2	8.32 2
45.8260	45.8392	0.74	3.70	4.13 1	-8.51 2	-4.13 1	8.51 2
45.7683	45.8424	0.52	70.00	5.61-1	-9.59 2	-5.69-1	9.60 2
45.7995	45.8483	0.54	43.00	1.13 0	-1.14 3	-1.14 0	1.14 3
45.8608	45.8772	0.66	6.60	1.53 1	-9.53 2	-1.53 1	9.54 2
45.8675	45.8905	0.60	13.50	5.33 0	-1.08 3	-5.35 0	1.08 3
45.9035	45.9144	1.20	1.30	2.91 3	-3.42 3	-2.91 3	3.42 3
45.8507	45.9237	0.52	69.00	5.73-1	-9.69 2	-5.81-1	9.70 2
45.9254	45.9371	0.84	2.40	1.06 2	-8.16 2	-1.06 2	8.17 2
45.9303	45.9431	0.76	3.30	5.15 1	-8.36 2	-5.15 1	8.36 2
45.9240	45.9516	0.58	18.50	3.46 0	-1.13 3	-3.47 0	1.13 3
45.9452	45.9630	0.64	8.00	1.13 1	-9.90 2	-1.13 1	9.90 2
45.9528	45.9639	0.94	1.85	2.20 2	-8.44 2	-2.20 2	8.45 2
45.9571	45.9695	0.78	3.00	6.27 1	-8.26 2	-6.27 1	8.26 2
45.9351	45.9700	0.56	27.00	2.09 0	-1.16 3	-2.10 0	1.16 3
45.9262	45.9740	0.54	42.00	1.16 0	-1.15 3	-1.17 0	1.15 3
45.9339	46.0059	0.52	68.00	5.85-1	-9.79 2	-5.93-1	9.80 2
46.0125	46.0235	1.00	1.65	3.36 2	-9.13 2	-3.36 2	9.14 2
46.0339	46.0536	0.62	10.00	8.12 0	-1.03 3	-8.14 0	1.03 3
46.0181	46.0889	0.52	67.00	5.98-1	-9.89 2	-6.05-1	9.90 2
46.0756	46.0906	0.68	5.40	2.10 1	-9.20 2	-2.10 1	9.20 2
46.0873	46.0983	0.98	1.70	2.93 2	-8.81 2	-2.94 2	8.81 2
46.0561	46.1030	0.54	41.00	1.20 0	-1.15 3	-1.20 0	1.15 3
46.0897	46.1167	0.58	18.00	3.58 0	-1.12 3	-3.59 0	1.13 3
46.1143	46.1274	0.74	3.60	4.29 1	-8.49 2	-4.30 1	8.49 2
46.1124	46.1284	0.66	6.40	1.59 1	-9.51 2	-1.59 1	9.52 2
46.1139	46.1364	0.60	13.00	5.58 0	-1.08 3	-5.59 0	1.08 3
46.1272	46.1380	1.15	1.35	1.21 3	-1.68 3	-1.21 3	1.68 3
46.1355	46.1468	0.90	2.00	1.71 2	-8.27 2	-1.71 2	8.27 2
46.1383	46.1558	0.64	7.80	1.17 1	-9.88 2	-1.17 1	9.88 2
46.1560	46.1701	0.70	4.60	2.74 1	-8.92 2	-2.75 1	8.92 2
46.1032	46.1730	0.52	66.00	6.10-1	-9.99 2	-6.18-1	1.00 3
46.1624	46.1738	0.88	2.10	1.48 2	-8.19 2	-1.48 2	8.19 2
46.1479	46.1818	0.56	26.00	2.19 0	-1.16 3	-2.20 0	1.16 3
46.1772	46.1967	0.62	9.80	8.33 0	-1.03 3	-8.34 0	1.03 3
46.2121	46.2233	0.92	1.90	1.98 2	-8.34 2	-1.98 2	8.34 2
46.2168	46.2278	0.96	1.75	2.59 2	-8.59 2	-2.59 2	8.59 2
46.1895	46.2353	0.54	40.00	1.23 0	-1.16 3	-1.24 0	1.16 3
46.2297	46.2432	0.72	4.00	3.51 1	-8.68 2	-3.51 1	8.68 2
46.2318	46.2438	0.80	2.70	7.82 1	-8.20 2	-7.82 1	8.20 2
46.1893	46.2580	0.52	65.00	6.23-1	-1.01 3	-6.31-1	1.01 3
46.2733	46.2850	0.82	2.50	9.34 1	-8.16 2	-9.34 1	8.16 2
46.2747	46.2872	0.76	3.20	5.39 1	-8.35 2	-5.39 1	8.35 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
46.2611	46.2876	0.58	17.50	3.70 0	-1.12 3	-3.71 0	1.12 3
46.2868	46.2982	0.86	2.20	1.29 2	-8.15 2	-1.29 2	8.16 2
46.3245	46.3437	0.62	9.60	8.55 0	-1.03 3	-8.56 0	1.03 3
46.2764	46.3440	0.52	64.00	6.37-1	-1.02 3	-6.45-1	1.02 3
46.3382	46.3555	0.64	7.60	1.21 1	-9.86 2	-1.21 1	9.86 2
46.3577	46.3699	0.78	2.90	6.61 1	-8.25 2	-6.61 1	8.25 2
46.3264	46.3713	0.54	39.00	1.27 0	-1.16 3	-1.28 0	1.16 3
46.3751	46.3909	0.66	6.20	1.66 1	-9.49 2	-1.66 1	9.49 2
46.3728	46.3948	0.60	12.50	5.86 0	-1.07 3	-5.87 0	1.07 3
46.3871	46.3979	1.05	1.50	5.63 2	-1.15 3	-5.63 2	1.15 3
46.3706	46.4035	0.56	25.00	2.29 0	-1.16 3	-2.30 0	1.17 3
46.4006	46.4116	0.94	1.80	2.32 2	-8.47 2	-2.32 2	8.47 2
46.4101	46.4249	0.68	5.20	2.21 1	-9.17 2	-2.21 1	9.18 2
46.4151	46.4280	0.74	3.50	4.47 1	-8.47 2	-4.48 1	8.48 2
46.3646	46.4312	0.52	63.00	6.51-1	-1.03 3	-6.59-1	1.03 3
46.4388	46.4648	0.58	17.00	3.83 0	-1.12 3	-3.84 0	1.12 3
46.4759	46.4948	0.62	9.40	8.77 0	-1.03 3	-8.79 0	1.03 3
46.4860	46.4992	0.72	3.90	3.64 1	-8.67 2	-3.64 1	8.67 2
46.4672	46.5112	0.54	38.00	1.31 0	-1.17 3	-1.32 0	1.17 3
46.5047	46.5162	0.84	2.30	1.13 2	-8.17 2	-1.14 2	8.17 2
46.5062	46.5170	1.10	1.40	8.86 2	-1.44 3	-8.87 2	1.44 3
46.4540	46.5195	0.52	62.00	6.65-1	-1.04 3	-6.73-1	1.04 3
46.5251	46.5362	0.90	1.95	1.79 2	-8.29 2	-1.79 2	8.29 2
46.5455	46.5625	0.64	7.40	1.25 1	-9.84 2	-1.25 1	9.85 2
46.5654	46.5763	1.00	1.60	3.64 2	-9.36 2	-3.64 2	9.36 2
46.5792	46.5930	0.70	4.40	2.92 1	-8.89 2	-2.92 1	8.89 2
46.5445	46.6090	0.52	61.00	6.80-1	-1.05 3	-6.88-1	1.05 3
46.6103	46.6211	0.98	1.65	3.14 2	-8.93 2	-3.14 2	8.93 2
46.6041	46.6361	0.56	24.00	2.40 0	-1.17 3	-2.41 0	1.17 3
46.6362	46.6486	0.76	3.10	5.65 1	-8.34 2	-5.66 1	8.34 2
46.6232	46.6487	0.58	16.50	3.97 0	-1.12 3	-3.98 0	1.12 3
46.6389	46.6499	0.92	1.85	2.09 2	-8.39 2	-2.09 2	8.39 2
46.6316	46.6503	0.62	9.20	9.01 0	-1.03 3	-9.03 0	1.03 3
46.6121	46.6552	0.54	37.00	1.35 0	-1.17 3	-1.36 0	1.17 3
46.6500	46.6655	0.66	6.00	1.73 1	-9.47 2	-1.73 1	9.47 2
46.6455	46.6669	0.60	12.00	6.15 0	-1.07 3	-6.17 0	1.07 3
46.6363	46.6997	0.52	60.00	6.95-1	-1.06 3	-7.03-1	1.06 3
46.7074	46.7192	0.80	2.60	8.30 1	-8.19 2	-8.30 1	8.20 2
46.7124	46.7233	0.96	1.70	2.76 2	-8.67 2	-2.76 2	8.67 2
46.7294	46.7421	0.74	3.40	4.67 1	-8.46 2	-4.67 1	8.46 2
46.7523	46.7654	0.72	3.80	3.78 1	-8.65 2	-3.78 1	8.65 2
46.7606	46.7773	0.64	7.20	1.30 1	-9.82 2	-1.30 1	9.83 2
46.7637	46.7781	0.68	5.00	2.33 1	-9.15 2	-2.33 1	9.15 2
46.7294	46.7918	0.52	59.00	7.11-1	-1.07 3	-7.19-1	1.07 3
46.7810	46.7929	0.78	2.80	6.98 1	-8.24 2	-6.99 1	8.24 2
46.7849	46.7955	1.20	1.25	1.15 3	-1.25 3	-1.16 3	1.25 3
46.7614	46.8035	0.54	36.00	1.40 0	-1.18 3	-1.41 0	1.18 3
46.7919	46.8104	0.62	9.00	9.26 0	-1.02 3	-9.28 0	1.02 3
46.8140	46.8255	0.82	2.40	9.99 1	-8.16 2	-9.99 1	8.16 2
46.8147	46.8397	0.58	16.00	4.12 0	-1.12 3	-4.13 0	1.12 3
46.8497	46.8807	0.56	23.00	2.53 0	-1.17 3	-2.54 0	1.17 3
46.8713	46.8821	0.94	1.75	2.46 2	-8.54 2	-2.46 2	8.54 2
46.8238	46.8852	0.52	58.00	7.28-1	-1.07 3	-7.35-1	1.08 3
46.8929	46.9040	0.88	2.00	1.61 2	-8.22 2	-1.61 2	8.23 2
46.9325	46.9435	0.90	1.90	1.87 2	-8.30 2	-1.88 2	8.30 2
46.9381	46.9534	0.66	5.80	1.81 1	-9.45 2	-1.81 1	9.45 2
46.9334	46.9542	0.60	11.50	6.48 0	-1.07 3	-6.49 0	1.07 3
46.9437	46.9543	1.15	1.30	1.08 3	-1.39 3	-1.08 3	1.39 3
46.9153	46.9565	0.54	35.00	1.45 0	-1.18 3	-1.46 0	1.18 3
46.9599	46.9711	0.86	2.10	1.40 2	-8.16 2	-1.40 2	8.16 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
46.2611	46.2876	0.58	17.50	3.70 0	-1.12 3	-3.71 0	1.12 3
46.2868	46.2982	0.86	2.20	1.29 2	-8.15 2	-1.29 2	8.16 2
46.3245	46.3437	0.62	9.60	8.55 0	-1.03 3	-8.56 0	1.03 3
46.2764	46.3440	0.52	64.00	6.37-1	-1.02 3	-6.45-1	1.02 3
46.3382	46.3555	0.64	7.60	1.21 1	-9.86 2	-1.21 1	9.86 2
46.3577	46.3699	0.78	2.90	6.61 1	-8.25 2	-6.61 1	8.25 2
46.3264	46.3713	0.54	39.00	1.27 0	-1.16 3	-1.28 0	1.16 3
46.3751	46.3909	0.66	6.20	1.66 1	-9.49 2	-1.66 1	9.49 2
46.3728	46.3948	0.60	12.50	5.86 0	-1.07 3	-5.87 0	1.07 3
46.3871	46.3979	1.05	1.50	5.63 2	-1.15 3	-5.63 2	1.15 3
46.3706	46.4035	0.56	25.00	2.29 0	-1.16 3	-2.30 0	1.17 3
46.4006	46.4116	0.94	1.80	2.32 2	-8.47 2	-2.32 2	8.47 2
46.4101	46.4249	0.68	5.20	2.21 1	-9.17 2	-2.21 1	9.18 2
46.4151	46.4280	0.74	3.50	4.47 1	-8.47 2	-4.48 1	8.48 2
46.3646	46.4312	0.52	63.00	6.51-1	-1.03 3	-6.59-1	1.03 3
46.4388	46.4648	0.58	17.00	3.83 0	-1.12 3	-3.84 0	1.12 3
46.4759	46.4948	0.62	9.40	8.77 0	-1.03 3	-8.79 0	1.03 3
46.4860	46.4992	0.72	3.90	3.64 1	-8.67 2	-3.64 1	8.67 2
46.4672	46.5112	0.54	38.00	1.31 0	-1.17 3	-1.32 0	1.17 3
46.5047	46.5162	0.84	2.30	1.13 2	-8.17 2	-1.14 2	8.17 2
46.5062	46.5170	1.10	1.40	8.86 2	-1.44 3	-8.87 2	1.44 3
46.4540	46.5195	0.52	62.00	6.65-1	-1.04 3	-6.73-1	1.04 3
46.5251	46.5362	0.90	1.95	1.79 2	-8.29 2	-1.79 2	8.29 2
46.5455	46.5625	0.64	7.40	1.25 1	-9.84 2	-1.25 1	9.85 2
46.5654	46.5763	1.00	1.60	3.64 2	-9.36 2	-3.64 2	9.36 2
46.5792	46.5930	0.70	4.40	2.92 1	-8.89 2	-2.92 1	8.89 2
46.5445	46.6090	0.52	61.00	6.80-1	-1.05 3	-6.88-1	1.05 3
46.6103	46.6211	0.98	1.65	3.14 2	-8.93 2	-3.14 2	8.93 2
46.6041	46.6361	0.56	24.00	2.40 0	-1.17 3	-2.41 0	1.17 3
46.6362	46.6486	0.76	3.10	5.65 1	-8.34 2	-5.66 1	8.34 2
46.6232	46.6487	0.58	16.50	3.97 0	-1.12 3	-3.98 0	1.12 3
46.6389	46.6499	0.92	1.85	2.09 2	-8.39 2	-2.09 2	8.39 2
46.6316	46.6503	0.62	9.20	9.01 0	-1.03 3	-9.03 0	1.03 3
46.6121	46.6552	0.54	37.00	1.35 0	-1.17 3	-1.36 0	1.17 3
46.6500	46.6655	0.66	6.00	1.73 1	-9.47 2	-1.73 1	9.47 2
46.6455	46.6669	0.60	12.00	6.15 0	-1.07 3	-6.17 0	1.07 3
46.6363	46.6997	0.52	60.00	6.95-1	-1.06 3	-7.03-1	1.06 3
46.7074	46.7192	0.80	2.60	8.30 1	-8.19 2	-8.30 1	8.20 2
46.7124	46.7233	0.96	1.70	2.76 2	-8.67 2	-2.76 2	8.67 2
46.7294	46.7421	0.74	3.40	4.67 1	-8.46 2	-4.67 1	8.46 2
46.7523	46.7654	0.72	3.80	3.78 1	-8.65 2	-3.78 1	8.65 2
46.7606	46.7773	0.64	7.20	1.30 1	-9.82 2	-1.30 1	9.83 2
46.7637	46.7781	0.68	5.00	2.33 1	-9.15 2	-2.33 1	9.15 2
46.7294	46.7918	0.52	59.00	7.11-1	-1.07 3	-7.19-1	1.07 3
46.7810	46.7929	0.78	2.80	6.98 1	-8.24 2	-6.99 1	8.24 2
46.7849	46.7955	1.20	1.25	1.15 3	-1.25 3	-1.16 3	1.25 3
46.7614	46.8035	0.54	36.00	1.40 0	-1.18 3	-1.41 0	1.18 3
46.7919	46.8104	0.62	9.00	9.26 0	-1.02 3	-9.28 0	1.02 3
46.8140	46.8255	0.82	2.40	9.99 1	-8.16 2	-9.99 1	8.16 2
46.8147	46.8397	0.58	16.00	4.12 0	-1.12 3	-4.13 0	1.12 3
46.8497	46.8807	0.56	23.00	2.53 0	-1.17 3	-2.54 0	1.17 3
46.8713	46.8821	0.94	1.75	2.46 2	-8.54 2	-2.46 2	8.54 2
46.8238	46.8852	0.52	58.00	7.28-1	-1.07 3	-7.35-1	1.08 3
46.8929	46.9040	0.88	2.00	1.61 2	-8.22 2	-1.61 2	8.23 2
46.9325	46.9435	0.90	1.90	1.87 2	-8.30 2	-1.88 2	8.30 2
46.9381	46.9534	0.66	5.80	1.81 1	-9.45 2	-1.81 1	9.45 2
46.9334	46.9542	0.60	11.50	6.48 0	-1.07 3	-6.49 0	1.07 3
46.9437	46.9543	1.15	1.30	1.08 3	-1.39 3	-1.08 3	1.39 3
46.9153	46.9565	0.54	35.00	1.45 0	-1.18 3	-1.46 0	1.18 3
46.9599	46.9711	0.86	2.10	1.40 2	-8.16 2	-1.40 2	8.16 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
46.9571	46.9753	0.62	8.80	9.53 0	-1.02 3	-9.54 0	1.02 3
46.9197	46.9800	0.52	57.00	7.44-1	-1.08 3	-7.52-1	1.08 3
46.9840	47.0004	0.64	7.00	1.34 1	-9.80 2	-1.35 1	9.81 2
47.00	49.00						
47.0166	47.0287	0.76	3.00	5.94 1	-8.32 2	-5.95 1	8.33 2
47.0140	47.0384	0.58	15.50	4.28 0	-1.12 3	-4.29 0	1.12 3
47.0294	47.0423	0.72	3.70	3.92 1	-8.63 2	-3.92 1	8.64 2
47.0317	47.0451	0.70	4.20	3.11 1	-8.86 2	-3.12 1	8.86 2
47.0501	47.0608	1.05	1.45	6.42 2	-1.23 3	-6.42 2	1.23 3
47.0583	47.0707	0.74	3.30	4.88 1	-8.44 2	-4.88 1	8.44 2
47.0171	47.0764	0.52	56.00	7.62-1	-1.09 3	-7.70-1	1.09 3
47.0867	47.0976	0.92	1.80	2.20 2	-8.42 2	-2.20 2	8.42 2
47.0742	47.1144	0.54	34.00	1.50 0	-1.18 3	-1.51 0	1.19 3
47.1084	47.1385	0.56	22.00	2.67 0	-1.17 3	-2.68 0	1.17 3
47.1279	47.1392	0.84	2.20	1.22 2	-8.17 2	-1.22 2	8.17 2
47.1273	47.1453	0.62	8.60	9.81 0	-1.02 3	-9.82 0	1.02 3
47.1383	47.1524	0.68	4.80	2.46 1	-9.12 2	-2.46 1	9.12 2
47.1513	47.1620	1.00	1.55	4.01 2	-9.71 2	-4.01 2	9.72 2
47.1631	47.1738	0.98	1.60	3.40 2	-9.12 2	-3.40 2	9.12 2
47.1160	47.1744	0.52	55.00	7.80-1	-1.10 3	-7.88-1	1.10 3
47.2138	47.2254	0.80	2.50	8.84 1	-8.18 2	-8.84 1	8.18 2
47.2164	47.2326	0.64	6.80	1.39 1	-9.78 2	-1.40 1	9.79 2
47.2291	47.2409	0.78	2.70	7.40 1	-8.24 2	-7.40 1	8.24 2
47.1474	47.2431	0.50	90.00	3.58-1	-7.63 2	-3.65-1	7.64 2
47.2215	47.2454	0.58	15.00	4.45 0	-1.12 3	-4.46 0	1.12 3
47.2353	47.2460	0.96	1.65	2.95 2	-8.78 2	-2.95 2	8.78 2
47.2406	47.2555	0.66	5.60	1.90 1	-9.42 2	-1.90 1	9.42 2
47.2381	47.2583	0.60	11.00	6.84 0	-1.07 3	-6.86 0	1.07 3
47.2166	47.2740	0.52	54.00	7.99-1	-1.11 3	-8.07-1	1.11 3
47.2653	47.2759	1.10	1.35	9.72 2	-1.47 3	-9.72 2	1.47 3
47.2385	47.2777	0.54	33.00	1.56 0	-1.19 3	-1.56 0	1.19 3
47.2824	47.2934	0.88	1.95	1.69 2	-8.23 2	-1.69 2	8.23 2
47.2210	47.3152	0.50	89.00	3.65-1	-7.75 2	-3.72-1	7.76 2
47.3030	47.3208	0.62	8.40	1.01 1	-1.02 3	-1.01 1	1.02 3
47.3180	47.3308	0.72	3.60	4.08 1	-8.62 2	-4.08 1	8.62 2
47.3592	47.3701	0.90	1.85	1.97 2	-8.34 2	-1.97 2	8.34 2
47.3190	47.3753	0.52	53.00	8.19-1	-1.12 3	-8.26-1	1.12 3
47.3668	47.3775	0.94	1.70	2.61 2	-8.61 2	-2.62 2	8.61 2
47.2948	47.3877	0.50	88.00	3.72-1	-7.87 2	-3.79-1	7.88 2
47.3934	47.4047	0.82	2.30	1.07 2	-8.16 2	-1.07 2	8.16 2
47.3819	47.4109	0.56	21.00	2.82 0	-1.17 3	-2.83 0	1.17 3
47.4029	47.4152	0.74	3.20	5.10 1	-8.43 2	-5.11 1	8.43 2
47.4174	47.4294	0.76	2.90	6.26 1	-8.31 2	-6.26 1	8.31 2
47.4084	47.4467	0.54	32.00	1.61 0	-1.19 3	-1.62 0	1.19 3
47.3689	47.4604	0.50	87.00	3.79-1	-7.99 2	-3.86-1	8.01 2
47.4379	47.4613	0.58	14.50	4.63 0	-1.12 3	-4.64 0	1.12 3
47.4584	47.4743	0.64	6.60	1.45 1	-9.76 2	-1.45 1	9.76 2
47.4231	47.4785	0.52	52.00	8.39-1	-1.12 3	-8.47-1	1.12 3
47.4844	47.5019	0.62	8.20	1.04 1	-1.02 3	-1.04 1	1.02 3
47.5172	47.5304	0.70	4.00	3.33 1	-8.83 2	-3.34 1	8.83 2
47.4433	47.5335	0.50	86.00	3.87-1	-8.12 2	-3.94-1	8.13 2
47.5362	47.5500	0.68	4.60	2.61 1	-9.09 2	-2.61 1	9.10 2
47.5573	47.5680	0.92	1.75	2.33 2	-8.46 2	-2.33 2	8.46 2
47.5588	47.5734	0.66	5.40	1.99 1	-9.40 2	-1.99 1	9.40 2
47.5614	47.5811	0.60	10.50	7.25 0	-1.06 3	-7.26 0	1.06 3
47.5292	47.5836	0.52	51.00	8.60-1	-1.13 3	-8.68-1	1.13 3
47.5180	47.6069	0.50	85.00	3.94-1	-8.24 2	-4.01-1	8.25 2
47.5845	47.6219	0.54	31.00	1.68 0	-1.19 3	-1.68 0	1.19 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
47.6192	47.6318	0.72	3.50	4.25 1	-8.60 2	-4.25 1	8.60 2
47.5931	47.6807	0.50	84.00	4.02-1	-8.36 2	-4.09-1	8.37 2
47.6641	47.6869	0.58	14.00	4.83 0	-1.11 3	-4.84 0	1.11 3
47.6719	47.6891	0.62	8.00	1.07 1	-1.02 3	-1.08 1	1.02 3
47.6373	47.6907	0.52	50.00	8.82-1	-1.14 3	-8.90-1	1.14 3
47.6717	47.6997	0.56	20.00	2.98 0	-1.16 3	-2.99 0	1.16 3
47.6898	47.7006	0.88	1.90	1.77 2	-8.24 2	-1.77 2	8.24 2
47.6904	47.7013	0.86	2.00	1.52 2	-8.17 2	-1.52 2	8.17 2
47.7049	47.7165	0.78	2.60	7.85 1	-8.22 2	-7.85 1	8.22 2
47.7108	47.7265	0.64	6.40	1.51 1	-9.74 2	-1.51 1	9.74 2
47.6686	47.7549	0.50	83.00	4.10-1	-8.48 2	-4.17-1	8.49 2
47.7488	47.7594	0.98	1.55	3.71 2	-9.40 2	-3.71 2	9.40 2
47.7546	47.7660	0.80	2.40	9.45 1	-8.18 2	-9.45 1	8.18 2
47.7582	47.7687	1.05	1.40	7.07 2	-1.27 3	-7.07 2	1.27 3
47.7647	47.7768	0.74	3.10	5.35 1	-8.41 2	-5.35 1	8.41 2
47.7735	47.7841	1.00	1.50	4.53 2	-1.03 3	-4.53 2	1.03 3
47.7738	47.7868	0.70	3.90	3.46 1	-8.82 2	-3.46 1	8.82 2
47.7879	47.7985	0.96	1.60	3.17 2	-8.92 2	-3.18 2	8.92 2
47.7474	47.7999	0.52	49.00	9.05-1	-1.15 3	-9.13-1	1.15 3
47.7672	47.8036	0.54	30.00	1.74 0	-1.20 3	-1.75 0	1.20 3
47.8011	47.8121	0.84	2.10	1.32 2	-8.17 2	-1.32 2	8.17 2
47.8069	47.8176	0.90	1.80	2.08 2	-8.36 2	-2.08 2	8.36 2
47.7445	47.8295	0.50	82.00	4.18-1	-8.60 2	-4.25-1	8.61 2
47.8245	47.8349	1.15	1.25	6.83 2	-8.10 2	-6.83 2	8.10 2
47.8233	47.8509	0.56	19.50	3.08 0	-1.16 3	-3.09 0	1.16 3
47.8409	47.8526	0.76	2.80	6.61 1	-8.30 2	-6.61 1	8.30 2
47.8658	47.8828	0.62	7.80	1.11 1	-1.01 3	-1.11 1	1.01 3
47.8895	47.9000	0.94	1.65	2.79 2	-8.69 2	-2.79 2	8.69 2
47.8208	47.9046	0.50	81.00	4.26-1	-8.72 2	-4.33-1	8.73 2
47.8942	47.9086	0.66	5.20	2.09 1	-9.37 2	-2.10 1	9.37 2
47.8598	47.9114	0.52	48.00	9.29-1	-1.15 3	-9.37-1	1.15 3
47.9007	47.9230	0.58	13.50	5.05 0	-1.11 3	-5.06 0	1.11 3
47.9056	47.9247	0.60	10.00	7.70 0	-1.06 3	-7.71 0	1.06 3
47.9338	47.9462	0.72	3.40	4.43 1	-8.58 2	-4.43 1	8.58 2
47.9601	47.9736	0.68	4.40	2.77 1	-9.07 2	-2.77 1	9.07 2
47.8975	47.9801	0.50	80.00	4.34-1	-8.84 2	-4.41-1	8.85 2
47.9744	47.9898	0.64	6.20	1.57 1	-9.72 2	-1.57 1	9.72 2
47.9570	47.9925	0.54	29.00	1.81 0	-1.20 3	-1.82 0	1.20 3
47.9797	48.0068	0.56	19.00	3.17 0	-1.16 3	-3.18 0	1.16 3
47.9746	48.0252	0.52	47.00	9.54-1	-1.16 3	-9.62-1	1.16 3
48.0166	48.0277	0.82	2.20	1.15 2	-8.15 2	-1.15 2	8.15 2
48.0405	48.0533	0.70	3.80	3.59 1	-8.80 2	-3.59 1	8.80 2
47.9748	48.0561	0.50	79.00	4.43-1	-8.95 2	-4.50-1	8.96 2
48.0526	48.0632	0.92	1.70	2.47 2	-8.52 2	-2.47 2	8.52 2
48.0496	48.0685	0.60	9.80	7.89 0	-1.06 3	-7.90 0	1.06 3
48.0665	48.0833	0.62	7.60	1.15 1	-1.01 3	-1.15 1	1.01 3
48.0798	48.0906	0.86	1.95	1.59 2	-8.17 2	-1.59 2	8.18 2
48.0811	48.0915	1.10	1.30	9.51 2	-1.34 3	-9.51 2	1.34 3
48.1164	48.1271	0.88	1.85	1.86 2	-8.27 2	-1.86 2	8.27 2
48.0525	48.1327	0.50	78.00	4.52-1	-9.07 2	-4.59-1	9.08 2
48.0918	48.1414	0.52	46.00	9.80-1	-1.17 3	-9.88-1	1.17 3
48.1453	48.1572	0.74	3.00	5.62 1	-8.39 2	-5.62 1	8.39 2
48.1414	48.1680	0.56	18.50	3.27 0	-1.16 3	-3.28 0	1.16 3
48.1489	48.1707	0.58	13.00	5.28 0	-1.11 3	-5.30 0	1.11 3
48.1546	48.1892	0.54	28.00	1.89 0	-1.20 3	-1.90 0	1.20 3
48.1308	48.2098	0.50	77.00	4.61-1	-9.19 2	-4.68-1	9.20 2
48.1977	48.2163	0.60	9.60	8.09 0	-1.06 3	-8.11 0	1.06 3
48.2114	48.2228	0.78	2.50	8.35 1	-8.20 2	-8.35 1	8.20 2
48.2116	48.2603	0.52	45.00	1.01 0	-1.17 3	-1.01 0	1.17 3
48.2485	48.2626	0.66	5.00	2.21 1	-9.34 2	-2.21 1	9.35 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
48.2501	48.2653	0.64	6.00	1.64 1	-9.69 2	-1.64 1	9.70 2
48.2629	48.2751	0.72	3.30	4.63 1	-8.56 2	-4.63 1	8.57 2
48.2097	48.2875	0.50	76.00	4.70-1	-9.30 2	-4.77-1	9.31 2
48.2773	48.2879	0.90	1.75	2.20 2	-8.40 2	-2.20 2	8.40 2
48.2746	48.2911	0.62	7.40	1.19 1	-1.01 3	-1.19 1	1.01 3
48.2892	48.3008	0.76	2.70	6.99 1	-8.29 2	-7.00 1	8.29 2
48.3179	48.3305	0.70	3.70	3.73 1	-8.78 2	-3.73 1	8.78 2
48.3085	48.3346	0.56	18.00	3.38 0	-1.16 3	-3.39 0	1.16 3
48.3341	48.3452	0.80	2.30	1.01 2	-8.16 2	-1.01 2	8.16 2
48.2892	48.3659	0.50	75.00	4.79-1	-9.42 2	-4.86-1	9.43 2
48.3498	48.3682	0.60	9.40	8.31 0	-1.06 3	-8.32 0	1.06 3
48.3708	48.3812	0.98	1.50	4.14 2	-9.84 2	-4.14 2	9.85 2
48.3341	48.3819	0.52	44.00	1.04 0	-1.18 3	-1.04 0	1.18 3
48.3734	48.3838	0.96	1.55	3.45 2	-9.14 2	-3.45 2	9.14 2
48.3606	48.3942	0.54	27.00	1.98 0	-1.20 3	-1.98 0	1.20 3
48.4133	48.4265	0.68	4.20	2.96 1	-9.03 2	-2.96 1	9.03 2
48.4096	48.4308	0.58	12.50	5.54 0	-1.11 3	-5.55 0	1.11 3
48.3693	48.4449	0.50	74.00	4.89-1	-9.53 2	-4.96-1	9.54 2
48.4360	48.4464	1.00	1.45	5.01 2	-1.07 3	-5.01 2	1.07 3
48.4419	48.4523	0.94	1.60	3.00 2	-8.82 2	-3.00 2	8.82 2
48.4870	48.4977	0.86	1.90	1.66 2	-8.17 2	-1.66 2	8.17 2
48.4595	48.5064	0.52	43.00	1.07 0	-1.19 3	-1.07 0	1.19 3
48.4905	48.5067	0.62	7.20	1.23 1	-1.01 3	-1.23 1	1.01 3
48.4814	48.5070	0.56	17.50	3.50 0	-1.16 3	-3.51 0	1.16 3
48.5063	48.5245	0.60	9.20	8.53 0	-1.05 3	-8.55 0	1.05 3
48.4502	48.5245	0.50	73.00	4.99-1	-9.64 2	-5.06-1	9.65 2
48.5166	48.5269	1.05	1.35	7.64 2	-1.28 3	-7.64 2	1.28 3
48.5313	48.5421	0.84	2.00	1.44 2	-8.17 2	-1.44 2	8.18 2
48.5390	48.5539	0.64	5.80	1.72 1	-9.67 2	-1.72 1	9.67 2
48.5463	48.5580	0.74	2.90	5.91 1	-8.37 2	-5.92 1	8.37 2
48.5638	48.5744	0.88	1.80	1.96 2	-8.29 2	-1.96 2	8.29 2
48.5751	48.5855	0.92	1.65	2.63 2	-8.60 2	-2.63 2	8.60 2
48.5317	48.6049	0.50	72.00	5.09-1	-9.75 2	-5.16-1	9.76 2
48.5757	48.6084	0.54	26.00	2.07 0	-1.20 3	-2.08 0	1.20 3
48.6068	48.6193	0.70	3.60	3.87 1	-8.76 2	-3.88 1	8.76 2
48.6077	48.6197	0.72	3.20	4.84 1	-8.55 2	-4.85 1	8.55 2
48.5880	48.6339	0.52	42.00	1.10 0	-1.19 3	-1.10 0	1.19 3
48.6238	48.6376	0.66	4.80	2.33 1	-9.31 2	-2.33 1	9.32 2
48.6674	48.6854	0.60	9.00	8.77 0	-1.05 3	-8.78 0	1.05 3
48.6606	48.6857	0.56	17.00	3.62 0	-1.16 3	-3.63 0	1.16 3
48.6139	48.6861	0.50	71.00	5.19-1	-9.86 2	-5.26-1	9.87 2
48.6896	48.7004	0.82	2.10	1.25 2	-8.13 2	-1.25 2	8.13 2
48.6840	48.7047	0.58	12.00	5.82 0	-1.10 3	-5.83 0	1.10 3
48.7147	48.7307	0.62	7.00	1.27 1	-1.01 3	-1.27 1	1.01 3
48.7522	48.7633	0.78	2.40	8.91 1	-8.19 2	-8.91 1	8.19 2
48.7198	48.7647	0.52	41.00	1.13 0	-1.20 3	-1.14 0	1.20 3
48.6970	48.7681	0.50	70.00	5.30-1	-9.97 2	-5.37-1	9.98 2
48.7650	48.7764	0.76	2.60	7.42 1	-8.27 2	-7.42 1	8.27 2
48.7724	48.7828	0.90	1.70	2.33 2	-8.45 2	-2.33 2	8.45 2
48.7785	48.7886	1.15	1.20	2.63 2	-2.87 2	-2.63 2	2.87 2
48.8008	48.8326	0.54	25.00	2.16 0	-1.21 3	-2.17 0	1.21 3
48.7808	48.8508	0.50	69.00	5.41-1	-1.01 3	-5.48-1	1.01 3
48.8333	48.8511	0.60	8.80	9.02 0	-1.05 3	-9.03 0	1.05 3
48.8423	48.8569	0.64	5.60	1.80 1	-9.64 2	-1.80 1	9.65 2
48.8465	48.8711	0.56	16.50	3.75 0	-1.16 3	-3.76 0	1.16 3
48.8549	48.8990	0.52	40.00	1.16 0	-1.20 3	-1.17 0	1.20 3
48.8995	48.9124	0.68	4.00	3.16 1	-9.00 2	-3.17 1	9.00 2
48.9082	48.9205	0.70	3.50	4.03 1	-8.75 2	-4.04 1	8.75 2
48.9134	48.9239	0.86	1.85	1.75 2	-8.19 2	-1.75 2	8.19 2
48.9205	48.9312	0.84	1.95	1.51 2	-8.17 2	-1.51 2	8.17 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
48.8656	48.9345	0.50	68.00	5.53-1	-1.02 3	-5.60-1	1.02 3
48.9479	48.9636	0.62	6.80	1.32 1	-1.00 3	-1.32 1	1.00 3
48.9571	48.9680	0.80	2.20	1.09 2	-8.15 2	-1.09 2	8.15 2
48.9611	48.9712	1.10	1.25	8.02 2	-1.04 3	-8.02 2	1.04 3
48.9698	48.9813	0.74	2.80	6.24 1	-8.35 2	-6.24 1	8.36 2
48.9697	48.9815	0.72	3.10	5.08 1	-8.53 2	-5.08 1	8.53 2
48.9737	48.9938	0.58	11.50	6.13 0	-1.10 3	-6.14 0	1.10 3
48.9950	49.0053	0.96	1.50	3.82 2	-9.51 2	-3.82 2	9.52 2
48.9512	49.0191	0.50	67.00	5.64-1	-1.03 3	-5.71-1	1.03 3
48.9937	49.0369	0.52	39.00	1.20 0	-1.21 3	-1.21 0	1.21 3
49.00	51.00						
49.0044	49.0219	0.60	8.60	9.28 0	-1.05 3	-9.30 0	1.05 3
49.0224	49.0359	0.66	4.60	2.47 1	-9.29 2	-2.47 1	9.29 2
49.0270	49.0373	0.94	1.55	3.24 2	-8.99 2	-3.24 2	8.99 2
49.0329	49.0431	0.98	1.45	4.51 2	-1.01 3	-4.51 2	1.01 3
49.0340	49.0444	0.88	1.75	2.06 2	-8.31 2	-2.06 2	8.31 2
49.0396	49.0637	0.56	16.00	3.89 0	-1.16 3	-3.90 0	1.16 3
49.0368	49.0677	0.54	24.00	2.27 0	-1.21 3	-2.28 0	1.21 3
49.0378	49.1046	0.50	66.00	5.76-1	-1.04 3	-5.83-1	1.04 3
49.1272	49.1375	0.92	1.60	2.82 2	-8.70 2	-2.82 2	8.71 2
49.1432	49.1534	1.00	1.40	5.35 2	-1.07 3	-5.35 2	1.07 3
49.1564	49.1691	0.68	3.90	3.28 1	-8.98 2	-3.28 1	8.99 2
49.1612	49.1755	0.64	5.40	1.89 1	-9.62 2	-1.89 1	9.62 2
49.1364	49.1787	0.52	38.00	1.24 0	-1.21 3	-1.25 0	1.21 3
49.1253	49.1911	0.50	65.00	5.89-1	-1.05 3	-5.96-1	1.05 3
49.1808	49.1981	0.60	8.40	9.56 0	-1.05 3	-9.57 0	1.05 3
49.1907	49.2062	0.62	6.60	1.37 1	-1.00 3	-1.37 1	1.00 3
49.2229	49.2351	0.70	3.40	4.21 1	-8.73 2	-4.21 1	8.73 2
49.2403	49.2639	0.56	15.50	4.04 0	-1.16 3	-4.05 0	1.16 3
49.2139	49.2787	0.50	64.00	6.01-1	-1.06 3	-6.08-1	1.06 3
49.2714	49.2826	0.76	2.50	7.88 1	-8.24 2	-7.88 1	8.24 2
49.2801	49.2997	0.58	11.00	6.48 0	-1.10 3	-6.49 0	1.10 3
49.2945	49.3048	0.90	1.65	2.47 2	-8.50 2	-2.47 2	8.50 2
49.2849	49.3147	0.54	23.00	2.39 0	-1.21 3	-2.40 0	1.21 3
49.2832	49.3246	0.52	37.00	1.28 0	-1.22 3	-1.29 0	1.22 3
49.3275	49.3380	0.84	1.90	1.58 2	-8.17 2	-1.58 2	8.17 2
49.3315	49.3416	1.05	1.30	7.74 2	-1.20 3	-7.74 2	1.20 3
49.3314	49.3423	0.78	2.30	9.53 1	-8.16 2	-9.54 1	8.16 2
49.3503	49.3620	0.72	3.00	5.33 1	-8.51 2	-5.33 1	8.51 2
49.3036	49.3674	0.50	63.00	6.14-1	-1.07 3	-6.21-1	1.07 3
49.3606	49.3710	0.86	1.80	1.83 2	-8.19 2	-1.84 2	8.19 2
49.3629	49.3800	0.60	8.20	9.85 0	-1.05 3	-9.87 0	1.05 3
49.4181	49.4294	0.74	2.70	6.60 1	-8.33 2	-6.60 1	8.34 2
49.4195	49.4301	0.82	2.00	1.35 2	-8.12 2	-1.35 2	8.12 2
49.4232	49.4358	0.68	3.80	3.40 1	-8.97 2	-3.40 1	8.97 2
49.3945	49.4572	0.50	62.00	6.28-1	-1.08 3	-6.35-1	1.08 3
49.4438	49.4591	0.62	6.40	1.43 1	-9.98 2	-1.43 1	9.99 2
49.4470	49.4602	0.66	4.40	2.63 1	-9.26 2	-2.63 1	9.26 2
49.4494	49.4725	0.56	15.00	4.21 0	-1.15 3	-4.22 0	1.15 3
49.4344	49.4748	0.52	36.00	1.32 0	-1.22 3	-1.33 0	1.22 3
49.4973	49.5113	0.64	5.20	1.98 1	-9.59 2	-1.99 1	9.59 2
49.5288	49.5391	0.88	1.70	2.18 2	-8.34 2	-2.18 2	8.34 2
49.4865	49.5482	0.50	61.00	6.42-1	-1.09 3	-6.49-1	1.09 3
49.5522	49.5641	0.70	3.30	4.39 1	-8.71 2	-4.40 1	8.71 2
49.5511	49.5679	0.60	8.00	1.02 1	-1.04 3	-1.02 1	1.04 3
49.5462	49.5751	0.54	22.00	2.52 0	-1.21 3	-2.53 0	1.21 3
49.6052	49.6242	0.58	10.50	6.85 0	-1.10 3	-6.87 0	1.10 3
49.5903	49.6298	0.52	35.00	1.37 0	-1.23 3	-1.38 0	1.23 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
49.6297	49.6404	0.80	2.10	1.17 2	-8.12 2	-1.18 2	8.12 2
49.5798	49.6405	0.50	60.00	6.56-1	-1.10 3	-6.63-1	1.10 3
49.6482	49.6583	0.94	1.50	3.57 2	-9.30 2	-3.57 2	9.31 2
49.6566	49.6667	0.96	1.45	4.14 2	-9.66 2	-4.14 2	9.66 2
49.6674	49.6899	0.56	14.50	4.38 0	-1.15 3	-4.39 0	1.15 3
49.7008	49.7132	0.68	3.70	3.53 1	-8.95 2	-3.54 1	8.95 2
49.7119	49.7220	0.92	1.55	3.04 2	-8.85 2	-3.04 2	8.85 2
49.7081	49.7231	0.62	6.20	1.49 1	-9.96 2	-1.49 1	9.96 2
49.6744	49.7341	0.50	59.00	6.71-1	-1.11 3	-6.78-1	1.11 3
49.7396	49.7497	0.98	1.40	4.80 2	-1.00 3	-4.80 2	1.00 3
49.7458	49.7623	0.60	7.80	1.05 1	-1.04 3	-1.05 1	1.04 3
49.7513	49.7628	0.72	2.90	5.61 1	-8.48 2	-5.61 1	8.49 2
49.7536	49.7640	0.84	1.85	1.65 2	-8.17 2	-1.65 2	8.17 2
49.7512	49.7898	0.52	34.00	1.42 0	-1.23 3	-1.42 0	1.23 3
49.8084	49.8189	0.82	1.95	1.41 2	-8.11 2	-1.41 2	8.11 2
49.8120	49.8229	0.76	2.40	8.41 1	-8.22 2	-8.41 1	8.22 2
49.7703	49.8291	0.50	58.00	6.87-1	-1.12 3	-6.94-1	1.12 3
49.8304	49.8407	0.86	1.75	1.93 2	-8.20 2	-1.93 2	8.20 2
49.8222	49.8502	0.54	21.00	2.66 0	-1.21 3	-2.67 0	1.21 3
49.8462	49.8564	0.90	1.60	2.64 2	-8.58 2	-2.64 2	8.58 2
49.8523	49.8660	0.64	5.00	2.09 1	-9.56 2	-2.09 1	9.56 2
49.8938	49.9049	0.74	2.60	6.99 1	-8.31 2	-6.99 1	8.31 2
49.8971	49.9089	0.70	3.20	4.60 1	-8.69 2	-4.60 1	8.69 2
49.9004	49.9104	1.00	1.35	5.65 2	-1.05 3	-5.65 2	1.05 3
49.9007	49.9136	0.66	4.20	2.80 1	-9.22 2	-2.80 1	9.22 2
49.8951	49.9171	0.56	14.00	4.57 0	-1.15 3	-4.58 0	1.15 3
49.9138	49.9237	1.10	1.20	5.54 2	-6.63 2	-5.54 2	6.63 2
49.8677	49.9255	0.50	57.00	7.03-1	-1.13 3	-7.10-1	1.13 3
49.9174	49.9551	0.52	33.00	1.47 0	-1.23 3	-1.48 0	1.23 3
49.9473	49.9635	0.60	7.60	1.08 1	-1.04 3	-1.09 1	1.04 3
49.9541	49.9648	0.78	2.20	1.02 2	-8.13 2	-1.02 2	8.14 2
49.9511	49.9696	0.58	10.00	7.28 0	-1.09 3	-7.29 0	1.09 3
49.9845	49.9993	0.62	6.00	1.55 1	-9.94 2	-1.56 1	9.94 2
49.9899	50.0021	0.68	3.60	3.67 1	-8.93 2	-3.68 1	8.93 2
49.9667	50.0235	0.50	56.00	7.19-1	-1.14 3	-7.26-1	1.14 3
50.0505	50.0606	0.88	1.65	2.31 2	-8.37 2	-2.32 2	8.37 2
50.0959	50.1142	0.58	9.80	7.46 0	-1.09 3	-7.47 0	1.09 3
50.0672	50.1230	0.50	55.00	7.36-1	-1.14 3	-7.43-1	1.15 3
50.0894	50.1262	0.52	32.00	1.52 0	-1.24 3	-1.53 0	1.24 3
50.1146	50.1416	0.54	20.00	2.82 0	-1.21 3	-2.83 0	1.21 3
50.1333	50.1549	0.56	13.50	4.77 0	-1.15 3	-4.78 0	1.15 3
50.1560	50.1721	0.60	7.40	1.12 1	-1.04 3	-1.12 1	1.04 3
50.1748	50.1861	0.72	2.80	5.92 1	-8.46 2	-5.92 1	8.46 2
50.2005	50.2107	0.84	1.80	1.74 2	-8.18 2	-1.74 2	8.18 2
50.2100	50.2200	1.05	1.25	7.29 2	-1.05 3	-7.30 2	1.05 3
50.1693	50.2242	0.50	54.00	7.54-1	-1.15 3	-7.61-1	1.15 3
50.2151	50.2254	0.82	1.90	1.48 2	-8.10 2	-1.48 2	8.10 2
50.2281	50.2416	0.64	4.80	2.21 1	-9.53 2	-2.21 1	9.53 2
50.2446	50.2626	0.58	9.60	7.65 0	-1.09 3	-7.66 0	1.09 3
50.2591	50.2707	0.70	3.10	4.82 1	-8.66 2	-4.82 1	8.66 2
50.2741	50.2886	0.62	5.80	1.62 1	-9.91 2	-1.63 1	9.91 2
50.2675	50.2941	0.54	19.50	2.90 0	-1.20 3	-2.91 0	1.21 3
50.2675	50.3034	0.52	31.00	1.58 0	-1.24 3	-1.59 0	1.24 3
50.2914	50.3034	0.68	3.50	3.83 1	-8.91 2	-3.83 1	8.91 2
50.3093	50.3193	0.94	1.45	3.84 2	-9.40 2	-3.85 2	9.41 2
50.2732	50.3272	0.50	53.00	7.72-1	-1.16 3	-7.79-1	1.16 3
50.3247	50.3349	0.86	1.70	2.04 2	-8.21 2	-2.04 2	8.21 2
50.3325	50.3425	0.92	1.50	3.32 2	-9.09 2	-3.32 2	9.09 2
50.3591	50.3695	0.80	2.00	1.27 2	-8.10 2	-1.27 2	8.10 2
50.3628	50.3727	0.96	1.40	4.39 2	-9.57 2	-4.39 2	9.58 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
50.3726	50.3884	0.60	7.20	1.16 1	-1.04 3	-1.16 1	1.04 3
50.3873	50.3999	0.66	4.00	3.00 1	-9.19 2	-3.00 1	9.19 2
50.3909	50.4016	0.76	2.30	8.98 1	-8.19 2	-8.99 1	8.19 2
50.3830	50.4041	0.56	13.00	4.99 0	-1.15 3	-5.00 0	1.15 3
50.4000	50.4109	0.74	2.50	7.42 1	-8.28 2	-7.42 1	8.28 2
50.3974	50.4153	0.58	9.40	7.86 0	-1.09 3	-7.87 0	1.09 3
50.3789	50.4320	0.50	52.00	7.92-1	-1.17 3	-7.99-1	1.17 3
50.4304	50.4404	0.90	1.55	2.84 2	-8.70 2	-2.85 2	8.71 2
50.4253	50.4514	0.54	19.00	3.00 0	-1.20 3	-3.00 0	1.20 3
50.4523	50.4873	0.52	30.00	1.65 0	-1.24 3	-1.65 0	1.24 3
50.4130	50.5043	0.48	90.00	3.38-1	-7.96 2	-3.44-1	7.97 2
50.4962	50.5061	0.98	1.35	5.02 2	-9.75 2	-5.02 2	9.75 2
50.4866	50.5387	0.50	51.00	8.12-1	-1.18 3	-8.19-1	1.18 3
50.5546	50.5722	0.58	9.20	8.07 0	-1.09 3	-8.08 0	1.09 3
50.4880	50.5780	0.48	89.00	3.44-1	-8.09 2	-3.51-1	8.10 2
50.5779	50.5921	0.62	5.60	1.70 1	-9.88 2	-1.70 1	9.88 2
50.6016	50.6117	0.88	1.60	2.47 2	-8.44 2	-2.47 2	8.44 2
50.5975	50.6130	0.60	7.00	1.20 1	-1.03 3	-1.21 1	1.03 3
50.5883	50.6139	0.54	18.50	3.09 0	-1.20 3	-3.10 0	1.20 3
50.6062	50.6181	0.68	3.40	3.99 1	-8.88 2	-3.99 1	8.89 2
50.6229	50.6340	0.72	2.70	6.25 1	-8.44 2	-6.26 1	8.44 2
50.6262	50.6367	0.78	2.10	1.10 2	-8.10 2	-1.10 2	8.10 2
50.6272	50.6404	0.64	4.60	2.34 1	-9.50 2	-2.34 1	9.50 2
50.5962	50.6474	0.50	50.00	8.32-1	-1.19 3	-8.39-1	1.19 3
50.6408	50.6510	0.82	1.85	1.55 2	-8.09 2	-1.55 2	8.10 2
50.6396	50.6511	0.70	3.00	5.06 1	-8.64 2	-5.06 1	8.64 2
50.5632	50.6519	0.48	88.00	3.51-1	-8.22 2	-3.57-1	8.23 2
50.6443	50.6567	0.66	3.90	3.11 1	-9.17 2	-3.11 1	9.17 2
50.6453	50.6658	0.56	12.50	5.24 0	-1.14 3	-5.25 0	1.14 3
50.6443	50.6784	0.52	29.00	1.71 0	-1.25 3	-1.72 0	1.25 3
50.6698	50.6799	0.84	1.75	1.83 2	-8.18 2	-1.83 2	8.18 2
50.7138	50.7236	1.00	1.30	5.72 2	-9.87 2	-5.72 2	9.87 2
50.6387	50.7261	0.48	87.00	3.58-1	-8.34 2	-3.64-1	8.35 2
50.7164	50.7338	0.58	9.00	8.29 0	-1.08 3	-8.30 0	1.08 3
50.7477	50.7580	0.80	1.95	1.33 2	-8.08 2	-1.33 2	8.08 2
50.7080	50.7583	0.50	49.00	8.54-1	-1.19 3	-8.61-1	1.19 3
50.7567	50.7819	0.54	18.00	3.19 0	-1.20 3	-3.20 0	1.20 3
50.7145	50.8006	0.48	86.00	3.65-1	-8.47 2	-3.71-1	8.48 2
50.8313	50.8466	0.60	6.80	1.25 1	-1.03 3	-1.25 1	1.03 3
50.8459	50.8559	0.86	1.65	2.16 2	-8.23 2	-2.16 2	8.23 2
50.8220	50.8714	0.50	48.00	8.76-1	-1.20 3	-8.83-1	1.20 3
50.7906	50.8755	0.48	85.00	3.72-1	-8.60 2	-3.78-1	8.61 2
50.8440	50.8772	0.52	28.00	1.79 0	-1.25 3	-1.79 0	1.25 3
50.8829	50.9001	0.58	8.80	8.53 0	-1.08 3	-8.54 0	1.08 3
50.8974	50.9113	0.62	5.40	1.78 1	-9.85 2	-1.79 1	9.86 2
50.9112	50.9235	0.66	3.80	3.22 1	-9.15 2	-3.22 1	9.15 2
50.9213	50.9413	0.56	12.00	5.50 0	-1.14 3	-5.51 0	1.14 3
50.9354	50.9471	0.68	3.30	4.16 1	-8.86 2	-4.17 1	8.87 2
50.8671	50.9507	0.48	84.00	3.79-1	-8.73 2	-3.85-1	8.74 2
50.9402	50.9509	0.74	2.40	7.91 1	-8.24 2	-7.91 1	8.24 2
50.9311	50.9557	0.54	17.50	3.30 0	-1.20 3	-3.31 0	1.20 3
50.9496	50.9593	1.10	1.15	4.26 2	-4.67 2	-4.26 2	4.67 2
50.9384	50.9868	0.50	47.00	9.00-1	-1.21 3	-9.07-1	1.21 3
50.9930	51.0028	0.92	1.45	3.57 2	-9.16 2	-3.57 2	9.16 2
50.9440	51.0264	0.48	83.00	3.86-1	-8.85 2	-3.93-1	8.86 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
51.00	53.00						
51.0131	51.0236	0.76	2.20	9.64 1	-8.15 2	-9.64 1	8.15 2
51.0148	51.0246	0.94	1.40	4.07 2	-9.30 2	-4.07 2	9.30 2
51.0405	51.0518	0.70	2.90	5.32 1	-8.62 2	-5.32 1	8.62 2
51.0504	51.0603	0.90	1.50	3.10 2	-8.90 2	-3.10 2	8.91 2
51.0522	51.0650	0.64	4.40	2.49 1	-9.47 2	-2.49 1	9.47 2
51.0546	51.0716	0.58	8.60	8.77 0	-1.08 3	-8.78 0	1.08 3
51.0522	51.0844	0.52	27.00	1.86 0	-1.25 3	-1.87 0	1.25 3
51.0747	51.0898	0.60	6.60	1.30 1	-1.03 3	-1.30 1	1.03 3
51.0872	51.0973	0.82	1.80	1.62 2	-8.08 2	-1.62 2	8.08 2
51.0212	51.1024	0.48	82.00	3.94-1	-8.98 2	-4.00-1	8.99 2
51.0572	51.1048	0.50	46.00	9.24-1	-1.22 3	-9.31-1	1.22 3
51.0983	51.1092	0.72	2.60	6.62 1	-8.41 2	-6.62 1	8.41 2
51.1187	51.1285	0.96	1.35	4.56 2	-9.28 2	-4.56 2	9.28 2
51.1116	51.1358	0.54	17.00	3.42 0	-1.20 3	-3.43 0	1.20 3
51.1539	51.1641	0.80	1.90	1.39 2	-8.06 2	-1.39 2	8.06 2
51.1610	51.1707	1.05	1.20	6.15 2	-8.13 2	-6.15 2	8.13 2
51.1636	51.1736	0.84	1.70	1.93 2	-8.19 2	-1.93 2	8.19 2
51.0989	51.1789	0.48	81.00	4.02-1	-9.10 2	-4.08-1	9.11 2
51.1852	51.1951	0.88	1.55	2.64 2	-8.52 2	-2.65 2	8.52 2
51.1889	51.2010	0.66	3.70	3.35 1	-9.13 2	-3.35 1	9.13 2
51.1787	51.2253	0.50	45.00	9.50-1	-1.22 3	-9.57-1	1.22 3
51.2125	51.2320	0.56	11.50	5.79 0	-1.14 3	-5.80 0	1.14 3
51.2340	51.2476	0.62	5.20	1.88 1	-9.82 2	-1.88 1	9.83 2
51.2317	51.2484	0.58	8.40	9.03 0	-1.08 3	-9.05 0	1.08 3
51.1771	51.2559	0.48	80.00	4.10-1	-9.23 2	-4.16-1	9.24 2
51.2803	51.2918	0.68	3.20	4.35 1	-8.84 2	-4.36 1	8.84 2
51.2695	51.3009	0.52	26.00	1.95 0	-1.25 3	-1.96 0	1.25 3
51.3088	51.3185	0.98	1.30	5.06 2	-9.12 2	-5.06 2	9.12 2
51.2989	51.3226	0.54	16.50	3.54 0	-1.20 3	-3.55 0	1.20 3
51.2557	51.3334	0.48	79.00	4.18-1	-9.35 2	-4.24-1	9.36 2
51.3284	51.3432	0.60	6.40	1.35 1	-1.03 3	-1.35 1	1.03 3
51.3029	51.3486	0.50	44.00	9.77-1	-1.23 3	-9.84-1	1.23 3
51.3549	51.3651	0.78	2.00	1.19 2	-8.06 2	-1.19 2	8.06 2
51.3965	51.4064	0.86	1.60	2.29 2	-8.26 2	-2.29 2	8.26 2
51.3349	51.4114	0.48	78.00	4.26-1	-9.47 2	-4.32-1	9.48 2
51.4145	51.4309	0.58	8.20	9.31 0	-1.08 3	-9.32 0	1.08 3
51.4637	51.4748	0.70	2.80	5.61 1	-8.60 2	-5.61 1	8.60 2
51.4300	51.4748	0.50	43.00	1.00 0	-1.23 3	-1.01 0	1.24 3
51.4146	51.4899	0.48	77.00	4.34-1	-9.59 2	-4.41-1	9.60 2
51.4780	51.4899	0.66	3.60	3.48 1	-9.11 2	-3.48 1	9.11 2
51.4933	51.5165	0.54	16.00	3.67 0	-1.20 3	-3.68 0	1.20 3
51.5061	51.5187	0.64	4.20	2.65 1	-9.43 2	-2.65 1	9.43 2
51.4968	51.5273	0.52	25.00	2.04 0	-1.25 3	-2.05 0	1.25 3
51.5186	51.5291	0.74	2.30	8.44 1	-8.20 2	-8.44 1	8.20 2
51.5205	51.5394	0.56	11.00	6.11 0	-1.13 3	-6.12 0	1.13 3
51.5560	51.5660	0.82	1.75	1.70 2	-8.07 2	-1.70 2	8.07 2
51.4948	51.5691	0.48	76.00	4.43-1	-9.71 2	-4.49-1	9.72 2
51.5792	51.5892	0.80	1.85	1.45 2	-8.05 2	-1.45 2	8.05 2
51.5905	51.6001	1.00	1.25	5.50 2	-8.78 2	-5.50 2	8.78 2
51.5894	51.6028	0.62	5.00	1.98 1	-9.79 2	-1.98 1	9.79 2
51.5602	51.6041	0.50	42.00	1.03 0	-1.24 3	-1.04 0	1.24 3
51.5933	51.6079	0.60	6.20	1.41 1	-1.02 3	-1.41 1	1.02 3
51.6041	51.6148	0.72	2.50	7.03 1	-8.37 2	-7.03 1	8.38 2
51.6033	51.6195	0.58	8.00	9.60 0	-1.07 3	-9.61 0	1.07 3
51.5757	51.6488	0.48	75.00	4.52-1	-9.83 2	-4.58-1	9.84 2
51.6421	51.6535	0.68	3.10	4.56 1	-8.82 2	-4.56 1	8.82 2
51.6842	51.6941	0.84	1.65	2.03 2	-8.19 2	-2.04 2	8.19 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
51.6845	51.6948	0.76	2.10	1.04 2	-8.10 2	-1.04 2	8.10 2
51.6977	51.7074	0.92	1.40	3.76 2	-9.01 2	-3.76 2	9.01 2
51.6954	51.7182	0.54	15.50	3.82 0	-1.20 3	-3.82 0	1.20 3
51.7101	51.7199	0.90	1.45	3.31 2	-8.93 2	-3.31 2	8.93 2
51.6572	51.7293	0.48	74.00	4.61-1	-9.95 2	-4.67-1	9.96 2
51.6936	51.7367	0.50	41.00	1.07 0	-1.25 3	-1.07 0	1.25 3
51.7430	51.7532	0.78	1.95	1.24 2	-8.03 2	-1.24 2	8.03 2
51.7351	51.7647	0.52	24.00	2.14 0	-1.25 3	-2.15 0	1.25 3
51.7699	51.7795	0.94	1.35	4.25 2	-9.05 2	-4.25 2	9.05 2
51.7794	51.7912	0.66	3.50	3.62 1	-9.08 2	-3.62 1	9.09 2
51.7394	51.8104	0.48	73.00	4.70-1	-1.01 3	-4.77-1	1.01 3
51.8045	51.8143	0.88	1.50	2.86 2	-8.66 2	-2.86 2	8.66 2
51.7985	51.8145	0.58	7.80	9.91 0	-1.07 3	-9.92 0	1.07 3
51.8471	51.8655	0.56	10.50	6.47 0	-1.13 3	-6.48 0	1.13 3
51.8305	51.8727	0.50	40.00	1.10 0	-1.25 3	-1.10 0	1.25 3
51.8702	51.8845	0.60	6.00	1.47 1	-1.02 3	-1.47 1	1.02 3
51.8223	51.8922	0.48	72.00	4.80-1	-1.02 3	-4.86-1	1.02 3
51.9115	51.9224	0.70	2.70	5.92 1	-8.57 2	-5.93 1	8.57 2
51.9059	51.9281	0.54	15.00	3.97 0	-1.19 3	-3.98 0	1.20 3
51.9304	51.9400	0.96	1.30	4.61 2	-8.70 2	-4.61 2	8.70 2
51.9060	51.9748	0.48	71.00	4.90-1	-1.03 3	-4.96-1	1.03 3
51.9656	51.9787	0.62	4.80	2.09 1	-9.76 2	-2.09 1	9.76 2
51.9794	51.9891	0.86	1.55	2.45 2	-8.31 2	-2.45 2	8.31 2
51.9928	52.0051	0.64	4.00	2.84 1	-9.39 2	-2.84 1	9.39 2
51.9711	52.0124	0.50	39.00	1.13 0	-1.26 3	-1.14 0	1.26 3
51.9854	52.0141	0.52	23.00	2.25 0	-1.25 3	-2.26 0	1.25 3
52.0006	52.0163	0.58	7.60	1.02 1	-1.07 3	-1.03 1	1.07 3
52.0224	52.0336	0.68	3.00	4.79 1	-8.79 2	-4.79 1	8.80 2
52.0250	52.0349	0.80	1.80	1.52 2	-8.02 2	-1.52 2	8.02 2
51.9904	52.0582	0.48	70.00	5.00-1	-1.04 3	-5.06-1	1.04 3
52.0492	52.0590	0.82	1.70	1.79 2	-8.06 2	-1.79 2	8.06 2
52.0941	52.1057	0.66	3.40	3.77 1	-9.06 2	-3.78 1	9.06 2
52.0756	52.1424	0.48	69.00	5.10-1	-1.05 3	-5.16-1	1.05 3
52.1252	52.1470	0.54	14.50	4.13 0	-1.19 3	-4.14 0	1.19 3
52.1400	52.1503	0.74	2.20	9.04 1	-8.15 2	-9.04 1	8.15 2
52.1437	52.1542	0.72	2.40	7.48 1	-8.34 2	-7.48 1	8.34 2
52.1156	52.1560	0.50	38.00	1.17 0	-1.26 3	-1.18 0	1.26 3
52.1487	52.1587	0.78	1.90	1.30 2	-8.01 2	-1.30 2	8.01 2
52.1602	52.1743	0.60	5.80	1.53 1	-1.02 3	-1.54 1	1.02 3
52.1845	52.1940	0.98	1.25	4.86 2	-8.11 2	-4.87 2	8.11 2
52.1945	52.2040	1.05	1.15	5.41 2	-6.55 2	-5.41 2	6.55 2
52.1945	52.2124	0.56	10.00	6.87 0	-1.13 3	-6.88 0	1.13 3
52.2099	52.2254	0.58	7.40	1.06 1	-1.07 3	-1.06 1	1.07 3
52.1618	52.2275	0.48	68.00	5.21-1	-1.06 3	-5.27-1	1.07 3
52.2340	52.2438	0.84	1.60	2.16 2	-8.21 2	-2.16 2	8.22 2
52.2498	52.2620	0.64	3.90	2.94 1	-9.37 2	-2.94 1	9.37 2
52.2490	52.2768	0.52	22.00	2.38 0	-1.25 3	-2.38 0	1.25 3
52.2641	52.3037	0.50	37.00	1.21 0	-1.27 3	-1.21 0	1.27 3
52.2488	52.3135	0.48	67.00	5.32-1	-1.08 3	-5.38-1	1.08 3
52.3398	52.3575	0.56	9.80	7.04 0	-1.13 3	-7.05 0	1.13 3
52.3543	52.3756	0.54	14.00	4.31 0	-1.19 3	-4.32 0	1.19 3
52.3649	52.3777	0.62	4.60	2.21 1	-9.73 2	-2.21 1	9.73 2
52.3864	52.3971	0.70	2.60	6.27 1	-8.54 2	-6.27 1	8.54 2
52.3368	52.4005	0.48	66.00	5.43-1	-1.09 3	-5.49-1	1.09 3
52.4122	52.4222	0.76	2.00	1.12 2	-8.05 2	-1.12 2	8.05 2
52.4139	52.4235	0.90	1.40	3.49 2	-8.80 2	-3.49 2	8.81 2
52.4230	52.4340	0.68	2.90	5.03 1	-8.77 2	-5.04 1	8.77 2
52.4232	52.4346	0.66	3.30	3.94 1	-9.04 2	-3.94 1	9.04 2
52.4270	52.4423	0.58	7.20	1.10 1	-1.07 3	-1.10 1	1.07 3
52.4171	52.4558	0.50	36.00	1.25 0	-1.27 3	-1.25 0	1.27 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
52.4518	52.4614	0.92	1.35	3.93 2	-8.80 2	-3.94 2	8.80 2
52.4634	52.4730	0.88	1.45	3.04 2	-8.64 2	-3.04 2	8.64 2
52.4645	52.4783	0.60	5.60	1.61 1	-1.01 3	-1.61 1	1.02 3
52.4257	52.4885	0.48	65.00	5.55-1	-1.10 3	-5.61-1	1.10 3
52.4931	52.5029	0.80	1.75	1.59 2	-8.00 2	-1.59 2	8.00 2
52.4891	52.5066	0.56	9.60	7.22 0	-1.12 3	-7.23 0	1.12 3
52.5168	52.5288	0.64	3.80	3.05 1	-9.35 2	-3.05 1	9.35 2
52.5390	52.5484	1.00	1.20	4.90 2	-7.20 2	-4.90 2	7.20 2
52.5274	52.5542	0.52	21.00	2.51 0	-1.25 3	-2.52 0	1.25 3
52.5157	52.5775	0.48	64.00	5.67-1	-1.11 3	-5.73-1	1.11 3
52.5690	52.5787	0.82	1.65	1.89 2	-8.04 2	-1.89 2	8.04 2
52.5734	52.5832	0.78	1.85	1.36 2	-7.98 2	-1.36 2	7.98 2
52.5806	52.5900	0.94	1.30	4.31 2	-8.53 2	-4.31 2	8.53 2
52.5978	52.6074	0.86	1.50	2.63 2	-8.39 2	-2.63 2	8.39 2
52.5748	52.6126	0.50	35.00	1.29 0	-1.28 3	-1.30 0	1.28 3
52.5939	52.6147	0.54	13.50	4.50 0	-1.19 3	-4.51 0	1.19 3
52.6425	52.6598	0.56	9.40	7.41 0	-1.12 3	-7.42 0	1.12 3
52.6524	52.6674	0.58	7.00	1.14 1	-1.06 3	-1.14 1	1.06 3
52.6068	52.6676	0.48	63.00	5.79-1	-1.12 3	-5.85-1	1.12 3
52.7213	52.7316	0.72	2.30	7.98 1	-8.30 2	-7.99 1	8.30 2
52.6991	52.7589	0.48	62.00	5.92-1	-1.13 3	-5.98-1	1.13 3
52.7375	52.7745	0.50	34.00	1.34 0	-1.28 3	-1.34 0	1.28 3
52.7678	52.7791	0.66	3.20	4.12 1	-9.01 2	-4.12 1	9.02 2
52.7843	52.7978	0.60	5.40	1.69 1	-1.01 3	-1.69 1	1.01 3
52.7900	52.8025	0.62	4.40	2.35 1	-9.69 2	-2.35 1	9.69 2
52.7943	52.8062	0.64	3.70	3.16 1	-9.33 2	-3.17 1	9.33 2
52.7998	52.8097	0.76	1.95	1.17 2	-8.02 2	-1.17 2	8.02 2
52.8051	52.8145	0.96	1.25	4.47 2	-7.80 2	-4.47 2	7.80 2
52.8003	52.8173	0.56	9.20	7.61 0	-1.12 3	-7.62 0	1.12 3
52.8105	52.8206	0.74	2.10	9.71 1	-8.10 2	-9.72 1	8.10 2
52.8160	52.8256	0.84	1.55	2.30 2	-8.24 2	-2.30 2	8.24 2
52.8221	52.8481	0.52	20.00	2.66 0	-1.25 3	-2.67 0	1.25 3
52.7925	52.8514	0.48	61.00	6.05-1	-1.14 3	-6.11-1	1.14 3
52.8457	52.8566	0.68	2.80	5.31 1	-8.74 2	-5.31 1	8.74 2
52.8450	52.8653	0.54	13.00	4.71 0	-1.19 3	-4.72 0	1.19 3
52.8867	52.9015	0.58	6.80	1.18 1	-1.06 3	-1.18 1	1.06 3
52.8915	52.9020	0.70	2.50	6.65 1	-8.50 2	-6.66 1	8.50 2
52.9056	52.9417	0.50	33.00	1.38 0	-1.29 3	-1.39 0	1.29 3
52.8872	52.9451	0.48	60.00	6.19-1	-1.15 3	-6.25-1	1.15 3
52.9626	52.9794	0.56	9.00	7.82 0	-1.12 3	-7.83 0	1.12 3
52.9855	52.9952	0.80	1.70	1.67 2	-7.97 2	-1.67 2	7.98 2
52.9762	53.0017	0.52	19.50	2.74 0	-1.25 3	-2.75 0	1.25 3
52.9832	53.0402	0.48	59.00	6.33-1	-1.16 3	-6.39-1	1.16 3
53.00	55.00						
53.0185	53.0282	0.78	1.80	1.42 2	-7.95 2	-1.42 2	7.95 2
53.0833	53.0950	0.64	3.60	3.29 1	-9.31 2	-3.29 1	9.31 2
53.0794	53.1146	0.50	32.00	1.44 0	-1.29 3	-1.44 0	1.29 3
53.1180	53.1276	0.82	1.60	2.00 2	-8.04 2	-2.00 2	8.04 2
53.1086	53.1284	0.54	12.50	4.94 0	-1.18 3	-4.95 0	1.18 3
53.1211	53.1344	0.60	5.20	1.77 1	-1.01 3	-1.77 1	1.01 3
53.0806	53.1367	0.48	58.00	6.47-1	-1.17 3	-6.53-1	1.17 3
53.1293	53.1404	0.66	3.10	4.31 1	-8.99 2	-4.32 1	8.99 2
53.1319	53.1412	0.98	1.20	4.40 2	-6.76 2	-4.40 2	6.76 2
53.1305	53.1451	0.58	6.60	1.22 1	-1.06 3	-1.23 1	1.06 3
53.1297	53.1463	0.56	8.80	8.04 0	-1.12 3	-8.05 0	1.12 3
53.1352	53.1603	0.52	19.00	2.82 0	-1.25 3	-2.83 0	1.25 3
53.1662	53.1756	0.88	1.40	3.21 2	-8.52 2	-3.21 2	8.52 2
53.1670	53.1764	0.90	1.35	3.65 2	-8.58 2	-3.65 2	8.58 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
53.2048	53.2146	0.76	1.90	1.21 2	-7.98 2	-1.22 2	7.98 2
53.1795	53.2346	0.48	57.00	6.62-1	-1.18 3	-6.68-1	1.18 3
53.2440	53.2562	0.62	4.20	2.50 1	-9.65 2	-2.51 1	9.65 2
53.2556	53.2651	0.86	1.45	2.79 2	-8.35 2	-2.79 2	8.35 2
53.2614	53.2708	0.92	1.30	4.00 2	-8.31 2	-4.00 2	8.31 2
53.2595	53.2938	0.50	31.00	1.49 0	-1.29 3	-1.50 0	1.29 3
53.2930	53.3036	0.68	2.70	5.61 1	-8.72 2	-5.61 1	8.72 2
53.3019	53.3182	0.56	8.60	8.27 0	-1.12 3	-8.28 0	1.12 3
53.2994	53.3240	0.52	18.50	2.91 0	-1.25 3	-2.92 0	1.25 3
53.3230	53.3322	1.05	1.10	2.64 2	-2.91 2	-2.64 2	2.91 2
53.2798	53.3340	0.48	56.00	6.78-1	-1.19 3	-6.84-1	1.19 3
53.3418	53.3519	0.72	2.20	8.55 1	-8.24 2	-8.55 1	8.25 2
53.3845	53.3960	0.64	3.50	3.42 1	-9.28 2	-3.42 1	9.28 2
53.3846	53.3990	0.58	6.40	1.27 1	-1.06 3	-1.28 1	1.06 3
53.3860	53.4053	0.54	12.00	5.19 0	-1.18 3	-5.19 0	1.18 3
53.3818	53.4350	0.48	55.00	6.94-1	-1.20 3	-7.00-1	1.20 3
53.4304	53.4407	0.70	2.40	7.08 1	-8.46 2	-7.08 1	8.46 2
53.4335	53.4429	0.84	1.50	2.46 2	-8.31 2	-2.46 2	8.31 2
53.4541	53.4633	0.94	1.25	4.24 2	-7.76 2	-4.24 2	7.76 2
53.4462	53.4796	0.50	30.00	1.55 0	-1.30 3	-1.56 0	1.30 3
53.4767	53.4897	0.60	5.00	1.87 1	-1.01 3	-1.87 1	1.01 3
53.4690	53.4931	0.52	18.00	3.01 0	-1.25 3	-3.02 0	1.25 3
53.4858	53.4954	0.78	1.75	1.48 2	-7.91 2	-1.48 2	7.91 2
53.4794	53.4956	0.56	8.40	8.52 0	-1.11 3	-8.53 0	1.11 3
53.5045	53.5140	0.80	1.65	1.76 2	-7.95 2	-1.76 2	7.95 2
53.5092	53.5201	0.66	3.00	4.53 1	-8.96 2	-4.53 1	8.97 2
53.4854	53.5377	0.48	54.00	7.10-1	-1.21 3	-7.17-1	1.21 3
53.5370	53.5468	0.74	2.00	1.05 2	-8.03 2	-1.05 2	8.03 2
53.5696	53.5788	1.00	1.15	4.24 2	-5.71 2	-4.24 2	5.71 2
53.6287	53.6384	0.76	1.85	1.27 2	-7.95 2	-1.27 2	7.95 2
53.5907	53.6422	0.48	53.00	7.28-1	-1.21 3	-7.34-1	1.22 3
53.6498	53.6639	0.58	6.20	1.33 1	-1.05 3	-1.33 1	1.05 3
53.6445	53.6682	0.52	17.50	3.11 0	-1.25 3	-3.12 0	1.25 3
53.6401	53.6727	0.50	29.00	1.61 0	-1.30 3	-1.62 0	1.30 3
53.6627	53.6786	0.56	8.20	8.78 Q	-1.11 3	-8.79 0	1.11 3
53.6785	53.6972	0.54	11.50	5.46 0	-1.18 3	-5.47 0	1.18 3
53.6990	53.7084	0.82	1.55	2.12 2	-8.04 2	-2.12 2	8.04 2
53.6989	53.7103	0.64	3.40	3.57 1	-9.26 2	-3.57 1	9.26 2
53.7305	53.7425	0.62	4.00	2.68 1	-9.61 2	-2.68 1	9.61 2
53.6979	53.7485	0.48	52.00	7.46-1	-1.22 3	-7.52-1	1.22 3
53.7512	53.7604	0.96	1.20	4.12 2	-6.63 2	-4.13 2	6.63 2
53.7672	53.7777	0.68	2.60	5.93 1	-8.68 2	-5.93 1	8.68 2
53.8263	53.8495	0.52	17.00	3.22 0	-1.25 3	-3.23 0	1.25 3
53.8070	53.8567	0.48	51.00	7.64-1	-1.23 3	-7.71-1	1.23 3
53.8530	53.8658	0.60	4.80	1.97 1	-1.00 3	-1.97 1	1.00 3
53.8519	53.8676	0.56	8.00	9.05 0	-1.11 3	-9.06 0	1.11 3
53.8417	53.8735	0.50	28.00	1.68 0	-1.30 3	-1.69 0	1.30 3
53.9092	53.9200	0.66	2.90	4.76 1	-8.94 2	-4.76 1	8.94 2
53.9180	53.9273	0.88	1.35	3.34 2	-8.25 2	-3.34 2	8.25 2
53.9239	53.9336	0.74	1.95	1.09 2	-7.99 2	-1.09 2	7.99 2
53.9271	53.9409	0.58	6.00	1.38 1	-1.05 3	-1.39 1	1.05 3
53.9572	53.9665	0.86	1.40	2.92 2	-8.17 2	-2.92 2	8.18 2
53.9182	53.9669	0.48	50.00	7.84-1	-1.24 3	-7.90-1	1.24 3
53.9754	53.9846	0.90	1.30	3.74 2	-8.15 2	-3.74 2	8.15 2
53.9773	53.9868	0.78	1.70	1.56 2	-7.88 2	-1.56 2	7.88 2
53.9873	53.9992	0.62	3.90	2.77 1	-9.59 2	-2.78 1	9.59 2
53.9877	54.0059	0.54	11.00	5.76 0	-1.17 3	-5.77 0	1.17 3
54.0070	54.0171	0.70	2.30	7.56 1	-8.42 2	-7.56 1	8.42 2
54.0111	54.0210	0.72	2.10	9.18 1	-8.18 2	-9.18 1	8.18 2
54.0147	54.0375	0.52	16.50	3.34 0	-1.25 3	-3.35 0	1.25 3

Part 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
54.0276	54.0388	0.64	3.30	3.72 1	-9.23 2	-3.72 1	9.23 2
54.0524	54.0618	0.80	1.60	1.86 2	-7.93 2	-1.86 2	7.93 2
54.0476	54.0631	0.56	7.80	9.34 0	-1.11 3	-9.35 0	1.11 3
54.0314	54.0793	0.48	49.00	8.04-1	-1.25 3	-8.10-1	1.25 3
54.0729	54.0825	0.76	1.80	1.32 2	-7.90 2	-1.32 2	7.90 2
54.0518	54.0827	0.50	27.00	1.76 0	-1.30 3	-1.76 0	1.30 3
54.0902	54.0995	0.84	1.45	2.61 2	-8.26 2	-2.61 2	8.26 2
54.1336	54.1427	0.92	1.25	3.98 2	-7.63 2	-3.98 2	7.63 2
54.1611	54.1702	0.98	1.15	3.81 2	-5.36 2	-3.81 2	5.36 2
54.1469	54.1940	0.48	48.00	8.25-1	-1.26 3	-8.31-1	1.26 3
54.1089	54.1956	0.46	90.00	3.18-1	-8.35 2	-3.24-1	8.36 2
54.2173	54.2309	0.58	5.80	1.45 1	-1.05 3	-1.45 1	1.05 3
54.2103	54.2326	0.52	16.00	3.46 0	-1.24 3	-3.47 0	1.25 3
54.2523	54.2648	0.60	4.60	2.09 1	-9.98 2	-2.09 1	9.98 2
54.2500	54.2653	0.56	7.60	9.65 0	-1.10 3	-9.66 0	1.11 3
54.2541	54.2657	0.62	3.80	2.88 1	-9.57 2	-2.88 1	9.57 2
54.1852	54.2707	0.46	89.00	3.24-1	-8.48 2	-3.30-1	8.49 2
54.2715	54.2817	0.68	2.50	6.29 1	-8.64 2	-6.29 1	8.64 2
54.2711	54.3011	0.50	26.00	1.84 0	-1.30 3	-1.84 0	1.30 3
54.2648	54.3110	0.48	47.00	8.47-1	-1.26 3	-8.54-1	1.26 3
54.3153	54.3246	0.82	1.50	2.26 2	-8.06 2	-2.26 2	8.06 2
54.3155	54.3332	0.54	10.50	6.10 0	-1.17 3	-6.11 0	1.17 3
54.3281	54.3377	0.74	1.90	1.13 2	-7.95 2	-1.13 2	7.95 2
54.3313	54.3419	0.66	2.80	5.02 1	-8.91 2	-5.02 1	8.91 2
54.2618	54.3460	0.46	88.00	3.31-1	-8.62 2	-3.36-1	8.63 2
54.3718	54.3828	0.64	3.20	3.89 1	-9.21 2	-3.89 1	9.21 2
54.3987	54.4078	0.94	1.20	3.98 2	-6.70 2	-3.98 2	6.70 2
54.3386	54.4216	0.46	87.00	3.37-1	-8.75 2	-3.42-1	8.76 2
54.3852	54.4304	0.48	46.00	8.70-1	-1.27 3	-8.77-1	1.27 3
54.4136	54.4354	0.52	15.50	3.59 0	-1.24 3	-3.60 0	1.24 3
54.4597	54.4748	0.56	7.40	9.98 0	-1.10 3	-9.99 0	1.10 3
54.4157	54.4975	0.46	86.00	3.43-1	-8.89 2	-3.49-1	8.90 2
54.4952	54.5046	0.78	1.65	1.63 2	-7.83 2	-1.63 2	7.83 2
54.5004	54.5296	0.50	25.00	1.92 0	-1.31 3	-1.93 0	1.31 3
54.5217	54.5351	0.58	5.60	1.51 1	-1.04 3	-1.52 1	1.04 3
54.5313	54.5429	0.62	3.70	2.98 1	-9.54 2	-2.99 1	9.54 2
54.5393	54.5487	0.76	1.75	1.38 2	-7.86 2	-1.38 2	7.86 2
54.5081	54.5526	0.48	45.00	8.94-1	-1.28 3	-9.01-1	1.28 3
54.4932	54.5738	0.46	85.00	3.50-1	-9.02 2	-3.56-1	9.03 2
54.6263	54.6362	0.70	2.20	8.09 1	-8.36 2	-8.09 1	8.37 2
54.6323	54.6416	0.80	1.55	1.96 2	-7.90 2	-1.96 2	7.90 2
54.6252	54.6466	0.52	15.00	3.74 0	-1.24 3	-3.75 0	1.24 3
54.5710	54.6504	0.46	84.00	3.57-1	-9.15 2	-3.62-1	9.16 2
54.6339	54.6774	0.48	44.00	9.20-1	-1.28 3	-9.26-1	1.29 3
54.6640	54.6813	0.54	10.00	6.47 0	-1.17 3	-6.48 0	1.17 3
54.6772	54.6894	0.60	4.40	2.22 1	-9.94 2	-2.22 1	9.95 2
54.6772	54.6920	0.56	7.20	1.03 1	-1.10 3	-1.03 1	1.10 3
54.6945	54.7035	1.00	1.10	2.74 2	-3.35 2	-2.74 2	3.35 2
54.7077	54.7169	0.86	1.35	3.04 2	-7.94 2	-3.05 2	7.94 2
54.6491	54.7274	0.46	83.00	3.64-1	-9.29 2	-3.69-1	9.30 2
54.7249	54.7340	0.88	1.30	3.42 2	-7.85 2	-3.42 2	7.86 2
54.7327	54.7436	0.64	3.10	4.07 1	-9.18 2	-4.08 1	9.18 2
54.7361	54.7458	0.72	2.00	9.90 1	-8.11 2	-9.90 1	8.12 2
54.7511	54.7605	0.74	1.85	1.18 2	-7.91 2	-1.18 2	7.91 2
54.7407	54.7690	0.50	24.00	2.02 0	-1.31 3	-2.03 0	1.31 3
54.7788	54.7878	0.96	1.15	3.64 2	-5.37 2	-3.65 2	5.37 2
54.7777	54.7882	0.66	2.70	5.30 1	-8.88 2	-5.30 1	8.88 2
54.7905	54.7996	0.84	1.40	2.74 2	-8.09 2	-2.74 2	8.10 2
54.7277	54.8048	0.46	82.00	3.71-1	-9.42 2	-3.76-1	9.43 2
54.7625	54.8052	0.48	43.00	9.46-1	-1.29 3	-9.52-1	1.29 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
54.8092	54.8193	0.68	2.40	6.69 1	-8.60 2	-6.70 1	8.60 2
54.8098	54.8269	0.54	9.80	6.63 0	-1.17 3	-6.64 0	1.17 3
54.8200	54.8313	0.62	3.60	3.10 1	-9.52 2	-3.10 1	9.52 2
54.8416	54.8547	0.58	5.40	1.59 1	-1.04 3	-1.59 1	1.04 3
54.8460	54.8550	0.90	1.25	3.73 2	-7.52 2	-3.73 2	7.53 2
54.8457	54.8666	0.52	14.50	3.89 0	-1.24 3	-3.90 0	1.24 3
54.8067	54.8826	0.46	81.00	3.78-1	-9.55 2	-3.84-1	9.56 2
54.9029	54.9174	0.56	7.00	1.07 1	-1.10 3	-1.07 1	1.10 3
54.8943	54.9361	0.48	42.00	9.74-1	-1.30 3	-9.80-1	1.30 3
54.8861	54.9610	0.46	80.00	3.86-1	-9.68 2	-3.91-1	9.69 2
54.9595	54.9764	0.54	9.60	6.80 0	-1.16 3	-6.81 0	1.16 3
54.9707	54.9798	0.82	1.45	2.38 2	-7.97 2	-2.38 2	7.97 2
54.9930	55.0204	0.50	23.00	2.12 0	-1.31 3	-2.13 0	1.31 3
54.9660	55.0398	0.46	79.00	3.93-1	-9.81 2	-3.99-1	9.82 2
55.00	57.00						
55.0297	55.0390	0.76	1.70	1.45 2	-7.82 2	-1.45 2	7.82 2
55.0420	55.0512	0.78	1.60	1.72 2	-7.80 2	-1.72 2	7.80 2
55.0293	55.0703	0.48	41.00	1.00 0	-1.30 3	-1.01 0	1.31 3
55.0767	55.0856	0.92	1.20	3.78 2	-6.68 2	-3.78 2	6.68 2
55.0760	55.0964	0.52	14.00	4.06 0	-1.24 3	-4.07 0	1.24 3
55.0465	55.1191	0.46	78.00	4.01-1	-9.94 2	-4.06-1	9.95 2
55.1120	55.1227	0.64	3.00	4.27 1	-9.15 2	-4.28 1	9.15 2
55.1133	55.1300	0.54	9.40	6.98 0	-1.16 3	-6.99 0	1.16 3
55.1221	55.1316	0.72	1.95	1.03 2	-8.08 2	-1.03 2	8.08 2
55.1208	55.1320	0.62	3.50	3.23 1	-9.49 2	-3.23 1	9.49 2
55.1308	55.1427	0.60	4.20	2.36 1	-9.90 2	-2.36 1	9.90 2
55.1374	55.1518	0.56	6.80	1.11 1	-1.10 3	-1.11 1	1.10 3
55.1784	55.1913	0.58	5.20	1.67 1	-1.04 3	-1.67 1	1.04 3
55.1275	55.1990	0.46	77.00	4.09-1	-1.01 3	-4.14-1	1.01 3
55.1943	55.2037	0.74	1.80	1.23 2	-7.85 2	-1.23 2	7.85 2
55.1677	55.2079	0.48	40.00	1.03 0	-1.31 3	-1.04 0	1.31 3
55.2473	55.2564	0.80	1.50	2.09 2	-7.90 2	-2.09 2	7.90 2
55.2510	55.2613	0.66	2.60	5.60 1	-8.84 2	-5.61 1	8.85 2
55.2090	55.2795	0.46	76.00	4.17-1	-1.02 3	-4.22-1	1.02 3
55.2586	55.2852	0.50	22.00	2.24 0	-1.31 3	-2.24 0	1.31 3
55.2715	55.2879	0.54	9.20	7.16 0	-1.16 3	-7.17 0	1.16 3
55.2843	55.2932	0.98	1.10	2.63 2	-3.38 2	-2.63 2	3.38 2
55.2941	55.3038	0.70	2.10	8.68 1	-8.30 2	-8.69 1	8.30 2
55.3167	55.3366	0.52	13.50	4.24 0	-1.24 3	-4.25 0	1.24 3
55.3099	55.3492	0.48	39.00	1.07 0	-1.32 3	-1.07 0	1.32 3
55.2912	55.3606	0.46	75.00	4.25-1	-1.03 3	-4.31-1	1.03 3
55.3846	55.3945	0.68	2.30	7.14 1	-8.56 2	-7.15 1	8.56 2
55.3815	55.3956	0.56	6.60	1.15 1	-1.09 3	-1.15 1	1.09 3
55.4247	55.4335	0.94	1.15	3.63 2	-5.60 2	-3.63 2	5.60 2
55.3740	55.4424	0.46	74.00	4.34-1	-1.04 3	-4.39-1	1.05 3
55.4347	55.4457	0.62	3.40	3.36 1	-9.47 2	-3.36 1	9.47 2
55.4341	55.4503	0.54	9.00	7.36 0	-1.16 3	-7.37 0	1.16 3
55.4559	55.4944	0.48	38.00	1.10 0	-1.32 3	-1.11 0	1.32 3
55.5112	55.5218	0.64	2.90	4.49 1	-9.12 2	-4.49 1	9.12 2
55.5131	55.5220	0.86	1.30	3.11 2	-7.53 2	-3.11 2	7.53 2
55.4575	55.5248	0.46	73.00	4.43-1	-1.06 3	-4.48-1	1.06 3
55.5254	55.5348	0.72	1.90	1.07 2	-8.03 2	-1.07 2	8.03 2
55.5339	55.5465	0.58	5.00	1.76 1	-1.03 3	-1.76 1	1.03 3
55.5394	55.5484	0.84	1.35	2.85 2	-7.85 2	-2.85 2	7.85 2
55.5464	55.5556	0.76	1.65	1.52 2	-7.76 2	-1.52 2	7.76 2
55.5390	55.5647	0.50	21.00	2.36 0	-1.31 3	-2.37 0	1.31 3
55.5688	55.5883	0.52	13.00	4.43 0	-1.23 3	-4.44 0	1.23 3
55.5939	55.6028	0.88	1.25	3.43 2	-7.28 2	-3.43 2	7.28 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
55.5416	55.6080	0.46	72.00	4.52-1	-1.07 3	-4.57-1	1.07 3
55.6016	55.6176	0.54	8.80	7.57 0	-1.16 3	-7.58 0	1.16 3
55.6168	55.6284	0.60	4.00	2.52 1	-9.85 2	-2.52 1	9.86 2
55.6205	55.6296	0.78	1.55	1.81 2	-7.74 2	-1.81 2	7.74 2
55.6061	55.6437	0.48	37.00	1.14 0	-1.33 3	-1.14 0	1.33 3
55.6357	55.6496	0.56	6.40	1.20 1	-1.09 3	-1.20 1	1.09 3
55.6595	55.6688	0.74	1.75	1.29 2	-7.80 2	-1.29 2	7.80 2
55.6694	55.6784	0.82	1.40	2.49 2	-7.79 2	-2.49 2	7.79 2
55.6266	55.6919	0.46	71.00	4.61-1	-1.08 3	-4.66-1	1.08 3
55.7541	55.7642	0.66	2.50	5.94 1	-8.80 2	-5.94 1	8.80 2
55.7628	55.7737	0.62	3.30	3.51 1	-9.44 2	-3.51 1	9.44 2
55.7123	55.7766	0.46	70.00	4.70-1	-1.09 3	-4.76-1	1.09 3
55.7741	55.7899	0.54	8.60	7.78 0	-1.15 3	-7.79 0	1.15 3
55.7873	55.7962	0.90	1.20	3.60 2	-6.69 2	-3.60 2	6.69 2
55.7607	55.7975	0.48	36.00	1.17 0	-1.33 3	-1.18 0	1.33 3
55.8335	55.8525	0.52	12.50	4.65 0	-1.23 3	-4.65 0	1.23 3
55.8357	55.8606	0.50	20.00	2.50 0	-1.31 3	-2.51 0	1.31 3
55.7988	55.8622	0.46	69.00	4.80-1	-1.11 3	-4.86-1	1.11 3
55.8733	55.8848	0.60	3.90	2.61 1	-9.83 2	-2.61 1	9.83 2
55.9001	55.9089	0.96	1.10	2.69 2	-3.61 2	-2.69 2	3.61 2
55.9011	55.9101	0.80	1.45	2.20 2	-7.80 2	-2.20 2	7.80 2
55.9010	55.9147	0.56	6.20	1.25 1	-1.09 3	-1.25 1	1.09 3
55.9099	55.9223	0.58	4.80	1.85 1	-1.03 3	-1.86 1	1.03 3
55.9287	55.9374	1.00	1.05	1.11 2	-1.24 2	-1.11 2	1.24 2
55.9324	55.9428	0.64	2.80	4.73 1	-9.09 2	-4.73 1	9.09 2
55.8862	55.9486	0.46	68.00	4.90-1	-1.12 3	-4.96-1	1.12 3
55.9200	55.9560	0.48	35.00	1.21 0	-1.34 3	-1.22 0	1.34 3
55.9472	55.9566	0.72	1.85	1.12 2	-7.99 2	-1.12 2	7.99 2
55.9520	55.9676	0.54	8.40	8.01 0	-1.15 3	-8.02 0	1.15 3
56.0024	56.0121	0.68	2.20	7.64 1	-8.50 2	-7.65 1	8.50 2
55.9908	56.0152	0.50	19.50	2.58 0	-1.31 3	-2.58 0	1.31 3
56.0173	56.0267	0.70	2.00	9.37 1	-8.23 2	-9.37 1	8.24 2
55.9745	56.0360	0.46	67.00	5.00-1	-1.13 3	-5.06-1	1.13 3
56.0918	56.1009	0.76	1.60	1.60 2	-7.71 2	-1.60 2	7.71 2
56.1007	56.1095	0.92	1.15	3.52 2	-5.70 2	-3.52 2	5.70 2
56.1063	56.1170	0.62	3.20	3.66 1	-9.41 2	-3.67 1	9.41 2
56.0843	56.1195	0.48	34.00	1.26 0	-1.34 3	-1.26 0	1.34 3
56.0638	56.1243	0.46	66.00	5.11-1	-1.14 3	-5.17-1	1.14 3
56.1119	56.1304	0.52	12.00	4.88 0	-1.23 3	-4.89 0	1.23 3
56.1355	56.1509	0.54	8.20	8.26 0	-1.15 3	-8.27 0	1.15 3
56.1396	56.1509	0.60	3.80	2.71 1	-9.81 2	-2.71 1	9.81 2
56.1487	56.1578	0.74	1.70	1.35 2	-7.74 2	-1.35 2	7.74 2
56.1508	56.1748	0.50	19.00	2.66 0	-1.30 3	-2.66 0	1.31 3
56.1783	56.1917	0.56	6.00	1.30 1	-1.08 3	-1.30 1	1.08 3
56.1540	56.2136	0.46	65.00	5.22-1	-1.15 3	-5.27-1	1.15 3
56.2340	56.2429	0.78	1.50	1.92 2	-7.71 2	-1.92 2	7.71 2
56.2540	56.2883	0.48	33.00	1.30 0	-1.34 3	-1.31 0	1.35 3
56.2905	56.3004	0.66	2.40	6.32 1	-8.76 2	-6.32 1	8.76 2
56.2453	56.3039	0.46	64.00	5.33-1	-1.16 3	-5.39-1	1.16 3
56.3088	56.3209	0.58	4.60	1.96 1	-1.03 3	-1.96 1	1.03 3
56.3160	56.3395	0.50	18.50	2.74 0	-1.30 3	-2.75 0	1.30 3
56.3250	56.3402	0.54	8.00	8.51 0	-1.15 3	-8.52 0	1.15 3
56.3429	56.3518	0.84	1.30	2.93 2	-7.49 2	-2.93 2	7.49 2
56.3777	56.3879	0.64	2.70	4.99 1	-9.06 2	-5.00 1	9.06 2
56.3802	56.3889	0.86	1.25	3.12 2	-6.98 2	-3.12 2	6.98 2
56.3377	56.3954	0.46	63.00	5.45-1	-1.17 3	-5.50-1	1.17 3
56.3893	56.3985	0.72	1.80	1.16 2	-7.93 2	-1.16 2	7.93 2
56.4022	56.4116	0.70	1.95	9.73 1	-8.19 2	-9.74 1	8.19 2
56.4053	56.4233	0.52	11.50	5.14 0	-1.22 3	-5.14 0	1.22 3
56.4166	56.4255	0.82	1.35	2.59 2	-7.54 2	-2.59 2	7.54 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
56.4164	56.4276	0.60	3.70	2.81 1	-9.78 2	-2.81 1	9.78 2
56.4295	56.4630	0.48	32.00	1.35 0	-1.35 3	-1.36 0	1.35 3
56.4664	56.4770	0.62	3.10	3.84 1	-9.38 2	-3.84 1	9.38 2
56.4685	56.4817	0.56	5.80	1.36 1	-1.08 3	-1.36 1	1.08 3
56.4312	56.4880	0.46	62.00	5.57-1	-1.18 3	-5.62-1	1.19 3
56.4866	56.5097	0.50	18.00	2.83 0	-1.30 3	-2.84 0	1.30 3
56.5164	56.5250	0.98	1.05	1.31 2	-1.53 2	-1.31 2	1.53 2
56.5209	56.5358	0.54	7.80	8.79 0	-1.15 3	-8.79 0	1.15 3
56.5333	56.5420	0.88	1.20	3.34 2	-6.53 2	-3.34 2	6.53 2
56.5440	56.5526	0.94	1.10	2.84 2	-3.99 2	-2.84 2	3.99 2
56.5259	56.5818	0.46	61.00	5.69-1	-1.20 3	-5.75-1	1.20 3
56.5982	56.6070	0.80	1.40	2.29 2	-7.61 2	-2.30 2	7.61 2
56.6111	56.6438	0.48	31.00	1.40 0	-1.35 3	-1.41 0	1.35 3
56.6640	56.6730	0.74	1.65	1.41 2	-7.68 2	-1.41 2	7.68 2
56.6219	56.6769	0.46	60.00	5.82-1	-1.21 3	-5.87-1	1.21 3
56.6688	56.6778	0.76	1.55	1.68 2	-7.65 2	-1.68 2	7.65 2
56.6683	56.6778	0.68	2.10	8.21 1	-8.44 2	-8.21 1	8.44 2
56.6630	56.6857	0.50	17.50	2.93 0	-1.30 3	-2.93 0	1.30 3
56.7044	56.7155	0.60	3.60	2.92 1	-9.75 2	-2.92 1	9.76 2
56.7154	56.7329	0.52	11.00	5.42 0	-1.22 3	-5.43 0	1.22 3
56.7235	56.7383	0.54	7.60	9.07 0	-1.14 3	-9.08 0	1.14 3
56.7332	56.7450	0.58	4.40	2.08 1	-1.02 3	-2.08 1	1.02 3
56.7192	56.7733	0.46	59.00	5.95-1	-1.22 3	-6.00-1	1.22 3
56.7727	56.7857	0.56	5.60	1.42 1	-1.08 3	-1.42 1	1.08 3
56.8043	56.8136	0.70	1.90	1.01 2	-8.15 2	-1.01 2	8.15 2
56.8093	56.8179	0.90	1.15	3.40 2	-5.79 2	-3.40 2	5.79 2
56.7995	56.8314	0.48	30.00	1.46 0	-1.36 3	-1.46 0	1.36 3
56.8447	56.8552	0.62	3.00	4.02 1	-9.35 2	-4.02 1	9.35 2
56.8497	56.8598	0.64	2.60	5.28 1	-9.02 2	-5.29 1	9.02 2
56.8532	56.8623	0.72	1.75	1.22 2	-7.89 2	-1.22 2	7.89 2
56.8458	56.8680	0.50	17.00	3.03 0	-1.30 3	-3.04 0	1.30 3
56.8179	56.8711	0.46	58.00	6.09-1	-1.23 3	-6.14-1	1.23 3
56.8643	56.8740	0.66	2.30	6.74 1	-8.71 2	-6.75 1	8.71 2
56.8861	56.8950	0.78	1.45	2.01 2	-7.59 2	-2.02 2	7.59 2
56.9334	56.9479	0.54	7.40	9.38 0	-1.14 3	-9.39 0	1.14 3
56.9180	56.9703	0.46	57.00	6.23-1	-1.24 3	-6.28-1	1.24 3
56.9950	57.0261	0.48	29.00	1.52 0	-1.36 3	-1.52 0	1.36 3
57.00	59.00						
57.0046	57.0155	0.60	3.50	3.04 1	-9.73 2	-3.04 1	9.73 2
57.0351	57.0569	0.50	16.50	3.14 0	-1.30 3	-3.15 0	1.30 3
57.0440	57.0611	0.52	10.50	5.73 0	-1.22 3	-5.74 0	1.22 3
57.0197	57.0711	0.46	56.00	6.37-1	-1.25 3	-6.43-1	1.25 3
57.0924	57.1051	0.56	5.40	1.49 1	-1.07 3	-1.49 1	1.07 3
57.1300	57.1385	0.96	1.05	1.56 2	-1.90 2	-1.56 2	1.90 2
57.1509	57.1652	0.54	7.20	9.71 0	-1.14 3	-9.72 0	1.14 3
57.1229	57.1734	0.46	55.00	6.52-1	-1.26 3	-6.58-1	1.26 3
57.1860	57.1976	0.58	4.20	2.22 1	-1.02 3	-2.22 1	1.02 3
57.2080	57.2166	0.84	1.25	2.96 2	-7.00 2	-2.96 2	7.00 2
57.2079	57.2167	0.74	1.60	1.48 2	-7.61 2	-1.48 2	7.61 2
57.2178	57.2263	0.92	1.10	2.89 2	-4.26 2	-2.89 2	4.26 2
57.2182	57.2268	0.82	1.30	2.65 2	-7.17 2	-2.65 2	7.17 2
57.1983	57.2286	0.48	28.00	1.58 0	-1.36 3	-1.59 0	1.36 3
57.2249	57.2341	0.70	1.85	1.06 2	-8.11 2	-1.06 2	8.11 2
57.2317	57.2530	0.50	16.00	3.25 0	-1.30 3	-3.26 0	1.30 3
57.2429	57.2532	0.62	2.90	4.22 1	-9.31 2	-4.23 1	9.31 2
57.2278	57.2775	0.46	54.00	6.68-1	-1.27 3	-6.74-1	1.27 3
57.2806	57.2894	0.76	1.50	1.78 2	-7.60 2	-1.78 2	7.60 2
57.3174	57.3260	0.86	1.20	3.05 2	-6.30 2	-3.06 2	6.30 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
57.3177	57.3285	0.60	3.40	3.16 1	-9.70 2	-3.16 1	9.70 2
57.3409	57.3499	0.72	1.70	1.27 2	-7.82 2	-1.27 2	7.82 2
57.3434	57.3521	0.80	1.35	2.38 2	-7.36 2	-2.38 2	7.36 2
57.3514	57.3612	0.64	2.50	5.60 1	-8.98 2	-5.60 1	8.98 2
57.3345	57.3833	0.46	53.00	6.84-1	-1.28 3	-6.90-1	1.28 3
57.3767	57.3907	0.54	7.00	1.01 1	-1.14 3	-1.01 1	1.14 3
57.3893	57.3986	0.68	2.00	8.85 1	-8.37 2	-8.85 1	8.37 2
57.3933	57.4098	0.52	10.00	6.08 0	-1.21 3	-6.09 0	1.21 3
57.4101	57.4395	0.48	27.00	1.65 0	-1.36 3	-1.66 0	1.36 3
57.4289	57.4413	0.56	5.20	1.57 1	-1.07 3	-1.57 1	1.07 3
57.4359	57.4567	0.50	15.50	3.38 0	-1.30 3	-3.39 0	1.30 3
57.4802	57.4897	0.66	2.20	7.21 1	-8.65 2	-7.22 1	8.65 2
57.4430	57.4909	0.46	52.00	7.01-1	-1.28 3	-7.07-1	1.29 3
57.5393	57.5557	0.52	9.80	6.23 0	-1.21 3	-6.24 0	1.21 3
57.5530	57.5615	0.88	1.15	3.18 2	-5.70 2	-3.18 2	5.70 2
57.5812	57.5899	0.78	1.40	2.10 2	-7.39 2	-2.10 2	7.39 2
57.5534	57.6005	0.46	51.00	7.19-1	-1.29 3	-7.24-1	1.29 3
57.6112	57.6250	0.54	6.80	1.04 1	-1.13 3	-1.04 1	1.13 3
57.6450	57.6556	0.60	3.30	3.30 1	-9.67 2	-3.30 1	9.67 2
57.6310	57.6596	0.48	26.00	1.73 0	-1.36 3	-1.73 0	1.37 3
57.6483	57.6687	0.50	15.00	3.51 0	-1.29 3	-3.52 0	1.29 3
57.6629	57.6730	0.62	2.80	4.45 1	-9.28 2	-4.45 1	9.29 2
57.6656	57.6746	0.70	1.80	1.10 2	-8.06 2	-1.10 2	8.06 2
57.6711	57.6824	0.58	4.00	2.37 1	-1.01 3	-2.37 1	1.01 3
57.6893	57.7054	0.52	9.60	6.39 0	-1.21 3	-6.40 0	1.21 3
57.6658	57.7121	0.46	50.00	7.37-1	-1.30 3	-7.42-1	1.30 3
57.7714	57.7798	0.94	1.05	1.86 2	-2.37 2	-1.86 2	2.37 2
57.7730	57.7822	0.68	1.95	9.20 1	-8.33 2	-9.20 1	8.33 2
57.7831	57.7916	0.74	1.55	1.55 2	-7.52 2	-1.55 2	7.52 2
57.7839	57.7961	0.56	5.00	1.65 1	-1.07 3	-1.65 1	1.07 3
57.7804	57.8258	0.46	49.00	7.56-1	-1.31 3	-7.61-1	1.31 3
57.8433	57.8593	0.52	9.40	6.56 0	-1.21 3	-6.56 0	1.21 3
57.8546	57.8634	0.72	1.65	1.33 2	-7.76 2	-1.33 2	7.76 2
57.8552	57.8688	0.54	6.60	1.08 1	-1.13 3	-1.08 1	1.13 3
57.8756	57.8840	0.98	1.00	3.12 1	-3.26 1	-3.12 1	3.26 1
57.8697	57.8897	0.50	14.50	3.66 0	-1.29 3	-3.66 0	1.29 3
57.8620	57.8897	0.48	25.00	1.81 0	-1.37 3	-1.81 0	1.37 3
57.8861	57.8958	0.64	2.40	5.96 1	-8.94 2	-5.96 1	8.94 2
57.9239	57.9324	0.90	1.10	2.89 2	-4.49 2	-2.89 2	4.49 2
57.9270	57.9381	0.58	3.90	2.45 1	-1.01 3	-2.46 1	1.01 3
57.9308	57.9395	0.76	1.45	1.86 2	-7.46 2	-1.86 2	7.46 2
57.8972	57.9418	0.46	48.00	7.76-1	-1.32 3	-7.81-1	1.32 3
57.9875	57.9980	0.60	3.20	3.44 1	-9.64 2	-3.45 1	9.64 2
58.0016	58.0174	0.52	9.20	6.73 0	-1.21 3	-6.74 0	1.21 3
58.0164	58.0602	0.46	47.00	7.96-1	-1.33 3	-8.02-1	1.33 3
58.0809	58.0894	0.82	1.25	2.68 2	-6.70 2	-2.68 2	6.70 2
58.1068	58.1167	0.62	2.70	4.70 1	-9.25 2	-4.70 1	9.25 2
58.1007	58.1202	0.50	14.00	3.81 0	-1.29 3	-3.82 0	1.29 3
58.1093	58.1227	0.54	6.40	1.13 1	-1.13 3	-1.13 1	1.13 3
58.1039	58.1308	0.48	24.00	1.90 0	-1.37 3	-1.90 0	1.37 3
58.1280	58.1369	0.70	1.75	1.15 2	-8.01 2	-1.15 2	8.01 2
58.1427	58.1513	0.80	1.30	2.44 2	-7.00 2	-2.44 2	7.00 2
58.1428	58.1513	0.84	1.20	2.92 2	-6.36 2	-2.92 2	6.36 2
58.1439	58.1532	0.66	2.10	7.74 1	-8.59 2	-7.74 1	8.59 2
58.1593	58.1712	0.56	4.80	1.74 1	-1.06 3	-1.74 1	1.06 3
58.1645	58.1800	0.52	9.00	6.91 0	-1.20 3	-6.92 0	1.20 3
58.1381	58.1810	0.46	46.00	8.18-1	-1.34 3	-8.24-1	1.34 3
58.1737	58.1828	0.68	1.90	9.57 1	-8.29 2	-9.58 1	8.29 2
58.1926	58.2036	0.58	3.80	2.54 1	-1.01 3	-2.54 1	1.01 3
58.2624	58.3045	0.46	45.00	8.41-1	-1.34 3	-8.46-1	1.34 3

Part 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
58.3243	58.3328	0.78	1.35	2.17 2	-7.13 2	-2.17 2	7.13 2
58.3346	58.3430	0.86	1.15	2.93 2	-5.53 2	-2.93 2	5.53 2
58.3321	58.3474	0.52	8.80	7.11 0	-1.20 3	-7.12 0	1.20 3
58.3466	58.3569	0.60	3.10	3.60 1	-9.60 2	-3.61 1	9.60 2
58.3422	58.3613	0.50	13.50	3.98 0	-1.29 3	-3.99 0	1.29 3
58.3578	58.3839	0.48	23.00	1.99 0	-1.37 3	-2.00 0	1.37 3
58.3744	58.3876	0.54	6.20	1.17 1	-1.12 3	-1.17 1	1.12 3
58.3138	58.3957	0.44	90.00	2.99-1	-8.80 2	-3.04-1	8.81 2
58.3929	58.4015	0.74	1.50	1.63 2	-7.44 2	-1.63 2	7.44 2
58.3966	58.4054	0.72	1.60	1.40 2	-7.69 2	-1.40 2	7.69 2
58.3894	58.4307	0.46	44.00	8.64-1	-1.35 3	-8.70-1	1.35 3
58.4426	58.4509	0.92	1.05	2.05 2	-2.74 2	-2.05 2	2.74 2
58.4579	58.4674	0.64	2.30	6.35 1	-8.88 2	-6.35 1	8.88 2
58.3913	58.4720	0.44	89.00	3.05-1	-8.95 2	-3.10-1	8.96 2
58.4686	58.4795	0.58	3.70	2.64 1	-1.00 3	-2.64 1	1.00 3
58.4865	58.4947	0.96	1.00	6.45 1	-7.05 1	-6.45 1	7.05 1
58.5047	58.5198	0.52	8.60	7.31 0	-1.20 3	-7.32 0	1.20 3
58.4691	58.5486	0.44	88.00	3.11-1	-9.09 2	-3.16-1	9.10 2
58.5194	58.5599	0.46	43.00	8.89-1	-1.36 3	-8.94-1	1.36 3
58.5574	58.5691	0.56	4.60	1.84 1	-1.06 3	-1.84 1	1.06 3
58.5772	58.5870	0.62	2.60	4.96 1	-9.21 2	-4.97 1	9.21 2
58.5928	58.6018	0.68	1.85	9.98 1	-8.24 2	-9.98 1	8.24 2
58.5951	58.6137	0.50	13.00	4.16 0	-1.29 3	-4.17 0	1.29 3
58.6140	58.6228	0.70	1.70	1.20 2	-7.94 2	-1.20 2	7.94 2
58.5471	58.6255	0.44	87.00	3.17-1	-9.23 2	-3.22-1	9.24 2
58.6237	58.6323	0.76	1.40	1.93 2	-7.26 2	-1.94 2	7.26 2
58.6250	58.6503	0.48	22.00	2.10 0	-1.37 3	-2.11 0	1.37 3
58.6514	58.6643	0.54	6.00	1.22 1	-1.12 3	-1.22 1	1.12 3
58.6649	58.6733	0.88	1.10	2.77 2	-4.53 2	-2.77 2	4.53 2
58.6525	58.6922	0.46	42.00	9.15-1	-1.36 3	-9.20-1	1.36 3
58.6826	58.6976	0.52	8.40	7.52 0	-1.20 3	-7.53 0	1.20 3
58.6254	58.7026	0.44	86.00	3.23-1	-9.37 2	-3.28-1	9.38 2
58.7237	58.7338	0.60	3.00	3.78 1	-9.57 2	-3.78 1	9.57 2
58.7558	58.7666	0.58	3.60	2.74 1	-1.00 3	-2.74 1	1.00 3
58.7040	58.7801	0.44	85.00	3.29-1	-9.51 2	-3.34-1	9.52 2
58.7888	58.8277	0.46	41.00	9.42-1	-1.37 3	-9.48-1	1.37 3
58.7830	58.8580	0.44	84.00	3.35-1	-9.66 2	-3.40-1	9.67 2
58.8623	58.8714	0.66	2.00	8.35 1	-8.52 2	-8.35 1	8.52 2
58.8604	58.8786	0.50	12.50	4.36 0	-1.28 3	-4.37 0	1.28 3
58.8662	58.8809	0.52	8.20	7.75 0	-1.19 3	-7.76 0	1.20 3
58.9069	58.9314	0.48	21.00	2.22 0	-1.37 3	-2.22 0	1.37 3
58.8624	58.9362	0.44	83.00	3.42-1	-9.80 2	-3.47-1	9.81 2
58.9412	58.9539	0.54	5.80	1.28 1	-1.12 3	-1.28 1	1.12 3
58.9286	58.9667	0.46	40.00	9.71-1	-1.38 3	-9.76-1	1.38 3
58.9699	58.9785	0.72	1.55	1.47 2	-7.61 2	-1.47 2	7.62 2
58.9807	58.9922	0.56	4.40	1.96 1	-1.05 3	-1.96 1	1.05 3
58.9421	59.0148	0.44	82.00	3.49-1	-9.94 2	-3.53-1	9.95 2
59.00	61.00						
59.0030	59.0113	0.80	1.25	2.47 2	-6.55 2	-2.47 2	6.55 2
59.0131	59.0215	0.82	1.20	2.66 2	-6.12 2	-2.66 2	6.12 2
59.0318	59.0407	0.68	1.80	1.04 2	-8.19 2	-1.04 2	8.19 2
59.0409	59.0494	0.74	1.45	1.70 2	-7.30 2	-1.70 2	7.30 2
59.0550	59.0656	0.58	3.50	2.85 1	-9.98 2	-2.85 1	9.98 2
59.0557	59.0702	0.52	8.00	7.99 0	-1.19 3	-8.00 0	1.19 3
59.0693	59.0775	0.96	0.98	3.55 1	-3.72 1	-3.55 1	3.72 1
59.0715	59.0808	0.64	2.20	6.79 1	-8.82 2	-6.80 1	8.82 2
59.0770	59.0866	0.62	2.50	5.26 1	-9.16 2	-5.26 1	9.16 2
59.0222	59.0939	0.44	81.00	3.55-1	-1.01 3	-3.60-1	1.01 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
58.3243	58.3328	0.78	1.35	2.17 2	-7.13 2	-2.17 2	7.13 2
58.3346	58.3430	0.86	1.15	2.93 2	-5.53 2	-2.93 2	5.53 2
58.3321	58.3474	0.52	8.80	7.11 0	-1.20 3	-7.12 0	1.20 3
58.3466	58.3569	0.60	3.10	3.60 1	-9.60 2	-3.61 1	9.60 2
58.3422	58.3613	0.50	13.50	3.98 0	-1.29 3	-3.99 0	1.29 3
58.3578	58.3839	0.48	23.00	1.99 0	-1.37 3	-2.00 0	1.37 3
58.3744	58.3876	0.54	6.20	1.17 1	-1.12 3	-1.17 1	1.12 3
58.3138	58.3957	0.44	90.00	2.99-1	-8.80 2	-3.04-1	8.81 2
58.3929	58.4015	0.74	1.50	1.63 2	-7.44 2	-1.63 2	7.44 2
58.3966	58.4054	0.72	1.60	1.40 2	-7.69 2	-1.40 2	7.69 2
58.3894	58.4307	0.46	44.00	8.64-1	-1.35 3	-8.70-1	1.35 3
58.4426	58.4509	0.92	1.05	2.05 2	-2.74 2	-2.05 2	2.74 2
58.4579	58.4674	0.64	2.30	6.35 1	-8.88 2	-6.35 1	8.88 2
58.3913	58.4720	0.44	89.00	3.05-1	-8.95 2	-3.10-1	8.96 2
58.4686	58.4795	0.58	3.70	2.64 1	-1.00 3	-2.64 1	1.00 3
58.4865	58.4947	0.96	1.00	6.45 1	-7.05 1	-6.45 1	7.05 1
58.5047	58.5198	0.52	8.60	7.31 0	-1.20 3	-7.32 0	1.20 3
58.4691	58.5486	0.44	88.00	3.11-1	-9.09 2	-3.16-1	9.10 2
58.5194	58.5599	0.46	43.00	8.89-1	-1.36 3	-8.94-1	1.36 3
58.5574	58.5691	0.56	4.60	1.84 1	-1.06 3	-1.84 1	1.06 3
58.5772	58.5870	0.62	2.60	4.96 1	-9.21 2	-4.97 1	9.21 2
58.5928	58.6018	0.68	1.85	9.98 1	-8.24 2	-9.98 1	8.24 2
58.5951	58.6137	0.50	13.00	4.16 0	-1.29 3	-4.17 0	1.29 3
58.6140	58.6228	0.70	1.70	1.20 2	-7.94 2	-1.20 2	7.94 2
58.5471	58.6255	0.44	87.00	3.17-1	-9.23 2	-3.22-1	9.24 2
58.6237	58.6323	0.76	1.40	1.93 2	-7.26 2	-1.94 2	7.26 2
58.6250	58.6503	0.48	22.00	2.10 0	-1.37 3	-2.11 0	1.37 3
58.6514	58.6643	0.54	6.00	1.22 1	-1.12 3	-1.22 1	1.12 3
58.6649	58.6733	0.88	1.10	2.77 2	-4.53 2	-2.77 2	4.53 2
58.6525	58.6922	0.46	42.00	9.15-1	-1.36 3	-9.20-1	1.36 3
58.6826	58.6976	0.52	8.40	7.52 0	-1.20 3	-7.53 0	1.20 3
58.6254	58.7026	0.44	86.00	3.23-1	-9.37 2	-3.28-1	9.38 2
58.7237	58.7338	0.60	3.00	3.78 1	-9.57 2	-3.78 1	9.57 2
58.7558	58.7666	0.58	3.60	2.74 1	-1.00 3	-2.74 1	1.00 3
58.7040	58.7801	0.44	85.00	3.29-1	-9.51 2	-3.34-1	9.52 2
58.7888	58.8277	0.46	41.00	9.42-1	-1.37 3	-9.48-1	1.37 3
58.7830	58.8580	0.44	84.00	3.35-1	-9.66 2	-3.40-1	9.67 2
58.8623	58.8714	0.66	2.00	8.35 1	-8.52 2	-8.35 1	8.52 2
58.8604	58.8786	0.50	12.50	4.36 0	-1.28 3	-4.37 0	1.28 3
58.8662	58.8809	0.52	8.20	7.75 0	-1.19 3	-7.76 0	1.20 3
58.9069	58.9314	0.48	21.00	2.22 0	-1.37 3	-2.22 0	1.37 3
58.8624	58.9362	0.44	83.00	3.42-1	-9.80 2	-3.47-1	9.81 2
58.9412	58.9539	0.54	5.80	1.28 1	-1.12 3	-1.28 1	1.12 3
58.9286	58.9667	0.46	40.00	9.71-1	-1.38 3	-9.76-1	1.38 3
58.9699	58.9785	0.72	1.55	1.47 2	-7.61 2	-1.47 2	7.62 2
58.9807	58.9922	0.56	4.40	1.96 1	-1.05 3	-1.96 1	1.05 3
58.9421	59.0148	0.44	82.00	3.49-1	-9.94 2	-3.53-1	9.95 2
59.00	61.00						
59.0030	59.0113	0.80	1.25	2.47 2	-6.55 2	-2.47 2	6.55 2
59.0131	59.0215	0.82	1.20	2.66 2	-6.12 2	-2.66 2	6.12 2
59.0318	59.0407	0.68	1.80	1.04 2	-8.19 2	-1.04 2	8.19 2
59.0409	59.0494	0.74	1.45	1.70 2	-7.30 2	-1.70 2	7.30 2
59.0550	59.0656	0.58	3.50	2.85 1	-9.98 2	-2.85 1	9.98 2
59.0557	59.0702	0.52	8.00	7.99 0	-1.19 3	-8.00 0	1.19 3
59.0693	59.0775	0.96	0.98	3.55 1	-3.72 1	-3.55 1	3.72 1
59.0715	59.0808	0.64	2.20	6.79 1	-8.82 2	-6.80 1	8.82 2
59.0770	59.0866	0.62	2.50	5.26 1	-9.16 2	-5.26 1	9.16 2
59.0222	59.0939	0.44	81.00	3.55-1	-1.01 3	-3.60-1	1.01 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
59.0721	59.1094	0.46	39.00	1.00 0	-1.38 3	-1.01 0	1.38 3
59.1211	59.1295	0.78	1.30	2.22 2	-6.78 2	-2.22 2	6.78 2
59.1204	59.1304	0.60	2.90	3.97 1	-9.53 2	-3.97 1	9.53 2
59.1250	59.1332	0.94	1.00	1.02 2	-1.17 2	-1.02 2	1.17 2
59.1258	59.1344	0.70	1.65	1.26 2	-7.88 2	-1.26 2	7.89 2
59.1458	59.1540	0.90	1.05	2.20 2	-3.10 2	-2.21 2	3.10 2
59.1393	59.1570	0.50	12.00	4.58 0	-1.28 3	-4.59 0	1.28 3
59.1573	59.1655	0.84	1.15	2.84 2	-5.67 2	-2.84 2	5.67 2
59.1028	59.1735	0.44	80.00	3.62-1	-1.02 3	-3.67-1	1.02 3
59.2052	59.2288	0.48	20.00	2.35 0	-1.37 3	-2.36 0	1.37 3
59.2445	59.2535	0.66	1.95	8.68 1	-8.48 2	-8.68 1	8.48 2
59.1839	59.2535	0.44	79.00	3.70-1	-1.04 3	-3.74-1	1.04 3
59.2194	59.2559	0.46	38.00	1.03 0	-1.39 3	-1.04 0	1.39 3
59.2449	59.2574	0.54	5.60	1.34 1	-1.11 3	-1.34 1	1.11 3
59.2515	59.2659	0.52	7.80	8.24 0	-1.19 3	-8.25 0	1.19 3
59.2655	59.3340	0.44	78.00	3.77-1	-1.05 3	-3.82-1	1.05 3
59.3643	59.3727	0.76	1.35	2.00 2	-7.00 2	-2.00 2	7.00 2
59.3672	59.3776	0.58	3.40	2.96 1	-9.95 2	-2.97 1	9.95 2
59.3610	59.3843	0.48	19.50	2.42 0	-1.37 3	-2.43 0	1.37 3
59.3709	59.4066	0.46	37.00	1.07 0	-1.39 3	-1.07 0	1.40 3
59.3476	59.4151	0.44	77.00	3.84-1	-1.06 3	-3.89-1	1.06 3
59.4324	59.4436	0.56	4.20	2.08 1	-1.05 3	-2.08 1	1.05 3
59.4333	59.4505	0.50	11.50	4.82 0	-1.28 3	-4.83 0	1.28 3
59.4436	59.4518	0.86	1.10	2.61 2	-4.49 2	-2.61 2	4.49 2
59.4541	59.4682	0.52	7.60	8.51 0	-1.19 3	-8.52 0	1.19 3
59.4303	59.4968	0.44	76.00	3.92-1	-1.08 3	-3.97-1	1.08 3
59.4924	59.5012	0.68	1.75	1.09 2	-8.14 2	-1.09 2	8.14 2
59.5217	59.5446	0.48	19.00	2.49 0	-1.37 3	-2.50 0	1.37 3
59.5388	59.5487	0.60	2.80	4.18 1	-9.50 2	-4.18 1	9.50 2
59.5269	59.5618	0.46	36.00	1.10 0	-1.40 3	-1.11 0	1.40 3
59.5640	59.5762	0.54	5.40	1.40 1	-1.11 3	-1.40 1	1.11 3
59.5136	59.5791	0.44	75.00	4.00-1	-1.09 3	-4.04-1	1.09 3
59.5774	59.5859	0.72	1.50	1.54 2	-7.53 2	-1.54 2	7.53 2
59.6096	59.6191	0.62	2.40	5.59 1	-9.11 2	-5.59 1	9.11 2
59.6436	59.6525	0.66	1.90	9.03 1	-8.44 2	-9.04 1	8.44 2
59.5975	59.6621	0.44	74.00	4.08-1	-1.10 3	-4.13-1	1.10 3
59.6657	59.6743	0.70	1.60	1.32 2	-7.81 2	-1.32 2	7.82 2
59.6638	59.6777	0.52	7.40	8.80 0	-1.18 3	-8.81 0	1.19 3
59.6933	59.7036	0.58	3.30	3.09 1	-9.92 2	-3.09 1	9.92 2
59.6876	59.7100	0.48	18.50	2.57 0	-1.37 3	-2.58 0	1.37 3
59.7066	59.7147	0.94	0.98	7.62 1	-8.35 1	-7.62 1	8.35 1
59.6875	59.7216	0.46	35.00	1.14 0	-1.41 3	-1.15 0	1.41 3
59.7314	59.7397	0.74	1.40	1.77 2	-7.09 2	-1.77 2	7.09 2
59.7325	59.7416	0.64	2.10	7.29 1	-8.76 2	-7.29 1	8.76 2
59.6821	59.7457	0.44	73.00	4.16-1	-1.12 3	-4.21-1	1.12 3
59.7438	59.7606	0.50	11.00	5.08 0	-1.27 3	-5.09 0	1.27 3
59.7930	59.8011	0.92	1.00	1.30 2	-1.57 2	-1.30 2	1.57 2
59.7674	59.8300	0.44	72.00	4.24-1	-1.13 3	-4.29-1	1.13 3
59.8589	59.8809	0.48	18.00	2.66 0	-1.36 3	-2.66 0	1.36 3
59.8531	59.8865	0.46	34.00	1.18 0	-1.41 3	-1.19 0	1.41 3
59.8837	59.8918	0.88	1.05	2.21 2	-3.26 2	-2.21 2	3.26 2
59.8811	59.8948	0.52	7.20	9.11 0	-1.18 3	-9.11 0	1.18 3
59.8997	59.9117	0.54	5.20	1.47 1	-1.11 3	-1.47 1	1.11 3
59.8535	59.9151	0.44	71.00	4.33-1	-1.14 3	-4.38-1	1.14 3
59.9159	59.9268	0.56	4.00	2.22 1	-1.04 3	-2.22 1	1.04 3
59.9323	59.9404	0.80	1.20	2.46 2	-6.00 2	-2.46 2	6.00 2
59.9765	59.9851	0.68	1.70	1.14 2	-8.08 2	-1.14 2	8.09 2
59.9785	59.9867	0.78	1.25	2.25 2	-6.35 2	-2.25 2	6.35 2
59.9810	59.9906	0.60	2.70	4.40 1	-9.45 2	-4.41 1	9.46 2
59.9403	60.0010	0.44	70.00	4.42-1	-1.15 3	-4.47-1	1.16 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
60.0245	60.0327	0.82	1.15	2.58 2	-5.44 2	-2.58 2	5.44 2
60.0345	60.0447	0.58	3.20	3.23 1	-9.88 2	-3.23 1	9.88 2
60.0242	60.0567	0.46	33.00	1.22 0	-1.41 3	-1.23 0	1.41 3
60.0360	60.0576	0.48	17.50	2.75 0	-1.36 3	-2.75 0	1.36 3
60.0610	60.0698	0.66	1.85	9.42 1	-8.40 2	-9.42 1	8.40 2
60.0280	60.0877	0.44	69.00	4.51-1	-1.17 3	-4.56-1	1.17 3
60.0727	60.0891	0.50	10.50	5.38 0	-1.27 3	-5.38 0	1.27 3
60.1066	60.1201	0.52	7.00	9.43 0	-1.18 3	-9.44 0	1.18 3
60.1584	60.1666	0.76	1.30	2.05 2	-6.66 2	-2.05 2	6.66 2
60.1165	60.1753	0.44	68.00	4.60-1	-1.18 3	-4.65-1	1.18 3
60.1709	60.1817	0.56	3.90	2.30 1	-1.04 3	-2.30 1	1.04 3
60.1790	60.1882	0.62	2.30	5.96 1	-9.05 2	-5.96 1	9.06 2
50.2230	60.2313	0.72	1.45	1.61 2	-7.39 2	-1.61 2	7.39 2
60.2009	60.2327	0.46	32.00	1.27 0	-1.42 3	-1.27 0	1.42 3
60.2194	60.2405	0.48	17.00	2.84 0	-1.36 3	-2.85 0	1.36 3
60.2367	60.2451	0.70	1.55	1.39 2	-7.75 2	-1.39 2	7.75 2
60.2059	60.2638	0.44	67.00	4.70-1	-1.19 3	-4.75-1	1.19 3
60.2538	60.2655	0.54	5.00	1.55 1	-1.10 3	-1.55 1	1.10 3
60.2631	60.2712	0.84	1.10	2.59 2	-4.72 2	-2.59 2	4.72 2
60.3137	60.3217	0.94	0.96	4.37 1	-4.58 1	-4.38 1	4.58 1
60.2962	60.3533	0.44	56.00	4.80-1	-1.20 3	-4.85-1	1.20 3
60.3408	60.3541	0.52	6.80	9.78 0	-1.18 3	-9.79 0	1.18 3
60.3732	60.3812	0.92	0.98	1.07 2	-1.23 2	-1.07 2	1.23 2
60.3921	60.4021	0.58	3.10	3.38 1	-9.85 2	-3.38 1	9.85 2
60.3839	60.4149	0.46	31.00	1.32 0	-1.42 3	-1.32 0	1.42 3
60.4094	60.4301	0.48	16.50	2.94 0	-1.36 3	-2.95 0	1.36 3
60.4222	60.4380	0.50	10.00	5.70 0	-1.26 3	-5.71 0	1.26 3
60.3876	60.4437	0.44	65.00	4.90-1	-1.22 3	-4.95-1	1.22 3
60.4356	60.4463	0.56	3.80	2.38 1	-1.04 3	-2.38 1	1.04 3
60.4478	60.4567	0.64	2.00	7.86 1	-8.69 2	-7.86 1	8.69 2
60.4494	60.4589	0.60	2.60	4.65 1	-9.41 2	-4.66 1	9.41 2
60.4693	60.4775	0.74	1.35	1.83 2	-6.83 2	-1.83 2	6.83 2
60.4861	60.4947	0.68	1.65	1.19 2	-8.02 2	-1.19 2	8.02 2
60.4929	60.5009	0.90	1.00	1.56 2	-1.97 2	-1.56 2	1.97 2
60.4981	60.5068	0.66	1.80	9.82 1	-8.34 2	-9.83 1	8.34 2
60.4800	60.5352	0.44	64.00	5.01-1	-1.23 3	-5.06-1	1.23 3
60.5683	60.5839	0.50	9.80	5.84 0	-1.26 3	-5.85 0	1.26 3
60.5844	60.5974	0.52	6.60	1.02 1	-1.17 3	-1.02 1	1.17 3
60.5735	60.6037	0.46	30.00	1.37 0	-1.43 3	-1.37 0	1.43 3
60.6065	60.6268	0.48	16.00	3.05 0	-1.36 3	-3.06 0	1.36 3
60.5734	60.6278	0.44	63.00	5.12-1	-1.24 3	-5.16-1	1.24 3
60.6281	60.6396	0.54	4.80	1.63 1	-1.10 3	-1.63 1	1.10 3
60.6590	60.6669	0.86	1.05	2.14 2	-3.33 2	-2.14 2	3.33 2
60.7106	60.7211	0.56	3.70	2.47 1	-1.03 3	-2.47 1	1.03 3
60.6681	60.7216	0.44	62.00	5.23-1	-1.25 3	-5.28-1	1.25 3
60.7182	60.7337	0.50	9.60	5.99 0	-1.26 3	-6.00 0	1.26 3
60.7676	60.7775	0.58	3.00	3.54 1	-9.81 2	-3.54 1	9.81 2
60.7898	60.7989	0.62	2.20	6.37 1	-8.99 2	-6.37 1	8.99 2
60.7703	60.7998	0.46	29.00	1.42 0	-1.43 3	-1.43 0	1.43 3
60.7639	60.8165	0.44	61.00	5.34-1	-1.26 3	-5.39-1	1.26 3
60.8112	60.8311	0.48	15.50	3.17 0	-1.36 3	-3.18 0	1.36 3
60.8282	60.8371	0.64	1.95	8.17 1	-8.64 2	-8.17 1	8.64 2
60.8417	60.8501	0.70	1.50	1.46 2	-7.66 2	-1.46 2	7.66 2
60.8380	60.8509	0.52	6.40	1.06 1	-1.17 3	-1.06 1	1.17 3
60.8722	60.8875	0.50	9.40	6.15 0	-1.26 3	-6.15 0	1.26 3
60.9046	60.9126	0.78	1.20	2.25 2	-5.83 2	-2.25 2	5.83 2
60.8609	60.9127	0.44	60.00	5.46-1	-1.27 3	-5.51-1	1.27 3
60.9107	60.9189	0.72	1.40	1.68 2	-7.19 2	-1.68 2	7.20 2
60.9403	60.9483	0.80	1.15	2.40 2	-5.38 2	-2.40 2	5.38 2
60.9469	60.9563	0.60	2.50	4.93 1	-9.36 2	-4.93 1	9.36 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
60.9566	60.9652	0.66	1.75	1.03 2	-8.29 2	-1.03 2	8.29 2
60.9787	60.9866	0.92	0.96	7.57 1	-8.32 1	-7.57 1	8.32 1
60.9749	61.0036	0.46	28.00	1.48 0	-1.43 3	-1.49 0	1.43 3
60.9966	61.0070	0.56	3.60	2.56 1	-1.03 3	-2.56 1	1.03 3
60.9593	61.0103	0.44	59.00	5.59-1	-1.29 3	-5.63-1	1.29 3
61.00	64.00						
61.0127	61.0207	0.76	1.25	2.08 2	-6.24 2	-2.08 2	6.24 2
61.0238	61.0322	0.68	1.60	1.25 2	-7.96 2	-1.25 2	7.96 2
61.0249	61.0362	0.54	4.60	1.72 1	-1.09 3	-1.73 1	1.09 3
61.0242	61.0436	0.48	15.00	3.29 0	-1.36 3	-3.30 0	1.36 3
61.0305	61.0455	0.50	9.20	6.31 0	-1.26 3	-6.32 0	1.26 3
61.0715	61.0794	0.90	0.98	1.34 2	-1.62 2	-1.34 2	1.62 2
61.0591	61.1092	0.44	58.00	5.71-1	-1.30 3	-5.76-1	1.30 3
61.1025	61.1152	0.52	6.20	1.10 1	-1.17 3	-1.10 1	1.17 3
61.1269	61.1348	0.82	1.10	2.38 2	-4.59 2	-2.38 2	4.59 2
61.1626	61.1723	0.58	2.90	3.71 1	-9.76 2	-3.71 1	9.76 2
61.1932	61.2081	0.50	9.00	6.48 0	-1.25 3	-6.49 0	1.26 3
61.1603	61.2096	0.44	57.00	5.85-1	-1.31 3	-5.89-1	1.31 3
61.1879	61.2158	0.46	27.00	1.55 0	-1.43 3	-1.55 0	1.43 3
61.2255	61.2342	0.64	1.90	8.50 1	-8.60 2	-8.51 1	8.60 2
61.2270	61.2349	0.88	1.00	1.65 2	-2.19 2	-1.65 2	2.19 2
61.2460	61.2650	0.48	14.50	3.43 0	-1.35 3	-3.44 0	1.35 3
61.2602	61.2683	0.74	1.30	1.87 2	-6.49 2	-1.87 2	6.49 2
61.2946	61.3048	0.56	3.50	2.67 1	-1.03 3	-2.67 1	1.03 3
61.2630	61.3115	0.44	56.00	5.98-1	-1.32 3	-6.03-1	1.32 3
61.3607	61.3754	0.50	8.80	6.66 0	-1.25 3	-6.67 0	1.25 3
61.3788	61.3912	0.52	6.00	1.14 1	-1.16 3	-1.15 1	1.16 3
61.3673	61.4149	0.44	55.00	6.12-1	-1.33 3	-6.17-1	1.33 3
61.4100	61.4371	0.46	26.00	1.62 0	-1.44 3	-1.63 0	1.44 3
61.4384	61.4469	0.66	1.70	1.07 2	-8.24 2	-1.07 2	8.24 2
61.4477	61.4566	0.62	2.10	6.83 1	-8.92 2	-6.83 1	8.92 2
61.4467	61.4577	0.54	4.40	1.83 1	-1.09 3	-1.83 1	1.09 3
61.4747	61.4826	0.84	1.05	2.21 2	-3.65 2	-2.21 2	3.65 2
61.4769	61.4861	0.60	2.40	5.24 1	-9.31 2	-5.24 1	9.31 2
61.4845	61.4927	0.70	1.45	1.53 2	-7.55 2	-1.53 2	7.55 2
61.4774	61.4960	0.48	14.00	3.57 0	-1.35 3	-3.58 0	1.35 3
61.4733	61.5201	0.44	54.00	6.27-1	-1.34 3	-6.32-1	1.34 3
61.5331	61.5476	0.50	8.60	6.85 0	-1.25 3	-6.86 0	1.25 3
61.5790	61.5885	0.58	2.80	3.91 1	-9.72 2	-3.91 1	9.73 2
61.5921	61.6004	0.68	1.55	1.31 2	-7.88 2	-1.31 2	7.88 2
61.6053	61.6155	0.56	3.40	2.77 1	-1.02 3	-2.77 1	1.02 3
61.6112	61.6190	0.92	0.94	3.54 1	-3.72 1	-3.54 1	3.72 1
61.5810	61.6270	0.44	53.00	6.42-1	-1.35 3	-6.47-1	1.35 3
61.6408	61.6494	0.64	1.85	8.87 1	-8.56 2	-8.87 1	8.56 2
61.6455	61.6536	0.72	1.35	1.74 2	-6.95 2	-1.74 2	6.95 2
61.6422	61.6685	0.46	25.00	1.70 0	-1.44 3	-1.70 0	1.44 3
61.6678	61.6800	0.52	5.80	1.20 1	-1.16 3	-1.20 1	1.16 3
61.6754	61.6832	0.90	0.96	1.06 2	-1.23 2	-1.06 2	1.23 2
61.7109	61.7252	0.50	8.40	7.05 0	-1.25 3	-7.06 0	1.25 3
61.6906	61.7358	0.44	52.00	6.58-1	-1.36 3	-6.63-1	1.36 3
61.7192	61.7374	0.48	13.50	3.73 0	-1.35 3	-3.74 0	1.35 3
61.8040	61.8118	0.88	0.98	1.45 2	-1.85 2	-1.45 2	1.85 2
61.8021	61.8464	0.44	51.00	6.75-1	-1.37 3	-6.79-1	1.37 3
61.8965	61.9073	0.54	4.20	1.94 1	-1.08 3	-1.95 1	1.08 3
61.8942	61.9083	0.50	8.20	7.26 0	-1.25 3	-7.27 0	1.25 3
61.8852	61.9107	0.46	24.00	1.78 0	-1.44 3	-1.78 0	1.44 3
61.9090	61.9169	0.78	1.15	2.20 2	-5.24 2	-2.20 2	5.24 2
61.9299	61.9399	0.56	3.30	2.89 1	-1.02 3	-2.89 1	1.02 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
61.9352	61.9431	0.76	1.20	2.08 2	-5.76 2	-2.08 2	5.76 2
61.9456	61.9539	0.66	1.65	1.13 2	-8.18 2	-1.13 2	8.18 2
61.9156	61.9592	0.44	50.00	6.92-1	-1.38 3	-6.96-1	1.38 3
61.9706	61.9826	0.52	5.60	1.25 1	-1.15 3	-1.25 1	1.16 3
61.9723	61.9901	0.48	13.00	3.90 0	-1.35 3	-3.91 0	1.35 3
61.9983	62.0061	0.86	1.00	1.66 2	-2.33 2	-1.66 2	2.33 2
62.0189	62.0283	0.58	2.70	4.12 1	-9.68 2	-4.12 1	9.68 2
62.0388	62.0466	0.80	1.10	2.25 2	-4.59 2	-2.25 2	4.59 2
62.0434	62.0524	0.60	2.30	5.58 1	-9.24 2	-5.58 1	9.24 2
62.0312	62.0740	0.44	49.00	7.09-1	-1.39 3	-7.14-1	1.39 3
62.0757	62.0842	0.64	1.80	9.25 1	-8.51 2	-9.25 1	8.51 2
62.0834	62.0973	0.50	8.00	7.48 0	-1.24 3	-7.49 0	1.24 3
62.1110	62.1189	0.74	1.25	1.90 2	-6.10 2	-1.90 2	6.10 2
62.1402	62.1650	0.46	23.00	1.87 0	-1.44 3	-1.87 0	1.44 3
62.1593	62.1680	0.62	2.00	7.36 1	-8.84 2	-7.37 1	8.84 2
62.1691	62.1772	0.70	1.40	1.60 2	-7.36 2	-1.60 2	7.36 2
62.1491	62.1911	0.44	48.00	7.28-1	-1.39 3	-7.33-1	1.39 3
62.1943	62.2025	0.68	1.50	1.38 2	-7.81 2	-1.39 2	7.81 2
62.2378	62.2551	0.48	12.50	4.09 0	-1.34 3	-4.09 0	1.34 3
62.2694	62.2793	0.56	3.20	3.02 1	-1.02 3	-3.02 1	1.02 3
62.2788	62.2925	0.50	7.80	7.72 0	-1.24 3	-7.73 0	1.24 3
62.2885	62.3003	0.52	5.40	1.31 1	-1.15 3	-1.31 1	1.15 3
62.2693	62.3105	0.44	47.00	7.47-1	-1.40 3	-7.52-1	1.40 3
62.3061	62.3139	0.90	0.94	6.89 1	-7.61 1	-6.90 1	7.60 1
62.3344	62.3422	0.82	1.05	2.07 2	-3.62 2	-2.07 2	3.62 2
62.3779	62.3885	0.54	4.00	2.08 1	-1.07 3	-2.08 1	1.07 3
62.4061	62.4138	0.88	0.96	1.19 2	-1.45 2	-1.19 2	1.45 2
62.4085	62.4324	0.46	22.00	1.97 0	-1.44 3	-1.97 0	1.44 3
62.3920	62.4325	0.44	46.00	7.67-1	-1.41 3	-7.72-1	1.41 3
62.4330	62.4409	0.72	1.30	1.79 2	-6.64 2	-1.79 2	6.64 2
62.4805	62.4887	0.66	1.60	1.18 2	-8.11 2	-1.18 2	8.12 2
62.4848	62.4941	0.58	2.60	4.35 1	-9.63 2	-4.35 1	9.63 2
62.4809	62.4945	0.50	7.60	7.97 0	-1.24 3	-7.98 0	1.24 3
62.5168	62.5337	0.48	12.00	4.29 0	-1.34 3	-4.30 0	1.34 3
62.5319	62.5403	0.64	1.75	9.67 1	-8.46 2	-9.67 1	8.46 2
62.5377	62.5463	0.62	1.95	7.65 1	-8.79 2	-7.65 1	8.79 2
62.5173	62.5570	0.44	45.00	7.89-1	-1.42 3	-7.93-1	1.42 3
62.5735	62.5812	0.86	0.98	1.48 2	-1.99 2	-1.48 2	1.99 2
62.6230	62.6346	0.52	5.20	1.37 1	-1.15 3	-1.38 1	1.15 3
62.6252	62.6349	0.56	3.10	3.15 1	-1.01 3	-3.16 1	1.01 3
62.6317	62.6422	0.54	3.90	2.15 1	-1.07 3	-2.15 1	1.07 3
62.6509	62.6597	0.60	2.20	5.96 1	-9.18 2	-5.96 1	9.18 2
62.6454	62.6843	0.44	44.00	8.11-1	-1.43 3	-8.15-1	1.43 3
62.6901	62.7035	0.50	7.40	8.24 0	-1.23 3	-8.25 0	1.24 3
62.6913	62.7145	0.46	21.00	2.08 0	-1.44 3	-2.08 0	1.44 3
62.7764	62.8146	0.44	43.00	8.34-1	-1.43 3	-8.39-1	1.44 3
62.8097	62.8174	0.84	1.00	1.81 2	-2.68 2	-1.81 2	2.68 2
62.8107	62.8272	0.48	11.50	4.51 0	-1.34 3	-4.52 0	1.34 3
62.8339	62.8420	0.68	1.45	1.45 2	-7.69 2	-1.45 2	7.70 2
62.8951	62.9054	0.54	3.80	2.22 1	-1.07 3	-2.22 1	1.07 3
62.9005	62.9084	0.70	1.35	1.66 2	-7.13 2	-1.66 2	7.13 2
62.9069	62.9200	0.50	7.20	8.52 0	-1.23 3	-8.53 0	1.23 3
62.9327	62.9412	0.62	1.90	7.96 1	-8.75 2	-7.96 1	8.75 2
62.9355	62.9432	0.76	1.15	2.06 2	-5.21 2	-2.06 2	5.21 2
62.9105	62.9479	0.44	42.00	8.58-1	-1.44 3	-8.63-1	1.44 3
62.9660	62.9737	0.90	0.92	3.59 1	-3.78 1	-3.59 1	3.77 1
62.9756	62.9870	0.52	5.00	1.45 1	-1.14 3	-1.45 1	1.14 3
62.9796	62.9887	0.58	2.50	4.60 1	-9.57 2	-4.60 1	9.57 2
62.9986	63.0082	0.56	3.00	3.30 1	-1.01 3	-3.30 1	1.01 3
63.0033	63.0110	0.78	1.10	2.08 2	-4.51 2	-2.08 2	4.51 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
62.9905	63.0129	0.46	20.00	2.20 0	-1.44 3	-2.21 0	1.44 3
63.0111	63.0193	0.64	1.70	1.01 2	-8.40 2	-1.01 2	8.40 2
63.0296	63.0373	0.74	1.20	1.90 2	-5.62 2	-1.91 2	5.62 2
63.0350	63.0427	0.88	0.94	8.71 1	-1.01 2	-8.71 1	1.01 2
63.0459	63.0540	0.66	1.55	1.24 2	-8.04 2	-1.24 2	8.04 2
63.0479	63.0845	0.44	41.00	8.84-1	-1.45 3	-8.88-1	1.45 3
63.1211	63.1371	0.48	11.00	4.76 0	-1.33 3	-4.77 0	1.33 3
63.1317	63.1447	0.50	7.00	8.82 0	-1.23 3	-8.83 0	1.23 3
63.1467	63.1687	0.46	19.50	2.27 0	-1.44 3	-2.27 0	1.44 3
63.1687	63.1789	0.54	3.70	2.30 1	-1.06 3	-2.31 1	1.06 3
63.1737	63.1813	0.86	0.96	1.25 2	-1.61 2	-1.25 2	1.61 2
63.1241	63.2009	0.42	90.00	2.81-1	-9.35 2	-2.85-1	9.36 2
63.1886	63.2245	0.44	40.00	9.10-1	-1.46 3	-9.15-1	1.46 3
63.2420	63.2496	0.80	1.05	2.00 2	-3.70 2	-2.00 2	3.70 2
63.2026	63.2783	0.42	89.00	2.86-1	-9.50 2	-2.90-1	9.51 2
63.2799	63.2877	0.72	1.25	1.83 2	-6.28 2	-1.83 2	6.28 2
63.3050	63.3136	0.60	2.10	6.39 1	-9.09 2	-6.39 1	9.10 2
63.3078	63.3294	0.46	19.00	2.34 0	-1.44 3	-2.34 0	1.44 3
63.3457	63.3541	0.62	1.85	8.30 1	-8.70 2	-8.30 1	8.70 2
63.2814	63.3559	0.42	88.00	2.92-1	-9.65 2	-2.96-1	9.66 2
63.3483	63.3594	0.52	4.80	1.52 1	-1.14 3	-1.52 1	1.14 3
63.3331	63.3682	0.44	39.00	9.39-1	-1.46 3	-9.43-1	1.46 3
63.3652	63.3779	0.50	6.80	9.15 0	-1.23 3	-9.15 0	1.23 3
63.3830	63.3906	0.84	0.98	1.66 2	-2.35 2	-1.66 2	2.35 2
63.3914	63.4008	0.56	2.90	3.47 1	-1.00 3	-3.47 1	1.00 3
63.3604	63.4338	0.42	87.00	2.97-1	-9.80 2	-3.01-1	9.81 2
63.4532	63.4633	0.54	3.60	2.39 1	-1.06 3	-2.39 1	1.06 3
63.4497	63.4652	0.48	10.50	5.03 0	-1.33 3	-5.04 0	1.33 3
63.4740	63.4952	0.46	18.50	2.41 0	-1.44 3	-2.42 0	1.44 3
63.4397	63.5121	0.42	86.00	3.03-1	-9.95 2	-3.07-1	9.96 2
63.5065	63.5154	0.58	2.40	4.89 1	-9.51 2	-4.89 1	9.51 2
63.4814	63.5158	0.44	38.00	9.68-1	-1.47 3	-9.73-1	1.47 3
63.5150	63.5230	0.68	1.40	1.52 2	-7.52 2	-1.52 2	7.53 2
63.5154	63.5236	0.64	1.65	1.06 2	-8.34 2	-1.06 2	8.34 2
63.5193	63.5906	0.42	85.00	3.09-1	-1.01 3	-3.13-1	1.01 3
63.6079	63.6205	0.50	6.60	9.49 0	-1.22 3	-9.50 0	1.22 3
63.6448	63.6529	0.66	1.50	1.31 2	-7.98 2	-1.31 2	7.98 2
63.6456	63.6664	0.46	18.00	2.49 0	-1.44 3	-2.50 0	1.44 3
63.6339	63.6675	0.44	37.00	1.00-0	-1.47 3	-1.00 0	1.48 3
63.5992	63.6695	0.42	84.00	3.15-1	-1.03 3	-3.19-1	1.03 3
63.6647	63.6722	0.82	1.00	1.73 2	-2.72 2	-1.73 2	2.72 2
63.6841	63.6919	0.70	1.30	1.72 2	-6.85 2	-1.72 2	6.85 2
63.6929	63.7004	0.88	0.92	5.68 1	-6.29 1	-5.69 1	6.29 1
63.6795	63.7487	0.42	83.00	3.21-1	-1.04 3	-3.25-1	1.04 3
63.7432	63.7541	0.52	4.60	1.61 1	-1.13 3	-1.61 1	1.13 3
63.7495	63.7594	0.54	3.50	2.49 1	-1.06 3	-2.49 1	1.06 3
63.7781	63.7864	0.62	1.80	8.66 1	-8.65 2	-8.66 1	8.66 2
63.8006	63.8080	0.86	0.94	9.75 1	-1.19 2	-9.75 1	1.19 2
63.7986	63.8137	0.48	10.00	5.34 0	-1.32 3	-5.34 0	1.32 3
63.8053	63.8146	0.56	2.80	3.64 1	-9.98 2	-3.64 1	9.98 2
63.7908	63.8236	0.44	36.00	1.03 0	-1.48 3	-1.04 0	1.48 3
63.7602	63.8284	0.42	82.00	3.27-1	-1.06 3	-3.31-1	1.06 3
63.8230	63.8434	0.46	17.50	2.57 0	-1.43 3	-2.58 0	1.44 3
63.8607	63.8730	0.50	6.40	9.86 0	-1.22 3	-9.87 0	1.22 3
63.8413	63.9085	0.42	81.00	3.34-1	-1.07 3	-3.38-1	1.07 3
63.9444	63.9594	0.48	9.80	5.47 0	-1.32 3	-5.47 0	1.32 3
63.9523	63.9844	0.44	35.00	1.07 0	-1.49 3	-1.07 0	1.49 3
63.9811	63.9886	0.84	0.96	1.46 2	-1.98 2	-1.46 2	1.98 2
63.9229	63.9890	0.42	80.00	3.40-1	-1.08 3	-3.44-1	1.09 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
64.00	67.00						
64.0123	64.0208	0.60	2.00	6.88 1	-9.01 2	-6.88 1	9.02 2
64.0066	64.0266	0.46	17.00	2.66 0	-1.43 3	-2.67 0	1.43 3
64.0252	64.0327	0.76	1.10	1.96 2	-4.53 2	-1.96 2	4.53 2
64.0255	64.0330	0.74	1.15	1.89 2	-5.11 2	-1.89 2	5.11 2
64.0473	64.0553	0.64	1.60	1.11 2	-8.28 2	-1.11 2	8.28 2
64.0585	64.0682	0.54	3.40	2.58 1	-1.05 3	-2.59 1	1.05 3
64.0049	64.0700	0.42	79.00	3.47-1	-1.10 3	-3.51-1	1.10 3
64.0695	64.0782	0.58	2.30	5.20 1	-9.45 2	-5.21 1	9.45 2
64.0941	64.1088	0.48	9.60	5.60 0	-1.32 3	-5.61 0	1.32 3
64.1241	64.1362	0.50	6.20	1.03 1	-1.21 3	-1.03 1	1.22 3
64.1189	64.1502	0.44	34.00	1.11 0	-1.49 3	-1.11 0	1.49 3
64.0874	64.1516	0.42	78.00	3.54-1	-1.11 3	-3.58-1	1.11 3
64.1629	64.1735	0.52	4.40	1.71 1	-1.13 3	-1.71 1	1.13 3
64.1942	64.2018	0.72	1.20	1.85 2	-5.84 2	-1.85 2	5.84 2
64.2016	64.2091	0.78	1.05	1.88 2	-3.70 2	-1.88 2	3.70 2
64.1968	64.2164	0.46	16.50	2.76 0	-1.43 3	-2.76 0	1.43 3
64.1704	64.2337	0.42	77.00	3.60-1	-1.13 3	-3.65-1	1.13 3
64.2314	64.2396	0.62	1.75	9.04 1	-8.60 2	-9.05 1	8.60 2
64.2359	64.2433	0.82	0.98	1.60 2	-2.40 2	-1.60 2	2.40 2
64.2425	64.2503	0.68	1.35	1.58 2	-7.31 2	-1.58 2	7.31 2
64.2425	64.2516	0.56	2.70	3.84 1	-9.92 2	-3.84 1	9.92 2
64.2477	64.2623	0.48	9.40	5.75 0	-1.32 3	-5.75 0	1.32 3
64.2809	64.2888	0.66	1.45	1.38 2	-7.86 2	-1.38 2	7.86 2
64.2540	64.3163	0.42	76.00	3.68-1	-1.14 3	-3.72-1	1.14 3
64.2908	64.3214	0.44	33.00	1.15 0	-1.50 3	-1.15 0	1.50 3
64.3817	64.3891	0.88	0.90	2.51 1	-2.64 1	-2.51 1	2.64 1
64.3811	64.3907	0.54	3.30	2.69 1	-1.05 3	-2.69 1	1.05 3
64.3883	64.3967	0.60	1.95	7.15 1	-8.97 2	-7.15 1	8.97 2
64.3382	64.3996	0.42	75.00	3.75-1	-1.16 3	-3.79-1	1.16 3
64.3992	64.4111	0.50	6.00	1.07 1	-1.21 3	-1.07 1	1.21 3
64.3940	64.4132	0.46	16.00	2.86 0	-1.43 3	-2.86 0	1.43 3
64.4056	64.4200	0.48	9.20	5.90 0	-1.32 3	-5.91 0	1.32 3
64.4562	64.4636	0.86	0.92	7.09 1	-8.27 1	-7.09 1	8.27 1
64.4231	64.4835	0.42	74.00	3.82-1	-1.17 3	-3.87-1	1.17 3
64.4684	64.4983	0.44	32.00	1.19 0	-1.50 3	-1.19 0	1.50 3
64.5268	64.5344	0.70	1.25	1.77 2	-6.51 2	-1.77 2	6.51 2
64.5085	64.5681	0.42	73.00	3.90-1	-1.19 3	-3.94-1	1.19 3
64.5671	64.5745	0.80	1.00	1.71 2	-2.85 2	-1.71 2	2.85 2
64.5679	64.5821	0.48	9.00	6.06 0	-1.31 3	-6.06 0	1.31 3
64.6057	64.6131	0.84	0.94	1.20 2	-1.56 2	-1.20 2	1.56 2
64.6093	64.6173	0.64	1.55	1.17 2	-8.22 2	-1.17 2	8.22 2
64.5988	64.6176	0.46	15.50	2.97 0	-1.43 3	-2.97 0	1.43 3
64.6102	64.6206	0.52	4.20	1.81 1	-1.12 3	-1.82 1	1.12 3
64.5947	64.6533	0.42	72.00	3.98-1	-1.20 3	-4.02-1	1.20 3
64.6522	64.6814	0.44	31.00	1.23 0	-1.50 3	-1.24 0	1.50 3
64.6730	64.6816	0.58	2.20	5.56 1	-9.37 2	-5.56 1	9.37 2
64.6869	64.6986	0.50	5.80	1.12 1	-1.21 3	-1.12 1	1.21 3
64.7054	64.7143	0.56	2.60	4.05 1	-9.87 2	-4.05 1	9.87 2
64.7076	64.7157	0.62	1.70	9.45 1	-8.53 2	-9.45 1	8.54 2
64.7185	64.7280	0.54	3.20	2.81 1	-1.04 3	-2.81 1	1.04 3
64.6817	64.7394	0.42	71.00	4.06-1	-1.21 3	-4.10-1	1.21 3
64.7349	64.7490	0.48	8.80	6.22 0	-1.31 3	-6.23 0	1.31 3
64.7808	64.7891	0.60	1.90	7.43 1	-8.91 2	-7.43 1	8.91 2
64.7694	64.8262	0.42	70.00	4.14-1	-1.23 3	-4.19-1	1.23 3
64.8118	64.8302	0.46	15.00	3.08 0	-1.43 3	-3.09 0	1.43 3
64.8318	64.8391	0.82	0.96	1.43 2	-2.05 2	-1.43 2	2.05 2
64.8426	64.8711	0.44	30.00	1.28 0	-1.51 3	-1.29 0	1.51 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
64.8579	64.9138	0.42	69.00	4.23-1	-1.24 3	-4.27-1	1.24 3
64.9069	64.9207	0.48	8.60	6.40 0	-1.31 3	-6.41 0	1.31 3
64.9581	64.9659	0.66	1.40	1.44 2	-7.71 2	-1.44 2	7.71 2
64.9882	64.9997	0.50	5.60	1.17 1	-1.20 3	-1.17 1	1.20 3
64.9472	65.0023	0.42	68.00	4.32-1	-1.25 3	-4.36-1	1.25 3
65.0219	65.0295	0.68	1.30	1.64 2	-7.05 2	-1.64 2	7.05 2
65.0335	65.0516	0.46	14.50	3.21 0	-1.42 3	-3.21 0	1.42 3
65.0402	65.0679	0.44	29.00	1.33 0	-1.51 3	-1.34 0	1.51 3
65.0719	65.0813	0.54	3.10	2.94 1	-1.04 3	-2.94 1	1.04 3
65.0375	65.0917	0.42	67.00	4.41-1	-1.27 3	-4.45-1	1.27 3
65.0840	65.0977	0.48	8.40	6.59 0	-1.31 3	-6.59 0	1.31 3
65.0887	65.0989	0.52	4.00	1.94 1	-1.11 3	-1.94 1	1.11 3
65.1101	65.1175	0.74	1.10	1.81 2	-4.47 2	-1.81 2	4.47 2
65.1360	65.1433	0.80	0.98	1.60 2	-2.54 2	-1.60 2	2.54 2
65.1427	65.1499	0.86	0.90	4.30 1	-4.77 1	-4.30 1	4.77 1
65.1287	65.1821	0.42	66.00	4.50-1	-1.28 3	-4.54-1	1.28 3
65.1852	65.1926	0.72	1.15	1.85 2	-5.35 2	-1.85 2	5.35 2
65.1910	65.1992	0.60	1.85	7.74 1	-8.87 2	-7.75 1	8.87 2
65.1968	65.2056	0.56	2.50	4.29 1	-9.80 2	-4.29 1	9.80 2
65.2046	65.2124	0.64	1.50	1.23 2	-8.15 2	-1.24 2	8.15 2
65.2088	65.2168	0.62	1.65	9.91 1	-8.48 2	-9.91 1	8.48 2
65.2182	65.2255	0.76	1.05	1.80 2	-3.77 2	-1.80 2	3.77 2
65.2590	65.2663	0.84	0.92	9.61 1	-1.19 2	-9.62 1	1.19 2
65.2455	65.2725	0.44	28.00	1.39 0	-1.51 3	-1.39 0	1.51 3
65.2209	65.2734	0.42	65.00	4.60-1	-1.29 3	-4.64-1	1.29 3
65.2667	65.2801	0.48	8.20	6.78 0	-1.30 3	-6.79 0	1.30 3
65.2648	65.2824	0.46	14.00	3.34 0	-1.42 3	-3.35 0	1.42 3
65.3045	65.3158	0.50	5.40	1.22 1	-1.20 3	-1.22 1	1.20 3
65.3227	65.3311	0.58	2.10	5.95 1	-9.28 2	-5.95 1	9.28 2
65.3410	65.3510	0.52	3.90	2.00 1	-1.11 3	-2.00 1	1.11 3
65.3141	65.3658	0.42	64.00	4.70-1	-1.31 3	-4.74-1	1.31 3
65.4362	65.4436	0.70	1.20	1.80 2	-6.11 2	-1.80 2	6.11 2
65.4428	65.4520	0.54	3.00	3.07 1	-1.03 3	-3.07 1	1.03 3
65.4084	65.4593	0.42	63.00	4.80-1	-1.32 3	-4.84-1	1.32 3
65.4540	65.4613	0.82	0.94	1.21 2	-1.66 2	-1.21 2	1.66 2
65.4552	65.4685	0.48	8.00	6.99 0	-1.30 3	-7.00 0	1.30 3
65.4592	65.4854	0.44	27.00	1.45 0	-1.52 3	-1.46 0	1.52 3
65.5064	65.5236	0.46	13.50	3.49 0	-1.42 3	-3.49 0	1.42 3
65.5212	65.5284	0.78	1.00	1.64 2	-2.90 2	-1.64 2	2.90 2
65.5038	65.5539	0.42	62.00	4.90-1	-1.33 3	-4.94-1	1.33 3
65.6026	65.6125	0.52	3.80	2.07 1	-1.11 3	-2.07 1	1.11 3
65.6204	65.6285	0.60	1.80	8.08 1	-8.81 2	-8.08 1	8.81 2
65.6371	65.6482	0.50	5.20	1.28 1	-1.19 3	-1.28 1	1.19 3
65.6005	65.6497	0.42	61.00	5.01-1	-1.34 3	-5.05-1	1.34 3
65.6499	65.6630	0.48	7.80	7.21 0	-1.30 3	-7.21 0	1.30 3
65.6813	65.6889	0.66	1.35	1.51 2	-7.51 2	-1.51 2	7.51 2
65.6819	65.7074	0.44	26.00	1.52 0	-1.52 3	-1.52 0	1.52 3
65.7200	65.7286	0.56	2.40	4.55 1	-9.73 2	-4.55 1	9.74 2
65.7294	65.7367	0.80	0.96	1.45 2	-2.21 2	-1.45 2	2.21 2
65.7371	65.7450	0.62	1.60	1.04 2	-8.42 2	-1.04 2	8.42 2
65.6983	65.7468	0.42	60.00	5.12-1	-1.35 3	-5.16-1	1.36 3
65.7592	65.7760	0.46	13.00	3.65 0	-1.42 3	-3.65 0	1.42 3
65.8328	65.8419	0.54	2.90	3.22 1	-1.03 3	-3.22 1	1.03 3
65.8366	65.8444	0.64	1.45	1.30 2	-8.04 2	-1.30 2	8.04 2
65.7975	65.8452	0.42	59.00	5.24-1	-1.37 3	-5.28-1	1.37 3
65.8512	65.8641	0.48	7.60	7.44 0	-1.29 3	-7.45 0	1.30 3
65.8597	65.8672	0.68	1.25	1.70 2	-6.74 2	-1.70 2	6.75 2
65.8625	65.8696	0.86	0.88	1.99 1	-2.10 1	-1.99 1	2.10 1
65.8744	65.8842	0.52	3.70	2.15 1	-1.10 3	-2.15 1	1.10 3
65.9146	65.9394	0.44	25.00	1.59 0	-1.52 3	-1.59 0	1.52 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
65.8981	65.9449	0.42	58.00	5.36-1	-1.38 3	-5.40-1	1.38 3
65.9430	65.9502	0.84	0.90	6.94 1	-8.14 1	-6.94 1	8.14 1
65.9877	65.9986	0.50	5.00	1.35 1	-1.19 3	-1.35 1	1.19 3
66.0249	66.0332	0.58	2.00	6.40 1	-9.19 2	-6.40 1	9.19 2
66.0242	66.0406	0.46	12.50	3.82 0	-1.41 3	-3.83 0	1.41 3
66.0001	66.0461	0.42	57.00	5.48-1	-1.39 3	-5.52-1	1.39 3
66.0594	66.0721	0.48	7.40	7.69 0	-1.29 3	-7.69 0	1.29 3
66.0706	66.0786	0.60	1.75	8.44 1	-8.76 2	-8.44 1	8.76 2
66.0876	66.0948	0.78	0.98	1.54 2	-2.61 2	-1.54 2	2.61 2
66.1048	66.1119	0.82	0.92	1.01 2	-1.31 2	-1.01 2	1.31 2
66.1035	66.1488	0.42	56.00	5.61-1	-1.40 3	-5.65-1	1.40 3
66.1569	66.1666	0.52	3.60	2.23 1	-1.10 3	-2.23 1	1.10 3
66.1581	66.1821	0.44	24.00	1.66 0	-1.52 3	-1.67 0	1.52 3
66.2436	66.2526	0.54	2.80	3.38 1	-1.02 3	-3.39 1	1.02 3
66.2086	66.2531	0.42	55.00	5.74-1	-1.41 3	-5.78-1	1.41 3
66.2642	66.2714	0.72	1.10	1.80 2	-4.76 2	-1.80 2	4.76 2
66.2788	66.2873	0.56	2.30	4.84 1	-9.66 2	-4.84 1	9.66 2
66.2752	66.2877	0.48	7.20	7.95 0	-1.29 3	-7.96 0	1.29 3
66.2953	66.3031	0.62	1.55	1.09 2	-8.35 2	-1.09 2	8.35 2
66.2973	66.3045	0.74	1.05	1.69 2	-3.77 2	-1.69 2	3.77 2
66.3026	66.3186	0.46	12.00	4.01 0	-1.41 3	-4.01 0	1.41 3
66.3491	66.3563	0.80	0.94	1.27 2	-1.84 2	-1.27 2	1.84 2
66.3153	66.3591	0.42	54.00	5.88-1	-1.42 3	-5.92-1	1.42 3
66.3581	66.3687	0.50	4.80	1.42 1	-1.18 3	-1.42 1	1.18 3
66.3982	66.4063	0.58	1.95	6.64 1	-9.14 2	-6.65 1	9.14 2
66.4217	66.4290	0.70	1.15	1.82 2	-5.65 2	-1.82 2	5.65 2
66.4136	66.4368	0.44	23.00	1.75 0	-1.52 3	-1.75 0	1.52 3
66.4511	66.4606	0.52	3.50	2.31 1	-1.09 3	-2.31 1	1.09 3
66.4558	66.4633	0.66	1.30	1.57 2	-7.27 2	-1.57 2	7.27 2
66.4238	66.4668	0.42	53.00	6.02-1	-1.43 3	-6.06-1	1.43 3
66.4989	66.5112	0.48	7.00	8.23 0	-1.29 3	-8.24 0	1.29 3
66.5094	66.5170	0.64	1.40	1.36 2	-7.89 2	-1.36 2	7.89 2
66.5317	66.5388	0.76	1.00	1.61 2	-3.03 2	-1.61 2	3.03 2
66.5434	66.5513	0.60	1.70	8.82 1	-8.69 2	-8.82 1	8.69 2
66.5341	66.5763	0.42	52.00	6.17-1	-1.44 3	-6.21-1	1.44 3
66.5958	66.6113	0.46	11.50	4.22 0	-1.41 3	-4.22 0	1.41 3
66.6601	66.6672	0.84	0.88	4.77 1	-5.32 1	-4.77 1	5.32 1
66.6784	66.6855	0.78	0.96	1.42 2	-2.29 2	-1.42 2	2.29 2
66.6775	66.6863	0.54	2.70	3.56 1	-1.02 3	-3.56 1	1.02 3
66.6463	66.6878	0.42	51.00	6.32-1	-1.45 3	-6.36-1	1.45 3
66.6821	66.7046	0.44	22.00	1.84 0	-1.52 3	-1.85 0	1.52 3
66.7311	66.7433	0.48	6.80	8.53 0	-1.28 3	-8.54 0	1.28 3
66.7503	66.7608	0.50	4.60	1.50 1	-1.18 3	-1.50 1	1.18 3
66.7577	66.7671	0.52	3.40	2.40 1	-1.09 3	-2.41 1	1.09 3
66.7638	66.7712	0.68	1.20	1.74 2	-6.37 2	-1.74 2	6.37 2
66.7860	66.7931	0.82	0.90	7.77 1	-9.64 1	-7.77 1	9.64 1
66.7877	66.7958	0.58	1.90	6.91 1	-9.08 2	-6.91 1	9.08 2
66.7605	66.8013	0.42	50.00	6.48-1	-1.46 3	-6.52-1	1.46 3
66.8777	66.8860	0.56	2.20	5.16 1	-9.57 2	-5.16 1	9.57 2
66.8865	66.8941	0.62	1.50	1.15 2	-8.27 2	-1.15 2	8.27 2
66.8768	66.9168	0.42	49.00	6.64-1	-1.47 3	-6.69-1	1.47 3
66.9052	66.9203	0.46	11.00	4.44 0	-1.40 3	-4.45 0	1.40 3
66.9725	66.9845	0.48	6.60	8.85 0	-1.28 3	-8.86 0	1.28 3
66.9651	66.9869	0.44	21.00	1.94 0	-1.52 3	-1.95 0	1.52 3
66.9971	67.0041	0.80	0.92	1.09 2	-1.50 2	-1.09 2	1.50 2
66.9954	67.0347	0.42	48.00	6.82-1	-1.48 3	-6.86-1	1.48 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
67.00	70.00						
67.0408	67.0486	0.60	1.65	9.23 1	-8.63 2	-9.24 1	8.63 2
67.0778	67.0871	0.52	3.30	2.50 1	-1.08 3	-2.50 1	1.08 3
67.0954	67.1025	0.76	0.98	1.53 2	-2.75 2	-1.53 2	2.75 2
67.1367	67.1454	0.54	2.60	3.76 1	-1.01 3	-3.76 1	1.01 3
67.1163	67.1548	0.42	47.00	7.00-1	-1.49 3	-7.04-1	1.49 3
67.1670	67.1772	0.50	4.40	1.59 1	-1.17 3	-1.59 1	1.17 3
67.1947	67.2027	0.58	1.85	7.20 1	-9.03 2	-7.20 1	9.03 2
67.2277	67.2352	0.64	1.35	1.43 2	-7.71 2	-1.43 2	7.71 2
67.2238	67.2355	0.48	6.40	9.19 0	-1.27 3	-9.20 0	1.27 3
67.2327	67.2474	0.46	10.50	4.70 0	-1.40 3	-4.70 0	1.40 3
67.2397	67.2775	0.42	46.00	7.19-1	-1.50 3	-7.23-1	1.50 3
67.2643	67.2854	0.44	20.00	2.06 0	-1.52 3	-2.06 0	1.52 3
67.2884	67.2957	0.66	1.25	1.63 2	-6.98 2	-1.63 2	6.99 2
67.2953	67.3023	0.78	0.94	1.26 2	-1.95 2	-1.26 2	1.95 2
67.3656	67.4027	0.42	45.00	7.38-1	-1.51 3	-7.43-1	1.51 3
67.4129	67.4201	0.84	0.86	3.18 1	-3.36 1	-3.18 1	3.36 1
67.4126	67.4217	0.52	3.20	2.61 1	-1.08 3	-2.61 1	1.08 3
67.4206	67.4413	0.44	19.50	2.12 0	-1.52 3	-2.12 0	1.52 3
67.4451	67.4521	0.72	1.05	1.71 2	-4.08 2	-1.71 2	4.08 2
67.4856	67.4972	0.48	6.20	9.56 0	-1.27 3	-9.57 0	1.27 3
67.4946	67.5018	0.70	1.10	1.80 2	-5.10 2	-1.80 2	5.10 2
67.5002	67.5072	0.82	0.88	5.78 1	-6.82 1	-5.78 1	6.82 1
67.5140	67.5215	0.62	1.45	1.21 2	-8.15 2	-1.21 2	8.15 2
67.5221	67.5303	0.56	2.10	5.52 1	-9.48 2	-5.52 1	9.48 2
67.4943	67.5307	0.42	44.00	7.59-1	-1.52 3	-7.63-1	1.52 3
67.5652	67.5729	0.60	1.60	9.69 1	-8.56 2	-9.69 1	8.56 2
67.5802	67.5945	0.46	10.00	4.98 0	-1.39 3	-4.98 0	1.39 3
67.5816	67.6019	0.44	19.00	2.18 0	-1.52 3	-2.19 0	1.52 3
67.6042	67.6111	0.74	1.00	1.53 2	-3.07 2	-1.53 2	3.07 2
67.6110	67.6210	0.50	4.20	1.69 1	-1.16 3	-1.69 1	1.16 3
67.6207	67.6286	0.58	1.80	7.50 1	-8.97 2	-7.50 1	8.97 2
67.6241	67.6326	0.54	2.50	3.97 1	-1.00 3	-3.97 1	1.00 3
67.6259	67.6616	0.42	43.00	7.81-1	-1.53 3	-7.85-1	1.53 3
67.6755	67.6824	0.80	0.90	8.88 1	-1.17 2	-8.88 1	1.17 2
67.6834	67.6903	0.76	0.96	1.42 2	-2.44 2	-1.42 2	2.44 2
67.7254	67.7396	0.46	9.80	5.10 0	-1.39 3	-5.11 0	1.39 3
67.7434	67.7506	0.68	1.15	1.78 2	-5.96 2	-1.78 2	5.96 2
67.7476	67.7676	0.44	18.50	2.25 0	-1.52 3	-2.26 0	1.52 3
67.7590	67.7703	0.48	6.00	9.96 0	-1.27 3	-9.97 0	1.27 3
67.7631	67.7721	0.52	3.10	2.73 1	-1.07 3	-2.73 1	1.07 3
67.7606	67.7955	0.42	42.00	8.03-1	-1.53 3	-8.07-1	1.54 3
67.8744	67.8884	0.46	9.60	5.23 0	-1.39 3	-5.23 0	1.39 3
67.8985	67.9327	0.42	41.00	8.27-1	-1.54 3	-8.31-1	1.54 3
67.9191	67.9387	0.44	18.00	2.33 0	-1.52 3	-2.33 0	1.52 3
67.9403	67.9472	0.78	0.92	1.11 2	-1.63 2	-1.11 2	1.63 2
67.9969	68.0043	0.64	1.30	1.49 2	-7.49 2	-1.49 2	7.49 2
68.0273	68.0411	0.46	9.40	5.36 0	-1.39 3	-5.37 0	1.39 3
68.0447	68.0559	0.48	5.80	1.04 1	-1.26 3	-1.04 1	1.26 3
68.0398	68.0733	0.42	40.00	8.52-1	-1.55 3	-8.56-1	1.55 3
68.0673	68.0751	0.58	1.75	7.83 1	-8.91 2	-7.83 1	8.91 2
68.0858	68.0956	0.50	4.00	1.80 1	-1.16 3	-1.80 1	1.16 3
68.0962	68.1154	0.44	17.50	2.40 0	-1.52 3	-2.41 0	1.52 3
68.1191	68.1267	0.60	1.55	1.02 2	-8.48 2	-1.02 2	8.48 2
68.1309	68.1398	0.52	3.00	2.85 1	-1.07 3	-2.85 1	1.07 3
68.1428	68.1512	0.54	2.40	4.21 1	-9.97 2	-4.21 1	9.97 2
68.1650	68.1719	0.74	0.98	1.46 2	-2.81 2	-1.46 2	2.81 2
68.1818	68.1893	0.62	1.40	1.27 2	-8.02 2	-1.27 2	8.02 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
68.1865	68.1937	0.66	1.20	1.68 2	-6.64 2	-1.68 2	6.64 2
68.1845	68.1981	0.46	9.20	5.50 0	-1.38 3	-5.51 0	1.38 3
68.1848	68.2176	0.42	39.00	8.78-1	-1.56 3	-8.83-1	1.56 3
68.2184	68.2264	0.56	2.00	5.93 1	-9.38 2	-5.93 1	9.38 2
68.2500	68.2569	0.82	0.86	4.06 1	-4.54 1	-4.07 1	4.54 1
68.2795	68.2984	0.44	17.00	2.49 0	-1.52 3	-2.49 0	1.52 3
68.2973	68.3041	0.76	0.94	1.29 2	-2.12 2	-1.29 2	2.12 2
68.3360	68.3456	0.50	3.90	1.86 1	-1.15 3	-1.86 1	1.15 3
68.3439	68.3549	0.48	5.60	1.09 1	-1.26 3	-1.09 1	1.26 3
68.3460	68.3594	0.46	9.00	5.65 0	-1.38 3	-5.65 0	1.38 3
68.3336	68.3657	0.42	38.00	9.06-1	-1.56 3	-9.10-1	1.56 3
68.3865	68.3934	0.80	0.88	7.10 1	-8.88 1	-7.10 1	8.88 1
68.4693	68.4878	0.44	16.50	2.57 0	-1.52 3	-2.58 0	1.52 3
68.4866	68.5179	0.42	37.00	9.35-1	-1.57 3	-9.40-1	1.57 3
68.5121	68.5253	0.46	8.80	5.80 0	-1.38 3	-5.81 0	1.38 3
68.5174	68.5262	0.52	2.90	2.99 1	-1.06 3	-2.99 1	1.06 3
68.5361	68.5438	0.58	1.70	8.18 1	-8.84 2	-8.18 1	8.85 2
68.5884	68.5964	0.56	1.95	6.15 1	-9.32 2	-6.16 1	9.32 2
68.5955	68.6050	0.50	3.80	1.92 1	-1.15 3	-1.93 1	1.15 3
68.6155	68.6223	0.78	0.90	9.35 1	-1.31 2	-9.35 1	1.31 2
68.6579	68.6687	0.48	5.40	1.14 1	-1.25 3	-1.14 1	1.25 3
68.6438	68.6745	0.42	36.00	9.67-1	-1.58 3	-9.71-1	1.58 3
68.6686	68.6755	0.70	1.05	1.74 2	-4.46 2	-1.74 2	4.46 2
68.6661	68.6842	0.44	16.00	2.67 0	-1.51 3	-2.67 0	1.51 3
68.6831	68.6961	0.46	8.60	5.96 0	-1.38 3	-5.97 0	1.38 3
68.6966	68.7049	0.54	2.30	4.47 1	-9.88 2	-4.47 1	9.88 2
68.7055	68.7130	0.60	1.50	1.07 2	-8.41 2	-1.07 2	8.41 2
68.6580	68.7294	0.40	90.00	2.63-1	-1.00 3	-2.67-1	1.00 3
68.7447	68.7516	0.72	1.00	1.58 2	-3.41 2	-1.58 2	3.41 2
68.7498	68.7566	0.74	0.96	1.37 2	-2.52 2	-1.37 2	2.52 2
68.7373	68.8076	0.40	89.00	2.68-1	-1.02 3	-2.72-1	1.02 3
68.8095	68.8166	0.68	1.10	1.78 2	-5.43 2	-1.78 2	5.43 2
68.8235	68.8307	0.64	1.25	1.55 2	-7.22 2	-1.55 2	7.22 2
68.8058	68.8358	0.42	35.00	9.99-1	-1.58 3	-1.00 0	1.58 3
68.8592	68.8721	0.46	8.40	6.14 0	-1.37 3	-6.14 0	1.37 3
68.8649	68.8743	0.50	3.70	1.99 1	-1.14 3	-1.99 1	1.14 3
68.8168	68.8860	0.40	88.00	2.73-1	-1.03 3	-2.77-1	1.03 3
68.8704	68.8881	0.44	15.50	2.77 0	-1.51 3	-2.77 0	1.51 3
68.8946	68.9020	0.62	1.35	1.33 2	-7.83 2	-1.33 2	7.83 2
68.9246	68.9332	0.52	2.80	3.14 1	-1.06 3	-3.14 1	1.06 3
68.9391	68.9458	0.76	0.92	1.15 2	-1.81 2	-1.15 2	1.81 2
68.8965	68.9647	0.40	87.00	2.79-1	-1.05 3	-2.82-1	1.05 3
68.9745	68.9823	0.56	1.90	6.39 1	-9.26 2	-6.40 1	9.26 2
68.9879	68.9985	0.48	5.20	1.19 1	-1.25 3	-1.19 1	1.25 3
68.9727	69.0020	0.42	34.00	1.03 0	-1.59 3	-1.04 0	1.59 3
69.0293	69.0369	0.58	1.65	8.55 1	-8.76 2	-8.55 1	8.76 2
68.9765	69.0437	0.40	86.00	2.84-1	-1.07 3	-2.88-1	1.07 3
69.0385	69.0451	0.82	0.84	1.59 1	-1.68 1	-1.59 1	1.68 1
69.0407	69.0535	0.46	8.20	6.32 0	-1.37 3	-6.32 0	1.37 3
69.0828	69.1001	0.44	15.00	2.88 0	-1.51 3	-2.88 0	1.51 3
69.0568	69.1230	0.40	85.00	2.89-1	-1.08 3	-2.93-1	1.08 3
69.1330	69.1397	0.80	0.86	5.51 1	-6.53 1	-5.51 1	6.53 1
69.1449	69.1542	0.50	3.60	2.07 1	-1.14 3	-2.07 1	1.14 3
69.1594	69.1665	0.66	1.15	1.73 2	-6.26 2	-1.73 2	6.26 2
69.1449	69.1735	0.42	33.00	1.07 0	-1.59 3	-1.08 0	1.59 3
69.1374	69.2026	0.40	84.00	2.95-1	-1.10 3	-2.99-1	1.10 3
69.2281	69.2406	0.46	8.00	6.51 0	-1.37 3	-6.51 0	1.37 3
69.2184	69.2826	0.40	83.00	3.01-1	-1.11 3	-3.04-1	1.12 3
69.2900	69.2981	0.54	2.20	4.76 1	-9.78 2	-4.76 1	9.78 2
69.3023	69.3091	0.72	0.98	1.53 2	-3.15 2	-1.53 2	3.15 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
69.3038	69.3207	0.44	14.50	2.99 0	-1.51 3	-3.00 0	1.51 3
69.3232	69.3299	0.78	0.88	7.80 1	-1.04 2	-7.80 1	1.04 2
69.3279	69.3353	0.60	1.45	1.13 2	-8.30 2	-1.13 2	8.30 2
69.3357	69.3460	0.48	5.00	1.25 1	-1.24 3	-1.25 1	1.24 3
69.3228	69.3507	0.42	32.00	1.11 0	-1.60 3	-1.12 0	1.60 3
69.3544	69.3629	0.52	2.70	3.30 1	-1.05 3	-3.30 1	1.05 3
69.2997	69.3630	0.40	82.00	3.07-1	-1.13 3	-3.10-1	1.13 3
69.3604	69.3671	0.74	0.94	1.26 2	-2.21 2	-1.26 2	2.21 2
69.3779	69.3856	0.56	1.85	6.66 1	-9.20 2	-6.66 1	9.20 2
69.4215	69.4339	0.46	7.80	6.71 0	-1.36 3	-6.72 0	1.36 3
69.3814	69.4438	0.40	81.00	3.13-1	-1.15 3	-3.16-1	1.15 3
69.4364	69.4455	0.50	3.50	2.15 1	-1.13 3	-2.15 1	1.13 3
69.4636	69.5250	0.40	80.00	3.19-1	-1.16 3	-3.22-1	1.16 3
69.5068	69.5341	0.42	31.00	1.15 0	-1.60 3	-1.16 0	1.60 3
69.5342	69.5508	0.44	14.00	3.12 0	-1.50 3	-3.12 0	1.50 3
69.5491	69.5566	0.58	1.60	8.97 1	-8.69 2	-8.98 1	8.69 2
69.5462	69.6067	0.40	79.00	3.25-1	-1.18 3	-3.28-1	1.18 3
69.6108	69.6175	0.76	0.90	1.01 2	-1.50 2	-1.01 2	1.50 2
69.6214	69.6336	0.46	7.60	6.92 0	-1.36 3	-6.93 0	1.36 3
69.6579	69.6651	0.62	1.30	1.40 2	-7.63 2	-1.40 2	7.63 2
69.6293	69.6889	0.40	78.00	3.31-1	-1.19 3	-3.35-1	1.19 3
69.7029	69.7130	0.48	4.80	1.32 1	-1.23 3	-1.32 1	1.23 3
69.7151	69.7222	0.64	1.20	1.61 2	-6.90 2	-1.61 2	6.90 2
69.6974	69.7239	0.42	30.00	1.20 0	-1.61 3	-1.20 0	1.61 3
69.7401	69.7492	0.50	3.40	2.23 1	-1.13 3	-2.23 1	1.13 3
69.7130	69.7717	0.40	77.00	3.38-1	-1.21 3	-3.41-1	1.21 3
69.7748	69.7910	0.44	13.50	3.25 0	-1.50 3	-3.26 0	1.50 3
69.8000	69.8076	0.56	1.80	6.93 1	-9.13 2	-6.93 1	9.13 2
69.8092	69.8176	0.52	2.60	3.48 1	-1.04 3	-3.48 1	1.04 3
69.8282	69.8403	0.46	7.40	7.15 0	-1.36 3	-7.16 0	1.36 3
69.7972	69.8550	0.40	76.00	3.44-1	-1.22 3	-3.48-1	1.23 3
69.8838	69.8905	0.72	0.96	1.46 2	-2.87 2	-1.46 2	2.87 2
69.8951	69.9209	0.42	29.00	1.25 0	-1.61 3	-1.25 0	1.61 3
69.9178	69.9244	0.80	0.84	3.25 1	-3.64 1	-3.25 1	3.64 1
69.9283	69.9362	0.54	2.10	5.09 1	-9.68 2	-5.09 1	9.68 2
69.8820	69.9389	0.40	75.00	3.51-1	-1.24 3	-3.55-1	1.24 3
69.9602	69.9670	0.70	1.00	1.65 2	-3.81 2	-1.65 2	3.81 2
69.9758	69.9827	0.68	1.05	1.75 2	-4.85 2	-1.75 2	4.85 2
69.9901	69.9974	0.60	1.40	1.19 2	-8.15 2	-1.19 2	8.16 2
69.9987	70.0053	0.74	0.92	1.14 2	-1.92 2	-1.15 2	1.92 2
69.9674	70.0234	0.40	74.00	3.58-1	-1.25 3	-3.62-1	1.26 3
70.00	73.00						
70.0265	70.0423	0.44	13.00	3.40 0	-1.50 3	-3.41 0	1.50 3
70.0424	70.0542	0.46	7.20	7.39 0	-1.35 3	-7.40 0	1.35 3
70.0572	70.0661	0.50	3.30	2.32 1	-1.12 3	-2.32 1	1.12 3
70.0660	70.0726	0.78	0.86	6.36 1	-8.02 1	-6.36 1	8.02 1
70.0917	70.1016	0.48	4.60	1.39 1	-1.23 3	-1.39 1	1.23 3
70.0981	70.1055	0.58	1.55	9.42 1	-8.61 2	-9.42 1	8.61 2
70.0534	70.1086	0.40	73.00	3.65-1	-1.27 3	-3.69-1	1.27 3
70.1004	70.1255	0.42	28.00	1.30 0	-1.61 3	-1.30 0	1.61 3
70.1401	70.1945	0.40	72.00	3.73-1	-1.28 3	-3.76-1	1.29 3
70.2181	70.2250	0.66	1.10	1.76 2	-5.79 2	-1.76 2	5.79 2
70.2423	70.2499	0.56	1.75	7.23 1	-9.07 2	-7.23 1	9.07 2
70.2644	70.2761	0.46	7.00	7.65 0	-1.35 3	-7.66 0	1.35 3
70.2276	70.2812	0.40	71.00	3.80-1	-1.30 3	-3.84-1	1.30 3
70.2917	70.2999	0.52	2.50	3.67 1	-1.03 3	-3.67 1	1.03 3
70.2903	70.3057	0.44	12.50	3.56 0	-1.50 3	-3.57 0	1.50 3
70.3149	70.3214	0.76	0.88	8.67 1	-1.23 2	-8.67 1	1.23 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
70.3140	70.3385	0.42	27.00	1.36 0	-1.62 3	-1.36 0	1.62 3
70.3158	70.3686	0.40	70.00	3.88-1	-1.31 3	-3.92-1	1.32 3
70.3886	70.3974	0.50	3.20	2.42 1	-1.12 3	-2.42 1	1.12 3
70.4049	70.4568	0.40	69.00	3.96-1	-1.33 3	-4.00-1	1.33 3
70.4778	70.4849	0.62	1.25	1.46 2	-7.37 2	-1.46 2	7.37 2
70.4908	70.4974	0.72	0.94	1.36 2	-2.56 2	-1.36 2	2.56 2
70.4948	70.5063	0.46	6.80	7.93 0	-1.35 3	-7.93 0	1.35 3
70.5045	70.5142	0.48	4.40	1.47 1	-1.22 3	-1.47 1	1.22 3
70.5144	70.5211	0.70	0.98	1.61 2	-3.56 2	-1.61 2	3.56 2
70.4947	70.5458	0.40	68.00	4.04-1	-1.34 3	-4.08-1	1.34 3
70.5366	70.5604	0.42	26.00	1.42 0	-1.62 3	-1.42 0	1.62 3
70.5673	70.5823	0.44	12.00	3.73 0	-1.49 3	-3.74 0	1.49 3
70.6178	70.6255	0.54	2.00	5.46 1	-9.56 2	-5.46 1	9.56 2
70.5855	70.6358	0.40	67.00	4.13-1	-1.36 3	-4.16-1	1.36 3
70.6667	70.6733	0.74	0.90	1.02 2	-1.62 2	-1.02 2	1.62 2
70.6792	70.6865	0.58	1.50	9.91 1	-8.52 2	-9.91 1	8.53 2
70.6806	70.6876	0.64	1.15	1.67 2	-6.55 2	-1.67 2	6.55 2
70.6968	70.7040	0.60	1.35	1.24 2	-7.98 2	-1.24 2	7.98 2
70.7066	70.7141	0.56	1.70	7.55 1	-8.99 2	-7.55 1	8.99 2
70.6772	70.7267	0.40	66.00	4.21-1	-1.37 3	-4.25-1	1.37 3
70.7356	70.7443	0.50	3.10	2.52 1	-1.11 3	-2.53 1	1.11 3
70.7343	70.7456	0.46	6.60	8.22 0	-1.34 3	-8.23 0	1.34 3
70.7440	70.7505	0.80	0.82	1.77 1	-1.88 1	-1.77 1	1.88 1
70.7690	70.7921	0.42	25.00	1.48 0	-1.62 3	-1.49 0	1.62 3
70.8051	70.8132	0.52	2.40	3.89 1	-1.02 3	-3.89 1	1.02 3
70.7698	70.8186	0.40	65.00	4.30-1	-1.39 3	-4.34-1	1.39 3
70.8470	70.8534	0.78	0.84	4.37 1	-5.22 1	-4.37 1	5.22 1
70.8588	70.8734	0.44	11.50	3.93 0	-1.49 3	-3.93 0	1.49 3
70.8635	70.9115	0.40	64.00	4.40-1	-1.40 3	-4.43-1	1.40 3
70.9442	70.9537	0.48	4.20	1.56 1	-1.21 3	-1.57 1	1.21 3
70.9840	70.9917	0.54	1.95	5.66 1	-9.49 2	-5.66 1	9.49 2
70.9834	70.9945	0.46	6.40	8.54 0	-1.34 3	-8.54 0	1.34 3
70.9582	71.0054	0.40	63.00	4.49-1	-1.41 3	-4.53-1	1.41 3
71.0121	71.0346	0.42	24.00	1.55 0	-1.62 3	-1.56 0	1.62 3
71.0538	71.0603	0.76	0.86	7.40 1	-9.93 1	-7.40 1	9.93 1
71.0922	71.0988	0.70	0.96	1.55 2	-3.29 2	-1.55 2	3.29 2
71.0541	71.1005	0.40	62.00	4.59-1	-1.43 3	-4.62-1	1.43 3
71.0995	71.1081	0.50	3.00	2.64 1	-1.11 3	-2.64 1	1.11 3
71.1253	71.1318	0.72	0.92	1.26 2	-2.27 2	-1.26 2	2.27 2
71.1663	71.1806	0.44	11.00	4.14 0	-1.48 3	-4.14 0	1.48 3
71.1512	71.1968	0.40	61.00	4.69-1	-1.44 3	-4.72-1	1.44 3
71.1950	71.2024	0.56	1.65	7.89 1	-8.91 2	-7.89 1	8.91 2
71.2430	71.2539	0.46	6.20	8.88 0	-1.33 3	-8.88 0	1.33 3
71.2588	71.2655	0.68	1.00	1.70 2	-4.23 2	-1.70 2	4.23 2
71.2671	71.2888	0.42	23.00	1.63 0	-1.62 3	-1.64 0	1.62 3
71.2494	71.2944	0.40	60.00	4.79-1	-1.45 3	-4.83-1	1.45 3
71.2957	71.3029	0.58	1.45	1.04 2	-8.41 2	-1.04 2	8.41 2
71.3531	71.3610	0.52	2.30	4.12 1	-1.01 3	-4.12 1	1.01 3
71.3621	71.3690	0.62	1.20	1.52 2	-7.07 2	-1.52 2	7.07 2
71.3668	71.3733	0.74	0.88	8.99 1	-1.36 2	-9.00 1	1.36 2
71.3661	71.3737	0.54	1.90	5.88 1	-9.43 2	-5.88 1	9.43 2
71.3760	71.3828	0.66	1.05	1.75 2	-5.22 2	-1.75 2	5.22 2
71.3490	71.3932	0.40	59.00	4.90-1	-1.46 3	-4.94-1	1.47 3
71.4142	71.4235	0.48	4.00	1.67 1	-1.20 3	-1.67 1	1.20 3
71.4533	71.4604	0.60	1.30	1.30 2	-7.78 2	-1.30 2	7.78 2
71.4819	71.4903	0.50	2.90	2.76 1	-1.10 3	-2.76 1	1.10 3
71.4499	71.4934	0.40	58.00	5.01-1	-1.48 3	-5.05-1	1.48 3
71.4917	71.5055	0.44	10.50	4.37 0	-1.48 3	-4.38 0	1.48 3
71.5138	71.5246	0.46	6.00	9.24 0	-1.33 3	-9.25 0	1.33 3
71.5349	71.5560	0.42	22.00	1.72 0	-1.62 3	-1.72 0	1.62 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
71.5523	71.5950	0.40	57.00	5.13-1	-1.49 3	-5.16-1	1.49 3
71.6617	71.6709	0.48	3.90	1.72 1	-1.20 3	-1.72 1	1.20 3
71.6691	71.6754	0.78	0.82	3.00 1	-3.38 1	-3.00 1	3.38 1
71.6561	71.6981	0.40	56.00	5.24-1	-1.50 3	-5.28-1	1.50 3
71.6953	71.7019	0.70	0.94	1.48 2	-2.98 2	-1.48 2	2.98 2
71.7096	71.7169	0.56	1.60	8.26 1	-8.82 2	-8.27 1	8.82 2
71.7311	71.7379	0.64	1.10	1.71 2	-6.11 2	-1.71 2	6.11 2
71.7652	71.7727	0.54	1.85	6.11 1	-9.36 2	-6.11 1	9.36 2
71.7893	71.7957	0.72	0.90	1.16 2	-1.97 2	-1.16 2	1.97 2
71.7615	71.8028	0.40	55.00	5.37-1	-1.51 3	-5.40-1	1.51 3
71.7968	71.8074	0.46	5.80	9.64 0	-1.32 3	-9.64 0	1.32 3
71.8091	71.8158	0.68	0.98	1.67 2	-3.98 2	-1.67 2	3.98 2
71.8306	71.8369	0.76	0.84	5.61 1	-7.13 1	-5.61 1	7.13 1
71.8171	71.8375	0.42	21.00	1.81 0	-1.62 3	-1.82 0	1.62 3
71.8368	71.8503	0.44	10.00	4.63 0	-1.47 3	-4.64 0	1.47 3
71.8846	71.8929	0.50	2.80	2.90 1	-1.09 3	-2.90 1	1.09 3
71.8685	71.9091	0.40	54.00	5.50-1	-1.53 3	-5.53-1	1.53 3
71.9184	71.9275	0.48	3.80	1.78 1	-1.19 3	-1.78 1	1.19 3
71.9400	71.9478	0.52	2.20	4.39 1	-1.00 3	-4.39 1	1.00 3
71.9517	71.9588	0.58	1.40	1.10 2	-8.27 2	-1.10 2	8.27 2
71.9809	71.9942	0.44	9.80	4.74 0	-1.47 3	-4.75 0	1.47 3
71.9773	72.0172	0.40	53.00	5.63-1	-1.54 3	-5.67-1	1.54 3
72.0932	72.1036	0.46	5.60	1.01 1	-1.32 3	-1.01 1	1.32 3
72.1016	72.1079	0.74	0.86	7.86 1	-1.13 2	-7.86 1	1.13 2
72.0879	72.1270	0.40	52.00	5.77-1	-1.55 3	-5.80-1	1.55 3
72.1153	72.1350	0.42	20.00	1.92 0	-1.62 3	-1.92 0	1.62 3
72.1288	72.1419	0.44	9.60	4.86 0	-1.47 3	-4.87 0	1.47 3
72.1828	72.1902	0.54	1.80	6.36 1	-9.28 2	-6.36 1	9.28 2
72.1848	72.1938	0.48	3.70	1.84 1	-1.19 3	-1.84 1	1.19 3
72.2003	72.2388	0.40	51.00	5.91-1	-1.56 3	-5.95-1	1.56 3
72.2529	72.2601	0.56	1.55	8.66 1	-8.73 2	-8.67 1	8.73 2
72.2659	72.2728	0.60	1.25	1.36 2	-7.53 2	-1.36 2	7.53 2
72.2709	72.2902	0.42	19.50	1.98 0	-1.62 3	-1.98 0	1.62 3
72.2805	72.2935	0.44	9.40	4.98 0	-1.47 3	-4.99 0	1.47 3
72.3095	72.3177	0.50	2.70	3.04 1	-1.08 3	-3.05 1	1.08 3
72.3195	72.3263	0.62	1.15	1.58 2	-6.74 2	-1.58 2	6.74 2
72.3257	72.3321	0.70	0.92	1.40 2	-2.69 2	-1.40 2	2.69 2
72.3148	72.3525	0.40	50.00	6.06-1	-1.57 3	-6.09-1	1.57 3
72.3829	72.3895	0.68	0.96	1.63 2	-3.72 2	-1.63 2	3.72 2
72.4039	72.4142	0.46	5.40	1.05 1	-1.31 3	-1.05 1	1.31 3
72.4364	72.4492	0.44	9.20	5.11 0	-1.46 3	-5.12 0	1.46 3
72.4313	72.4502	0.42	19.00	2.04 0	-1.62 3	-2.04 0	1.62 3
72.4313	72.4684	0.40	49.00	6.21-1	-1.58 3	-6.25-1	1.58 3
72.4617	72.4706	0.48	3.60	1.91 1	-1.18 3	-1.91 1	1.18 3
72.4851	72.4915	0.72	0.88	1.05 2	-1.70 2	-1.05 2	1.70 2
72.5361	72.5423	0.78	0.80	1.39 1	-1.48 1	-1.39 1	1.48 1
72.5711	72.5787	0.52	2.10	4.68 1	-9.91 2	-4.69 1	9.91 2
72.5500	72.5864	0.40	48.00	6.37-1	-1.59 3	-6.41-1	1.59 3
72.5966	72.6092	0.44	9.00	5.25 0	-1.46 3	-5.25 0	1.46 3
72.5966	72.6152	0.42	18.50	2.10 0	-1.62 3	-2.10 0	1.62 3
72.6203	72.6276	0.54	1.75	6.62 1	-9.20 2	-6.62 1	9.20 2
72.6483	72.6545	0.76	0.82	4.35 1	-5.22 1	-4.35 1	5.22 1
72.6495	72.6561	0.66	1.00	1.73 2	-4.65 2	-1.73 2	4.65 2
72.6515	72.6585	0.58	1.35	1.15 2	-8.09 2	-1.15 2	8.09 2
72.6711	72.7068	0.40	47.00	6.54-1	-1.60 3	-6.58-1	1.60 3
72.7305	72.7406	0.46	5.20	1.10 1	-1.31 3	-1.10 1	1.31 3
72.7499	72.7586	0.48	3.50	1.98 1	-1.18 3	-1.98 1	1.18 3
72.7590	72.7671	0.50	2.60	3.21 1	-1.08 3	-3.21 1	1.08 3
72.7613	72.7738	0.44	8.80	5.39 0	-1.46 3	-5.39 0	1.46 3
72.7672	72.7855	0.42	18.00	2.17 0	-1.62 3	-2.17 0	1.62 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
72.7946	72.8296	0.40	46.00	6.72-1	-1.61 3	-6.75-1	1.61 3
72.8280	72.8351	0.56	1.50	9.11 1	-8.64 2	-9.11 1	8.64 2
72.8739	72.8801	0.74	0.84	6.31 1	-8.57 1	-6.31 1	8.57 1
72.8798	72.8864	0.64	1.05	1.73 2	-5.59 2	-1.73 2	5.59 2
72.9308	72.9431	0.44	8.60	5.54 0	-1.45 3	-5.54 0	1.45 3
72.9207	72.9550	0.40	45.00	6.90-1	-1.62 3	-6.94-1	1.62 3
72.9435	72.9614	0.42	17.50	2.24 0	-1.62 3	-2.24 0	1.62 3
72.9818	72.9883	0.68	0.94	1.57 2	-3.42 2	-1.57 2	3.42 2
72.9853	72.9917	0.70	0.90	1.30 2	-2.39 2	-1.31 2	2.39 2
73.00	76.00						
73.0501	73.0587	0.48	3.40	2.06 1	-1.17 3	-2.06 1	1.17 3
73.0494	73.0831	0.40	44.00	7.09-1	-1.63 3	-7.13-1	1.63 3
73.0745	73.0843	0.46	5.00	1.16 1	-1.30 3	-1.16 1	1.30 3
73.0795	73.0867	0.54	1.70	6.91 1	-9.11 2	-6.91 1	9.11 2
73.1053	73.1175	0.44	8.40	5.70 0	-1.45 3	-5.70 0	1.45 3
73.1258	73.1434	0.42	17.00	2.32 0	-1.62 3	-2.32 0	1.62 3
73.1420	73.1487	0.60	1.20	1.42 2	-7.24 2	-1.42 2	7.24 2
73.1956	73.2022	0.66	0.98	1.72 2	-4.42 2	-1.72 2	4.42 2
73.1811	73.2141	0.40	43.00	7.29-1	-1.64 3	-7.33-1	1.64 3
73.2153	73.2216	0.72	0.86	9.50 1	-1.46 2	-9.51 1	1.46 2
73.2358	73.2437	0.50	2.50	3.38 1	-1.07 3	-3.38 1	1.07 3
73.2525	73.2600	0.52	2.00	5.02 1	-9.79 2	-5.02 1	9.79 2
73.2852	73.2972	0.44	8.20	5.86 0	-1.45 3	-5.87 0	1.45 3
73.3146	73.3318	0.42	16.50	2.40 0	-1.61 3	-2.40 0	1.61 3
73.3158	73.3481	0.40	42.00	7.51-1	-1.65 3	-7.54-1	1.65 3
73.3608	73.3675	0.62	1.10	1.63 2	-6.33 2	-1.63 2	6.34 2
73.3633	73.3718	0.48	3.30	2.14 1	-1.17 3	-2.14 1	1.17 3
73.4005	73.4074	0.58	1.30	1.21 2	-7.88 2	-1.21 2	7.89 2
73.4380	73.4450	0.56	1.45	9.57 1	-8.51 2	-9.57 1	8.52 2
73.4376	73.4472	0.46	4.80	1.22 1	-1.29 3	-1.22 1	1.29 3
73.4708	73.4826	0.44	8.00	6.04 0	-1.44 3	-6.05 0	1.44 3
73.4536	73.4853	0.40	41.00	7.73-1	-1.65 3	-7.76-1	1.66 3
73.5105	73.5167	0.76	0.80	2.85 1	-3.23 1	-2.85 1	3.23 1
73.5102	73.5270	0.42	16.00	2.48 0	-1.61 3	-2.49 0	1.61 3
73.5623	73.5694	0.54	1.65	7.21 1	-9.01 2	-7.21 1	9.01 2
73.6076	73.6140	0.68	0.92	1.51 2	-3.13 2	-1.51 2	3.13 2
73.6144	73.6218	0.52	1.95	5.20 1	-9.71 2	-5.20 1	9.71 2
73.5949	73.6259	0.40	40.00	7.96-1	-1.66 3	-8.00-1	1.66 3
73.6623	73.6740	0.44	7.80	6.23 0	-1.44 3	-6.23 0	1.44 3
73.6765	73.6828	0.70	0.88	1.21 2	-2.11 2	-1.21 2	2.11 2
73.6868	73.6929	0.74	0.82	5.17 1	-6.63 1	-5.17 1	6.63 1
73.6907	73.6991	0.48	3.20	2.23 1	-1.16 3	-2.23 1	1.16 3
73.7132	73.7297	0.42	15.50	2.58 0	-1.61 3	-2.58 0	1.61 3
73.7429	73.7507	0.50	2.40	3.58 1	-1.06 3	-3.58 1	1.06 3
73.7397	73.7701	0.40	39.00	8.20-1	-1.67 3	-8.24-1	1.67 3
73.7650	73.7715	0.66	0.96	1.69 2	-4.17 2	-1.69 2	4.17 2
73.8219	73.8313	0.46	4.60	1.29 1	-1.28 3	-1.29 1	1.28 3
73.8602	73.8717	0.44	7.60	6.42 0	-1.44 3	-6.43 0	1.44 3
73.8884	73.9181	0.40	38.00	8.46-1	-1.68 3	-8.50-1	1.68 3
73.9241	73.9403	0.42	15.00	2.68 0	-1.61 3	-2.68 0	1.61 3
73.9827	73.9889	0.72	0.84	8.04 1	-1.17 2	-8.04 1	1.17 2
73.9919	73.9992	0.52	1.90	5.40 1	-9.64 2	-5.40 1	9.64 2
74.0333	74.0416	0.48	3.10	2.32 1	-1.15 3	-2.33 1	1.15 3
74.0411	74.0702	0.40	37.00	8.74-1	-1.68 3	-8.77-1	1.69 3
74.0649	74.0762	0.44	7.40	6.63 0	-1.43 3	-6.64 0	1.43 3
74.0709	74.0780	0.54	1.60	7.55 1	-8.93 2	-7.55 1	8.93 2
74.0868	74.0937	0.56	1.40	1.00 2	-8.36 2	-1.00 2	8.36 2
74.0903	74.0970	0.60	1.15	1.49 2	-6.93 2	-1.49 2	6.93 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
74.1428	74.1492	0.64	1.00	1.74 2	-5.07 2	-1.74 2	5.07 2
74.1436	74.1594	0.42	14.50	2.78 0	-1.61 3	-2.79 0	1.61 3
74.2048	74.2115	0.58	1.25	1.26 2	-7.65 2	-1.26 2	7.65 2
74.1981	74.2266	0.40	36.00	9.02-1	-1.69 3	-9.06-1	1.69 3
74.2297	74.2390	0.46	4.40	1.36 1	-1.28 3	-1.36 1	1.28 3
74.2625	74.2688	0.68	0.90	1.43 2	-2.82 2	-1.43 2	2.82 2
74.2768	74.2880	0.44	7.20	6.85 0	-1.43 3	-6.86 0	1.43 3
74.2840	74.2916	0.50	2.30	3.79 1	-1.05 3	-3.80 1	1.05 3
74.3593	74.3656	0.66	0.94	1.65 2	-3.88 2	-1.65 2	3.88 2
74.3598	74.3875	0.40	35.00	9.33-1	-1.70 3	-9.37-1	1.70 3
74.3724	74.3878	0.42	14.00	2.90 0	-1.60 3	-2.90 0	1.60 3
74.3861	74.3933	0.52	1.85	5.61 1	-9.56 2	-5.61 1	9.56 2
74.3925	74.4007	0.48	3.00	2.43 1	-1.15 3	-2.43 1	1.15 3
74.4017	74.4080	0.70	0.86	1.13 2	-1.87 2	-1.13 2	1.87 2
74.4213	74.4274	0.76	0.78	1.57 1	-1.67 1	-1.57 1	1.67 1
74.4992	74.5058	0.62	1.05	1.66 2	-5.85 2	-1.66 2	5.85 2
74.4964	74.5074	0.44	7.00	7.09 0	-1.42 3	-7.10 0	1.43 3
74.5439	74.5499	0.74	0.80	3.82 1	-4.62 1	-3.82 1	4.62 1
74.5263	74.5534	0.40	34.00	9.65-1	-1.70 3	-9.69-1	1.70 3
74.6079	74.6149	0.54	1.55	7.90 1	-8.82 2	-7.90 1	8.82 2
74.6111	74.6262	0.42	13.50	3.03 0	-1.60 3	-3.03 0	1.60 3
74.6639	74.6720	0.46	4.20	1.44 1	-1.27 3	-1.44 1	1.27 3
74.6843	74.6908	0.64	0.98	1.74 2	-4.85 2	-1.74 2	4.85 2
74.6980	74.7245	0.40	33.00	1.00-0	-1.71 3	-1.00 0	1.71 3
74.7243	74.7351	0.44	6.80	7.34 0	-1.42 3	-7.35 0	1.42 3
74.7699	74.7780	0.48	2.90	2.54 1	-1.14 3	-2.54 1	1.14 3
74.7789	74.7857	0.56	1.35	1.05 2	-8.18 2	-1.05 2	8.18 2
74.7904	74.7965	0.72	0.82	7.02 1	-9.65 1	-7.03 1	9.65 1
74.7984	74.8056	0.52	1.80	5.83 1	-9.47 2	-5.83 1	9.47 2
74.8633	74.8707	0.50	2.20	4.03 1	-1.03 3	-4.03 1	1.03 3
74.8607	74.8755	0.42	13.00	3.16 0	-1.60 3	-3.17 0	1.60 3
74.8754	74.9013	0.40	32.00	1.04 0	-1.71 3	-1.04 0	1.71 3
74.9486	74.9549	0.68	0.88	1.36 2	-2.55 2	-1.36 2	2.55 2
74.9610	74.9717	0.44	6.60	7.61 0	-1.42 3	-7.62 0	1.42 3
74.9802	74.9865	0.66	0.92	1.61 2	-3.60 2	-1.61 2	3.60 2
75.0717	75.0783	0.58	1.20	1.32 2	-7.36 2	-1.32 2	7.36 2
75.0588	75.0840	0.40	31.00	1.08 0	-1.72 3	-1.08 0	1.72 3
75.0615	75.1271	0.38	90.00	2.46-1	-1.08 3	-2.50-1	1.08 3
75.1216	75.1281	0.60	1.10	1.54 2	-6.54 2	-1.54 2	6.54 2
75.1222	75.1366	0.42	12.50	3.31 0	-1.59 3	-3.31 0	1.59 3
75.1278	75.1366	0.46	4.00	1.54 1	-1.26 3	-1.54 1	1.26 3
75.1639	75.1700	0.70	0.84	1.00 2	-1.56 2	-1.00 2	1.56 2
75.1672	75.1751	0.48	2.80	2.66 1	-1.13 3	-2.66 1	1.13 3
75.1760	75.1829	0.54	1.50	8.29 1	-8.71 2	-8.29 1	8.71 2
75.1411	75.2057	0.38	89.00	2.51-1	-1.10 3	-2.54-1	1.10 3
75.2072	75.2177	0.44	6.40	7.90 0	-1.41 3	-7.91 0	1.41 3
75.2304	75.2374	0.52	1.75	6.07 1	-9.39 2	-6.07 1	9.39 2
75.2489	75.2552	0.64	0.96	1.72 2	-4.60 2	-1.72 2	4.60 2
75.2487	75.2732	0.40	30.00	1.12 0	-1.72 3	-1.12 0	1.72 3
75.2208	75.2845	0.38	88.00	2.56-1	-1.12 3	-2.59-1	1.12 3
75.3008	75.3635	0.38	87.00	2.61-1	-1.13 3	-2.64-1	1.14 3
75.3721	75.3808	0.46	3.90	1.59 1	-1.25 3	-1.59 1	1.25 3
75.3967	75.4107	0.42	12.00	3.47 0	-1.59 3	-3.47 0	1.59 3
75.3811	75.4429	0.38	86.00	2.66-1	-1.15 3	-2.69-1	1.15 3
75.4492	75.4551	0.74	0.78	2.63 1	-2.99 1	-2.63 1	2.99 1
75.4456	75.4695	0.40	29.00	1.16 0	-1.73 3	-1.17 0	1.73 3
75.4637	75.4740	0.44	6.20	8.21 0	-1.41 3	-8.22 0	1.41 3
75.4859	75.4932	0.50	2.10	4.30 1	-1.02 3	-4.30 1	1.02 3
75.4617	75.5225	0.38	85.00	2.71-1	-1.17 3	-2.74-1	1.17 3
75.5194	75.5261	0.56	1.30	1.10 2	-7.97 2	-1.10 2	7.97 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
75.5863	75.5941	0.48	2.70	2.79 1	-1.12 3	-2.80 1	1.12 3
75.5425	75.6024	0.38	84.00	2.76-1	-1.19 3	-2.79-1	1.19 3
75.6253	75.6339	0.46	3.80	1.64 1	-1.25 3	-1.64 1	1.25 3
75.6299	75.6361	0.66	0.90	1.55 2	-3.30 2	-1.55 2	3.30 2
75.6420	75.6480	0.72	0.80	5.78 1	-7.48 1	-5.78 1	7.48 1
75.6500	75.6732	0.40	28.00	1.21 0	-1.73 3	-1.21 0	1.73 3
75.6685	75.6747	0.68	0.86	1.30 2	-2.31 2	-1.30 2	2.31 2
75.6237	75.6827	0.38	83.00	2.81-1	-1.20 3	-2.85-1	1.21 3
75.6836	75.6906	0.52	1.70	6.32 1	-9.29 2	-6.32 1	9.29 2
75.6855	75.6991	0.42	11.50	3.65 0	-1.58 3	-3.65 0	1.58 3
75.7312	75.7413	0.44	6.00	8.55 0	-1.40 3	-8.55 0	1.40 3
75.7507	75.7571	0.62	1.00	1.68 2	-5.35 2	-1.68 2	5.35 2
75.7053	75.7634	0.38	82.00	2.87-1	-1.22 3	-2.90-1	1.22 3
75.7786	75.7854	0.54	1.45	8.69 1	-8.57 2	-8.69 1	8.57 2
75.8380	75.8443	0.64	0.94	1.70 2	-4.33 2	-1.70 2	4.33 2
75.7872	75.8445	0.38	81.00	2.92-1	-1.24 3	-2.96-1	1.24 3
75.8625	75.8852	0.40	27.00	1.26 0	-1.73 3	-1.27 0	1.73 3
75.8880	75.8966	0.46	3.70	1.70 1	-1.24 3	-1.70 1	1.24 3
75.8696	75.9260	0.38	80.00	2.98-1	-1.26 3	-3.01-1	1.26 3
75.9660	75.9721	0.70	0.82	9.17 1	-1.35 2	-9.17 1	1.35 2
75.9900	76.0033	0.42	11.00	3.84 0	-1.58 3	-3.84 0	1.58 3
75.9524	76.0079	0.38	79.00	3.04-1	-1.27 3	-3.07-1	1.27 3
76.00	79.00						
76.0099	76.0164	0.58	1.15	1.38 2	-7.05 2	-1.38 2	7.05 2
76.0106	76.0206	0.44	5.80	8.91 0	-1.39 3	-8.91 0	1.39 3
76.0295	76.0372	0.48	2.60	2.94 1	-1.11 3	-2.94 1	1.11 3
76.0357	76.0904	0.38	78.00	3.10-1	-1.29 3	-3.13-1	1.29 3
76.0840	76.1059	0.40	26.00	1.32 0	-1.74 3	-1.32 0	1.74 3
76.1580	76.1652	0.50	2.00	4.60 1	-1.01 3	-4.60 1	1.01 3
76.1601	76.1670	0.52	1.65	6.59 1	-9.19 2	-6.59 1	9.19 2
76.1610	76.1695	0.46	3.60	1.76 1	-1.23 3	-1.76 1	1.23 3
76.1195	76.1734	0.38	77.00	3.16-1	-1.31 3	-3.19-1	1.31 3
76.2487	76.2551	0.60	1.05	1.58 2	-6.08 2	-1.58 2	6.08 2
76.2038	76.2569	0.38	76.00	3.22-1	-1.32 3	-3.25-1	1.32 3
76.2873	76.2936	0.62	0.98	1.69 2	-5.14 2	-1.69 2	5.14 2
76.3031	76.3128	0.44	5.60	9.30 0	-1.39 3	-9.30 0	1.39 3
76.3105	76.3167	0.66	0.88	1.50 2	-3.04 2	-1.50 2	3.04 2
76.3144	76.3210	0.56	1.25	1.16 2	-7.73 2	-1.16 2	7.73 2
76.3119	76.3249	0.42	10.50	4.05 0	-1.57 3	-4.06 0	1.57 3
76.3150	76.3364	0.40	25.00	1.38 0	-1.74 3	-1.38 0	1.74 3
76.2887	76.3410	0.38	75.00	3.28-1	-1.34 3	-3.32-1	1.34 3
76.4071	76.4129	0.74	0.76	1.21 1	-1.29 1	-1.21 1	1.29 1
76.3742	76.4257	0.38	74.00	3.35-1	-1.36 3	-3.38-1	1.36 3
76.4194	76.4261	0.54	1.40	9.11 1	-8.40 2	-9.11 1	8.41 2
76.4250	76.4311	0.68	0.84	1.18 2	-1.99 2	-1.18 2	1.99 2
76.4451	76.4534	0.46	3.50	1.82 1	-1.23 3	-1.82 1	1.23 3
76.4536	76.4598	0.64	0.92	1.68 2	-4.07 2	-1.68 2	4.07 2
76.4994	76.5069	0.48	2.50	3.10 1	-1.10 3	-3.10 1	1.10 3
76.4604	76.5110	0.38	73.00	3.42-1	-1.37 3	-3.45-1	1.37 3
76.5148	76.5219	0.50	1.95	4.76 1	-9.97 2	-4.76 1	9.97 2
76.5414	76.5474	0.72	0.78	4.73 1	-5.77 1	-4.74 1	5.77 1
76.5567	76.5774	0.40	24.00	1.45 0	-1.74 3	-1.45 0	1.74 3
76.5472	76.5971	0.38	72.00	3.49-1	-1.39 3	-3.52-1	1.39 3
76.6097	76.6193	0.44	5.40	9.72 0	-1.38 3	-9.73 0	1.38 3
76.6533	76.6659	0.42	10.00	4.29 0	-1.57 3	-4.30 0	1.57 3
76.6619	76.6688	0.52	1.60	6.89 1	-9.08 2	-6.89 1	9.08 2
76.6347	76.6839	0.38	71.00	3.56-1	-1.41 3	-3.59-1	1.41 3
76.7409	76.7491	0.46	3.40	1.89 1	-1.22 3	-1.89 1	1.22 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
76.7230	76.7714	0.38	70.00	3.63-1	-1.42 3	-3.66-1	1.42 3
76.7958	76.8082	0.42	9.80	4.40 0	-1.56 3	-4.40 0	1.56 3
76.8116	76.8176	0.70	0.80	8.09 1	-1.12 2	-8.09 1	1.12 2
76.8099	76.8300	0.40	23.00	1.52 0	-1.74 3	-1.52 0	1.74 3
76.8465	76.8528	0.62	0.96	1.69 2	-4.91 2	-1.69 2	4.91 2
76.8121	76.8597	0.38	69.00	3.70-1	-1.44 3	-3.73-1	1.44 3
76.8869	76.8939	0.50	1.90	4.94 1	-9.88 2	-4.94 1	9.88 2
76.9317	76.9412	0.44	5.20	1.02 1	-1.37 3	-1.02 1	1.37 3
76.9019	76.9488	0.38	68.00	3.78-1	-1.45 3	-3.81-1	1.45 3
76.9420	76.9542	0.42	9.60	4.50 0	-1.56 3	-4.51 0	1.56 3
76.9990	77.0064	0.48	2.40	3.27 1	-1.09 3	-3.27 1	1.09 3
77.0246	77.0307	0.66	0.86	1.45 2	-2.79 2	-1.45 2	2.79 2
77.0300	77.0364	0.58	1.10	1.43 2	-6.69 2	-1.43 2	6.69 2
76.9927	77.0388	0.38	67.00	3.86-1	-1.47 3	-3.89-1	1.47 3
77.0495	77.0576	0.46	3.30	1.97 1	-1.21 3	-1.97 1	1.21 3
77.0759	77.0953	0.40	22.00	1.60 0	-1.74 3	-1.60 0	1.74 3
77.0976	77.1038	0.64	0.90	1.64 2	-3.78 2	-1.64 2	3.78 2
77.0919	77.1040	0.42	9.40	4.62 0	-1.56 3	-4.62 0	1.56 3
77.1027	77.1093	0.54	1.35	9.56 1	-8.23 2	-9.56 1	8.23 2
77.0844	77.1298	0.38	66.00	3.94-1	-1.48 3	-3.97-1	1.48 3
77.1711	77.1776	0.56	1.20	1.21 2	-7.45 2	-1.21 2	7.45 2
77.1916	77.1984	0.52	1.55	7.20 1	-8.96 2	-7.21 1	8.96 2
77.1770	77.2217	0.38	65.00	4.02-1	-1.50 3	-4.05-1	1.50 3
77.2210	77.2271	0.68	0.82	1.13 2	-1.79 2	-1.13 2	1.79 2
77.2459	77.2579	0.42	9.20	4.74 0	-1.56 3	-4.74 0	1.56 3
77.2708	77.2801	0.44	5.00	1.07 1	-1.37 3	-1.07 1	1.37 3
77.2754	77.2824	0.50	1.85	5.13 1	-9.80 2	-5.13 1	9.80 2
77.2706	77.3146	0.38	64.00	4.11-1	-1.51 3	-4.14-1	1.51 3
77.3560	77.3748	0.40	21.00	1.69 0	-1.74 3	-1.69 0	1.74 3
77.3719	77.3799	0.46	3.20	2.05 1	-1.21 3	-2.05 1	1.21 3
77.3653	77.4085	0.38	63.00	4.20-1	-1.53 3	-4.23-1	1.53 3
77.4041	77.4159	0.42	9.00	4.86 0	-1.55 3	-4.86 0	1.55 3
77.4301	77.4363	0.62	0.94	1.68 2	-4.65 2	-1.68 2	4.65 2
77.4874	77.4937	0.60	1.00	1.61 2	-5.60 2	-1.61 2	5.60 2
77.4930	77.4989	0.72	0.76	3.41 1	-3.90 1	-3.41 1	3.90 1
77.4610	77.5036	0.38	62.00	4.29-1	-1.54 3	-4.32-1	1.54 3
77.5319	77.5392	0.48	2.30	3.47 1	-1.08 3	-3.47 1	1.08 3
77.5668	77.5784	0.42	8.80	4.99 0	-1.55 3	-4.99 0	1.55 3
77.5580	77.5998	0.38	61.00	4.38-1	-1.56 3	-4.41-1	1.56 3
77.6286	77.6377	0.44	4.80	1.12 1	-1.36 3	-1.12 1	1.36 3
77.6517	77.6699	0.40	20.00	1.79 0	-1.74 3	-1.79 0	1.74 3
77.6817	77.6886	0.50	1.80	5.32 1	-9.70 2	-5.32 1	9.70 2
77.6561	77.6973	0.38	60.00	4.48-1	-1.57 3	-4.51-1	1.57 3
77.7046	77.7106	0.70	0.78	7.34 1	-9.60 1	-7.34 1	9.60 1
77.7092	77.7171	0.46	3.10	2.13 1	-1.20 3	-2.13 1	1.20 3
77.7341	77.7456	0.42	8.60	5.13 0	-1.55 3	-5.13 0	1.55 3
77.7519	77.7586	0.52	1.50	7.54 1	-8.83 2	-7.54 1	8.83 2
77.7722	77.7783	0.64	0.88	1.60 2	-3.51 2	-1.60 2	3.51 2
77.7748	77.7808	0.66	0.84	1.36 2	-2.48 2	-1.36 2	2.48 2
77.7555	77.7960	0.38	59.00	4.58-1	-1.59 3	-4.61-1	1.59 3
77.8060	77.8238	0.40	19.50	1.84 0	-1.74 3	-1.84 0	1.74 3
77.8337	77.8401	0.54	1.30	9.99 1	-7.99 2	-9.99 1	7.99 2
77.8563	77.8961	0.38	58.00	4.68-1	-1.60 3	-4.71-1	1.60 3
77.9064	77.9178	0.42	8.40	5.27 0	-1.54 3	-5.28 0	1.54 3
77.9649	77.9824	0.40	19.00	1.89 0	-1.74 3	-1.90 0	1.74 3
77.9584	77.9976	0.38	57.00	4.79-1	-1.61 3	-4.82-1	1.61 3
78.0071	78.0160	0.44	4.60	1.18 1	-1.35 3	-1.19 1	1.35 3
78.0184	78.0246	0.60	0.98	1.63 2	-5.40 2	-1.63 2	5.40 2
78.0398	78.0459	0.62	0.92	1.67 2	-4.40 2	-1.67 2	4.40 2
78.0602	78.0662	0.68	0.80	1.04 2	-1.55 2	-1.04 2	1.55 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
78.0628	78.0706	0.46	3.00	2.22 1	-1.19 3	-2.22 1	1.19 3
78.0839	78.0951	0.42	8.20	5.42 0	-1.54 3	-5.43 0	1.54 3
78.0620	78.1005	0.38	56.00	4.90-1	-1.63 3	-4.93-1	1.63 3
78.0981	78.1044	0.56	1.15	1.27 2	-7.14 2	-1.27 2	7.14 2
78.1023	78.1094	0.48	2.20	3.68 1	-1.06 3	-3.68 1	1.06 3
78.1072	78.1141	0.50	1.75	5.53 1	-9.60 2	-5.53 1	9.60 2
78.1288	78.1459	0.40	18.50	1.95 0	-1.74 3	-1.96 0	1.74 3
78.1446	78.1508	0.58	1.05	1.48 2	-6.25 2	-1.48 2	6.25 2
78.1672	78.2050	0.38	55.00	5.01-1	-1.64 3	-5.04-1	1.64 3
78.2670	78.2780	0.42	8.00	5.58 0	-1.53 3	-5.59 0	1.53 3
78.2739	78.3111	0.38	54.00	5.13-1	-1.65 3	-5.16-1	1.65 3
78.2978	78.3147	0.40	18.00	2.02 0	-1.74 3	-2.02 0	1.74 3
78.3461	78.3526	0.52	1.45	7.90 1	-8.68 2	-7.90 1	8.68 2
78.4087	78.4174	0.44	4.40	1.25 1	-1.34 3	-1.25 1	1.34 3
78.3823	78.4188	0.38	53.00	5.26-1	-1.66 3	-5.29-1	1.67 3
78.4342	78.4418	0.46	2.90	2.32 1	-1.18 3	-2.32 1	1.18 3
78.4559	78.4668	0.42	7.80	5.75 0	-1.53 3	-5.76 0	1.53 3
78.4799	78.4859	0.64	0.86	1.58 2	-3.29 2	-1.58 2	3.29 2
78.4724	78.4889	0.40	17.50	2.08 0	-1.74 3	-2.09 0	1.74 3
78.5019	78.5080	0.72	0.74	3.12 1	-3.34 1	-3.12 1	3.34 1
78.4926	78.5284	0.38	52.00	5.38-1	-1.68 3	-5.41-1	1.68 3
78.5537	78.5604	0.50	1.70	5.76 1	-9.50 2	-5.76 1	9.50 2
78.5642	78.5702	0.66	0.82	1.33 2	-2.28 2	-1.33 2	2.28 2
78.5719	78.5780	0.60	0.96	1.64 2	-5.20 2	-1.64 2	5.20 2
78.6183	78.6246	0.54	1.25	1.05 2	-7.76 2	-1.05 2	7.76 2
78.6046	78.6398	0.38	51.00	5.52-1	-1.69 3	-5.55-1	1.69 3
78.6494	78.6554	0.70	0.76	6.34 1	-7.78 1	-6.34 1	7.78 1
78.6510	78.6618	0.42	7.60	5.93 0	-1.53 3	-5.94 0	1.53 3
78.6528	78.6690	0.40	17.00	2.15 0	-1.73 3	-2.16 0	1.73 3
78.6776	78.6836	0.62	0.90	1.64 2	-4.12 2	-1.64 2	4.13 2
78.7151	78.7221	0.48	2.10	3.91 1	-1.05 3	-3.92 1	1.05 3
78.7187	78.7532	0.38	50.00	5.65-1	-1.70 3	-5.69-1	1.70 3
78.8249	78.8325	0.46	2.80	2.43 1	-1.17 3	-2.43 1	1.17 3
78.8360	78.8445	0.44	4.20	1.33 1	-1.33 3	-1.33 1	1.33 3
78.8396	78.8555	0.40	16.50	2.23 0	-1.73 3	-2.23 0	1.73 3
78.8528	78.8634	0.42	7.40	6.12 0	-1.52 3	-6.13 0	1.52 3
78.8347	78.8687	0.38	49.00	5.80-1	-1.71 3	-5.83-1	1.71 3
78.9463	78.9522	0.68	0.78	9.96 1	-1.40 2	-9.96 1	1.40 2
78.9777	78.9842	0.52	1.40	8.27 1	-8.51 2	-8.28 1	8.51 2
78.9530	78.9863	0.38	48.00	5.95-1	-1.72 3	-5.98-1	1.72 3
79.00	82.00						
79.0229	79.0295	0.50	1.65	6.00 1	-9.38 2	-6.00 1	9.38 2
79.0331	79.0487	0.40	16.00	2.31 0	-1.73 3	-2.31 0	1.73 3
79.0616	79.0721	0.42	7.20	6.33 0	-1.52 3	-6.33 0	1.52 3
79.0735	79.1062	0.38	47.00	6.10-1	-1.73 3	-6.14-1	1.73 3
79.1057	79.1119	0.56	1.10	1.32 2	-6.79 2	-1.32 2	6.79 2
79.1493	79.1554	0.60	0.94	1.63 2	-4.94 2	-1.63 2	4.94 2
79.1965	79.2285	0.38	46.00	6.27-1	-1.74 3	-6.30-1	1.75 3
79.2234	79.2293	0.64	0.84	1.51 2	-2.97 2	-1.51 2	2.97 2
79.2371	79.2445	0.46	2.70	2.55 1	-1.16 3	-2.55 1	1.16 3
79.2339	79.2491	0.40	15.50	2.39 0	-1.73 3	-2.40 0	1.73 3
79.2780	79.2883	0.42	7.00	6.54 0	-1.51 3	-6.55 0	1.51 3
79.2922	79.3006	0.44	4.00	1.41 1	-1.32 3	-1.41 1	1.32 3
79.3456	79.3516	0.62	0.88	1.62 2	-3.87 2	-1.62 2	3.87 2
79.3219	79.3533	0.38	45.00	6.44-1	-1.75 3	-6.47-1	1.76 3
79.3693	79.3754	0.58	1.00	1.52 2	-5.79 2	-1.52 2	5.79 2
79.3762	79.3831	0.48	2.00	4.18 1	-1.03 3	-4.18 1	1.03 3
79.3964	79.4023	0.66	0.80	1.27 2	-2.06 2	-1.27 2	2.06 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
78.0628	78.0706	0.46	3.00	2.22 1	-1.19 3	-2.22 1	1.19 3
78.0839	78.0951	0.42	8.20	5.42 0	-1.54 3	-5.43 0	1.54 3
78.0620	78.1005	0.38	56.00	4.90-1	-1.63 3	-4.93-1	1.63 3
78.0981	78.1044	0.56	1.15	1.27 2	-7.14 2	-1.27 2	7.14 2
78.1023	78.1094	0.48	2.20	3.68 1	-1.06 3	-3.68 1	1.06 3
78.1072	78.1141	0.50	1.75	5.53 1	-9.60 2	-5.53 1	9.60 2
78.1288	78.1459	0.40	18.50	1.95 0	-1.74 3	-1.96 0	1.74 3
78.1446	78.1508	0.58	1.05	1.48 2	-6.25 2	-1.48 2	6.25 2
78.1672	78.2050	0.38	55.00	5.01-1	-1.64 3	-5.04-1	1.64 3
78.2670	78.2780	0.42	8.00	5.58 0	-1.53 3	-5.59 0	1.53 3
78.2739	78.3111	0.38	54.00	5.13-1	-1.65 3	-5.16-1	1.65 3
78.2978	78.3147	0.40	18.00	2.02 0	-1.74 3	-2.02 0	1.74 3
78.3461	78.3526	0.52	1.45	7.90 1	-8.68 2	-7.90 1	8.68 2
78.4087	78.4174	0.44	4.40	1.25 1	-1.34 3	-1.25 1	1.34 3
78.3823	78.4188	0.38	53.00	5.26-1	-1.66 3	-5.29-1	1.67 3
78.4342	78.4418	0.46	2.90	2.32 1	-1.18 3	-2.32 1	1.18 3
78.4559	78.4668	0.42	7.80	5.75 0	-1.53 3	-5.76 0	1.53 3
78.4799	78.4859	0.64	0.86	1.58 2	-3.29 2	-1.58 2	3.29 2
78.4724	78.4889	0.40	17.50	2.08 0	-1.74 3	-2.09 0	1.74 3
78.5019	78.5080	0.72	0.74	3.12 1	-3.34 1	-3.12 1	3.34 1
78.4926	78.5284	0.38	52.00	5.38-1	-1.68 3	-5.41-1	1.68 3
78.5537	78.5604	0.50	1.70	5.76 1	-9.50 2	-5.76 1	9.50 2
78.5642	78.5702	0.66	0.82	1.33 2	-2.28 2	-1.33 2	2.28 2
78.5719	78.5780	0.60	0.96	1.64 2	-5.20 2	-1.64 2	5.20 2
78.6183	78.6246	0.54	1.25	1.05 2	-7.76 2	-1.05 2	7.76 2
78.6046	78.6398	0.38	51.00	5.52-1	-1.69 3	-5.55-1	1.69 3
78.6494	78.6554	0.70	0.76	6.34 1	-7.78 1	-6.34 1	7.78 1
78.6510	78.6618	0.42	7.60	5.93 0	-1.53 3	-5.94 0	1.53 3
78.6528	78.6690	0.40	17.00	2.15 0	-1.73 3	-2.16 0	1.73 3
78.6776	78.6836	0.62	0.90	1.64 2	-4.12 2	-1.64 2	4.13 2
78.7151	78.7221	0.48	2.10	3.91 1	-1.05 3	-3.92 1	1.05 3
78.7187	78.7532	0.38	50.00	5.65-1	-1.70 3	-5.69-1	1.70 3
78.8249	78.8325	0.46	2.80	2.43 1	-1.17 3	-2.43 1	1.17 3
78.8360	78.8445	0.44	4.20	1.33 1	-1.33 3	-1.33 1	1.33 3
78.8396	78.8555	0.40	16.50	2.23 0	-1.73 3	-2.23 0	1.73 3
78.8528	78.8634	0.42	7.40	6.12 0	-1.52 3	-6.13 0	1.52 3
78.8347	78.8687	0.38	49.00	5.80-1	-1.71 3	-5.83-1	1.71 3
78.9463	78.9522	0.68	0.78	9.96 1	-1.40 2	-9.96 1	1.40 2
78.9777	78.9842	0.52	1.40	8.27 1	-8.51 2	-8.28 1	8.51 2
78.9530	78.9863	0.38	48.00	5.95-1	-1.72 3	-5.98-1	1.72 3
79.00	82.00						
79.0229	79.0295	0.50	1.65	6.00 1	-9.38 2	-6.00 1	9.38 2
79.0331	79.0487	0.40	16.00	2.31 0	-1.73 3	-2.31 0	1.73 3
79.0616	79.0721	0.42	7.20	6.33 0	-1.52 3	-6.33 0	1.52 3
79.0735	79.1062	0.38	47.00	6.10-1	-1.73 3	-6.14-1	1.73 3
79.1057	79.1119	0.56	1.10	1.32 2	-6.79 2	-1.32 2	6.79 2
79.1493	79.1554	0.60	0.94	1.63 2	-4.94 2	-1.63 2	4.94 2
79.1965	79.2285	0.38	46.00	6.27-1	-1.74 3	-6.30-1	1.75 3
79.2234	79.2293	0.64	0.84	1.51 2	-2.97 2	-1.51 2	2.97 2
79.2371	79.2445	0.46	2.70	2.55 1	-1.16 3	-2.55 1	1.16 3
79.2339	79.2491	0.40	15.50	2.39 0	-1.73 3	-2.40 0	1.73 3
79.2780	79.2883	0.42	7.00	6.54 0	-1.51 3	-6.55 0	1.51 3
79.2922	79.3006	0.44	4.00	1.41 1	-1.32 3	-1.41 1	1.32 3
79.3456	79.3516	0.62	0.88	1.62 2	-3.87 2	-1.62 2	3.87 2
79.3219	79.3533	0.38	45.00	6.44-1	-1.75 3	-6.47-1	1.76 3
79.3693	79.3754	0.58	1.00	1.52 2	-5.79 2	-1.52 2	5.79 2
79.3762	79.3831	0.48	2.00	4.18 1	-1.03 3	-4.18 1	1.03 3
79.3964	79.4023	0.66	0.80	1.27 2	-2.06 2	-1.27 2	2.06 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
79.4424	79.4573	0.40	15.00	2.48 0	-1.73 3	-2.49 0	1.73 3
79.4636	79.4698	0.54	1.20	1.09 2	-7.46 2	-1.09 2	7.46 2
79.4500	79.4808	0.38	44.00	6.62-1	-1.76 3	-6.65-1	1.77 3
79.5024	79.5125	0.42	6.80	6.77 0	-1.51 3	-6.78 0	1.51 3
79.5170	79.5236	0.50	1.60	6.27 1	-9.26 2	-6.27 1	9.27 2
79.5324	79.5406	0.44	3.90	1.45 1	-1.31 3	-1.46 1	1.31 3
79.5810	79.6112	0.38	43.00	6.80-1	-1.77 3	-6.84-1	1.77 3
79.6510	79.6570	0.70	0.74	7.36 1	-8.46 1	-7.36 1	8.46 1
79.6512	79.6575	0.52	1.35	8.65 1	-8.31 2	-8.66 1	8.31 2
79.6593	79.6739	0.40	14.50	2.58 0	-1.72 3	-2.59 0	1.72 3
79.6727	79.6800	0.46	2.60	2.68 1	-1.15 3	-2.68 1	1.15 3
79.7272	79.7340	0.48	1.95	4.32 1	-1.02 3	-4.32 1	1.02 3
79.7149	79.7445	0.38	42.00	7.00-1	-1.78 3	-7.03-1	1.78 3
79.7355	79.7454	0.42	6.60	7.02 0	-1.50 3	-7.02 0	1.50 3
79.7525	79.7585	0.60	0.92	1.63 2	-4.70 2	-1.63 2	4.70 2
79.7813	79.7894	0.44	3.80	1.50 1	-1.31 3	-1.50 1	1.31 3
79.8519	79.8809	0.38	41.00	7.20-1	-1.79 3	-7.24-1	1.79 3
79.8837	79.8896	0.68	0.76	9.38 1	-1.24 2	-9.38 1	1.24 2
79.8853	79.8995	0.40	14.00	2.69 0	-1.72 3	-2.69 0	1.72 3
79.8942	79.9002	0.58	0.98	1.54 2	-5.60 2	-1.54 2	5.60 2
79.9778	79.9875	0.42	6.40	7.28 0	-1.50 3	-7.29 0	1.50 3
80.0056	80.0116	0.64	0.82	1.50 2	-2.79 2	-1.50 2	2.79 2
79.9923	80.0207	0.38	40.00	7.42-1	-1.80 3	-7.45-1	1.80 3
80.0384	80.0448	0.50	1.55	6.54 1	-9.13 2	-6.54 1	9.13 2
80.0395	80.0476	0.44	3.70	1.55 1	-1.30 3	-1.55 1	1.30 3
80.0463	80.0522	0.62	0.86	1.62 2	-3.66 2	-1.62 2	3.66 2
80.0930	80.0998	0.48	1.90	4.48 1	-1.01 3	-4.48 1	1.01 3
80.1210	80.1349	0.40	13.50	2.80 0	-1.72 3	-2.81 0	1.72 3
80.1345	80.1416	0.46	2.50	2.82 1	-1.14 3	-2.82 1	1.14 3
80.1362	80.1640	0.38	39.00	7.65-1	-1.81 3	-7.68-1	1.81 3
80.2063	80.2124	0.56	1.05	1.36 2	-6.36 2	-1.36 2	6.36 2
80.2301	80.2397	0.42	6.20	7.56 0	-1.49 3	-7.57 0	1.49 3
80.2750	80.2809	0.66	0.78	1.26 2	-1.92 2	-1.26 2	1.92 2
80.2839	80.3110	0.38	38.00	7.89-1	-1.82 3	-7.92-1	1.82 3
80.3078	80.3157	0.44	3.60	1.61 1	-1.29 3	-1.61 1	1.29 3
80.3714	80.3776	0.52	1.30	9.06 1	-8.09 2	-9.06 1	8.09 2
80.3674	80.3810	0.40	13.00	2.93 0	-1.71 3	-2.93 0	1.71 3
80.3780	80.3841	0.54	1.15	1.14 2	-7.14 2	-1.14 2	7.15 2
80.3835	80.3894	0.60	0.90	1.62 2	-4.45 2	-1.62 2	4.45 2
80.4412	80.4472	0.58	0.96	1.55 2	-5.40 2	-1.55 2	5.40 2
80.4355	80.4620	0.38	37.00	8.14-1	-1.83 3	-8.17-1	1.83 3
80.4750	80.4817	0.48	1.85	4.64 1	-1.00 3	-4.64 1	1.00 3
80.4932	80.5026	0.42	6.00	7.87 0	-1.48 3	-7.87 0	1.48 3
80.5867	80.5946	0.44	3.50	1.67 1	-1.29 3	-1.67 1	1.29 3
80.5898	80.5962	0.50	1.50	6.84 1	-8.99 2	-6.84 1	8.99 2
80.5913	80.6173	0.38	36.00	8.41-1	-1.83 3	-8.44-1	1.83 3
80.6253	80.6323	0.46	2.40	2.98 1	-1.13 3	-2.98 1	1.13 3
80.6254	80.6386	0.40	12.50	3.07 0	-1.71 3	-3.07 0	1.71 3
80.7150	80.7209	0.70	0.72	4.94 1	-5.30 1	-4.94 1	5.30 1
80.7517	80.7771	0.38	35.00	8.69-1	-1.84 3	-8.72-1	1.84 3
80.7679	80.7772	0.42	5.80	8.19 0	-1.48 3	-8.20 0	1.48 3
80.7824	80.7883	0.62	0.84	1.56 2	-3.35 2	-1.56 2	3.35 2
80.8301	80.8360	0.64	0.80	1.47 2	-2.58 2	-1.47 2	2.58 2
80.8743	80.8809	0.48	1.80	4.81 1	-9.91 2	-4.81 1	9.91 2
80.8773	80.8833	0.68	0.74	1.13 2	-1.40 2	-1.13 2	1.40 2
80.8772	80.8849	0.44	3.40	1.73 1	-1.28 3	-1.73 1	1.28 3
80.8961	80.9090	0.40	12.00	3.21 0	-1.70 3	-3.22 0	1.70 3
80.9169	80.9416	0.38	34.00	8.99-1	-1.85 3	-9.02-1	1.85 3
81.0119	81.0178	0.58	0.94	1.55 2	-5.16 2	-1.55 2	5.16 2
81.0443	81.0502	0.60	0.88	1.61 2	-4.22 2	-1.61 2	4.22 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
81.0553	81.0644	0.42	5.60	8.55 0	-1.47 3	-8.55 0	1.47 3
81.0872	81.1114	0.38	33.00	9.31-1	-1.85 3	-9.34-1	1.85 3
81.1443	81.1504	0.52	1.25	9.47 1	-7.83 2	-9.48 1	7.83 2
81.1485	81.1555	0.46	2.30	3.15 1	-1.11 3	-3.15 1	1.11 3
81.1743	81.1806	0.50	1.45	7.16 1	-8.83 2	-7.16 1	8.83 2
81.1802	81.1878	0.44	3.30	1.79 1	-1.27 3	-1.79 1	1.27 3
81.1807	81.1933	0.40	11.50	3.37 0	-1.70 3	-3.38 0	1.70 3
81.2044	81.2102	0.66	0.76	1.26 2	-1.80 2	-1.26 2	1.80 2
81.2630	81.2866	0.38	32.00	9.65-1	-1.86 3	-9.68-1	1.86 3
81.2925	81.2990	0.48	1.75	5.00 1	-9.79 2	-5.00 1	9.80 2
81.3565	81.3655	0.42	5.40	8.93 0	-1.46 3	-8.93 0	1.46 3
81.3716	81.3776	0.54	1.10	1.19 2	-6.79 2	-1.19 2	6.79 2
81.4155	81.4214	0.56	1.00	1.40 2	-5.91 2	-1.40 2	5.91 2
81.4447	81.4677	0.38	31.00	1.00 0	-1.86 3	-1.00 0	1.86 3
81.4806	81.4929	0.40	11.00	3.55 0	-1.69 3	-3.56 0	1.69 3
81.4965	81.5041	0.44	3.20	1.87 1	-1.26 3	-1.87 1	1.26 3
81.5569	81.5627	0.62	0.82	1.56 2	-3.16 2	-1.56 2	3.16 2
81.6080	81.6138	0.58	0.92	1.56 2	-4.94 2	-1.56 2	4.94 2
81.6328	81.6552	0.38	30.00	1.04 0	-1.87 3	-1.04 0	1.87 3
81.6728	81.6816	0.42	5.20	9.34 0	-1.45 3	-9.35 0	1.45 3
81.7006	81.7064	0.64	0.78	1.50 2	-2.47 2	-1.50 2	2.47 2
81.7084	81.7152	0.46	2.20	3.33 1	-1.10 3	-3.33 1	1.10 3
81.7311	81.7375	0.48	1.70	5.20 1	-9.68 2	-5.20 1	9.68 2
81.7374	81.7432	0.60	0.86	1.61 2	-3.99 2	-1.61 2	3.99 2
81.7956	81.8018	0.50	1.40	7.49 1	-8.65 2	-7.49 1	8.65 2
81.7977	81.8096	0.40	10.50	3.75 0	-1.69 3	-3.75 0	1.69 3
81.8275	81.8349	0.44	3.10	1.94 1	-1.25 3	-1.94 1	1.25 3
81.8277	81.8495	0.38	29.00	1.08 0	-1.87 3	-1.09 0	1.87 3
81.9328	81.9387	0.68	0.72	9.26 1	-1.07 2	-9.26 1	1.07 2
81.9336	81.9395	0.56	0.98	1.42 2	-5.73 2	-1.42 2	5.73 2
81.9767	81.9828	0.52	1.20	9.89 1	-7.53 2	-9.90 1	7.53 2
82.00	86.00						
82.0057	82.0143	0.42	5.00	9.80 0	-1.44 3	-9.80 0	1.44 3
82.0299	82.0512	0.38	28.00	1.13 0	-1.88 3	-1.13 0	1.88 3
82.1336	82.1452	0.40	10.00	3.97 0	-1.68 3	-3.97 0	1.68 3
82.1743	82.1816	0.44	3.00	2.02 1	-1.24 3	-2.02 1	1.24 3
82.1895	82.1953	0.66	0.74	1.53 2	-2.05 2	-1.53 2	2.05 2
82.1920	82.1983	0.48	1.65	5.40 1	-9.54 2	-5.41 1	9.54 2
82.2314	82.2372	0.58	0.90	1.55 2	-4.68 2	-1.55 2	4.68 2
82.2402	82.2609	0.38	27.00	1.17 0	-1.88 3	-1.18 0	1.88 3
82.2738	82.2852	0.40	9.80	4.06 0	-1.68 3	-4.07 0	1.68 3
82.3097	82.3163	0.46	2.10	3.54 1	-1.08 3	-3.54 1	1.08 3
82.3568	82.3652	0.42	4.80	1.03 1	-1.43 3	-1.03 1	1.44 3
82.3730	82.3788	0.62	0.80	1.55 2	-2.96 2	-1.55 2	2.96 2
82.4175	82.4288	0.40	9.60	4.16 0	-1.67 3	-4.16 0	1.67 3
82.4568	82.4627	0.54	1.05	1.23 2	-6.36 2	-1.23 2	6.37 2
82.4578	82.4640	0.50	1.35	7.82 1	-8.43 2	-7.82 1	8.43 2
82.4654	82.4712	0.60	0.84	1.58 2	-3.71 2	-1.58 2	3.71 2
82.4592	82.4792	0.38	26.00	1.23 0	-1.88 3	-1.23 0	1.88 3
82.4735	82.4793	0.56	0.96	1.44 2	-5.53 2	-1.44 2	5.53 2
82.5384	82.5456	0.44	2.90	2.11 1	-1.23 3	-2.11 1	1.23 3
82.5142	82.5736	0.36	90.00	2.30-1	-1.18 3	-2.33-1	1.18 3
82.5650	82.5761	0.40	9.40	4.26 0	-1.67 3	-4.27 0	1.67 3
82.6213	82.6271	0.64	0.76	1.52 2	-2.36 2	-1.52 2	2.36 2
82.5935	82.6520	0.36	89.00	2.35-1	-1.20 3	-2.37-1	1.20 3
82.6772	82.6834	0.48	1.60	5.63 1	-9.40 2	-5.63 1	9.41 2
82.6876	82.7070	0.38	25.00	1.28 0	-1.88 3	-1.29 0	1.88 3
82.7164	82.7274	0.40	9.20	4.37 0	-1.67 3	-4.37 0	1.67 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
82.6730	82.7307	0.36	88.00	2.39-1	-1.22 3	-2.42-1	1.22 3
82.7280	82.7363	0.42	4.60	1.08 1	-1.42 3	-1.08 1	1.43 3
82.7527	82.8095	0.36	87.00	2.44-1	-1.24 3	-2.46-1	1.24 3
82.8718	82.8827	0.40	9.00	4.48 0	-1.66 3	-4.49 0	1.66 3
82.8770	82.8829	0.52	1.15	1.03 2	-7.22 2	-1.03 2	7.22 2
82.8327	82.8886	0.36	86.00	2.48-1	-1.26 3	-2.51-1	1.26 3
82.8843	82.8901	0.58	0.88	1.55 2	-4.45 2	-1.55 2	4.45 2
82.9214	82.9285	0.44	2.80	2.21 1	-1.22 3	-2.21 1	1.22 3
82.9263	82.9452	0.38	24.00	1.34 0	-1.89 3	-1.35 0	1.89 3
82.9582	82.9647	0.46	2.00	3.77 1	-1.06 3	-3.77 1	1.06 3
82.9129	82.9680	0.36	85.00	2.53-1	-1.28 3	-2.56-1	1.28 3
83.0317	83.0424	0.40	8.80	4.60 0	-1.66 3	-4.61 0	1.66 3
83.0367	83.0425	0.56	0.94	1.44 2	-5.30 2	-1.44 2	5.30 2
82.9934	83.0477	0.36	84.00	2.58-1	-1.30 3	-2.61-1	1.30 3
83.0564	83.0622	0.68	0.70	4.79 1	-5.16 1	-4.79 1	5.16 1
83.0743	83.1277	0.36	83.00	2.63-1	-1.32 3	-2.66-1	1.32 3
83.1216	83.1298	0.42	4.40	1.14 1	-1.41 3	-1.14 1	1.41 3
83.1659	83.1720	0.50	1.30	8.19 1	-8.20 2	-8.19 1	8.20 2
83.1763	83.1946	0.38	23.00	1.41 0	-1.89 3	-1.42 0	1.89 3.
83.1890	83.1952	0.48	1.55	5.87 1	-9.25 2	-5.87 1	9.25 2
83.1960	83.2066	0.40	8.60	4.73 0	-1.65 3	-4.73 0	1.65 3
83.1555	83.2081	0.36	82.00	2.68-1	-1.34 3	-2.71-1	1.34 3
83.2313	83.2370	0.60	0.82	1.59 2	-3.51 2	-1.59 2	3.51 2
83.2346	83.2403	0.62	0.78	1.59 2	-2.85 2	-1.59 2	2.85 2
83.2357	83.2415	0.66	0.72	1.39 2	-1.74 2	-1.39 2	1.74 2
83.2370	83.2889	0.36	81.00	2.73-1	-1.36 3	-2.76-1	1.36 3
83.3023	83.3087	0.46	1.95	3.90 1	-1.05 3	-3.90 1	1.05 3
83.3252	83.3322	0.44	2.70	2.31 1	-1.21 3	-2.31 1	1.21 3
83.3190	83.3701	0.36	80.00	2.79-1	-1.37 3	-2.81-1	1.38 3
83.3652	83.3757	0.40	8.40	4.86 0	-1.65 3	-4.86 0	1.65 3
83.4014	83.4517	0.36	79.00	2.84-1	-1.39 3	-2.87-1	1.39 3
83.4388	83.4566	0.38	22.00	1.49 0	-1.89 3	-1.49 0	1.89 3
83.4843	83.5338	0.36	78.00	2.89-1	-1.41 3	-2.92-1	1.41 3
83.5403	83.5483	0.42	4.20	1.21 1	-1.40 3	-1.21 1	1.40 3
83.5395	83.5498	0.40	8.20	5.00 0	-1.65 3	-5.00 0	1.65 3
83.5691	83.5748	0.58	0.86	1.56 2	-4.25 2	-1.56 2	4.25 2
83.5971	83.6029	0.64	0.74	1.83 2	-2.65 2	-1.83 2	2.65 2
83.5676	83.6164	0.36	77.00	2.95-1	-1.43 3	-2.98-1	1.43 3
83.6250	83.6307	0.56	0.92	1.45 2	-5.09 2	-1.45 2	5.09 2
83.6486	83.6544	0.54	1.00	1.27 2	-5.92 2	-1.27 2	5.92 2
83.6609	83.6673	0.46	1.90	4.03 1	-1.04 3	-4.03 1	1.04 3
83.6515	83.6995	0.36	76.00	3.01-1	-1.45 3	-3.04-1	1.45 3
83.7192	83.7294	0.40	8.00	5.14 0	-1.64 3	-5.15 0	1.64 3
83.7151	83.7322	0.38	21.00	1.57 0	-1.89 3	-1.57 0	1.89 3
83.7302	83.7364	0.48	1.50	6.13 1	-9.10 2	-6.13 1	9.10 2
83.7519	83.7588	0.44	2.60	2.43 1	-1.19 3	-2.43 1	1.19 3
83.7359	83.7832	0.36	75.00	3.07-1	-1.47 3	-3.10-1	1.47 3
83.8551	83.8609	0.52	1.10	1.07 2	-6.85 2	-1.07 2	6.85 2
83.8209	83.8675	0.36	74.00	3.13-1	-1.49 3	-3.16-1	1.49 3
83.9046	83.9146	0.40	7.80	5.30 0	-1.64 3	-5.30 0	1.64 3
83.9256	83.9315	0.50	1.25	8.56 1	-7.94 2	-8.56 1	7.94 2
83.9065	83.9524	0.36	73.00	3.19-1	-1.50 3	-3.22-1	1.50 3
83.9872	83.9950	0.42	4.00	1.28 1	-1.39 3	-1.29 1	1.39 3
84.0066	84.0232	0.38	20.00	1.66 0	-1.89 3	-1.66 0	1.89 3
83.9928	84.0379	0.36	72.00	3.26-1	-1.52 3	-3.28-1	1.52 3
84.0353	84.0416	0.46	1.85	4.17 1	-1.03 3	-4.17 1	1.03 3
84.0384	84.0440	0.60	0.80	1.59 2	-3.32 2	-1.59 2	3.32 2
84.0960	84.1059	0.40	7.60	5.46 0	-1.63 3	-5.47 0	1.63 3
84.0797	84.1242	0.36	71.00	3.32-1	-1.54 3	-3.35-1	1.54 3
84.1458	84.1515	0.62	0.76	1.61 2	-2.72 2	-1.61 2	2.72 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
84.1593	84.1650	0.54	0.98	1.29 2	-5.74 2	-1.29 2	5.74 2
84.1587	84.1749	0.38	19.50	1.70 0	-1.89 3	-1.71 0	1.89 3
84.2040	84.2108	0.44	2.50	2.55 1	-1.18 3	-2.55 1	1.18 3
84.1674	84.2112	0.36	70.00	3.39-1	-1.56 3	-3.42-1	1.56 3
84.2223	84.2300	0.42	3.90	1.33 1	-1.38 3	-1.33 1	1.38 3
84.2402	84.2458	0.56	0.90	1.45 2	-4.84 2	-1.45 2	4.84 2
84.2883	84.2939	0.58	0.84	1.54 2	-3.95 2	-1.54 2	3.95 2
84.2559	84.2989	0.36	69.00	3.46-1	-1.57 3	-3.48-1	1.57 3
84.2938	84.3036	0.40	7.40	5.63 0	-1.63 3	-5.64 0	1.63 3
84.3039	84.3099	0.48	1.45	6.40 1	-8.92 2	-6.40 1	8.92 2
84.3152	84.3312	0.38	19.00	1.76 0	-1.88 3	-1.76 0	1.88 3
84.3494	84.3551	0.66	0.70	1.01 2	-1.17 2	-1.01 2	1.17 2
84.3451	84.3875	0.36	68.00	3.53-1	-1.59 3	-3.56-1	1.59 3
84.4266	84.4328	0.46	1.80	4.32 1	-1.01 3	-4.32 1	1.01 3
84.4660	84.4735	0.42	3.80	1.37 1	-1.37 3	-1.37 1	1.37 3
84.4352	84.4769	0.36	67.00	3.60-1	-1.61 3	-3.63-1	1.61 3
84.4766	84.4922	0.38	18.50	1.81 0	-1.88 3	-1.81 0	1.88 3
84.4986	84.5082	0.40	7.20	5.82 0	-1.62 3	-5.82 0	1.62 3
84.5262	84.5672	0.36	66.00	3.68-1	-1.62 3	-3.70-1	1.63 3
84.6334	84.6391	0.64	0.72	1.75 2	-2.37 2	-1.75 2	2.37 2
84.6430	84.6583	0.38	18.00	1.87 0	-1.88 3	-1.87 0	1.88 3
84.6181	84.6585	0.36	65.00	3.75-1	-1.64 3	-3.78-1	1.64 3
84.6843	84.6910	0.44	2.40	2.69 1	-1.17 3	-2.69 1	1.17 3
84.6913	84.6969	0.54	0.96	1.30 2	-5.54 2	-1.30 2	5.54 2
84.7106	84.7201	0.40	7.00	6.01 0	-1.62 3	-6.02 0	1.62 3
84.7186	84.7261	0.42	3.70	1.41 1	-1.37 3	-1.41 1	1.37 3
84.7436	84.7494	0.50	1.20	8.92 1	-7.63 2	-8.93 1	7.63 2
84.7110	84.7507	0.36	64.00	3.83-1	-1.66 3	-3.86-1	1.66 3
84.8148	84.8298	0.38	17.50	1.93 0	-1.88 3	-1.93 0	1.88 3
84.8362	84.8424	0.46	1.75	4.48 1	-1.00 3	-4.48 1	1.00 3
84.8049	84.8440	0.36	63.00	3.92-1	-1.67 3	-3.94-1	1.67 3
84.8844	84.8900	0.56	0.88	1.46 2	-4.61 2	-1.46 2	4.61 2
84.8903	84.8959	0.60	0.78	1.63 2	-3.20 2	-1.63 2	3.20 2
84.9134	84.9194	0.48	1.40	6.68 1	-8.72 2	-6.68 1	8.72 2
84.9230	84.9287	0.52	1.05	1.11 2	-6.44 2	-1.11 2	6.44 2
84.8999	84.9383	0.36	62.00	4.00-1	-1.69 3	-4.03-1	1.69 3
84.9305	84.9398	0.40	6.80	6.22 0	-1.61 3	-6.23 0	1.61 3
84.9810	84.9884	0.42	3.60	1.46 1	-1.36 3	-1.46 1	1.36 3
84.9923	85.0071	0.38	17.00	1.99 0	-1.88 3	-2.00 0	1.88 3
84.9960	85.0338	0.36	61.00	4.09-1	-1.71 3	-4.11-1	1.71 3
85.0448	85.0503	0.58	0.82	1.55 2	-3.78 2	-1.55 2	3.78 2
85.1115	85.1172	0.62	0.74	1.83 2	-2.90 2	-1.83 2	2.90 2
85.0933	85.1304	0.36	60.00	4.18-1	-1.72 3	-4.20-1	1.72 3
85.1587	85.1679	0.40	6.60	6.44 0	-1.60 3	-6.45 0	1.60 3
85.1760	85.1905	0.38	16.50	2.06 0	-1.88 3	-2.07 0	1.88 3
85.1963	85.2029	0.44	2.30	2.83 1	-1.15 3	-2.83 1	1.15 3
85.1918	85.2283	0.36	59.00	4.27-1	-1.74 3	-4.30-1	1.74 3
85.2463	85.2519	0.54	0.94	1.31 2	-5.32 2	-1.31 2	5.32 2
85.2538	85.2611	0.42	3.50	1.51 1	-1.35 3	-1.51 1	1.35 3
85.2658	85.2719	0.46	1.70	4.65 1	-9.86 2	-4.65 1	9.86 2
85.2916	85.3275	0.36	58.00	4.37-1	-1.75 3	-4.39-1	1.75 3
85.3663	85.3804	0.38	16.00	2.14 0	-1.87 3	-2.14 0	1.87 3
85.3960	85.4050	0.40	6.40	6.68 0	-1.60 3	-6.68 0	1.60 3
85.3928	85.4281	0.36	57.00	4.47-1	-1.77 3	-4.49-1	1.77 3
85.4954	85.5301	0.36	56.00	4.57-1	-1.78 3	-4.60-1	1.78 3
85.5376	85.5432	0.66	0.68	5.99 1	-6.46 1	-5.99 1	6.46 1
85.5378	85.5450	0.42	3.40	1.57 1	-1.34 3	-1.57 1	1.34 3
85.5599	85.5654	0.56	0.86	1.47 2	-4.40 2	-1.47 2	4.40 2
85.5630	85.5688	0.48	1.35	6.97 1	-8.49 2	-6.97 1	8.49 2
85.5636	85.5774	0.38	15.50	2.21 0	-1.87 3	-2.22 0	1.87 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
85.5995	85.6336	0.36	55.00	4.67-1	-1.80 3	-4.70-1	1.80 3
85.6281	85.6338	0.50	1.15	9.32 1	-7.31 2	-9.32 1	7.31 2
85.6429	85.6518	0.40	6.20	6.93 0	-1.59 3	-6.94 0	1.59 3
85.7171	85.7231	0.46	1.65	4.83 1	-9.71 2	-4.83 1	9.71 2
85.7051	85.7387	0.36	54.00	4.79-1	-1.81 3	-4.81-1	1.81 3
85.7363	85.7420	0.64	0.70	1.42 2	-1.79 2	-1.42 2	1.79 2
85.7439	85.7503	0.44	2.20	3.00 1	-1.13 3	-3.00 1	1.13 3
85.7684	85.7820	0.38	15.00	2.30 0	-1.87 3	-2.30 0	1.87 3
85.7912	85.7968	0.60	0.76	1.65 2	-3.05 2	-1.65 2	3.05 2
85.8259	85.8314	0.54	0.92	1.31 2	-5.11 2	-1.31 2	5.11 2
85.8339	85.8410	0.42	3.30	1.63 1	-1.33 3	-1.63 1	1.33 3
85.8125	85.8454	0.36	53.00	4.90-1	-1.82 3	-4.93-1	1.82 3
85.8419	85.8474	0.58	0.80	1.55 2	-3.56 2	-1.55 2	3.56 2
85.9003	85.9090	0.40	6.00	7.21 0	-1.58 3	-7.21 0	1.58 3
85.9215	85.9538	0.36	52.00	5.02-1	-1.84 3	-5.05-1	1.84 3
85.9814	85.9947	0.38	14.50	2.39 0	-1.86 3	-2.39 0	1.86 3
86.00	90.00						
86.0324	86.0641	0.36	51.00	5.14-1	-1.85 3	-5.17-1	1.85 3
86.0956	86.1012	0.52	1.00	1.15 2	-6.00 2	-1.15 2	6.00 2
86.1370	86.1426	0.62	0.72	1.72 2	-2.54 2	-1.72 2	2.54 2
86.1430	86.1500	0.42	3.20	1.69 1	-1.32 3	-1.69 1	1.32 3
86.1451	86.1763	0.36	50.00	5.27-1	-1.86 3	-5.30-1	1.86 3
86.1690	86.1776	0.40	5.80	7.50 0	-1.57 3	-7.51 0	1.57 3
86.1921	86.1981	0.46	1.60	5.02 1	-9.56 2	-5.02 1	9.56 2
86.2032	86.2162	0.38	14.00	2.49 0	-1.86 3	-2.49 0	1.86 3
86.2573	86.2631	0.48	1.30	7.26 1	-8.23 2	-7.27 1	8.23 2
86.2694	86.2748	0.56	0.84	1.45 2	-4.13 2	-1.45 2	4.13 2
86.2599	86.2905	0.36	49.00	5.40-1	-1.88 3	-5.43-1	1.88 3
86.3317	86.3380	0.44	2.10	3.18 1	-1.11 3	-3.18 1	1.11 3
86.3768	86.4068	0.36	48.00	5.54-1	-1.89 3	-5.57-1	1.89 3
86.4319	86.4374	0.54	0.90	1.32 2	-4.87 2	-1.32 2	4.87 2
86.4345	86.4472	0.38	13.50	2.59 0	-1.86 3	-2.59 0	1.86 3
86.4500	86.4584	0.40	5.60	7.82 0	-1.57 3	-7.82 0	1.57 3
86.4663	86.4732	0.42	3.10	1.76 1	-1.31 3	-1.76 1	1.31 3
86.4959	86.5253	0.36	47.00	5.69-1	-1.90 3	-5.71-1	1.90 3
86.5887	86.5943	0.50	1.10	9.70 1	-6.94 2	-9.70 1	6.94 2
86.5979	86.6034	0.52	0.98	1.17 2	-5.82 2	-1.17 2	5.82 2
86.6173	86.6462	0.36	46.00	5.84-1	-1.91 3	-5.87-1	1.91 3
86.6762	86.6885	0.38	13.00	2.70 0	-1.85 3	-2.71 0	1.85 3
86.6832	86.6887	0.58	0.78	1.59 2	-3.43 2	-1.59 2	3.43 2
86.6931	86.6990	0.46	1.55	5.23 1	-9.39 2	-5.23 1	9.39 2
86.7459	86.7515	0.60	0.74	1.82 2	-3.14 2	-1.82 2	3.14 2
86.7444	86.7526	0.40	5.40	8.16 0	-1.56 3	-8.17 0	1.56 3
86.7412	86.7695	0.36	45.00	6.00-1	-1.92 3	-6.02-1	1.92 3
86.8049	86.8117	0.42	3.00	1.83 1	-1.30 3	-1.83 1	1.30 3
86.8677	86.8955	0.36	44.00	6.16-1	-1.93 3	-6.19-1	1.93 3
86.9130	86.9186	0.64	0.68	1.06 2	-1.24 2	-1.06 2	1.24 2
86.9291	86.9412	0.38	12.50	2.83 0	-1.85 3	-2.83 0	1.85 3
86.9654	86.9715	0.44	2.00	3.38 1	-1.09 3	-3.38 1	1.09 3
87.0021	87.0077	0.48	1.25	7.58 1	-7.95 2	-7.58 1	7.95 2
87.0156	87.0210	0.56	0.82	1.46 2	-3.93 2	-1.46 2	3.93 2
86.9970	87.0242	0.36	43.00	6.33-1	-1.94 3	-6.36-1	1.95 3
87.0533	87.0614	0.40	5.20	8.53 0	-1.55 3	-8.54 0	1.55 3
87.0665	87.0719	0.54	0.88	1.32 2	-4.64 2	-1.32 2	4.64 2
87.1212	87.1267	0.52	0.96	1.18 2	-5.62 2	-1.18 2	5.62 2
87.1291	87.1557	0.36	42.00	6.52-1	-1.95 3	-6.54-1	1.96 3
87.1603	87.1670	0.42	2.90	1.90 1	-1.28 3	-1.91 1	1.28 3
87.1943	87.2061	0.38	12.00	2.96 0	-1.84 3	-2.97 0	1.84 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
87.2227	87.2285	0.46	1.50	5.44 1	-9.21 2	-5.44 1	9.21 2
87.2284	87.2339	0.62	0.70	1.45 2	-2.00 2	-1.45 2	2.00 2
87.2643	87.2904	0.36	41.00	6.71-1	-1.96 3	-6.73-1	1.97 3
87.3015	87.3076	0.44	1.95	3.48 1	-1.08 3	-3.48 1	1.08 3
87.3783	87.3863	0.40	5.00	8.94 0	-1.54 3	-8.94 0	1.54 3
87.4027	87.4283	0.36	40.00	6.91-1	-1.97 3	-6.93-1	1.97 3
87.4731	87.4845	0.38	11.50	3.11 0	-1.84 3	-3.11 0	1.84 3
87.5341	87.5407	0.42	2.80	1.99 1	-1.27 3	-1.99 1	1.27 3
87.5446	87.5696	0.36	39.00	7.12-1	-1.98 3	-7.14-1	1.98 3
87.5729	87.5783	0.58	0.76	1.60 2	-3.25 2	-1.60 2	3.25 2
87.6374	87.6429	0.50	1.05	1.01 2	-6.54 2	-1.01 2	6.54 2
87.6518	87.6578	0.44	1.90	3.60 1	-1.06 3	-3.60 1	1.06 3
87.6670	87.6724	0.52	0.94	1.19 2	-5.41 2	-1.19 2	5.41 2
87.6901	87.7146	0.36	38.00	7.34-1	-1.99 3	-7.36-1	1.99 3
87.7210	87.7288	0.40	4.80	9.38 0	-1.53 3	-9.39 0	1.53 3
87.7319	87.7372	0.54	0.86	1.33 2	-4.44 2	-1.33 2	4.44 2
87.7596	87.7651	0.60	0.72	1.72 2	-2.78 2	-1.72 2	2.78 2
87.7667	87.7779	0.38	11.00	3.27 0	-1.83 3	-3.28 0	1.83 3
87.7838	87.7896	0.46	1.45	5.67 1	-9.01 2	-5.67 1	9.01 2
87.8017	87.8071	0.56	0.80	1.47 2	-3.72 2	-1.47 2	3.72 2
87.8038	87.8094	0.48	1.20	7.89 1	-7.63 2	-7.89 1	7.63 2
87.8395	87.8634	0.36	37.00	7.57-1	-2.00 3	-7.60-1	2.00 3
87.9279	87.9345	0.42	2.70	2.08 1	-1.26 3	-2.08 1	1.26 3
87.9930	88.0164	0.36	36.00	7.82-1	-2.01 3	-7.85-1	2.01 3
88.0173	88.0233	0.44	1.85	3.72 1	-1.05 3	-3.72 1	1.05 3
88.0769	88.0877	0.38	10.50	3.45 0	-1.82 3	-3.45 0	1.82 3
88.0832	88.0908	0.40	4.60	9.87 0	-1.51 3	-9.87 0	1.51 3
88.1509	88.1737	0.36	35.00	8.08-1	-2.02 3	-8.11-1	2.02 3
88.1715	88.1770	0.64	0.66	5.27 1	-5.72 1	-5.27 1	5.72 1
88.2370	88.2424	0.52	0.92	1.20 2	-5.20 2	-1.20 2	5.20 2
88.3135	88.3357	0.36	34.00	8.36-1	-2.02 3	-8.38-1	2.02 3
88.3440	88.3504	0.42	2.60	2.18 1	-1.24 3	-2.18 1	1.24 3
88.3800	88.3856	0.46	1.40	5.91 1	-8.79 2	-5.91 1	8.79 2
88.3927	88.3981	0.62	0.68	1.13 2	-1.45 2	-1.13 2	1.45 2
88.3993	88.4053	0.44	1.80	3.84 1	-1.03 3	-3.84 1	1.03 3
88.4054	88.4159	0.38	10.00	3.65 0	-1.81 3	-3.65 0	1.81 3
88.4306	88.4359	0.54	0.84	1.32 2	-4.16 2	-1.32 2	4.16 2
88.4670	88.4745	0.40	4.40	1.04 1	-1.50 3	-1.04 1	1.50 3
88.4810	88.5028	0.36	33.00	8.65-1	-2.03 3	-8.68-1	2.03 3
88.5155	88.5209	0.58	0.74	1.71 2	-3.24 2	-1.71 2	3.24 2
88.5424	88.5528	0.38	9.80	3.73 0	-1.81 3	-3.74 0	1.81 3
88.6315	88.6368	0.56	0.78	1.49 2	-3.56 2	-1.49 2	3.56 2
88.6540	88.6751	0.36	32.00	8.97-1	-2.04 3	-8.99-1	2.04 3
88.6705	88.6759	0.48	1.15	8.24 1	-7.31 2	-8.24 1	7.31 2
88.6828	88.6931	0.38	9.60	3.82 0	-1.81 3	-3.83 0	1.81 3
88.7847	88.7910	0.42	2.50	2.28 1	-1.22 3	-2.28 1	1.22 3
88.7885	88.7938	0.50	1.00	1.04 2	-6.10 2	-1.04 2	6.10 2
88.7992	88.8050	0.44	1.75	3.98 1	-1.02 3	-3.98 1	1.02 3
88.8269	88.8370	0.38	9.40	3.92 0	-1.80 3	-3.92 0	1.80 3
88.8329	88.8382	0.52	0.90	1.20 2	-4.97 2	-1.20 2	4.97 2
88.8384	88.8438	0.60	0.70	1.50 2	-2.25 2	-1.50 2	2.25 2
88.8326	88.8533	0.36	31.00	9.30-1	-2.04 3	-9.33-1	2.04 3
88.8751	88.8824	0.40	4.20	1.10 1	-1.49 3	-1.10 1	1.49 3
88.9748	88.9848	0.38	9.20	4.01 0	-1.80 3	-4.02 0	1.80 3
89.0151	89.0207	0.46	1.35	6.16 1	-8.55 2	-6.16 1	8.55 2
89.0174	89.0375	0.36	30.00	9.66-1	-2.05 3	-9.69-1	2.05 3
89.1266	89.1364	0.38	9.00	4.12 0	-1.79 3	-4.12 0	1.79 3
89.1655	89.1707	0.54	0.82	1.33 2	-3.97 2	-1.33 2	3.97 2
89.2184	89.2241	0.44	1.70	4.12 1	-1.00 3	-4.12 1	1.00 3
89.2089	89.2285	0.36	29.00	1.00 0	-2.05 3	-1.01 0	2.05 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
89.2528	89.2590	0.42	2.40	2.40 1	-1.21 3	-2.40 1	1.21 3
89.2815	89.2868	0.50	0.98	1.05 2	-5.91 2	-1.05 2	5.91 2
89.2826	89.2923	0.38	8.80	4.22 0	-1.79 3	-4.23 0	1.79 3
89.3104	89.3176	0.40	4.00	1.16 1	-1.47 3	-1.17 1	1.47 3
89.4075	89.4266	0.36	28.00	1.05 0	-2.06 3	-1.05 0	2.06 3
89.4430	89.4526	0.38	8.60	4.34 0	-1.78 3	-4.34 0	1.78 3
89.4569	89.4621	0.52	0.88	1.21 2	-4.74 2	-1.21 2	4.74 2
89.5088	89.5141	0.56	0.76	1.50 2	-3.35 2	-1.50 2	3.35 2
89.5164	89.5218	0.58	0.72	1.63 2	-2.89 2	-1.63 2	2.89 2
89.5394	89.5464	0.40	3.90	1.20 1	-1.46 3	-1.20 1	1.46 3
89.6115	89.6169	0.48	1.10	8.55 1	-6.92 2	-8.55 1	6.92 2
89.6081	89.6176	0.38	8.40	4.45 0	-1.78 3	-4.46 0	1.78 3
89.6139	89.6324	0.36	27.00	1.09 0	-2.06 3	-1.09 0	2.06 3
89.6378	89.6431	0.62	0.66	7.12 1	-8.41 1	-7.12 1	8.41 1
89.6586	89.6643	0.44	1.65	4.27 1	-9.87 2	-4.27 1	9.87 2
89.6939	89.6994	0.46	1.30	6.40 1	-8.26 2	-6.40 1	8.26 2
89.7515	89.7575	0.42	2.30	2.53 1	-1.19 3	-2.53 1	1.19 3
89.7765	89.7835	0.40	3.80	1.24 1	-1.45 3	-1.24 1	1.45 3
89.7781	89.7874	0.38	8.20	4.58 0	-1.77 3	-4.58 0	1.77 3
89.7951	89.8004	0.50	0.96	1.07 2	-5.72 2	-1.07 2	5.72 2
89.8287	89.8467	0.36	26.00	1.14 0	-2.06 3	-1.14 0	2.06 3
89.9396	89.9448	0.54	0.80	1.33 2	-3.74 2	-1.33 2	3.74 2
89.9533	89.9625	0.38	8.00	4.71 0	-1.77 3	-4.72 0	1.77 3
89.9892	89.9945	0.60	0.68	1.24 2	-1.73 2	-1.24 2	1.73 2
90.00	95.00						
90.0224	90.0293	0.40	3.70	1.28 1	-1.44 3	-1.28 1	1.44 3
90.0527	90.0701	0.36	25.00	1.19 0	-2.06 3	-1.19 0	2.07 3
90.1110	90.1162	0.52	0.86	1.22 2	-4.52 2	-1.22 2	4.52 2
90.1219	90.1276	0.44	1.60	4.43 1	-9.70 2	-4.43 1	9.70 2
90.1340	90.1431	0.38	7.80	4.85 0	-1.76 3	-4.85 0	1.76 3
90.2777	90.2845	0.40	3.60	1.32 1	-1.43 3	-1.32 1	1.43 3
90.2846	90.2905	0.42	2.20	2.66 1	-1.16 3	-2.67 1	1.16 3
90.2866	90.3036	0.36	24.00	1.25 0	-2.07 3	-1.25 0	2.07 3
90.3206	90.3295	0.38	7.60	5.00 0	-1.76 3	-5.00 0	1.76 3
90.3307	90.3359	0.50	0.94	1.07 2	-5.49 2	-1.07 2	5.49 2
90.4218	90.4272	0.46	1.25	6.66 1	-7.97 2	-6.66 1	7.97 2
90.4383	90.4436	0.56	0.74	1.56 2	-3.28 2	-1.56 2	3.28 2
90.5133	90.5222	0.38	7.40	5.15 0	-1.75 3	-5.16 0	1.75 3
90.5316	90.5480	0.36	23.00	1.31 0	-2.07 3	-1.31 0	2.07 3
90.5431	90.5498	0.40	3.50	1.37 1	-1.42 3	-1.37 1	1.42 3
90.5815	90.5867	0.58	0.70	1.44 2	-2.37 2	-1.44 2	2.37 2
90.6105	90.6160	0.44	1.55	4.60 1	-9.51 2	-4.60 1	9.51 2
90.6386	90.6438	0.48	1.05	8.85 1	-6.51 2	-8.85 1	6.51 2
90.7127	90.7214	0.38	7.20	5.32 0	-1.74 3	-5.32 0	1.74 3
90.7566	90.7618	0.54	0.78	1.34 2	-3.55 2	-1.34 2	3.55 2
90.7979	90.8030	0.52	0.84	1.21 2	-4.27 2	-1.21 2	4.27 2
90.7886	90.8045	0.36	22.00	1.38 0	-2.07 3	-1.38 0	2.07 3
90.8192	90.8259	0.40	3.40	1.41 1	-1.41 3	-1.41 1	1.41 3
90.8566	90.8625	0.42	2.10	2.82 1	-1.14 3	-2.82 1	1.14 3
90.8900	90.8952	0.50	0.92	1.08 2	-5.28 2	-1.08 2	5.28 2
90.9192	90.9277	0.38	7.00	5.49 0	-1.74 3	-5.50 0	1.74 3
90.9732	90.9784	0.62	0.64	2.99 1	-3.25 1	-2.99 1	3.25 1
91.0589	91.0743	0.36	21.00	1.45 0	-2.07 3	-1.45 0	2.07 3
91.1070	91.1136	0.40	3.30	1.46 1	-1.40 3	-1.46 1	1.40 3
91.1268	91.1323	0.44	1.50	4.78 1	-9.30 2	-4.78 1	9.30 2
91.1332	91.1416	0.38	6.80	5.68 0	-1.73 3	-5.68 0	1.73 3
91.2051	91.2104	0.46	1.20	6.93 1	-7.65 2	-6.93 1	7.65 2
91.2198	91.2250	0.60	0.66	8.96 1	-1.16 2	-8.96 1	1.16 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
91.2379	91.2909	0.34	90.00	2.15-1	-1.31 3	-2.18-1	1.31 3
91.3441	91.3589	0.36	20.00	1.53 0	-2.07 3	-1.53 0	2.07 3
91.3552	91.3635	0.38	6.60	5.88 0	-1.72 3	-5.88 0	1.72 3
91.3162	91.3683	0.34	89.00	2.19-1	-1.33 3	-2.22-1	1.34 3
91.4074	91.4139	0.40	3.20	1.52 1	-1.39 3	-1.52 1	1.39 3
91.4252	91.4304	0.56	0.72	1.49 2	-2.91 2	-1.49 2	2.91 2
91.3947	91.4460	0.34	88.00	2.24-1	-1.36 3	-2.26-1	1.36 3
91.4731	91.4789	0.42	2.00	2.98 1	-1.12 3	-2.99 1	1.12 3
91.4747	91.4798	0.50	0.90	1.09 2	-5.06 2	-1.09 2	5.06 2
91.4927	91.5072	0.36	19.50	1.58 0	-2.06 3	-1.58 0	2.07 3
91.4734	91.5239	0.34	87.00	2.28-1	-1.38 3	-2.30-1	1.38 3
91.5202	91.5253	0.52	0.82	1.22 2	-4.06 2	-1.22 2	4.06 2
91.5860	91.5941	0.38	6.40	6.09 0	-1.71 3	-6.09 0	1.71 3
91.5523	91.6020	0.34	86.00	2.32-1	-1.40 3	-2.34-1	1.40 3
91.6204	91.6255	0.54	0.76	1.34 2	-3.32 2	-1.34 2	3.32 2
91.6457	91.6600	0.36	19.00	1.62 0	-2.06 3	-1.63 0	2.06 3
91.6737	91.6791	0.44	1.45	4.97 1	-9.08 2	-4.97 1	9.09 2
91.6314	91.6804	0.34	85.00	2.37-1	-1.42 3	-2.39-1	1.42 3
91.7175	91.7227	0.58	0.68	1.24 2	-1.91 2	-1.24 2	1.91 2
91.7215	91.7278	0.40	3.10	1.58 1	-1.37 3	-1.58 1	1.37 3
91.7108	91.7591	0.34	84.00	2.41-1	-1.44 3	-2.43-1	1.44 3
91.7657	91.7708	0.48	1.00	9.15 1	-6.06 2	-9.15 1	6.06 2
91.8000	91.8057	0.42	1.95	3.08 1	-1.10 3	-3.08 1	1.10 3
91.8033	91.8173	0.36	18.50	1.67 0	-2.06 3	-1.68 0	2.06 3
91.8261	91.8341	0.38	6.20	6.31 0	-1.71 3	-6.32 0	1.71 3
91.7906	91.8381	0.34	83.00	2.46-1	-1.46 3	-2.48-1	1.46 3
91.8706	91.9174	0.34	82.00	2.50-1	-1.48 3	-2.53-1	1.49 3
91.9658	91.9795	0.36	18.00	1.73 0	-2.06 3	-1.73 0	2.06 3
91.9510	91.9971	0.34	81.00	2.55-1	-1.51 3	-2.57-1	1.51 3
92.0503	92.0566	0.40	3.00	1.64 1	-1.36 3	-1.64 1	1.36 3
92.0517	92.0569	0.46	1.15	7.20 1	-7.29 2	-7.20 1	7.29 2
92.0518	92.0772	0.34	80.00	2.60-1	-1.53 3	-2.62-1	1.53 3
92.0762	92.0841	0.38	6.00	6.56 0	-1.70 3	-6.56 0	1.70 3
92.0868	92.0919	0.50	0.88	1.10 2	-4.84 2	-1.10 2	4.84 2
92.1406	92.1462	0.42	1.90	3.17 1	-1.09 3	-3.17 1	1.09 3
92.1335	92.1470	0.36	17.50	1.78 0	-2.06 3	-1.78 0	2.06 3
92.1130	92.1577	0.34	79.00	2.65-1	-1.55 3	-2.67-1	1.55 3
92.1946	92.2386	0.34	78.00	2.70-1	-1.57 3	-2.72-1	1.57 3
92.2483	92.2534	0.48	0.98	9.26 1	-5.87 2	-9.26 1	5.87 2
92.2546	92.2599	0.44	1.40	5.17 1	-8.84 2	-5.17 1	8.84 2
92.2812	92.2862	0.52	0.80	1.22 2	-3.82 2	-1.22 2	3.82 2
92.2767	92.3200	0.34	77.00	2.75-1	-1.59 3	-2.78-1	1.59 3
92.3068	92.3200	0.36	17.00	1.84 0	-2.06 3	-1.84 0	2.06 3
92.3373	92.3451	0.38	5.80	6.82 0	-1.69 3	-6.82 0	1.69 3
92.3953	92.4015	0.40	2.90	1.70 1	-1.35 3	-1.71 1	1.35 3
92.3593	92.4019	0.34	76.00	2.81-1	-1.61 3	-2.83-1	1.61 3
92.4753	92.4804	0.56	0.70	1.35 2	-2.46 2	-1.35 2	2.46 2
92.4424	92.4844	0.34	75.00	2.86-1	-1.63 3	-2.89-1	1.63 3
92.4860	92.4989	0.36	16.50	1.90 0	-2.05 3	-1.91 0	2.05 3
92.4959	92.5015	0.42	1.85	3.27 1	-1.07 3	-3.27 1	1.07 3
92.5355	92.5406	0.54	0.74	1.37 2	-3.19 2	-1.37 2	3.19 2
92.5396	92.5447	0.60	0.64	5.46 1	-6.50 1	-5.46 1	6.50 1
92.5261	92.5674	0.34	74.00	2.92-1	-1.65 3	-2.94-1	1.65 3
92.6102	92.6178	0.38	5.60	7.10 0	-1.68 3	-7.10 0	1.68 3
92.6103	92.6510	0.34	73.00	2.98-1	-1.67 3	-3.00-1	1.67 3
92.6716	92.6842	0.36	16.00	1.97 0	-2.05 3	-1.97 0	2.05 3
92.7285	92.7336	0.50	0.86	1.11 2	-4.63 2	-1.11 2	4.63 2
92.6952	92.7353	0.34	72.00	3.04-1	-1.69 3	-3.06-1	1.69 3
92.7511	92.7561	0.48	0.96	9.36 1	-5.68 2	-9.37 1	5.68 2
92.7580	92.7641	0.40	2.80	1.78 1	-1.33 3	-1.78 1	1.33 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
92.7808	92.8202	0.34	71.00	3.10-1	-1.71 3	-3.12-1	1.71 3
92.8672	92.8727	0.42	1.80	3.38 1	-1.05 3	-3.38 1	1.05 3
92.8639	92.8763	0.36	15.50	2.04 0	-2.05 3	-2.04 0	2.05 3
92.8734	92.8786	0.44	1.35	5.36 1	-8.57 2	-5.36 1	8.57 2
92.8960	92.9034	0.38	5.40	7.40 0	-1.67 3	-7.41 0	1.67 3
92.8670	92.9058	0.34	70.00	3.16-1	-1.73 3	-3.18-1	1.73 3
92.9324	92.9375	0.58	0.66	9.68 1	-1.37 2	-9.68 1	1.37 2
92.9708	92.9759	0.46	1.10	7.47 1	-6.91 2	-7.47 1	6.91 2
92.9540	92.9922	0.34	69.00	3.22-1	-1.75 3	-3.25-1	1.75 3
93.0635	93.0756	0.36	15.00	2.12 0	-2.04 3	-2.12 0	2.04 3
93.0417	93.0793	0.34	68.00	3.29-1	-1.77 3	-3.31-1	1.77 3
93.0841	93.0891	0.52	0.78	1.23 2	-3.63 2	-1.23 2	3.63 2
93.1402	93.1462	0.40	2.70	1.86 1	-1.31 3	-1.86 1	1.31 3
93.1303	93.1673	0.34	67.00	3.36-1	-1.79 3	-3.38-1	1.79 3
93.1958	93.2031	0.38	5.20	7.73 0	-1.65 3	-7.74 0	1.65 3
93.2197	93.2561	0.34	66.00	3.43-1	-1.80 3	-3.45-1	1.81 3
93.2557	93.2611	0.42	1.75	3.49 1	-1.04 3	-3.49 1	1.04 3
93.2753	93.2803	0.48	0.94	9.44 1	-5.47 2	-9.44 1	5.47 2
93.2710	93.2829	0.36	14.50	2.20 0	-2.04 3	-2.20 0	2.04 3
93.3100	93.3458	0.34	65.00	3.50-1	-1.82 3	-3.52-1	1.82 3
93.4023	93.4072	0.50	0.84	1.11 2	-4.38 2	-1.11 2	4.38 2
93.4012	93.4364	0.34	64.00	3.57-1	-1.84 3	-3.60-1	1.84 3
93.4870	93.4985	0.36	14.00	2.29 0	-2.03 3	-2.29 0	2.03 3
93.5070	93.5120	0.54	0.72	1.30 2	-2.83 2	-1.30 2	2.83 2
93.5110	93.5182	0.38	5.00	8.09 0	-1.64 3	-8.09 0	1.64 3
93.4934	93.5281	0.34	63.00	3.65-1	-1.86 3	-3.67-1	1.86 3
93.5344	93.5396	0.44	1.30	5.57 1	-8.27 2	-5.57 1	8.27 2
93.5437	93.5496	0.40	2.60	1.94 1	-1.29 3	-1.94 1	1.29 3
93.5953	93.6003	0.56	0.68	1.19 2	-2.01 2	-1.19 2	2.01 2
93.5867	93.6207	0.34	62.00	3.73-1	-1.88 3	-3.75-1	1.88 3
93.6629	93.6683	0.42	1.70	3.60 1	-1.02 3	-3.60 1	1.02 3
93.6810	93.7145	0.34	61.00	3.81-1	-1.90 3	-3.83-1	1.90 3
93.7121	93.7234	0.36	13.50	2.38 0	-2.03 3	-2.39 0	2.03 3
93.7765	93.8094	0.34	60.00	3.89-1	-1.91 3	-3.91-1	1.91 3
93.8227	93.8276	0.48	0.92	9.52 1	-5.25 2	-9.52 1	5.25 2
93.8432	93.8503	0.38	4.80	8.48 0	-1.63 3	-8.48 0	1.63 3
93.8732	93.9055	0.34	59.00	3.98-1	-1.93 3	-4.00-1	1.93 3
93.9330	93.9379	0.52	0.76	1.23 2	-3.40 2	-1.23 2	3.40 2
93.9472	93.9582	0.36	13.00	2.49 0	-2.02 3	-2.49 0	2.02 3
93.9589	93.9639	0.60	0.62	2.78 1	-3.04 1	-2.78 1	3.04 1
93.9709	93.9767	0.40	2.50	2.03 1	-1.27 3	-2.03 1	1.27 3
93.9735	93.9785	0.46	1.05	7.73 1	-6.48 2	-7.73 1	6.48 2
93.9711	94.0029	0.34	58.00	4.07-1	-1.95 3	-4.09-1	1.95 3
94.0905	94.0958	0.42	1.65	3.73 1	-1.00 3	-3.73 1	1.00 3
94.0703	94.1016	0.34	57.00	4.16-1	-1.96 3	-4.18-1	1.96 3
94.1108	94.1157	0.50	0.82	1.11 2	-4.16 2	-1.11 2	4.16 2
94.1942	94.2011	0.38	4.60	8.90 0	-1.61 3	-8.91 0	1.61 3
94.1709	94.2016	0.34	56.00	4.25-1	-1.98 3	-4.28-1	1.98 3
94.1931	94.2038	0.36	12.50	2.60 0	-2.02 3	-2.60 0	2.02 3
94.2351	94.2401	0.58	0.64	6.87 1	-8.99 1	-6.87 1	8.99 1
94.2431	94.2482	0.44	1.25	5.78 1	-7.95 2	-5.78 1	7.95 2
94.2730	94.3031	0.34	55.00	4.35-1	-2.00 3	-4.38-1	2.00 3
94.3949	94.3998	0.48	0.90	9.59 1	-5.04 2	-9.59 1	5.04 2
94.3765	94.4062	0.34	54.00	4.45-1	-2.01 3	-4.48-1	2.01 3
94.4245	94.4302	0.40	2.40	2.13 1	-1.25 3	-2.13 1	1.25 3
94.4509	94.4613	0.36	12.00	2.72 0	-2.01 3	-2.72 0	2.01 3
94.4817	94.5108	0.34	53.00	4.56-1	-2.03 3	-4.58-1	2.03 3
94.5406	94.5456	0.54	0.70	1.20 2	-2.42 2	-1.20 2	2.42 2
94.5403	94.5456	0.42	1.60	3.86 1	-9.80 2	-3.86 1	9.80 2
94.5660	94.5727	0.38	4.40	9.37 0	-1.60 3	-9.37 0	1.60 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
94.5885	94.6171	0.34	52.00	4.67-1	-2.04 3	-4.69-1	2.04 3
94.6971	94.7251	0.34	51.00	4.78-1	-2.06 3	-4.81-1	2.06 3
94.7216	94.7318	0.36	11.50	2.85 0	-2.00 3	-2.86 0	2.00 3
94.7929	94.7978	0.56	0.66	9.81 1	-1.54 2	-9.81 1	1.54 2
94.8075	94.8350	0.34	50.00	4.90-1	-2.07 3	-4.93-1	2.07 3
94.8322	94.8371	0.52	0.74	1.24 2	-3.22 2	-1.24 2	3.22 2
94.8570	94.8619	0.50	0.80	1.11 2	-3.93 2	-1.11 2	3.93 2
94.9075	94.9131	0.40	2.30	2.23 1	-1.23 3	-2.23 1	1.23 3
94.9198	94.9468	0.34	49.00	5.03-1	-2.08 3	-5.05-1	2.09 3
94.9611	94.9677	0.38	4.20	9.88 0	-1.58 3	-9.89 0	1.58 3
94.9939	94.9987	0.48	0.88	9.63 1	-4.81 2	-9.63 1	4.81 2
95.00	100.00						
95.0057	95.0107	0.44	1.20	5.99 1	-7.61 2	-6.00 1	7.61 2
95.0067	95.0166	0.36	11.00	3.00 0	-1.99 3	-3.00 0	2.00 3
95.0146	95.0197	0.42	1.55	4.00 1	-9.59 2	-4.00 1	9.59 2
95.0342	95.0607	0.34	48.00	5.16-1	-2.10 3	-5.18-1	2.10 3
95.0737	95.0785	0.46	1.00	7.97 1	-6.02 2	-7.97 1	6.02 2
95.1507	95.1767	0.34	47.00	5.29-1	-2.11 3	-5.31-1	2.11 3
95.2694	95.2949	0.34	46.00	5.43-1	-2.12 3	-5.45-1	2.13 3
95.3077	95.3173	0.36	10.50	3.16 0	-1.99 3	-3.16 0	1.99 3
95.3823	95.3887	0.38	4.00	1.05 1	-1.56 3	-1.05 1	1.56 3
95.3906	95.4156	0.34	45.00	5.57-1	-2.14 3	-5.60-1	2.14 3
95.4237	95.4292	0.40	2.20	2.35 1	-1.20 3	-2.35 1	1.20 3
95.5156	95.5207	0.42	1.50	4.14 1	-9.35 2	-4.14 1	9.35 2
95.5142	95.5387	0.34	44.00	5.73-1	-2.15 3	-5.75-1	2.15 3
95.5447	95.5496	0.46	0.98	8.05 1	-5.83 2	-8.05 1	5.83 2
95.6037	95.6101	0.38	3.90	1.08 1	-1.55 3	-1.08 1	1.55 3
95.6218	95.6266	0.48	0.86	9.71 1	-4.60 2	-9.71 1	4.60 2
95.6262	95.6356	0.36	10.00	3.34 0	-1.98 3	-3.34 0	1.98 3
95.6360	95.6409	0.58	0.62	4.59 1	-5.51 1	-4.59 1	5.51 1
95.6430	95.6479	0.54	0.68	1.07 2	-2.02 2	-1.07 2	2.02 2
95.6445	95.6493	0.50	0.78	1.12 2	-3.73 2	-1.12 2	3.73 2
95.6405	95.6645	0.34	43.00	5.89-1	-2.16 3	-5.91-1	2.16 3
95.7591	95.7683	0.36	9.80	3.42 0	-1.97 3	-3.42 0	1.97 3
95.7868	95.7916	0.52	0.72	1.19 2	-2.89 2	-1.19 2	2.89 2
95.7696	95.7931	0.34	42.00	6.05-1	-2.17 3	-6.08-1	2.17 3
95.8296	95.8345	0.44	1.15	6.21 1	-7.24 2	-6.21 1	7.24 2
95.8330	95.8393	0.38	3.80	1.11 1	-1.54 3	-1.11 1	1.54 3
95.8952	95.9043	0.36	9.60	3.50 0	-1.97 3	-3.50 0	1.97 3
95.9016	95.9246	0.34	41.00	6.23-1	-2.18 3	-6.25-1	2.18 3
95.9774	95.9828	0.40	2.10	2.48 1	-1.18 3	-2.48 1	1.18 3
96.0353	96.0401	0.46	0.96	8.15 1	-5.64 2	-8.15 1	5.64 2
96.0348	96.0437	0.36	9.40	3.58 0	-1.96 3	-3.58 0	1.96 3
96.0463	96.0513	0.42	1.45	4.29 1	-9.11 2	-4.29 1	9.11 2
96.0368	96.0592	0.34	40.00	6.41-1	-2.19 3	-6.44-1	2.19 3
96.0707	96.0770	0.38	3.70	1.14 1	-1.53 3	-1.14 1	1.53 3
96.0770	96.0818	0.56	0.64	7.62 1	-1.10 2	-7.62 1	1.10 2
96.1780	96.1868	0.36	9.20	3.67 0	-1.96 3	-3.67 0	1.96 3
96.1752	96.1972	0.34	39.00	6.61-1	-2.20 3	-6.63-1	2.21 3
96.2809	96.2857	0.48	0.84	9.69 1	-4.35 2	-9.69 1	4.35 2
96.3174	96.3236	0.38	3.60	1.18 1	-1.51 3	-1.18 1	1.51 3
96.3250	96.3338	0.36	9.00	3.76 0	-1.95 3	-3.76 0	1.95 3
96.3172	96.3387	0.34	38.00	6.81-1	-2.21 3	-6.83-1	2.21 3
96.4769	96.4816	0.50	0.76	1.12 2	-3.49 2	-1.12 2	3.49 2
96.4629	96.4839	0.34	37.00	7.03-1	-2.22 3	-7.05-1	2.22 3
96.4760	96.4847	0.36	8.80	3.85 0	-1.95 3	-3.86 0	1.95 3
96.5469	96.5517	0.46	0.94	8.22 1	-5.43 2	-8.22 1	5.43 2
96.5739	96.5791	0.40	2.00	2.62 1	-1.15 3	-2.62 1	1.15 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
96.5738	96.5798	0.38	3.50	1.22 1	-1.50 3	-1.22 1	1.50 3
96.6098	96.6148	0.42	1.40	4.44 1	-8.84 2	-4.44 1	8.84 2
96.6125	96.6330	0.34	36.00	7.25-1	-2.23 3	-7.28-1	2.23 3
96.6313	96.6398	0.36	8.60	3.96 0	-1.94 3	-3.96 0	1.94 3
96.7238	96.7286	0.44	1.10	6.43 1	-6.84 2	-6.43 1	6.84 2
96.7664	96.7864	0.34	35.00	7.50-1	-2.24 3	-7.52-1	2.24 3
96.7910	96.7994	0.36	8.40	4.06 0	-1.93 3	-4.06 0	1.93 3
96.8024	96.8071	0.52	0.70	1.11 2	-2.51 2	-1.11 2	2.51 2
96.8218	96.8265	0.54	0.66	9.22 1	-1.60 2	-9.22 1	1.60 2
96.8405	96.8465	0.38	3.40	1.26 1	-1.49 3	-1.26 1	1.49 3
96.8900	96.8953	0.40	1.95	2.69 1	-1.13 3	-2.69 1	1.13 3
96.9248	96.9443	0.34	34.00	7.75-1	-2.25 3	-7.77-1	2.25 3
96.9555	96.9638	0.36	8.20	4.17 0	-1.93 3	-4.18 0	1.93 3
96.9740	96.9787	0.48	0.82	9.76 1	-4.14 2	-9.76 1	4.14 2
97.0810	97.0857	0.46	0.92	8.28 1	-5.21 2	-8.28 1	5.22 2
97.0879	97.1070	0.34	33.00	8.02-1	-2.26 3	-8.04-1	2.26 3
97.1184	97.1243	0.38	3.30	1.30 1	-1.48 3	-1.30 1	1.48 3
97.1249	97.1331	0.36	8.00	4.29 0	-1.92 3	-4.29 0	1.92 3
97.1473	97.1520	0.58	0.60	2.17 1	-2.39 1	-2.17 1	2.39 1
97.2098	97.2147	0.42	1.35	4.59 1	-8.53 2	-4.59 1	8.53 2
97.2194	97.2245	0.40	1.90	2.77 1	-1.11 3	-2.77 1	1.11 3
97.2563	97.2749	0.34	32.00	8.31-1	-2.26 3	-8.33-1	2.26 3
97.2996	97.3076	0.36	7.80	4.41 0	-1.91 3	-4.42 0	1.91 3
97.3586	97.3633	0.50	0.74	1.13 2	-3.29 2	-1.13 2	3.29 2
97.4083	97.4141	0.38	3.20	1.35 1	-1.46 3	-1.35 1	1.46 3
97.4301	97.4482	0.34	31.00	8.62-1	-2.27 3	-8.64-1	2.27 3
97.4579	97.4626	0.56	0.62	5.71 1	-7.57 1	-5.71 1	7.57 1
97.4799	97.4878	0.36	7.60	4.54 0	-1.91 3	-4.55 0	1.91 3
97.5629	97.5680	0.40	1.85	2.85 1	-1.10 3	-2.85 1	1.10 3
97.6099	97.6275	0.34	30.00	8.95-1	-2.27 3	-8.97-1	2.27 3
97.6392	97.6439	0.46	0.90	8.32 1	-4.99 2	-8.32 1	4.99 2
97.6661	97.6739	0.36	7.40	4.68 0	-1.90 3	-4.68 0	1.90 3
97.6992	97.7039	0.44	1.05	6.63 1	-6.41 2	-6.63 1	6.41 2
97.7040	97.7087	0.48	0.80	9.76 1	-3.90 2	-9.76 1	3.90 2
97.7113	97.7170	0.38	3.10	1.40 1	-1.44 3	-1.40 1	1.44 3
97.7960	97.8132	0.34	29.00	9.30-1	-2.28 3	-9.32-1	2.28 3
97.8508	97.8556	0.42	1.30	4.76 1	-8.23 2	-4.76 1	8.23 2
97.8587	97.8664	0.36	7.20	4.83 0	-1.89 3	-4.83 0	1.89 3
97.8855	97.8902	0.52	0.68	1.02 2	-2.13 2	-1.02 2	2.13 2
97.9217	97.9267	0.40	1.80	2.94 1	-1.08 3	-2.94 1	1.08 3
97.9891	98.0058	0.34	28.00	9.68-1	-2.28 3	-9.70-1	2.28 3
98.0285	98.0342	0.38	3.00	1.45 1	-1.43 3	-1.45 1	1.43 3
98.0580	98.0656	0.36	7.00	4.98 0	-1.88 3	-4.98 0	1.88 3
98.0857	98.0903	0.54	0.64	7.55 1	-1.21 2	-7.55 1	1.21 2
98.1896	98.2058	0.34	27.00	1.01 0	-2.29 3	-1.01 0	2.29 3
98.2235	98.2281	0.46	0.88	8.37 1	-4.77 2	-8.38 1	4.77 2
98.2646	98.2720	0.36	6.80	5.15 0	-1.87 3	-5.15 0	1.87 3
98.2945	98.2992	0.50	0.72	1.09 2	-2.98 2	-1.09 2	2.98 2
98.2971	98.3021	0.40	1.75	3.03 1	-1.06 3	-3.03 1	1.06 3
98.3612	98.3668	0.38	2.90	1.51 1	-1.41 3	-1.51 1	1.41 3
98.3981	98.4139	0.34	26.00	1.05 0	-2.29 3	-1.05 0	2.29 3
98.4743	98.4789	0.48	0.78	9.80 1	-3.69 2	-9.80 1	3.69 2
98.4788	98.4862	0.36	6.60	5.32 0	-1.86 3	-5.32 0	1.86 3
98.5377	98.5425	0.42	1.25	4.92 1	-7.88 2	-4.92 1	7.88 2
98.6155	98.6308	0.34	25.00	1.10 0	-2.29 3	-1.10 0	2.29 3
98.6905	98.6954	0.40	1.70	3.12 1	-1.04 3	-3.12 1	1.04 3
98.7014	98.7086	0.36	6.40	5.51 0	-1.85 3	-5.51 0	1.85 3
98.7108	98.7163	0.38	2.80	1.57 1	-1.39 3	-1.57 1	1.39 3
98.7691	98.7737	0.44	1.00	6.82 1	-5.94 2	-6.82 1	5.94 2
98.8360	98.8406	0.46	0.86	8.43 1	-4.56 2	-8.43 1	4.56 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
98.8425	98.8572	0.34	24.00	1.15 0	-2.29 3	-1.15 0	2.30 3
98.9329	98.9400	0.36	6.20	5.71 0	-1.84 3	-5.71 0	1.84 3
98.9476	98.9521	0.56	0.60	3.67 1	-4.45 1	-3.67 1	4.45 1
99.0436	99.0481	0.52	0.66	8.98 1	-1.74 2	-8.98 1	1.74 2
99.0790	99.0844	0.38	2.70	1.63 1	-1.37 3	-1.63 1	1.37 3
99.0799	99.0942	0.34	23.00	1.21 0	-2.30 3	-1.21 0	2.30 3
99.1034	99.1083	0.40	1.65	3.22 1	-1.01 3	-3.22 1	1.01 3
99.1740	99.1809	0.36	6.00	5.92 0	-1.83 3	-5.92 0	1.83 3
99.2272	99.2317	0.44	0.98	6.89 1	-5.74 2	-6.89 1	5.74 2
99.2767	99.2814	0.42	1.20	5.09 1	-7.51 2	-5.09 1	7.51 2
99.2884	99.2930	0.48	0.76	9.74 1	-3.44 2	-9.74 1	3.44 2
99.2903	99.2948	0.50	0.70	1.03 2	-2.62 2	-1.03 2	2.62 2
99.3290	99.3428	0.34	22.00	1.27 0	-2.30 3	-1.27 0	2.30 3
99.4255	99.4323	0.36	5.80	6.15 0	-1.82 3	-6.15 0	1.82 3
99.4447	99.4492	0.54	0.62	6.01 1	-8.84 1	-6.01 1	8.84 1
99.4677	99.4730	0.38	2.60	1.70 1	-1.35 3	-1.70 1	1.35 3
99.4790	99.4835	0.46	0.84	8.42 1	-4.31 2	-8.42 1	4.31 2
99.5378	99.5426	0.40	1.60	3.32 1	-9.92 2	-3.32 1	9.92 2
99.5908	99.6041	0.34	21.00	1.34 0	-2.29 3	-1.34 0	2.29 3
99.6883	99.6950	0.36	5.60	6.39 0	-1.81 3	-6.40 0	1.81 3
99.7042	99.7087	0.44	0.96	6.96 1	-5.55 2	-6.96 1	5.55 2
99.8667	99.8796	0.34	20.00	1.41 0	-2.29 3	-1.41 0	2.29 3
99.8790	99.8842	0.38	2.50	1.78 1	-1.32 3	-1.78 1	1.32 3
99.9634	99.9699	0.36	5.40	6.66 0	-1.79 3	-6.66 0	1.79 3
99.9956	100.000	0.40	1.55	3.43 1	-9.68 2	-3.43 1	9.68 2
100.00	105.00						
100.010	100.023	0.34	19.50	1.45 0	-2.29 3	-1.45 0	2.29 3
100.075	100.080	0.42	1.15	5.26 1	-7.13 2	-5.26 1	7.13 2
100.151	100.155	0.48	0.74	9.76 1	-3.23 2	-9.76 1	3.23 2
100.155	100.159	0.46	0.82	8.46 1	-4.10 2	-8.47 1	4.10 2
100.158	100.171	0.34	19.00	1.49 0	-2.29 3	-1.50 0	2.29 3
100.202	100.206	0.44	0.94	7.02 1	-5.34 2	-7.02 1	5.34 2
100.252	100.258	0.36	5.20	6.94 0	-1.78 3	-6.95 0	1.78 3
100.285	100.290	0.52	0.64	7.69 1	-1.38 2	-7.69 1	1.38 2
100.316	100.321	0.38	2.40	1.86 1	-1.30 3	-1.86 1	1.30 3
100.311	100.323	0.34	18.50	1.54 0	-2.29 3	-1.54 0	2.29 3
100.352	100.357	0.50	0.68	9.59 1	-2.26 2	-9.59 1	2.26 2
100.468	100.480	0.34	18.00	1.59 0	-2.28 3	-1.59 0	2.28 3
100.479	100.484	0.40	1.50	3.55 1	-9.43 2	-3.55 1	9.43 2
100.555	100.561	0.36	5.00	7.25 0	-1.76 3	-7.26 0	1.76 3
100.560	100.564	0.56	0.58	1.76 1	-1.94 1	-1.76 1	1.94 1
100.630	100.642	0.34	17.50	1.64 0	-2.28 3	-1.64 0	2.28 3
100.721	100.725	0.44	0.92	7.06 1	-5.13 2	-7.06 1	5.13 2
100.780	100.785	0.38	2.30	1.94 1	-1.27 3	-1.94 1	1.27 3
100.797	100.809	0.34	17.00	1.69 0	-2.28 3	-1.69 0	2.28 3
100.867	100.871	0.46	0.80	8.45 1	-3.86 2	-8.45 1	3.86 2
100.874	100.881	0.36	4.80	7.59 0	-1.75 3	-7.59 0	1.75 3
100.911	100.915	0.54	0.60	4.38 1	-5.89 1	-4.38 1	5.89 1
100.941	100.946	0.42	1.10	5.42 1	-6.71 2	-5.42 1	6.71 2
100.970	100.981	0.34	16.50	1.75 0	-2.28 3	-1.75 0	2.28 3
100.991	100.996	0.40	1.45	3.66 1	-9.15 2	-3.66 1	9.15 2
101.066	101.071	0.48	0.72	9.48 1	-2.93 2	-9.48 1	2.93 2
101.149	101.160	0.34	16.00	1.81 0	-2.27 3	-1.81 0	2.27 3
101.212	101.218	0.36	4.60	7.96 0	-1.73 3	-7.96 0	1.73 3
101.263	101.268	0.44	0.90	7.10 1	-4.91 2	-7.10 1	4.91 2
101.277	101.282	0.38	2.20	2.04 1	-1.24 3	-2.04 1	1.24 3
101.335	101.346	0.34	15.50	1.87 0	-2.27 3	-1.88 0	2.27 3
101.487	101.492	0.50	0.66	8.67 1	-1.89 2	-8.67 1	1.89 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
101.527	101.538	0.34	15.00	1.94 0	-2.26 3	-1.94 0	2.26 3
101.535	101.539	0.40	1.40	3.78 1	-8.85 2	-3.78 1	8.85 2
101.506	101.552	0.32	90.00	2.01-1	-1.48 3	-2.03-1	1.48 3
101.569	101.575	0.36	4.40	8.36 0	-1.71 3	-8.36 0	1.71 3
101.618	101.622	0.46	0.78	8.47 1	-3.64 2	-8.47 1	3.64 2
101.620	101.625	0.52	0.62	6.42 1	-1.06 2	-6.43 1	1.06 2
101.582	101.627	0.32	89.00	2.05-1	-1.51 3	-2.07-1	1.51 3
101.659	101.703	0.32	88.00	2.09-1	-1.53 3	-2.11-1	1.53 3
101.727	101.738	0.34	14.50	2.02 0	-2.26 3	-2.02 0	2.26 3
101.735	101.779	0.32	87.00	2.13-1	-1.56 3	-2.15-1	1.56 3
101.809	101.814	0.38	2.10	2.14 1	-1.21 3	-2.14 1	1.21 3
101.831	101.836	0.44	0.88	7.14 1	-4.69 2	-7.14 1	4.69 2
101.812	101.855	0.32	86.00	2.17-1	-1.58 3	-2.19-1	1.58 3
101.886	101.890	0.42	1.05	5.56 1	-6.26 2	-5.56 1	6.26 2
101.889	101.932	0.32	85.00	2.21-1	-1.61 3	-2.23-1	1.61 3
101.935	101.945	0.34	14.00	2.10 0	-2.25 3	-2.10 0	2.25 3
101.948	101.954	0.36	4.20	8.80 0	-1.69 3	-8.80 0	1.69 3
101.966	102.008	0.32	84.00	2.25-1	-1.63 3	-2.27-1	1.63 3
102.040	102.044	0.48	0.70	9.04 1	-2.60 2	-9.04 1	2.60 2
102.044	102.085	0.32	83.00	2.29-1	-1.65 3	-2.31-1	1.65 3
102.114	102.118	0.40	1.35	3.90 1	-8.53 2	-3.90 1	8.53 2
102.152	102.162	0.34	13.50	2.18 0	-2.24 3	-2.18 0	2.24 3
102.122	102.162	0.32	82.00	2.34-1	-1.68 3	-2.35-1	1.68 3
102.200	102.240	0.32	81.00	2.38-1	-1.70 3	-2.40-1	1.70 3
102.279	102.318	0.32	80.00	2.43-1	-1.73 3	-2.45-1	1.73 3
102.352	102.358	0.36	4.00	9.28 0	-1.66 3	-9.28 0	1.66 3
102.382	102.387	0.38	2.00	2.25 1	-1.17 3	-2.25 1	1.17 3
102.378	102.388	0.34	13.00	2.27 0	-2.24 3	-2.28 0	2.24 3
102.358	102.396	0.32	79.00	2.47-1	-1.75 3	-2.49-1	1.75 3
102.412	102.416	0.46	0.76	8.42 1	-3.40 2	-8.42 1	3.40 2
102.426	102.431	0.44	0.86	7.17 1	-4.47 2	-7.17 1	4.47 2
102.437	102.475	0.32	78.00	2.52-1	-1.77 3	-2.54-1	1.77 3
102.497	102.502	0.54	0.58	2.79 1	-3.42 1	-2.79 1	3.42 1
102.517	102.554	0.32	77.00	2.57-1	-1.80 3	-2.59-1	1.80 3
102.564	102.570	0.36	3.90	9.54 0	-1.65 3	-9.55 0	1.65 3
102.615	102.624	0.34	12.50	2.38 0	-2.23 3	-2.38 0	2.23 3
102.597	102.634	0.32	76.00	2.62-1	-1.82 3	-2.64-1	1.82 3
102.686	102.690	0.38	1.95	2.31 1	-1.15 3	-2.31 1	1.15 3
102.705	102.709	0.50	0.64	7.68 1	-1.55 2	-7.68 1	1.55 2
102.678	102.714	0.32	75.00	2.67-1	-1.84 3	-2.69-1	1.84 3
102.732	102.736	0.40	1.30	4.03 1	-8.19 2	-4.03 1	8.20 2
102.784	102.790	0.36	3.80	9.82 0	-1.64 3	-9.82 0	1.64 3
102.759	102.795	0.32	74.00	2.72-1	-1.86 3	-2.74-1	1.87 3
102.863	102.872	0.34	12.00	2.48 0	-2.22 3	-2.49 0	2.22 3
102.841	102.876	0.32	73.00	2.78-1	-1.89 3	-2.79-1	1.89 3
102.921	102.926	0.42	1.00	5.70 1	-5.79 2	-5.71 1	5.79 2
102.923	102.958	0.32	72.00	2.83-1	-1.91 3	-2.85-1	1.91 3
103.002	103.007	0.38	1.90	2.37 1	-1.13 3	-2.37 1	1.14 3
103.012	103.018	0.36	3.70	1.01 1	-1.62 3	-1.01 1	1.62 3
103.006	103.040	0.32	71.00	2.89-1	-1.93 3	-2.91-1	1.93 3
103.051	103.056	0.44	0.84	7.18 1	-4.24 2	-7.18 1	4.24 2
103.060	103.065	0.52	0.60	5.07 1	-7.63 1	-5.07 1	7.63 1
103.078	103.083	0.48	0.68	8.52 1	-2.28 2	-8.52 1	2.28 2
103.090	103.124	0.32	70.00	2.95-1	-1.95 3	-2.96-1	1.96 3
103.123	103.132	0.34	11.50	2.60 0	-2.21 3	-2.61 0	2.21 3
103.174	103.207	0.32	69.00	3.00-1	-1.98 3	-3.02-1	1.98 3
103.248	103.254	0.36	3.60	1.04 1	-1.61 3	-1.04 1	1.61 3
103.253	103.257	0.46	0.74	8.41 1	-3.18 2	-8.41 1	3.18 2
103.260	103.292	0.32	68.00	3.07-1	-2.00 3	-3.08-1	2.00 3
103.332	103.336	0.38	1.85	2.44 1	-1.11 3	-2.44 1	1.11 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
103.365	103.369	0.42	0.98	5.76 1	-5.59 2	-5.76 1	5.59 2
103.345	103.377	0.32	67.00	3.13-1	-2.02 3	-3.15-1	2.02 3
103.394	103.398	0.40	1.25	4.16 1	-7.83 2	-4.16 1	7.83 2
103.397	103.405	0.34	11.00	2.73 0	-2.20 3	-2.74 0	2.20 3
103.432	103.464	0.32	66.00	3.19-1	-2.04 3	-3.21-1	2.04 3
103.494	103.499	0.36	3.50	1.07 1	-1.59 3	-1.07 1	1.59 3
103.520	103.551	0.32	65.00	3.26-1	-2.06 3	-3.28-1	2.06 3
103.608	103.638	0.32	64.00	3.33-1	-2.08 3	-3.35-1	2.08 3
103.676	103.681	0.38	1.80	2.50 1	-1.09 3	-2.50 1	1.09 3
103.686	103.694	0.34	10.50	2.88 0	-2.19 3	-2.88 0	2.19 3
103.708	103.712	0.44	0.82	7.19 1	-4.01 2	-7.19 1	4.01 2
103.697	103.727	0.32	63.00	3.40-1	-2.10 3	-3.42-1	2.10 3
103.749	103.755	0.36	3.40	1.11 1	-1.57 3	-1.11 1	1.57 3
103.788	103.817	0.32	62.00	3.47-1	-2.12 3	-3.49-1	2.12 3
103.827	103.831	0.42	0.96	5.80 1	-5.39 2	-5.80 1	5.39 2
103.879	103.908	0.32	61.00	3.54-1	-2.14 3	-3.56-1	2.14 3
103.992	104.000	0.34	10.00	3.04 0	-2.18 3	-3.04 0	2.18 3
103.972	104.000	0.32	60.00	3.62-1	-2.16 3	-3.64-1	2.16 3
104.013	104.018	0.50	0.62	6.69 1	-1.24 2	-6.69 1	1.24 2
104.015	104.021	0.36	3.30	1.14 1	-1.56 3	-1.14 1	1.56 3
104.037	104.041	0.38	1.75	2.57 1	-1.07 3	-2.57 1	1.07 3
104.065	104.093	0.32	59.00	3.70-1	-2.18 3	-3.72-1	2.18 3
104.106	104.110	0.40	1.20	4.28 1	-7.45 2	-4.28 1	7.45 2
104.119	104.127	0.34	9.80	3.10 0	-2.17 3	-3.11 0	2.17 3
104.145	104.150	0.46	0.72	8.20 1	-2.90 2	-8.20 1	2.90 2
104.160	104.187	0.32	58.00	3.78-1	-2.20 3	-3.80-1	2.20 3
104.189	104.193	0.48	0.66	7.82 1	-1.93 2	-7.82 1	1.93 2
104.221	104.225	0.54	0.56	1.29 1	-1.43 1	-1.29 1	1.43 1
104.249	104.257	0.34	9.60	3.17 0	-2.16 3	-3.18 0	2.16 3
104.256	104.283	0.32	57.00	3.87-1	-2.22 3	-3.89-1	2.22 3
104.293	104.298	0.36	3.20	1.18 1	-1.54 3	-1.18 1	1.54 3
104.308	104.312	0.42	0.94	5.85 1	-5.19 2	-5.85 1	5.19 2
104.353	104.380	0.32	56.00	3.96-1	-2.24 3	-3.98-1	2.24 3
104.383	104.391	0.34	9.40	3.25 0	-2.16 3	-3.25 0	2.16 3
104.400	104.404	0.44	0.80	7.18 1	-3.78 2	-7.18 1	3.78 2
104.414	104.418	0.38	1.70	2.65 1	-1.05 3	-2.65 1	1.05 3
104.452	104.478	0.32	55.00	4.05-1	-2.26 3	-4.07-1	2.26 3
104.520	104.528	0.34	9.20	3.33 0	-2.15 3	-3.33 0	2.15 3
104.552	104.578	0.32	54.00	4.14-1	-2.27 3	-4.16-1	2.27 3
104.583	104.588	0.36	3.10	1.22 1	-1.52 3	-1.22 1	1.52 3
104.619	104.623	0.52	0.58	3.75 1	-5.14 1	-3.75 1	5.14 1
104.661	104.669	0.34	9.00	3.41 0	-2.14 3	-3.41 0	2.15 3
104.654	104.679	0.32	53.00	4.24-1	-2.29 3	-4.26-1	2.29 3
104.757	104.782	0.32	52.00	4.34-1	-2.31 3	-4.36-1	2.31 3
104.806	104.813	0.34	8.80	3.49 0	-2.14 3	-3.49 0	2.14 3
104.810	104.814	0.38	1.65	2.72 1	-1.02 3	-2.72 1	1.02 3
104.810	104.814	0.42	0.92	5.88 1	-4.97 2	-5.88 1	4.97 2
104.875	104.879	0.40	1.15	4.41 1	-7.04 2	-4.41 1	7.04 2
104.862	104.886	0.32	51.00	4.45-1	-2.33 3	-4.47-1	2.33 3
104.886	104.891	0.36	3.00	1.27 1	-1.50 3	-1.27 1	1.50 3
104.955	104.962	0.34	8.60	3.58 0	-2.13 3	-3.58 0	2.13 3
104.969	104.992	0.32	50.00	4.56-1	-2.34 3	-4.57-1	2.34 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
105.00	112.00						
105.095	105.099	0.46	0.70	7.86 1	-2.59 2	-7.86 1	2.59 2
105.077	105.100	0.32	49.00	4.67-1	-2.36 3	-4.69-1	2.36 3
105.108	105.115	0.34	8.40	3.67 0	-2.12 3	-3.68 0	2.12 3
105.130	105.134	0.44	0.78	7.17 1	-3.55 2	-7.17 1	3.55 2
105.204	105.209	0.36	2.90	1.31 1	-1.48 3	-1.31 1	1.48 3
105.188	105.210	0.32	48.00	4.79-1	-2.37 3	-4.81-1	2.37 3
105.227	105.231	0.38	1.60	2.80 1	-9.96 2	-2.80 1	9.96 2
105.265	105.272	0.34	8.20	3.77 0	-2.12 3	-3.77 0	2.12 3
105.300	105.322	0.32	47.00	4.91-1	-2.39 3	-4.93-1	2.39 3
105.336	105.340	0.42	0.90	5.91 1	-4.76 2	-5.91 1	4.76 2
105.379	105.383	0.48	0.64	7.07 1	-1.61 2	-7.07 1	1.61 2
105.425	105.429	0.50	0.60	5.60 1	-9.48 1	-5.60 1	9.48 1
105.427	105.434	0.34	8.00	3.87 0	-2.11 3	-3.88 0	2.11 3
105.415	105.436	0.32	46.00	5.04-1	-2.40 3	-5.06-1	2.40 3
105.538	105.543	0.36	2.80	1.36 1	-1.45 3	-1.36 1	1.45 3
105.531	105.553	0.32	45.00	5.17-1	-2.42 3	-5.19-1	2.42 3
105.594	105.601	0.34	7.80	3.98 0	-2.10 3	-3.98 0	2.10 3
105.666	105.670	0.38	1.55	2.88 1	-9.68 2	-2.88 1	9.68 2
105.651	105.672	0.32	44.00	5.31-1	-2.43 3	-5.33-1	2.43 3
105.709	105.714	0.40	1.10	4.53 1	-6.61 2	-4.53 1	6.61 2
105.766	105.773	0.34	7.60	4.10 0	-2.09 3	-4.10 0	2.09 3
105.772	105.793	0.32	43.00	5.46-1	-2.44 3	-5.48-1	2.44 3
105.885	105.889	0.42	0.88	5.93 1	-4.54 2	-5.93 1	4.54 2
105.890	105.895	0.36	2.70	1.41 1	-1.43 3	-1.41 1	1.43 3
105.901	105.905	0.44	0.76	7.13 1	-3.32 2	-7.13 1	3.32 2
105.897	105.917	0.32	42.00	5.61-1	-2.46 3	-5.63-1	2.46 3
105.944	105.951	0.34	7.40	4.22 0	-2.08 3	-4.22 0	2.08 3
106.024	106.044	0.32	41.00	5.77-1	-2.47 3	-5.79-1	2.47 3
106.107	106.111	0.46	0.68	7.48 1	-2.29 2	-7.48 1	2.29 2
106.129	106.133	0.38	1.50	2.97 1	-9.40 2	-2.97 1	9.40 2
106.128	106.135	0.34	7.20	4.34 0	-2.07 3	-4.35 0	2.07 3
106.154	106.173	0.32	40.00	5.94-1	-2.48 3	-5.96-1	2.48 3
106.261	106.266	0.36	2.60	1.47 1	-1.40 3	-1.47 1	1.40 3
106.287	106.306	0.32	39.00	6.12-1	-2.49 3	-6.14-1	2.49 3
106.312	106.316	0.52	0.56	2.44 1	-3.03 1	-2.44 1	3.03 1
106.319	106.325	0.34	7.00	4.48 0	-2.06 3	-4.48 0	2.06 3
106.424	106.442	0.32	38.00	6.31-1	-2.50 3	-6.33-1	2.50 3
106.461	106.465	0.42	0.86	5.96 1	-4.33 2	-5.96 1	4.33 2
106.516	106.522	0.34	6.80	4.62 0	-2.05 3	-4.62 0	2.05 3
106.564	106.582	0.32	37.00	6.51-1	-2.51 3	-6.53-1	2.51 3
106.619	106.623	0.40	1.05	4.65 1	-6.15 2	-4.65 1	6.15 2
106.620	106.624	0.38	1.45	3.06 1	-9.09 2	-3.06 1	9.09 2
106.654	106.658	0.36	2.50	1.53 1	-1.38 3	-1.53 1	1.38 3
106.659	106.663	0.48	0.62	6.32 1	-1.32 2	-6.32 1	1.32 2
106.718	106.722	0.44	0.74	7.10 1	-3.10 2	-7.10 1	3.10 2
106.708	106.726	0.32	36.00	6.71-1	-2.52 3	-6.73-1	2.52 3
106.721	106.727	0.34	6.60	4.77 0	-2.03 3	-4.78 0	2.03 3
106.856	106.873	0.32	35.00	6.94-1	-2.53 3	-6.96-1	2.53 3
106.933	106.939	0.34	6.40	4.93 0	-2.02 3	-4.94 0	2.02 3
106.953	106.957	0.50	0.58	4.48 1	-6.91 1	-4.48 1	6.91 1
107.008	107.025	0.32	34.00	7.17-1	-2.54 3	-7.19-1	2.54 3
107.066	107.070	0.42	0.84	5.95 1	-4.09 2	-5.95 1	4.09 2
107.070	107.075	0.36	2.40	1.59 1	-1.34 3	-1.59 1	1.34 3
107.141	107.145	0.38	1.40	3.14 1	-8.77 2	-3.15 1	8.77 2
107.154	107.160	0.34	6.20	5.11 0	-2.01 3	-5.11 0	2.01 3
107.165	107.181	0.32	33.00	7.42-1	-2.55 3	-7.44-1	2.55 3
107.190	107.194	0.46	0.66	6.98 1	-1.97 2	-6.98 1	1.97 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
107.327	107.343	0.32	32.00	7.68-1	-2.56 3	-7.70-1	2.56 3
107.384	107.390	0.34	6.00	5.29 0	-1.99 3	-5.29 0	1.99 3
107.494	107.509	0.32	31.00	7.96-1	-2.56 3	-7.98-1	2.56 3
107.514	107.518	0.36	2.30	1.66 1	-1.31 3	-1.66 1	1.31 3
107.585	107.589	0.44	0.72	6.94 1	-2.83 2	-6.94 1	2.83 2
107.617	107.620	0.40	1.00	4.74 1	-5.67 2	-4.74 1	5.67 2
107.623	107.629	0.34	5.80	5.49 0	-1.98 3	-5.49 0	1.98 3
107.666	107.681	0.32	30.00	8.26-1	-2.57 3	-8.28-1	2.57 3
107.695	107.699	0.38	1.35	3.23 1	-8.43 2	-3.24 1	8.43 2
107.701	107.705	0.42	0.82	5.96 1	-3.87 2	-5.96 1	3.87 2
107.845	107.859	0.32	29.00	8.58-1	-2.57 3	-8.60-1	2.57 3
107.874	107.879	0.34	5.60	5.70 0	-1.96 3	-5.70 0	1.96 3
107.987	107.991	0.36	2.20	1.74 1	-1.28 3	-1.74 1	1.28 3
108.039	108.043	0.48	0.60	5.48 1	-1.05 2	-5.48 1	1.05 2
108.030	108.044	0.32	28.00	8.93-1	-2.58 3	-8.95-1	2.58 3
108.043	108.047	0.40	0.98	4.78 1	-5.47 2	-4.78 1	5.47 2
108.136	108.141	0.34	5.40	5.92 0	-1.94 3	-5.92 0	1.94 3
108.159	108.163	0.52	0.54	1.30 1	-1.45 1	-1.30 1	1.45 1
108.222	108.236	0.32	27.00	9.30-1	-2.58 3	-9.32-1	2.58 3
108.287	108.291	0.38	1.30	3.32 1	-8.06 2	-3.32 1	8.06 2
108.350	108.354	0.46	0.64	6.42 1	-1.67 2	-6.42 1	1.67 2
108.370	108.374	0.42	0.80	5.95 1	-3.65 2	-5.95 1	3.65 2
108.410	108.416	0.34	5.20	6.16 0	-1.93 3	-6.17 0	1.93 3
108.422	108.435	0.32	26.00	9.70-1	-2.59 3	-9.72-1	2.59 3
108.488	108.492	0.40	0.96	4.82 1	-5.27 2	-4.82 1	5.27 2
108.494	108.498	0.36	2.10	1.82 1	-1.24 3	-1.82 1	1.24 3
108.508	108.512	0.44	0.70	6.71 1	-2.55 2	-6.71 1	2.55 2
108.613	108.617	0.50	0.56	3.37 1	-4.70 1	-3.37 1	4.70 1
108.630	108.643	0.32	25.00	1.01 0	-2.59 3	-1.01 0	2.59 3
108.699	108.704	0.34	5.00	6.43 0	-1.91 3	-6.43 0	1.91 3
108.847	108.859	0.32	24.00	1.06 0	-2.59 3	-1.06 0	2.59 3
108.921	108.925	0.38	1.25	3.41 1	-7.67 2	-3.41 1	7.67 2
108.951	108.955	0.40	0.94	4.85 1	-5.06 2	-4.85 1	5.06 2
109.002	109.008	0.34	4.80	6.71 0	-1.88 3	-6.71 0	1.88 3
109.040	109.044	0.36	2.00	1.90 1	-1.20 3	-1.90 1	1.20 3
109.076	109.080	0.42	0.78	5.93 1	-3.42 2	-5.93 1	3.42 2
109.074	109.086	0.32	23.00	1.11 0	-2.59 3	-1.11 0	2.59 3
109.312	109.324	0.32	22.00	1.17 0	-2.59 3	-1.17 0	2.59 3
109.323	109.328	0.34	4.60	7.02 0	-1.86 3	-7.02 0	1.86 3
109.329	109.334	0.36	1.95	1.95 1	-1.18 3	-1.95 1	1.18 3
109.435	109.439	0.40	0.92	4.87 1	-4.85 2	-4.87 1	4.85 2
109.491	109.495	0.44	0.68	6.42 1	-2.26 2	-6.43 1	2.26 2
109.534	109.537	0.48	0.58	4.60 1	-8.03 1	-4.60 1	8.03 1
109.562	109.573	0.32	21.00	1.23 0	-2.59 3	-1.23 0	2.59 3
109.598	109.602	0.46	0.62	5.86 1	-1.40 2	-5.86 1	1.40 2
109.603	109.607	0.38	1.20	3.50 1	-7.27 2	-3.50 1	7.27 2
109.631	109.635	0.36	1.90	1.99 1	-1.15 3	-2.00 1	1.15 3
109.662	109.667	0.34	4.40	7.35 0	-1.83 3	-7.36 0	1.83 3
109.823	109.826	0.42	0.76	5.89 1	-3.19 2	-5.89 1	3.19 2
109.825	109.836	0.32	20.00	1.30 0	-2.58 3	-1.30 0	2.58 3
109.940	109.944	0.40	0.90	4.89 1	-4.64 2	-4.89 1	4.64 2
109.945	109.949	0.36	1.85	2.04 1	-1.13 3	-2.04 1	1.13 3
109.963	109.973	0.32	19.50	1.33 0	-2.58 3	-1.33 0	2.58 3
110.022	110.027	0.34	4.20	7.72 0	-1.81 3	-7.72 0	1.81 3
110.104	110.114	0.32	19.00	1.37 0	-2.58 3	-1.37 0	2.58 3
110.249	110.259	0.32	18.50	1.41 0	-2.57 3	-1.41 0	2.57 3
110.272	110.276	0.36	1.80	2.09 1	-1.11 3	-2.09 1	1.11 3
110.339	110.343	0.38	1.15	3.59 1	-6.85 2	-3.59 1	6.85 2
110.399	110.409	0.32	18.00	1.45 0	-2.57 3	-1.46 0	2.57 3
110.406	110.410	0.34	4.00	8.12 0	-1.78 3	-8.12 0	1.78 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
110.424	110.428	0.50	0.54	2.38 1	-2.98 1	-2.38 1	2.98 1
110.469	110.473	0.40	0.88	4.90 1	-4.42 2	-4.90 1	4.42 2
110.543	110.547	0.44	0.66	6.07 1	-1.98 2	-6.07 1	1.98 2
110.553	110.563	0.32	17.50	1.50 0	-2.57 3	-1.50 0	2.57 3
110.607	110.612	0.34	3.90	8.34 0	-1.76 3	-8.34 0	1.76 3
110.613	110.617	0.42	0.74	5.85 1	-2.97 2	-5.85 1	2.97 2
110.615	110.619	0.36	1.75	2.15 1	-1.08 3	-2.15 1	1.08 3
110.713	110.722	0.32	17.00	1.55 0	-2.56 3	-1.55 0	2.56 3
110.816	110.820	0.34	3.80	8.56 0	-1.74 3	-8.56 0	1.74 3
110.877	110.887	0.32	16.50	1.60 0	-2.56 3	-1.60 0	2.56 3
110.944	110.948	0.46	0.60	5.22 1	-1.14 2	-5.22 1	1.14 2
110.974	110.978	0.36	1.70	2.20 1	-1.05 3	-2.20 1	1.05 3
111.024	111.027	0.40	0.86	4.92 1	-4.21 2	-4.92 1	4.21 2
111.032	111.036	0.34	3.70	8.80 0	-1.73 3	-8.80 0	1.73 3
111.048	111.057	0.32	16.00	1.65 0	-2.55 3	-1.65 0	2.55 3
111.137	111.141	0.38	1.10	3.68 1	-6.41 2	-3.68 1	6.41 2
111.157	111.161	0.48	0.56	3.70 1	-5.85 1	-3.70 1	5.85 1
111.224	111.233	0.32	15.50	1.71 0	-2.55 3	-1.71 0	2.55 3
111.256	111.260	0.34	3.60	9.05 0	-1.71 3	-9.05 0	1.71 3
111.351	111.355	0.36	1.65	2.26 1	-1.02 3	-2.26 1	1.02 3
111.407	111.416	0.32	15.00	1.77 0	-2.54 3	-1.77 0	2.54 3
111.452	111.455	0.42	0.72	5.74 1	-2.72 2	-5.74 1	2.72 2
111.488	111.493	0.34	3.50	9.31 0	-1.69 3	-9.31 0	1.69 3
111.597	111.606	0.32	14.50	1.84 0	-2.53 3	-1.84 0	2.53 3
111.605	111.609	0.40	0.84	4.91 1	-3.99 2	-4.91 1	3.99 2
111.670	111.674	0.44	0.64	5.67 1	-1.71 2	-5.67 1	1.71 2
111.730	111.735	0.34	3.40	9.58 0	-1.67 3	-9.58 0	1.67 3
111.747	111.751	0.36	1.60	2.32 1	-9.96 2	-2.32 1	9.96 2
111.795	111.803	0.32	14.00	1.91 0	-2.52 3	-1.91 0	2.52 3
111.982	111.986	0.34	3.30	9.88 0	-1.65 3	-9.88 0	1.65 3
112.00	119.00						
112.001	112.009	0.32	13.50	1.98 0	-2.52 3	-1.99 0	2.52 3
112.007	112.011	0.38	1.05	3.75 1	-5.94 2	-3.76 1	5.94 2
112.164	112.168	0.36	1.55	2.37 1	-9.65 2	-2.37 1	9.65 2
112.217	112.221	0.40	0.82	4.91 1	-3.77 2	-4.91 1	3.77 2
112.216	112.224	0.32	13.00	2.07 0	-2.51 3	-2.07 0	2.51 3
112.245	112.249	0.34	3.20	1.02 1	-1.62 3	-1.02 1	1.62 3
112.344	112.348	0.42	0.70	5.57 1	-2.46 2	-5.57 1	2.46 2
112.401	112.405	0.46	0.58	4.54 1	-9.07 1	-4.54 1	9.07 1
112.407	112.411	0.50	0.52	1.24 1	-1.39 1	-1.24 1	1.39 1
112.440	112.448	0.32	12.50	2.16 0	-2.49 3	-2.16 0	2.50 3
112.519	112.523	0.34	3.10	1.05 1	-1.60 3	-1.05 1	1.60 3
112.605	112.609	0.36	1.50	2.44 1	-9.33 2	-2.44 1	9.33 2
112.675	112.683	0.32	12.00	2.25 0	-2.48 3	-2.25 0	2.48 3
112.806	112.810	0.34	3.00	1.08 1	-1.57 3	-1.09 1	1.57 3
112.861	112.865	0.40	0.80	4.90 1	-3.54 2	-4.90 1	3.54 2
112.883	112.886	0.44	0.62	5.24 1	-1.45 2	-5.24 1	1.45 2
112.922	112.929	0.32	11.50	2.36 0	-2.47 3	-2.36 0	2.47 3
112.928	112.931	0.48	0.54	2.86 1	-4.07 1	-2.86 1	4.07 1
112.961	112.965	0.38	1.00	3.82 1	-5.45 2	-3.82 1	5.45 2
113.071	113.075	0.36	1.45	2.50 1	-9.00 2	-2.50 1	9.00 2
113.107	113.111	0.34	2.90	1.12 1	-1.55 3	-1.12 1	1.55 3
113.181	113.188	0.32	11.00	2.47 0	-2.46 3	-2.47 0	2.46 3
113.295	113.299	0.42	0.68	5.36 1	-2.20 2	-5.36 1	2.20 2
113.370	113.373	0.38	0.98	3.85 1	-5.26 2	-3.85 1	5.26 2
113.423	113.427	0.34	2.80	1.16 1	-1.52 3	-1.16 1	1.52 3
113.455	113.462	0.32	10.50	2.60 0	-2.44 3	-2.60 0	2.44 3
113.540	113.544	0.40	0.78	4.88 1	-3.32 2	-4.88 1	3.32 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
113.566	113.570	0.36	1.40	2.56 1	-8.65 2	-2.56 1	8.65 2
113.653	113.691	0.30	90.00	1.88-1	-1.71 3	-1.89-1	1.71 3
113.744	113.751	0.32	10.00	2.74 0	-2.42 3	-2.74 0	2.42 3
113.755	113.759	0.34	2.70	1.20 1	-1.49 3	-1.20 1	1.49 3
113.726	113.764	0.30	89.00	1.91-1	-1.74 3	-1.93-1	1.74 3
113.795	113.798	0.38	0.96	3.87 1	-5.06 2	-3.87 1	5.06 2
113.799	113.836	0.30	88.00	1.95-1	-1.77 3	-1.96-1	1.77 3
113.865	113.871	0.32	9.80	2.79 0	-2.42 3	-2.80 0	2.42 3
113.872	113.909	0.30	87.00	1.98-1	-1.80 3	-2.00-1	1.80 3
113.946	113.982	0.30	86.00	2.02-1	-1.83 3	-2.04-1	1.83 3
113.984	113.988	0.46	0.56	3.83 1	-6.92 1	-3.83 1	6.92 1
113.988	113.994	0.32	9.60	2.86 0	-2.41 3	-2.86 0	2.41 3
114.019	114.055	0.30	85.00	2.06-1	-1.86 3	-2.08-1	1.86 3
114.093	114.096	0.36	1.35	2.63 1	-8.28 2	-2.63 1	8.28 2
114.106	114.110	0.34	2.60	1.24 1	-1.46 3	-1.25 1	1.46 3
114.114	114.121	0.32	9.40	2.92 0	-2.40 3	-2.92 0	2.40 3
114.093	114.128	0.30	84.00	2.10-1	-1.88 3	-2.11-1	1.88 3
114.191	114.194	0.44	0.60	4.77 1	-1.21 2	-4.77 1	1.21 2
114.167	114.202	0.30	83.00	2.14-1	-1.91 3	-2.15-1	1.91 3
114.238	114.241	0.38	0.94	3.89 1	-4.85 2	-3.89 1	4.85 2
114.244	114.250	0.32	9.20	2.99 0	-2.39 3	-2.99 0	2.39 3
114.258	114.262	0.40	0.76	4.85 1	-3.10 2	-4.85 1	3.10 2
114.242	114.276	0.30	82.00	2.18-1	-1.94 3	-2.19-1	1.94 3
114.313	114.316	0.42	0.66	5.11 1	-1.95 2	-5.12 1	1.95 2
114.317	114.350	0.30	81.00	2.22-1	-1.97 3	-2.24-1	1.97 3
114.377	114.383	0.32	9.00	3.06 0	-2.38 3	-3.06 0	2.38 3
114.392	114.425	0.30	80.00	2.26-1	-1.99 3	-2.28-1	1.99 3
114.477	114.480	0.34	2.50	1.29 1	-1.42 3	-1.29 1	1.42 3
114.467	114.499	0.30	79.00	2.31-1	-2.02 3	-2.32-1	2.02 3
114.514	114.520	0.32	8.80	3.13 0	-2.37 3	-3.13 0	2.37 3
114.543	114.575	0.30	78.00	2.35-1	-2.05 3	-2.37-1	2.05 3
114.619	114.650	0.30	77.00	2.39-1	-2.08 3	-2.41-1	2.08 3
114.655	114.658	0.36	1.30	2.69 1	-7.90 2	-2.69 1	7.90 2
114.654	114.660	0.32	8.60	3.21 0	-2.36 3	-3.21 0	2.36 3
114.700	114.704	0.38	0.92	3.90 1	-4.65 2	-3.90 1	4.65 2
114.696	114.726	0.30	76.00	2.44-1	-2.10 3	-2.46-1	2.10 3
114.773	114.803	0.30	75.00	2.49-1	-2.13 3	-2.50-1	2.13 3
114.799	114.804	0.32	8.40	3.29 0	-2.35 3	-3.29 0	2.35 3
114.868	114.871	0.48	0.52	1.90 1	-2.43 1	-1.90 1	2.43 1
114.870	114.873	0.34	2.40	1.34 1	-1.39 3	-1.34 1	1.39 3
114.850	114.880	0.30	74.00	2.54-1	-2.16 3	-2.55-1	2.16 3
114.947	114.953	0.32	8.20	3.37 0	-2.34 3	-3.37 0	2.34 3
114.928	114.958	0.30	73.00	2.59-1	-2.18 3	-2.60-1	2.18 3
115.019	115.022	0.40	0.74	4.82 1	-2.89 2	-4.82 1	2.89 2
115.007	115.036	0.30	72.00	2.64-1	-2.21 3	-2.65-1	2.21 3
115.100	115.106	0.32	8.00	3.46 0	-2.33 3	-3.46 0	2.33 3
115.086	115.114	0.30	71.00	2.69-1	-2.23 3	-2.70-1	2.23 3
115.184	115.187	0.38	0.90	3.91 1	-4.44 2	-3.91 1	4.44 2
115.166	115.194	0.30	70.00	2.74-1	-2.26 3	-2.76-1	2.26 3
115.257	115.260	0.36	1.25	2.75 1	-7.49 2	-2.75 1	7.49 2
115.258	115.263	0.32	7.80	3.55 0	-2.32 3	-3.56 0	2.32 3
115.246	115.274	0.30	69.00	2.80-1	-2.28 3	-2.81-1	2.29 3
115.288	115.292	0.34	2.30	1.39 1	-1.35 3	-1.39 1	1.35 3
115.327	115.354	0.30	68.00	2.85-1	-2.31 3	-2.87-1	2.31 3
115.404	115.407	0.42	0.64	4.83 1	-1.69 2	-4.83 1	1.69 2
115.420	115.426	0.32	7.60	3.65 0	-2.31 3	-3.65 0	2.31 3
115.409	115.436	0.30	67.00	2.91-1	-2.33 3	-2.93-1	2.34 3
115.492	115.518	0.30	66.00	2.97-1	-2.36 3	-2.99-1	2.36 3
115.588	115.593	0.32	7.40	3.75 0	-2.30 3	-3.76 0	2.30 3
115.575	115.601	0.30	65.00	3.03-1	-2.38 3	-3.05-1	2.38 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
115.607	115.610	0.44	0.58	4.26 1	-9.80 1	-4.26 1	9.80 1
115.659	115.685	0.30	64.00	3.09-1	-2.41 3	-3.11-1	2.41 3
115.689	115.692	0.38	0.88	3.92 1	-4.22 2	-3.92 1	4.22 2
115.711	115.715	0.46	0.54	3.14 1	-5.12 1	-3.14 1	5.12 1
115.734	115.738	0.34	2.20	1.45 1	-1.31 3	-1.45 1	1.31 3
115.761	115.767	0.32	7.20	3.86 0	-2.28 3	-3.86 0	2.28 3
115.745	115.769	0.30	63.00	3.16-1	-2.43 3	-3.18-1	2.43 3
115.826	115.829	0.40	0.72	4.73 1	-2.65 2	-4.73 1	2.65 2
115.831	115.855	0.30	62.00	3.23-1	-2.45 3	-3.24-1	2.45 3
115.904	115.907	0.36	1.20	2.81 1	-7.07 2	-2.81 1	7.07 2
115.917	115.941	0.30	61.00	3.30-1	-2.48 3	-3.31-1	2.48 3
115.941	115.946	0.32	7.00	3.98 0	-2.27 3	-3.98 0	2.27 3
116.005	116.029	0.30	60.00	3.37-1	-2.50 3	-3.38-1	2.50 3
116.094	116.117	0.30	59.00	3.44-1	-2.52 3	-3.46-1	2.52 3
116.126	116.131	0.32	6.80	4.10 0	-2.25 3	-4.10 0	2.25 3
116.184	116.207	0.30	58.00	3.51-1	-2.54 3	-3.53-1	2.54 3
116.213	116.216	0.34	2.10	1.51 1	-1.26 3	-1.51 1	1.26 3
116.219	116.222	0.38	0.86	3.92 1	-4.01 2	-3.92 1	4.01 2
116.276	116.298	0.30	57.00	3.59-1	-2.57 3	-3.61-1	2.57 3
116.319	116.324	0.32	6.60	4.23 0	-2.24 3	-4.23 0	2.24 3
116.368	116.390	0.30	56.00	3.67-1	-2.59 3	-3.69-1	2.59 3
116.462	116.483	0.30	55.00	3.76-1	-2.61 3	-3.77-1	2.61 3
116.519	116.523	0.32	6.40	4.36 0	-2.22 3	-4.36 0	2.22 3
116.557	116.578	0.30	54.00	3.84-1	-2.63 3	-3.86-1	2.63 3
116.577	116.580	0.42	0.62	4.53 1	-1.46 2	-4.53 1	1.46 2
116.602	116.605	0.36	1.15	2.87 1	-6.64 2	-2.87 1	6.64 2
116.654	116.674	0.30	53.00	3.93-1	-2.65 3	-3.95-1	2.65 3
116.685	116.688	0.40	0.70	4.61 1	-2.41 2	-4.61 1	2.41 2
116.727	116.731	0.34	2.00	1.57 1	-1.22 3	-1.57 1	1.22 3
116.726	116.731	0.32	6.20	4.51 0	-2.20 3	-4.51 0	2.20 3
116.752	116.772	0.30	52.00	4.03-1	-2.67 3	-4.04-1	2.67 3
116.775	116.779	0.38	0.84	3.92 1	-3.80 2	-3.92 1	3.80 2
116.851	116.871	0.30	51.00	4.12-1	-2.69 3	-4.14-1	2.69 3
116.942	116.947	0.32	6.00	4.66 0	-2.18 3	-4.66 0	2.18 3
116.952	116.972	0.30	50.00	4.22-1	-2.70 3	-4.24-1	2.71 3
117.000	117.003	0.34	1.95	1.60 1	-1.19 3	-1.60 1	1.19 3
117.002	117.006	0.48	0.50	8.74 0	-9.91 0	-8.74 0	9.90 0
117.055	117.074	0.30	49.00	4.33-1	-2.72 3	-4.34-1	2.72 3
117.145	117.148	0.44	0.56	3.72 1	-7.75 1	-3.72 1	7.75 1
117.168	117.172	0.32	5.80	4.82 0	-2.16 3	-4.83 0	2.16 3
117.160	117.178	0.30	48.00	4.44-1	-2.74 3	-4.45-1	2.74 3
117.267	117.285	0.30	47.00	4.55-1	-2.76 3	-4.57-1	2.76 3
117.283	117.287	0.34	1.90	1.64 1	-1.17 3	-1.64 1	1.17 3
117.360	117.363	0.36	1.10	2.93 1	-6.18 2	-2.93 1	6.18 2
117.360	117.363	0.38	0.82	3.92 1	-3.59 2	-3.92 1	3.59 2
117.375	117.393	0.30	46.00	4.67-1	-2.77 3	-4.68-1	2.78 3
117.403	117.407	0.32	5.60	5.00 0	-2.14 3	-5.00 0	2.14 3
117.486	117.503	0.30	45.00	4.79-1	-2.79 3	-4.81-1	2.79 3
117.579	117.582	0.34	1.85	1.67 1	-1.14 3	-1.67 1	1.14 3
117.600	117.603	0.40	0.68	4.48 1	-2.17 2	-4.48 1	2.17 2
117.604	117.607	0.46	0.52	2.36 1	-3.44 1	-2.36 1	3.44 1
117.599	117.616	0.30	44.00	4.92-1	-2.81 3	-4.93-1	2.81 3
117.649	117.653	0.32	5.40	5.19 0	-2.12 3	-5.19 0	2.12 3
117.714	117.731	0.30	43.00	5.05-1	-2.82 3	-5.07-1	2.82 3
117.842	117.845	0.42	0.60	4.17 1	-1.23 2	-4.18 1	1.23 2
117.832	117.848	0.30	42.00	5.19-1	-2.84 3	-5.21-1	2.84 3
117.888	117.891	0.34	1.80	1.71 1	-1.11 3	-1.71 1	1.11 3
117.907	117.911	0.32	5.20	5.39 0	-2.09 3	-5.39 0	2.09 3
117.952	117.968	0.30	41.00	5.34-1	-2.85 3	-5.36-1	2.85 3
117.976	117.979	0.38	0.80	3.90 1	-3.37 2	-3.90 1	3.37 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
118.075	118.091	0.30	40.00	5.49-1	-2.86 3	-5.51-1	2.86 3
118.177	118.181	0.32	5.00	5.60 0	-2.07 3	-5.60 0	2.07 3
118.185	118.188	0.36	1.05	2.98 1	-5.72 2	-2.98 1	5.71 2
118.210	118.214	0.34	1.75	1.75 1	-1.08 3	-1.75 1	1.08 3
118.201	118.216	0.30	39.00	5.66-1	-2.88 3	-5.67-1	2.88 3
118.330	118.345	0.30	38.00	5.83-1	-2.89 3	-5.84-1	2.89 3
118.462	118.466	0.32	4.80	5.83 0	-2.04 3	-5.83 0	2.04 3
118.463	118.477	0.30	37.00	6.01-1	-2.90 3	-6.02-1	2.90 3
118.548	118.551	0.34	1.70	1.78 1	-1.05 3	-1.79 1	1.05 3
118.579	118.582	0.40	0.66	4.29 1	-1.93 2	-4.29 1	1.93 2
118.599	118.613	0.30	36.00	6.20-1	-2.91 3	-6.21-1	2.91 3
118.625	118.628	0.38	0.78	3.88 1	-3.16 2	-3.89 1	3.16 2
118.738	118.752	0.30	35.00	6.40-1	-2.92 3	-6.41-1	2.92 3
118.762	118.766	0.32	4.60	6.08 0	-2.01 3	-6.09 0	2.01 3
118.824	118.827	0.44	0.54	3.17 1	-5.95 1	-3.17 1	5.95 1
118.882	118.895	0.30	34.00	6.61-1	-2.93 3	-6.62-1	2.93 3
118.903	118.906	0.34	1.65	1.82 1	-1.02 3	-1.82 1	1.02 3
119.00	126.00						
119.030	119.043	0.30	33.00	6.83-1	-2.94 3	-6.85-1	2.94 3
119.080	119.084	0.32	4.40	6.35 0	-1.98 3	-6.36 0	1.98 3
119.090	119.093	0.36	1.00	3.02 1	-5.23 2	-3.02 1	5.22 2
119.182	119.195	0.30	32.00	7.07-1	-2.95 3	-7.09-1	2.95 3
119.212	119.215	0.42	0.58	3.81 1	-1.02 2	-3.81 1	1.02 2
119.276	119.278	0.34	1.60	1.86 1	-9.88 2	-1.87 1	9.88 2
119.312	119.315	0.38	0.76	3.85 1	-2.95 2	-3.85 1	2.95 2
119.340	119.352	0.30	31.00	7.33-1	-2.95 3	-7.34-1	2.95 3
119.417	119.421	0.32	4.20	6.65 0	-1.94 3	-6.65 0	1.94 3
119.478	119.480	0.36	0.98	3.03 1	-5.03 2	-3.03 1	5.03 2
119.502	119.514	0.30	30.00	7.60-1	-2.96 3	-7.61-1	2.96 3
119.629	119.632	0.40	0.64	4.10 1	-1.70 2	-4.10 1	1.70 2
119.668	119.671	0.34	1.55	1.90 1	-9.54 2	-1.91 1	9.54 2
119.670	119.682	0.30	29.00	7.89-1	-2.96 3	-7.90-1	2.96 3
119.686	119.689	0.46	0.50	1.51 1	-1.96 1	-1.51 1	1.96 1
119.776	119.780	0.32	4.00	6.97 0	-1.90 3	-6.97 0	1.90 3
119.845	119.856	0.30	28.00	8.20-1	-2.97 3	-8.21-1	2.97 3
119.881	119.883	0.36	0.96	3.05 1	-4.83 2	-3.05 1	4.83 2
119.965	119.968	0.32	3.90	7.14 0	-1.88 3	-7.14 0	1.88 3
120.025	120.036	0.30	27.00	8.53-1	-2.97 3	-8.55-1	2.97 3
120.039	120.042	0.38	0.74	3.82 1	-2.74 2	-3.82 1	2.74 2
120.082	120.085	0.34	1.50	1.95 1	-9.20 2	-1.95 1	9.20 2
120.160	120.163	0.32	3.80	7.32 0	-1.86 3	-7.32 0	1.86 3
120.213	120.224	0.30	26.00	8.89-1	-2.97 3	-8.91-1	2.97 3
120.301	120.304	0.36	0.94	3.06 1	-4.64 2	-3.06 1	4.64 2
120.362	120.365	0.32	3.70	7.50 0	-1.84 3	-7.50 0	1.84 3
120.409	120.419	0.30	25.00	9.28-1	-2.98 3	-9.30-1	2.98 3
120.521	120.524	0.34	1.45	1.99 1	-8.84 2	-1.99 1	8.84 2
120.571	120.575	0.32	3.60	7.70 0	-1.82 3	-7.70 0	1.82 3
120.613	120.623	0.30	24.00	9.70-1	-2.97 3	-9.72-1	2.98 3
120.663	120.666	0.44	0.52	2.56 1	-4.30 1	-2.56 1	4.30 1
120.701	120.704	0.42	0.56	3.40 1	-8.28 1	-3.40 1	8.28 1
120.739	120.742	0.36	0.92	3.07 1	-4.43 2	-3.07 1	4.43 2
120.758	120.761	0.40	0.62	3.88 1	-1.48 2	-3.88 1	1.48 2
120.789	120.792	0.32	3.50	7.90 0	-1.79 3	-7.90 0	1.79 3
120.810	120.813	0.38	0.72	3.76 1	-2.52 2	-3.76 1	2.52 2
120.826	120.836	0.30	23.00	1.02 0	-2.97 3	-1.02 0	2.97 3
120.986	120.989	0.34	1.40	2.03 1	-8.46 2	-2.03 1	8.46 2
121.015	121.018	0.32	3.40	8.11 0	-1.76 3	-8.11 0	1.77 3
121.050	121.059	0.30	22.00	1.07 0	-2.97 3	-1.07 0	2.97 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
121.198	121.200	0.36	0.90	3.07 1	-4.23 2	-3.07 1	4.23 2
121.250	121.253	0.32	3.30	8.34 0	-1.74 3	-8.34 0	1.74 3
121.284	121.293	0.30	21.00	1.12 0	-2.97 3	-1.12 0	2.97 3
121.481	121.483	0.34	1.35	2.07 1	-8.07 2	-2.07 1	8.07 2
121.495	121.498	0.32	3.20	8.57 0	-1.71 3	-8.58 0	1.71 3
121.531	121.539	0.30	20.00	1.18 0	-2.96 3	-1.18 0	2.96 3
121.631	121.634	0.38	0.70	3.67 1	-2.29 2	-3.68 1	2.29 2
121.660	121.668	0.30	19.50	1.21 0	-2.96 3	-1.21 0	2.96 3
121.677	121.680	0.36	0.88	3.07 1	-4.02 2	-3.07 1	4.02 2
121.751	121.754	0.32	3.10	8.82 0	-1.68 3	-8.82 0	1.68 3
121.792	121.800	0.30	19.00	1.25 0	-2.95 3	-1.25 0	2.95 3
121.928	121.936	0.30	18.50	1.28 0	-2.95 3	-1.28 0	2.95 3
121.977	121.979	0.40	0.60	3.64 1	-1.27 2	-3.64 1	1.27 2
121.990	121.993	0.46	0.48	7.65 0	-8.75 0	-7.65 0	8.74 0
122.009	122.011	0.34	1.30	2.12 1	-7.67 2	-2.12 1	7.67 2
122.019	122.022	0.32	3.00	9.08 0	-1.65 3	-9.08 0	1.65 3
122.068	122.075	0.30	18.00	1.32 0	-2.94 3	-1.32 0	2.94 3
122.180	122.182	0.36	0.86	3.07 1	-3.82 2	-3.07 1	3.82 2
122.212	122.220	0.30	17.50	1.36 0	-2.94 3	-1.36 0	2.94 3
122.299	122.302	0.32	2.90	9.36 0	-1.62 3	-9.36 0	1.62 3
122.326	122.329	0.42	0.54	2.99 1	-6.55 1	-2.99 1	6.55 1
122.361	122.369	0.30	17.00	1.40 0	-2.93 3	-1.40 0	2.93 3
122.507	122.510	0.38	0.68	3.58 1	-2.08 2	-3.59 1	2.08 2
122.515	122.522	0.30	16.50	1.45 0	-2.92 3	-1.45 0	2.92 3
122.574	122.577	0.34	1.25	2.16 1	-7.25 2	-2.16 1	7.25 2
122.594	122.597	0.32	2.80	9.65 0	-1.58 3	-9.65 0	1.58 3
122.675	122.682	0.30	16.00	1.50 0	-2.91 3	-1.50 0	2.91 3
122.688	122.691	0.44	0.50	1.88 1	-2.81 1	-1.88 1	2.81 1
122.707	122.710	0.36	0.84	3.06 1	-3.61 2	-3.06 1	3.61 2
122.840	122.846	0.30	15.50	1.55 0	-2.90 3	-1.55 0	2.90 3
122.903	122.906	0.32	2.70	9.95 0	-1.55 3	-9.95 0	1.55 3
123.010	123.017	0.30	15.00	1.60 0	-2.90 3	-1.60 0	2.90 3
123.182	123.184	0.34	1.20	2.19 1	-6.82 2	-2.19 1	6.82 2
123.188	123.194	0.30	14.50	1.66 0	-2.88 3	-1.66 0	2.88 3
123.230	123.233	0.32	2.60	1.03 1	-1.51 3	-1.03 1	1.51 3
123.262	123.264	0.36	0.82	3.06 1	-3.41 2	-3.06 1	3.41 2
123.296	123.298	0.40	0.58	3.37 1	-1.07 2	-3.37 1	1.07 2
123.372	123.379	0.30	14.00	1.72 0	-2.87 3	-1.72 0	2.87 3
123.443	123.446	0.38	0.66	3.46 1	-1.86 2	-3.46 1	1.86 2
123.564	123.570	0.30	13.50	1.79 0	-2.86 3	-1.79 0	2.86 3
123.575	123.578	0.32	2.50	1.06 1	-1.47 3	-1.06 1	1.47 3
123.765	123.770	0.30	13.00	1.86 0	-2.85 3	-1.86 0	2.85 3
123.838	123.840	0.34	1.15	2.23 1	-6.37 2	-2.23 1	6.37 2
123.846	123.848	0.36	0.80	3.05 1	-3.20 2	-3.05 1	3.20 2
123.942	123.944	0.32	2.40	1.10 1	-1.42 3	-1.10 1	1.42 3
123.974	123.979	0.30	12.50	1.94 0	-2.83 3	-1.94 0	2.83 3
124.107	124.110	0.42	0.52	2.52 1	-4.94 1	-2.52 1	4.94 1
124.193	124.198	0.30	12.00	2.02 0	-2.81 3	-2.02 0	2.82 3
124.331	124.333	0.32	2.30	1.13 1	-1.38 3	-1.13 1	1.38 3
124.422	124.427	0.30	11.50	2.11 0	-2.80 3	-2.11 0	2.80 3
124.447	124.450	0.38	0.64	3.33 1	-1.65 2	-3.33 1	1.65 2
124.461	124.464	0.36	0.78	3.04 1	-3.00 2	-3.04 1	3.00 2
124.549	124.551	0.34	1.10	2.27 1	-5.92 2	-2.27 1	5.92 2
124.664	124.669	0.30	11.00	2.21 0	-2.78 3	-2.21 0	2.78 3
124.730	124.732	0.40	0.56	3.07 1	-8.82 1	-3.07 1	8.82 1
124.746	124.749	0.32	2.20	1.17 1	-1.33 3	-1.17 1	1.33 3
124.918	124.923	0.30	10.50	2.31 0	-2.76 3	-2.32 0	2.76 3
124.929	124.932	0.44	0.48	1.26 1	-1.66 1	-1.26 1	1.66 1
125.112	125.115	0.36	0.76	3.01 1	-2.80 2	-3.01 1	2.80 2
125.187	125.191	0.30	10.00	2.43 0	-2.73 3	-2.43 0	2.73 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
125.191	125.193	0.32	2.10	1.22 1	-1.28 3	-1.22 1	1.28 3
125.298	125.303	0.30	9.80	2.48 0	-2.72 3	-2.48 0	2.72 3
125.324	125.326	0.34	1.05	2.30 1	-5.45 2	-2.30 1	5.45 2
125.413	125.418	0.30	9.60	2.54 0	-2.71 3	-2.54 0	2.71 3
125.527	125.530	0.38	0.62	3.18 1	-1.45 2	-3.18 1	1.45 2
125.530	125.535	0.30	9.40	2.59 0	-2.70 3	-2.59 0	2.70 3
125.651	125.655	0.30	9.20	2.65 0	-2.69 3	-2.65 0	2.69 3
125.669	125.671	0.32	2.00	1.26 1	-1.22 3	-1.26 1	1.22 3
125.774	125.779	0.30	9.00	2.71 0	-2.67 3	-2.71 0	2.67 3
125.802	125.804	0.36	0.74	2.99 1	-2.60 2	-2.99 1	2.60 2
125.901	125.905	0.30	8.80	2.77 0	-2.66 3	-2.77 0	2.66 3
125.922	125.925	0.32	1.95	1.28 1	-1.20 3	-1.28 1	1.20 3
126.00	134.00						
126.031	126.035	0.30	8.60	2.83 0	-2.65 3	-2.83 0	2.65 3
126.068	126.071	0.42	0.50	2.00 1	-3.49 1	-2.00 1	3.49 1
126.165	126.169	0.30	8.40	2.90 0	-2.63 3	-2.90 0	2.63 3
126.174	126.176	0.34	1.00	2.32 1	-4.97 2	-2.32 1	4.97 2
126.186	126.188	0.32	1.90	1.31 1	-1.17 3	-1.31 1	1.17 3
126.295	126.297	0.40	0.54	2.77 1	-7.15 1	-2.77 1	7.15 1
126.303	126.307	0.30	8.20	2.97 0	-2.62 3	-2.97 0	2.62 3
126.444	126.448	0.30	8.00	3.04 0	-2.60 3	-3.04 0	2.60 3
126.460	126.463	0.32	1.85	1.33 1	-1.14 3	-1.33 1	1.14 3
126.534	126.536	0.36	0.72	2.94 1	-2.40 2	-2.94 1	2.40 2
126.537	126.539	0.34	0.98	2.33 1	-4.78 2	-2.33 1	4.78 2
126.590	126.594	0.30	7.80	3.12 0	-2.59 3	-3.12 0	2.59 3
126.693	126.695	0.38	0.60	3.01 1	-1.26 2	-3.01 1	1.26 2
126.741	126.744	0.30	7.60	3.20 0	-2.57 3	-3.20 0	2.57 3
126.747	126.749	0.32	1.80	1.35 1	-1.11 3	-1.35 1	1.11 3
126.896	126.900	0.30	7.40	3.29 0	-2.55 3	-3.29 0	2.55 3
126.915	126.917	0.34	0.96	2.34 1	-4.58 2	-2.34 1	4.58 2
127.047	127.049	0.32	1.75	1.38 1	-1.07 3	-1.38 1	1.07 3
127.056	127.060	0.30	7.20	3.38 0	-2.54 3	-3.38 0	2.54 3
127.222	127.226	0.30	7.00	3.47 0	-2.52 3	-3.47 0	2.52 3
127.310	127.312	0.34	0.94	2.34 1	-4.39 2	-2.34 1	4.39 2
127.312	127.315	0.36	0.70	2.89 1	-2.19 2	-2.89 1	2.19 2
127.360	127.363	0.32	1.70	1.40 1	-1.04 3	-1.40 1	1.04 3
127.394	127.397	0.30	6.80	3.57 0	-2.49 3	-3.57 0	2.49 3
127.423	127.426	0.44	0.46	6.16 0	-7.11 0	-6.16 0	7.11 0
127.572	127.575	0.30	6.60	3.67 0	-2.47 3	-3.67 0	2.47 3
127.689	127.692	0.32	1.65	1.43 1	-1.01 3	-1.43 1	1.01 3
127.721	127.723	0.34	0.92	2.34 1	-4.19 2	-2.35 1	4.19 2
127.756	127.760	0.30	6.40	3.78 0	-2.45 3	-3.78 0	2.45 3
127.948	127.951	0.30	6.20	3.90 0	-2.43 3	-3.90 0	2.43 3
127.955	127.957	0.38	0.58	2.83 1	-1.07 2	-2.83 1	1.07 2
128.010	128.013	0.40	0.52	2.41 1	-5.59 1	-2.41 1	5.59 1
128.035	128.037	0.32	1.60	1.46 1	-9.71 2	-1.46 1	9.71 2
128.086	128.117	0.28	90.00	1.75-1	-2.04 3	-1.77-1	2.04 3
128.143	128.145	0.36	0.68	2.83 1	-1.99 2	-2.83 1	1.99 2
128.148	128.151	0.30	6.00	4.02 0	-2.40 3	-4.02 0	2.40 3
128.151	128.154	0.34	0.90	2.35 1	-4.00 2	-2.35 1	4.00 2
128.154	128.185	0.28	89.00	1.79-1	-2.07 3	-1.80-1	2.07 3
128.239	128.241	0.42	0.48	1.51 1	-2.32 1	-1.51 1	2.32 1
128.223	128.252	0.28	88.00	1.82-1	-2.10 3	-1.83-1	2.11 3
128.291	128.320	0.28	87.00	1.85-1	-2.14 3	-1.87-1	2.14 3
128.356	128.359	0.30	5.80	4.15 0	-2.37 3	-4.16 0	2.37 3
128.360	128.388	0.28	86.00	1.89-1	-2.17 3	-1.90-1	2.17 3
128.399	128.401	0.32	1.55	1.48 1	-9.35 2	-1.48 1	9.35 2
128.429	128.457	0.28	85.00	1.92-1	-2.21 3	-1.93-1	2.21 3

Part 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
128.498	128.525	0.28	84.00	1.96-1	-2.24 3	-1.97-1	2.24 3
128.573	128.576	0.30	5.60	4.29 0	-2.34 3	-4.30 0	2.34 3
128.567	128.594	0.28	83.00	1.99-1	-2.27 3	-2.01-1	2.27 3
128.602	128.604	0.34	0.88	2.35 1	-3.80 2	-2.35 1	3.80 2
128.636	128.663	0.28	82.00	2.03-1	-2.30 3	-2.04-1	2.31 3
128.706	128.732	0.28	81.00	2.07-1	-2.34 3	-2.08-1	2.34 3
128.784	128.786	0.32	1.50	1.51 1	-8.98 2	-1.51 1	8.98 2
128.776	128.802	0.28	80.00	2.11-1	-2.37 3	-2.12-1	2.37 3
128.799	128.802	0.30	5.40	4.44 0	-2.31 3	-4.44 0	2.31 3
128.846	128.872	0.28	79.00	2.15-1	-2.40 3	-2.16-1	2.40 3
128.917	128.942	0.28	78.00	2.19-1	-2.43 3	-2.20-1	2.44 3
128.988	129.012	0.28	77.00	2.23-1	-2.47 3	-2.24-1	2.47 3
129.031	129.033	0.36	0.66	2.74 1	-1.79 2	-2.74 1	1.79 2
129.037	129.040	0.30	5.20	4.60 0	-2.28 3	-4.60 0	2.28 3
129.073	129.075	0.34	0.86	2.34 1	-3.60 2	-2.34 1	3.60 2
129.059	129.083	0.28	76.00	2.27-1	-2.50 3	-2.29-1	2.50 3
129.131	129.155	0.28	75.00	2.32-1	-2.53 3	-2.33-1	2.53 3
129.190	129.192	0.32	1.45	1.54 1	-8.60 2	-1.54 1	8.60 2
129.203	129.227	0.28	74.00	2.36-1	-2.56 3	-2.37-1	2.56 3
129.286	129.289	0.30	5.00	4.77 0	-2.25 3	-4.77 0	2.25 3
129.276	129.299	0.28	73.00	2.41-1	-2.59 3	-2.42-1	2.59 3
129.327	129.329	0.38	0.56	2.62 1	-8.99 1	-2.62 1	8.99 1
129.349	129.372	0.28	72.00	2.45-1	-2.62 3	-2.47-1	2.62 3
129.423	129.445	0.28	71.00	2.50-1	-2.65 3	-2.51-1	2.65 3
129.497	129.519	0.28	70.00	2.55-1	-2.68 3	-2.56-1	2.68 3
129.549	129.551	0.30	4.80	4.95 0	-2.21 3	-4.95 0	2.21 3
129.568	129.570	0.34	0.84	2.34 1	-3.41 2	-2.34 1	3.41 2
129.572	129.593	0.28	69.00	2.60-1	-2.71 3	-2.61-1	2.71 3
129.622	129.623	0.32	1.40	1.56 1	-8.20 2	-1.56 1	8.20 2
129.647	129.668	0.28	68.00	2.65-1	-2.74 3	-2.67-1	2.74 3
129.723	129.744	0.28	67.00	2.71-1	-2.77 3	-2.72-1	2.77 3
129.800	129.820	0.28	66.00	2.76-1	-2.80 3	-2.77-1	2.80 3
129.825	129.828	0.30	4.60	5.14 0	-2.17 3	-5.14 0	2.17 3
129.878	129.898	0.28	65.00	2.82-1	-2.83 3	-2.83-1	2.83 3
129.900	129.903	0.40	0.50	2.02 1	-4.16 1	-2.02 1	4.16 1
129.956	129.975	0.28	64.00	2.87-1	-2.86 3	-2.89-1	2.86 3
129.984	129.986	0.36	0.64	2.66 1	-1.60 2	-2.66 1	1.60 2
130.035	130.054	0.28	63.00	2.93-1	-2.89 3	-2.95-1	2.89 3
130.080	130.082	0.32	1.35	1.59 1	-7.79 2	-1.59 1	7.79 2
130.089	130.091	0.34	0.82	2.33 1	-3.22 2	-2.33 1	3.22 2
130.118	130.120	0.30	4.40	5.35 0	-2.13 3	-5.35 0	2.13 3
130.115	130.134	0.28	62.00	2.99-1	-2.91 3	-3.01-1	2.91 3
130.196	130.214	0.28	61.00	3.06-1	-2.94 3	-3.07-1	2.94 3
130.277	130.295	0.28	60.00	3.12-1	-2.97 3	-3.14-1	2.97 3
130.360	130.377	0.28	59.00	3.19-1	-2.99 3	-3.20-1	2.99 3
130.428	130.430	0.30	4.20	5.57 0	-2.08 3	-5.57 0	2.08 3
130.443	130.461	0.28	58.00	3.26-1	-3.02 3	-3.27-1	3.02 3
130.528	130.545	0.28	57.00	3.33-1	-3.04 3	-3.34-1	3.05 3
130.570	130.571	0.32	1.30	1.61 1	-7.37 2	-1.61 1	7.37 2
130.614	130.630	0.28	56.00	3.40-1	-3.07 3	-3.42-1	3.07 3
130.637	130.639	0.34	0.80	2.32 1	-3.02 2	-2.32 1	3.02 2
130.656	130.658	0.42	0.46	9.89 0	-1.33 1	-9.90 0	1.33 1
130.701	130.717	0.28	55.00	3.48-1	-3.09 3	-3.49-1	3.09 3
130.758	130.760	0.30	4.00	5.81 0	-2.03 3	-5.81 0	2.03 3
130.789	130.805	0.28	54.00	3.56-1	-3.12 3	-3.57-1	3.12 3
130.825	130.827	0.38	0.54	2.40 1	-7.43 1	-2.40 1	7.43 1
130.878	130.894	0.28	53.00	3.64-1	-3.14 3	-3.65-1	3.14 3
130.931	130.933	0.30	3.90	5.94 0	-2.01 3	-5.94 0	2.01 3
130.969	130.984	0.28	52.00	3.73-1	-3.16 3	-3.74-1	3.16 3
131.009	131.011	0.36	0.62	2.56 1	-1.41 2	-2.56 1	1.41 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
131.061	131.076	0.28	51.00	3.81-1	-3.19 3	-3.83-1	3.19 3
131.094	131.095	0.32	1.25	1.64 1	-6.95 2	-1.64 1	6.95 2
131.110	131.112	0.30	3.80	6.08 0	-1.98 3	-6.08 0	1.98 3
131.155	131.170	0.28	50.00	3.91-1	-3.21 3	-3.92-1	3.21 3
131.215	131.217	0.34	0.78	2.31 1	-2.83 2	-2.31 1	2.83 2
131.250	131.265	0.28	49.00	4.00-1	-3.23 3	-4.01-1	3.23 3
131.295	131.297	0.30	3.70	6.21 0	-1.95 3	-6.21 0	1.95 3
131.347	131.361	0.28	48.00	4.10-1	-3.25 3	-4.11-1	3.25 3
131.446	131.459	0.28	47.00	4.20-1	-3.27 3	-4.22-1	3.27 3
131.487	131.489	0.30	3.60	6.36 0	-1.92 3	-6.36 0	1.92 3
131.546	131.560	0.28	46.00	4.31-1	-3.29 3	-4.32-1	3.29 3
131.657	131.659	0.32	1.20	1.66 1	-6.51 2	-1.66 1	6.51 2
131.649	131.662	0.28	45.00	4.42-1	-3.31 3	-4.43-1	3.31 3
131.687	131.689	0.30	3.50	6.51 0	-1.89 3	-6.51 0	1.89 3
131.753	131.766	0.28	44.00	4.54-1	-3.32 3	-4.55-1	3.33 3
131.826	131.828	0.34	0.76	2.29 1	-2.64 2	-2.29 1	2.64 2
131.859	131.872	0.28	43.00	4.66-1	-3.34 3	-4.67-1	3.34 3
131.894	131.896	0.30	3.40	6.66 0	-1.86 3	-6.66 0	1.86 3
131.968	131.980	0.28	42.00	4.78-1	-3.36 3	-4.80-1	3.36 3
131.993	131.995	0.40	0.48	1.64 1	-2.98 1	-1.64 1	2.98 1
132.079	132.091	0.28	41.00	4.92-1	-3.37 3	-4.93-1	3.37 3
132.110	132.112	0.30	3.30	6.82 0	-1.82 3	-6.82 0	1.82 3
132.115	132.117	0.36	0.60	2.44 1	-1.24 2	-2.44 1	1.24 2
132.193	132.204	0.28	40.00	5.06-1	-3.39 3	-5.07-1	3.39 3
132.265	132.266	0.32	1.15	1.68 1	-6.06 2	-1.68 1	6.06 2
132.309	132.320	0.28	39.00	5.20-1	-3.40 3	-5.22-1	3.40 3
132.335	132.337	0.30	3.20	6.99 0	-1.79 3	-6.99 0	1.79 3
132.428	132.439	0.28	38.00	5.36-1	-3.42 3	-5.37-1	3.42 3
132.468	132.470	0.38	0.52	2.15 1	-5.96 1	-2.15 1	5.96 1
132.473	132.475	0.34	0.74	2.28 1	-2.45 2	-2.28 1	2.45 2
132.551	132.561	0.28	37.00	5.52-1	-3.43 3	-5.53-1	3.43 3
132.569	132.571	0.30	3.10	7.17 0	-1.75 3	-7.17 0	1.75 3
132.676	132.686	0.28	36.00	5.69-1	-3.44 3	-5.70-1	3.44 3
132.805	132.814	0.28	35.00	5.87-1	-3.45 3	-5.88-1	3.45 3
132.815	132.816	0.30	3.00	7.35 0	-1.71 3	-7.35 0	1.71 3
132.924	132.925	0.32	1.10	1.70 1	-5.61 2	-1.70 1	5.61 2
132.937	132.947	0.28	34.00	6.06-1	-3.46 3	-6.07-1	3.46 3
133.072	133.073	0.30	2.90	7.55 0	-1.68 3	-7.55 0	1.68 3
133.073	133.082	0.28	33.00	6.26-1	-3.47 3	-6.28-1	3.47 3
133.161	133.162	0.34	0.72	2.25 1	-2.26 2	-2.25 1	2.26 2
133.213	133.222	0.28	32.00	6.48-1	-3.48 3	-6.49-1	3.48 3
133.314	133.316	0.36	0.58	2.31 1	-1.07 2	-2.31 1	1.07 2
133.341	133.343	0.30	2.80	7.75 0	-1.63 3	-7.75 0	1.63 3
133.363	133.365	0.42	0.44	4.79 0	-5.60 0	-4.80 0	5.59 0
133.358	133.367	0.28	31.00	6.70-1	-3.48 3	-6.72-1	3.48 3
133.508	133.516	0.28	30.00	6.95-1	-3.49 3	-6.96-1	3.49 3
133.625	133.626	0.30	2.70	7.96 0	-1.59 3	-7.96 0	1.59 3
133.642	133.643	0.32	1.05	1.72 1	-5.15 2	-1.72 1	5.15 2
133.662	133.670	0.28	29.00	7.20-1	-3.49 3	-7.22-1	3.49 3
133.822	133.830	0.28	28.00	7.48-1	-3.50 3	-7.50-1	3.50 3
133.892	133.893	0.34	0.70	2.21 1	-2.08 2	-2.21 1	2.08 2
133.924	133.925	0.30	2.60	8.18 0	-1.54 3	-8.18 0	1.54 3
133.988	133.996	0.28	27.00	7.78-1	-3.50 3	-7.79-1	3.50 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
134.00	142.00						
134.161	134.168	0.28	26.00	8.10-1	-3.50 3	-8.11-1	3.50 3
134.240	134.241	0.30	2.50	8.41 0	-1.50 3	-8.41 0	1.50 3
134.279	134.281	0.38	0.50	1.87 1	-4.60 1	-1.87 1	4.60 1
134.325	134.326	0.40	0.46	1.23 1	-1.96 1	-1.23 1	1.96 1
134.340	134.347	0.28	25.00	8.44-1	-3.50 3	-8.45-1	3.50 3
134.428	134.430	0.32	1.00	1.73 1	-4.68 2	-1.73 1	4.68 2
134.527	134.534	0.28	24.00	8.81-1	-3.49 3	-8.83-1	3.49 3
134.574	134.576	0.30	2.40	8.65 0	-1.45 3	-8.66 0	1.45 3
134.617	134.619	0.36	0.56	2.17 1	-9.09 1	-2.17 1	9.08 1
134.672	134.673	0.34	0.68	2.17 1	-1.89 2	-2.17 1	1.89 2
134.723	134.729	0.28	23.00	9.21-1	-3.49 3	-9.23-1	3.49 3
134.765	134.766	0.32	0.98	1.74 1	-4.50 2	-1.74 1	4.50 2
134.930	134.931	0.30	2.30	8.90 0	-1.39 3	-8.91 0	1.39 3
134.927	134.933	0.28	22.00	9.65-1	-3.48 3	-9.67-1	3.48 3
135.116	135.117	0.32	0.96	1.74 1	-4.31 2	-1.74 1	4.31 2
135.142	135.148	0.28	21.00	1.01 0	-3.47 3	-1.01 0	3.47 3
135.310	135.311	0.30	2.20	9.16 0	-1.34 3	-9.16 0	1.34 3
135.368	135.373	0.28	20.00	1.07 0	-3.46 3	-1.07 0	3.46 3
135.481	135.482	0.32	0.94	1.74 1	-4.12 2	-1.74 1	4.12 2
135.486	135.491	0.28	19.50	1.09 0	-3.46 3	-1.10 0	3.46 3
135.506	135.508	0.34	0.66	2.12 1	-1.71 2	-2.12 1	1.71 2
135.606	135.612	0.28	19.00	1.12 0	-3.45 3	-1.12 0	3.45 3
135.716	135.717	0.30	2.10	9.43 0	-1.28 3	-9.43 0	1.28 3
135.731	135.736	0.28	18.50	1.15 0	-3.44 3	-1.16 0	3.44 3
135.862	135.863	0.32	0.92	1.74 1	-3.94 2	-1.74 1	3.94 2
135.859	135.864	0.28	18.00	1.19 0	-3.43 3	-1.19 0	3.43 3
135.991	135.995	0.28	17.50	1.22 0	-3.42 3	-1.22 0	3.42 3
136.041	136.042	0.36	0.54	2.02 1	-7.62 1	-2.02 1	7.62 1
136.127	136.131	0.28	17.00	1.26 0	-3.41 3	-1.26 0	3.41 3
136.153	136.154	0.30	2.00	9.71 0	-1.22 3	-9.71 0	1.22 3
136.261	136.262	0.32	0.90	1.74 1	-3.75 2	-1.74 1	3.75 2
136.267	136.272	0.28	16.50	1.30 0	-3.40 3	-1.30 0	3.40 3
136.285	136.287	0.38	0.48	1.58 1	-3.44 1	-1.58 1	3.44 1
136.384	136.385	0.30	1.95	9.86 0	-1.19 3	-9.86 0	1.19 3
136.401	136.403	0.34	0.64	2.06 1	-1.54 2	-2.06 1	1.54 2
136.413	136.417	0.28	16.00	1.34 0	-3.39 3	-1.34 0	3.39 3
136.563	136.567	0.28	15.50	1.38 0	-3.37 3	-1.38 0	3.37 3
136.624	136.625	0.30	1.90	1.00 1	-1.15 3	-1.00 1	1.15 3
136.678	136.679	0.32	0.88	1.74 1	-3.56 2	-1.74 1	3.56 2
136.719	136.723	0.28	15.00	1.43 0	-3.36 3	-1.43 0	3.36 3
136.875	136.876	0.30	1.85	1.02 1	-1.12 3	-1.02 1	1.12 3
136.880	136.884	0.28	14.50	1.48 0	-3.34 3	-1.48 0	3.34 3
136.937	136.939	0.40	0.44	8.16 0	-1.12 1	-8.17 0	1.12 1
137.048	137.052	0.28	14.00	1.53 0	-3.32 3	-1.53 0	3.32 3
137.115	137.116	0.32	0.86	1.74 1	-3.38 2	-1.74 1	3.38 2
137.137	137.137	0.30	1.80	1.03 1	-1.09 3	-1.03 1	1.09 3
137.223	137.227	0.28	13.50	1.59 0	-3.30 3	-1.59 0	3.30 3
137.365	137.366	0.34	0.62	1.99 1	-1.37 2	-1.99 1	1.37 2
137.405	137.409	0.28	13.00	1.65 0	-3.28 3	-1.65 0	3.28 3
137.410	137.411	0.30	1.75	1.05 1	-1.05 3	-1.05 1	1.05 3
137.573	137.574	0.32	0.84	1.73 1	-3.19 2	-1.73 1	3.19 2
137.596	137.599	0.28	12.50	1.71 0	-3.26 3	-1.71 0	3.26 3
137.603	137.604	0.36	0.52	1.85 1	-6.23 1	-1.85 1	6.23 1
137.696	137.697	0.30	1.70	1.06 1	-1.02 3	-1.06 1	1.02 3
137.795	137.798	0.28	12.00	1.78 0	-3.24 3	-1.78 0	3.24 3
137.996	137.997	0.30	1.65	1.08 1	-9.79 2	-1.08 1	9.79 2
138.003	138.006	0.28	11.50	1.86 0	-3.21 3	-1.86 0	3.21 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
138.055	138.056	0.32	0.82	1.73 1	-3.01 2	-1.73 1	3.01 2
138.222	138.225	0.28	11.00	1.94 0	-3.18 3	-1.94 0	3.18 3
138.311	138.312	0.30	1.60	1.09 1	-9.41 2	-1.09 1	9.41 2
138.405	138.406	0.34	0.60	1.92 1	-1.20 2	-1.92 1	1.20 2
138.453	138.456	0.28	10.50	2.03 0	-3.15 3	-2.03 0	3.15 3
138.521	138.522	0.38	0.46	1.28 1	-2.43 1	-1.28 1	2.43 1
138.563	138.564	0.32	0.80	1.72 1	-2.83 2	-1.72 1	2.83 2
138.643	138.644	0.30	1.55	1.11 1	-9.03 2	-1.11 1	9.03 2
138.697	138.699	0.28	10.00	2.12 0	-3.11 3	-2.12 0	3.11 3
138.798	138.801	0.28	9.80	2.16 0	-3.10 3	-2.17 0	3.10 3
138.902	138.904	0.28	9.60	2.21 0	-3.08 3	-2.21 0	3.08 3
138.994	138.994	0.30	1.50	1.12 1	-8.64 2	-1.12 1	8.64 2
139.009	139.011	0.28	9.40	2.25 0	-3.06 3	-2.25 0	3.06 3
139.099	139.100	0.32	0.78	1.71 1	-2.65 2	-1.71 1	2.65 2
139.118	139.120	0.28	9.20	2.30 0	-3.05 3	-2.30 0	3.05 3
139.229	139.231	0.28	9.00	2.34 0	-3.03 3	-2.35 0	3.03 3
139.324	139.326	0.36	0.50	1.65 1	-4.96 1	-1.65 1	4.96 1
139.344	139.346	0.28	8.80	2.39 0	-3.01 3	-2.40 0	3.01 3
139.364	139.365	0.30	1.45	1.14 1	-8.24 2	-1.14 1	8.24 2
139.462	139.464	0.28	8.60	2.45 0	-2.99 3	-2.45 0	2.99 3
139.532	139.533	0.34	0.58	1.84 1	-1.05 2	-1.84 1	1.05 2
139.583	139.585	0.28	8.40	2.50 0	-2.97 3	-2.50 0	2.97 3
139.665	139.666	0.32	0.76	1.70 1	-2.47 2	-1.70 1	2.47 2
139.708	139.709	0.28	8.20	2.56 0	-2.95 3	-2.56 0	2.95 3
139.757	139.758	0.30	1.40	1.15 1	-7.84 2	-1.15 1	7.84 2
139.836	139.837	0.28	8.00	2.61 0	-2.93 3	-2.62 0	2.93 3
139.886	139.887	0.40	0.42	4.18 0	-4.93 0	-4.18 0	4.93 0
139.968	139.969	0.28	7.80	2.68 0	-2.91 3	-2.68 0	2.91 3
140.104	140.105	0.28	7.60	2.74 0	-2.88 3	-2.74 0	2.88 3
140.175	140.175	0.30	1.35	1.17 1	-7.42 2	-1.17 1	7.42 2
140.244	140.245	0.28	7.40	2.81 0	-2.86 3	-2.81 0	2.86 3
140.265	140.266	0.32	0.74	1.68 1	-2.30 2	-1.68 1	2.30 2
140.389	140.390	0.28	7.20	2.88 0	-2.83 3	-2.88 0	2.83 3
140.539	140.540	0.28	7.00	2.95 0	-2.80 3	-2.95 0	2.80 3
140.621	140.621	0.30	1.30	1.18 1	-7.00 2	-1.18 1	7.00 2
140.694	140.695	0.28	6.80	3.03 0	-2.78 3	-3.03 0	2.78 3
140.758	140.759	0.34	0.56	1.74 1	-9.03 1	-1.74 1	9.03 1
140.854	140.855	0.28	6.60	3.11 0	-2.75 3	-3.11 0	2.75 3
140.902	140.903	0.32	0.72	1.66 1	-2.12 2	-1.66 1	2.12 2
141.021	141.022	0.28	6.40	3.19 0	-2.71 3	-3.19 0	2.71 3
141.028	141.029	0.38	0.44	9.63 0	-1.59 1	-9.63 0	1.59 1
141.098	141.099	0.30	1.25	1.20 1	-6.57 2	-1.20 1	6.57 2
141.194	141.195	0.28	6.20	3.28 0	-2.68 3	-3.28 0	2.68 3
141.233	141.234	0.36	0.48	1.45 1	-3.84 1	-1.45 1	3.84 1
141.374	141.375	0.28	6.00	3.37 0	-2.65 3	-3.38 0	2.65 3
141.561	141.562	0.28	5.80	3.47 0	-2.61 3	-3.47 0	2.61 3
141.581	141.581	0.32	0.70	1.64 1	-1.95 2	-1.64 1	1.95 2
141.611	141.611	0.30	1.20	1.21 1	-6.14 2	-1.21 1	6.13 2
141.756	141.757	0.28	5.60	3.58 0	-2.57 3	-3.58 0	2.57 3
141.961	141.961	0.28	5.40	3.69 0	-2.53 3	-3.69 0	2.53 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
142.00	150.00						
142.098	142.099	0.34	0.54	1.64 1	-7.67 1	-1.64 1	7.67 1
142.165	142.165	0.30	1.15	1.22 1	-5.69 2	-1.22 1	5.69 2
142.174	142.175	0.28	5.20	3.80 0	-2.48 3	-3.81 0	2.48 3
142.304	142.305	0.32	0.68	1.61 1	-1.79 2	-1.61 1	1.79 2
142.399	142.399	0.28	5.00	3.93 0	-2.44 3	-3.93 0	2.44 3
142.634	142.635	0.28	4.80	4.06 0	-2.39 3	-4.06 0	2.39 3
142.765	142.765	0.30	1.10	1.23 1	-5.25 2	-1.23 1	5.25 2
142.883	142.884	0.28	4.60	4.20 0	-2.34 3	-4.20 0	2.34 3
143.078	143.079	0.32	0.66	1.58 1	-1.62 2	-1.58 1	1.62 2
143.146	143.146	0.28	4.40	4.35 0	-2.28 3	-4.35 0	2.28 3
143.362	143.363	0.36	0.46	1.23 1	-2.85 1	-1.23 1	2.85 1
143.418	143.419	0.30	1.05	1.24 1	-4.81 2	-1.24 1	4.81 2
143.424	143.424	0.28	4.20	4.51 0	-2.22 3	-4.51 0	2.22 3
143.569	143.569	0.34	0.52	1.53 1	-6.39 1	-1.53 1	6.39 1
143.720	143.720	0.28	4.00	4.68 0	-2.16 3	-4.68 0	2.16 3
143.859	143.860	0.38	0.42	6.47 0	-9.15 0	-6.47 0	9.15 0
143.876	143.876	0.28	3.90	4.76 0	-2.12 3	-4.77 0	2.12 3
143.909	143.909	0.32	0.64	1.55 1	-1.46 2	-1.55 1	1.46 2
144.036	144.036	0.28	3.80	4.86 0	-2.09 3	-4.86 0	2.09 3
144.135	144.135	0.30	1.00	1.24 1	-4.36 2	-1.24 1	4.36 2
144.202	144.203	0.28	3.70	4.95 0	-2.05 3	-4.95 0	2.05 3
144.375	144.375	0.28	3.60	5.05 0	-2.02 3	-5.05 0	2.02 3
144.442	144.442	0.30	0.98	1.24 1	-4.18 2	-1.24 1	4.18 2
144.554	144.554	0.28	3.50	5.15 0	-1.98 3	-5.15 0	1.98 3
144.739	144.739	0.28	3.40	5.25 0	-1.94 3	-5.26 0	1.94 3
144.761	144.761	0.30	0.96	1.25 1	-4.01 2	-1.25 1	4.01 2
144.803	144.803	0.32	0.62	1.51 1	-1.31 2	-1.51 1	1.31 2
144.933	144.933	0.28	3.30	5.36 0	-1.90 3	-5.36 0	1.90 3
145.093	145.093	0.30	0.94	1.24 1	-3.83 2	-1.24 1	3.83 2
145.134	145.134	0.28	3.20	5.47 0	-1.85 3	-5.48 0	1.85 3
145.191	145.192	0.34	0.50	1.40 1	-5.20 1	-1.40 1	5.20 1
145.299	145.321	0.26	90.00	1.64-1	-2.51 3	-1.65-1	2.51 3
145.344	145.344	0.28	3.10	5.59 0	-1.81 3	-5.59 0	1.81 3
145.360	145.382	0.26	89.00	1.67-1	-2.55 3	-1.68-1	2.55 3
145.441	145.441	0.30	0.92	1.25 1	-3.65 2	-1.25 1	3.65 2
145.422	145.443	0.26	88.00	1.70-1	-2.59 3	-1.71-1	2.59 3
145.484	145.505	0.26	87.00	1.73-1	-2.63 3	-1.74-1	2.63 3
145.564	145.563	0.28	3.00	5.71 0	-1.76 3	-5.71 0	1.76 3
145.546	145.566	0.26	86.00	1.76-1	-2.67 3	-1.77-1	2.67 3
145.608	145.628	0.26	85.00	1.79-1	-2.71 3	-1.80-1	2.72 3
145.670	145.690	0.26	84.00	1.82-1	-2.76 3	-1.83-1	2.76 3
145.750	145.751	0.36	0.44	9.99 0	-2.00 1	-9.99 0	2.00 1
145.733	145.752	0.26	83.00	1.86-1	-2.80 3	-1.87-1	2.80 3
145.769	145.769	0.32	0.60	1.46 1	-1.16 2	-1.46 1	1.16 2
145.793	145.793	0.28	2.90	5.84 0	-1.72 3	-5.84 0	1.72 3
145.804	145.804	0.30	0.90	1.24 1	-3.48 2	-1.24 1	3.48 2
145.796	145.815	0.26	82.00	1.89-1	-2.84 3	-1.90-1	2.84 3
145.858	145.877	0.26	81.00	1.93-1	-2.88 3	-1.94-1	2.88 3
145.922	145.940	0.26	80.00	1.96-1	-2.92 3	-1.97-1	2.92 3
145.985	146.003	0.26	79.00	2.00-1	-2.96 3	-2.01-1	2.96 3
146.035	146.034	0.28	2.80	5.96 0	-1.67 3	-5.97 0	1.67 3
146.049	146.066	0.26	78.00	2.04-1	-3.00 3	-2.05-1	3.00 3
146.113	146.130	0.26	77.00	2.07-1	-3.03 3	-2.08-1	3.04 3
146.183	146.183	0.30	0.88	1.24 1	-3.30 2	-1.24 1	3.30 2
146.177	146.194	0.26	76.00	2.11-1	-3.07 3	-2.12-1	3.07 3
146.242	146.258	0.26	75.00	2.15-1	-3.11 3	-2.16-1	3.11 3
146.288	146.288	0.28	2.70	6.10 0	-1.62 3	-6.10 0	1.62 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
146.307	146.323	0.26	74.00	2.19-1	-3.15 3	-2.20-1	3.15 3
146.372	146.388	0.26	73.00	2.23-1	-3.19 3	-2.25-1	3.19 3
146.438	146.454	0.26	72.00	2.28-1	-3.23 3	-2.29-1	3.23 3
146.505	146.520	0.26	71.00	2.32-1	-3.26 3	-2.33-1	3.26 3
146.555	146.555	0.28	2.60	6.24 0	-1.56 3	-6.24 0	1.56 3
146.582	146.581	0.30	0.86	1.24 1	-3.13 2	-1.24 1	3.13 2
146.572	146.587	0.26	70.00	2.37-1	-3.30 3	-2.38-1	3.30 3
146.639	146.654	0.26	69.00	2.41-1	-3.34 3	-2.42-1	3.34 3
146.707	146.721	0.26	68.00	2.46-1	-3.37 3	-2.47-1	3.37 3
146.775	146.789	0.26	67.00	2.51-1	-3.41 3	-2.52-1	3.41 3
146.816	146.816	0.32	0.58	1.41 1	-1.02 2	-1.41 1	1.02 2
146.838	146.837	0.28	2.50	6.38 0	-1.51 3	-6.38 0	1.51 3
146.844	146.858	0.26	66.00	2.56-1	-3.44 3	-2.57-1	3.44 3
146.914	146.927	0.26	65.00	2.61-1	-3.48 3	-2.62-1	3.48 3
146.991	146.991	0.34	0.48	1.26 1	-4.14 1	-1.26 1	4.14 1
146.984	146.998	0.26	64.00	2.66-1	-3.51 3	-2.67-1	3.51 3
146.999	146.999	0.30	0.84	1.24 1	-2.96 2	-1.24 1	2.96 2
147.055	147.068	0.26	63.00	2.72-1	-3.54 3	-2.73-1	3.55 3
147.081	147.081	0.38	0.40	3.13 0	-3.76 0	-3.14 0	3.75 0
147.137	147.136	0.28	2.40	6.53 0	-1.45 3	-6.53 0	1.45 3
147.127	147.140	0.26	62.00	2.77-1	-3.58 3	-2.78-1	3.58 3
147.200	147.212	0.26	61.00	2.83-1	-3.61 3	-2.84-1	3.61 3
147.273	147.285	0.26	60.00	2.89-1	-3.64 3	-2.90-1	3.64 3
147.347	147.359	0.26	59.00	2.95-1	-3.67 3	-2.96-1	3.67 3
147.422	147.434	0.26	58.00	3.01-1	-3.70 3	-3.02-1	3.70 3
147.439	147.439	0.30	0.82	1.23 1	-2.79 2	-1.23 1	2.79 2
147.454	147.454	0.28	2.30	6.68 0	-1.39 3	-6.68 0	1.39 3
147.498	147.510	0.26	57.00	3.07-1	-3.73 3	-3.09-1	3.74 3
147.575	147.586	0.26	56.00	3.14-1	-3.76 3	-3.15-1	3.76 3
147.653	147.664	0.26	55.00	3.21-1	-3.79 3	-3.22-1	3.79 3
147.732	147.743	0.26	54.00	3.28-1	-3.82 3	-3.29-1	3.82 3
147.793	147.793	0.28	2.20	6.83 0	-1.33 3	-6.83 0	1.33 3
147.813	147.823	0.26	53.00	3.36-1	-3.85 3	-3.37-1	3.85 3
147.902	147.901	0.30	0.80	1.23 1	-2.62 2	-1.23 1	2.62 2
147.894	147.904	0.26	52.00	3.43-1	-3.88 3	-3.44-1	3.88 3
147.956	147.956	0.32	0.56	1.35 1	-8.86 1	-1.35 1	8.85 1
147.977	147.986	0.26	51.00	3.51-1	-3.90 3	-3.52-1	3.90 3
148.061	148.070	0.26	50.00	3.59-1	-3.93 3	-3.60-1	3.93 3
148.146	148.155	0.26	49.00	3.68-1	-3.95 3	-3.69-1	3.95 3
148.156	148.155	0.28	2.10	6.99 0	-1.26 3	-7.00 0	1.26 3
148.233	148.241	0.26	48.00	3.77-1	-3.98 3	-3.78-1	3.98 3
148.321	148.330	0.26	47.00	3.86-1	-4.00 3	-3.87-1	4.00 3
148.390	148.390	0.30	0.78	1.22 1	-2.46 2	-1.22 1	2.46 2
148.411	148.419	0.26	46.00	3.95-1	-4.02 3	-3.97-1	4.02 3
148.450	148.450	0.36	0.42	7.59 0	-1.31 1	-7.60 0	1.31 1
148.503	148.510	0.26	45.00	4.05-1	-4.04 3	-4.07-1	4.04 3
148.545	148.545	0.28	2.00	7.16 0	-1.19 3	-7.16 0	1.19 3
148.596	148.604	0.26	44.00	4.16-1	-4.06 3	-4.17-1	4.06 3
148.691	148.699	0.26	43.00	4.27-1	-4.08 3	-4.28-1	4.08 3
148.752	148.751	0.28	1.95	7.24 0	-1.16 3	-7.24 0	1.16 3
148.788	148.796	0.26	42.00	4.38-1	-4.10 3	-4.39-1	4.10 3
148.888	148.895	0.26	41.00	4.50-1	-4.12 3	-4.51-1	4.12 3
148.906	148.906	0.30	0.76	1.21 1	-2.29 2	-1.21 1	2.29 2
148.966	148.965	0.28	1.90	7.33 0	-1.12 3	-7.33 0	1.12 3
148.989	148.996	0.26	40.00	4.62-1	-4.13 3	-4.63-1	4.13 3
148.999	148.999	0.34	0.46	1.11 1	-3.18 1	-1.11 1	3.18 1
149.093	149.100	0.26	39.00	4.75-1	-4.15 3	-4.76-1	4.15 3
149.190	149.189	0.28	1.85	7.41 0	-1.09 3	-7.41 0	1.09 3
149.201	149.201	0.32	0.54	1.29 1	-7.60 1	-1.29 1	7.60 1
149.200	149.206	0.26	38.00	4.89-1	-4.16 3	-4.90-1	4.16 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
149.309	149.314	0.26	37.00	5.03-1	-4.18 3	-5.04-1	4.18 3
149.423	149.422	0.28	1.80	7.49 0	-1.05 3	-7.49 0	1.05 3
149.420	149.426	0.26	36.00	5.18-1	-4.19 3	-5.19-1	4.19 3
149.453	149.453	0.30	0.74	1.20 1	-2.13 2	-1.20 1	2.13 2
149.535	149.541	0.26	35.00	5.34-1	-4.20 3	-5.35-1	4.20 3
149.653	149.658	0.26	34.00	5.51-1	-4.21 3	-5.52-1	4.21 3
149.666	149.666	0.28	1.75	7.58 0	-1.02 3	-7.58 0	1.02 3
149.775	149.779	0.26	33.00	5.69-1	-4.21 3	-5.70-1	4.21 3
149.900	149.904	0.26	32.00	5.88-1	-4.22 3	-5.89-1	4.22 3
149.921	149.921	0.28	1.70	7.66 0	-9.77 2	-7.66 0	9.77 2
150.00	160.00						
150.028	150.033	0.26	31.00	6.07-1	-4.22 3	-6.09-1	4.23 3
150.034	150.034	0.30	0.72	1.19 1	-1.97 2	-1.19 1	1.97 2
150.161	150.166	0.26	30.00	6.29-1	-4.23 3	-6.30-1	4.23 3
150.189	150.188	0.28	1.65	7.75 0	-9.39 2	-7.75 0	9.39 2
150.299	150.303	0.26	29.00	6.51-1	-4.23 3	-6.52-1	4.23 3
150.441	150.445	0.26	28.00	6.75-1	-4.23 3	-6.76-1	4.23 3
150.470	150.469	0.28	1.60	7.83 0	-9.00 2	-7.83 0	9.00 2
150.570	150.570	0.32	0.52	1.21 1	-6.42 1	-1.21 1	6.42 1
150.589	150.592	0.26	27.00	7.01-1	-4.23 3	-7.02-1	4.23 3
150.653	150.653	0.30	0.70	1.18 1	-1.82 2	-1.18 1	1.82 2
150.742	150.746	0.26	26.00	7.28-1	-4.22 3	-7.29-1	4.22 3
150.766	150.765	0.28	1.55	7.92 0	-8.61 2	-7.92 0	8.61 2
150.902	150.905	0.26	25.00	7.58-1	-4.21 3	-7.59-1	4.21 3
151.068	151.071	0.26	24.00	7.90-1	-4.20 3	-7.91-1	4.20 3
151.078	151.077	0.28	1.50	8.00 0	-8.21 2	-8.00 0	8.21 2
151.241	151.244	0.26	23.00	8.24-1	-4.19 3	-8.25-1	4.19 3
151.255	151.255	0.34	0.44	9.45 0	-2.35 1	-9.46 0	2.35 1
151.313	151.313	0.30	0.68	1.16 1	-1.67 2	-1.16 1	1.67 2
151.408	151.407	0.28	1.45	8.07 0	-7.80 2	-8.08 0	7.80 2
151.423	151.425	0.26	22.00	8.62-1	-4.18 3	-8.63-1	4.18 3
151.525	151.525	0.36	0.40	5.03 0	-7.33 0	-5.03 0	7.32 0
151.613	151.615	0.26	21.00	9.02-1	-4.16 3	-9.03-1	4.16 3
151.758	151.757	0.28	1.40	8.16 0	-7.39 2	-8.16 0	7.39 2
151.813	151.815	0.26	20.00	9.47-1	-4.14 3	-9.48-1	4.14 3
151.917	151.919	0.26	19.50	9.70-1	-4.13 3	-9.71-1	4.13 3
152.020	152.019	0.30	0.66	1.14 1	-1.52 2	-1.14 1	1.52 2
152.024	152.026	0.26	19.00	9.95-1	-4.11 3	-9.96-1	4.11 3
152.081	152.080	0.32	0.50	1.13 1	-5.32 1	-1.13 1	5.32 1
152.130	152.129	0.28	1.35	8.23 0	-6.98 2	-8.23 0	6.98 2
152.134	152.135	0.26	18.50	1.02 0	-4.10 3	-1.02 0	4.10 3
152.247	152.249	0.26	18.00	1.05 0	-4.08 3	-1.05 0	4.08 3
152.364	152.365	0.26	17.50	1.08 0	-4.07 3	-1.08 0	4.06 3
152.484	152.485	0.26	17.00	1.11 0	-4.05 3	-1.11 0	4.05 3
152.527	152.526	0.28	1.30	8.30 0	-6.56 2	-8.30 0	6.56 2
152.608	152.609	0.26	16.50	1.14 0	-4.03 3	-1.14 0	4.03 3
152.737	152.738	0.26	16.00	1.17 0	-4.01 3	-1.17 0	4.01 3
152.778	152.778	0.30	0.64	1.12 1	-1.37 2	-1.12 1	1.37 2
152.869	152.870	0.26	15.50	1.21 0	-3.98 3	-1.21 0	3.98 3
152.952	152.951	0.28	1.25	8.36 0	-6.14 2	-8.37 0	6.14 2
153.007	153.008	0.26	15.00	1.25 0	-3.96 3	-1.25 0	3.96 3
153.150	153.150	0.26	14.50	1.29 0	-3.93 3	-1.29 0	3.93 3
153.298	153.298	0.26	14.00	1.33 0	-3.90 3	-1.33 0	3.90 3
153.409	153.408	0.28	1.20	8.42 0	-5.72 2	-8.42 0	5.72 2
153.452	153.452	0.26	13.50	1.37 0	-3.87 3	-1.38 0	3.87 3
153.595	153.594	0.30	0.62	1.09 1	-1.24 2	-1.09 1	1.24 2
153.612	153.612	0.26	13.00	1.42 0	-3.84 3	-1.42 0	3.84 3
153.758	153.757	0.32	0.48	1.04 1	-4.32 1	-1.04 1	4.32 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
153.780	153.780	0.26	12.50	1.48 0	-3.80 3	-1.48 0	3.80 3
153.807	153.806	0.34	0.42	7.73 0	-1.65 1	-7.73 0	1.65 1
153.902	153.900	0.28	1.15	8.48 0	-5.29 2	-8.48 0	5.29 2
153.955	153.955	0.26	12.00	1.53 0	-3.77 3	-1.53 0	3.77 3
154.138	154.138	0.26	11.50	1.59 0	-3.72 3	-1.59 0	3.72 3
154.331	154.331	0.26	11.00	1.65 0	-3.68 3	-1.65 0	3.68 3
154.436	154.435	0.28	1.10	8.52 0	-4.87 2	-8.52 0	4.87 2
154.478	154.477	0.30	0.60	1.07 1	-1.10 2	-1.07 1	1.10 2
154.534	154.533	0.26	10.50	1.72 0	-3.63 3	-1.72 0	3.63 3
154.748	154.747	0.26	10.00	1.80 0	-3.58 3	-1.80 0	3.57 3
154.837	154.836	0.26	9.80	1.83 0	-3.55 3	-1.83 0	3.55 3
154.928	154.928	0.26	9.60	1.86 0	-3.53 3	-1.86 0	3.53 3
155.018	155.017	0.28	1.05	8.55 0	-4.44 2	-8.55 0	4.44 2
155.022	155.021	0.26	9.40	1.89 0	-3.50 3	-1.90 0	3.50 3
155.058	155.057	0.36	0.38	2.52 0	-3.07 0	-2.52 0	3.07 0
155.117	155.116	0.26	9.20	1.93 0	-3.48 3	-1.93 0	3.48 3
155.215	155.214	0.26	9.00	1.97 0	-3.45 3	-1.97 0	3.45 3
155.316	155.315	0.26	8.80	2.00 0	-3.43 3	-2.00 0	3.43 3
155.419	155.418	0.26	8.60	2.04 0	-3.40 3	-2.04 0	3.40 3
155.436	155.435	0.30	0.58	1.04 1	-9.76 1	-1.04 1	9.75 1
155.525	155.524	0.26	8.40	2.08 0	-3.37 3	-2.08 0	3.37 3
155.631	155.630	0.32	0.46	9.40 0	-3.42 1	-9.40 0	3.42 1
155.635	155.633	0.26	8.20	2.12 0	-3.34 3	-2.13 0	3.34 3
155.656	155.655	0.28	1.00	8.56 0	-4.02 2	-8.56 0	4.02 2
155.747	155.746	0.26	8.00	2.17 0	-3.31 3	-2.17 0	3.31 3
155.862	155.861	0.26	7.80	2.21 0	-3.27 3	-2.21 0	3.27 3
155.930	155.928	0.28	0.98	8.57 0	-3.86 2	-8.57 0	3.86 2
155.981	155.980	0.26	7.60	2.26 0	-3.24 3	-2.26 0	3.24 3
156.104	156.103	0.26	7.40	2.31 0	-3.20 3	-2.31 0	3.20 3
156.214	156.212	0.28	0.96	8.57 0	-3.69 2	-8.57 0	3.69 2
156.231	156.230	0.26	7.20	2.36 0	-3.16 3	-2.36 0	3.16 3
156.362	156.361	0.26	7.00	2.41 0	-3.13 3	-2.41 0	3.13 3
156.478	156.477	0.30	0.56	1.00 1	-8.54 1	-1.00 1	8.54 1
156.498	156.496	0.26	6.80	2.47 0	-3.08 3	-2.47 0	3.08 3
156.510	156.509	0.28	0.94	8.56 0	-3.52 2	-8.56 0	3.52 2
156.638	156.636	0.26	6.60	2.52 0	-3.04 3	-2.52 0	3.04 3
156.717	156.716	0.34	0.40	5.85 0	-1.06 1	-5.85 0	1.06 1
156.783	156.782	0.26	6.40	2.58 0	-3.00 3	-2.58 0	3.00 3
156.820	156.818	0.28	0.92	8.56 0	-3.36 2	-8.56 0	3.36 2
156.935	156.933	0.26	6.20	2.65 0	-2.95 3	-2.65 0	2.95 3
157.092	157.090	0.26	6.00	2.71 0	-2.90 3	-2.71 0	2.90 3
157.143	157.141	0.28	0.90	8.54 0	-3.20 2	-8.54 0	3.20 2
157.255	157.253	0.26	5.80	2.78 0	-2.85 3	-2.78 0	2.85 3
157.426	157.424	0.26	5.60	2.85 0	-2.80 3	-2.85 0	2.80 3
157.482	157.480	0.28	0.88	8.52 0	-3.04 2	-8.52 0	3.04 2
157.604	157.602	0.26	5.40	2.93 0	-2.74 3	-2.93 0	2.74 3
157.619	157.618	0.30	0.54	9.62 0	-7.40 1	-9.62 0	7.40 1
157.737	157.736	0.32	0.44	8.31 0	-2.62 1	-8.32 0	2.62 1
157.790	157.788	0.26	5.20	3.00 0	-2.68 3	-3.01 0	2.68 3
157.836	157.835	0.28	0.86	8.50 0	-2.88 2	-8.50 0	2.88 2
157.986	157.984	0.26	5.00	3.09 0	-2.62 3	-3.09 0	2.62 3
158.191	158.189	0.26	4.80	3.17 0	-2.56 3	-3.18 0	2.56 3
158.209	158.207	0.28	0.84	8.48 0	-2.72 2	-8.48 0	2.72 2
158.408	158.406	0.26	4.60	3.27 0	-2.49 3	-3.27 0	2.49 3
158.601	158.599	0.28	0.82	8.45 0	-2.56 2	-8.45 0	2.56 2
158.636	158.634	0.26	4.40	3.36 0	-2.42 3	-3.36 0	2.42 3
158.873	158.872	0.30	0.52	9.19 0	-6.33 1	-9.19 0	6.33 1
158.879	158.876	0.26	4.20	3.46 0	-2.34 3	-3.46 0	2.34 3
159.013	159.012	0.28	0.80	8.41 0	-2.41 2	-8.41 0	2.41 2
159.136	159.134	0.26	4.00	3.57 0	-2.26 3	-3.57 0	2.26 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
159.271	159.269	0.26	3.90	3.62 0	-2.22 3	-3.63 0	2.22 3
159.411	159.408	0.26	3.80	3.68 0	-2.18 3	-3.68 0	2.18 3
159.449	159.447	0.28	0.78	8.37 0	-2.26 2	-8.37 0	2.26 2
159.555	159.553	0.26	3.70	3.74 0	-2.13 3	-3.74 0	2.13 3
159.705	159.703	0.26	3.60	3.80 0	-2.09 3	-3.80 0	2.09 3
159.860	159.858	0.26	3.50	3.86 0	-2.04 3	-3.86 0	2.04 3
159.910	159.908	0.28	0.76	8.32 0	-2.11 2	-8.32 0	2.11 2
160.00	170.00						
160.022	160.019	0.26	3.40	3.92 0	-1.99 3	-3.92 0	1.99 3
160.065	160.064	0.34	0.38	3.95 0	-5.96 0	-3.95 0	5.96 0
160.123	160.122	0.32	0.42	7.14 0	-1.93 1	-7.14 0	1.93 1
160.190	160.187	0.26	3.30	3.99 0	-1.94 3	-3.99 0	1.94 3
160.258	160.257	0.30	0.50	8.68 0	-5.32 1	-8.69 0	5.32 1
160.364	160.362	0.26	3.20	4.05 0	-1.89 3	-4.06 0	1.89 3
160.398	160.396	0.28	0.74	8.26 0	-1.97 2	-8.26 0	1.97 2
160.547	160.544	0.26	3.10	4.12 0	-1.84 3	-4.12 0	1.84 3
160.737	160.734	0.26	3.00	4.19 0	-1.78 3	-4.19 0	1.78 3
160.917	160.915	0.28	0.72	8.19 0	-1.82 2	-8.19 0	1.82 2
160.936	160.934	0.26	2.90	4.26 0	-1.73 3	-4.26 0	1.73 3
161.146	161.143	0.26	2.80	4.34 0	-1.67 3	-4.34 0	1.67 3
161.365	161.363	0.26	2.70	4.41 0	-1.61 3	-4.41 0	1.61 3
161.469	161.467	0.28	0.70	8.11 0	-1.68 2	-8.11 0	1.68 2
161.597	161.594	0.26	2.60	4.49 0	-1.55 3	-4.49 0	1.55 3
161.798	161.796	0.30	0.48	8.14 0	-4.40 1	-8.14 0	4.40 1
161.842	161.839	0.26	2.50	4.57 0	-1.49 3	-4.57 0	1.49 3
162.059	162.057	0.28	0.68	8.01 0	-1.54 2	-8.01 0	1.54 2
162.101	162.098	0.26	2.40	4.65 0	-1.43 3	-4.65 0	1.42 3
162.376	162.373	0.26	2.30	4.73 0	-1.36 3	-4.73 0	1.36 3
162.669	162.666	0.26	2.20	4.81 0	-1.29 3	-4.81 0	1.29 3
162.691	162.688	0.28	0.66	7.90 0	-1.41 2	-7.90 0	1.41 2
162.847	162.846	0.32	0.40	5.84 0	-1.34 1	-5.84 0	1.34 1
162.983	162.980	0.26	2.10	4.90 0	-1.22 3	-4.90 0	1.22 3
163.320	163.317	0.26	2.00	4.98 0	-1.15 3	-4.98 0	1.15 3
163.369	163.367	0.28	0.64	7.78 0	-1.28 2	-7.78 0	1.28 2
163.498	163.495	0.26	1.95	5.02 0	-1.11 3	-5.02 0	1.11 3
163.519	163.517	0.30	0.46	7.52 0	-3.56 1	-7.52 0	3.56 1
163.684	163.681	0.26	1.90	5.07 0	-1.08 3	-5.07 0	1.08 3
163.877	163.874	0.26	1.85	5.11 0	-1.04 3	-5.11 0	1.04 3
163.953	163.951	0.34	0.36	1.98 0	-2.46 0	-1.99 0	2.46 0
164.079	164.076	0.26	1.80	5.15 0	-1.00 3	-5.15 0	1.00 3
164.100	164.098	0.28	0.62	7.64 0	-1.16 2	-7.64 0	1.16 2
164.290	164.286	0.26	1.75	5.19 0	-9.63 2	-5.19 0	9.63 2
164.510	164.507	0.26	1.70	5.23 0	-9.25 2	-5.23 0	9.25 2
164.741	164.738	0.26	1.65	5.27 0	-8.86 2	-5.27 0	8.86 2
164.890	164.888	0.28	0.60	7.49 0	-1.04 2	-7.49 0	1.04 2
164.984	164.981	0.26	1.60	5.31 0	-8.47 2	-5.31 0	8.47 2
165.240	165.236	0.26	1.55	5.35 0	-8.07 2	-5.35 0	8.07 2
165.457	165.455	0.30	0.44	6.83 0	-2.80 1	-6.84 0	2.80 1
165.510	165.506	0.26	1.50	5.39 0	-7.68 2	-5.39 0	7.68 2
165.748	165.745	0.28	0.58	7.31 0	-9.24 1	-7.31 0	9.24 1
165.795	165.791	0.26	1.45	5.42 0	-7.28 2	-5.42 0	7.27 2
165.882	165.895	0.24	90.00	1.52-1	-3.23 3	-1.53-1	3.23 3
165.935	165.948	0.24	89.00	1.55-1	-3.28 3	-1.56-1	3.28 3
165.986	165.984	0.32	0.38	4.48 0	-8.57 0	-4.48 0	8.56 0
165.989	166.001	0.24	88.00	1.58-1	-3.34 3	-1.59-1	3.34 3
166.042	166.054	0.24	87.00	1.61-1	-3.39 3	-1.61-1	3.39 3
166.097	166.094	0.26	1.40	5.46 0	-6.87 2	-5.46 0	6.87 2
166.096	166.107	0.24	86.00	1.63-1	-3.44 3	-1.64-1	3.44 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
166.149	166.161	0.24	85.00	1.66-1	-3.49 3	-1.67-1	3.49 3
166.203	166.214	0.24	84.00	1.69-1	-3.54 3	-1.70-1	3.55 3
166.257	166.268	0.24	83.00	1.72-1	-3.60 3	-1.73-1	3.60 3
166.311	166.321	0.24	82.00	1.75-1	-3.65 3	-1.76-1	3.65 3
166.366	166.375	0.24	81.00	1.79-1	-3.70 3	-1.80-1	3.70 3
166.419	166.416	0.26	1.35	5.49 0	-6.47 2	-5.49 0	6.47 2
166.420	166.430	0.24	80.00	1.82-1	-3.75 3	-1.83-1	3.75 3
166.475	166.484	0.24	79.00	1.85-1	-3.80 3	-1.86-1	3.80 3
166.530	166.539	0.24	78.00	1.89-1	-3.85 3	-1.89-1	3.85 3
166.585	166.594	0.24	77.00	1.92-1	-3.90 3	-1.93-1	3.90 3
166.640	166.649	0.24	76.00	1.95-1	-3.95 3	-1.96-1	3.95 3
166.683	166.680	0.28	0.56	7.11 0	-8.15 1	-7.11 0	8.15 1
166.696	166.705	0.24	75.00	1.99-1	-4.00 3	-2.00-1	4.00 3
166.762	166.759	0.26	1.30	5.52 0	-6.07 2	-5.52 0	6.07 2
166.752	166.760	0.24	74.00	2.03-1	-4.04 3	-2.04-1	4.04 3
166.809	166.817	0.24	73.00	2.07-1	-4.09 3	-2.07-1	4.09 3
166.866	166.873	0.24	72.00	2.10-1	-4.14 3	-2.11-1	4.14 3
166.923	166.930	0.24	71.00	2.14-1	-4.18 3	-2.15-1	4.18 3
166.980	166.987	0.24	70.00	2.18-1	-4.23 3	-2.19-1	4.23 3
167.038	167.045	0.24	69.00	2.22-1	-4.28 3	-2.23-1	4.28 3
167.097	167.103	0.24	68.00	2.27-1	-4.32 3	-2.28-1	4.32 3
167.130	167.126	0.26	1.25	5.55 0	-5.66 2	-5.55 0	5.66 2
167.156	167.162	0.24	67.00	2.31-1	-4.36 3	-2.32-1	4.37 3
167.215	167.221	0.24	66.00	2.35-1	-4.41 3	-2.36-1	4.41 3
167.275	167.281	0.24	65.00	2.40-1	-4.45 3	-2.41-1	4.45 3
167.335	167.341	0.24	64.00	2.45-1	-4.49 3	-2.46-1	4.49 3
167.397	167.402	0.24	63.00	2.50-1	-4.53 3	-2.50-1	4.53 3
167.458	167.464	0.24	62.00	2.55-1	-4.58 3	-2.55-1	4.58 3
167.525	167.521	0.26	1.20	5.57 0	-5.26 2	-5.57 0	5.26 2
167.521	167.526	0.24	61.00	2.60-1	-4.62 3	-2.61-1	4.62 3
167.584	167.588	0.24	60.00	2.65-1	-4.65 3	-2.66-1	4.65 3
167.647	167.652	0.24	59.00	2.70-1	-4.69 3	-2.71-1	4.69 3
167.656	167.653	0.30	0.42	6.08 0	-2.14 1	-6.08 0	2.14 1
167.706	167.704	0.28	0.54	6.90 0	-7.12 1	-6.90 0	7.12 1
167.712	167.716	0.24	58.00	2.76-1	-4.73 3	-2.77-1	4.73 3
167.777	167.781	0.24	57.00	2.82-1	-4.77 3	-2.83-1	4.77 3
167.843	167.847	0.24	56.00	2.88-1	-4.80 3	-2.88-1	4.80 3
167.910	167.914	0.24	55.00	2.94-1	-4.84 3	-2.95-1	4.84 3
167.951	167.947	0.26	1.15	5.59 0	-4.86 2	-5.59 0	4.86 2
167.978	167.982	0.24	54.00	3.00-1	-4.87 3	-3.01-1	4.87 3
168.047	168.050	0.24	53.00	3.06-1	-4.90 3	-3.07-1	4.90 3
168.117	168.120	0.24	52.00	3.13-1	-4.93 3	-3.14-1	4.93 3
168.187	168.190	0.24	51.00	3.20-1	-4.97 3	-3.21-1	4.97 3
168.259	168.262	0.24	50.00	3.27-1	-4.99 3	-3.28-1	4.99 3
168.333	168.335	0.24	49.00	3.35-1	-5.02 3	-3.36-1	5.02 3
168.413	168.409	0.26	1.10	5.61 0	-4.46 2	-5.61 0	4.46 2
168.407	168.409	0.24	48.00	3.43-1	-5.05 3	-3.44-1	5.05 3
168.483	168.485	0.24	47.00	3.51-1	-5.08 3	-3.52-1	5.08 3
168.559	168.561	0.24	46.00	3.59-1	-5.10 3	-3.60-1	5.10 3
168.638	168.640	0.24	45.00	3.68-1	-5.12 3	-3.69-1	5.12 3
168.718	168.719	0.24	44.00	3.77-1	-5.15 3	-3.78-1	5.15 3
168.799	168.801	0.24	43.00	3.86-1	-5.17 3	-3.87-1	5.17 3
168.832	168.830	0.28	0.52	6.65 0	-6.15 1	-6.65 0	6.15 1
168.882	168.884	0.24	42.00	3.96-1	-5.19 3	-3.97-1	5.19 3
168.916	168.912	0.26	1.05	5.61 0	-4.06 2	-5.61 0	4.06 2
168.967	168.968	0.24	41.00	4.06-1	-5.20 3	-4.07-1	5.20 3
169.054	169.055	0.24	40.00	4.17-1	-5.22 3	-4.18-1	5.22 3
169.143	169.143	0.24	39.00	4.28-1	-5.23 3	-4.29-1	5.23 3
169.234	169.234	0.24	38.00	4.40-1	-5.25 3	-4.41-1	5.25 3
169.327	169.327	0.24	37.00	4.52-1	-5.26 3	-4.53-1	5.26 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
169.422	169.422	0.24	36.00	4.65-1	-5.27 3	-4.66-1	5.27 3
169.468	169.464	0.26	1.00	5.61 0	-3.67 2	-5.61 0	3.67 2
169.520	169.520	0.24	35.00	4.79-1	-5.27 3	-4.80-1	5.27 3
169.621	169.621	0.24	34.00	4.93-1	-5.28 3	-4.94-1	5.28 3
169.639	169.636	0.32	0.36	3.03 0	-4.77 0	-3.04 0	4.77 0
169.704	169.700	0.26	0.98	5.61 0	-3.52 2	-5.61 0	3.52 2
169.724	169.724	0.24	33.00	5.08-1	-5.28 3	-5.09-1	5.28 3
169.831	169.830	0.24	32.00	5.24-1	-5.28 3	-5.25-1	5.28 3
169.941	169.940	0.24	31.00	5.41-1	-5.28 3	-5.41-1	5.28 3
169.950	169.946	0.26	0.96	5.61 0	-3.37 2	-5.61 0	3.37 2
170.00	185.00						
170.054	170.053	0.24	30.00	5.58-1	-5.28 3	-5.59-1	5.28 3
170.078	170.075	0.28	0.50	6.36 0	-5.23 1	-6.36 0	5.23 1
170.170	170.168	0.30	0.40	5.23 0	-1.56 1	-5.23 0	1.56 1
170.171	170.170	0.24	29.00	5.77-1	-5.27 3	-5.78-1	5.27 3
170.207	170.203	0.26	0.94	5.60 0	-3.21 2	-5.60 0	3.21 2
170.292	170.291	0.24	28.00	5.97-1	-5.26 3	-5.98-1	5.26 3
170.418	170.416	0.24	27.00	6.19-1	-5.25 3	-6.19-1	5.25 3
170.475	170.471	0.26	0.92	5.59 0	-3.06 2	-5.60 0	3.06 2
170.548	170.547	0.24	26.00	6.41-1	-5.23 3	-6.42-1	5.23 3
170.684	170.682	0.24	25.00	6.66-1	-5.21 3	-6.66-1	5.21 3
170.755	170.751	0.26	0.90	5.58 0	-2.91 2	-5.58 0	2.91 2
170.825	170.823	0.24	24.00	6.92-1	-5.19 3	-6.93-1	5.19 3
170.972	170.970	0.24	23.00	7.20-1	-5.16 3	-7.21-1	5.16 3
171.048	171.044	0.26	0.88	5.57 0	-2.77 2	-5.57 0	2.77 2
171.126	171.124	0.24	22.00	7.50-1	-5.13 3	-7.51-1	5.13 3
171.288	171.285	0.24	21.00	7.83-1	-5.09 3	-7.83-1	5.09 3
171.355	171.351	0.26	0.86	5.56 0	-2.62 2	-5.56 0	2.62 2
171.457	171.454	0.24	20.00	8.18-1	-5.05 3	-8.19-1	5.05 3
171.464	171.460	0.28	0.48	6.04 0	-4.39 1	-6.04 0	4.39 1
171.546	171.543	0.24	19.50	8.37-1	-5.03 3	-8.38-1	5.03 3
171.636	171.633	0.24	19.00	8.56-1	-5.00 3	-8.57-1	5.00 3
171.678	171.674	0.26	0.84	5.54 0	-2.48 2	-5.54 0	2.48 2
171.729	171.726	0.24	18.50	8.77-1	-4.98 3	-8.78-1	4.98 3
171.825	171.822	0.24	18.00	8.98-1	-4.95 3	-8.99-1	4.95 3
171.924	171.921	0.24	17.50	9.21-1	-4.92 3	-9.22-1	4.92 3
172.017	172.013	0.26	0.82	5.52 0	-2.34 2	-5.52 0	2.34 2
172.026	172.022	0.24	17.00	9.45-1	-4.88 3	-9.45-1	4.88 3
172.131	172.127	0.24	16.50	9.69-1	-4.85 3	-9.70-1	4.85 3
172.239	172.236	0.24	16.00	9.95-1	-4.81 3	-9.96-1	4.81 3
172.352	172.348	0.24	15.50	1.02 0	-4.77 3	-1.02 0	4.77 3
172.375	172.371	0.26	0.80	5.50 0	-2.20 2	-5.50 0	2.20 2
172.468	172.464	0.24	15.00	1.05 0	-4.73 3	-1.05 0	4.73 3
172.588	172.584	0.24	14.50	1.08 0	-4.69 3	-1.08 0	4.69 3
172.713	172.709	0.24	14.00	1.11 0	-4.64 3	-1.11 0	4.64 3
172.752	172.748	0.26	0.78	5.47 0	-2.06 2	-5.48 0	2.06 2
172.843	172.839	0.24	13.50	1.15 0	-4.59 3	-1.15 0	4.59 3
172.979	172.974	0.24	13.00	1.18 0	-4.53 3	-1.18 0	4.53 3
173.015	173.012	0.28	0.46	5.68 0	-3.61 1	-5.68 0	3.61 1
173.073	173.070	0.30	0.38	4.33 0	-1.08 1	-4.33 0	1.08 1
173.120	173.116	0.24	12.50	1.22 0	-4.48 3	-1.22 0	4.48 3
173.152	173.148	0.26	0.76	5.44 0	-1.93 2	-5.44 0	1.93 2
173.268	173.263	0.24	12.00	1.26 0	-4.41 3	-1.26 0	4.41 3
173.422	173.418	0.24	11.50	1.30 0	-4.35 3	-1.31 0	4.35 3
173.576	173.571	0.26	0.74	5.41 0	-1.80 2	-5.41 0	1.80 2
173.585	173.580	0.24	11.00	1.35 0	-4.28 3	-1.35 0	4.28 3
173.755	173.751	0.24	10.50	1.40 0	-4.20 3	-1.40 0	4.20 3
173.935	173.931	0.24	10.00	1.45 0	-4.12 3	-1.45 0	4.12 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
173.935	173.932	0.32	0.34	1.53 0	-1.94 0	-1.53 0	1.94 0
174.010	174.005	0.24	9.80	1.47 0	-4.08 3	-1.47 0	4.08 3
174.026	174.022	0.26	0.72	5.37 0	-1.67 2	-5.37 0	1.67 2
174.087	174.082	0.24	9.60	1.50 0	-4.05 3	-1.50 0	4.04 3
174.165	174.160	0.24	9.40	1.52 0	-4.01 3	-1.52 0	4.01 3
174.246	174.241	0.24	9.20	1.54 0	-3.97 3	-1.54 0	3.97 3
174.328	174.323	0.24	9.00	1.57 0	-3.93 3	-1.57 0	3.93 3
174.413	174.408	0.24	8.80	1.59 0	-3.89 3	-1.59 0	3.89 3
174.500	174.494	0.24	8.60	1.62 0	-3.85 3	-1.62 0	3.85 3
174.506	174.501	0.26	0.70	5.32 0	-1.54 2	-5.32 0	1.54 2
174.589	174.583	0.24	8.40	1.65 0	-3.80 3	-1.65 0	3.80 3
174.680	174.675	0.24	8.20	1.67 0	-3.76 3	-1.68 0	3.76 3
174.764	174.761	0.28	0.44	5.28 0	-2.91 1	-5.28 0	2.91 1
174.774	174.769	0.24	8.00	1.70 0	-3.71 3	-1.70 0	3.71 3
174.871	174.866	0.24	7.80	1.73 0	-3.67 3	-1.73 0	3.66 3
174.971	174.966	0.24	7.60	1.76 0	-3.62 3	-1.76 0	3.61 3
175.018	175.014	0.26	0.68	5.27 0	-1.42 2	-5.28 0	1.42 2
175.074	175.069	0.24	7.40	1.79 0	-3.56 3	-1.80 0	3.56 3
175.181	175.175	0.24	7.20	1.83 0	-3.51 3	-1.83 0	3.51 3
175.290	175.285	0.24	7.00	1.86 0	-3.46 3	-1.86 0	3.46 3
175.404	175.398	0.24	6.80	1.90 0	-3.40 3	-1.90 0	3.40 3
175.522	175.516	0.24	6.60	1.93 0	-3.34 3	-1.93 0	3.34 3
175.567	175.562	0.26	0.66	5.21 0	-1.30 2	-5.21 0	1.30 2
175.643	175.638	0.24	6.40	1.97 0	-3.28 3	-1.97 0	3.28 3
175.770	175.764	0.24	6.20	2.01 0	-3.21 3	-2.01 0	3.21 3
175.901	175.896	0.24	6.00	2.05 0	-3.15 3	-2.05 0	3.15 3
176.038	176.032	0.24	5.80	2.09 0	-3.08 3	-2.09 0	3.08 3
176.157	176.152	0.26	0.64	5.15 0	-1.19 2	-5.15 0	1.18 2
176.181	176.175	0.24	5.60	2.13 0	-3.01 3	-2.14 0	3.01 3
176.330	176.324	0.24	5.40	2.18 0	-2.93 3	-2.18 0	2.93 3
176.459	176.455	0.30	0.36	3.34 0	-6.83 0	-3.34 0	6.82 0
176.486	176.480	0.24	5.20	2.23 0	-2.86 3	-2.23 0	2.86 3
176.649	176.643	0.24	5.00	2.27 0	-2.78 3	-2.27 0	2.78 3
176.752	176.748	0.28	0.42	4.83 0	-2.28 1	-4.83 0	2.28 1
176.793	176.788	0.26	0.62	5.08 0	-1.07 2	-5.08 0	1.07 2
176.821	176.815	0.24	4.80	2.32 0	-2.69 3	-2.32 0	2.69 3
177.001	176.995	0.24	4.60	2.38 0	-2.61 3	-2.38 0	2.61 3
177.192	177.186	0.24	4.40	2.43 0	-2.52 3	-2.43 0	2.52 3
177.394	177.388	0.24	4.20	2.49 0	-2.42 3	-2.49 0	2.42 3
177.481	177.477	0.26	0.60	5.00 0	-9.68 1	-5.00 0	9.67 1
177.609	177.603	0.24	4.00	2.54 0	-2.33 3	-2.55 0	2.33 3
177.722	177.716	0.24	3.90	2.58 0	-2.28 3	-2.58 0	2.27 3
177.838	177.832	0.24	3.80	2.61 0	-2.22 3	-2.61 0	2.22 3
177.959	177.952	0.24	3.70	2.64 0	-2.17 3	-2.64 0	2.17 3
178.083	178.077	0.24	3.60	2.67 0	-2.12 3	-2.67 0	2.12 3
178.213	178.206	0.24	3.50	2.70 0	-2.06 3	-2.70 0	2.06 3
178.229	178.224	0.26	0.58	4.90 0	-8.65 1	-4.90 0	8.65 1
178.347	178.341	0.24	3.40	2.73 0	-2.01 3	-2.73 0	2.00 3
178.487	178.480	0.24	3.30	2.77 0	-1.95 3	-2.77 0	1.95 3
178.632	178.626	0.24	3.20	2.80 0	-1.89 3	-2.80 0	1.89 3
178.784	178.778	0.24	3.10	2.84 0	-1.83 3	-2.84 0	1.83 3
178.943	178.936	0.24	3.00	2.87 0	-1.77 3	-2.87 0	1.77 3
179.031	179.026	0.28	0.40	4.32 0	-1.73 1	-4.32 0	1.73 1
179.045	179.040	0.26	0.56	4.80 0	-7.67 1	-4.80 0	7.67 1
179.108	179.102	0.24	2.90	2.91 0	-1.71 3	-2.91 0	1.71 3
179.282	179.276	0.24	2.80	2.94 0	-1.64 3	-2.94 0	1.64 3
179.465	179.459	0.24	2.70	2.98 0	-1.58 3	-2.98 0	1.58 3
179.658	179.651	0.24	2.60	3.02 0	-1.51 3	-3.02 0	1.51 3
179.861	179.854	0.24	2.50	3.05 0	-1.44 3	-3.05 0	1.44 3
179.939	179.934	0.26	0.54	4.68 0	-6.75 1	-4.68 0	6.75 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
180.076	180.070	0.24	2.40	3.09 0	-1.38 3	-3.09 0	1.38 3
180.305	180.298	0.24	2.30	3.13 0	-1.31 3	-3.13 0	1.31 3
180.451	180.447	0.30	0.34	2.27 0	-3.74 0	-2.27 0	3.74 0
180.549	180.542	0.24	2.20	3.17 0	-1.23 3	-3.17 0	1.23 3
180.809	180.803	0.24	2.10	3.20 0	-1.16 3	-3.21 0	1.16 3
180.923	180.918	0.26	0.52	4.55 0	-5.87 1	-4.55 0	5.87 1
181.090	181.083	0.24	2.00	3.24 0	-1.09 3	-3.24 0	1.09 3
181.238	181.231	0.24	1.95	3.26 0	-1.05 3	-3.26 0	1.05 3
181.392	181.385	0.24	1.90	3.28 0	-1.01 3	-3.28 0	1.01 3
181.552	181.545	0.24	1.85	3.30 0	-9.77 2	-3.30 0	9.76 2
181.667	181.662	0.28	0.38	3.76 0	-1.25 1	-3.76 0	1.25 1
181.720	181.713	0.24	1.80	3.31 0	-9.39 2	-3.31 0	9.38 2
181.895	181.888	0.24	1.75	3.33 0	-9.01 2	-3.33 0	9.01 2
182.014	182.009	0.26	0.50	4.40 0	-5.05 1	-4.40 0	5.05 1
182.078	182.071	0.24	1.70	3.35 0	-8.63 2	-3.35 0	8.63 2
182.270	182.263	0.24	1.65	3.37 0	-8.24 2	-3.37 0	8.24 2
182.471	182.464	0.24	1.60	3.38 0	-7.86 2	-3.38 0	7.86 2
182.684	182.677	0.24	1.55	3.40 0	-7.47 2	-3.40 0	7.47 2
182.908	182.900	0.24	1.50	3.41 0	-7.09 2	-3.41 0	7.09 2
183.144	183.137	0.24	1.45	3.43 0	-6.71 2	-3.43 0	6.71 2
183.229	183.223	0.26	0.48	4.23 0	-4.28 1	-4.23 0	4.28 1
183.396	183.388	0.24	1.40	3.44 0	-6.32 2	-3.44 0	6.32 2
183.663	183.656	0.24	1.35	3.45 0	-5.94 2	-3.45 0	5.94 2
183.948	183.941	0.24	1.30	3.46 0	-5.56 2	-3.46 0	5.56 2
184.253	184.246	0.24	1.25	3.47 0	-5.18 2	-3.47 0	5.18 2
184.581	184.574	0.24	1.20	3.48 0	-4.80 2	-3.48 0	4.80 2
184.591	184.586	0.26	0.46	4.04 0	-3.58 1	-4.04 0	3.58 1
184.749	184.744	0.28	0.36	3.13 0	-8.59 0	-3.13 0	8.58 0
184.935	184.928	0.24	1.15	3.48 0	-4.42 2	-3.48 0	4.42 2
185.00	200.00						
185.217	185.212	0.30	0.32	1.15 0	-1.49 0	-1.15 0	1.49 0
185.319	185.311	0.24	1.10	3.49 0	-4.06 2	-3.49 0	4.05 2
185.738	185.730	0.24	1.05	3.49 0	-3.69 2	-3.49 0	3.69 2
186.130	186.124	0.26	0.44	3.82 0	-2.94 1	-3.82 0	2.93 1
186.197	186.189	0.24	1.00	3.48 0	-3.33 2	-3.48 0	3.33 2
186.393	186.385	0.24	0.98	3.48 0	-3.19 2	-3.48 0	3.19 2
186.598	186.590	0.24	0.96	3.47 0	-3.05 2	-3.47 0	3.05 2
186.811	186.804	0.24	0.94	3.47 0	-2.91 2	-3.47 0	2.91 2
187.034	187.027	0.24	0.92	3.46 0	-2.78 2	-3.47 0	2.78 2
187.267	187.260	0.24	0.90	3.46 0	-2.64 2	-3.46 0	2.64 2
187.511	187.504	0.24	0.88	3.45 0	-2.51 2	-3.45 0	2.51 2
187.767	187.760	0.24	0.86	3.44 0	-2.38 2	-3.44 0	2.38 2
187.883	187.877	0.26	0.42	3.57 0	-2.35 1	-3.57 0	2.35 1
188.036	188.029	0.24	0.84	3.43 0	-2.25 2	-3.43 0	2.25 2
188.319	188.312	0.24	0.82	3.42 0	-2.12 2	-3.42 0	2.12 2
188.395	188.389	0.28	0.34	2.43 0	-5.38 0	-2.43 0	5.37 0
188.618	188.610	0.24	0.80	3.41 0	-2.00 2	-3.41 0	2.00 2
188.933	188.925	0.24	0.78	3.39 0	-1.87 2	-3.39 0	1.87 2
189.266	189.258	0.24	0.76	3.38 0	-1.75 2	-3.38 0	1.75 2
189.620	189.612	0.24	0.74	3.36 0	-1.64 2	-3.36 0	1.64 2
189.897	189.890	0.26	0.40	3.29 0	-1.83 1	-3.29 0	1.83 1
189.996	189.988	0.24	0.72	3.34 0	-1.52 2	-3.34 0	1.52 2
190.398	190.389	0.24	0.70	3.32 0	-1.41 2	-3.32 0	1.41 2
190.551	190.553	0.22	90.00	1.40-1	-4.40 3	-1.41-1	4.40 3
190.595	190.596	0.22	89.00	1.43-1	-4.47 3	-1.44-1	4.47 3
190.638	190.639	0.22	88.00	1.45-1	-4.54 3	-1.46-1	4.54 3
190.681	190.682	0.22	87.00	1.48-1	-4.61 3	-1.49-1	4.61 3
190.725	190.725	0.22	86.00	1.50-1	-4.68 3	-1.51-1	4.68 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
190.769	190.769	0.22	85.00	1.53-1	-4.75 3	-1.54-1	4.75 3
190.812	190.812	0.22	84.00	1.56-1	-4.81 3	-1.56-1	4.81 3
190.826	190.818	0.24	0.68	3.29 0	-1.30 2	-3.29 0	1.30 2
190.856	190.856	0.22	83.00	1.58-1	-4.88 3	-1.59-1	4.88 3
190.900	190.900	0.22	82.00	1.61-1	-4.95 3	-1.62-1	4.95 3
190.944	190.943	0.22	81.00	1.64-1	-5.02 3	-1.65-1	5.02 3
190.988	190.988	0.22	80.00	1.67-1	-5.08 3	-1.68-1	5.08 3
191.033	191.032	0.22	79.00	1.70-1	-5.15 3	-1.70-1	5.15 3
191.077	191.076	0.22	78.00	1.73-1	-5.21 3	-1.73-1	5.21 3
191.122	191.121	0.22	77.00	1.76-1	-5.28 3	-1.76-1	5.28 3
191.167	191.166	0.22	76.00	1.79-1	-5.34 3	-1.80-1	5.34 3
191.212	191.211	0.22	75.00	1.82-1	-5.40 3	-1.83-1	5.40 3
191.258	191.256	0.22	74.00	1.85-1	-5.47 3	-1.86-1	5.47 3
191.286	191.278	0.24	0.66	3.26 0	-1.19 2	-3.26 0	1.19 2
191.304	191.301	0.22	73.00	1.89-1	-5.53 3	-1.89-1	5.53 3
191.350	191.347	0.22	72.00	1.92-1	-5.59 3	-1.93-1	5.59 3
191.396	191.393	0.22	71.00	1.95-1	-5.65 3	-1.96-1	5.65 3
191.443	191.440	0.22	70.00	1.99-1	-5.71 3	-2.00-1	5.71 3
191.490	191.487	0.22	69.00	2.02-1	-5.76 3	-2.03-1	5.76 3
191.537	191.534	0.22	68.00	2.06-1	-5.82 3	-2.07-1	5.82 3
191.585	191.581	0.22	67.00	2.10-1	-5.88 3	-2.11-1	5.88 3
191.633	191.629	0.22	66.00	2.14-1	-5.93 3	-2.14-1	5.93 3
191.681	191.678	0.22	65.00	2.18-1	-5.99 3	-2.18-1	5.98 3
191.730	191.727	0.22	64.00	2.22-1	-6.04 3	-2.23-1	6.04 3
191.780	191.772	0.24	0.64	3.23 0	-1.09 2	-3.23 0	1.09 2
191.780	191.776	0.22	63.00	2.26-1	-6.09 3	-2.27-1	6.09 3
191.830	191.826	0.22	62.00	2.30-1	-6.14 3	-2.31-1	6.14 3
191.880	191.876	0.22	61.00	2.35-1	-6.19 3	-2.35-1	6.19 3
191.931	191.927	0.22	60.00	2.39-1	-6.24 3	-2.40-1	6.24 3
191.982	191.978	0.22	59.00	2.44-1	-6.28 3	-2.44-1	6.28 3
192.035	192.030	0.22	58.00	2.49-1	-6.33 3	-2.49-1	6.33 3
192.087	192.083	0.22	57.00	2.53-1	-6.37 3	-2.54-1	6.37 3
192.141	192.136	0.22	56.00	2.58-1	-6.41 3	-2.59-1	6.41 3
192.195	192.190	0.22	55.00	2.64-1	-6.45 3	-2.64-1	6.45 3
192.233	192.226	0.26	0.38	2.97 0	-1.38 1	-2.97 0	1.38 1
192.250	192.244	0.22	54.00	2.69-1	-6.49 3	-2.70-1	6.49 3
192.305	192.300	0.22	53.00	2.75-1	-6.53 3	-2.75-1	6.53 3
192.314	192.305	0.24	0.62	3.20 0	-9.91 1	-3.20 0	9.91 1
192.361	192.356	0.22	52.00	2.80-1	-6.57 3	-2.81-1	6.57 3
192.419	192.413	0.22	51.00	2.86-1	-6.60 3	-2.87-1	6.60 3
192.477	192.471	0.22	50.00	2.92-1	-6.63 3	-2.93-1	6.63 3
192.536	192.530	0.22	49.00	2.98-1	-6.66 3	-2.99-1	6.66 3
192.596	192.590	0.22	48.00	3.05-1	-6.69 3	-3.06-1	6.69 3
192.657	192.650	0.22	47.00	3.12-1	-6.72 3	-3.12-1	6.72 3
192.719	192.712	0.22	46.00	3.19-1	-6.74 3	-3.19-1	6.74 3
192.764	192.757	0.28	0.32	1.67 0	-2.91 0	-1.67 0	2.91 0
192.782	192.775	0.22	45.00	3.26-1	-6.77 3	-3.27-1	6.77 3
192.846	192.840	0.22	44.00	3.33-1	-6.79 3	-3.34-1	6.79 3
192.891	192.883	0.24	0.60	3.15 0	-8.96 1	-3.16 0	8.96 1
192.912	192.905	0.22	43.00	3.41-1	-6.81 3	-3.42-1	6.81 3
192.979	192.972	0.22	42.00	3.49-1	-6.82 3	-3.50-1	6.82 3
193.047	193.040	0.22	41.00	3.58-1	-6.83 3	-3.58-1	6.83 3
193.117	193.110	0.22	40.00	3.66-1	-6.85 3	-3.67-1	6.84 3
193.188	193.181	0.22	39.00	3.75-1	-6.85 3	-3.76-1	6.85 3
193.262	193.254	0.22	38.00	3.85-1	-6.86 3	-3.86-1	6.86 3
193.336	193.329	0.22	37.00	3.95-1	-6.86 3	-3.96-1	6.86 3
193.413	193.405	0.22	36.00	4.05-1	-6.86 3	-4.06-1	6.86 3
193.492	193.484	0.22	35.00	4.16-1	-6.86 3	-4.17-1	6.86 3
193.520	193.511	0.24	0.58	3.11 0	-8.04 1	-3.11 0	8.04 1
193.573	193.565	0.22	34.00	4.27-1	-6.85 3	-4.28-1	6.85 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
193.656	193.648	0.22	33.00	4.39-1	-6.84 3	-4.40-1	6.84 3
193.741	193.733	0.22	32.00	4.52-1	-6.83 3	-4.53-1	6.82 3
193.830	193.821	0.22	31.00	4.65-1	-6.81 3	-4.66-1	6.81 3
193.921	193.912	0.22	30.00	4.79-1	-6.79 3	-4.80-1	6.78 3
194.014	194.006	0.22	29.00	4.94-1	-6.76 3	-4.94-1	6.76 3
194.112	194.103	0.22	28.00	5.09-1	-6.73 3	-5.10-1	6.73 3
194.206	194.197	0.24	0.56	3.06 0	-7.17 1	-3.06 0	7.17 1
194.212	194.203	0.22	27.00	5.25-1	-6.69 3	-5.26-1	6.69 3
194.317	194.308	0.22	26.00	5.43-1	-6.65 3	-5.43-1	6.65 3
194.425	194.416	0.22	25.00	5.61-1	-6.60 3	-5.62-1	6.60 3
194.538	194.529	0.22	24.00	5.81-1	-6.55 3	-5.81-1	6.55 3
194.656	194.647	0.22	23.00	6.02-1	-6.49 3	-6.02-1	6.49 3
194.779	194.770	0.22	22.00	6.24-1	-6.42 3	-6.25-1	6.42 3
194.908	194.899	0.22	21.00	6.48-1	-6.35 3	-6.48-1	6.35 3
194.959	194.950	0.24	0.54	3.00 0	-6.34 1	-3.00 0	6.34 1
194.973	194.965	0.26	0.36	2.60 0	-9.95 0	-2.60 0	9.95 0
195.044	195.034	0.22	20.00	6.73-1	-6.27 3	-6.74-1	6.27 3
195.114	195.104	0.22	19.50	6.87-1	-6.22 3	-6.88-1	6.22 3
195.187	195.177	0.22	19.00	7.01-1	-6.17 3	-7.02-1	6.17 3
195.261	195.251	0.22	18.50	7.16-1	-6.12 3	-7.16-1	6.12 3
195.337	195.327	0.22	18.00	7.31-1	-6.07 3	-7.31-1	6.07 3
195.416	195.406	0.22	17.50	7.47-1	-6.02 3	-7.47-1	6.02 3
195.497	195.487	0.22	17.00	7.63-1	-5.96 3	-7.64-1	5.96 3
195.581	195.571	0.22	16.50	7.80-1	-5.90 3	-7.81-1	5.90 3
195.668	195.657	0.22	16.00	7.98-1	-5.83 3	-7.99-1	5.83 3
195.757	195.747	0.22	15.50	8.16-1	-5.76 3	-8.17-1	5.76 3
195.789	195.780	0.24	0.52	2.94 0	-5.56 1	-2.94 0	5.56 1
195.850	195.839	0.22	15.00	8.36-1	-5.69 3	-8.37-1	5.69 3
195.946	195.935	0.22	14.50	8.56-1	-5.62 3	-8.57-1	5.61 3
196.045	196.035	0.22	14.00	8.77-1	-5.54 3	-8.78-1	5.53 3
196.149	196.138	0.22	13.50	9.00-1	-5.45 3	-9.00-1	5.45 3
196.256	196.246	0.22	13.00	9.23-1	-5.36 3	-9.24-1	5.36 3
196.369	196.358	0.22	12.50	9.48-1	-5.27 3	-9.48-1	5.27 3
196.486	196.475	0.22	12.00	9.73-1	-5.17 3	-9.74-1	5.17 3
196.609	196.598	0.22	11.50	1.00 0	-5.06 3	-1.00 0	5.06 3
196.710	196.701	0.24	0.50	2.86 0	-4.82 1	-2.86 0	4.82 1
196.738	196.727	0.22	11.00	1.03 0	-4.95 3	-1.03 0	4.95 3
196.874	196.862	0.22	10.50	1.06 0	-4.83 3	-1.06 0	4.83 3
197.016	197.005	0.22	10.00	1.09 0	-4.71 3	-1.09 0	4.70 3
197.076	197.065	0.22	9.80	1.10 0	-4.65 3	-1.10 0	4.65 3
197.137	197.125	0.22	9.60	1.12 0	-4.60 3	-1.12 0	4.60 3
197.199	197.188	0.22	9.40	1.13 0	-4.54 3	-1.13 0	4.54 3
197.263	197.251	0.22	9.20	1.15 0	-4.49 3	-1.15 0	4.49 3
197.328	197.317	0.22	9.00	1.16 0	-4.43 3	-1.16 0	4.43 3
197.395	197.384	0.22	8.80	1.17 0	-4.37 3	-1.18 0	4.37 3
197.464	197.452	0.22	8.60	1.19 0	-4.31 3	-1.19 0	4.31 3
197.534	197.523	0.22	8.40	1.21 0	-4.25 3	-1.21 0	4.25 3
197.607	197.595	0.22	8.20	1.22 0	-4.18 3	-1.22 0	4.18 3
197.682	197.670	0.22	8.00	1.24 0	-4.12 3	-1.24 0	4.12 3
197.738	197.729	0.24	0.48	2.78 0	-4.13 1	-2.78 0	4.13 1
197.758	197.747	0.22	7.80	1.25 0	-4.05 3	-1.26 0	4.05 3
197.837	197.826	0.22	7.60	1.27 0	-3.98 3	-1.27 0	3.98 3
197.919	197.907	0.22	7.40	1.29 0	-3.91 3	-1.29 0	3.91 3
198.003	197.991	0.22	7.20	1.31 0	-3.84 3	-1.31 0	3.83 3
198.074	198.066	0.28	0.30	8.51-1	-1.14 0	-8.52-1	1.14 0
198.090	198.078	0.22	7.00	1.33 0	-3.76 3	-1.33 0	3.76 3
198.180	198.168	0.22	6.80	1.34 0	-3.68 3	-1.34 0	3.68 3
198.226	198.218	0.26	0.34	2.18 0	-6.73 0	-2.18 0	6.73 0
198.273	198.261	0.22	6.60	1.36 0	-3.60 3	-1.36 0	3.60 3
198.369	198.357	0.22	6.40	1.38 0	-3.52 3	-1.38 0	3.52 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
198.469	198.457	0.22	6.20	1.40 0	-3.44 3	-1.40 0	3.44 3
198.573	198.561	0.22	6.00	1.42 0	-3.35 3	-1.43 0	3.35 3
198.681	198.669	0.22	5.80	1.45 0	-3.26 3	-1.45 0	3.26 3
198.794	198.782	0.22	5.60	1.47 0	-3.17 3	-1.47 0	3.17 3
198.893	198.884	0.24	0.46	2.69 0	-3.49 1	-2.69 0	3.49 1
198.911	198.899	0.22	5.40	1.49 0	-3.08 3	-1.49 0	3.08 3
199.034	199.022	0.22	5.20	1.51 0	-2.98 3	-1.51 0	2.98 3
199.163	199.151	0.22	5.00	1.54 0	-2.88 3	-1.54 0	2.88 3
199.298	199.286	0.22	4.80	1.56 0	-2.78 3	-1.56 0	2.78 3
199.441	199.429	0.22	4.60	1.59 0	-2.68 3	-1.59 0	2.68 3
199.592	199.579	0.22	4.40	1.61 0	-2.57 3	-1.61 0	2.57 3
199.751	199.739	0.22	4.20	1.64 0	-2.46 3	-1.64 0	2.46 3
199.920	199.908	0.22	4.00	1.67 0	-2.34 3	-1.67 0	2.34 3
200.00	250.00						
200.009	199.996	0.22	3.90	1.68 0	-2.28 3	-1.68 0	2.28 3
200.100	200.088	0.22	3.80	1.69 0	-2.23 3	-1.69 0	2.23 3
200.195	200.183	0.22	3.70	1.71 0	-2.17 3	-1.71 0	2.16 3
200.201	200.191	0.24	0.44	2.58 0	-2.90 1	-2.58 0	2.90 1
200.293	200.281	0.22	3.60	1.72 0	-2.10 3	-1.72 0	2.10 3
200.395	200.383	0.22	3.50	1.74 0	-2.04 3	-1.74 0	2.04 3
200.501	200.489	0.22	3.40	1.75 0	-1.98 3	-1.75 0	1.98 3
200.611	200.599	0.22	3.30	1.76 0	-1.92 3	-1.76 0	1.92 3
200.726	200.713	0.22	3.20	1.78 0	-1.85 3	-1.78 0	1.85 3
200.845	200.832	0.22	3.10	1.79 0	-1.79 3	-1.79 0	1.79 3
200.970	200.957	0.22	3.00	1.81 0	-1.72 3	-1.81 0	1.72 3
201.100	201.088	0.22	2.90	1.82 0	-1.65 3	-1.82 0	1.65 3
201.237	201.224	0.22	2.80	1.84 0	-1.59 3	-1.84 0	1.59 3
201.381	201.368	0.22	2.70	1.85 0	-1.52 3	-1.85 0	1.52 3
201.532	201.519	0.22	2.60	1.87 0	-1.45 3	-1.87 0	1.45 3
201.692	201.679	0.22	2.50	1.88 0	-1.38 3	-1.88 0	1.38 3
201.694	201.684	0.24	0.42	2.45 0	-2.37 1	-2.45 0	2.37 1
201.861	201.848	0.22	2.40	1.90 0	-1.31 3	-1.90 0	1.31 3
202.041	202.028	0.22	2.30	1.91 0	-1.24 3	-1.91 0	1.24 3
202.141	202.132	0.26	0.32	1.71 0	-4.17 0	-1.71 0	4.16 0
202.232	202.220	0.22	2.20	1.93 0	-1.16 3	-1.93 0	1.16 3
202.437	202.424	0.22	2.10	1.94 0	-1.09 3	-1.94 0	1.09 3
202.657	202.644	0.22	2.00	1.96 0	-1.02 3	-1.96 0	1.02 3
202.774	202.761	0.22	1.95	1.96 0	-9.82 2	-1.96 0	9.82 2
202.895	202.882	0.22	1.90	1.97 0	-9.46 2	-1.97 0	9.46 2
203.021	203.008	0.22	1.85	1.98 0	-9.09 2	-1.98 0	9.09 2
203.152	203.139	0.22	1.80	1.98 0	-8.72 2	-1.98 0	8.72 2
203.290	203.277	0.22	1.75	1.99 0	-8.35 2	-1.99 0	8.35 2
203.414	203.404	0.24	0.40	2.31 0	-1.89 1	-2.31 0	1.89 1
203.434	203.421	0.22	1.70	1.99 0	-7.99 2	-1.99 0	7.98 2
203.585	203.572	0.22	1.65	2.00 0	-7.62 2	-2.00 0	7.61 2
203.743	203.730	0.22	1.60	2.01 0	-7.25 2	-2.01 0	7.25 2
203.910	203.897	0.22	1.55	2.01 0	-6.88 2	-2.01 0	6.88 2
204.086	204.073	0.22	1.50	2.02 0	-6.52 2	-2.02 0	6.52 2
204.272	204.259	0.22	1.45	2.02 0	-6.15 2	-2.02 0	6.15 2
204.470	204.457	0.22	1.40	2.02 0	-5.79 2	-2.02 0	5.79 2
204.680	204.667	0.22	1.35	2.03 0	-5.43 2	-2.03 0	5.43 2
204.904	204.891	0.22	1.30	2.03 0	-5.07 2	-2.03 0	5.07 2
205.144	205.131	0.22	1.25	2.03 0	-4.72 2	-2.03 0	4.72 2
205.402	205.389	0.22	1.20	2.03 0	-4.37 2	-2.03 0	4.37 2
205.416	205.406	0.24	0.38	2.14 0	-1.46 1	-2.15 0	1.46 1
205.681	205.668	0.22	1.15	2.03 0	-4.03 2	-2.03 0	4.03 2
205.983	205.970	0.22	1.10	2.03 0	-3.69 2	-2.03 0	3.69 2
206.313	206.300	0.22	1.05	2.03 0	-3.35 2	-2.03 0	3.35 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
206.675	206.662	0.22	1.00	2.03 0	-3.03 2	-2.03 0	3.03 2
206.830	206.817	0.22	0.98	2.02 0	-2.90 2	-2.02 0	2.90 2
206.923	206.913	0.26	0.30	1.19 0	-2.22 0	-1.19 0	2.22 0
206.992	206.978	0.22	0.96	2.02 0	-2.77 2	-2.02 0	2.77 2
207.160	207.147	0.22	0.94	2.02 0	-2.65 2	-2.02 0	2.65 2
207.336	207.323	0.22	0.92	2.02 0	-2.52 2	-2.02 0	2.52 2
207.520	207.507	0.22	0.90	2.01 0	-2.40 2	-2.01 0	2.40 2
207.713	207.699	0.22	0.88	2.01 0	-2.28 2	-2.01 0	2.28 2
207.774	207.763	0.24	0.36	1.95 0	-1.09 1	-1.95 0	1.09 1
207.915	207.902	0.22	0.86	2.00 0	-2.16 2	-2.00 0	2.16 2
208.128	208.114	0.22	0.84	2.00 0	-2.04 2	-2.00 0	2.04 2
208.352	208.338	0.22	0.82	1.99 0	-1.93 2	-1.99 0	1.93 2
208.588	208.574	0.22	0.80	1.99 0	-1.82 2	-1.99 0	1.82 2
208.838	208.824	0.22	0.78	1.98 0	-1.71 2	-1.98 0	1.71 2
209.102	209.088	0.22	0.76	1.97 0	-1.60 2	-1.97 0	1.60 2
209.382	209.369	0.22	0.74	1.96 0	-1.49 2	-1.96 0	1.49 2
209.681	209.667	0.22	0.72	1.95 0	-1.39 2	-1.95 0	1.39 2
209.999	209.985	0.22	0.70	1.94 0	-1.29 2	-1.94 0	1.29 2
210.340	210.326	0.22	0.68	1.93 0	-1.19 2	-1.93 0	1.19 2
210.585	210.573	0.24	0.34	1.73 0	-7.80 0	-1.73 0	7.80 0
210.706	210.691	0.22	0.66	1.92 0	-1.10 2	-1.92 0	1.10 2
211.099	211.085	0.22	0.64	1.91 0	-1.00 2	-1.91 0	1.00 2
211.524	211.510	0.22	0.62	1.89 0	-9.15 1	-1.89 0	9.15 1
211.985	211.971	0.22	0.60	1.87 0	-8.29 1	-1.87 0	8.29 1
212.487	212.472	0.22	0.58	1.85 0	-7.48 1	-1.85 0	7.47 1
212.861	212.850	0.26	0.28	6.10-1	-8.52-1	-6.11-1	8.51-1
213.036	213.021	0.22	0.56	1.83 0	-6.69 1	-1.83 0	6.69 1
213.639	213.624	0.22	0.54	1.80 0	-5.95 1	-1.80 0	5.94 1
213.985	213.973	0.24	0.32	1.47 0	-5.22 0	-1.47 0	5.22 0
214.305	214.290	0.22	0.52	1.77 0	-5.24 1	-1.77 0	5.24 1
215.046	215.031	0.22	0.50	1.74 0	-4.57 1	-1.74 0	4.57 1
215.874	215.859	0.22	0.48	1.70 0	-3.95 1	-1.71 0	3.95 1
216.807	216.791	0.22	0.46	1.66 0	-3.37 1	-1.66 0	3.37 1
217.866	217.850	0.22	0.44	1.61 0	-2.83 1	-1.61 0	2.83 1
218.164	218.150	0.24	0.30	1.17 0	-3.19 0	-1.17 0	3.19 0
219.078	219.062	0.22	0.42	1.56 0	-2.34 1	-1.56 0	2.34 1
220.197	220.184	0.20	90.00	1.27-1	-6.40 3	-1.27-1	6.39 3
220.230	220.216	0.20	89.00	1.29-1	-6.49 3	-1.30-1	6.49 3
220.262	220.248	0.20	88.00	1.31-1	-6.59 3	-1.32-1	6.59 3
220.294	220.281	0.20	87.00	1.33-1	-6.68 3	-1.34-1	6.68 3
220.327	220.313	0.20	86.00	1.35-1	-6.78 3	-1.36-1	6.78 3
220.360	220.345	0.20	85.00	1.38-1	-6.87 3	-1.38-1	6.87 3
220.392	220.378	0.20	84.00	1.40-1	-6.97 3	-1.40-1	6.97 3
220.425	220.410	0.20	83.00	1.42-1	-7.06 3	-1.43-1	7.06 3
220.458	220.443	0.20	82.00	1.44-1	-7.15 3	-1.45-1	7.15 3
220.480	220.464	0.22	0.40	1.49 0	-1.90 1	-1.49 0	1.90 1
220.491	220.476	0.20	81.00	1.47-1	-7.24 3	-1.47-1	7.24 3
220.524	220.509	0.20	80.00	1.49-1	-7.33 3	-1.50-1	7.33 3
220.557	220.542	0.20	79.00	1.52-1	-7.42 3	-1.52-1	7.42 3
220.590	220.575	0.20	78.00	1.54-1	-7.50 3	-1.55-1	7.50 3
220.623	220.608	0.20	77.00	1.57-1	-7.59 3	-1.57-1	7.59 3
220.657	220.642	0.20	76.00	1.59-1	-7.67 3	-1.60-1	7.67 3
220.691	220.675	0.20	75.00	1.62-1	-7.76 3	-1.62-1	7.76 3
220.725	220.709	0.20	74.00	1.64-1	-7.84 3	-1.65-1	7.84 3
220.759	220.743	0.20	73.00	1.67-1	-7.92 3	-1.68-1	7.92 3
220.793	220.777	0.20	72.00	1.70-1	-8.00 3	-1.71-1	8.00 3
220.828	220.812	0.20	71.00	1.73-1	-8.07 3	-1.73-1	8.07 3
220.862	220.846	0.20	70.00	1.76-1	-8.15 3	-1.76-1	8.15 3
220.897	220.881	0.20	69.00	1.79-1	-8.22 3	-1.79-1	8.22 3
220.933	220.916	0.20	68.00	1.82-1	-8.29 3	-1.82-1	8.29 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
220.968	220.952	0.20	67.00	1.85-1	-8.36 3	-1.85-1	8.36 3
221.004	220.988	0.20	66.00	1.88-1	-8.43 3	-1.88-1	8.43 3
221.040	221.024	0.20	65.00	1.91-1	-8.50 3	-1.92-1	8.50 3
221.077	221.060	0.20	64.00	1.94-1	-8.56 3	-1.95-1	8.56 3
221.113	221.097	0.20	63.00	1.98-1	-8.63 3	-1.98-1	8.62 3
221.151	221.134	0.20	62.00	2.01-1	-8.69 3	-2.02-1	8.68 3
221.188	221.171	0.20	61.00	2.05-1	-8.74 3	-2.05-1	8.74 3
221.226	221.209	0.20	60.00	2.08-1	-8.80 3	-2.09-1	8.80 3
221.264	221.247	0.20	59.00	2.12-1	-8.85 3	-2.12-1	8.85 3
221.303	221.286	0.20	58.00	2.16-1	-8.90 3	-2.16-1	8.90 3
221.342	221.325	0.20	57.00	2.19-1	-8.95 3	-2.20-1	8.95 3
221.382	221.365	0.20	56.00	2.23-1	-9.00 3	-2.24-1	8.99 3
221.422	221.405	0.20	55.00	2.28-1	-9.04 3	-2.28-1	9.04 3
221.463	221.445	0.20	54.00	2.32-1	-9.08 3	-2.32-1	9.08 3
221.504	221.487	0.20	53.00	2.36-1	-9.12 3	-2.37-1	9.11 3
221.546	221.528	0.20	52.00	2.40-1	-9.15 3	-2.41-1	9.15 3
221.589	221.571	0.20	51.00	2.45-1	-9.18 3	-2.45-1	9.18 3
221.632	221.614	0.20	50.00	2.50-1	-9.21 3	-2.50-1	9.21 3
221.676	221.657	0.20	49.00	2.54-1	-9.24 3	-2.55-1	9.23 3
221.720	221.702	0.20	48.00	2.59-1	-9.26 3	-2.60-1	9.25 3
221.765	221.747	0.20	47.00	2.64-1	-9.28 3	-2.65-1	9.27 3
221.811	221.793	0.20	46.00	2.70-1	-9.29 3	-2.70-1	9.29 3
221.858	221.840	0.20	45.00	2.75-1	-9.30 3	-2.76-1	9.30 3
221.906	221.887	0.20	44.00	2.81-1	-9.31 3	-2.81-1	9.31 3
221.955	221.936	0.20	43.00	2.87-1	-9.31 3	-2.87-1	9.31 3
222.004	221.986	0.20	42.00	2.93-1	-9.31 3	-2.93-1	9.31 3
222.055	222.036	0.20	41.00	2.99-1	-9.31 3	-2.99-1	9.30 3
222.107	222.088	0.20	40.00	3.05-1	-9.30 3	-3.06-1	9.29 3
222.118	222.102	0.22	0.38	1.42 0	-1.50 1	-1.42 0	1.50 1
222.160	222.141	0.20	39.00	3.12-1	-9.28 3	-3.12-1	9.28 3
222.214	222.195	0.20	38.00	3.19-1	-9.27 3	-3.19-1	9.26 3
222.269	222.250	0.20	37.00	3.26-1	-9.24 3	-3.26-1	9.24 3
222.326	222.307	0.20	36.00	3.33-1	-9.21 3	-3.34-1	9.21 3
222.384	222.365	0.20	35.00	3.41-1	-9.18 3	-3.42-1	9.18 3
222.444	222.425	0.20	34.00	3.49-1	-9.14 3	-3.50-1	9.14 3
222.506	222.486	0.20	33.00	3.57-1	-9.10 3	-3.58-1	9.09 3
222.569	222.549	0.20	32.00	3.66-1	-9.04 3	-3.67-1	9.04 3
222.634	222.614	0.20	31.00	3.75-1	-8.99 3	-3.76-1	8.98 3
222.701	222.682	0.20	30.00	3.85-1	-8.92 3	-3.85-1	8.92 3
222.771	222.751	0.20	29.00	3.95-1	-8.85 3	-3.95-1	8.85 3
222.843	222.823	0.20	28.00	4.05-1	-8.77 3	-4.06-1	8.77 3
222.917	222.897	0.20	27.00	4.16-1	-8.68 3	-4.17-1	8.68 3
222.994	222.974	0.20	26.00	4.28-1	-8.59 3	-4.28-1	8.59 3
223.074	223.054	0.20	25.00	4.40-1	-8.49 3	-4.40-1	8.48 3
223.158	223.137	0.20	24.00	4.52-1	-8.37 3	-4.53-1	8.37 3
223.244	223.224	0.20	23.00	4.66-1	-8.25 3	-4.66-1	8.25 3
223.335	223.315	0.20	22.00	4.80-1	-8.11 3	-4.80-1	8.11 3
223.390	223.375	0.24	0.28	8.18-1	-1.67 0	-8.19-1	1.67 0
223.430	223.410	0.20	21.00	4.94-1	-7.97 3	-4.95-1	7.96 3
223.530	223.509	0.20	20.00	5.10-1	-7.81 3	-5.11-1	7.81 3
223.582	223.561	0.20	19.50	5.18-1	-7.73 3	-5.19-1	7.72 3
223.635	223.615	0.20	19.00	5.27-1	-7.64 3	-5.27-1	7.64 3
223.690	223.669	0.20	18.50	5.36-1	-7.55 3	-5.36-1	7.55 3
223.746	223.726	0.20	18.00	5.44-1	-7.45 3	-5.45-1	7.45 3
223.804	223.783	0.20	17.50	5.54-1	-7.36 3	-5.54-1	7.35 3
223.864	223.843	0.20	17.00	5.63-1	-7.25 3	-5.64-1	7.25 3
223.926	223.905	0.20	16.50	5.73-1	-7.15 3	-5.74-1	7.14 3
223.989	223.968	0.20	16.00	5.83-1	-7.04 3	-5.84-1	7.03 3
224.055	224.034	0.20	15.50	5.94-1	-6.92 3	-5.94-1	6.92 3
224.055	224.039	0.22	0.36	1.33 0	-1.16 1	-1.33 0	1.16 1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
224.123	224.102	0.20	15.00	6.05-1	-6.80 3	-6.05-1	6.80 3
224.194	224.172	0.20	14.50	6.16-1	-6.67 3	-6.16-1	6.67 3
224.267	224.245	0.20	14.00	6.28-1	-6.54 3	-6.28-1	6.54 3
224.343	224.321	0.20	13.50	6.40-1	-6.41 3	-6.40-1	6.41 3
224.422	224.400	0.20	13.00	6.52-1	-6.27 3	-6.52-1	6.26 3
224.504	224.483	0.20	12.50	6.65-1	-6.12 3	-6.65-1	6.12 3
224.590	224.569	0.20	12.00	6.78-1	-5.97 3	-6.79-1	5.96 3
224.681	224.659	0.20	11.50	6.92-1	-5.81 3	-6.93-1	5.80 3
224.775	224.753	0.20	11.00	7.07-1	-5.64 3	-7.07-1	5.64 3
224.874	224.853	0.20	10.50	7.22-1	-5.46 3	-7.22-1	5.46 3
224.979	224.957	0.20	10.00	7.37-1	-5.28 3	-7.38-1	5.28 3
225.023	225.001	0.20	9.80	7.44-1	-5.21 3	-7.44-1	5.20 3
225.067	225.045	0.20	9.60	7.50-1	-5.13 3	-7.51-1	5.13 3
225.113	225.091	0.20	9.40	7.57-1	-5.05 3	-7.57-1	5.05 3
225.160	225.138	0.20	9.20	7.64-1	-4.97 3	-7.64-1	4.97 3
225.207	225.186	0.20	9.00	7.70-1	-4.89 3	-7.71-1	4.89 3
225.256	225.235	0.20	8.80	7.77-1	-4.81 3	-7.78-1	4.81 3
225.307	225.285	0.20	8.60	7.84-1	-4.73 3	-7.85-1	4.72 3
225.358	225.336	0.20	8.40	7.92-1	-4.64 3	-7.92-1	4.64 3
225.411	225.390	0.20	8.20	7.99-1	-4.55 3	-7.99-1	4.55 3
225.466	225.444	0.20	8.00	8.06-1	-4.47 3	-8.07-1	4.46 3
225.522	225.500	0.20	7.80	8.14-1	-4.38 3	-8.14-1	4.37 3
225.580	225.558	0.20	7.60	8.21-1	-4.28 3	-8.22-1	4.28 3
225.640	225.618	0.20	7.40	8.29-1	-4.19 3	-8.29-1	4.19 3
225.701	225.679	0.20	7.20	8.37-1	-4.10 3	-8.37-1	4.09 3
225.765	225.742	0.20	7.00	8.45-1	-4.00 3	-8.45-1	4.00 3
225.830	225.808	0.20	6.80	8.53-1	-3.90 3	-8.53-1	3.90 3
225.898	225.876	0.20	6.60	8.61-1	-3.80 3	-8.62-1	3.80 3
225.969	225.946	0.20	6.40	8.70-1	-3.70 3	-8.70-1	3.70 3
226.042	226.019	0.20	6.20	8.78-1	-3.59 3	-8.79-1	3.59 3
226.117	226.095	0.20	6.00	8.87-1	-3.49 3	-8.87-1	3.49 3
226.196	226.174	0.20	5.80	8.96-1	-3.38 3	-8.96-1	3.38 3
226.278	226.256	0.20	5.60	9.05-1	-3.27 3	-9.05-1	3.27 3
226.364	226.342	0.20	5.40	9.14-1	-3.16 3	-9.14-1	3.16 3
226.378	226.361	0.22	0.34	1.22 0	-8.57 0	-1.22 0	8.57 0
226.454	226.432	0.20	5.20	9.23-1	-3.05 3	-9.23-1	3.04 3
226.548	226.526	0.20	5.00	9.33-1	-2.93 3	-9.33-1	2.93 3
226.647	226.624	0.20	4.80	9.42-1	-2.81 3	-9.42-1	2.81 3
226.751	226.728	0.20	4.60	9.52-1	-2.69 3	-9.52-1	2.69 3
226.860	226.838	0.20	4.40	9.61-1	-2.57 3	-9.62-1	2.57 3
226.977	226.954	0.20	4.20	9.71-1	-2.44 3	-9.71-1	2.44 3
227.100	227.077	0.20	4.00	9.81-1	-2.32 3	-9.81-1	2.32 3
227.165	227.142	0.20	3.90	9.86-1	-2.25 3	-9.86-1	2.25 3
227.231	227.209	0.20	3.80	9.91-1	-2.19 3	-9.91-1	2.19 3
227.300	227.278	0.20	3.70	9.96-1	-2.12 3	-9.96-1	2.12 3
227.372	227.349	0.20	3.60	1.00 0	-2.06 3	-1.00 0	2.06 3
227.446	227.424	0.20	3.50	1.01 0	-1.99 3	-1.01 0	1.99 3
227.523	227.501	0.20	3.40	1.01 0	-1.93 3	-1.01 0	1.92 3
227.603	227.581	0.20	3.30	1.02 0	-1.86 3	-1.02 0	1.86 3
227.687	227.664	0.20	3.20	1.02 0	-1.79 3	-1.02 0	1.79 3
227.774	227.751	0.20	3.10	1.03 0	-1.72 3	-1.03 0	1.72 3
227.864	227.842	0.20	3.00	1.03 0	-1.65 3	-1.03 0	1.65 3
227.959	227.937	0.20	2.90	1.04 0	-1.59 3	-1.04 0	1.58 3
228.059	228.036	0.20	2.80	1.04 0	-1.52 3	-1.04 0	1.52 3
228.164	228.141	0.20	2.70	1.05 0	-1.45 3	-1.05 0	1.45 3
228.274	228.251	0.20	2.60	1.05 0	-1.38 3	-1.05 0	1.38 3
228.390	228.367	0.20	2.50	1.06 0	-1.31 3	-1.06 0	1.31 3
228.513	228.490	0.20	2.40	1.06 0	-1.24 3	-1.06 0	1.23 3
228.644	228.621	0.20	2.30	1.07 0	-1.16 3	-1.07 0	1.16 3
228.784	228.761	0.20	2.20	1.07 0	-1.09 3	-1.07 0	1.09 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
228.933	228.910	0.20	2.10	1.07 0	-1.02 3	-1.07 0	1.02 3
229.093	229.070	0.20	2.00	1.08 0	-9.51 2	-1.08 0	9.51 2
229.178	229.155	0.20	1.95	1.08 0	-9.16 2	-1.08 0	9.15 2
229.204	229.186	0.22	0.32	1.09 0	-6.05 0	-1.09 0	6.05 0
229.266	229.243	0.20	1.90	1.08 0	-8.80 2	-1.08 0	8.80 2
229.358	229.335	0.20	1.85	1.08 0	-8.45 2	-1.08 0	8.45 2
229.454	229.430	0.20	1.80	1.09 0	-8.10 2	-1.09 0	8.09 2
229.554	229.531	0.20	1.75	1.09 0	-7.75 2	-1.09 0	7.74 2
229.658	229.635	0.20	1.70	1.09 0	-7.39 2	-1.09 0	7.39 2
229.768	229.745	0.20	1.65	1.09 0	-7.04 2	-1.09 0	7.04 2
229.884	229.861	0.20	1.60	1.09 0	-6.70 2	-1.09 0	6.69 2
230.005	229.982	0.20	1.55	1.09 0	-6.35 2	-1.09 0	6.35 2
230.055	230.037	0.24	0.26	4.27-1	-6.26-1	-4.28-1	6.25-1
230.134	230.111	0.20	1.50	1.09 0	-6.01 2	-1.10 0	6.00 2
230.270	230.246	0.20	1.45	1.10 0	-5.66 2	-1.10 0	5.66 2
230.414	230.390	0.20	1.40	1.10 0	-5.33 2	-1.10 0	5.32 2
230.567	230.544	0.20	1.35	1.10 0	-4.99 2	-1.10 0	4.99 2
230.731	230.707	0.20	1.30	1.10 0	-4.66 2	-1.10 0	4.66 2
230.906	230.883	0.20	1.25	1.10 0	-4.33 2	-1.10 0	4.33 2
231.094	231.071	0.20	1.20	1.10 0	-4.01 2	-1.10 0	4.01 2
231.298	231.275	0.20	1.15	1.10 0	-3.69 2	-1.10 0	3.69 2
231.519	231.496	0.20	1.10	1.10 0	-3.38 2	-1.10 0	3.37 2
231.761	231.737	0.20	1.05	1.09 0	-3.07 2	-1.09 0	3.07 2
232.026	232.002	0.20	1.00	1.09 0	-2.77 2	-1.09 0	2.77 2
232.139	232.116	0.20	0.98	1.09 0	-2.65 2	-1.09 0	2.65 2
232.258	232.234	0.20	0.96	1.09 0	-2.54 2	-1.09 0	2.54 2
232.381	232.357	0.20	0.94	1.09 0	-2.42 2	-1.09 0	2.42 2
232.510	232.487	0.20	0.92	1.09 0	-2.31 2	-1.09 0	2.31 2
232.645	232.622	0.20	0.90	1.08 0	-2.20 2	-1.08 0	2.20 2
232.703	232.684	0.22	0.30	9.42-1	-4.00 0	-9.42-1	4.00 0
232.787	232.763	0.20	0.88	1.08 0	-2.09 2	-1.08 0	2.09 2
232.936	232.912	0.20	0.86	1.08 0	-1.98 2	-1.08 0	1.98 2
233.092	233.068	0.20	0.84	1.08 0	-1.88 2	-1.08 0	1.87 2
233.257	233.233	0.20	0.82	1.08 0	-1.77 2	-1.08 0	1.77 2
233.430	233.406	0.20	0.80	1.07 0	-1.67 2	-1.07 0	1.67 2
233.614	233.590	0.20	0.78	1.07 0	-1.57 2	-1.07 0	1.57 2
233.809	233.785	0.20	0.76	1.07 0	-1.47 2	-1.07 0	1.47 2
234.016	233.992	0.20	0.74	1.06 0	-1.37 2	-1.06 0	1.37 2
234.236	234.212	0.20	0.72	1.06 0	-1.28 2	-1.06 0	1.28 2
234.471	234.447	0.20	0.70	1.06 0	-1.19 2	-1.06 0	1.19 2
234.723	234.699	0.20	0.68	1.05 0	-1.10 2	-1.05 0	1.10 2
234.994	234.970	0.20	0.66	1.05 0	-1.01 2	-1.05 0	1.01 2
235.286	235.261	0.20	0.64	1.04 0	-9.30 1	-1.04 0	9.30 1
235.601	235.577	0.20	0.62	1.03 0	-8.50 1	-1.03 0	8.50 1
235.944	235.919	0.20	0.60	1.03 0	-7.72 1	-1.03 0	7.72 1
236.317	236.293	0.20	0.58	1.02 0	-6.98 1	-1.02 0	6.98 1
236.726	236.702	0.20	0.56	1.01 0	-6.27 1	-1.01 0	6.26 1
237.117	237.096	0.22	0.28	7.59-1	-2.40 0	-7.60-1	2.40 0
237.177	237.152	0.20	0.54	9.99-1	-5.59 1	-9.99-1	5.59 1
237.675	237.651	0.20	0.52	9.88-1	-4.95 1	-9.88-1	4.94 1
238.231	238.206	0.20	0.50	9.75-1	-4.34 1	-9.75-1	4.34 1
238.853	238.828	0.20	0.48	9.60-1	-3.77 1	-9.61-1	3.77 1
239.557	239.532	0.20	0.46	9.44-1	-3.24 1	-9.44-1	3.24 1
240.358	240.332	0.20	0.44	9.25-1	-2.75 1	-9.25-1	2.75 1
241.278	241.252	0.20	0.42	9.03-1	-2.30 1	-9.03-1	2.29 1
242.346	242.321	0.20	0.40	8.77-1	-1.89 1	-8.77-1	1.88 1
242.803	242.780	0.22	0.26	5.42-1	-1.23 0	-5.43-1	1.23 0
243.601	243.575	0.20	0.38	8.46-1	-1.52 1	-8.47-1	1.52 1
245.092	245.066	0.20	0.36	8.10-1	-1.19 1	-8.10-1	1.19 1
246.891	246.864	0.20	0.34	7.67-1	-9.06 0	-7.67-1	9.06 0

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
249.097	249.069	0.20	0.32	7.13-1	-6.64 0	-7.14-1	6.63 0
250.00	300.00						
250.302	250.276	0.22	0.24	2.88-1	-4.48-1	-2.88-1	4.46-1
251.851	251.822	0.20	0.30	6.48-1	-4.62 0	-6.48-1	4.62 0
255.361	255.331	0.20	0.28	5.67-1	-3.01 0	-5.67-1	3.00 0
256.014	255.978	0.18	90.00	1.09-1	-1.00 4	-1.09-1	1.00 4
256.035	256.000	0.18	89.00	1.11-1	-1.02 4	-1.11-1	1.01 4
256.057	256.021	0.18	88.00	1.12-1	-1.03 4	-1.13-1	1.03 4
256.078	256.043	0.18	87.00	1.14-1	-1.04 4	-1.14-1	1.04 4
256.100	256.064	0.18	86.00	1.16-1	-1.06 4	-1.16-1	1.05 4
256.122	256.086	0.18	85.00	1.17-1	-1.07 4	-1.18-1	1.07 4
256.143	256.107	0.18	84.00	1.19-1	-1.08 4	-1.19-1	1.08 4
256.165	256.129	0.18	83.00	1.21-1	-1.09 4	-1.21-1	1.09 4
256.187	256.151	0.18	82.00	1.22-1	-1.11 4	-1.23-1	1.11 4
256.209	256.173	0.18	81.00	1.24-1	-1.12 4	-1.25-1	1.12 4
256.231	256.195	0.18	80.00	1.26-1	-1.13 4	-1.26-1	1.13 4
256.253	256.217	0.18	79.00	1.28-1	-1.14 4	-1.28-1	1.14 4
256.275	256.239	0.18	78.00	1.30-1	-1.15 4	-1.30-1	1.15 4
256.297	256.261	0.18	77.00	1.32-1	-1.16 4	-1.32-1	1.16 4
256.319	256.283	0.18	76.00	1.33-1	-1.18 4	-1.34-1	1.17 4
256.342	256.305	0.18	75.00	1.35-1	-1.19 4	-1.36-1	1.19 4
256.364	256.328	0.18	74.00	1.37-1	-1.20 4	-1.38-1	1.20 4
256.387	256.350	0.18	73.00	1.39-1	-1.21 4	-1.40-1	1.21 4
256.410	256.373	0.18	72.00	1.41-1	-1.22 4	-1.42-1	1.22 4
256.433	256.396	0.18	71.00	1.43-1	-1.23 4	-1.44-1	1.22 4
256.456	256.419	0.18	70.00	1.45-1	-1.23 4	-1.46-1	1.23 4
256.479	256.442	0.18	69.00	1.48-1	-1.24 4	-1.48-1	1.24 4
256.502	256.466	0.18	68.00	1.50-1	-1.25 4	-1.50-1	1.25 4
256.526	256.489	0.18	67.00	1.52-1	-1.26 4	-1.52-1	1.26 4
256.550	256.513	0.18	66.00	1.54-1	-1.27 4	-1.55-1	1.27 4
256.574	256.537	0.18	65.00	1.56-1	-1.27 4	-1.57-1	1.27 4
256.598	256.561	0.18	64.00	1.59-1	-1.28 4	-1.59-1	1.28 4
256.622	256.585	0.18	63.00	1.61-1	-1.29 4	-1.61-1	1.29 4
256.647	256.610	0.18	62.00	1.63-1	-1.29 4	-1.64-1	1.29 4
256.672	256.635	0.18	61.00	1.66-1	-1.30 4	-1.66-1	1.30 4
256.697	256.660	0.18	60.00	1.68-1	-1.30 4	-1.69-1	1.30 4
256.723	256.685	0.18	59.00	1.71-1	-1.31 4	-1.71-1	1.31 4
256.748	256.711	0.18	58.00	1.73-1	-1.31 4	-1.74-1	1.31 4
256.774	256.737	0.18	57.00	1.76-1	-1.32 4	-1.76-1	1.32 4
256.801	256.763	0.18	56.00	1.79-1	-1.32 4	-1.79-1	1.32 4
256.827	256.790	0.18	55.00	1.81-1	-1.32 4	-1.82-1	1.32 4
256.854	256.817	0.18	54.00	1.84-1	-1.33 4	-1.85-1	1.33 4
256.882	256.844	0.18	53.00	1.87-1	-1.33 4	-1.87-1	1.33 4
256.909	256.872	0.18	52.00	1.90-1	-1.33 4	-1.90-1	1.33 4
256.938	256.900	0.18	51.00	1.93-1	-1.33 4	-1.93-1	1.33 4
256.966	256.928	0.18	50.00	1.96-1	-1.33 4	-1.96-1	1.33 4
256.995	256.957	0.18	49.00	1.99-1	-1.33 4	-2.00-1	1.33 4
257.025	256.986	0.18	48.00	2.02-1	-1.33 4	-2.03-1	1.33 4
257.055	257.016	0.18	47.00	2.06-1	-1.33 4	-2.06-1	1.33 4
257.085	257.047	0.18	46.00	2.09-1	-1.32 4	-2.09-1	1.32 4
257.116	257.078	0.18	45.00	2.12-1	-1.32 4	-2.13-1	1.32 4
257.148	257.109	0.18	44.00	2.16-1	-1.32 4	-2.16-1	1.32 4
257.180	257.141	0.18	43.00	2.19-1	-1.31 4	-2.20-1	1.31 4
257.213	257.174	0.18	42.00	2.23-1	-1.31 4	-2.24-1	1.31 4
257.246	257.208	0.18	41.00	2.27-1	-1.30 4	-2.27-1	1.30 4
257.280	257.242	0.18	40.00	2.31-1	-1.30 4	-2.31-1	1.30 4
257.315	257.277	0.18	39.00	2.35-1	-1.29 4	-2.35-1	1.29 4
257.351	257.313	0.18	38.00	2.39-1	-1.28 4	-2.39-1	1.28 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
257.388	257.349	0.18	37.00	2.43-1	-1.27 4	-2.44-1	1.27 4
257.425	257.387	0.18	36.00	2.48-1	-1.26 4	-2.48-1	1.26 4
257.464	257.425	0.18	35.00	2.52-1	-1.25 4	-2.52-1	1.25 4
257.504	257.465	0.18	34.00	2.57-1	-1.24 4	-2.57-1	1.24 4
257.544	257.505	0.18	33.00	2.61-1	-1.23 4	-2.62-1	1.23 4
257.586	257.547	0.18	32.00	2.66-1	-1.22 4	-2.67-1	1.22 4
257.629	257.590	0.18	31.00	2.71-1	-1.20 4	-2.72-1	1.20 4
257.673	257.634	0.18	30.00	2.77-1	-1.19 4	-2.77-1	1.19 4
257.719	257.680	0.18	29.00	2.82-1	-1.17 4	-2.82-1	1.17 4
257.767	257.727	0.18	28.00	2.88-1	-1.15 4	-2.88-1	1.15 4
257.816	257.776	0.18	27.00	2.93-1	-1.13 4	-2.94-1	1.13 4
257.866	257.827	0.18	26.00	2.99-1	-1.12 4	-3.00-1	1.11 4
257.919	257.880	0.18	25.00	3.06-1	-1.09 4	-3.06-1	1.09 4
257.974	257.935	0.18	24.00	3.12-1	-1.07 4	-3.12-1	1.07 4
258.031	257.992	0.18	23.00	3.19-1	-1.05 4	-3.19-1	1.05 4
258.091	258.052	0.18	22.00	3.26-1	-1.02 4	-3.26-1	1.02 4
258.154	258.114	0.18	21.00	3.33-1	-9.97 3	-3.33-1	9.97 3
258.220	258.180	0.18	20.00	3.40-1	-9.69 3	-3.41-1	9.69 3
258.254	258.214	0.18	19.50	3.44-1	-9.55 3	-3.44-1	9.54 3
258.289	258.249	0.18	19.00	3.48-1	-9.40 3	-3.48-1	9.39 3
258.325	258.285	0.18	18.50	3.52-1	-9.24 3	-3.52-1	9.24 3
258.362	258.322	0.18	18.00	3.56-1	-9.08 3	-3.57-1	9.08 3
258.400	258.360	0.18	17.50	3.60-1	-8.92 3	-3.61-1	8.92 3
258.439	258.400	0.18	17.00	3.65-1	-8.75 3	-3.65-1	8.75 3
258.480	258.440	0.18	16.50	3.69-1	-8.58 3	-3.69-1	8.58 3
258.522	258.482	0.18	16.00	3.74-1	-8.41 3	-3.74-1	8.40 3
258.565	258.525	0.18	15.50	3.78-1	-8.22 3	-3.78-1	8.22 3
258.610	258.570	0.18	15.00	3.83-1	-8.04 3	-3.83-1	8.03 3
258.656	258.616	0.18	14.50	3.88-1	-7.84 3	-3.88-1	7.84 3
258.704	258.664	0.18	14.00	3.92-1	-7.65 3	-3.93-1	7.64 3
258.754	258.714	0.18	13.50	3.97-1	-7.44 3	-3.98-1	7.44 3
258.806	258.766	0.18	13.00	4.03-1	-7.23 3	-4.03-1	7.23 3
258.860	258.820	0.18	12.50	4.08-1	-7.02 3	-4.08-1	7.01 3
258.916	258.876	0.18	12.00	4.13-1	-6.80 3	-4.13-1	6.79 3
258.976	258.935	0.18	11.50	4.19-1	-6.57 3	-4.19-1	6.57 3
259.038	258.997	0.18	11.00	4.24-1	-6.34 3	-4.24-1	6.33 3
259.103	259.063	0.18	10.50	4.30-1	-6.10 3	-4.30-1	6.09 3
259.171	259.131	0.18	10.00	4.36-1	-5.85 3	-4.36-1	5.85 3
259.200	259.160	0.18	9.80	4.38-1	-5.75 3	-4.38-1	5.75 3
259.229	259.189	0.18	9.60	4.40-1	-5.65 3	-4.41-1	5.65 3
259.259	259.219	0.18	9.40	4.43-1	-5.55 3	-4.43-1	5.54 3
259.290	259.249	0.18	9.20	4.45-1	-5.44 3	-4.46-1	5.44 3
259.321	259.281	0.18	9.00	4.48-1	-5.34 3	-4.48-1	5.34 3
259.353	259.313	0.18	8.80	4.50-1	-5.23 3	-4.50-1	5.23 3
259.386	259.346	0.18	8.60	4.53-1	-5.13 3	-4.53-1	5.12 3
259.420	259.380	0.18	8.40	4.55-1	-5.02 3	-4.56-1	5.01 3
259.455	259.414	0.18	8.20	4.58-1	-4.91 3	-4.58-1	4.90 3
259.491	259.450	0.18	8.00	4.60-1	-4.80 3	-4.61-1	4.79 3
259.527	259.487	0.18	7.80	4.63-1	-4.68 3	-4.63-1	4.68 3
259.565	259.525	0.18	7.60	4.66-1	-4.57 3	-4.66-1	4.57 3
259.604	259.564	0.18	7.40	4.68-1	-4.46 3	-4.69-1	4.45 3
259.644	259.604	0.18	7.20	4.71-1	-4.34 3	-4.71-1	4.34 3
259.686	259.646	0.18	7.00	4.74-1	-4.22 3	-4.74-1	4.22 3
259.729	259.688	0.18	6.80	4.76-1	-4.10 3	-4.77-1	4.10 3
259.773	259.733	0.18	6.60	4.79-1	-3.98 3	-4.79-1	3.98 3
259.820	259.779	0.18	6.40	4.82-1	-3.86 3	-4.82-1	3.86 3
259.867	259.827	0.18	6.20	4.85-1	-3.74 3	-4.85-1	3.74 3
259.917	259.876	0.18	6.00	4.87-1	-3.62 3	-4.88-1	3.61 3
259.939	259.907	0.20	0.26	4.66-1	-1.77 0	-4.66-1	1.77 0
259.969	259.928	0.18	5.80	4.90-1	-3.49 3	-4.91-1	3.49 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
260.022	259.982	0.18	5.60	4.93-1	-3.37 3	-4.93-1	3.36 3
260.078	260.038	0.18	5.40	4.96-1	-3.24 3	-4.96-1	3.24 3
260.137	260.096	0.18	5.20	4.99-1	-3.11 3	-4.99-1	3.11 3
260.199	260.158	0.18	5.00	5.02-1	-2.98 3	-5.02-1	2.98 3
260.263	260.223	0.18	4.80	5.05-1	-2.85 3	-5.05-1	2.85 3
260.331	260.290	0.18	4.60	5.08-1	-2.72 3	-5.08-1	2.71 3
260.403	260.362	0.18	4.40	5.10-1	-2.58 3	-5.11-1	2.58 3
260.479	260.438	0.18	4.20	5.13-1	-2.45 3	-5.14-1	2.45 3
260.559	260.519	0.18	4.00	5.16-1	-2.31 3	-5.16-1	2.31 3
260.602	260.561	0.18	3.90	5.18-1	-2.24 3	-5.18-1	2.24 3
260.645	260.605	0.18	3.80	5.19-1	-2.17 3	-5.19-1	2.17 3
260.691	260.650	0.18	3.70	5.21-1	-2.11 3	-5.21-1	2.10 3
260.737	260.696	0.18	3.60	5.22-1	-2.04 3	-5.22-1	2.03 3
260.786	260.745	0.18	3.50	5.23-1	-1.97 3	-5.24-1	1.97 3
260.836	260.795	0.18	3.40	5.25-1	-1.90 3	-5.25-1	1.90 3
260.888	260.848	0.18	3.30	5.26-1	-1.83 3	-5.26-1	1.83 3
260.943	260.902	0.18	3.20	5.28-1	-1.76 3	-5.28-1	1.76 3
261.000	260.959	0.18	3.10	5.29-1	-1.69 3	-5.29-1	1.69 3
261.059	261.018	0.18	3.00	5.31-1	-1.62 3	-5.31-1	1.62 3
261.121	261.080	0.18	2.90	5.32-1	-1.55 3	-5.32-1	1.54 3
261.186	261.145	0.18	2.80	5.33-1	-1.48 3	-5.33-1	1.47 3
261.255	261.214	0.18	2.70	5.34-1	-1.40 3	-5.35-1	1.40 3
261.327	261.286	0.18	2.60	5.36-1	-1.33 3	-5.36-1	1.33 3
261.403	261.362	0.18	2.50	5.37-1	-1.26 3	-5.37-1	1.26 3
261.483	261.442	0.18	2.40	5.38-1	-1.19 3	-5.38-1	1.19 3
261.569	261.528	0.18	2.30	5.39-1	-1.12 3	-5.40-1	1.12 3
261.660	261.619	0.18	2.20	5.41-1	-1.05 3	-5.41-1	1.05 3
261.758	261.717	0.18	2.10	5.42-1	-9.82 2	-5.42-1	9.81 2
261.863	261.821	0.18	2.00	5.43-1	-9.12 2	-5.43-1	9.11 2
261.918	261.877	0.18	1.95	5.43-1	-8.77 2	-5.43-1	8.77 2
261.976	261.935	0.18	1.90	5.43-1	-8.43 2	-5.44-1	8.42 2
262.036	261.995	0.18	1.85	5.44-1	-8.08 2	-5.44-1	8.07 2
262.099	262.057	0.18	1.80	5.44-1	-7.74 2	-5.44-1	7.73 2
262.164	262.123	0.18	1.75	5.44-1	-7.39 2	-5.45-1	7.39 2
262.233	262.192	0.18	1.70	5.45-1	-7.05 2	-5.45-1	7.05 2
262.305	262.264	0.18	1.65	5.45-1	-6.72 2	-5.45-1	6.71 2
262.381	262.339	0.18	1.60	5.45-1	-6.38 2	-5.45-1	6.37 2
262.460	262.419	0.18	1.55	5.46-1	-6.05 2	-5.46-1	6.04 2
262.544	262.503	0.18	1.50	5.46-1	-5.71 2	-5.46-1	5.71 2
262.634	262.592	0.18	1.45	5.46-1	-5.39 2	-5.46-1	5.38 2
262.728	262.687	0.18	1.40	5.46-1	-5.06 2	-5.46-1	5.06 2
262.829	262.787	0.18	1.35	5.46-1	-4.74 2	-5.46-1	4.74 2
262.936	262.895	0.18	1.30	5.45-1	-4.42 2	-5.46-1	4.42 2
263.051	263.010	0.18	1.25	5.45-1	-4.11 2	-5.45-1	4.11 2
263.175	263.134	0.18	1.20	5.45-1	-3.80 2	-5.45-1	3.80 2
263.309	263.268	0.18	1.15	5.44-1	-3.50 2	-5.44-1	3.50 2
263.455	263.414	0.18	1.10	5.44-1	-3.20 2	-5.44-1	3.20 2
263.614	263.573	0.18	1.05	5.43-1	-2.91 2	-5.43-1	2.91 2
263.789	263.747	0.18	1.00	5.42-1	-2.63 2	-5.42-1	2.63 2
263.864	263.822	0.18	0.98	5.41-1	-2.52 2	-5.41-1	2.52 2
263.942	263.901	0.18	0.96	5.41-1	-2.41 2	-5.41-1	2.41 2
264.024	263.982	0.18	0.94	5.40-1	-2.30 2	-5.40-1	2.30 2
264.109	264.068	0.18	0.92	5.40-1	-2.19 2	-5.40-1	2.19 2
264.199	264.157	0.18	0.90	5.39-1	-2.09 2	-5.39-1	2.09 2
264.293	264.251	0.18	0.88	5.38-1	-1.98 2	-5.38-1	1.98 2
264.391	264.349	0.18	0.86	5.37-1	-1.88 2	-5.38-1	1.88 2
264.495	264.453	0.18	0.84	5.37-1	-1.78 2	-5.37-1	1.78 2
264.604	264.562	0.18	0.82	5.36-1	-1.68 2	-5.36-1	1.68 2
264.719	264.677	0.18	0.80	5.35-1	-1.59 2	-5.35-1	1.59 2
264.841	264.799	0.18	0.78	5.34-1	-1.49 2	-5.34-1	1.49 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
264.971	264.929	0.18	0.76	5.32-1	-1.40 2	-5.33-1	1.40 2
265.109	265.067	0.18	0.74	5.31-1	-1.31 2	-5.31-1	1.31 2
265.255	265.213	0.18	0.72	5.30-1	-1.22 2	-5.30-1	1.22 2
265.412	265.370	0.18	0.70	5.28-1	-1.13 2	-5.28-1	1.13 2
265.581	265.539	0.18	0.68	5.26-1	-1.05 2	-5.27-1	1.05 2
265.762	265.719	0.18	0.66	5.25-1	-9.69 1	-5.25-1	9.69 1
265.957	265.915	0.18	0.64	5.22-1	-8.91 1	-5.23-1	8.90 1
266.069	266.034	0.20	0.24	3.40-1	-8.82-1	-3.40-1	8.80-1
266.168	266.126	0.18	0.62	5.20-1	-8.15 1	-5.20-1	8.14 1
266.399	266.356	0.18	0.60	5.18-1	-7.42 1	-5.18-1	7.41 1
266.650	266.607	0.18	0.58	5.15-1	-6.72 1	-5.15-1	6.71 1
266.926	266.883	0.18	0.56	5.12-1	-6.05 1	-5.12-1	6.04 1
267.230	267.187	0.18	0.54	5.08-1	-5.41 1	-5.09-1	5.40 1
267.568	267.525	0.18	0.52	5.04-1	-4.80 1	-5.05-1	4.79 1
267.945	267.902	0.18	0.50	5.00-1	-4.22 1	-5.00-1	4.22 1
268.369	268.326	0.18	0.48	4.95-1	-3.69 1	-4.95-1	3.68 1
268.849	268.806	0.18	0.46	4.89-1	-3.18 1	-4.90-1	3.18 1
269.398	269.355	0.18	0.44	4.83-1	-2.71 1	-4.83-1	2.71 1
270.032	269.989	0.18	0.42	4.75-1	-2.28 1	-4.75-1	2.28 1
270.771	270.728	0.18	0.40	4.66-1	-1.89 1	-4.67-1	1.89 1
271.644	271.600	0.18	0.38	4.56-1	-1.54 1	-4.56-1	1.54 1
272.687	272.643	0.18	0.36	4.43-1	-1.23 1	-4.44-1	1.22 1
273.956	273.911	0.18	0.34	4.28-1	-9.51 0	-4.28-1	9.50 0
274.510	274.470	0.20	0.22	1.84-1	-3.09-1	-1.84-1	3.08-1
275.524	275.478	0.18	0.32	4.09-1	-7.14 0	-4.10-1	7.13 0
277.502	277.455	0.18	0.30	3.86-1	-5.15 0	-3.86-1	5.14 0
280.054	280.006	0.18	0.28	3.56-1	-3.52 0	-3.57-1	3.52 0
283.432	283.383	0.18	0.26	3.18-1	-2.24 0	-3.18-1	2.24 0
288.038	287.986	0.18	0.24	2.67-1	-1.29 0	-2.68-1	1.28 0
294.526	294.469	0.18	0.22	2.00-1	-6.20-1	-2.00-1	6.18-1
299.786	299.713	0.16	90.00	8.45-2	-1.69 4	-8.48-2	1.69 4
299.798	299.725	0.16	89.00	8.55-2	-1.71 4	-8.58-2	1.71 4
299.810	299.737	0.16	88.00	8.65-2	-1.73 4	-8.68-2	1.72 4
299.822	299.749	0.16	87.00	8.75-2	-1.75 4	-8.78-2	1.74 4
299.835	299.761	0.16	86.00	8.86-2	-1.76 4	-8.89-2	1.76 4
299.847	299.774	0.16	85.00	8.96-2	-1.78 4	-8.99-2	1.78 4
299.859	299.786	0.16	84.00	9.07-2	-1.80 4	-9.10-2	1.79 4
299.872	299.798	0.16	83.00	9.17-2	-1.81 4	-9.20-2	1.81 4
299.884	299.810	0.16	82.00	9.28-2	-1.83 4	-9.31-2	1.83 4
299.896	299.823	0.16	81.00	9.39-2	-1.84 4	-9.41-2	1.84 4
299.909	299.835	0.16	80.00	9.49-2	-1.86 4	-9.52-2	1.86 4
299.921	299.848	0.16	79.00	9.60-2	-1.87 4	-9.63-2	1.87 4
299.934	299.860	0.16	78.00	9.71-2	-1.89 4	-9.74-2	1.88 4
299.946	299.873	0.16	77.00	9.82-2	-1.90 4	-9.85-2	1.90 4
299.959	299.885	0.16	76.00	9.93-2	-1.91 4	-9.96-2	1.91 4
299.972	299.898	0.16	75.00	1.00-1	-1.92 4	-1.01-1	1.92 4
299.984	299.911	0.16	74.00	1.02-1	-1.93 4	-1.02-1	1.93 4
299.997	299.923	0.16	73.00	1.03-1	-1.94 4	-1.03-1	1.94 4
300.00	350.00						
300.010	299.936	0.16	72.00	1.04-1	-1.95 4	-1.04-1	1.95 4
300.023	299.949	0.16	71.00	1.05-1	-1.96 4	-1.05-1	1.96 4
300.036	299.962	0.16	70.00	1.06-1	-1.97 4	-1.07-1	1.97 4
300.049	299.975	0.16	69.00	1.07-1	-1.98 4	-1.08-1	1.98 4
300.062	299.988	0.16	68.00	1.09-1	-1.99 4	-1.09-1	1.98 4
300.076	300.002	0.16	67.00	1.10-1	-1.99 4	-1.10-1	1.99 4
300.089	300.015	0.16	66.00	1.11-1	-2.00 4	-1.11-1	2.00 4
300.103	300.029	0.16	65.00	1.12-1	-2.00 4	-1.13-1	2.00 4
300.116	300.042	0.16	64.00	1.14-1	-2.01 4	-1.14-1	2.00 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
300.130	300.056	0.16	63.00	1.15-1	-2.01 4	-1.15-1	2.01 4
300.144	300.070	0.16	62.00	1.16-1	-2.01 4	-1.16-1	2.01 4
300.158	300.084	0.16	61.00	1.17-1	-2.01 4	-1.18-1	2.01 4
300.172	300.098	0.16	60.00	1.19-1	-2.02 4	-1.19-1	2.01 4
300.187	300.112	0.16	59.00	1.20-1	-2.02 4	-1.20-1	2.01 4
300.201	300.127	0.16	58.00	1.21-1	-2.01 4	-1.22-1	2.01 4
300.216	300.142	0.16	57.00	1.23-1	-2.01 4	-1.23-1	2.01 4
300.231	300.156	0.16	56.00	1.24-1	-2.01 4	-1.24-1	2.01 4
300.246	300.171	0.16	55.00	1.26-1	-2.01 4	-1.26-1	2.00 4
300.261	300.187	0.16	54.00	1.27-1	-2.00 4	-1.27-1	2.00 4
300.276	300.202	0.16	53.00	1.28-1	-2.00 4	-1.29-1	2.00 4
300.292	300.218	0.16	52.00	1.30-1	-1.99 4	-1.30-1	1.99 4
300.308	300.233	0.16	51.00	1.31-1	-1.98 4	-1.32-1	1.98 4
300.324	300.250	0.16	50.00	1.33-1	-1.98 4	-1.33-1	1.97 4
300.340	300.266	0.16	49.00	1.34-1	-1.97 4	-1.35-1	1.97 4
300.357	300.283	0.16	48.00	1.36-1	-1.96 4	-1.36-1	1.96 4
300.374	300.299	0.16	47.00	1.37-1	-1.95 4	-1.38-1	1.94 4
300.391	300.317	0.16	46.00	1.39-1	-1.93 4	-1.39-1	1.93 4
300.409	300.334	0.16	45.00	1.41-1	-1.92 4	-1.41-1	1.92 4
300.426	300.352	0.16	44.00	1.42-1	-1.91 4	-1.42-1	1.91 4
300.445	300.370	0.16	43.00	1.44-1	-1.89 4	-1.44-1	1.89 4
300.463	300.388	0.16	42.00	1.45-1	-1.88 4	-1.46-1	1.87 4
300.482	300.407	0.16	41.00	1.47-1	-1.86 4	-1.47-1	1.86 4
300.501	300.427	0.16	40.00	1.49-1	-1.84 4	-1.49-1	1.84 4
300.521	300.446	0.16	39.00	1.51-1	-1.82 4	-1.51-1	1.82 4
300.541	300.466	0.16	38.00	1.52-1	-1.80 4	-1.53-1	1.80 4
300.562	300.487	0.16	37.00	1.54-1	-1.78 4	-1.55-1	1.78 4
300.583	300.508	0.16	36.00	1.56-1	-1.76 4	-1.56-1	1.75 4
300.605	300.530	0.16	35.00	1.58-1	-1.73 4	-1.58-1	1.73 4
300.627	300.552	0.16	34.00	1.60-1	-1.71 4	-1.60-1	1.70 4
300.650	300.575	0.16	33.00	1.62-1	-1.68 4	-1.62-1	1.68 4
300.673	300.598	0.16	32.00	1.64-1	-1.65 4	-1.64-1	1.65 4
300.698	300.623	0.16	31.00	1.66-1	-1.62 4	-1.66-1	1.62 4
300.723	300.648	0.16	30.00	1.68-1	-1.59 4	-1.68-1	1.59 4
300.748	300.673	0.16	29.00	1.70-1	-1.56 4	-1.70-1	1.56 4
300.775	300.700	0.16	28.00	1.72-1	-1.53 4	-1.72-1	1.52 4
300.803	300.727	0.16	27.00	1.74-1	-1.49 4	-1.75-1	1.49 4
300.831	300.756	0.16	26.00	1.77-1	-1.46 4	-1.77-1	1.45 4
300.861	300.786	0.16	25.00	1.79-1	-1.42 4	-1.79-1	1.42 4
300.892	300.817	0.16	24.00	1.81-1	-1.38 4	-1.82-1	1.38 4
300.924	300.849	0.16	23.00	1.84-1	-1.34 4	-1.84-1	1.34 4
300.958	300.882	0.16	22.00	1.86-1	-1.30 4	-1.86-1	1.29 4
300.993	300.917	0.16	21.00	1.89-1	-1.25 4	-1.89-1	1.25 4
301.030	300.954	0.16	20.00	1.91-1	-1.21 4	-1.91-1	1.21 4
301.049	300.974	0.16	19.50	1.93-1	-1.18 4	-1.93-1	1.18 4
301.069	300.993	0.16	19.00	1.94-1	-1.16 4	-1.94-1	1.16 4
301.089	301.013	0.16	18.50	1.95-1	-1.14 4	-1.95-1	1.13 4
301.110	301.034	0.16	18.00	1.97-1	-1.11 4	-1.97-1	1.11 4
301.131	301.056	0.16	17.50	1.98-1	-1.09 4	-1.98-1	1.09 4
301.153	301.078	0.16	17.00	1.99-1	-1.06 4	-1.99-1	1.06 4
301.176	301.100	0.16	16.50	2.01-1	-1.04 4	-2.01-1	1.03 4
301.199	301.124	0.16	16.00	2.02-1	-1.01 4	-2.02-1	1.01 4
301.224	301.148	0.16	15.50	2.03-1	-9.83 3	-2.04-1	9.82 3
301.249	301.173	0.16	15.00	2.05-1	-9.56 3	-2.05-1	9.55 3
301.275	301.199	0.16	14.50	2.06-1	-9.29 3	-2.06-1	9.28 3
301.302	301.226	0.16	14.00	2.08-1	-9.01 3	-2.08-1	9.00 3
301.330	301.254	0.16	13.50	2.09-1	-8.73 3	-2.09-1	8.71 3
301.359	301.283	0.16	13.00	2.11-1	-8.44 3	-2.11-1	8.43 3
301.389	301.314	0.16	12.50	2.12-1	-8.14 3	-2.12-1	8.13 3
301.421	301.345	0.16	12.00	2.14-1	-7.84 3	-2.14-1	7.83 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
301.454	301.378	0.16	11.50	2.15-1	-7.54 3	-2.16-1	7.53 3
301.489	301.413	0.16	11.00	2.17-1	-7.23 3	-2.17-1	7.22 3
301.525	301.450	0.16	10.50	2.19-1	-6.92 3	-2.19-1	6.91 3
301.564	301.488	0.16	10.00	2.20-1	-6.60 3	-2.20-1	6.60 3
301.580	301.504	0.16	9.80	2.21-1	-6.48 3	-2.21-1	6.47 3
301.596	301.521	0.16	9.60	2.22-1	-6.35 3	-2.22-1	6.34 3
301.613	301.537	0.16	9.40	2.22-1	-6.22 3	-2.22-1	6.21 3
301.630	301.554	0.16	9.20	2.23-1	-6.09 3	-2.23-1	6.08 3
301.648	301.572	0.16	9.00	2.23-1	-5.95 3	-2.24-1	5.95 3
301.666	301.590	0.16	8.80	2.24-1	-5.82 3	-2.24-1	5.81 3
301.684	301.608	0.16	8.60	2.25-1	-5.69 3	-2.25-1	5.68 3
301.703	301.627	0.16	8.40	2.25-1	-5.56 3	-2.26-1	5.55 3
301.723	301.647	0.16	8.20	2.26-1	-5.42 3	-2.26-1	5.41 3
301.743	301.667	0.16	8.00	2.27-1	-5.29 3	-2.27-1	5.28 3
301.763	301.687	0.16	7.80	2.28-1	-5.15 3	-2.28-1	5.14 3
301.785	301.709	0.16	7.60	2.28-1	-5.01 3	-2.28-1	5.01 3
301.806	301.731	0.16	7.40	2.29-1	-4.87 3	-2.29-1	4.87 3
301.829	301.753	0.16	7.20	2.30-1	-4.74 3	-2.30-1	4.73 3
301.852	301.776	0.16	7.00	2.30-1	-4.60 3	-2.30-1	4.59 3
301.876	301.800	0.16	6.80	2.31-1	-4.46 3	-2.31-1	4.45 3
301.901	301.825	0.16	6.60	2.32-1	-4.32 3	-2.32-1	4.31 3
301.927	301.851	0.16	6.40	2.32-1	-4.17 3	-2.32-1	4.17 3
301.954	301.878	0.16	6.20	2.33-1	-4.03 3	-2.33-1	4.03 3
301.982	301.906	0.16	6.00	2.34-1	-3.89 3	-2.34-1	3.88 3
302.011	301.935	0.16	5.80	2.34-1	-3.74 3	-2.34-1	3.74 3
302.041	301.965	0.16	5.60	2.35-1	-3.60 3	-2.35-1	3.60 3
302.072	301.996	0.16	5.40	2.36-1	-3.45 3	-2.36-1	3.45 3
302.105	302.029	0.16	5.20	2.36-1	-3.31 3	-2.36-1	3.30 3
302.139	302.063	0.16	5.00	2.37-1	-3.16 3	-2.37-1	3.16 3
302.176	302.100	0.16	4.80	2.38-1	-3.02 3	-2.38-1	3.01 3
302.214	302.138	0.16	4.60	2.38-1	-2.87 3	-2.39-1	2.86 3
302.254	302.178	0.16	4.40	2.39-1	-2.72 3	-2.39-1	2.72 3
302.296	302.220	0.16	4.20	2.40-1	-2.57 3	-2.40-1	2.57 3
302.341	302.265	0.16	4.00	2.40-1	-2.42 3	-2.41-1	2.42 3
302.365	302.289	0.16	3.90	2.41-1	-2.35 3	-2.41-1	2.34 3
302.390	302.313	0.16	3.80	2.41-1	-2.27 3	-2.41-1	2.27 3
302.415	302.339	0.16	3.70	2.41-1	-2.20 3	-2.41-1	2.19 3
302.441	302.365	0.16	3.60	2.42-1	-2.12 3	-2.42-1	2.12 3
302.468	302.392	0.16	3.50	2.42-1	-2.05 3	-2.42-1	2.04 3
302.496	302.420	0.16	3.40	2.42-1	-1.97 3	-2.42-1	1.97 3
302.526	302.450	0.16	3.30	2.43-1	-1.90 3	-2.43-1	1.90 3
302.556	302.480	0.16	3.20	2.43-1	-1.82 3	-2.43-1	1.82 3
302.588	302.512	0.16	3.10	2.43-1	-1.75 3	-2.43-1	1.75 3
302.621	302.545	0.16	3.00	2.44-1	-1.67 3	-2.44-1	1.67 3
302.656	302.580	0.16	2.90	2.44-1	-1.60 3	-2.44-1	1.60 3
302.693	302.617	0.16	2.80	2.44-1	-1.52 3	-2.44-1	1.52 3
302.731	302.655	0.16	2.70	2.44-1	-1.45 3	-2.44-1	1.45 3
302.772	302.695	0.16	2.60	2.45-1	-1.37 3	-2.45-1	1.37 3
302.814	302.738	0.16	2.50	2.45-1	-1.30 3	-2.45-1	1.30 3
302.859	302.783	0.16	2.40	2.45-1	-1.23 3	-2.45-1	1.22 3
302.907	302.831	0.16	2.30	2.45-1	-1.15 3	-2.45-1	1.15 3
302.959	302.882	0.16	2.20	2.45-1	-1.08 3	-2.46-1	1.08 3
303.013	302.937	0.16	2.10	2.46-1	-1.01 3	-2.46-1	1.00 3
303.072	302.996	0.16	2.00	2.46-1	-9.33 2	-2.46-1	9.32 2
303.104	303.027	0.16	1.95	2.46-1	-8.97 2	-2.46-1	8.96 2
303.136	303.060	0.16	1.90	2.46-1	-8.61 2	-2.46-1	8.60 2
303.170	303.093	0.16	1.85	2.46-1	-8.26 2	-2.46-1	8.24 2
303.205	303.129	0.16	1.80	2.46-1	-7.90 2	-2.46-1	7.89 2
303.242	303.166	0.16	1.75	2.46-1	-7.55 2	-2.46-1	7.54 2
303.281	303.204	0.16	1.70	2.46-1	-7.20 2	-2.46-1	7.19 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
303.321	303.245	0.16	1.65	2.46-1	-6.85 2	-2.46-1	6.84 2
303.364	303.287	0.16	1.60	2.46-1	-6.50 2	-2.46-1	6.49 2
303.409	303.332	0.16	1.55	2.46-1	-6.16 2	-2.46-1	6.15 2
303.456	303.380	0.16	1.50	2.46-1	-5.82 2	-2.46-1	5.81 2
303.506	303.430	0.16	1.45	2.46-1	-5.48 2	-2.46-1	5.48 2
303.560	303.483	0.16	1.40	2.46-1	-5.15 2	-2.46-1	5.14 2
303.616	303.540	0.16	1.35	2.46-1	-4.82 2	-2.46-1	4.82 2
303.677	303.601	0.16	1.30	2.46-1	-4.50 2	-2.46-1	4.49 2
303.742	303.665	0.16	1.25	2.46-1	-4.18 2	-2.46-1	4.17 2
303.812	303.736	0.16	1.20	2.45-1	-3.87 2	-2.45-1	3.86 2
303.888	303.812	0.16	1.15	2.45-1	-3.56 2	-2.45-1	3.55 2
303.971	303.894	0.16	1.10	2.45-1	-3.26 2	-2.45-1	3.25 2
303.994	303.929	0.18	0.20	1.12-1	-2.08-1	-1.12-1	2.07-1
304.061	303.984	0.16	1.05	2.45-1	-2.96 2	-2.45-1	2.96 2
304.160	304.084	0.16	1.00	2.44-1	-2.67 2	-2.44-1	2.67 2
304.203	304.126	0.16	0.98	2.44-1	-2.56 2	-2.44-1	2.56 2
304.248	304.171	0.16	0.96	2.44-1	-2.45 2	-2.44-1	2.44 2
304.294	304.217	0.16	0.94	2.44-1	-2.34 2	-2.44-1	2.34 2
304.343	304.266	0.16	0.92	2.43-1	-2.23 2	-2.44-1	2.23 2
304.394	304.317	0.16	0.90	2.43-1	-2.12 2	-2.43-1	2.12 2
304.447	304.370	0.16	0.88	2.43-1	-2.02 2	-2.43-1	2.02 2
304.503	304.426	0.16	0.86	2.43-1	-1.91 2	-2.43-1	1.91 2
304.563	304.486	0.16	0.84	2.42-1	-1.81 2	-2.43-1	1.81 2
304.625	304.548	0.16	0.82	2.42-1	-1.71 2	-2.42-1	1.71 2
304.691	304.614	0.16	0.80	2.42-1	-1.61 2	-2.42-1	1.61 2
304.761	304.684	0.16	0.78	2.41-1	-1.52 2	-2.42-1	1.52 2
304.835	304.758	0.16	0.76	2.41-1	-1.43 2	-2.41-1	1.42 2
304.914	304.837	0.16	0.74	2.41-1	-1.33 2	-2.41-1	1.33 2
304.999	304.921	0.16	0.72	2.40-1	-1.24 2	-2.40-1	1.24 2
305.089	305.012	0.16	0.70	2.40-1	-1.16 2	-2.40-1	1.15 2
305.186	305.109	0.16	0.68	2.39-1	-1.07 2	-2.39-1	1.07 2
305.290	305.213	0.16	0.66	2.39-1	-9.90 1	-2.39-1	9.88 1
305.403	305.326	0.16	0.64	2.38-1	-9.10 1	-2.38-1	9.09 1
305.525	305.448	0.16	0.62	2.37-1	-8.33 1	-2.37-1	8.32 1
305.659	305.581	0.16	0.60	2.37-1	-7.59 1	-2.37-1	7.58 1
305.805	305.727	0.16	0.58	2.36-1	-6.88 1	-2.36-1	6.87 1
305.965	305.888	0.16	0.56	2.35-1	-6.20 1	-2.35-1	6.19 1
306.143	306.065	0.16	0.54	2.34-1	-5.55 1	-2.34-1	5.54 1
306.340	306.263	0.16	0.52	2.33-1	-4.94 1	-2.33-1	4.93 1
306.562	306.484	0.16	0.50	2.31-1	-4.35 1	-2.31-1	4.35 1
306.811	306.734	0.16	0.48	2.30-1	-3.81 1	-2.30-1	3.80 1
307.095	307.017	0.16	0.46	2.28-1	-3.30 1	-2.28-1	3.29 1
307.421	307.343	0.16	0.44	2.26-1	-2.82 1	-2.26-1	2.82 1
307.799	307.721	0.16	0.42	2.24-1	-2.38 1	-2.24-1	2.38 1
308.242	308.163	0.16	0.40	2.21-1	-1.99 1	-2.22-1	1.98 1
308.768	308.689	0.16	0.38	2.18-1	-1.63 1	-2.19-1	1.62 1
309.402	309.323	0.16	0.36	2.15-1	-1.31 1	-2.15-1	1.30 1
310.178	310.099	0.16	0.34	2.10-1	-1.02 1	-2.11-1	1.02 1
311.147	311.067	0.16	0.32	2.05-1	-7.81 0	-2.05-1	7.79 0
312.384	312.303	0.16	0.30	1.98-1	-5.75 0	-1.98-1	5.74 0
314.002	313.920	0.16	0.28	1.89-1	-4.06 0	-1.89-1	4.05 0
316.182	316.098	0.16	0.26	1.78-1	-2.70 0	-1.78-1	2.70 0
319.217	319.131	0.16	0.24	1.62-1	-1.67 0	-1.62-1	1.67 0
323.609	323.520	0.16	0.22	1.40-1	-9.25-1	-1.40-1	9.22-1
330.243	330.148	0.16	0.20	1.09-1	-4.27-1	-1.09-1	4.25-1
340.741	340.632	0.16	0.18	6.33-2	-1.35-1	-6.36-2	1.34-1

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
350.00	400.00						
354.496	354.346	0.14	90.00	5.40-2	-3.06 4	-5.41-2	3.05 4
354.501	354.352	0.14	89.00	5.44-2	-3.08 4	-5.46-2	3.07 4
354.507	354.357	0.14	88.00	5.49-2	-3.10 4	-5.50-2	3.09 4
354.512	354.363	0.14	87.00	5.53-2	-3.12 4	-5.55-2	3.11 4
354.518	354.368	0.14	86.00	5.57-2	-3.14 4	-5.59-2	3.13 4
354.523	354.374	0.14	85.00	5.62-2	-3.16 4	-5.64-2	3.15 4
354.529	354.379	0.14	84.00	5.66-2	-3.18 4	-5.68-2	3.17 4
354.534	354.385	0.14	83.00	5.71-2	-3.20 4	-5.72-2	3.19 4
354.540	354.390	0.14	82.00	5.75-2	-3.21 4	-5.77-2	3.20 4
354.545	354.396	0.14	81.00	5.79-2	-3.23 4	-5.81-2	3.22 4
354.551	354.401	0.14	80.00	5.84-2	-3.24 4	-5.85-2	3.23 4
354.557	354.407	0.14	79.00	5.88-2	-3.25 4	-5.90-2	3.24 4
354.562	354.412	0.14	78.00	5.93-2	-3.26 4	-5.94-2	3.26 4
354.568	354.418	0.14	77.00	5.97-2	-3.27 4	-5.99-2	3.27 4
354.573	354.424	0.14	76.00	6.02-2	-3.28 4	-6.03-2	3.27 4
354.579	354.429	0.14	75.00	6.06-2	-3.29 4	-6.08-2	3.28 4
354.585	354.435	0.14	74.00	6.10-2	-3.30 4	-6.12-2	3.29 4
354.591	354.441	0.14	73.00	6.15-2	-3.30 4	-6.16-2	3.29 4
354.596	354.447	0.14	72.00	6.19-2	-3.31 4	-6.21-2	3.30 4
354.602	354.452	0.14	71.00	6.24-2	-3.31 4	-6.25-2	3.30 4
354.608	354.458	0.14	70.00	6.28-2	-3.31 4	-6.30-2	3.30 4
354.614	354.464	0.14	69.00	6.33-2	-3.31 4	-6.34-2	3.30 4
354.620	354.470	0.14	68.00	6.37-2	-3.31 4	-6.39-2	3.30 4
354.626	354.476	0.14	67.00	6.42-2	-3.31 4	-6.43-2	3.30 4
354.632	354.482	0.14	66.00	6.46-2	-3.30 4	-6.48-2	3.29 4
354.638	354.488	0.14	65.00	6.51-2	-3.30 4	-6.52-2	3.29 4
354.644	354.494	0.14	64.00	6.55-2	-3.29 4	-6.57-2	3.28 4
354.650	354.500	0.14	63.00	6.60-2	-3.28 4	-6.61-2	3.27 4
354.656	354.506	0.14	62.00	6.64-2	-3.27 4	-6.66-2	3.26 4
354.663	354.513	0.14	61.00	6.69-2	-3.26 4	-6.70-2	3.25 4
354.669	354.519	0.14	60.00	6.73-2	-3.25 4	-6.75-2	3.24 4
354.676	354.526	0.14	59.00	6.78-2	-3.24 4	-6.79-2	3.23 4
354.682	354.532	0.14	58.00	6.83-2	-3.22 4	-6.84-2	3.21 4
354.689	354.539	0.14	57.00	6.87-2	-3.21 4	-6.88-2	3.20 4
354.695	354.545	0.14	56.00	6.92-2	-3.19 4	-6.93-2	3.18 4
354.702	354.552	0.14	55.00	6.96-2	-3.17 4	-6.98-2	3.16 4
354.709	354.559	0.14	54.00	7.01-2	-3.15 4	-7.02-2	3.14 4
354.716	354.566	0.14	53.00	7.06-2	-3.13 4	-7.07-2	3.12 4
354.723	354.573	0.14	52.00	7.11-2	-3.10 4	-7.12-2	3.10 4
354.730	354.580	0.14	51.00	7.15-2	-3.08 4	-7.17-2	3.07 4
354.737	354.587	0.14	50.00	7.20-2	-3.05 4	-7.21-2	3.05 4
354.744	354.594	0.14	49.00	7.25-2	-3.03 4	-7.26-2	3.02 4
354.752	354.602	0.14	48.00	7.30-2	-3.00 4	-7.31-2	2.99 4
354.759	354.609	0.14	47.00	7.34-2	-2.97 4	-7.36-2	2.96 4
354.767	354.617	0.14	46.00	7.39-2	-2.93 4	-7.41-2	2.93 4
354.775	354.625	0.14	45.00	7.44-2	-2.90 4	-7.45-2	2.89 4
354.783	354.633	0.14	44.00	7.49-2	-2.87 4	-7.50-2	2.86 4
354.791	354.641	0.14	43.00	7.54-2	-2.83 4	-7.55-2	2.82 4
354.799	354.649	0.14	42.00	7.59-2	-2.79 4	-7.60-2	2.78 4
354.808	354.658	0.14	41.00	7.64-2	-2.75 4	-7.65-2	2.75 4
354.816	354.666	0.14	40.00	7.69-2	-2.71 4	-7.70-2	2.71 4
354.825	354.675	0.14	39.00	7.74-2	-2.67 4	-7.75-2	2.66 4
354.834	354.684	0.14	38.00	7.79-2	-2.63 4	-7.80-2	2.62 4
354.843	354.693	0.14	37.00	7.84-2	-2.58 4	-7.85-2	2.57 4
354.853	354.703	0.14	36.00	7.89-2	-2.54 4	-7.90-2	2.53 4
354.863	354.712	0.14	35.00	7.95-2	-2.49 4	-7.96-2	2.48 4
354.873	354.722	0.14	34.00	8.00-2	-2.44 4	-8.01-2	2.43 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
354.883	354.732	0.14	33.00	8.05-2	-2.39 4	-8.06-2	2.38 4
354.893	354.743	0.14	32.00	8.10-2	-2.33 4	-8.11-2	2.33 4
354.904	354.754	0.14	31.00	8.16-2	-2.28 4	-8.17-2	2.27 4
354.915	354.765	0.14	30.00	8.21-2	-2.22 4	-8.22-2	2.22 4
354.927	354.776	0.14	29.00	8.27-2	-2.17 4	-8.28-2	2.16 4
354.939	354.788	0.14	28.00	8.32-2	-2.11 4	-8.33-2	2.10 4
354.951	354.801	0.14	27.00	8.38-2	-2.05 4	-8.39-2	2.04 4
354.964	354.813	0.14	26.00	8.43-2	-1.99 4	-8.44-2	1.98 4
354.977	354.827	0.14	25.00	8.49-2	-1.93 4	-8.50-2	1.92 4
354.991	354.841	0.14	24.00	8.55-2	-1.86 4	-8.55-2	1.86 4
355.005	354.855	0.14	23.00	8.60-2	-1.80 4	-8.61-2	1.79 4
355.020	354.870	0.14	22.00	8.66-2	-1.73 4	-8.67-2	1.72 4
355.036	354.886	0.14	21.00	8.72-2	-1.66 4	-8.73-2	1.66 4
355.053	354.902	0.14	20.00	8.78-2	-1.59 4	-8.79-2	1.59 4
355.061	354.911	0.14	19.50	8.81-2	-1.55 4	-8.82-2	1.55 4
355.070	354.919	0.14	19.00	8.84-2	-1.52 4	-8.84-2	1.51 4
355.079	354.928	0.14	18.50	8.87-2	-1.48 4	-8.87-2	1.48 4
355.088	354.938	0.14	18.00	8.90-2	-1.45 4	-8.90-2	1.44 4
355.098	354.947	0.14	17.50	8.93-2	-1.41 4	-8.93-2	1.40 4
355.108	354.957	0.14	17.00	8.96-2	-1.37 4	-8.96-2	1.37 4
355.118	354.967	0.14	16.50	8.99-2	-1.33 4	-8.99-2	1.33 4
355.128	354.978	0.14	16.00	9.02-2	-1.30 4	-9.02-2	1.29 4
355.139	354.989	0.14	15.50	9.05-2	-1.26 4	-9.06-2	1.25 4
355.150	355.000	0.14	15.00	9.08-2	-1.22 4	-9.09-2	1.21 4
355.162	355.011	0.14	14.50	9.11-2	-1.18 4	-9.12-2	1.18 4
355.174	355.023	0.14	14.00	9.14-2	-1.14 4	-9.15-2	1.14 4
355.187	355.036	0.14	13.50	9.17-2	-1.10 4	-9.18-2	1.10 4
355.200	355.049	0.14	13.00	9.20-2	-1.06 4	-9.21-2	1.06 4
355.213	355.063	0.14	12.50	9.23-2	-1.02 4	-9.24-2	1.02 4
355.227	355.077	0.14	12.00	9.27-2	-9.78 3	-9.27-2	9.76 3
355.242	355.091	0.14	11.50	9.30-2	-9.37 3	-9.31-2	9.35 3
355.258	355.107	0.14	11.00	9.33-2	-8.96 3	-9.34-2	8.93 3
355.274	355.123	0.14	10.50	9.36-2	-8.54 3	-9.37-2	8.52 3
355.291	355.140	0.14	10.00	9.39-2	-8.12 3	-9.40-2	8.10 3
355.298	355.148	0.14	9.80	9.41-2	-7.95 3	-9.41-2	7.93 3
355.306	355.155	0.14	9.60	9.42-2	-7.78 3	-9.43-2	7.76 3
355.313	355.162	0.14	9.40	9.43-2	-7.61 3	-9.44-2	7.59 3
355.321	355.170	0.14	9.20	9.44-2	-7.44 3	-9.45-2	7.42 3
355.329	355.178	0.14	9.00	9.46-2	-7.27 3	-9.46-2	7.25 3
355.337	355.186	0.14	8.80	9.47-2	-7.09 3	-9.48-2	7.07 3
355.345	355.194	0.14	8.60	9.48-2	-6.92 3	-9.49-2	6.90 3
355.353	355.203	0.14	8.40	9.50-2	-6.75 3	-9.50-2	6.73 3
355.362	355.211	0.14	8.20	9.51-2	-6.58 3	-9.51-2	6.56 3
355.371	355.220	0.14	8.00	9.52-2	-6.40 3	-9.53-2	6.38 3
355.380	355.229	0.14	7.80	9.53-2	-6.23 3	-9.54-2	6.21 3
355.390	355.239	0.14	7.60	9.55-2	-6.05 3	-9.55-2	6.04 3
355.399	355.249	0.14	7.40	9.56-2	-5.88 3	-9.57-2	5.86 3
355.409	355.259	0.14	7.20	9.57-2	-5.70 3	-9.58-2	5.69 3
355.420	355.269	0.14	7.00	9.59-2	-5.53 3	-9.59-2	5.51 3
355.431	355.280	0.14	6.80	9.60-2	-5.35 3	-9.60-2	5.34 3
355.442	355.291	0.14	6.60	9.61-2	-5.17 3	-9.62-2	5.16 3
355.453	355.302	0.14	6.40	9.62-2	-5.00 3	-9.63-2	4.98 3
355.465	355.314	0.14	6.20	9.64-2	-4.82 3	-9.64-2	4.81 3
355.478	355.327	0.14	6.00	9.65-2	-4.64 3	-9.65-2	4.63 3
355.491	355.340	0.14	5.80	9.66-2	-4.46 3	-9.67-2	4.45 3
355.504	355.353	0.14	5.60	9.67-2	-4.28 3	-9.68-2	4.27 3
355.518	355.367	0.14	5.40	9.68-2	-4.11 3	-9.69-2	4.09 3
355.533	355.382	0.14	5.20	9.70-2	-3.93 3	-9.70-2	3.92 3
355.548	355.397	0.14	5.00	9.71-2	-3.75 3	-9.71-2	3.74 3
355.564	355.413	0.14	4.80	9.72-2	-3.57 3	-9.73-2	3.56 3

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
355.581	355.430	0.14	4.60	9.73-2	-3.39 3	-9.74-2	3.38 3
355.599	355.448	0.14	4.40	9.74-2	-3.21 3	-9.75-2	3.20 3
355.618	355.467	0.14	4.20	9.76-2	-3.03 3	-9.76-2	3.02 3
355.638	355.487	0.14	4.00	9.77-2	-2.85 3	-9.77-2	2.84 3
355.649	355.498	0.14	3.90	9.77-2	-2.76 3	-9.78-2	2.75 3
355.660	355.509	0.14	3.80	9.78-2	-2.67 3	-9.78-2	2.66 3
355.671	355.520	0.14	3.70	9.78-2	-2.58 3	-9.79-2	2.57 3
355.683	355.532	0.14	3.60	9.79-2	-2.49 3	-9.79-2	2.48 3
355.695	355.544	0.14	3.50	9.79-2	-2.40 3	-9.80-2	2.39 3
355.708	355.557	0.14	3.40	9.80-2	-2.31 3	-9.80-2	2.30 3
355.721	355.570	0.14	3.30	9.80-2	-2.22 3	-9.81-2	2.21 3
355.734	355.584	0.14	3.20	9.81-2	-2.13 3	-9.81-2	2.13 3
355.749	355.598	0.14	3.10	9.81-2	-2.04 3	-9.82-2	2.04 3
355.764	355.613	0.14	3.00	9.82-2	-1.95 3	-9.82-2	1.95 3
355.779	355.628	0.14	2.90	9.82-2	-1.86 3	-9.83-2	1.86 3
355.796	355.645	0.14	2.80	9.82-2	-1.78 3	-9.83-2	1.77 3
355.813	355.662	0.14	2.70	9.83-2	-1.69 3	-9.83-2	1.68 3
355.831	355.680	0.14	2.60	9.83-2	-1.60 3	-9.84-2	1.60 3
355.850	355.699	0.14	2.50	9.83-2	-1.51 3	-9.84-2	1.51 3
355.870	355.719	0.14	2.40	9.84-2	-1.43 3	-9.84-2	1.42 3
355.892	355.741	0.14	2.30	9.84-2	-1.34 3	-9.84-2	1.34 3
355.915	355.764	0.14	2.20	9.84-2	-1.25 3	-9.85-2	1.25 3
355.939	355.788	0.14	2.10	9.84-2	-1.17 3	-9.85-2	1.16 3
355.966	355.815	0.14	2.00	9.84-2	-1.08 3	-9.85-2	1.08 3
355.980	355.829	0.14	1.95	9.84-2	-1.04 3	-9.85-2	1.04 3
355.994	355.843	0.14	1.90	9.84-2	-9.98 2	-9.85-2	9.96 2
356.010	355.858	0.14	1.85	9.84-2	-9.57 2	-9.85-2	9.54 2
356.025	355.874	0.14	1.80	9.84-2	-9.15 2	-9.85-2	9.13 2
356.042	355.891	0.14	1.75	9.84-2	-8.74 2	-9.85-2	8.72 2
356.059	355.908	0.14	1.70	9.84-2	-8.33 2	-9.85-2	8.31 2
356.078	355.927	0.14	1.65	9.84-2	-7.93 2	-9.84-2	7.90 2
356.097	355.946	0.14	1.60	9.84-2	-7.52 2	-9.84-2	7.50 2
356.117	355.966	0.14	1.55	9.84-2	-7.13 2	-9.84-2	7.11 2
356.139	355.987	0.14	1.50	9.83-2	-6.73 2	-9.84-2	6.71 2
356.161	356.010	0.14	1.45	9.83-2	-6.34 2	-9.83-2	6.32 2
356.185	356.034	0.14	1.40	9.83-2	-5.95 2	-9.83-2	5.94 2
356.211	356.060	0.14	1.35	9.82-2	-5.57 2	-9.83-2	5.56 2
356.238	356.087	0.14	1.30	9.82-2	-5.20 2	-9.82-2	5.18 2
356.268	356.117	0.14	1.25	9.81-2	-4.83 2	-9.82-2	4.81 2
356.300	356.148	0.14	1.20	9.81-2	-4.46 2	-9.81-2	4.45 2
356.334	356.183	0.14	1.15	9.80-2	-4.10 2	-9.80-2	4.09 2
356.371	356.220	0.14	1.10	9.79-2	-3.76 2	-9.80-2	3.74 2
356.412	356.261	0.14	1.05	9.78-2	-3.41 2	-9.79-2	3.40 2
356.458	356.306	0.14	1.00	9.77-2	-3.08 2	-9.77-2	3.07 2
356.477	356.326	0.14	0.98	9.76-2	-2.95 2	-9.77-2	2.94 2
356.497	356.346	0.14	0.96	9.76-2	-2.82 2	-9.76-2	2.81 2
356.518	356.367	0.14	0.94	9.75-2	-2.70 2	-9.76-2	2.69 2
356.541	356.389	0.14	0.92	9.75-2	-2.57 2	-9.75-2	2.56 2
356.564	356.413	0.14	0.90	9.74-2	-2.45 2	-9.75-2	2.44 2
356.588	356.437	0.14	0.88	9.73-2	-2.33 2	-9.74-2	2.32 2
356.614	356.463	0.14	0.86	9.73-2	-2.21 2	-9.73-2	2.20 2
356.641	356.490	0.14	0.84	9.72-2	-2.09 2	-9.72-2	2.08 2
356.670	356.518	0.14	0.82	9.71-2	-1.97 2	-9.72-2	1.97 2
356.700	356.549	0.14	0.80	9.70-2	-1.86 2	-9.71-2	1.85 2
356.732	356.581	0.14	0.78	9.69-2	-1.75 2	-9.70-2	1.74 2
356.766	356.615	0.14	0.76	9.68-2	-1.64 2	-9.69-2	1.64 2
356.803	356.651	0.14	0.74	9.67-2	-1.54 2	-9.68-2	1.53 2
356.841	356.690	0.14	0.72	9.66-2	-1.43 2	-9.67-2	1.43 2
356.883	356.732	0.14	0.70	9.65-2	-1.33 2	-9.65-2	1.33 2
356.928	356.776	0.14	0.68	9.63-2	-1.23 2	-9.64-2	1.23 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
355.581	355.430	0.14	4.60	9.73-2	-3.39 3	-9.74-2	3.38 3
355.599	355.448	0.14	4.40	9.74-2	-3.21 3	-9.75-2	3.20 3
355.618	355.467	0.14	4.20	9.76-2	-3.03 3	-9.76-2	3.02 3
355.638	355.487	0.14	4.00	9.77-2	-2.85 3	-9.77-2	2.84 3
355.649	355.498	0.14	3.90	9.77-2	-2.76 3	-9.78-2	2.75 3
355.660	355.509	0.14	3.80	9.78-2	-2.67 3	-9.78-2	2.66 3
355.671	355.520	0.14	3.70	9.78-2	-2.58 3	-9.79-2	2.57 3
355.683	355.532	0.14	3.60	9.79-2	-2.49 3	-9.79-2	2.48 3
355.695	355.544	0.14	3.50	9.79-2	-2.40 3	-9.80-2	2.39 3
355.708	355.557	0.14	3.40	9.80-2	-2.31 3	-9.80-2	2.30 3
355.721	355.570	0.14	3.30	9.80-2	-2.22 3	-9.81-2	2.21 3
355.734	355.584	0.14	3.20	9.81-2	-2.13 3	-9.81-2	2.13 3
355.749	355.598	0.14	3.10	9.81-2	-2.04 3	-9.82-2	2.04 3
355.764	355.613	0.14	3.00	9.82-2	-1.95 3	-9.82-2	1.95 3
355.779	355.628	0.14	2.90	9.82-2	-1.86 3	-9.83-2	1.86 3
355.796	355.645	0.14	2.80	9.82-2	-1.78 3	-9.83-2	1.77 3
355.813	355.662	0.14	2.70	9.83-2	-1.69 3	-9.83-2	1.68 3
355.831	355.680	0.14	2.60	9.83-2	-1.60 3	-9.84-2	1.60 3
355.850	355.699	0.14	2.50	9.83-2	-1.51 3	-9.84-2	1.51 3
355.870	355.719	0.14	2.40	9.84-2	-1.43 3	-9.84-2	1.42 3
355.892	355.741	0.14	2.30	9.84-2	-1.34 3	-9.84-2	1.34 3
355.915	355.764	0.14	2.20	9.84-2	-1.25 3	-9.85-2	1.25 3
355.939	355.788	0.14	2.10	9.84-2	-1.17 3	-9.85-2	1.16 3
355.966	355.815	0.14	2.00	9.84-2	-1.08 3	-9.85-2	1.08 3
355.980	355.829	0.14	1.95	9.84-2	-1.04 3	-9.85-2	1.04 3
355.994	355.843	0.14	1.90	9.84-2	-9.98 2	-9.85-2	9.96 2
356.010	355.858	0.14	1.85	9.84-2	-9.57 2	-9.85-2	9.54 2
356.025	355.874	0.14	1.80	9.84-2	-9.15 2	-9.85-2	9.13 2
356.042	355.891	0.14	1.75	9.84-2	-8.74 2	-9.85-2	8.72 2
356.059	355.908	0.14	1.70	9.84-2	-8.33 2	-9.85-2	8.31 2
356.078	355.927	0.14	1.65	9.84-2	-7.93 2	-9.84-2	7.90 2
356.097	355.946	0.14	1.60	9.84-2	-7.52 2	-9.84-2	7.50 2
356.117	355.966	0.14	1.55	9.84-2	-7.13 2	-9.84-2	7.11 2
356.139	355.987	0.14	1.50	9.83-2	-6.73 2	-9.84-2	6.71 2
356.161	356.010	0.14	1.45	9.83-2	-6.34 2	-9.83-2	6.32 2
356.185	356.034	0.14	1.40	9.83-2	-5.95 2	-9.83-2	5.94 2
356.211	356.060	0.14	1.35	9.82-2	-5.57 2	-9.83-2	5.56 2
356.238	356.087	0.14	1.30	9.82-2	-5.20 2	-9.82-2	5.18 2
356.268	356.117	0.14	1.25	9.81-2	-4.83 2	-9.82-2	4.81 2
356.300	356.148	0.14	1.20	9.81-2	-4.46 2	-9.81-2	4.45 2
356.334	356.183	0.14	1.15	9.80-2	-4.10 2	-9.80-2	4.09 2
356.371	356.220	0.14	1.10	9.79-2	-3.76 2	-9.80-2	3.74 2
356.412	356.261	0.14	1.05	9.78-2	-3.41 2	-9.79-2	3.40 2
356.458	356.306	0.14	1.00	9.77-2	-3.08 2	-9.77-2	3.07 2
356.477	356.326	0.14	0.98	9.76-2	-2.95 2	-9.77-2	2.94 2
356.497	356.346	0.14	0.96	9.76-2	-2.82 2	-9.76-2	2.81 2
356.518	356.367	0.14	0.94	9.75-2	-2.70 2	-9.76-2	2.69 2
356.541	356.389	0.14	0.92	9.75-2	-2.57 2	-9.75-2	2.56 2
356.564	356.413	0.14	0.90	9.74-2	-2.45 2	-9.75-2	2.44 2
356.588	356.437	0.14	0.88	9.73-2	-2.33 2	-9.74-2	2.32 2
356.614	356.463	0.14	0.86	9.73-2	-2.21 2	-9.73-2	2.20 2
356.641	356.490	0.14	0.84	9.72-2	-2.09 2	-9.72-2	2.08 2
356.670	356.518	0.14	0.82	9.71-2	-1.97 2	-9.72-2	1.97 2
356.700	356.549	0.14	0.80	9.70-2	-1.86 2	-9.71-2	1.85 2
356.732	356.581	0.14	0.78	9.69-2	-1.75 2	-9.70-2	1.74 2
356.766	356.615	0.14	0.76	9.68-2	-1.64 2	-9.69-2	1.64 2
356.803	356.651	0.14	0.74	9.67-2	-1.54 2	-9.68-2	1.53 2
356.841	356.690	0.14	0.72	9.66-2	-1.43 2	-9.67-2	1.43 2
356.883	356.732	0.14	0.70	9.65-2	-1.33 2	-9.65-2	1.33 2
356.928	356.776	0.14	0.68	9.63-2	-1.23 2	-9.64-2	1.23 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
356.976	356.825	0.14	0.66	9.62-2	-1.14 2	-9.62-2	1.14 2
357.028	356.877	0.14	0.64	9.60-2	-1.05 2	-9.61-2	1.04 2
357.085	356.934	0.14	0.62	9.58-2	-9.59 1	-9.59-2	9.56 1
357.147	356.996	0.14	0.60	9.56-2	-8.74 1	-9.57-2	8.71 1
357.215	357.064	0.14	0.58	9.54-2	-7.92 1	-9.55-2	7.90 1
357.290	357.139	0.14	0.56	9.52-2	-7.14 1	-9.53-2	7.12 1
357.374	357.222	0.14	0.54	9.49-2	-6.40 1	-9.50-2	6.38 1
357.467	357.315	0.14	0.52	9.46-2	-5.69 1	-9.47-2	5.67 1
357.571	357.419	0.14	0.50	9.43-2	-5.02 1	-9.44-2	5.00 1
357.689	357.537	0.14	0.48	9.40-2	-4.39 1	-9.40-2	4.38 1
357.824	357.672	0.14	0.46	9.36-2	-3.80 1	-9.36-2	3.79 1
357.979	357.827	0.14	0.44	9.31-2	-3.26 1	-9.31-2	3.25 1
358.160	358.008	0.14	0.42	9.25-2	-2.76 1	-9.26-2	2.75 1
358.374	358.221	0.14	0.40	9.19-2	-2.30 1	-9.20-2	2.30 1
358.629	358.476	0.14	0.38	9.12-2	-1.89 1	-9.13-2	1.88 1
358.939	358.786	0.14	0.36	9.03-2	-1.52 1	-9.04-2	1.52 1
359.322	359.168	0.14	0.34	8.93-2	-1.20 1	-8.94-2	1.20 1
359.805	359.651	0.14	0.32	8.80-2	-9.21 0	-8.81-2	9.18 0
360.429	360.274	0.14	0.30	8.64-2	-6.85 0	-8.65-2	6.83 0
361.258	361.103	0.14	0.28	8.44-2	-4.90 0	-8.45-2	4.89 0
362.395	362.239	0.14	0.26	8.17-2	-3.34 0	-8.18-2	3.33 0
364.018	363.860	0.14	0.24	7.80-2	-2.15 0	-7.81-2	2.14 0
366.438	366.278	0.14	0.22	7.28-2	-1.27 0	-7.29-2	1.26 0
370.245	370.079	0.14	0.20	6.49-2	-6.65-1	-6.50-2	6.62-1
376.601	376.426	0.14	0.18	5.26-2	-2.88-1	-5.27-2	2.86-1
387.919	387.722	0.14	0.16	3.24-2	-8.38-2	-3.26-2	8.30-2
400.00	451.00						
425.520	425.192	0.12	90.00	2.58-2	-6.16 4	-2.59-2	6.12 4
425.522	425.194	0.12	89.00	2.59-2	-6.18 4	-2.60-2	6.14 4
425.524	425.196	0.12	88.00	2.60-2	-6.20 4	-2.61-2	6.16 4
425.525	425.198	0.12	87.00	2.61-2	-6.22 4	-2.62-2	6.18 4
425.527	425.199	0.12	86.00	2.62-2	-6.24 4	-2.63-2	6.20 4
425.529	425.201	0.12	85.00	2.64-2	-6.25 4	-2.64-2	6.21 4
425.530	425.203	0.12	84.00	2.65-2	-6.26 4	-2.65-2	6.22 4
425.532	425.205	0.12	83.00	2.66-2	-6.27 4	-2.66-2	6.23 4
425.534	425.206	0.12	82.00	2.67-2	-6.28 4	-2.68-2	6.24 4
425.536	425.208	0.12	81.00	2.68-2	-6.29 4	-2.69-2	6.25 4
425.537	425.210	0.12	80.00	2.69-2	-6.29 4	-2.70-2	6.25 4
425.539	425.212	0.12	79.00	2.70-2	-6.29 4	-2.71-2	6.25 4
425.541	425.213	0.12	78.00	2.71-2	-6.29 4	-2.72-2	6.25 4
425.543	425.215	0.12	77.00	2.72-2	-6.29 4	-2.73-2	6.25 4
425.545	425.217	0.12	76.00	2.73-2	-6.28 4	-2.74-2	6.24 4
425.546	425.219	0.12	75.00	2.74-2	-6.27 4	-2.75-2	6.23 4
425.548	425.221	0.12	74.00	2.75-2	-6.26 4	-2.76-2	6.22 4
425.550	425.222	0.12	73.00	2.76-2	-6.25 4	-2.77-2	6.21 4
425.552	425.224	0.12	72.00	2.77-2	-6.24 4	-2.78-2	6.20 4
425.554	425.226	0.12	71.00	2.78-2	-6.22 4	-2.79-2	6.18 4
425.556	425.228	0.12	70.00	2.79-2	-6.20 4	-2.80-2	6.16 4
425.557	425.230	0.12	69.00	2.80-2	-6.18 4	-2.81-2	6.14 4
425.559	425.232	0.12	68.00	2.81-2	-6.15 4	-2.82-2	6.12 4
425.561	425.233	0.12	67.00	2.82-2	-6.13 4	-2.83-2	6.09 4
425.563	425.235	0.12	66.00	2.83-2	-6.10 4	-2.83-2	6.06 4
425.565	425.237	0.12	65.00	2.84-2	-6.07 4	-2.84-2	6.03 4
425.567	425.239	0.12	64.00	2.85-2	-6.04 4	-2.85-2	6.00 4
425.569	425.241	0.12	63.00	2.86-2	-6.00 4	-2.86-2	5.96 4
425.571	425.243	0.12	62.00	2.87-2	-5.96 4	-2.87-2	5.92 4
425.573	425.245	0.12	61.00	2.88-2	-5.92 4	-2.88-2	5.89 4
425.575	425.247	0.12	60.00	2.88-2	-5.88 4	-2.89-2	5.84 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
425.577	425.249	0.12	59.00	2.89-2	-5.84 4	-2.90-2	5.80 4
425.579	425.251	0.12	58.00	2.90-2	-5.79 4	-2.91-2	5.75 4
425.581	425.253	0.12	57.00	2.91-2	-5.74 4	-2.92-2	5.70 4
425.583	425.255	0.12	56.00	2.92-2	-5.69 4	-2.93-2	5.65 4
425.585	425.258	0.12	55.00	2.93-2	-5.64 4	-2.94-2	5.60 4
425.587	425.260	0.12	54.00	2.94-2	-5.58 4	-2.95-2	5.54 4
425.590	425.262	0.12	53.00	2.95-2	-5.52 4	-2.96-2	5.49 4
425.592	425.264	0.12	52.00	2.96-2	-5.46 4	-2.96-2	5.43 4
425.594	425.266	0.12	51.00	2.97-2	-5.40 4	-2.97-2	5.37 4
425.596	425.269	0.12	50.00	2.98-2	-5.34 4	-2.98-2	5.30 4
425.599	425.271	0.12	49.00	2.99-2	-5.27 4	-2.99-2	5.24 4
425.601	425.273	0.12	48.00	3.00-2	-5.20 4	-3.00-2	5.17 4
425.603	425.276	0.12	47.00	3.00-2	-5.13 4	-3.01-2	5.10 4
425.606	425.278	0.12	46.00	3.01-2	-5.06 4	-3.02-2	5.03 4
425.608	425.281	0.12	45.00	3.02-2	-4.98 4	-3.03-2	4.95 4
425.611	425.283	0.12	44.00	3.03-2	-4.91 4	-3.04-2	4.87 4
425.613	425.286	0.12	43.00	3.04-2	-4.83 4	-3.05-2	4.80 4
425.616	425.288	0.12	42.00	3.05-2	-4.74 4	-3.05-2	4.72 4
425.619	425.291	0.12	41.00	3.06-2	-4.66 4	-3.06-2	4.63 4
425.621	425.294	0.12	40.00	3.07-2	-4.58 4	-3.07-2	4.55 4
425.624	425.296	0.12	39.00	3.08-2	-4.49 4	-3.08-2	4.46 4
425.627	425.299	0.12	38.00	3.08-2	-4.40 4	-3.09-2	4.37 4
425.630	425.302	0.12	37.00	3.09-2	-4.31 4	-3.10-2	4.28 4
425.633	425.305	0.12	36.00	3.10-2	-4.22 4	-3.11-2	4.19 4
425.636	425.308	0.12	35.00	3.11-2	-4.12 4	-3.12-2	4.10 4
425.639	425.311	0.12	34.00	3.12-2	-4.03 4	-3.13-2	4.00 4
425.642	425.315	0.12	33.00	3.13-2	-3.93 4	-3.13-2	3.90 4
425.646	425.318	0.12	32.00	3.14-2	-3.83 4	-3.14-2	3.80 4
425.649	425.321	0.12	31.00	3.15-2	-3.73 4	-3.15-2	3.70 4
425.653	425.325	0.12	30.00	3.16-2	-3.62 4	-3.16-2	3.60 4
425.656	425.328	0.12	29.00	3.17-2	-3.52 4	-3.17-2	3.49 4
425.660	425.332	0.12	28.00	3.17-2	-3.41 4	-3.18-2	3.39 4
425.664	425.336	0.12	27.00	3.18-2	-3.30 4	-3.19-2	3.28 4
425.668	425.340	0.12	26.00	3.19-2	-3.19 4	-3.20-2	3.17 4
425.672	425.344	0.12	25.00	3.20-2	-3.08 4	-3.21-2	3.06 4
425.677	425.349	0.12	24.00	3.21-2	-2.96 4	-3.21-2	2.94 4
425.681	425.353	0.12	23.00	3.22-2	-2.85 4	-3.22-2	2.83 4
425.686	425.358	0.12	22.00	3.23-2	-2.73 4	-3.23-2	2.71 4
425.691	425.363	0.12	21.00	3.24-2	-2.61 4	-3.24-2	2.60 4
425.696	425.368	0.12	20.00	3.25-2	-2.49 4	-3.25-2	2.48 4
425.699	425.371	0.12	19.50	3.25-2	-2.43 4	-3.25-2	2.42 4
425.702	425.374	0.12	19.00	3.25-2	-2.37 4	-3.26-2	2.36 4
425.704	425.376	0.12	18.50	3.26-2	-2.31 4	-3.26-2	2.30 4
425.707	425.379	0.12	18.00	3.26-2	-2.25 4	-3.27-2	2.24 4
425.710	425.382	0.12	17.50	3.27-2	-2.19 4	-3.27-2	2.17 4
425.713	425.386	0.12	17.00	3.27-2	-2.13 4	-3.28-2	2.11 4
425.717	425.389	0.12	16.50	3.28-2	-2.06 4	-3.28-2	2.05 4
425.720	425.392	0.12	16.00	3.28-2	-2.00 4	-3.29-2	1.99 4
425.723	425.396	0.12	15.50	3.29-2	-1.94 4	-3.29-2	1.93 4
425.727	425.399	0.12	15.00	3.29-2	-1.87 4	-3.29-2	1.86 4
425.731	425.403	0.12	14.50	3.30-2	-1.81 4	-3.30-2	1.80 4
425.734	425.407	0.12	14.00	3.30-2	-1.75 4	-3.30-2	1.74 4
425.738	425.410	0.12	13.50	3.30-2	-1.68 4	-3.31-2	1.67 4
425.742	425.415	0.12	13.00	3.31-2	-1.62 4	-3.31-2	1.61 4
425.747	425.419	0.12	12.50	3.31-2	-1.55 4	-3.32-2	1.54 4
425.751	425.423	0.12	12.00	3.32-2	-1.49 4	-3.32-2	1.48 4
425.756	425.428	0.12	11.50	3.32-2	-1.42 4	-3.33-2	1.41 4
425.761	425.433	0.12	11.00	3.33-2	-1.36 4	-3.33-2	1.35 4
425.766	425.438	0.12	10.50	3.33-2	-1.29 4	-3.33-2	1.28 4
425.771	425.443	0.12	10.00	3.34-2	-1.23 4	-3.34-2	1.22 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
425.774	425.446	0.12	9.80	3.34-2	-1.20 4	-3.34-2	1.19 4
425.776	425.448	0.12	9.60	3.34-2	-1.17 4	-3.34-2	1.17 4
425.778	425.450	0.12	9.40	3.34-2	-1.15 4	-3.34-2	1.14 4
425.781	425.453	0.12	9.20	3.34-2	-1.12 4	-3.35-2	1.11 4
425.783	425.455	0.12	9.00	3.34-2	-1.09 4	-3.35-2	1.09 4
425.786	425.458	0.12	8.80	3.35-2	-1.07 4	-3.35-2	1.06 4
425.788	425.460	0.12	8.60	3.35-2	-1.04 4	-3.35-2	1.03 4
425.791	425.463	0.12	8.40	3.35-2	-1.01 4	-3.35-2	1.01 4
425.794	425.466	0.12	8.20	3.35-2	-9.86 3	-3.35-2	9.80 3
425.797	425.469	0.12	8.00	3.35-2	-9.59 3	-3.36-2	9.53 3
425.800	425.472	0.12	7.80	3.36-2	-9.32 3	-3.36-2	9.26 3
425.803	425.475	0.12	7.60	3.36-2	-9.05 3	-3.36-2	9.00 3
425.806	425.478	0.12	7.40	3.36-2	-8.78 3	-3.36-2	8.73 3
425.809	425.481	0.12	7.20	3.36-2	-8.51 3	-3.36-2	8.46 3
425.812	425.484	0.12	7.00	3.36-2	-8.25 3	-3.36-2	8.19 3
425.816	425.488	0.12	6.80	3.36-2	-7.98 3	-3.37-2	7.93 3
425.819	425.491	0.12	6.60	3.37-2	-7.71 3	-3.37-2	7.66 3
425.823	425.495	0.12	6.40	3.37-2	-7.44 3	-3.37-2	7.39 3
425.826	425.498	0.12	6.20	3.37-2	-7.17 3	-3.37-2	7.12 3
425.830	425.502	0.12	6.00	3.37-2	-6.90 3	-3.37-2	6.85 3
425.834	425.506	0.12	5.80	3.37-2	-6.63 3	-3.37-2	6.58 3
425.839	425.511	0.12	5.60	3.37-2	-6.36 3	-3.38-2	6.32 3
425.843	425.515	0.12	5.40	3.37-2	-6.09 3	-3.38-2	6.05 3
425.848	425.520	0.12	5.20	3.38-2	-5.82 3	-3.38-2	5.78 3
425.853	425.525	0.12	5.00	3.38-2	-5.55 3	-3.38-2	5.51 3
425.858	425.530	0.12	4.80	3.38-2	-5.28 3	-3.38-2	5.24 3
425.863	425.535	0.12	4.60	3.38-2	-5.01 3	-3.38-2	4.97 3
425.869	425.541	0.12	4.40	3.38-2	-4.74 3	-3.38-2	4.71 3
425.875	425.547	0.12	4.20	3.38-2	-4.47 3	-3.39-2	4.44 3
425.881	425.553	0.12	4.00	3.38-2	-4.20 3	-3.39-2	4.17 3
425.885	425.557	0.12	3.90	3.39-2	-4.07 3	-3.39-2	4.04 3
425.888	425.560	0.12	3.80	3.39-2	-3.93 3	-3.39-2	3.91 3
425.892	425.564	0.12	3.70	3.39-2	-3.80 3	-3.39-2	3.77 3
425.895	425.567	0.12	3.60	3.39-2	-3.66 3	-3.39-2	3.64 3
425.899	425.571	0.12	3.50	3.39-2	-3.53 3	-3.39-2	3.51 3
425.903	425.575	0.12	3.40	3.39-2	-3.40 3	-3.39-2	3.38 3
425.907	425.579	0.12	3.30	3.39-2	-3.26 3	-3.39-2	3.24 3
425.912	425.584	0.12	3.20	3.39-2	-3.13 3	-3.39-2	3.11 3
425.916	425.588	0.12	3.10	3.39-2	-3.00 3	-3.39-2	2.98 3
425.921	425.593	0.12	3.00	3.39-2	-2.87 3	-3.39-2	2.85 3
425.926	425.598	0.12	2.90	3.39-2	-2.74 3	-3.39-2	2.72 3
425.931	425.603	0.12	2.80	3.39-2	-2.61 3	-3.39-2	2.59 3
425.937	425.609	0.12	2.70	3.39-2	-2.48 3	-3.39-2	2.46 3
425.942	425.614	0.12	2.60	3.39-2	-2.35 3	-3.39-2	2.33 3
425.948	425.620	0.12	2.50	3.39-2	-2.22 3	-3.39-2	2.20 3
425.955	425.627	0.12	2.40	3.39-2	-2.09 3	-3.39-2	2.07 3
425.962	425.634	0.12	2.30	3.39-2	-1.96 3	-3.39-2	1.95 3
425.969	425.641	0.12	2.20	3.39-2	-1.83 3	-3.39-2	1.82 3
425.977	425.649	0.12	2.10	3.39-2	-1.71 3	-3.39-2	1.70 3
425.985	425.657	0.12	2.00	3.39-2	-1.58 3	-3.39-2	1.57 3
425.990	425.662	0.12	1.95	3.39-2	-1.52 3	-3.39-2	1.51 3
425.994	425.666	0.12	1.90	3.39-2	-1.46 3	-3.39-2	1.45 3
425.999	425.671	0.12	1.85	3.39-2	-1.40 3	-3.39-2	1.39 3
426.004	425.676	0.12	1.80	3.39-2	-1.34 3	-3.39-2	1.33 3
426.010	425.682	0.12	1.75	3.39-2	-1.28 3	-3.39-2	1.27 3
426.015	425.687	0.12	1.70	3.39-2	-1.22 3	-3.39-2	1.21 3
426.021	425.693	0.12	1.65	3.39-2	-1.16 3	-3.39-2	1.15 3
426.027	425.699	0.12	1.60	3.39-2	-1.10 3	-3.39-2	1.09 3
426.034	425.706	0.12	1.55	3.38-2	-1.04 3	-3.39-2	1.03 3
426.041	425.712	0.12	1.50	3.38-2	-9.80 2	-3.39-2	9.74 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
426.048	425.720	0.12	1.45	3.38-2	-9.23 2	-3.39-2	9.17 2
426.056	425.727	0.12	1.40	3.38-2	-8.67 2	-3.39-2	8.61 2
426.064	425.736	0.12	1.35	3.38-2	-8.11 2	-3.38-2	8.05 2
426.073	425.744	0.12	1.30	3.38-2	-7.56 2	-3.38-2	7.51 2
426.082	425.754	0.12	1.25	3.38-2	-7.01 2	-3.38-2	6.97 2
426.092	425.764	0.12	1.20	3.38-2	-6.48 2	-3.38-2	6.44 2
426.103	425.775	0.12	1.15	3.37-2	-5.96 2	-3.38-2	5.92 2
426.115	425.787	0.12	1.10	3.37-2	-5.45 2	-3.38-2	5.41 2
426.129	425.800	0.12	1.05	3.37-2	-4.95 2	-3.37-2	4.92 2
426.143	425.815	0.12	1.00	3.37-2	-4.46 2	-3.37-2	4.44 2
426.150	425.821	0.12	0.98	3.37-2	-4.27 2	-3.37-2	4.25 2
426.156	425.828	0.12	0.96	3.37-2	-4.09 2	-3.37-2	4.06 2
426.163	425.835	0.12	0.94	3.36-2	-3.90 2	-3.37-2	3.88 2
426.170	425.842	0.12	0.92	3.36-2	-3.72 2	-3.37-2	3.70 2
426.178	425.849	0.12	0.90	3.36-2	-3.54 2	-3.36-2	3.52 2
426.186	425.857	0.12	0.88	3.36-2	-3.36 2	-3.36-2	3.34 2
426.194	425.866	0.12	0.86	3.36-2	-3.19 2	-3.36-2	3.17 2
426.203	425.875	0.12	0.84	3.36-2	-3.02 2	-3.36-2	3.00 2
426.212	425.884	0.12	0.82	3.35-2	-2.85 2	-3.36-2	2.83 2
426.222	425.894	0.12	0.80	3.35-2	-2.69 2	-3.36-2	2.67 2
426.233	425.904	0.12	0.78	3.35-2	-2.53 2	-3.35-2	2.51 2
426.244	425.915	0.12	0.76	3.35-2	-2.37 2	-3.35-2	2.35 2
426.256	425.927	0.12	0.74	3.35-2	-2.21 2	-3.35-2	2.20 2
426.268	425.940	0.12	0.72	3.34-2	-2.06 2	-3.35-2	2.05 2
426.282	425.954	0.12	0.70	3.34-2	-1.92 2	-3.34-2	1.91 2
426.297	425.968	0.12	0.68	3.34-2	-1.78 2	-3.34-2	1.77 2
426.313	425.984	0.12	0.66	3.33-2	-1.64 2	-3.34-2	1.63 2
426.330	426.001	0.12	0.64	3.33-2	-1.51 2	-3.33-2	1.50 2
426.349	426.020	0.12	0.62	3.33-2	-1.38 2	-3.33-2	1.37 2
426.369	426.041	0.12	0.60	3.32-2	-1.26 2	-3.33-2	1.25 2
426.392	426.063	0.12	0.58	3.32-2	-1.14 2	-3.32-2	1.13 2
426.417	426.088	0.12	0.56	3.31-2	-1.02 2	-3.32-2	1.02 2
426.444	426.116	0.12	0.54	3.31-2	-9.16 1	-3.31-2	9.10 1
426.475	426.147	0.12	0.52	3.30-2	-8.14 1	-3.30-2	8.09 1
426.510	426.182	0.12	0.50	3.29-2	-7.18 1	-3.30-2	7.13 1
426.550	426.221	0.12	0.48	3.29-2	-6.27 1	-3.29-2	6.23 1
426.596	426.267	0.12	0.46	3.28-2	-5.43 1	-3.28-2	5.40 1
426.648	426.320	0.12	0.44	3.27-2	-4.65 1	-3.27-2	4.62 1
426.710	426.381	0.12	0.42	3.26-2	-3.93 1	-3.26-2	3.91 1
426.783	426.454	0.12	0.40	3.25-2	-3.28 1	-3.25-2	3.26 1
426.871	426.542	0.12	0.38	3.23-2	-2.69 1	-3.24-2	2.67 1
426.979	426.650	0.12	0.36	3.21-2	-2.16 1	-3.22-2	2.15 1
427.113	426.784	0.12	0.34	3.19-2	-1.70 1	-3.20-2	1.69 1
427.285	426.955	0.12	0.32	3.17-2	-1.31 1	-3.18-2	1.30 1
427.508	427.179	0.12	0.30	3.14-2	-9.73 0	-3.15-2	9.67 0
427.811	427.480	0.12	0.28	3.10-2	-6.98 0	-3.11-2	6.93 0
428.233	427.902	0.12	0.26	3.06-2	-4.79 0	-3.06-2	4.76 0
428.850	428.519	0.12	0.24	2.99-2	-3.11 0	-3.00-2	3.09 0
429.801	429.468	0.12	0.22	2.90-2	-1.88 0	-2.91-2	1.87 0
431.361	431.024	0.12	0.20	2.77-2	-1.03 0	-2.77-2	1.03 0
434.124	433.782	0.12	0.18	2.55-2	-4.98-1	-2.56-2	4.94-1
439.481	439.125	0.12	0.16	2.17-2	-1.95-1	-2.18-2	1.93-1
450.935	450.543	0.12	0.14	1.44-2	-5.00-2	-1.46-2	4.93-2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
451.00	540.00						
523.066	522.251	0.10	90.00	8.68-3	-1.64 5	-8.71-3	1.61 5
523.066	522.251	0.10	89.00	8.70-3	-1.64 5	-8.73-3	1.61 5
523.066	522.251	0.10	88.00	8.71-3	-1.64 5	-8.74-3	1.61 5
523.067	522.252	0.10	87.00	8.73-3	-1.64 5	-8.75-3	1.62 5
523.067	522.252	0.10	86.00	8.74-3	-1.64 5	-8.77-3	1.62 5
523.067	522.252	0.10	85.00	8.75-3	-1.64 5	-8.78-3	1.62 5
523.067	522.252	0.10	84.00	8.77-3	-1.64 5	-8.80-3	1.61 5
523.068	522.253	0.10	83.00	8.78-3	-1.64 5	-8.81-3	1.61 5
523.068	522.253	0.10	82.00	8.79-3	-1.64 5	-8.82-3	1.61 5
523.068	522.253	0.10	81.00	8.81-3	-1.64 5	-8.84-3	1.61 5
523.069	522.254	0.10	80.00	8.82-3	-1.63 5	-8.85-3	1.61 5
523.069	522.254	0.10	79.00	8.83-3	-1.63 5	-8.86-3	1.60 5
523.069	522.254	0.10	78.00	8.85-3	-1.63 5	-8.87-3	1.60 5
523.070	522.255	0.10	77.00	8.86-3	-1.62 5	-8.89-3	1.59 5
523.070	522.255	0.10	76.00	8.87-3	-1.62 5	-8.90-3	1.59 5
523.070	522.255	0.10	75.00	8.88-3	-1.61 5	-8.91-3	1.58 5
523.071	522.256	0.10	74.00	8.90-3	-1.60 5	-8.92-3	1.58 5
523.071	522.256	0.10	73.00	8.91-3	-1.60 5	-8.94-3	1.57 5
523.071	522.256	0.10	72.00	8.92-3	-1.59 5	-8.95-3	1.56 5
523.072	522.257	0.10	71.00	8.93-3	-1.58 5	-8.96-3	1.56 5
523.072	522.257	0.10	70.00	8.94-3	-1.57 5	-8.97-3	1.55 5
523.072	522.257	0.10	69.00	8.96-3	-1.56 5	-8.98-3	1.54 5
523.073	522.258	0.10	68.00	8.97-3	-1.55 5	-8.99-3	1.53 5
523.073	522.258	0.10	67.00	8.98-3	-1.54 5	-9.00-3	1.52 5
523.073	522.258	0.10	66.00	8.99-3	-1.53 5	-9.02-3	1.51 5
523.074	522.259	0.10	65.00	9.00-3	-1.52 5	-9.03-3	1.50 5
523.074	522.259	0.10	64.00	9.01-3	-1.51 5	-9.04-3	1.49 5
523.074	522.259	0.10	63.00	9.02-3	-1.50 5	-9.05-3	1.48 5
523.075	522.260	0.10	62.00	9.03-3	-1.49 5	-9.06-3	1.46 5
523.075	522.260	0.10	61.00	9.05-3	-1.47 5	-9.07-3	1.45 5
523.076	522.260	0.10	60.00	9.06-3	-1.46 5	-9.08-3	1.44 5
523.076	522.261	0.10	59.00	9.07-3	-1.45 5	-9.09-3	1.42 5
523.076	522.261	0.10	58.00	9.08-3	-1.43 5	-9.10-3	1.41 5
523.077	522.262	0.10	57.00	9.09-3	-1.42 5	-9.11-3	1.39 5
523.077	522.262	0.10	56.00	9.10-3	-1.40 5	-9.12-3	1.38 5
523.077	522.262	0.10	55.00	9.11-3	-1.39 5	-9.13-3	1.36 5
523.078	522.263	0.10	54.00	9.12-3	-1.37 5	-9.14-3	1.35 5
523.078	522.263	0.10	53.00	9.13-3	-1.35 5	-9.15-3	1.33 5
523.079	522.264	0.10	52.00	9.14-3	-1.34 5	-9.16-3	1.31 5
523.079	522.264	0.10	51.00	9.15-3	-1.32 5	-9.17-3	1.30 5
523.079	522.264	0.10	50.00	9.16-3	-1.30 5	-9.18-3	1.28 5
523.080	522.265	0.10	49.00	9.17-3	-1.28 5	-9.19-3	1.26 5
523.080	522.265	0.10	48.00	9.18-3	-1.26 5	-9.20-3	1.24 5
523.081	522.266	0.10	47.00	9.19-3	-1.24 5	-9.21-3	1.22 5
523.081	522.266	0.10	46.00	9.20-3	-1.22 5	-9.22-3	1.20 5
523.082	522.266	0.10	45.00	9.21-3	-1.20 5	-9.23-3	1.18 5
523.082	522.267	0.10	44.00	9.22-3	-1.18 5	-9.24-3	1.16 5
523.082	522.267	0.10	43.00	9.23-3	-1.16 5	-9.25-3	1.14 5
523.083	522.268	0.10	42.00	9.24-3	-1.14 5	-9.26-3	1.12 5
523.083	522.268	0.10	41.00	9.25-3	-1.12 5	-9.27-3	1.10 5
523.084	522.269	0.10	40.00	9.26-3	-1.09 5	-9.28-3	1.08 5
523.084	522.269	0.10	39.00	9.27-3	-1.07 5	-9.29-3	1.05 5
523.085	522.270	0.10	38.00	9.28-3	-1.05 5	-9.30-3	1.03 5
523.085	522.270	0.10	37.00	9.29-3	-1.02 5	-9.31-3	1.01 5
523.086	522.271	0.10	36.00	9.29-3	-1.00 5	-9.32-3	9.85 4
523.087	522.271	0.10	35.00	9.30-3	-9.76 4	-9.32-3	9.61 4
523.087	522.272	0.10	34.00	9.31-3	-9.52 4	-9.33-3	9.37 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
523.088	522.273	0.10	33.00	9.32-3	-9.27 4	-9.34-3	9.12 4
523.088	522.273	0.10	32.00	9.33-3	-9.02 4	-9.35-3	8.87 4
523.089	522.274	0.10	31.00	9.34-3	-8.76 4	-9.36-3	8.62 4
523.090	522.274	0.10	30.00	9.35-3	-8.50 4	-9.37-3	8.36 4
523.090	522.275	0.10	29.00	9.36-3	-8.24 4	-9.38-3	8.11 4
523.091	522.276	0.10	28.00	9.37-3	-7.97 4	-9.39-3	7.84 4
523.092	522.277	0.10	27.00	9.38-3	-7.70 4	-9.40-3	7.58 4
523.092	522.277	0.10	26.00	9.39-3	-7.43 4	-9.41-3	7.31 4
523.093	522.278	0.10	25.00	9.40-3	-7.16 4	-9.41-3	7.04 4
523.094	522.279	0.10	24.00	9.40-3	-6.88 4	-9.42-3	6.77 4
523.095	522.280	0.10	23.00	9.41-3	-6.60 4	-9.43-3	6.50 4
523.096	522.280	0.10	22.00	9.42-3	-6.32 4	-9.44-3	6.22 4
523.097	522.281	0.10	21.00	9.43-3	-6.04 4	-9.45-3	5.94 4
523.097	522.282	0.10	20.00	9.44-3	-5.75 4	-9.46-3	5.66 4
523.098	522.283	0.10	19.50	9.44-3	-5.60 4	-9.46-3	5.51 4
523.098	522.283	0.10	19.00	9.45-3	-5.46 4	-9.47-3	5.37 4
523.099	522.284	0.10	18.50	9.45-3	-5.31 4	-9.47-3	5.23 4
523.099	522.284	0.10	18.00	9.46-3	-5.17 4	-9.47-3	5.08 4
523.100	522.285	0.10	17.50	9.46-3	-5.02 4	-9.48-3	4.94 4
523.101	522.285	0.10	17.00	9.47-3	-4.87 4	-9.48-3	4.80 4
523.101	522.286	0.10	16.50	9.47-3	-4.73 4	-9.49-3	4.65 4
523.102	522.287	0.10	16.00	9.47-3	-4.58 4	-9.49-3	4.51 4
523.102	522.287	0.10	15.50	9.48-3	-4.43 4	-9.50-3	4.36 4
523.103	522.288	0.10	15.00	9.48-3	-4.28 4	-9.50-3	4.21 4
523.104	522.289	0.10	14.50	9.49-3	-4.13 4	-9.50-3	4.07 4
523.104	522.289	0.10	14.00	9.49-3	-3.98 4	-9.51-3	3.92 4
523.105	522.290	0.10	13.50	9.50-3	-3.83 4	-9.51-3	3.77 4
523.106	522.291	0.10	13.00	9.50-3	-3.68 4	-9.52-3	3.62 4
523.107	522.291	0.10	12.50	9.50-3	-3.53 4	-9.52-3	3.48 4
523.107	522.292	0.10	12.00	9.51-3	-3.38 4	-9.53-3	3.33 4
523.108	522.293	0.10	11.50	9.51-3	-3.23 4	-9.53-3	3.18 4
523.109	522.294	0.10	11.00	9.52-3	-3.08 4	-9.53-3	3.03 4
523.110	522.295	0.10	10.50	9.52-3	-2.93 4	-9.54-3	2.88 4
523.111	522.296	0.10	10.00	9.52-3	-2.77 4	-9.54-3	2.73 4
523.112	522.296	0.10	9.80	9.53-3	-2.71 4	-9.54-3	2.67 4
523.112	522.297	0.10	9.60	9.53-3	-2.65 4	-9.54-3	2.61 4
523.112	522.297	0.10	9.40	9.53-3	-2.59 4	-9.55-3	2.55 4
523.113	522.298	0.10	9.20	9.53-3	-2.53 4	-9.55-3	2.49 4
523.113	522.298	0.10	9.00	9.53-3	-2.47 4	-9.55-3	2.43 4
523.114	522.299	0.10	8.80	9.53-3	-2.41 4	-9.55-3	2.37 4
523.114	522.299	0.10	8.60	9.54-3	-2.35 4	-9.55-3	2.31 4
523.115	522.300	0.10	8.40	9.54-3	-2.28 4	-9.55-3	2.25 4
523.115	522.300	0.10	8.20	9.54-3	-2.22 4	-9.56-3	2.19 4
523.116	522.301	0.10	8.00	9.54-3	-2.16 4	-9.56-3	2.13 4
523.116	522.301	0.10	7.80	9.54-3	-2.10 4	-9.56-3	2.07 4
523.117	522.302	0.10	7.60	9.54-3	-2.04 4	-9.56-3	2.01 4
523.117	522.302	0.10	7.40	9.54-3	-1.98 4	-9.56-3	1.95 4
523.118	522.303	0.10	7.20	9.55-3	-1.92 4	-9.56-3	1.89 4
523.118	522.303	0.10	7.00	9.55-3	-1.86 4	-9.56-3	1.83 4
523.119	522.304	0.10	6.80	9.55-3	-1.79 4	-9.57-3	1.77 4
523.120	522.305	0.10	6.60	9.55-3	-1.73 4	-9.57-3	1.70 4
523.120	522.305	0.10	6.40	9.55-3	-1.67 4	-9.57-3	1.64 4
523.121	522.306	0.10	6.20	9.55-3	-1.61 4	-9.57-3	1.58 4
523.122	522.307	0.10	6.00	9.55-3	-1.55 4	-9.57-3	1.52 4
523.123	522.307	0.10	5.80	9.56-3	-1.49 4	-9.57-3	1.46 4
523.123	522.308	0.10	5.60	9.56-3	-1.43 4	-9.57-3	1.40 4
523.124	522.309	0.10	5.40	9.56-3	-1.37 4	-9.57-3	1.34 4
523.125	522.310	0.10	5.20	9.56-3	-1.30 4	-9.58-3	1.28 4
523.126	522.311	0.10	5.00	9.56-3	-1.24 4	-9.58-3	1.22 4
523.127	522.312	0.10	4.80	9.56-3	-1.18 4	-9.58-3	1.16 4

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
523.128	522.313	0.10	4.60	9.56-3	-1.12 4	-9.58-3	1.10 4
523.129	522.314	0.10	4.40	9.56-3	-1.06 4	-9.58-3	1.04 4
523.130	522.315	0.10	4.20	9.56-3	-9.99 3	-9.58-3	9.83 3
523.131	522.316	0.10	4.00	9.56-3	-9.39 3	-9.58-3	9.24 3
523.132	522.316	0.10	3.90	9.56-3	-9.09 3	-9.58-3	8.94 3
523.132	522.317	0.10	3.80	9.56-3	-8.78 3	-9.58-3	8.64 3
523.133	522.318	0.10	3.70	9.56-3	-8.48 3	-9.58-3	8.35 3
523.134	522.318	0.10	3.60	9.56-3	-8.18 3	-9.58-3	8.05 3
523.134	522.319	0.10	3.50	9.56-3	-7.88 3	-9.58-3	7.76 3
523.135	522.320	0.10	3.40	9.57-3	-7.58 3	-9.58-3	7.46 3
523.136	522.321	0.10	3.30	9.57-3	-7.28 3	-9.58-3	7.17 3
523.137	522.321	0.10	3.20	9.57-3	-6.99 3	-9.58-3	6.87 3
523.137	522.322	0.10	3.10	9.56-3	-6.69 3	-9.58-3	6.58 3
523.138	522.323	0.10	3.00	9.56-3	-6.39 3	-9.58-3	6.29 3
523.139	522.324	0.10	2.90	9.56-3	-6.10 3	-9.58-3	6.00 3
523.140	522.325	0.10	2.80	9.56-3	-5.80 3	-9.58-3	5.71 3
523.141	522.326	0.10	2.70	9.56-3	-5.51 3	-9.58-3	5.42 3
523.142	522.327	0.10	2.60	9.56-3	-5.22 3	-9.58-3	5.14 3
523.143	522.328	0.10	2.50	9.56-3	-4.93 3	-9.58-3	4.85 3
523.144	522.329	0.10	2.40	9.56-3	-4.64 3	-9.58-3	4.57 3
523.146	522.330	0.10	2.30	9.56-3	-4.36 3	-9.58-3	4.29 3
523.147	522.332	0.10	2.20	9.56-3	-4.07 3	-9.58-3	4.01 3
523.148	522.333	0.10	2.10	9.56-3	-3.79 3	-9.57-3	3.73 3
523.150	522.335	0.10	2.00	9.56-3	-3.51 3	-9.57-3	3.45 3
523.151	522.336	0.10	1.95	9.56-3	-3.37 3	-9.57-3	3.32 3
523.152	522.336	0.10	1.90	9.55-3	-3.23 3	-9.57-3	3.18 3
523.153	522.337	0.10	1.85	9.55-3	-3.10 3	-9.57-3	3.05 3
523.153	522.338	0.10	1.80	9.55-3	-2.96 3	-9.57-3	2.91 3
523.154	522.339	0.10	1.75	9.55-3	-2.83 3	-9.57-3	2.78 3
523.155	522.340	0.10	1.70	9.55-3	-2.69 3	-9.57-3	2.65 3
523.157	522.341	0.10	1.65	9.55-3	-2.56 3	-9.56-3	2.52 3
523.158	522.342	0.10	1.60	9.55-3	-2.43 3	-9.56-3	2.39 3
523.159	522.344	0.10	1.55	9.55-3	-2.30 3	-9.56-3	2.26 3
523.160	522.345	0.10	1.50	9.54-3	-2.17 3	-9.56-3	2.13 3
523.161	522.346	0.10	1.45	9.54-3	-2.04 3	-9.56-3	2.01 3
523.163	522.348	0.10	1.40	9.54-3	-1.91 3	-9.56-3	1.88 3
523.164	522.349	0.10	1.35	9.54-3	-1.79 3	-9.55-3	1.76 3
523.166	522.351	0.10	1.30	9.53-3	-1.67 3	-9.55-3	1.64 3
523.168	522.353	0.10	1.25	9.53-3	-1.55 3	-9.55-3	1.52 3
523.170	522.354	0.10	1.20	9.53-3	-1.43 3	-9.54-3	1.41 3
523.172	522.356	0.10	1.15	9.52-3	-1.31 3	-9.54-3	1.29 3
523.174	522.359	0.10	1.10	9.52-3	-1.20 3	-9.54-3	1.18 3
523.176	522.361	0.10	1.05	9.52-3	-1.09 3	-9.53-3	1.07 3
523.179	522.364	0.10	1.00	9.51-3	-9.81 2	-9.53-3	9.65 2
523.180	522.365	0.10	0.98	9.51-3	-9.38 2	-9.53-3	9.23 2
523.181	522.366	0.10	0.96	9.51-3	-8.97 2	-9.52-3	8.82 2
523.183	522.367	0.10	0.94	9.50-3	-8.56 2	-9.52-3	8.42 2
523.184	522.369	0.10	0.92	9.50-3	-8.15 2	-9.52-3	8.02 2
523.185	522.370	0.10	0.90	9.50-3	-7.76 2	-9.52-3	7.63 2
523.187	522.372	0.10	0.88	9.50-3	-7.36 2	-9.51-3	7.25 2
523.189	522.373	0.10	0.86	9.49-3	-6.98 2	-9.51-3	6.87 2
523.190	522.375	0.10	0.84	9.49-3	-6.60 2	-9.51-3	6.50 2
523.192	522.377	0.10	0.82	9.49-3	-6.23 2	-9.50-3	6.13 2
523.194	522.378	0.10	0.80	9.48-3	-5.87 2	-9.50-3	5.77 2
523.196	522.380	0.10	0.78	9.48-3	-5.51 2	-9.50-3	5.42 2
523.198	522.383	0.10	0.76	9.47-3	-5.17 2	-9.49-3	5.08 2
523.200	522.385	0.10	0.74	9.47-3	-4.83 2	-9.49-3	4.75 2
523.202	522.387	0.10	0.72	9.47-3	-4.50 2	-9.48-3	4.42 2
523.205	522.390	0.10	0.70	9.46-3	-4.17 2	-9.48-3	4.11 2
523.208	522.392	0.10	0.68	9.46-3	-3.86 2	-9.47-3	3.80 2

TABLE C

R_1	R_2	ϕ_1	ϕ_2	$\partial\phi_1/\partial R_1$	$\partial\phi_2/\partial R_1$	$\partial\phi_1/\partial R_2$	$\partial\phi_2/\partial R_2$
523.211	522.395	0.10	0.66	9.45-3	-3.56 2	-9.47-3	3.50 2
523.214	522.399	0.10	0.64	9.44-3	-3.27 2	-9.46-3	3.22 2
523.218	522.402	0.10	0.62	9.44-3	-2.99 2	-9.46-3	2.94 2
523.221	522.406	0.10	0.60	9.43-3	-2.72 2	-9.45-3	2.67 2
523.226	522.410	0.10	0.58	9.42-3	-2.46 2	-9.44-3	2.42 2
523.231	522.415	0.10	0.56	9.41-3	-2.21 2	-9.43-3	2.17 2
523.236	522.420	0.10	0.54	9.41-3	-1.98 2	-9.42-3	1.94 2
523.242	522.426	0.10	0.52	9.40-3	-1.75 2	-9.41-3	1.72 2
523.248	522.433	0.10	0.50	9.38-3	-1.54 2	-9.40-3	1.52 2
523.256	522.441	0.10	0.48	9.37-3	-1.35 2	-9.39-3	1.32 2
523.265	522.449	0.10	0.46	9.36-3	-1.16 2	-9.38-3	1.14 2
523.275	522.460	0.10	0.44	9.34-3	-9.92 1	-9.36-3	9.76 1
523.287	522.472	0.10	0.42	9.33-3	-8.37 1	-9.35-3	8.23 1
523.302	522.486	0.10	0.40	9.31-3	-6.95 1	-9.33-3	6.84 1
523.319	522.503	0.10	0.38	9.28-3	-5.68 1	-9.30-3	5.59 1
523.340	522.525	0.10	0.36	9.26-3	-4.56 1	-9.28-3	4.48 1
523.367	522.552	0.10	0.34	9.23-3	-3.58 1	-9.25-3	3.52 1
523.402	522.586	0.10	0.32	9.19-3	-2.73 1	-9.21-3	2.69 1
523.448	522.632	0.10	0.30	9.15-3	-2.02 1	-9.17-3	1.99 1
523.510	522.694	0.10	0.28	9.10-3	-1.44 1	-9.12-3	1.42 1
523.599	522.783	0.10	0.26	9.03-3	-9.85 0	-9.05-3	9.69 0
523.732	522.916	0.10	0.24	8.94-3	-6.35 0	-8.97-3	6.25 0
523.943	523.126	0.10	0.22	8.83-3	-3.82 0	-8.86-3	3.76 0
524.303	523.485	0.10	0.20	8.66-3	-2.10 0	-8.69-3	2.07 0
524.977	524.157	0.10	0.18	8.42-3	-1.03 0	-8.45-3	1.01 0
526.398	525.571	0.10	0.16	8.00-3	-4.29-1	-8.04-3	4.22-1
529.865	529.023	0.10	0.14	7.19-3	-1.40-1	-7.24-3	1.38-1
539.892	538.993	0.10	0.12	5.26-3	-2.91-2	-5.34-3	2.83-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
89.900	8.7269-4	5.7297 2	6.5655 5	83.900	5.3405-2	9.3861 0	1.7575 2
89.800	1.7454-3	2.8649 2	1.6414 5	83.800	5.4286-2	9.2343 0	1.7011 2
89.700	2.6181-3	1.9100 2	7.2953 4	83.700	5.5167-2	9.0874 0	1.6472 2
89.600	3.4908-3	1.4325 2	4.1036 4	83.600	5.6049-2	8.9450 0	1.5959 2
89.500	4.3636-3	1.1460 2	2.6263 4	83.500	5.6931-2	8.8070 0	1.5470 2
89.400	5.2364-3	9.5502 1	1.8238 4	83.400	5.7813-2	8.6731 0	1.5002 2
89.300	6.1092-3	8.1860 1	1.3400 4	83.300	5.8695-2	8.5433 0	1.4555 2
89.200	6.9820-3	7.1628 1	1.0259 4	83.200	5.9578-2	8.4172 0	1.4128 2
89.100	7.8550-3	6.3670 1	8.1058 3	83.100	6.0460-2	8.2948 0	1.3719 2
89.000	8.7279-3	5.7304 1	6.5656 3	83.000	6.1344-2	8.1759 0	1.3328 2
88.900	9.6009-3	5.2095 1	5.4260 3	82.900	6.2227-2	8.0603 0	1.2953 2
88.800	1.0474-2	4.7754 1	4.5593 3	82.800	6.3111-2	7.9479 0	1.2594 2
88.700	1.1347-2	4.4081 1	3.8848 3	82.700	6.3995-2	7.8386 0	1.2249 2
88.600	1.2220-2	4.0933 1	3.3496 3	82.600	6.4879-2	7.7323 0	1.1918 2
88.500	1.3094-2	3.8204 1	2.9178 3	82.500	6.5764-2	7.6288 0	1.1600 2
88.400	1.3967-2	3.5816 1	2.5644 3	82.400	6.6649-2	7.5279 0	1.1295 2
88.300	1.4840-2	3.3710 1	2.2715 3	82.300	6.7534-2	7.4297 0	1.1001 2
88.200	1.5714-2	3.1837 1	2.0261 3	82.200	6.8420-2	7.3341 0	1.0719 2
88.100	1.6587-2	3.0161 1	1.8183 3	82.100	6.9306-2	7.2408 0	1.0448 2
88.000	1.7461-2	2.8653 1	1.6410 3	82.000	7.0192-2	7.1498 0	1.0186 2
87.900	1.8335-2	2.7289 1	1.4884 3	81.900	7.1079-2	7.0611 0	9.9342 1
87.800	1.9208-2	2.6048 1	1.3561 3	81.800	7.1966-2	6.9746 0	9.6915 1
87.700	2.0082-2	2.4916 1	1.2407 3	81.700	7.2853-2	6.8901 0	9.4575 1
87.600	2.0956-2	2.3877 1	1.1394 3	81.600	7.3741-2	6.8076 0	9.2318 1
87.500	2.1831-2	2.2922 1	1.0500 3	81.500	7.4629-2	6.7271 0	9.0140 1
87.400	2.2705-2	2.2040 1	9.7074 2	81.400	7.5518-2	6.6484 0	8.8038 1
87.300	2.3579-2	2.1224 1	9.0011 2	81.300	7.6406-2	6.5715 0	8.6008 1
87.200	2.4454-2	2.0466 1	8.3692 2	81.200	7.7296-2	6.4964 0	8.4046 1
87.100	2.5328-2	1.9760 1	7.8015 2	81.100	7.8185-2	6.4230 0	8.2151 1
87.000	2.6203-2	1.9101 1	7.2896 2	81.000	7.9075-2	6.3512 0	8.0318 1
86.900	2.7078-2	1.8485 1	6.8265 2	80.900	7.9965-2	6.2809 0	7.8545 1
86.800	2.7953-2	1.7907 1	6.4060 2	80.800	8.0856-2	6.2122 0	7.6830 1
86.700	2.8828-2	1.7364 1	6.0233 2	80.700	8.1747-2	6.1449 0	7.5170 1
86.600	2.9703-2	1.6853 1	5.6737 2	80.600	8.2638-2	6.0791 0	7.3562 1
86.500	3.0579-2	1.6371 1	5.3538 2	80.500	8.3530-2	6.0146 0	7.2005 1
86.400	3.1454-2	1.5916 1	5.0601 2	80.400	8.4423-2	5.9515 0	7.0497 1
86.300	3.2330-2	1.5486 1	4.7899 2	80.300	8.5315-2	5.8897 0	6.9035 1
86.200	3.3206-2	1.5078 1	4.5407 2	80.200	8.6208-2	5.8291 0	6.7617 1
86.100	3.4082-2	1.4691 1	4.3105 2	80.100	8.7102-2	5.7698 0	6.6242 1
86.000	3.4958-2	1.4323 1	4.0973 2	80.000	8.7996-2	5.7116 0	6.4908 1
85.900	3.5835-2	1.3974 1	3.8995 2	79.900	8.8890-2	5.6546 0	6.3613 1
85.800	3.6711-2	1.3641 1	3.7157 2	79.800	8.9785-2	5.5987 0	6.2357 1
85.700	3.7588-2	1.3323 1	3.5445 2	79.700	9.0680-2	5.5439 0	6.1137 1
85.600	3.8465-2	1.3020 1	3.3845 2	79.600	9.1576-2	5.4901 0	5.9951 1
85.500	3.9342-2	1.2730 1	3.2358 2	79.500	9.2472-2	5.4373 0	5.8800 1
85.400	4.0219-2	1.2453 1	3.0963 2	79.400	9.3368-2	5.3856 0	5.7681 1
85.300	4.1097-2	1.2188 1	2.9657 2	79.300	9.4265-2	5.3347 0	5.6593 1
85.200	4.1975-2	1.1934 1	2.8431 2	79.200	9.5163-2	5.2849 0	5.5535 1
85.100	4.2853-2	1.1690 1	2.7279 2	79.100	9.6061-2	5.2359 0	5.4506 1
85.000	4.3731-2	1.1456 1	2.6196 2	79.000	9.6959-2	5.1878 0	5.3505 1
84.900	4.4609-2	1.1231 1	2.5176 2	78.900	9.7858-2	5.1406 0	5.2531 1
84.800	4.5488-2	1.1014 1	2.4214 2	78.800	9.8757-2	5.0942 0	5.1583 1
84.700	4.6366-2	1.0806 1	2.3306 2	78.700	9.9657-2	5.0487 0	5.0661 1
84.600	4.7245-2	1.0606 1	2.2448 2	78.600	1.0056-1	5.0039 0	4.9762 1
84.500	4.8125-2	1.0413 1	2.1637 2	78.500	1.0146-1	4.9599 0	4.8886 1
84.400	4.9004-2	1.0226 1	2.0868 2	78.400	1.0236-1	4.9167 0	4.8033 1
84.300	4.9884-2	1.0046 1	2.0140 2	78.300	1.0326-1	4.8742 0	4.7202 1
84.200	5.0764-2	9.8728 0	1.9449 2	78.200	1.0416-1	4.8324 0	4.6392 1
84.100	5.1644-2	9.7051 0	1.8792 2	78.100	1.0507-1	4.7913 0	4.5602 1
84.000	5.2524-2	9.5430 0	1.8169 2	78.000	1.0597-1	4.7509 0	4.4832 1

TABLE D

ϕ	ℓ/η	τ/η	τ/ℓ	ϕ	ℓ/η	τ/η	τ/ℓ
77.900	1.0687-1	4.7111 0	4.4081 1	71.900	1.6223-1	3.1298 0	1.9255 1
77.800	1.0778-1	4.6720 0	4.3349 1	71.800	1.6318-1	3.1061 0	1.9036 1
77.700	1.0868-1	4.6335 0	4.2634 1	71.700	1.6412-1	3.0886 0	1.8819 1
77.600	1.0959-1	4.5957 0	4.1936 1	71.600	1.6507-1	3.0713 0	1.8607 1
77.500	1.1049-1	4.5584 0	4.1255 1	71.500	1.6601-1	3.0542 0	1.8397 1
77.400	1.1140-1	4.5217 0	4.0590 1	71.400	1.6696-1	3.0373 0	1.8191 1
77.300	1.1231-1	4.4856 0	3.9941 1	71.300	1.6791-1	3.0205 0	1.7989 1
77.200	1.1321-1	4.4501 0	3.9307 1	71.200	1.6886-1	3.0039 0	1.7789 1
77.100	1.1412-1	4.4151 0	3.8687 1	71.100	1.6981-1	2.9875 0	1.7593 1
77.000	1.1503-1	4.3807 0	3.8082 1	71.000	1.7076-1	2.9712 0	1.7400 1
76.900	1.1594-1	4.3467 0	3.7491 1	70.900	1.7172-1	2.9551 0	1.7209 1
76.800	1.1685-1	4.3133 0	3.6913 1	70.800	1.7267-1	2.9392 0	1.7022 1
76.700	1.1776-1	4.2804 0	3.6348 1	70.700	1.7362-1	2.9235 0	1.6838 1
76.600	1.1867-1	4.2479 0	3.5796 1	70.600	1.7458-1	2.9079 0	1.6657 1
76.500	1.1958-1	4.2160 0	3.5255 1	70.500	1.7553-1	2.8924 0	1.6478 1
76.400	1.2050-1	4.1845 0	3.4727 1	70.400	1.7649-1	2.8771 0	1.6302 1
76.300	1.2141-1	4.1534 0	3.4210 1	70.300	1.7745-1	2.8620 0	1.6129 1
76.200	1.2232-1	4.1228 0	3.3705 1	70.200	1.7841-1	2.8470 0	1.5958 1
76.100	1.2324-1	4.0927 0	3.3210 1	70.100	1.7937-1	2.8322 0	1.5790 1
76.000	1.2415-1	4.0629 0	3.2726 1	70.000	1.8033-1	2.8175 0	1.5624 1
75.900	1.2507-1	4.0336 0	3.2252 1	69.900	1.8129-1	2.8029 0	1.5461 1
75.800	1.2598-1	4.0047 0	3.1788 1	69.800	1.8225-1	2.7885 0	1.5300 1
75.700	1.2690-1	3.9762 0	3.1334 1	69.700	1.8322-1	2.7743 0	1.5142 1
75.600	1.2781-1	3.9481 0	3.0889 1	69.600	1.8418-1	2.7601 0	1.4986 1
75.500	1.2873-1	3.9203 0	3.0453 1	69.500	1.8514-1	2.7461 0	1.4832 1
75.400	1.2965-1	3.8930 0	3.0027 1	69.400	1.8611-1	2.7323 0	1.4681 1
75.300	1.3057-1	3.8660 0	2.9609 1	69.300	1.8708-1	2.7185 0	1.4532 1
75.200	1.3149-1	3.8394 0	2.9199 1	69.200	1.8805-1	2.7049 0	1.4384 1
75.100	1.3241-1	3.8131 0	2.8798 1	69.100	1.8902-1	2.6915 0	1.4239 1
75.000	1.3333-1	3.7872 0	2.8404 1	69.000	1.8999-1	2.6781 0	1.4096 1
74.900	1.3425-1	3.7616 0	2.8019 1	68.900	1.9096-1	2.6649 0	1.3955 1
74.800	1.3517-1	3.7363 0	2.7641 1	68.800	1.9193-1	2.6518 0	1.3816 1
74.700	1.3610-1	3.7114 0	2.7270 1	68.700	1.9290-1	2.6388 0	1.3679 1
74.600	1.3702-1	3.6868 0	2.6907 1	68.600	1.9388-1	2.6259 0	1.3544 1
74.500	1.3794-1	3.6625 0	2.6550 1	68.500	1.9485-1	2.6132 0	1.3411 1
74.400	1.3887-1	3.6385 0	2.6201 1	68.400	1.9583-1	2.6005 0	1.3280 1
74.300	1.3979-1	3.6148 0	2.5858 1	68.300	1.9681-1	2.5880 0	1.3150 1
74.200	1.4072-1	3.5914 0	2.5521 1	68.200	1.9778-1	2.5756 0	1.3022 1
74.100	1.4165-1	3.5683 0	2.5191 1	68.100	1.9876-1	2.5633 0	1.2896 1
74.000	1.4258-1	3.5455 0	2.4867 1	68.000	1.9974-1	2.5511 0	1.2772 1
73.900	1.4350-1	3.5229 0	2.4549 1	67.900	2.0073-1	2.5390 0	1.2649 1
73.800	1.4443-1	3.5007 0	2.4237 1	67.800	2.0171-1	2.5271 0	1.2528 1
73.700	1.4536-1	3.4787 0	2.3931 1	67.700	2.0269-1	2.5152 0	1.2409 1
73.600	1.4629-1	3.4570 0	2.3630 1	67.600	2.0368-1	2.5034 0	1.2291 1
73.500	1.4723-1	3.4355 0	2.3335 1	67.500	2.0466-1	2.4917 0	1.2175 1
73.400	1.4816-1	3.4143 0	2.3045 1	67.400	2.0565-1	2.4802 0	1.2060 1
73.300	1.4909-1	3.3933 0	2.2760 1	67.300	2.0664-1	2.4687 0	1.1947 1
73.200	1.5002-1	3.3726 0	2.2481 1	67.200	2.0763-1	2.4573 0	1.1835 1
73.100	1.5096-1	3.3521 0	2.2206 1	67.100	2.0862-1	2.4461 0	1.1725 1
73.000	1.5189-1	3.3319 0	2.1936 1	67.000	2.0961-1	2.4349 0	1.1616 1
72.900	1.5283-1	3.3119 0	2.1671 1	66.900	2.1060-1	2.4238 0	1.1509 1
72.800	1.5377-1	3.2921 0	2.1410 1	66.800	2.1159-1	2.4128 0	1.1403 1
72.700	1.5470-1	3.2726 0	2.1154 1	66.700	2.1259-1	2.4019 0	1.1298 1
72.600	1.5564-1	3.2532 0	2.0902 1	66.600	2.1359-1	2.3911 0	1.1195 1
72.500	1.5658-1	3.2341 0	2.0655 1	66.500	2.1458-1	2.3804 0	1.1093 1
72.400	1.5752-1	3.2152 0	2.0412 1	66.400	2.1558-1	2.3698 0	1.0992 1
72.300	1.5846-1	3.1965 0	2.0172 1	66.300	2.1658-1	2.3592 0	1.0893 1
72.200	1.5940-1	3.1781 0	1.9937 1	66.200	2.1758-1	2.3488 0	1.0795 1
72.100	1.6034-1	3.1598 0	1.9706 1	66.100	2.1858-1	2.3384 0	1.0698 1
72.000	1.6129-1	3.1417 0	1.9479 1	66.000	2.1959-1	2.3281 0	1.0602 1

TABLE D

ϕ	ξ/η	r/η	r/ξ	ϕ	ξ/η	r/η	r/ξ
65.900	2.2059-1	2.3179 0	1.0508 1	59.900	2.8333-1	1.8258 0	6.4441 0
65.800	2.2160-1	2.3078 0	1.0414 1	59.800	2.8442-1	1.8192 0	6.3961 0
65.700	2.2260-1	2.2977 0	1.0322 1	59.700	2.8552-1	1.8126 0	6.3486 0
65.600	2.2361-1	2.2878 0	1.0231 1	59.600	2.8661-1	1.8061 0	6.3016 0
65.500	2.2462-1	2.2779 0	1.0141 1	59.500	2.8771-1	1.7996 0	6.2550 0
65.400	2.2563-1	2.2681 0	1.0052 1	59.400	2.8881-1	1.7932 0	6.2088 0
65.300	2.2664-1	2.2583 0	9.9644 0	59.300	2.8991-1	1.7868 0	6.1632 0
65.200	2.2765-1	2.2487 0	9.8777 0	59.200	2.9101-1	1.7804 0	6.1179 0
65.100	2.2867-1	2.2391 0	9.7920 0	59.100	2.9212-1	1.7741 0	6.0731 0
65.000	2.2968-1	2.2296 0	9.7073 0	59.000	2.9323-1	1.7678 0	6.0288 0
64.900	2.3070-1	2.2202 0	9.6237 0	58.900	2.9433-1	1.7615 0	5.9848 0
64.800	2.3172-1	2.2108 0	9.5410 0	58.800	2.9544-1	1.7553 0	5.9413 0
64.700	2.3274-1	2.2015 0	9.4593 0	58.700	2.9656-1	1.7492 0	5.8982 0
64.600	2.3376-1	2.1923 0	9.3786 0	58.600	2.9767-1	1.7430 0	5.8555 0
64.500	2.3478-1	2.1832 0	9.2988 0	58.500	2.9879-1	1.7369 0	5.8132 0
64.400	2.3580-1	2.1741 0	9.2200 0	58.400	2.9990-1	1.7308 0	5.7714 0
64.300	2.3683-1	2.1651 0	9.1420 0	58.300	3.0102-1	1.7248 0	5.7299 0
64.200	2.3785-1	2.1561 0	9.0650 0	58.200	3.0214-1	1.7188 0	5.6888 0
64.100	2.3888-1	2.1473 0	8.9889 0	58.100	3.0327-1	1.7129 0	5.6481 0
64.000	2.3991-1	2.1385 0	8.9136 0	58.000	3.0439-1	1.7069 0	5.6077 0
63.900	2.4094-1	2.1297 0	8.8392 0	57.900	3.0552-1	1.7011 0	5.5678 0
63.800	2.4197-1	2.1210 0	8.7657 0	57.800	3.0665-1	1.6952 0	5.5282 0
63.700	2.4300-1	2.1124 0	8.6930 0	57.700	3.0778-1	1.6894 0	5.4890 0
63.600	2.4404-1	2.1039 0	8.6211 0	57.600	3.0891-1	1.6836 0	5.4502 0
63.500	2.4507-1	2.0954 0	8.5500 0	57.500	3.1004-1	1.6779 0	5.4117 0
63.400	2.4611-1	2.0869 0	8.4798 0	57.400	3.1118-1	1.6721 0	5.3735 0
63.300	2.4715-1	2.0786 0	8.4103 0	57.300	3.1232-1	1.6665 0	5.3357 0
63.200	2.4818-1	2.0703 0	8.3416 0	57.200	3.1346-1	1.6608 0	5.2983 0
63.100	2.4923-1	2.0620 0	8.2736 0	57.100	3.1460-1	1.6552 0	5.2612 0
63.000	2.5027-1	2.0538 0	8.2065 0	57.000	3.1575-1	1.6496 0	5.2244 0
62.900	2.5131-1	2.0457 0	8.1400 0	56.900	3.1689-1	1.6440 0	5.1880 0
62.800	2.5236-1	2.0376 0	8.0743 0	56.800	3.1804-1	1.6385 0	5.1519 0
62.700	2.5340-1	2.0296 0	8.0093 0	56.700	3.1919-1	1.6330 0	5.1161 0
62.600	2.5445-1	2.0216 0	7.9450 0	56.600	3.2034-1	1.6276 0	5.0806 0
62.500	2.5550-1	2.0137 0	7.8814 0	56.500	3.2150-1	1.6221 0	5.0455 0
62.400	2.5655-1	2.0059 0	7.8185 0	56.400	3.2266-1	1.6167 0	5.0107 0
62.300	2.5760-1	1.9981 0	7.7563 0	56.300	3.2381-1	1.6114 0	4.9762 0
62.200	2.5866-1	1.9903 0	7.6948 0	56.200	3.2498-1	1.6060 0	4.9419 0
62.100	2.5971-1	1.9826 0	7.6339 0	56.100	3.2614-1	1.6007 0	4.9080 0
62.000	2.6077-1	1.9750 0	7.5737 0	56.000	3.2730-1	1.5954 0	4.8744 0
61.900	2.6183-1	1.9674 0	7.5141 0	55.900	3.2847-1	1.5902 0	4.8411 0
61.800	2.6289-1	1.9599 0	7.4551 0	55.800	3.2964-1	1.5849 0	4.8081 0
61.700	2.6395-1	1.9524 0	7.3968 0	55.700	3.3081-1	1.5797 0	4.7753 0
61.600	2.6501-1	1.9450 0	7.3391 0	55.600	3.3199-1	1.5746 0	4.7429 0
61.500	2.6608-1	1.9376 0	7.2819 0	55.500	3.3316-1	1.5694 0	4.7107 0
61.400	2.6715-1	1.9302 0	7.2254 0	55.400	3.3434-1	1.5643 0	4.6788 0
61.300	2.6821-1	1.9230 0	7.1695 0	55.300	3.3552-1	1.5592 0	4.6472 0
61.200	2.6928-1	1.9157 0	7.1142 0	55.200	3.3670-1	1.5542 0	4.6159 0
61.100	2.7035-1	1.9085 0	7.0594 0	55.100	3.3789-1	1.5491 0	4.5848 0
61.000	2.7143-1	1.9014 0	7.0052 0	55.000	3.3907-1	1.5441 0	4.5540 0
60.900	2.7250-1	1.8943 0	6.9515 0	54.900	3.4026-1	1.5392 0	4.5234 0
60.800	2.7358-1	1.8872 0	6.8984 0	54.800	3.4145-1	1.5342 0	4.4931 0
60.700	2.7465-1	1.8802 0	6.8459 0	54.700	3.4265-1	1.5293 0	4.4631 0
60.600	2.7573-1	1.8733 0	6.7939 0	54.600	3.4384-1	1.5244 0	4.4333 0
60.500	2.7681-1	1.8664 0	6.7424 0	54.500	3.4504-1	1.5195 0	4.4038 0
60.400	2.7789-1	1.8595 0	6.6914 0	54.400	3.4624-1	1.5147 0	4.3745 0
60.300	2.7898-1	1.8527 0	6.6409 0	54.300	3.4745-1	1.5098 0	4.3455 0
60.200	2.8006-1	1.8459 0	6.5910 0	54.200	3.4865-1	1.5050 0	4.3167 0
60.100	2.8115-1	1.8392 0	6.5415 0	54.100	3.4986-1	1.5003 0	4.2882 0
60.000	2.8224-1	1.8325 0	6.4926 0	54.000	3.5107-1	1.4955 0	4.2599 0

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
53.900	3.5228-1	1.4908 0	4.2318 0	47.900	4.3000-1	1.2453 0	2.8961 0
53.800	3.5350-1	1.4861 0	4.2040 0	47.800	4.3139-1	1.2418 0	2.8785 0
53.700	3.5472-1	1.4814 0	4.1763 0	47.700	4.3279-1	1.2382 0	2.8611 0
53.600	3.5594-1	1.4768 0	4.1490 0	47.600	4.3418-1	1.2347 0	2.8437 0
53.500	3.5716-1	1.4721 0	4.1218 0	47.500	4.3558-1	1.2312 0	2.8266 0
53.400	3.5838-1	1.4675 0	4.0949 0	47.400	4.3698-1	1.2277 0	2.8095 0
53.300	3.5961-1	1.4629 0	4.0682 0	47.300	4.3839-1	1.2242 0	2.7925 0
53.200	3.6084-1	1.4584 0	4.0417 0	47.200	4.3980-1	1.2208 0	2.7757 0
53.100	3.6207-1	1.4539 0	4.0154 0	47.100	4.4121-1	1.2173 0	2.7590 0
53.000	3.6331-1	1.4493 0	3.9893 0	47.000	4.4263-1	1.2139 0	2.7424 0
52.900	3.6454-1	1.4448 0	3.9634 0	46.900	4.4405-1	1.2105 0	2.7259 0
52.800	3.6578-1	1.4404 0	3.9378 0	46.800	4.4548-1	1.2070 0	2.7096 0
52.700	3.6703-1	1.4359 0	3.9123 0	46.700	4.4691-1	1.2037 0	2.6933 0
52.600	3.6827-1	1.4315 0	3.8871 0	46.600	4.4834-1	1.2003 0	2.6772 0
52.500	3.6952-1	1.4271 0	3.8621 0	46.500	4.4977-1	1.1969 0	2.6611 0
52.400	3.7077-1	1.4227 0	3.8372 0	46.400	4.5121-1	1.1936 0	2.6452 0
52.300	3.7202-1	1.4184 0	3.8126 0	46.300	4.5266-1	1.1902 0	2.6294 0
52.200	3.7328-1	1.4140 0	3.7881 0	46.200	4.5410-1	1.1869 0	2.6137 0
52.100	3.7454-1	1.4097 0	3.7639 0	46.100	4.5555-1	1.1836 0	2.5981 0
52.000	3.7580-1	1.4054 0	3.7398 0	46.000	4.5701-1	1.1803 0	2.5826 0
51.900	3.7706-1	1.4011 0	3.7159 0	45.900	4.5847-1	1.1770 0	2.5672 0
51.800	3.7833-1	1.3969 0	3.6922 0	45.800	4.5993-1	1.1737 0	2.5520 0
51.700	3.7960-1	1.3926 0	3.6687 0	45.700	4.6140-1	1.1705 0	2.5368 0
51.600	3.8087-1	1.3884 0	3.6454 0	45.600	4.6287-1	1.1672 0	2.5217 0
51.500	3.8214-1	1.3842 0	3.6223 0	45.500	4.6434-1	1.1640 0	2.5068 0
51.400	3.8342-1	1.3801 0	3.5993 0	45.400	4.6582-1	1.1608 0	2.4919 0
51.300	3.8470-1	1.3759 0	3.5766 0	45.300	4.6730-1	1.1576 0	2.4771 0
51.200	3.8598-1	1.3718 0	3.5539 0	45.200	4.6879-1	1.1544 0	2.4624 0
51.100	3.8727-1	1.3676 0	3.5315 0	45.100	4.7028-1	1.1512 0	2.4479 0
51.000	3.8856-1	1.3635 0	3.5093 0	45.000	4.7177-1	1.1480 0	2.4334 0
50.900	3.8985-1	1.3595 0	3.4872 0	44.900	4.7327-1	1.1449 0	2.4190 0
50.800	3.9114-1	1.3554 0	3.4653 0	44.800	4.7478-1	1.1417 0	2.4047 0
50.700	3.9244-1	1.3514 0	3.4435 0	44.700	4.7628-1	1.1386 0	2.3905 0
50.600	3.9374-1	1.3473 0	3.4219 0	44.600	4.7780-1	1.1355 0	2.3764 0
50.500	3.9504-1	1.3433 0	3.4005 0	44.500	4.7931-1	1.1323 0	2.3624 0
50.400	3.9635-1	1.3394 0	3.3792 0	44.400	4.8083-1	1.1292 0	2.3485 0
50.300	3.9766-1	1.3354 0	3.3581 0	44.300	4.8235-1	1.1262 0	2.3347 0
50.200	3.9897-1	1.3314 0	3.3372 0	44.200	4.8388-1	1.1231 0	2.3210 0
50.100	4.0028-1	1.3275 0	3.3164 0	44.100	4.8542-1	1.1200 0	2.3074 0
50.000	4.0160-1	1.3236 0	3.2958 0	44.000	4.8695-1	1.1170 0	2.2938 0
49.900	4.0292-1	1.3197 0	3.2753 0	43.900	4.8850-1	1.1139 0	2.2803 0
49.800	4.0425-1	1.3158 0	3.2550 0	43.800	4.9004-1	1.1109 0	2.2670 0
49.700	4.0557-1	1.3120 0	3.2348 0	43.700	4.9159-1	1.1079 0	2.2537 0
49.600	4.0690-1	1.3081 0	3.2148 0	43.600	4.9315-1	1.1049 0	2.2405 0
49.500	4.0824-1	1.3043 0	3.1950 0	43.500	4.9471-1	1.1019 0	2.2274 0
49.400	4.0957-1	1.3005 0	3.1752 0	43.400	4.9627-1	1.0989 0	2.2143 0
49.300	4.1091-1	1.2967 0	3.1557 0	43.300	4.9784-1	1.0959 0	2.2014 0
49.200	4.1225-1	1.2929 0	3.1362 0	43.200	4.9941-1	1.0930 0	2.1885 0
49.100	4.1360-1	1.2892 0	3.1169 0	43.100	5.0099-1	1.0900 0	2.1757 0
49.000	4.1495-1	1.2854 0	3.0978 0	43.000	5.0257-1	1.0871 0	2.1630 0
48.900	4.1630-1	1.2817 0	3.0788 0	42.900	5.0416-1	1.0842 0	2.1504 0
48.800	4.1766-1	1.2780 0	3.0599 0	42.800	5.0575-1	1.0812 0	2.1379 0
48.700	4.1902-1	1.2743 0	3.0412 0	42.700	5.0735-1	1.0783 0	2.1254 0
48.600	4.2038-1	1.2706 0	3.0226 0	42.600	5.0895-1	1.0754 0	2.1130 0
48.500	4.2174-1	1.2670 0	3.0041 0	42.500	5.1056-1	1.0726 0	2.1007 0
48.400	4.2311-1	1.2633 0	2.9858 0	42.400	5.1217-1	1.0697 0	2.0885 0
48.300	4.2448-1	1.2597 0	2.9676 0	42.300	5.1379-1	1.0668 0	2.0764 0
48.200	4.2586-1	1.2561 0	2.9495 0	42.200	5.1541-1	1.0640 0	2.0643 0
48.100	4.2724-1	1.2525 0	2.9316 0	42.100	5.1704-1	1.0611 0	2.0523 0
48.000	4.2862-1	1.2489 0	2.9137 0	42.000	5.1867-1	1.0583 0	2.0404 0

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
41.900	5.2030-1	1.0555 0	2.0285 0	35.900	6.2924-1	9.0218-1	1.4338 0
41.800	5.2195-1	1.0526 0	2.0168 0	35.800	6.3126-1	8.9987-1	1.4255 0
41.700	5.2359-1	1.0498 0	2.0051 0	35.700	6.3330-1	8.9755-1	1.4173 0
41.600	5.2524-1	1.0470 0	1.9934 0	35.600	6.3534-1	8.9525-1	1.4091 0
41.500	5.2690-1	1.0443 0	1.9819 0	35.500	6.3738-1	8.9295-1	1.4010 0
41.400	5.2856-1	1.0415 0	1.9704 0	35.400	6.3944-1	8.9066-1	1.3929 0
41.300	5.3023-1	1.0387 0	1.9590 0	35.300	6.4150-1	8.8838-1	1.3848 0
41.200	5.3190-1	1.0360 0	1.9476 0	35.200	6.4358-1	8.8610-1	1.3768 0
41.100	5.3358-1	1.0332 0	1.9364 0	35.100	6.4566-1	8.8383-1	1.3689 0
41.000	5.3527-1	1.0305 0	1.9252 0	35.000	6.4775-1	8.8157-1	1.3610 0
40.900	5.3696-1	1.0277 0	1.9140 0	34.900	6.4984-1	8.7931-1	1.3531 0
40.800	5.3865-1	1.0250 0	1.9030 0	34.800	6.5195-1	8.7706-1	1.3453 0
40.700	5.4035-1	1.0223 0	1.8920 0	34.700	6.5407-1	8.7481-1	1.3375 0
40.600	5.4205-1	1.0196 0	1.8810 0	34.600	6.5619-1	8.7258-1	1.3298 0
40.500	5.4377-1	1.0169 0	1.8702 0	34.500	6.5832-1	8.7034-1	1.3221 0
40.400	5.4548-1	1.0143 0	1.8594 0	34.400	6.6046-1	8.6812-1	1.3144 0
40.300	5.4720-1	1.0116 0	1.8486 0	34.300	6.6261-1	8.6590-1	1.3068 0
40.200	5.4893-1	1.0089 0	1.8380 0	34.200	6.6477-1	8.6368-1	1.2992 0
40.100	5.5067-1	1.0063 0	1.8274 0	34.100	6.6694-1	8.6148-1	1.2917 0
40.000	5.5241-1	1.0036 0	1.8168 0	34.000	6.6912-1	8.5928-1	1.2842 0
39.900	5.5415-1	1.0010 0	1.8063 0	33.900	6.7130-1	8.5708-1	1.2767 0
39.800	5.5590-1	9.9835-1	1.7959 0	33.800	6.7350-1	8.5489-1	1.2693 0
39.700	5.5766-1	9.9573-1	1.7856 0	33.700	6.7570-1	8.5271-1	1.2620 0
39.600	5.5942-1	9.9312-1	1.7753 0	33.600	6.7792-1	8.5053-1	1.2546 0
39.500	5.6119-1	9.9052-1	1.7650 0	33.500	6.8014-1	8.4836-1	1.2473 0
39.400	5.6297-1	9.8793-1	1.7549 0	33.400	6.8237-1	8.4620-1	1.2401 0
39.300	5.6475-1	9.8535-1	1.7448 0	33.300	6.8462-1	8.4404-1	1.2329 0
39.200	5.6653-1	9.8277-1	1.7347 0	33.200	6.8687-1	8.4189-1	1.2257 0
39.100	5.6833-1	9.8020-1	1.7247 0	33.100	6.8913-1	8.3974-1	1.2185 0
39.000	5.7013-1	9.7764-1	1.7148 0	33.000	6.9141-1	8.3760-1	1.2114 0
38.900	5.7193-1	9.7509-1	1.7049 0	32.900	6.9369-1	8.3546-1	1.2044 0
38.800	5.7374-1	9.7255-1	1.6951 0	32.800	6.9598-1	8.3333-1	1.1973 0
38.700	5.7556-1	9.7002-1	1.6853 0	32.700	6.9828-1	8.3121-1	1.1904 0
38.600	5.7739-1	9.6749-1	1.6756 0	32.600	7.0060-1	8.2909-1	1.1834 0
38.500	5.7922-1	9.6497-1	1.6660 0	32.500	7.0292-1	8.2697-1	1.1765 0
38.400	5.8105-1	9.6246-1	1.6564 0	32.400	7.0525-1	8.2487-1	1.1696 0
38.300	5.8290-1	9.5996-1	1.6469 0	32.300	7.0760-1	8.2276-1	1.1628 0
38.200	5.8475-1	9.5746-1	1.6374 0	32.200	7.0995-1	8.2067-1	1.1559 0
38.100	5.8661-1	9.5498-1	1.6280 0	32.100	7.1232-1	8.1858-1	1.1492 0
38.000	5.8847-1	9.5250-1	1.6186 0	32.000	7.1469-1	8.1649-1	1.1424 0
37.900	5.9034-1	9.5003-1	1.6093 0	31.900	7.1708-1	8.1441-1	1.1357 0
37.800	5.9222-1	9.4757-1	1.6000 0	31.800	7.1948-1	8.1234-1	1.1291 0
37.700	5.9410-1	9.4511-1	1.5908 0	31.700	7.2189-1	8.1027-1	1.1224 0
37.600	5.9599-1	9.4266-1	1.5817 0	31.600	7.2431-1	8.0820-1	1.1158 0
37.500	5.9789-1	9.4022-1	1.5726 0	31.500	7.2674-1	8.0614-1	1.1093 0
37.400	5.9980-1	9.3779-1	1.5635 0	31.400	7.2918-1	8.0409-1	1.1027 0
37.300	6.0171-1	9.3537-1	1.5545 0	31.300	7.3164-1	8.0204-1	1.0962 0
37.200	6.0363-1	9.3295-1	1.5456 0	31.200	7.3410-1	8.0000-1	1.0898 0
37.100	6.0555-1	9.3054-1	1.5367 0	31.100	7.3658-1	7.9796-1	1.0833 0
37.000	6.0749-1	9.2814-1	1.5278 0	31.000	7.3907-1	7.9593-1	1.0769 0
36.900	6.0943-1	9.2574-1	1.5190 0	30.900	7.4157-1	7.9390-1	1.0706 0
36.800	6.1137-1	9.2335-1	1.5103 0	30.800	7.4409-1	7.9188-1	1.0642 0
36.700	6.1333-1	9.2097-1	1.5016 0	30.700	7.4661-1	7.8986-1	1.0579 0
36.600	6.1529-1	9.1860-1	1.4930 0	30.600	7.4915-1	7.8785-1	1.0517 0
36.500	6.1726-1	9.1623-1	1.4844 0	30.500	7.5170-1	7.8584-1	1.0454 0
36.400	6.1924-1	9.1387-1	1.4758 0	30.400	7.5426-1	7.8384-1	1.0392 0
36.300	6.2122-1	9.1152-1	1.4673 0	30.300	7.5684-1	7.8184-1	1.0330 0
36.200	6.2322-1	9.0918-1	1.4588 0	30.200	7.5942-1	7.7984-1	1.0269 0
36.100	6.2522-1	9.0684-1	1.4504 0	30.100	7.6202-1	7.7786-1	1.0208 0
36.000	6.2722-1	9.0451-1	1.4421 0	30.000	7.6464-1	7.7587-1	1.0147 0

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
29.900	7.6727-1	7.7389-1	1.0086 0	23.900	9.5444-1	6.6295-1	6.9460-1
29.800	7.6990-1	7.7192-1	1.0026 0	23.800	9.5817-1	6.6122-1	6.9008-1
29.700	7.7256-1	7.6995-1	9.9663-1	23.700	9.6193-1	6.5949-1	6.8559-1
29.600	7.7522-1	7.6799-1	9.9066-1	23.600	9.6571-1	6.5776-1	6.8111-1
29.500	7.7790-1	7.6603-1	9.8473-1	23.500	9.6952-1	6.5603-1	6.7666-1
29.400	7.8060-1	7.6407-1	9.7883-1	23.400	9.7335-1	6.5431-1	6.7223-1
29.300	7.8331-1	7.6212-1	9.7296-1	23.300	9.7721-1	6.5259-1	6.6781-1
29.200	7.8603-1	7.6018-1	9.6711-1	23.200	9.8109-1	6.5087-1	6.6342-1
29.100	7.8876-1	7.5824-1	9.6130-1	23.100	9.8501-1	6.4916-1	6.5904-1
29.000	7.9151-1	7.5630-1	9.5551-1	23.000	9.8895-1	6.4745-1	6.5469-1
28.900	7.9428-1	7.5437-1	9.4975-1	22.900	9.9291-1	6.4575-1	6.5036-1
28.800	7.9705-1	7.5244-1	9.4402-1	22.800	9.9691-1	6.4404-1	6.4604-1
28.700	7.9985-1	7.5052-1	9.3832-1	22.700	1.0009 0	6.4234-1	6.4175-1
28.600	8.0266-1	7.4860-1	9.3265-1	22.600	1.0050 0	6.4064-1	6.3747-1
28.500	8.0548-1	7.4668-1	9.2700-1	22.500	1.0091 0	6.3895-1	6.3321-1
28.400	8.0832-1	7.4477-1	9.2139-1	22.400	1.0132 0	6.3726-1	6.2897-1
28.300	8.1117-1	7.4287-1	9.1580-1	22.300	1.0173 0	6.3557-1	6.2476-1
28.200	8.1404-1	7.4097-1	9.1023-1	22.200	1.0215 0	6.3389-1	6.2056-1
28.100	8.1692-1	7.3907-1	9.0470-1	22.100	1.0257 0	6.3220-1	6.1638-1
28.000	8.1982-1	7.3718-1	8.9919-1	22.000	1.0299 0	6.3052-1	6.1221-1
27.900	8.2274-1	7.3529-1	8.9371-1	21.900	1.0342 0	6.2885-1	6.0807-1
27.800	8.2567-1	7.3340-1	8.8825-1	21.800	1.0385 0	6.2717-1	6.0394-1
27.700	8.2862-1	7.3152-1	8.8283-1	21.700	1.0428 0	6.2550-1	5.9984-1
27.600	8.3158-1	7.2965-1	8.7742-1	21.600	1.0471 0	6.2383-1	5.9575-1
27.500	8.3456-1	7.2778-1	8.7205-1	21.500	1.0515 0	6.2217-1	5.9168-1
27.400	8.3756-1	7.2591-1	8.6670-1	21.400	1.0560 0	6.2051-1	5.8763-1
27.300	8.4057-1	7.2405-1	8.6137-1	21.300	1.0604 0	6.1885-1	5.8359-1
27.200	8.4360-1	7.2219-1	8.5607-1	21.200	1.0649 0	6.1719-1	5.7957-1
27.100	8.4665-1	7.2033-1	8.5080-1	21.100	1.0694 0	6.1554-1	5.7558-1
27.000	8.4972-1	7.1848-1	8.4555-1	21.000	1.0740 0	6.1389-1	5.7159-1
26.900	8.5280-1	7.1663-1	8.4033-1	20.900	1.0786 0	6.1224-1	5.6763-1
26.800	8.5590-1	7.1479-1	8.3513-1	20.800	1.0832 0	6.1059-1	5.6368-1
26.700	8.5902-1	7.1295-1	8.2996-1	20.700	1.0879 0	6.0895-1	5.5975-1
26.600	8.6215-1	7.1111-1	8.2481-1	20.600	1.0926 0	6.0731-1	5.5584-1
26.500	8.6531-1	7.0928-1	8.1969-1	20.500	1.0973 0	6.0567-1	5.5195-1
26.400	8.6848-1	7.0745-1	8.1459-1	20.400	1.1021 0	6.0403-1	5.4807-1
26.300	8.7167-1	7.0563-1	8.0951-1	20.300	1.1069 0	6.0240-1	5.4421-1
26.200	8.7488-1	7.0381-1	8.0446-1	20.200	1.1118 0	6.0077-1	5.4037-1
26.100	8.7811-1	7.0199-1	7.9943-1	20.100	1.1167 0	5.9914-1	5.3654-1
26.000	8.8136-1	7.0018-1	7.9443-1	20.000	1.1216 0	5.9752-1	5.3273-1
25.900	8.8463-1	6.9837-1	7.8945-1	19.950	1.1241 0	5.9671-1	5.3083-1
25.800	8.8792-1	6.9657-1	7.8449-1	19.900	1.1266 0	5.9590-1	5.2893-1
25.700	8.9123-1	6.9477-1	7.7956-1	19.850	1.1291 0	5.9509-1	5.2704-1
25.600	8.9456-1	6.9297-1	7.7465-1	19.800	1.1316 0	5.9428-1	5.2516-1
25.500	8.9790-1	6.9117-1	7.6977-1	19.750	1.1341 0	5.9347-1	5.2327-1
25.400	9.0127-1	6.8938-1	7.6490-1	19.700	1.1367 0	5.9266-1	5.2139-1
25.300	9.0466-1	6.8760-1	7.6006-1	19.650	1.1392 0	5.9185-1	5.1952-1
25.200	9.0807-1	6.8581-1	7.5524-1	19.600	1.1418 0	5.9104-1	5.1765-1
25.100	9.1151-1	6.8404-1	7.5045-1	19.550	1.1444 0	5.9024-1	5.1578-1
25.000	9.1496-1	6.8226-1	7.4567-1	19.500	1.1469 0	5.8943-1	5.1392-1
24.900	9.1843-1	6.8049-1	7.4092-1	19.450	1.1495 0	5.8862-1	5.1206-1
24.800	9.2193-1	6.7872-1	7.3619-1	19.400	1.1521 0	5.8782-1	5.1021-1
24.700	9.2545-1	6.7695-1	7.3148-1	19.350	1.1547 0	5.8702-1	5.0836-1
24.600	9.2899-1	6.7519-1	7.2680-1	19.300	1.1574 0	5.8621-1	5.0651-1
24.500	9.3256-1	6.7343-1	7.2213-1	19.250	1.1600 0	5.8541-1	5.0467-1
24.400	9.3615-1	6.7168-1	7.1749-1	19.200	1.1626 0	5.8461-1	5.0283-1
24.300	9.3976-1	6.6993-1	7.1287-1	19.150	1.1653 0	5.8381-1	5.0100-1
24.200	9.4339-1	6.6818-1	7.082 -1	19.100	1.1680 0	5.8300-1	4.9916-1
24.100	9.4705-1	6.6643-1	7.03 -1	19.050	1.1706 0	5.8220-1	4.9734-1
24.000	9.5073-1	6.6469-1	6.99 .4-1	19.000	1.1733 0	5.8140-1	4.9552-1

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
18.950	1.1760 0	5.8060-1	4.9370-1	15.950	1.3637 0	5.3364-1	3.9133-1
18.900	1.1787 0	5.7981-1	4.9188-1	15.900	1.3673 0	5.3288-1	3.8973-1
18.850	1.1815 0	5.7901-1	4.9007-1	15.850	1.3709 0	5.3211-1	3.8814-1
18.800	1.1842 0	5.7821-1	4.8826-1	15.800	1.3746 0	5.3134-1	3.8655-1
18.750	1.1870 0	5.7741-1	4.8646-1	15.750	1.3783 0	5.3058-1	3.8496-1
18.700	1.1897 0	5.7662-1	4.8466-1	15.700	1.3820 0	5.2981-1	3.8337-1
18.650	1.1925 0	5.7582-1	4.8287-1	15.650	1.3857 0	5.2905-1	3.8179-1
18.600	1.1953 0	5.7502-1	4.8107-1	15.600	1.3895 0	5.2828-1	3.8021-1
18.550	1.1981 0	5.7423-1	4.7929-1	15.550	1.3932 0	5.2752-1	3.7863-1
18.500	1.2009 0	5.7344-1	4.7750-1	15.500	1.3970 0	5.2676-1	3.7706-1
18.450	1.2037 0	5.7264-1	4.7572-1	15.450	1.4008 0	5.2599-1	3.7549-1
18.400	1.2066 0	5.7185-1	4.7395-1	15.400	1.4047 0	5.2523-1	3.7392-1
18.350	1.2094 0	5.7106-1	4.7217-1	15.350	1.4085 0	5.2447-1	3.7236-1
18.300	1.2123 0	5.7026-1	4.7040-1	15.300	1.4124 0	5.2371-1	3.7080-1
18.250	1.2152 0	5.6947-1	4.6864-1	15.250	1.4163 0	5.2295-1	3.6924-1
18.200	1.2181 0	5.6868-1	4.6688-1	15.200	1.4202 0	5.2219-1	3.6768-1
18.150	1.2210 0	5.6789-1	4.6512-1	15.150	1.4241 0	5.2143-1	3.6613-1
18.100	1.2239 0	5.6710-1	4.6337-1	15.100	1.4281 0	5.2067-1	3.6459-1
18.050	1.2268 0	5.6631-1	4.6162-1	15.050	1.4321 0	5.1991-1	3.6304-1
18.000	1.2298 0	5.6552-1	4.5987-1	15.000	1.4361 0	5.1915-1	3.6150-1
17.950	1.2327 0	5.6474-1	4.5813-1	14.950	1.4401 0	5.1839-1	3.5996-1
17.900	1.2357 0	5.6395-1	4.5639-1	14.900	1.4442 0	5.1763-1	3.5843-1
17.850	1.2387 0	5.6316-1	4.5465-1	14.850	1.4483 0	5.1688-1	3.5690-1
17.800	1.2417 0	5.6238-1	4.5292-1	14.800	1.4524 0	5.1612-1	3.5537-1
17.750	1.2447 0	5.6159-1	4.5119-1	14.750	1.4565 0	5.1536-1	3.5384-1
17.700	1.2477 0	5.6080-1	4.4947-1	14.700	1.4606 0	5.1461-1	3.5232-1
17.650	1.2508 0	5.6002-1	4.4775-1	14.650	1.4648 0	5.1385-1	3.5080-1
17.600	1.2538 0	5.5924-1	4.4603-1	14.600	1.4690 0	5.1310-1	3.4928-1
17.550	1.2569 0	5.5845-1	4.4432-1	14.550	1.4732 0	5.1234-1	3.4777-1
17.500	1.2600 0	5.5767-1	4.4261-1	14.500	1.4775 0	5.1159-1	3.4626-1
17.450	1.2631 0	5.5689-1	4.4090-1	14.450	1.4817 0	5.1083-1	3.4475-1
17.400	1.2662 0	5.5610-1	4.3920-1	14.400	1.4860 0	5.1008-1	3.4325-1
17.350	1.2693 0	5.5532-1	4.3750-1	14.350	1.4904 0	5.0933-1	3.4175-1
17.300	1.2725 0	5.5454-1	4.3580-1	14.300	1.4947 0	5.0858-1	3.4025-1
17.250	1.2756 0	5.5376-1	4.3411-1	14.250	1.4991 0	5.0782-1	3.3875-1
17.200	1.2788 0	5.5298-1	4.3242-1	14.200	1.5035 0	5.0707-1	3.3726-1
17.150	1.2820 0	5.5220-1	4.3074-1	14.150	1.5079 0	5.0632-1	3.3577-1
17.100	1.2852 0	5.5142-1	4.2905-1	14.100	1.5124 0	5.0557-1	3.3429-1
17.050	1.2884 0	5.5064-1	4.2738-1	14.050	1.5169 0	5.0482-1	3.3280-1
17.000	1.2917 0	5.4987-1	4.2570-1	14.000	1.5214 0	5.0407-1	3.3132-1
16.950	1.2949 0	5.4909-1	4.2403-1	13.950	1.5259 0	5.0332-1	3.2985-1
16.900	1.2982 0	5.4831-1	4.2236-1	13.900	1.5305 0	5.0257-1	3.2837-1
16.850	1.3015 0	5.4753-1	4.2070-1	13.850	1.5351 0	5.0182-1	3.2690-1
16.800	1.3048 0	5.4676-1	4.1904-1	13.800	1.5397 0	5.0108-1	3.2543-1
16.750	1.3081 0	5.4598-1	4.1738-1	13.750	1.5444 0	5.0033-1	3.2397-1
16.700	1.3115 0	5.4521-1	4.1573-1	13.700	1.5491 0	4.9958-1	3.2251-1
16.650	1.3148 0	5.4443-1	4.1408-1	13.650	1.5538 0	4.9884-1	3.2105-1
16.600	1.3182 0	5.4366-1	4.1243-1	13.600	1.5585 0	4.9809-1	3.1959-1
16.550	1.3216 0	5.4289-1	4.1079-1	13.550	1.5633 0	4.9734-1	3.1814-1
16.500	1.3250 0	5.4211-1	4.0915-1	13.500	1.5681 0	4.9660-1	3.1669-1
16.450	1.3284 0	5.4134-1	4.0751-1	13.450	1.5729 0	4.9585-1	3.1524-1
16.400	1.3318 0	5.4057-1	4.0588-1	13.400	1.5778 0	4.9511-1	3.1380-1
16.350	1.3353 0	5.3980-1	4.0425-1	13.350	1.5827 0	4.9436-1	3.1235-1
16.300	1.3388 0	5.3903-1	4.0262-1	13.300	1.5876 0	4.9362-1	3.1091-1
16.250	1.3423 0	5.3826-1	4.0100-1	13.250	1.5926 0	4.9288-1	3.0948-1
16.200	1.3458 0	5.3749-1	3.9938-1	13.200	1.5976 0	4.9213-1	3.0805-1
16.150	1.3493 0	5.3672-1	3.9777-1	13.150	1.6026 0	4.9139-1	3.0662-1
16.100	1.3529 0	5.3595-1	3.9615-1	13.100	1.6077 0	4.9065-1	3.0519-1
16.050	1.3565 0	5.3518-1	3.9454-1	13.050	1.6128 0	4.8991-1	3.0376-1
16.000	1.3600 0	5.3441-1	3.9294-1	13.000	1.6179 0	4.8917-1	3.0234-1

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
12.950	1.6231 0	4.8843-1	3.0092-1	10.760	1.8903 0	4.5643-1	2.4147-1
12.900	1.6283 0	4.8769-1	2.9951-1	10.740	1.8931 0	4.5615-1	2.4095-1
12.850	1.6335 0	4.8695-1	2.9809-1	10.720	1.8960 0	4.5586-1	2.4043-1
12.800	1.6388 0	4.8621-1	2.9668-1	10.700	1.8989 0	4.5557-1	2.3991-1
12.750	1.6441 0	4.8547-1	2.9528-1	10.680	1.9018 0	4.5528-1	2.3939-1
12.700	1.6495 0	4.8473-1	2.9387-1	10.660	1.9048 0	4.5500-1	2.3887-1
12.650	1.6548 0	4.8399-1	2.9247-1	10.640	1.9077 0	4.5471-1	2.3835-1
12.600	1.6603 0	4.8326-1	2.9107-1	10.620	1.9106 0	4.5442-1	2.3784-1
12.550	1.6657 0	4.8252-1	2.8968-1	10.600	1.9136 0	4.5413-1	2.3732-1
12.500	1.6712 0	4.8178-1	2.8828-1	10.580	1.9166 0	4.5385-1	2.3680-1
12.450	1.6768 0	4.8105-1	2.8689-1	10.560	1.9195 0	4.5356-1	2.3629-1
12.400	1.6823 0	4.8031-1	2.8550-1	10.540	1.9225 0	4.5327-1	2.3577-1
12.350	1.6879 0	4.7957-1	2.8412-1	10.520	1.9255 0	4.5298-1	2.3526-1
12.300	1.6936 0	4.7884-1	2.8274-1	10.500	1.9285 0	4.5270-1	2.3474-1
12.250	1.6993 0	4.7811-1	2.8136-1	10.480	1.9315 0	4.5241-1	2.3423-1
12.200	1.7050 0	4.7737-1	2.7998-1	10.460	1.9345 0	4.5212-1	2.3371-1
12.150	1.7108 0	4.7664-1	2.7860-1	10.440	1.9376 0	4.5184-1	2.3320-1
12.100	1.7166 0	4.7590-1	2.7723-1	10.420	1.9406 0	4.5155-1	2.3269-1
12.050	1.7225 0	4.7517-1	2.7586-1	10.400	1.9437 0	4.5127-1	2.3217-1
12.000	1.7284 0	4.7444-1	2.7450-1	10.380	1.9467 0	4.5098-1	2.3166-1
11.950	1.7343 0	4.7371-1	2.7313-1	10.360	1.9498 0	4.5069-1	2.3115-1
11.900	1.7403 0	4.7298-1	2.7177-1	10.340	1.9529 0	4.5041-1	2.3064-1
11.850	1.7464 0	4.7225-1	2.7042-1	10.320	1.9560 0	4.5012-1	2.3013-1
11.800	1.7525 0	4.7152-1	2.6906-1	10.300	1.9591 0	4.4983-1	2.2961-1
11.750	1.7586 0	4.7079-1	2.6771-1	10.280	1.9622 0	4.4955-1	2.2910-1
11.700	1.7648 0	4.7006-1	2.6636-1	10.260	1.9653 0	4.4926-1	2.2859-1
11.650	1.7710 0	4.6933-1	2.6501-1	10.240	1.9685 0	4.4898-1	2.2808-1
11.600	1.7772 0	4.6860-1	2.6367-1	10.220	1.9716 0	4.4869-1	2.2758-1
11.550	1.7836 0	4.6787-1	2.6232-1	10.200	1.9748 0	4.4841-1	2.2707-1
11.500	1.7899 0	4.6714-1	2.6098-1	10.180	1.9780 0	4.4812-1	2.2656-1
11.450	1.7963 0	4.6642-1	2.5965-1	10.160	1.9811 0	4.4784-1	2.2605-1
11.400	1.8028 0	4.6569-1	2.5831-1	10.140	1.9843 0	4.4755-1	2.2554-1
11.350	1.8093 0	4.6496-1	2.5698-1	10.120	1.9875 0	4.4727-1	2.2503-1
11.300	1.8159 0	4.6424-1	2.5565-1	10.100	1.9908 0	4.4698-1	2.2453-1
11.280	1.8185 0	4.6395-1	2.5512-1	10.080	1.9940 0	4.4670-1	2.2402-1
11.260	1.8212 0	4.6366-1	2.5459-1	10.060	1.9972 0	4.4641-1	2.2352-1
11.240	1.8238 0	4.6337-1	2.5406-1	10.040	2.0005 0	4.4613-1	2.2301-1
11.220	1.8265 0	4.6308-1	2.5353-1	10.020	2.0037 0	4.4584-1	2.2250-1
11.200	1.8292 0	4.6279-1	2.5300-1	10.000	2.0070 0	4.4556-1	2.2200-1
11.180	1.8319 0	4.6250-1	2.5247-1	9.980	2.0103 0	4.4527-1	2.2149-1
11.160	1.8346 0	4.6221-1	2.5195-1	9.960	2.0136 0	4.4499-1	2.2099-1
11.140	1.8373 0	4.6192-1	2.5142-1	9.940	2.0169 0	4.4470-1	2.2049-1
11.120	1.8400 0	4.6163-1	2.5089-1	9.920	2.0202 0	4.4442-1	2.1998-1
11.100	1.8427 0	4.6134-1	2.5036-1	9.900	2.0236 0	4.4414-1	2.1948-1
11.080	1.8454 0	4.6105-1	2.4984-1	9.880	2.0269 0	4.4385-1	2.1898-1
11.060	1.8481 0	4.6076-1	2.4931-1	9.860	2.0303 0	4.4357-1	2.1848-1
11.040	1.8509 0	4.6047-1	2.4878-1	9.840	2.0337 0	4.4328-1	2.1797-1
11.020	1.8536 0	4.6018-1	2.4826-1	9.820	2.0370 0	4.4300-1	2.1747-1
11.000	1.8564 0	4.5990-1	2.4773-1	9.800	2.0404 0	4.4272-1	2.1697-1
10.980	1.8592 0	4.5961-1	2.4721-1	9.780	2.0439 0	4.4243-1	2.1647-1
10.960	1.8620 0	4.5932-1	2.4669-1	9.760	2.0473 0	4.4215-1	2.1597-1
10.940	1.8647 0	4.5903-1	2.4616-1	9.740	2.0507 0	4.4186-1	2.1547-1
10.920	1.8675 0	4.5874-1	2.4564-1	9.720	2.0542 0	4.4158-1	2.1497-1
10.900	1.8704 0	4.5845-1	2.4512-1	9.700	2.0576 0	4.4130-1	2.1447-1
10.880	1.8732 0	4.5816-1	2.4459-1	9.680	2.0611 0	4.4102-1	2.1397-1
10.860	1.8760 0	4.5787-1	2.4407-1	9.660	2.0646 0	4.4074-1	2.1347-1
10.840	1.8788 0	4.5759-1	2.4355-1	9.640	2.0681 0	4.4045-1	2.1298-1
10.820	1.8817 0	4.5730-1	2.4303-1	9.620	2.0716 0	4.4017-1	2.1248-1
10.800	1.8845 0	4.5701-1	2.4251-1	9.600	2.0751 0	4.3989-1	2.1198-1
10.780	1.8874 0	4.5672-1	2.4199-1	9.580	2.0787 0	4.3961-1	2.1149-1

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
9.560	2.0822 0	4.3932-1	2.1099-1	8.360	2.3235 0	4.2263-1	1.8190-1
9.540	2.0858 0	4.3904-1	2.1049-1	8.340	2.3280 0	4.2236-1	1.8142-1
9.520	2.0894 0	4.3876-1	2.1000-1	8.320	2.3326 0	4.2208-1	1.8095-1
9.500	2.0930 0	4.3848-1	2.0950-1	8.300	2.3372 0	4.2181-1	1.8048-1
9.480	2.0966 0	4.3820-1	2.0901-1	8.280	2.3418 0	4.2154-1	1.8000-1
9.460	2.1002 0	4.3792-1	2.0851-1	8.260	2.3465 0	4.2126-1	1.7953-1
9.440	2.1038 0	4.3763-1	2.0802-1	8.240	2.3511 0	4.2099-1	1.7906-1
9.420	2.1075 0	4.3735-1	2.0753-1	8.220	2.3558 0	4.2072-1	1.7859-1
9.400	2.1111 0	4.3707-1	2.0703-1	8.200	2.3605 0	4.2045-1	1.7812-1
9.380	2.1148 0	4.3679-1	2.0654-1	8.180	2.3652 0	4.2017-1	1.7765-1
9.360	2.1185 0	4.3651-1	2.0605-1	8.160	2.3700 0	4.1990-1	1.7718-1
9.340	2.1222 0	4.3623-1	2.0555-1	8.140	2.3747 0	4.1963-1	1.7671-1
9.320	2.1259 0	4.3595-1	2.0506-1	8.120	2.3795 0	4.1936-1	1.7624-1
9.300	2.1297 0	4.3567-1	2.0457-1	8.100	2.3843 0	4.1909-1	1.7577-1
9.280	2.1334 0	4.3539-1	2.0408-1	8.080	2.3892 0	4.1882-1	1.7530-1
9.260	2.1372 0	4.3511-1	2.0359-1	8.060	2.3940 0	4.1855-1	1.7483-1
9.240	2.1410 0	4.3483-1	2.0310-1	8.040	2.3989 0	4.1827-1	1.7436-1
9.220	2.1448 0	4.3455-1	2.0261-1	8.020	2.4038 0	4.1800-1	1.7389-1
9.200	2.1486 0	4.3427-1	2.0212-1	8.000	2.4087 0	4.1773-1	1.7343-1
9.180	2.1524 0	4.3399-1	2.0163-1	7.980	2.4137 0	4.1746-1	1.7296-1
9.160	2.1562 0	4.3371-1	2.0114-1	7.960	2.4186 0	4.1719-1	1.7249-1
9.140	2.1601 0	4.3343-1	2.0065-1	7.940	2.4236 0	4.1692-1	1.7203-1
9.120	2.1639 0	4.3315-1	2.0016-1	7.920	2.4286 0	4.1665-1	1.7156-1
9.100	2.1678 0	4.3287-1	1.9968-1	7.900	2.4337 0	4.1638-1	1.7109-1
9.080	2.1717 0	4.3259-1	1.9919-1	7.880	2.4387 0	4.1611-1	1.7063-1
9.060	2.1757 0	4.3231-1	1.9870-1	7.860	2.4438 0	4.1585-1	1.7016-1
9.040	2.1796 0	4.3203-1	1.9822-1	7.840	2.4489 0	4.1558-1	1.6970-1
9.020	2.1835 0	4.3175-1	1.9773-1	7.820	2.4540 0	4.1531-1	1.6923-1
9.000	2.1875 0	4.3147-1	1.9724-1	7.800	2.4592 0	4.1504-1	1.6877-1
8.980	2.1915 0	4.3119-1	1.9676-1	7.780	2.4644 0	4.1477-1	1.6831-1
8.960	2.1955 0	4.3092-1	1.9627-1	7.760	2.4696 0	4.1450-1	1.6784-1
8.940	2.1995 0	4.3064-1	1.9579-1	7.740	2.4748 0	4.1424-1	1.6738-1
8.920	2.2035 0	4.3036-1	1.9531-1	7.720	2.4801 0	4.1397-1	1.6692-1
8.900	2.2076 0	4.3008-1	1.9482-1	7.700	2.4853 0	4.1370-1	1.6646-1
8.880	2.2116 0	4.2980-1	1.9434-1	7.680	2.4907 0	4.1343-1	1.6599-1
8.860	2.2157 0	4.2953-1	1.9385-1	7.660	2.4960 0	4.1317-1	1.6553-1
8.840	2.2198 0	4.2925-1	1.9337-1	7.640	2.5013 0	4.1290-1	1.6507-1
8.820	2.2239 0	4.2897-1	1.9289-1	7.620	2.5067 0	4.1263-1	1.6461-1
8.800	2.2280 0	4.2869-1	1.9241-1	7.600	2.5121 0	4.1237-1	1.6415-1
8.780	2.2322 0	4.2842-1	1.9193-1	7.580	2.5176 0	4.1210-1	1.6369-1
8.760	2.2364 0	4.2814-1	1.9144-1	7.560	2.5230 0	4.1184-1	1.6323-1
8.740	2.2405 0	4.2786-1	1.9096-1	7.540	2.5285 0	4.1157-1	1.6277-1
8.720	2.2447 0	4.2759-1	1.9048-1	7.520	2.5340 0	4.1131-1	1.6231-1
8.700	2.2490 0	4.2731-1	1.9000-1	7.500	2.5396 0	4.1104-1	1.6185-1
8.680	2.2532 0	4.2703-1	1.8952-1	7.480	2.5452 0	4.1078-1	1.6140-1
8.660	2.2575 0	4.2676-1	1.8904-1	7.460	2.5508 0	4.1051-1	1.6094-1
8.640	2.2617 0	4.2648-1	1.8856-1	7.440	2.5564 0	4.1025-1	1.6048-1
8.620	2.2660 0	4.2620-1	1.8809-1	7.420	2.5620 0	4.0999-1	1.6002-1
8.600	2.2703 0	4.2593-1	1.8761-1	7.400	2.5677 0	4.0972-1	1.5957-1
8.580	2.2746 0	4.2565-1	1.8713-1	7.380	2.5734 0	4.0946-1	1.5911-1
8.560	2.2790 0	4.2538-1	1.8665-1	7.360	2.5792 0	4.0920-1	1.5865-1
8.540	2.2834 0	4.2510-1	1.8617-1	7.340	2.5849 0	4.0893-1	1.5820-1
8.520	2.2877 0	4.2483-1	1.8570-1	7.320	2.5907 0	4.0867-1	1.5774-1
8.500	2.2921 0	4.2455-1	1.8522-1	7.300	2.5966 0	4.0841-1	1.5729-1
8.480	2.2966 0	4.2428-1	1.8474-1	7.280	2.6024 0	4.0815-1	1.5683-1
8.460	2.3010 0	4.2400-1	1.8427-1	7.260	2.6083 0	4.0788-1	1.5638-1
8.440	2.3055 0	4.2373-1	1.8379-1	7.240	2.6143 0	4.0762-1	1.5592-1
8.420	2.3099 0	4.2345-1	1.8332-1	7.220	2.6202 0	4.0736-1	1.5547-1
8.400	2.3144 0	4.2318-1	1.8284-1	7.200	2.6262 0	4.0710-1	1.5502-1
8.380	2.3189 0	4.2290-1	1.8237-1	7.180	2.6322 0	4.0684-1	1.5456-1

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
7.160	2.6382 0	4.0658-1	1.5411-1	5.960	3.0703 0	3.9168-1	1.2757-1
7.140	2.6443 0	4.0632-1	1.5366-1	5.940	3.0789 0	3.9144-1	1.2714-1
7.120	2.6504 0	4.0606-1	1.5321-1	5.920	3.0875 0	3.9121-1	1.2671-1
7.100	2.6566 0	4.0580-1	1.5275-1	5.900	3.0962 0	3.9098-1	1.2628-1
7.080	2.6627 0	4.0554-1	1.5230-1	5.880	3.1050 0	3.9074-1	1.2584-1
7.060	2.6689 0	4.0529-1	1.5185-1	5.860	3.1138 0	3.9051-1	1.2541-1
7.040	2.6752 0	4.0503-1	1.5140-1	5.840	3.1227 0	3.9028-1	1.2498-1
7.020	2.6815 0	4.0477-1	1.5095-1	5.820	3.1316 0	3.9005-1	1.2455-1
7.000	2.6878 0	4.0451-1	1.5050-1	5.800	3.1406 0	3.8982-1	1.2412-1
6.980	2.6941 0	4.0425-1	1.5005-1	5.780	3.1497 0	3.8960-1	1.2369-1
6.960	2.7005 0	4.0400-1	1.4960-1	5.760	3.1588 0	3.8937-1	1.2326-1
6.940	2.7069 0	4.0374-1	1.4915-1	5.740	3.1680 0	3.8914-1	1.2284-1
6.920	2.7133 0	4.0348-1	1.4871-1	5.720	3.1772 0	3.8891-1	1.2241-1
6.900	2.7198 0	4.0323-1	1.4826-1	5.700	3.1865 0	3.8869-1	1.2198-1
6.880	2.7263 0	4.0297-1	1.4781-1	5.680	3.1959 0	3.8846-1	1.2155-1
6.860	2.7329 0	4.0272-1	1.4736-1	5.660	3.2053 0	3.8824-1	1.2112-1
6.840	2.7394 0	4.0246-1	1.4691-1	5.640	3.2148 0	3.8802-1	1.2070-1
6.820	2.7461 0	4.0221-1	1.4647-1	5.620	3.2244 0	3.8779-1	1.2027-1
6.800	2.7527 0	4.0195-1	1.4602-1	5.600	3.2340 0	3.8757-1	1.1984-1
6.780	2.7594 0	4.0170-1	1.4557-1	5.580	3.2437 0	3.8735-1	1.1942-1
6.760	2.7661 0	4.0145-1	1.4513-1	5.560	3.2534 0	3.8713-1	1.1899-1
6.740	2.7729 0	4.0119-1	1.4468-1	5.540	3.2633 0	3.8691-1	1.1857-1
6.720	2.7797 0	4.0094-1	1.4424-1	5.520	3.2731 0	3.8669-1	1.1814-1
6.700	2.7866 0	4.0069-1	1.4379-1	5.500	3.2831 0	3.8647-1	1.1772-1
6.680	2.7935 0	4.0044-1	1.4335-1	5.480	3.2931 0	3.8626-1	1.1729-1
6.660	2.8004 0	4.0019-1	1.4290-1	5.460	3.3032 0	3.8604-1	1.1687-1
6.640	2.8073 0	3.9994-1	1.4246-1	5.440	3.3134 0	3.8582-1	1.1644-1
6.620	2.8143 0	3.9969-1	1.4202-1	5.420	3.3237 0	3.8561-1	1.1602-1
6.600	2.8214 0	3.9943-1	1.4157-1	5.400	3.3340 0	3.8540-1	1.1560-1
6.580	2.8285 0	3.9919-1	1.4113-1	5.380	3.3444 0	3.8518-1	1.1517-1
6.560	2.8356 0	3.9894-1	1.4069-1	5.360	3.3548 0	3.8497-1	1.1475-1
6.540	2.8428 0	3.9869-1	1.4025-1	5.340	3.3654 0	3.8476-1	1.1433-1
6.520	2.8500 0	3.9844-1	1.3980-1	5.320	3.3760 0	3.8455-1	1.1391-1
6.500	2.8572 0	3.9819-1	1.3936-1	5.300	3.3867 0	3.8434-1	1.1348-1
6.480	2.8645 0	3.9794-1	1.3892-1	5.280	3.3975 0	3.8413-1	1.1306-1
6.460	2.8718 0	3.9770-1	1.3848-1	5.260	3.4083 0	3.8392-1	1.1264-1
6.440	2.8792 0	3.9745-1	1.3804-1	5.240	3.4193 0	3.8372-1	1.1222-1
6.420	2.8866 0	3.9720-1	1.3760-1	5.220	3.4303 0	3.8351-1	1.1180-1
6.400	2.8941 0	3.9696-1	1.3716-1	5.200	3.4414 0	3.8331-1	1.1138-1
6.380	2.9016 0	3.9671-1	1.3672-1	5.180	3.4526 0	3.8310-1	1.1096-1
6.360	2.9091 0	3.9647-1	1.3628-1	5.160	3.4638 0	3.8290-1	1.1054-1
6.340	2.9167 0	3.9622-1	1.3584-1	5.140	3.4752 0	3.8270-1	1.1012-1
6.320	2.9244 0	3.9598-1	1.3541-1	5.120	3.4866 0	3.8250-1	1.0970-1
6.300	2.9321 0	3.9573-1	1.3497-1	5.100	3.4982 0	3.8230-1	1.0929-1
6.280	2.9398 0	3.9549-1	1.3453-1	5.080	3.5098 0	3.8210-1	1.0887-1
6.260	2.9476 0	3.9525-1	1.3409-1	5.060	3.5215 0	3.8191-1	1.0845-1
6.240	2.9554 0	3.9501-1	1.3366-1	5.040	3.5333 0	3.8171-1	1.0803-1
6.220	2.9633 0	3.9477-1	1.3322-1	5.020	3.5452 0	3.8152-1	1.0762-1
6.200	2.9712 0	3.9452-1	1.3278-1	5.000	3.5571 0	3.8132-1	1.0720-1
6.180	2.9792 0	3.9428-1	1.3235-1	4.980	3.5692 0	3.8113-1	1.0678-1
6.160	2.9872 0	3.9404-1	1.3191-1	4.960	3.5814 0	3.8094-1	1.0637-1
6.140	2.9953 0	3.9380-1	1.3147-1	4.940	3.5936 0	3.8075-1	1.0595-1
6.120	3.0034 0	3.9357-1	1.3104-1	4.920	3.6060 0	3.8056-1	1.0554-1
6.100	3.0116 0	3.9333-1	1.3060-1	4.900	3.6184 0	3.8037-1	1.0512-1
6.080	3.0198 0	3.9309-1	1.3017-1	4.880	3.6310 0	3.8019-1	1.0471-1
6.060	3.0281 0	3.9285-1	1.2974-1	4.860	3.6437 0	3.8000-1	1.0429-1
6.040	3.0364 0	3.9262-1	1.2930-1	4.840	3.6564 0	3.7982-1	1.0388-1
6.020	3.0448 0	3.9238-1	1.2887-1	4.820	3.6693 0	3.7964-1	1.0346-1
6.000	3.0532 0	3.9214-1	1.2844-1	4.800	3.6823 0	3.7945-1	1.0305-1
5.980	3.0617 0	3.9191-1	1.2800-1	4.780	3.6953 0	3.7927-1	1.0264-1

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
4.760	3.7085 0	3.7910-1	1.0222-1	4.000	4.3058 0	3.7362-1	8.6772-2
4.740	3.7218 0	3.7892-1	1.0181-1	3.990	4.3151 0	3.7357-1	8.6572-2
4.720	3.7352 0	3.7874-1	1.0140-1	3.980	4.3245 0	3.7352-1	8.6372-2
4.700	3.7487 0	3.7857-1	1.0099-1	3.970	4.3340 0	3.7347-1	8.6172-2
4.680	3.7624 0	3.7840-1	1.0057-1	3.960	4.3435 0	3.7342-1	8.5972-2
4.660	3.7761 0	3.7823-1	1.0016-1	3.950	4.3531 0	3.7337-1	8.5772-2
4.640	3.7900 0	3.7806-1	9.9753-2	3.940	4.3627 0	3.7332-1	8.5572-2
4.620	3.8039 0	3.7789-1	9.9342-2	3.930	4.3723 0	3.7327-1	8.5372-2
4.600	3.8180 0	3.7772-1	9.8932-2	3.920	4.3820 0	3.7323-1	8.5173-2
4.580	3.8322 0	3.7756-1	9.8522-2	3.910	4.3918 0	3.7318-1	8.4973-2
4.560	3.8466 0	3.7740-1	9.8112-2	3.900	4.4016 0	3.7314-1	8.4774-2
4.540	3.8611 0	3.7723-1	9.7703-2	3.890	4.4114 0	3.7309-1	8.4574-2
4.520	3.8756 0	3.7708-1	9.7294-2	3.880	4.4214 0	3.7305-1	8.4375-2
4.500	3.8904 0	3.7692-1	9.6885-2	3.870	4.4313 0	3.7301-1	8.4176-2
4.480	3.9052 0	3.7676-1	9.6477-2	3.860	4.4413 0	3.7297-1	8.3976-2
4.460	3.9202 0	3.7661-1	9.6068-2	3.850	4.4514 0	3.7293-1	8.3777-2
4.440	3.9353 0	3.7645-1	9.5661-2	3.840	4.4615 0	3.7289-1	8.3578-2
4.430	3.9429 0	3.7638-1	9.5457-2	3.830	4.4717 0	3.7285-1	8.3379-2
4.420	3.9506 0	3.7630-1	9.5253-2	3.820	4.4819 0	3.7281-1	8.3181-2
4.410	3.9582 0	3.7623-1	9.5050-2	3.810	4.4922 0	3.7277-1	8.2982-2
4.400	3.9659 0	3.7615-1	9.4846-2	3.800	4.5025 0	3.7273-1	8.2783-2
4.390	3.9737 0	3.7608-1	9.4643-2	3.790	4.5129 0	3.7270-1	8.2585-2
4.380	3.9815 0	3.7601-1	9.4439-2	3.780	4.5233 0	3.7266-1	8.2386-2
4.370	3.9893 0	3.7593-1	9.4236-2	3.770	4.5338 0	3.7263-1	8.2188-2
4.360	3.9971 0	3.7586-1	9.4033-2	3.760	4.5444 0	3.7259-1	8.1989-2
4.350	4.0050 0	3.7579-1	9.3830-2	3.750	4.5550 0	3.7256-1	8.1791-2
4.340	4.0129 0	3.7572-1	9.3627-2	3.740	4.5657 0	3.7253-1	8.1593-2
4.330	4.0209 0	3.7565-1	9.3424-2	3.730	4.5764 0	3.7249-1	8.1394-2
4.320	4.0289 0	3.7558-1	9.3221-2	3.720	4.5872 0	3.7246-1	8.1197-2
4.310	4.0369 0	3.7551-1	9.3018-2	3.710	4.5980 0	3.7243-1	8.0999-2
4.300	4.0450 0	3.7544-1	9.2816-2	3.700	4.6089 0	3.7241-1	8.0801-2
4.290	4.0531 0	3.7537-1	9.2613-2	3.690	4.6199 0	3.7238-1	8.0603-2
4.280	4.0612 0	3.7530-1	9.2410-2	3.680	4.6309 0	3.7235-1	8.0406-2
4.270	4.0694 0	3.7523-1	9.2208-2	3.670	4.6420 0	3.7233-1	8.0208-2
4.260	4.0776 0	3.7517-1	9.2006-2	3.660	4.6531 0	3.7230-1	8.0011-2
4.250	4.0859 0	3.7510-1	9.1803-2	3.650	4.6643 0	3.7228-1	7.9813-2
4.240	4.0942 0	3.7503-1	9.1601-2	3.640	4.6756 0	3.7225-1	7.9616-2
4.230	4.1025 0	3.7497-1	9.1399-2	3.630	4.6870 0	3.7223-1	7.9419-2
4.220	4.1109 0	3.7490-1	9.1197-2	3.620	4.6983 0	3.7221-1	7.9221-2
4.210	4.1193 0	3.7484-1	9.0995-2	3.610	4.7098 0	3.7219-1	7.9024-2
4.200	4.1278 0	3.7477-1	9.0793-2	3.600	4.7213 0	3.7217-1	7.8827-2
4.190	4.1363 0	3.7471-1	9.0591-2	3.590	4.7329 0	3.7215-1	7.8630-2
4.180	4.1448 0	3.7465-1	9.0389-2	3.580	4.7446 0	3.7213-1	7.8433-2
4.170	4.1534 0	3.7459-1	9.0188-2	3.570	4.7563 0	3.7212-1	7.8237-2
4.160	4.1620 0	3.7452-1	8.9986-2	3.560	4.7681 0	3.7210-1	7.8040-2
4.150	4.1707 0	3.7446-1	8.9785-2	3.550	4.7800 0	3.7209-1	7.7843-2
4.140	4.1794 0	3.7440-1	8.9583-2	3.540	4.7919 0	3.7207-1	7.7647-2
4.130	4.1881 0	3.7434-1	8.9382-2	3.530	4.8039 0	3.7206-1	7.7450-2
4.120	4.1969 0	3.7428-1	8.9181-2	3.520	4.8159 0	3.7205-1	7.7254-2
4.110	4.2057 0	3.7422-1	8.8979-2	3.510	4.8281 0	3.7204-1	7.7058-2
4.100	4.2146 0	3.7417-1	8.8778-2	3.500	4.8403 0	3.7203-1	7.6862-2
4.090	4.2235 0	3.7411-1	8.8577-2	3.490	4.8526 0	3.7202-1	7.6665-2
4.080	4.2325 0	3.7405-1	8.8376-2	3.480	4.8649 0	3.7202-1	7.6469-2
4.070	4.2415 0	3.7399-1	8.8176-2	3.470	4.8773 0	3.7201-1	7.6273-2
4.060	4.2505 0	3.7394-1	8.7975-2	3.460	4.8898 0	3.7201-1	7.6078-2
4.050	4.2596 0	3.7388-1	8.7774-2	3.450	4.9024 0	3.7200-1	7.5882-2
4.040	4.2687 0	3.7383-1	8.7574-2	3.440	4.9150 0	3.7200-1	7.5686-2
4.030	4.2779 0	3.7378-1	8.7373-2	3.430	4.9278 0	3.7200-1	7.5490-2
4.020	4.2872 0	3.7372-1	8.7173-2	3.420	4.9406 0	3.7200-1	7.5295-2
4.010	4.2964 0	3.7367-1	8.6972-2	3.410	4.9534 0	3.7200-1	7.5099-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
3.400	4.9664 0	3.7200-1	7.4904-2	2.800	5.9196 0	3.7494-1	6.3338-2
3.390	4.9794 0	3.7201-1	7.4709-2	2.790	5.9392 0	3.7505-1	6.3148-2
3.380	4.9925 0	3.7201-1	7.4514-2	2.780	5.9589 0	3.7516-1	6.2958-2
3.370	5.0057 0	3.7202-1	7.4319-2	2.770	5.9787 0	3.7527-1	6.2768-2
3.360	5.0190 0	3.7202-1	7.4123-2	2.760	5.9987 0	3.7539-1	6.2579-2
3.350	5.0323 0	3.7203-1	7.3929-2	2.750	6.0188 0	3.7551-1	6.2389-2
3.340	5.0458 0	3.7204-1	7.3734-2	2.740	6.0391 0	3.7563-1	6.2199-2
3.330	5.0593 0	3.7205-1	7.3539-2	2.730	6.0596 0	3.7575-1	6.2010-2
3.320	5.0729 0	3.7207-1	7.3344-2	2.720	6.0802 0	3.7588-1	6.1820-2
3.310	5.0866 0	3.7208-1	7.3150-2	2.710	6.1010 0	3.7601-1	6.1631-2
3.300	5.1003 0	3.7210-1	7.2955-2	2.700	6.1219 0	3.7614-1	6.1442-2
3.290	5.1142 0	3.7211-1	7.2761-2	2.690	6.1430 0	3.7627-1	6.1253-2
3.280	5.1281 0	3.7213-1	7.2566-2	2.680	6.1643 0	3.7641-1	6.1064-2
3.270	5.1422 0	3.7215-1	7.2372-2	2.670	6.1857 0	3.7655-1	6.0875-2
3.260	5.1563 0	3.7217-1	7.2178-2	2.665	6.1965 0	3.7662-1	6.0780-2
3.250	5.1705 0	3.7219-1	7.1984-2	2.660	6.2073 0	3.7670-1	6.0686-2
3.240	5.1848 0	3.7221-1	7.1790-2	2.655	6.2182 0	3.7677-1	6.0591-2
3.230	5.1992 0	3.7224-1	7.1596-2	2.650	6.2291 0	3.7684-1	6.0497-2
3.220	5.2137 0	3.7227-1	7.1402-2	2.645	6.2401 0	3.7692-1	6.0403-2
3.210	5.2282 0	3.7229-1	7.1208-2	2.640	6.2511 0	3.7699-1	6.0308-2
3.200	5.2429 0	3.7232-1	7.1014-2	2.635	6.2621 0	3.7707-1	6.0214-2
3.190	5.2577 0	3.7235-1	7.0821-2	2.630	6.2732 0	3.7714-1	6.0120-2
3.180	5.2725 0	3.7239-1	7.0627-2	2.625	6.2844 0	3.7722-1	6.0025-2
3.170	5.2875 0	3.7242-1	7.0434-2	2.620	6.2955 0	3.7730-1	5.9931-2
3.160	5.3026 0	3.7245-1	7.0241-2	2.615	6.3068 0	3.7738-1	5.9837-2
3.150	5.3177 0	3.7249-1	7.0047-2	2.610	6.3180 0	3.7746-1	5.9743-2
3.140	5.3330 0	3.7253-1	6.9854-2	2.605	6.3294 0	3.7754-1	5.9649-2
3.130	5.3483 0	3.7257-1	6.9661-2	2.600	6.3407 0	3.7762-1	5.9554-2
3.120	5.3638 0	3.7261-1	6.9468-2	2.595	6.3521 0	3.7770-1	5.9460-2
3.110	5.3794 0	3.7266-1	6.9275-2	2.590	6.3636 0	3.7778-1	5.9366-2
3.100	5.3950 0	3.7270-1	6.9082-2	2.585	6.3751 0	3.7787-1	5.9272-2
3.090	5.4108 0	3.7275-1	6.8890-2	2.580	6.3867 0	3.7795-1	5.9178-2
3.080	5.4267 0	3.7280-1	6.8697-2	2.575	6.3983 0	3.7804-1	5.9084-2
3.070	5.4427 0	3.7285-1	6.8504-2	2.570	6.4099 0	3.7812-1	5.8990-2
3.060	5.4588 0	3.7290-1	6.8312-2	2.565	6.4216 0	3.7821-1	5.8896-2
3.050	5.4750 0	3.7295-1	6.8120-2	2.560	6.4334 0	3.7830-1	5.8802-2
3.040	5.4913 0	3.7301-1	6.7927-2	2.555	6.4452 0	3.7839-1	5.8708-2
3.030	5.5077 0	3.7307-1	6.7735-2	2.550	6.4570 0	3.7847-1	5.8614-2
3.020	5.5243 0	3.7312-1	6.7543-2	2.545	6.4689 0	3.7857-1	5.8520-2
3.010	5.5409 0	3.7319-1	6.7351-2	2.540	6.4809 0	3.7866-1	5.8427-2
3.000	5.5577 0	3.7325-1	6.7159-2	2.535	6.4929 0	3.7875-1	5.8333-2
2.990	5.5746 0	3.7331-1	6.6967-2	2.530	6.5049 0	3.7884-1	5.8239-2
2.980	5.5916 0	3.7338-1	6.6775-2	2.525	6.5170 0	3.7893-1	5.8145-2
2.970	5.6087 0	3.7345-1	6.6584-2	2.520	6.5292 0	3.7903-1	5.8051-2
2.960	5.6260 0	3.7352-1	6.6392-2	2.515	6.5414 0	3.7913-1	5.7958-2
2.950	5.6434 0	3.7359-1	6.6200-2	2.510	6.5537 0	3.7922-1	5.7864-2
2.940	5.6609 0	3.7367-1	6.6009-2	2.505	6.5660 0	3.7932-1	5.7770-2
2.930	5.6785 0	3.7374-1	6.5818-2	2.500	6.5783 0	3.7942-1	5.7677-2
2.920	5.6962 0	3.7382-1	6.5626-2	2.495	6.5908 0	3.7952-1	5.7583-2
2.910	5.7141 0	3.7390-1	6.5435-2	2.490	6.6032 0	3.7962-1	5.7489-2
2.900	5.7321 0	3.7399-1	6.5244-2	.485	6.6158 0	3.7972-1	5.7396-2
2.890	5.7502 0	3.7407-1	6.5053-2	2.480	6.6283 0	3.7982-1	5.7302-2
2.880	5.7685 0	3.7416-1	6.4862-2	2.475	6.6410 0	3.7992-1	5.7209-2
2.870	5.7869 0	3.7425-1	6.4672-2	2.470	6.6537 0	3.8003-1	5.7115-2
2.860	5.8055 0	3.7434-1	6.4481-2	2.465	6.6664 0	3.8013-1	5.7022-2
2.850	5.8241 0	3.7444-1	6.4290-2	2.460	6.6792 0	3.8024-1	5.6928-2
2.840	5.8430 0	3.7453-1	6.4100-2	2.455	6.6921 0	3.8034-1	5.6835-2
2.830	5.8619 0	3.7463-1	6.3909-2	2.450	6.7050 0	3.8045-1	5.6741-2
2.820	5.8810 0	3.7473-1	6.3719-2	2.445	6.7180 0	3.8056-1	5.6648-2
2.810	5.9003 0	3.7484-1	6.3529-2	2.440	6.7310 0	3.8067-1	5.6555-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
2.435	6.7441 0	3.8078-1	5.6461-2	2.135	7.6528 0	3.8960-1	5.0909-2
2.430	6.7572 0	3.8089-1	5.6368-2	2.130	7.6704 0	3.8979-1	5.0817-2
2.425	6.7704 0	3.8101-1	5.6275-2	2.125	7.6880 0	3.8998-1	5.0726-2
2.420	6.7837 0	3.8112-1	5.6182-2	2.120	7.7057 0	3.9017-1	5.0634-2
2.415	6.7970 0	3.8123-1	5.6088-2	2.115	7.7235 0	3.9037-1	5.0543-2
2.410	6.8104 0	3.8135-1	5.5995-2	2.110	7.7414 0	3.9056-1	5.0451-2
2.405	6.8239 0	3.8147-1	5.5902-2	2.105	7.7595 0	3.9076-1	5.0359-2
2.400	6.8374 0	3.8158-1	5.5809-2	2.100	7.7776 0	3.9096-1	5.0268-2
2.395	6.8509 0	3.8170-1	5.5716-2	2.095	7.7958 0	3.9116-1	5.0176-2
2.390	6.8646 0	3.8182-1	5.5622-2	2.090	7.8140 0	3.9137-1	5.0085-2
2.385	6.8783 0	3.8195-1	5.5529-2	2.085	7.8324 0	3.9157-1	4.9993-2
2.380	6.8920 0	3.8207-1	5.5436-2	2.080	7.8509 0	3.9178-1	4.9902-2
2.375	6.9058 0	3.8219-1	5.5343-2	2.075	7.8695 0	3.9199-1	4.9811-2
2.370	6.9197 0	3.8232-1	5.5250-2	2.070	7.8882 0	3.9220-1	4.9719-2
2.365	6.9336 0	3.8244-1	5.5157-2	2.065	7.9070 0	3.9241-1	4.9628-2
2.360	6.9477 0	3.8257-1	5.5064-2	2.060	7.9259 0	3.9262-1	4.9537-2
2.355	6.9617 0	3.8270-1	5.4971-2	2.055	7.9449 0	3.9284-1	4.9445-2
2.350	6.9759 0	3.8283-1	5.4879-2	2.050	7.9640 0	3.9306-1	4.9354-2
2.345	6.9901 0	3.8296-1	5.4786-2	2.045	7.9832 0	3.9328-1	4.9263-2
2.340	7.0043 0	3.8309-1	5.4693-2	2.040	8.0025 0	3.9350-1	4.9172-2
2.335	7.0187 0	3.8322-1	5.4600-2	2.035	8.0219 0	3.9372-1	4.9081-2
2.330	7.0331 0	3.8335-1	5.4507-2	2.030	8.0414 0	3.9395-1	4.8990-2
2.325	7.0475 0	3.8349-1	5.4414-2	2.025	8.0611 0	3.9417-1	4.8899-2
2.320	7.0621 0	3.8362-1	5.4322-2	2.020	8.0808 0	3.9440-1	4.8807-2
2.315	7.0767 0	3.8376-1	5.4229-2	2.015	8.1007 0	3.9464-1	4.8716-2
2.310	7.0914 0	3.8390-1	5.4136-2	2.010	8.1206 0	3.9487-1	4.8625-2
2.305	7.1061 0	3.8404-1	5.4044-2	2.005	8.1407 0	3.9510-1	4.8535-2
2.300	7.1209 0	3.8418-1	5.3951-2	2.000	8.1609 0	3.9534-1	4.8444-2
2.295	7.1358 0	3.8432-1	5.3858-2	1.995	8.1812 0	3.9558-1	4.8353-2
2.290	7.1508 0	3.8447-1	5.3766-2	1.990	8.2016 0	3.9582-1	4.8262-2
2.285	7.1658 0	3.8461-1	5.3673-2	1.985	8.2221 0	3.9607-1	4.8171-2
2.280	7.1809 0	3.8476-1	5.3581-2	1.980	8.2428 0	3.9631-1	4.8080-2
2.275	7.1961 0	3.8490-1	5.3488-2	1.975	8.2635 0	3.9656-1	4.7989-2
2.270	7.2113 0	3.8505-1	5.3396-2	1.970	8.2844 0	3.9681-1	4.7899-2
2.265	7.2266 0	3.8520-1	5.3303-2	1.965	8.3054 0	3.9707-1	4.7808-2
2.260	7.2420 0	3.8535-1	5.3211-2	1.960	8.3265 0	3.9732-1	4.7717-2
2.255	7.2575 0	3.8551-1	5.3118-2	1.955	8.3478 0	3.9758-1	4.7627-2
2.250	7.2730 0	3.8566-1	5.3026-2	1.950	8.3691 0	3.9784-1	4.7536-2
2.245	7.2887 0	3.8582-1	5.2934-2	1.945	8.3906 0	3.9810-1	4.7445-2
2.240	7.3044 0	3.8597-1	5.2841-2	1.940	8.4123 0	3.9836-1	4.7355-2
2.235	7.3201 0	3.8613-1	5.2749-2	1.935	8.4340 0	3.9863-1	4.7264-2
2.230	7.3360 0	3.8629-1	5.2657-2	1.930	8.4559 0	3.9890-1	4.7174-2
2.225	7.3519 0	3.8645-1	5.2565-2	1.925	8.4779 0	3.9917-1	4.7083-2
2.220	7.3679 0	3.8661-1	5.2472-2	1.920	8.5000 0	3.9944-1	4.6993-2
2.215	7.3840 0	3.8678-1	5.2380-2	1.915	8.5222 0	3.9972-1	4.6903-2
2.210	7.4002 0	3.8694-1	5.2288-2	1.910	8.5446 0	3.9999-1	4.6812-2
2.205	7.4165 0	3.8711-1	5.2196-2	1.905	8.5672 0	4.0027-1	4.6722-2
2.200	7.4328 0	3.8728-1	5.2104-2	1.900	8.5898 0	4.0056-1	4.6632-2
2.195	7.4492 0	3.8745-1	5.2012-2	1.895	8.6126 0	4.0084-1	4.6541-2
2.190	7.4657 0	3.8762-1	5.1920-2	1.890	8.6355 0	4.0113-1	4.6451-2
2.185	7.4823 0	3.8779-1	5.1828-2	1.885	8.6586 0	4.0142-1	4.6361-2
2.180	7.4989 0	3.8796-1	5.1736-2	1.880	8.6818 0	4.0172-1	4.6271-2
2.175	7.5157 0	3.8814-1	5.1644-2	1.875	8.7052 0	4.0201-1	4.6181-2
2.170	7.5325 0	3.8832-1	5.1552-2	1.870	8.7287 0	4.0231-1	4.6091-2
2.165	7.5494 0	3.8849-1	5.1460-2	1.865	8.7523 0	4.0261-1	4.6001-2
2.160	7.5665 0	3.8867-1	5.1368-2	1.860	8.7761 0	4.0292-1	4.5911-2
2.155	7.5835 0	3.8886-1	5.1276-2	1.855	8.8000 0	4.0322-1	4.5821-2
2.150	7.6007 0	3.8904-1	5.1184-2	1.850	8.8241 0	4.0353-1	4.5731-2
2.145	7.6180 0	3.8922-1	5.1093-2	1.845	8.8483 0	4.0384-1	4.5641-2
2.140	7.6354 0	3.8941-1	5.1001-2	1.840	8.8727 0	4.0416-1	4.5551-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
1.835	8.8972 0	4.0448-1	4.5461-2	1.535	1.0713 1	4.3004-1	4.0141-2
1.830	8.9219 0	4.0480-1	4.5371-2	1.530	1.0751 1	4.3061-1	4.0053-2
1.825	8.9467 0	4.0512-1	4.5282-2	1.525	1.0789 1	4.3117-1	3.9966-2
1.820	8.9717 0	4.0545-1	4.5192-2	1.520	1.0827 1	4.3175-1	3.9879-2
1.815	8.9968 0	4.0578-1	4.5102-2	1.515	1.0865 1	4.3233-1	3.9791-2
1.810	9.0221 0	4.0611-1	4.5012-2	1.510	1.0903 1	4.3291-1	3.9704-2
1.805	9.0476 0	4.0644-1	4.4923-2	1.505	1.0942 1	4.3350-1	3.9617-2
1.800	9.0732 0	4.0678-1	4.4833-2	1.500	1.0982 1	4.3410-1	3.9530-2
1.795	9.0990 0	4.0712-1	4.4744-2	1.495	1.1021 1	4.3470-1	3.9443-2
1.790	9.1250 0	4.0747-1	4.4654-2	1.490	1.1061 1	4.3531-1	3.9356-2
1.785	9.1511 0	4.0781-1	4.4565-2	1.485	1.1101 1	4.3593-1	3.9269-2
1.780	9.1774 0	4.0817-1	4.4475-2	1.480	1.1142 1	4.3655-1	3.9182-2
1.775	9.2038 0	4.0852-1	4.4386-2	1.478	1.1158 1	4.3680-1	3.9147-2
1.770	9.2305 0	4.0888-1	4.4296-2	1.476	1.1174 1	4.3705-1	3.9113-2
1.765	9.2573 0	4.0924-1	4.4207-2	1.474	1.1191 1	4.3731-1	3.9078-2
1.760	9.2843 0	4.0960-1	4.4118-2	1.472	1.1207 1	4.3756-1	3.9043-2
1.755	9.3114 0	4.0997-1	4.4029-2	1.470	1.1224 1	4.3782-1	3.9009-2
1.750	9.3387 0	4.1034-1	4.3939-2	1.468	1.1240 1	4.3807-1	3.8974-2
1.745	9.3663 0	4.1071-1	4.3850-2	1.466	1.1257 1	4.3833-1	3.8939-2
1.740	9.3940 0	4.1109-1	4.3761-2	1.464	1.1273 1	4.3859-1	3.8904-2
1.735	9.4219 0	4.1147-1	4.3672-2	1.462	1.1290 1	4.3884-1	3.8870-2
1.730	9.4499 0	4.1185-1	4.3583-2	1.460	1.1307 1	4.3910-1	3.8835-2
1.725	9.4782 0	4.1224-1	4.3494-2	1.458	1.1324 1	4.3937-1	3.8800-2
1.720	9.5066 0	4.1263-1	4.3405-2	1.456	1.1341 1	4.3963-1	3.8766-2
1.715	9.5353 0	4.1303-1	4.3316-2	1.454	1.1358 1	4.3989-1	3.8731-2
1.710	9.5641 0	4.1343-1	4.3227-2	1.452	1.1375 1	4.4016-1	3.8697-2
1.705	9.5932 0	4.1383-1	4.3138-2	1.450	1.1392 1	4.4042-1	3.8662-2
1.700	9.6224 0	4.1424-1	4.3049-2	1.448	1.1409 1	4.4069-1	3.8627-2
1.695	9.6518 0	4.1465-1	4.2960-2	1.446	1.1426 1	4.4095-1	3.8593-2
1.690	9.6815 0	4.1506-1	4.2872-2	1.444	1.1443 1	4.4122-1	3.8558-2
1.685	9.7113 0	4.1548-1	4.2783-2	1.442	1.1460 1	4.4149-1	3.8523-2
1.680	9.7413 0	4.1590-1	4.2694-2	1.440	1.1478 1	4.4176-1	3.8489-2
1.675	9.7716 0	4.1632-1	4.2605-2	1.438	1.1495 1	4.4204-1	3.8454-2
1.670	9.8021 0	4.1675-1	4.2517-2	1.436	1.1513 1	4.4231-1	3.8420-2
1.665	9.8327 0	4.1719-1	4.2428-2	1.434	1.1530 1	4.4258-1	3.8385-2
1.660	9.8636 0	4.1762-1	4.2340-2	1.432	1.1548 1	4.4286-1	3.8351-2
1.655	9.8947 0	4.1807-1	4.2251-2	1.430	1.1565 1	4.4314-1	3.8316-2
1.650	9.9261 0	4.1851-1	4.2163-2	1.428	1.1583 1	4.4341-1	3.8282-2
1.645	9.9576 0	4.1896-1	4.2074-2	1.426	1.1601 1	4.4369-1	3.8247-2
1.640	9.9894 0	4.1942-1	4.1986-2	1.424	1.1619 1	4.4397-1	3.8213-2
1.635	1.0021 1	4.1988-1	4.1898-2	1.422	1.1636 1	4.4425-1	3.8178-2
1.630	1.0054 1	4.2034-1	4.1810-2	1.420	1.1654 1	4.4454-1	3.8144-2
1.625	1.0086 1	4.2081-1	4.1721-2	1.418	1.1672 1	4.4482-1	3.8109-2
1.620	1.0119 1	4.2128-1	4.1633-2	1.416	1.1690 1	4.4511-1	3.8075-2
1.615	1.0152 1	4.2175-1	4.1545-2	1.414	1.1708 1	4.4539-1	3.8040-2
1.610	1.0185 1	4.2224-1	4.1457-2	1.412	1.1727 1	4.4568-1	3.8006-2
1.605	1.0218 1	4.2272-1	4.1369-2	1.410	1.1745 1	4.4597-1	3.7971-2
1.600	1.0252 1	4.2321-1	4.1281-2	1.408	1.1763 1	4.4626-1	3.7937-2
1.595	1.0286 1	4.2371-1	4.1193-2	1.406	1.1782 1	4.4655-1	3.7902-2
1.590	1.0320 1	4.2421-1	4.1105-2	1.404	1.1800 1	4.4684-1	3.7868-2
1.585	1.0355 1	4.2471-1	4.1017-2	1.402	1.1819 1	4.4713-1	3.7833-2
1.580	1.0389 1	4.2522-1	4.0929-2	1.400	1.1837 1	4.4743-1	3.7799-2
1.575	1.0424 1	4.2574-1	4.0841-2	1.398	1.1856 1	4.4773-1	3.7765-2
1.570	1.0459 1	4.2626-1	4.0754-2	1.396	1.1874 1	4.4802-1	3.7730-2
1.565	1.0495 1	4.2678-1	4.0666-2	1.394	1.1893 1	4.4832-1	3.7696-2
1.560	1.0531 1	4.2731-1	4.0578-2	1.392	1.1912 1	4.4862-1	3.7661-2
1.555	1.0567 1	4.2785-1	4.0491-2	1.390	1.1931 1	4.4892-1	3.7627-2
1.550	1.0603 1	4.2839-1	4.0403-2	1.388	1.1950 1	4.4923-1	3.7593-2
1.545	1.0639 1	4.2894-1	4.0316-2	1.386	1.1969 1	4.4953-1	3.7558-2
1.540	1.0676 1	4.2949-1	4.0228-2	1.384	1.1988 1	4.4983-1	3.7524-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
1.382	1.2007	1 4.5014-1	3.7490-2	1.262	1.3294	1 4.7124-1	3.5448-2
1.380	1.2026	1 4.5045-1	3.7455-2	1.260	1.3318	1 4.7164-1	3.5414-2
1.378	1.2046	1 4.5076-1	3.7421-2	1.258	1.3342	1 4.7204-1	3.5381-2
1.376	1.2065	1 4.5107-1	3.7387-2	1.256	1.3366	1 4.7245-1	3.5347-2
1.374	1.2084	1 4.5138-1	3.7353-2	1.254	1.3390	1 4.7286-1	3.5313-2
1.372	1.2104	1 4.5169-1	3.7318-2	1.252	1.3415	1 4.7327-1	3.5280-2
1.370	1.2123	1 4.5201-1	3.7284-2	1.250	1.3439	1 4.7368-1	3.5246-2
1.368	1.2143	1 4.5232-1	3.7250-2	1.248	1.3464	1 4.7409-1	3.5212-2
1.366	1.2163	1 4.5264-1	3.7215-2	1.246	1.3489	1 4.7451-1	3.5179-2
1.364	1.2182	1 4.5296-1	3.7181-2	1.244	1.3513	1 4.7493-1	3.5145-2
1.362	1.2202	1 4.5328-1	3.7147-2	1.242	1.3538	1 4.7535-1	3.5111-2
1.360	1.2222	1 4.5360-1	3.7113-2	1.240	1.3563	1 4.7577-1	3.5078-2
1.358	1.2242	1 4.5392-1	3.7079-2	1.238	1.3588	1 4.7619-1	3.5044-2
1.356	1.2262	1 4.5425-1	3.7044-2	1.236	1.3614	1 4.7662-1	3.5011-2
1.354	1.2282	1 4.5457-1	3.7010-2	1.234	1.3639	1 4.7705-1	3.4977-2
1.352	1.2303	1 4.5490-1	3.6976-2	1.232	1.3664	1 4.7748-1	3.4944-2
1.350	1.2323	1 4.5523-1	3.6942-2	1.230	1.3690	1 4.7791-1	3.4910-2
1.348	1.2343	1 4.5556-1	3.6908-2	1.228	1.3715	1 4.7834-1	3.4876-2
1.346	1.2364	1 4.5589-1	3.6873-2	1.226	1.3741	1 4.7878-1	3.4843-2
1.344	1.2384	1 4.5622-1	3.6839-2	1.224	1.3767	1 4.7922-1	3.4809-2
1.342	1.2405	1 4.5656-1	3.6805-2	1.222	1.3793	1 4.7966-1	3.4776-2
1.340	1.2425	1 4.5689-1	3.6771-2	1.220	1.3819	1 4.8010-1	3.4742-2
1.338	1.2446	1 4.5723-1	3.6737-2	1.218	1.3845	1 4.8055-1	3.4709-2
1.336	1.2467	1 4.5757-1	3.6703-2	1.216	1.3871	1 4.8099-1	3.4676-2
1.334	1.2488	1 4.5791-1	3.6669-2	1.214	1.3898	1 4.8144-1	3.4642-2
1.332	1.2509	1 4.5825-1	3.6635-2	1.212	1.3924	1 4.8189-1	3.4609-2
1.330	1.2530	1 4.5859-1	3.6601-2	1.210	1.3951	1 4.8235-1	3.4575-2
1.328	1.2551	1 4.5894-1	3.6566-2	1.208	1.3977	1 4.8280-1	3.4542-2
1.326	1.2572	1 4.5928-1	3.6532-2	1.206	1.4004	1 4.8326-1	3.4508-2
1.324	1.2593	1 4.5963-1	3.6498-2	1.204	1.4031	1 4.8372-1	3.4475-2
1.322	1.2615	1 4.5998-1	3.6464-2	1.202	1.4058	1 4.8418-1	3.4442-2
1.320	1.2636	1 4.6033-1	3.6430-2	1.200	1.4085	1 4.8465-1	3.4408-2
1.318	1.2657	1 4.6068-1	3.6396-2	1.198	1.4112	1 4.8511-1	3.4375-2
1.316	1.2679	1 4.6104-1	3.6362-2	1.196	1.4140	1 4.8558-1	3.4342-2
1.314	1.2701	1 4.6139-1	3.6328-2	1.194	1.4167	1 4.8605-1	3.4308-2
1.312	1.2722	1 4.6175-1	3.6294-2	1.192	1.4195	1 4.8653-1	3.4275-2
1.310	1.2744	1 4.6211-1	3.6260-2	1.190	1.4222	1 4.8700-1	3.4242-2
1.308	1.2766	1 4.6247-1	3.6226-2	1.188	1.4250	1 4.8748-1	3.4208-2
1.306	1.2788	1 4.6283-1	3.6192-2	1.186	1.4278	1 4.8796-1	3.4175-2
1.304	1.2810	1 4.6320-1	3.6158-2	1.184	1.4306	1 4.8845-1	3.4142-2
1.302	1.2832	1 4.6356-1	3.6125-2	1.182	1.4334	1 4.8893-1	3.4109-2
1.300	1.2855	1 4.6393-1	3.6091-2	1.180	1.4363	1 4.8942-1	3.4075-2
1.298	1.2877	1 4.6430-1	3.6057-2	1.178	1.4391	1 4.8991-1	3.4042-2
1.296	1.2899	1 4.6467-1	3.6023-2	1.176	1.4420	1 4.9040-1	3.4009-2
1.294	1.2922	1 4.6504-1	3.5989-2	1.174	1.4448	1 4.9090-1	3.3976-2
1.292	1.2944	1 4.6542-1	3.5955-2	1.172	1.4477	1 4.9140-1	3.3943-2
1.290	1.2967	1 4.6579-1	3.5921-2	1.170	1.4506	1 4.9190-1	3.3910-2
1.288	1.2990	1 4.6617-1	3.5887-2	1.168	1.4535	1 4.9240-1	3.3876-2
1.286	1.3013	1 4.6655-1	3.5853-2	1.166	1.4564	1 4.9290-1	3.3843-2
1.284	1.3036	1 4.6693-1	3.5820-2	1.164	1.4594	1 4.9341-1	3.3810-2
1.282	1.3059	1 4.6731-1	3.5786-2	1.162	1.4623	1 4.9392-1	3.3777-2
1.280	1.3082	1 4.6770-1	3.5752-2	1.160	1.4653	1 4.9444-1	3.3744-2
1.278	1.3105	1 4.6808-1	3.5718-2	1.158	1.4682	1 4.9495-1	3.3711-2
1.276	1.3128	1 4.6847-1	3.5684-2	1.156	1.4712	1 4.9547-1	3.3678-2
1.274	1.3152	1 4.6886-1	3.5651-2	1.154	1.4742	1 4.9599-1	3.3645-2
1.272	1.3175	1 4.6925-1	3.5617-2	1.152	1.4772	1 4.9651-1	3.3612-2
1.270	1.3199	1 4.6964-1	3.5583-2	1.150	1.4802	1 4.9704-1	3.3579-2
1.268	1.3222	1 4.7004-1	3.5549-2	1.148	1.4833	1 4.9757-1	3.3546-2
1.266	1.3246	1 4.7044-1	3.5515-2	1.146	1.4863	1 4.9810-1	3.3513-2
1.264	1.3270	1 4.7083-1	3.5482-2	1.144	1.4894	1 4.9863-1	3.3480-2

TABLE D

ϕ	U/η	τ/η	τ/ξ	ϕ	U/η	τ/η	τ/ξ
1.142	1.4924 1	4.9917-1	3.3447-2	1.022	1.7057 1	5.3722-1	3.1495-2
1.140	1.4955 1	4.9971-1	3.3414-2	1.020	1.7098 1	5.3797-1	3.1463-2
1.138	1.4986 1	5.0025-1	3.3381-2	1.018	1.7140 1	5.3872-1	3.1431-2
1.136	1.5017 1	5.0080-1	3.3348-2	1.016	1.7181 1	5.3948-1	3.1399-2
1.134	1.5049 1	5.0135-1	3.3315-2	1.014	1.7223 1	5.4024-1	3.1367-2
1.132	1.5080 1	5.0190-1	3.3282-2	1.012	1.7265 1	5.4100-1	3.1335-2
1.130	1.5112 1	5.0245-1	3.3249-2	1.010	1.7307 1	5.4177-1	3.1304-2
1.128	1.5144 1	5.0301-1	3.3216-2	1.008	1.7349 1	5.4255-1	3.1272-2
1.126	1.5175 1	5.0357-1	3.3183-2	1.006	1.7392 1	5.4333-1	3.1240-2
1.124	1.5207 1	5.0413-1	3.3150-2	1.004	1.7435 1	5.4411-1	3.1208-2
1.122	1.5240 1	5.0470-1	3.3118-2	1.002	1.7478 1	5.4489-1	3.1176-2
1.120	1.5272 1	5.0526-1	3.3085-2	1.000	1.7521 1	5.4569-1	3.1144-2
1.118	1.5304 1	5.0584-1	3.3052-2	0.998	1.7565 1	5.4648-1	3.1112-2
1.116	1.5337 1	5.0641-1	3.3019-2	0.996	1.7609 1	5.4728-1	3.1081-2
1.114	1.5370 1	5.0699-1	3.2986-2	0.994	1.7653 1	5.4809-1	3.1049-2
1.112	1.5403 1	5.0757-1	3.2954-2	0.992	1.7697 1	5.4890-1	3.1017-2
1.110	1.5436 1	5.0815-1	3.2921-2	0.990	1.7741 1	5.4972-1	3.0985-2
1.108	1.5469 1	5.0874-1	3.2888-2	0.988	1.7786 1	5.5054-1	3.0954-2
1.106	1.5502 1	5.0933-1	3.2855-2	0.986	1.7831 1	5.5136-1	3.0922-2
1.104	1.5536 1	5.0992-1	3.2823-2	0.984	1.7876 1	5.5219-1	3.0890-2
1.102	1.5569 1	5.1052-1	3.2790-2	0.982	1.7921 1	5.5303-1	3.0858-2
1.100	1.5603 1	5.1112-1	3.2757-2	0.980	1.7967 1	5.5387-1	3.0827-2
1.098	1.5637 1	5.1172-1	3.2725-2	0.978	1.8013 1	5.5471-1	3.0795-2
1.096	1.5671 1	5.1232-1	3.2692-2	0.976	1.8059 1	5.5556-1	3.0764-2
1.094	1.5706 1	5.1293-1	3.2659-2	0.974	1.8105 1	5.5642-1	3.0732-2
1.092	1.5740 1	5.1355-1	3.2627-2	0.972	1.8152 1	5.5728-1	3.0700-2
1.090	1.5775 1	5.1416-1	3.2594-2	0.970	1.8199 1	5.5814-1	3.0669-2
1.088	1.5809 1	5.1478-1	3.2562-2	0.968	1.8246 1	5.5902-1	3.0637-2
1.086	1.5844 1	5.1540-1	3.2529-2	0.966	1.8294 1	5.5989-1	3.0606-2
1.084	1.5879 1	5.1603-1	3.2496-2	0.964	1.8341 1	5.6077-1	3.0574-2
1.082	1.5915 1	5.1666-1	3.2464-2	0.962	1.8389 1	5.6166-1	3.0543-2
1.080	1.5950 1	5.1729-1	3.2431-2	0.960	1.8437 1	5.6255-1	3.0511-2
1.078	1.5986 1	5.1792-1	3.2399-2	0.958	1.8486 1	5.6345-1	3.0480-2
1.076	1.6022 1	5.1856-1	3.2366-2	0.956	1.8535 1	5.6435-1	3.0449-2
1.074	1.6058 1	5.1921-1	3.2334-2	0.954	1.8584 1	5.6526-1	3.0417-2
1.072	1.6094 1	5.1985-1	3.2301-2	0.952	1.8633 1	5.6618-1	3.0386-2
1.070	1.6130 1	5.2050-1	3.2269-2	0.950	1.8682 1	5.6710-1	3.0355-2
1.068	1.6167 1	5.2115-1	3.2237-2	0.948	1.8732 1	5.6802-1	3.0323-2
1.066	1.6203 1	5.2181-1	3.2204-2	0.946	1.8782 1	5.6896-1	3.0292-2
1.064	1.6240 1	5.2247-1	3.2172-2	0.944	1.8833 1	5.6989-1	3.0261-2
1.062	1.6277 1	5.2314-1	3.2139-2	0.942	1.8883 1	5.7084-1	3.0229-2
1.060	1.6314 1	5.2380-1	3.2107-2	0.940	1.8934 1	5.7179-1	3.0198-2
1.058	1.6352 1	5.2447-1	3.2075-2	0.938	1.8986 1	5.7274-1	3.0167-2
1.056	1.6389 1	5.2515-1	3.2042-2	0.936	1.9037 1	5.7370-1	3.0136-2
1.054	1.6427 1	5.2583-1	3.2010-2	0.934	1.9089 1	5.7467-1	3.0105-2
1.052	1.6465 1	5.2651-1	3.1978-2	0.932	1.9141 1	5.7564-1	3.0073-2
1.050	1.6503 1	5.2720-1	3.1946-2	0.930	1.9194 1	5.7662-1	3.0042-2
1.048	1.6541 1	5.2789-1	3.1913-2	0.928	1.9246 1	5.7761-1	3.0011-2
1.046	1.6580 1	5.2858-1	3.1881-2	0.926	1.9299 1	5.7860-1	2.9980-2
1.044	1.6619 1	5.2928-1	3.1849-2	0.924	1.9353 1	5.7960-1	2.9949-2
1.042	1.6657 1	5.2998-1	3.1817-2	0.922	1.9407 1	5.8061-1	2.9918-2
1.040	1.6697 1	5.3069-1	3.1784-2	0.920	1.9460 1	5.8162-1	2.9887-2
1.038	1.6736 1	5.3140-1	3.1752-2	0.918	1.9515 1	5.8263-1	2.9856-2
1.036	1.6775 1	5.3211-1	3.1720-2	0.916	1.9569 1	5.8366-1	2.9825-2
1.034	1.6815 1	5.3283-1	3.1688-2	0.914	1.9624 1	5.8469-1	2.9794-2
1.032	1.6855 1	5.3355-1	3.1656-2	0.912	1.9680 1	5.8573-1	2.9763-2
1.030	1.6895 1	5.3428-1	3.1624-2	0.910	1.9735 1	5.8677-1	2.9732-2
1.028	1.6935 1	5.3501-1	3.1592-2	0.908	1.9791 1	5.8782-1	2.9701-2
1.026	1.6976 1	5.3574-1	3.1559-2	0.906	1.9847 1	5.8888-1	2.9671-2
1.024	1.7018 1	5.3648-1	3.1527-2	0.904	1.9904 1	5.8995-1	2.9640-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
0.902	1.9961 1	5.9102-1	2.9609-2	0.782	2.4126 1	6.7092-1	2.7809-2
0.900	2.0018 1	5.9210-1	2.9578-2	0.780	2.4211 1	6.7257-1	2.7780-2
0.898	2.0076 1	5.9318-1	2.9547-2	0.778	2.4296 1	6.7424-1	2.7751-2
0.896	2.0134 1	5.9428-1	2.9517-2	0.776	2.4382 1	6.7591-1	2.7722-2
0.894	2.0192 1	5.9538-1	2.9486-2	0.774	2.4468 1	6.7760-1	2.7693-2
0.892	2.0250 1	5.9648-1	2.9455-2	0.772	2.4555 1	6.7930-1	2.7664-2
0.890	2.0309 1	5.9760-1	2.9425-2	0.770	2.4643 1	6.8101-1	2.7635-2
0.888	2.0369 1	5.9872-1	2.9394-2	0.768	2.4731 1	6.8274-1	2.7606-2
0.886	2.0429 1	5.9985-1	2.9363-2	0.766	2.4820 1	6.8448-1	2.7578-2
0.884	2.0489 1	6.0099-1	2.9333-2	0.764	2.4910 1	6.8623-1	2.7549-2
0.882	2.0549 1	6.0213-1	2.9302-2	0.762	2.5000 1	6.8800-1	2.7520-2
0.880	2.0610 1	6.0329-1	2.9272-2	0.760	2.5091 1	6.8978-1	2.7491-2
0.878	2.0671 1	6.0445-1	2.9241-2	0.758	2.5183 1	6.9158-1	2.7462-2
0.876	2.0733 1	6.0562-1	2.9211-2	0.756	2.5275 1	6.9339-1	2.7434-2
0.874	2.0795 1	6.0679-1	2.9180-2	0.754	2.5368 1	6.9522-1	2.7405-2
0.872	2.0857 1	6.0798-1	2.9150-2	0.752	2.5462 1	6.9705-1	2.7377-2
0.870	2.0920 1	6.0917-1	2.9119-2	0.750	2.5556 1	6.9891-1	2.7348-2
0.868	2.0983 1	6.1037-1	2.9089-2	0.748	2.5651 1	7.0078-1	2.7319-2
0.866	2.1046 1	6.1158-1	2.9059-2	0.746	2.5747 1	7.0266-1	2.7291-2
0.864	2.1110 1	6.1280-1	2.9028-2	0.744	2.5844 1	7.0456-1	2.7263-2
0.862	2.1175 1	6.1402-1	2.8998-2	0.742	2.5941 1	7.0648-1	2.7234-2
0.860	2.1239 1	6.1526-1	2.8968-2	0.740	2.6039 1	7.0841-1	2.7206-2
0.858	2.1304 1	6.1650-1	2.8938-2	0.738	2.6138 1	7.1035-1	2.7177-2
0.856	2.1370 1	6.1775-1	2.8907-2	0.736	2.6237 1	7.1231-1	2.7149-2
0.854	2.1436 1	6.1901-1	2.8877-2	0.734	2.6337 1	7.1429-1	2.7121-2
0.852	2.1502 1	6.2028-1	2.8847-2	0.732	2.6438 1	7.1629-1	2.7093-2
0.850	2.1569 1	6.2155-1	2.8817-2	0.731	2.6489 1	7.1729-1	2.7078-2
0.848	2.1636 1	6.2284-1	2.8787-2	0.730	2.6540 1	7.1830-1	2.7064-2
0.846	2.1704 1	6.2414-1	2.8757-2	0.729	2.6592 1	7.1931-1	2.7050-2
0.844	2.1772 1	6.2544-1	2.8727-2	0.728	2.6643 1	7.2032-1	2.7036-2
0.842	2.1841 1	6.2675-1	2.8696-2	0.727	2.6695 1	7.2134-1	2.7022-2
0.840	2.1910 1	6.2808-1	2.8666-2	0.726	2.6746 1	7.2237-1	2.7008-2
0.838	2.1979 1	6.2941-1	2.8637-2	0.725	2.6798 1	7.2340-1	2.6994-2
0.836	2.2049 1	6.3075-1	2.8607-2	0.724	2.6851 1	7.2443-1	2.6980-2
0.834	2.2120 1	6.3210-1	2.8577-2	0.723	2.6903 1	7.2547-1	2.6966-2
0.832	2.2190 1	6.3346-1	2.8547-2	0.722	2.6956 1	7.2651-1	2.6952-2
0.830	2.2262 1	6.3483-1	2.8517-2	0.721	2.7008 1	7.2755-1	2.6938-2
0.828	2.2333 1	6.3621-1	2.8487-2	0.720	2.7061 1	7.2860-1	2.6924-2
0.826	2.2406 1	6.3761-1	2.8457-2	0.719	2.7115 1	7.2966-1	2.6910-2
0.824	2.2478 1	6.3901-1	2.8427-2	0.718	2.7168 1	7.3072-1	2.6896-2
0.822	2.2552 1	6.4042-1	2.8398-2	0.717	2.7222 1	7.3178-1	2.6882-2
0.820	2.2625 1	6.4184-1	2.8368-2	0.716	2.7276 1	7.3285-1	2.6868-2
0.818	2.2700 1	6.4327-1	2.8338-2	0.715	2.7330 1	7.3392-1	2.6854-2
0.816	2.2774 1	6.4471-1	2.8309-2	0.714	2.7384 1	7.3500-1	2.6840-2
0.814	2.2850 1	6.4616-1	2.8279-2	0.713	2.7439 1	7.3608-1	2.6826-2
0.812	2.2925 1	6.4763-1	2.8249-2	0.712	2.7493 1	7.3717-1	2.6812-2
0.810	2.3001 1	6.4910-1	2.8220-2	0.711	2.7548 1	7.3826-1	2.6799-2
0.808	2.3078 1	6.5058-1	2.8190-2	0.710	2.7604 1	7.3935-1	2.6785-2
0.806	2.3156 1	6.5208-1	2.8161-2	0.709	2.7659 1	7.4045-1	2.6771-2
0.804	2.3233 1	6.5359-1	2.8131-2	0.708	2.7715 1	7.4156-1	2.6757-2
0.802	2.3312 1	6.5510-1	2.8102-2	0.707	2.7770 1	7.4267-1	2.6743-2
0.800	2.3391 1	6.5663-1	2.8073-2	0.706	2.7826 1	7.4378-1	2.6729-2
0.798	2.3470 1	6.5817-1	2.8043-2	0.705	2.7883	7.4490-1	2.6715-2
0.796	2.3550 1	6.5973-1	2.8014-2	0.704	2.7939 1	7.4602-1	2.6702-2
0.794	2.3631 1	6.6129-1	2.7984-2	0.703	2.7996 1	7.4715-1	2.6688-2
0.792	2.3712 1	6.6287-1	2.7955-2	0.702	2.8053 1	7.4828-1	2.6674-2
0.790	2.3793 1	6.6445-1	2.7926-2	0.701	2.8110 1	7.4942-1	2.6660-2
0.788	2.3876 1	6.6605-1	2.7897-2	0.700	2.8168 1	7.5056-1	2.6646-2
0.786	2.3958 1	6.6766-1	2.7868-2	0.699	2.8225 1	7.5171-1	2.6633-2
0.784	2.4042 1	6.6929-1	2.7838-2	0.698	2.8283 1	7.5287-1	2.6619-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
0.697	2.8341 1	7.5402-1	2.6605-2	0.637	3.2321 1	8.3392-1	2.5801-2
0.696	2.8400 1	7.5519-1	2.6591-2	0.636	3.2397 1	8.3545-1	2.5788-2
0.695	2.8458 1	7.5636-1	2.6578-2	0.635	3.2473 1	8.3698-1	2.5775-2
0.694	2.8517 1	7.5753-1	2.6564-2	0.634	3.2549 1	8.3852-1	2.5762-2
0.693	2.8576 1	7.5871-1	2.6550-2	0.633	3.2626 1	8.4008-1	2.5749-2
0.692	2.8636 1	7.5989-1	2.6536-2	0.632	3.2703 1	8.4163-1	2.5736-2
0.691	2.8695 1	7.6108-1	2.6523-2	0.631	3.2780 1	8.4320-1	2.5723-2
0.690	2.8755 1	7.6227-1	2.6509-2	0.630	3.2858 1	8.4477-1	2.5710-2
0.689	2.8815 1	7.6347-1	2.6495-2	0.629	3.2936 1	8.4635-1	2.5697-2
0.688	2.8876 1	7.6468-1	2.6482-2	0.628	3.3014 1	8.4794-1	2.5684-2
0.687	2.8936 1	7.6589-1	2.6468-2	0.627	3.3093 1	8.4954-1	2.5671-2
0.686	2.8997 1	7.6710-1	2.6455-2	0.626	3.3172 1	8.5114-1	2.5658-2
0.685	2.9058 1	7.6832-1	2.6441-2	0.625	3.3252 1	8.5276-1	2.5646-2
0.684	2.9119 1	7.6955-1	2.6427-2	0.624	3.3332 1	8.5438-1	2.5633-2
0.683	2.9181 1	7.7078-1	2.6414-2	0.623	3.3412 1	8.5600-1	2.5620-2
0.682	2.9243 1	7.7202-1	2.6400-2	0.622	3.3492 1	8.5764-1	2.5607-2
0.681	2.9305 1	7.7326-1	2.6387-2	0.621	3.3573 1	8.5928-1	2.5594-2
0.680	2.9367 1	7.7451-1	2.6373-2	0.620	3.3655 1	8.6094-1	2.5581-2
0.679	2.9430 1	7.7576-1	2.6359-2	0.619	3.3737 1	8.6260-1	2.5569-2
0.678	2.9493 1	7.7702-1	2.6346-2	0.618	3.3819 1	8.6427-1	2.5556-2
0.677	2.9556 1	7.7828-1	2.6332-2	0.617	3.3901 1	8.6594-1	2.5543-2
0.676	2.9620 1	7.7955-1	2.6319-2	0.616	3.3984 1	8.6763-1	2.5530-2
0.675	2.9683 1	7.8083-1	2.6305-2	0.615	3.4068 1	8.6932-1	2.5517-2
0.674	2.9747 1	7.8211-1	2.6292-2	0.614	3.4151 1	8.7102-1	2.5505-2
0.673	2.9812 1	7.8340-1	2.6278-2	0.613	3.4236 1	8.7273-1	2.5492-2
0.672	2.9876 1	7.8469-1	2.6265-2	0.612	3.4320 1	8.7445-1	2.5479-2
0.671	2.9941 1	7.8599-1	2.6251-2	0.611	3.4405 1	8.7618-1	2.5467-2
0.670	3.0006 1	7.8730-1	2.6238-2	0.610	3.4490 1	8.7792-1	2.5454-2
0.669	3.0071 1	7.8861-1	2.6225-2	0.609	3.4576 1	8.7966-1	2.5441-2
0.668	3.0137 1	7.8992-1	2.6211-2	0.608	3.4662 1	8.8142-1	2.5429-2
0.667	3.0203 1	7.9125-1	2.6198-2	0.607	3.4749 1	8.8318-1	2.5416-2
0.666	3.0269 1	7.9258-1	2.6184-2	0.606	3.4836 1	8.8495-1	2.5403-2
0.665	3.0336 1	7.9391-1	2.6171-2	0.605	3.4923 1	8.8673-1	2.5391-2
0.664	3.0402 1	7.9525-1	2.6157-2	0.604	3.5011 1	8.8852-1	2.5378-2
0.663	3.0470 1	7.9660-1	2.6144-2	0.603	3.5099 1	8.9032-1	2.5366-2
0.662	3.0537 1	7.9795-1	2.6131-2	0.602	3.5188 1	8.9213-1	2.5353-2
0.661	3.0605 1	7.9931-1	2.6117-2	0.601	3.5277 1	8.9394-1	2.5341-2
0.660	3.0672 1	8.0068-1	2.6104-2	0.600	3.5367 1	8.9577-1	2.5328-2
0.659	3.0741 1	8.0205-1	2.6091-2	0.599	3.5457 1	8.9760-1	2.5316-2
0.658	3.0809 1	8.0343-1	2.6077-2	0.598	3.5547 1	8.9945-1	2.5303-2
0.657	3.0878 1	8.0481-1	2.6064-2	0.597	3.5638 1	9.0130-1	2.5291-2
0.656	3.0947 1	8.0620-1	2.6051-2	0.596	3.5729 1	9.0317-1	2.5278-2
0.655	3.1017 1	8.0760-1	2.6038-2	0.595	3.5821 1	9.0504-1	2.5266-2
0.654	3.1087 1	8.0901-1	2.6024-2	0.594	3.5913 1	9.0692-1	2.5253-2
0.653	3.1157 1	8.1042-1	2.6011-2	0.593	3.6006 1	9.0882-1	2.5241-2
0.652	3.1227 1	8.1184-1	2.5998-2	0.592	3.6099 1	9.1072-1	2.5228-2
0.651	3.1298 1	8.1326-1	2.5985-2	0.591	3.6192 1	9.1263-1	2.5216-2
0.650	3.1369 1	8.1469-1	2.5971-2	0.590	3.6287 1	9.1456-1	2.5204-2
0.649	3.1440 1	8.1613-1	2.5958-2	0.589	3.6381 1	9.1649-1	2.5191-2
0.648	3.1512 1	8.1757-1	2.5945-2	0.588	3.6476 1	9.1843-1	2.5179-2
0.647	3.1584 1	8.1902-1	2.5932-2	0.587	3.6571 1	9.2038-1	2.5167-2
0.646	3.1656 1	8.2048-1	2.5919-2	0.586	3.6667 1	9.2235-1	2.5154-2
0.645	3.1728 1	8.2195-1	2.5906-2	0.585	3.6764 1	9.2432-1	2.5142-2
0.644	3.1801 1	8.2342-1	2.5893-2	0.584	3.6861 1	9.2630-1	2.5130-2
0.643	3.1875 1	8.2490-1	2.5879-2	0.583	3.6958 1	9.2830-1	2.5118-2
0.642	3.1948 1	8.2638-1	2.5866-2	0.582	3.7056 1	9.3030-1	2.5105-2
0.641	3.2022 1	8.2787-1	2.5853-2	0.581	3.7154 1	9.3232-1	2.5093-2
0.640	3.2096 1	8.2937-1	2.5840-2	0.580	3.7253 1	9.3434-1	2.5081-2
0.639	3.2171 1	8.3088-1	2.5827-2	0.579	3.7353 1	9.3638-1	2.5069-2
0.638	3.2246 1	8.3240-1	2.5814-2	0.578	3.7453 1	9.3843-1	2.5056-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
0.577	3.7553 1	9.4049-1	2.5044-2	0.517	4.4661 1	1.0873 0	2.4346-2
0.576	3.7654 1	9.4256-1	2.5032-2	0.516	4.4801 1	1.0902 0	2.4335-2
0.575	3.7755 1	9.4464-1	2.5020-2	0.515	4.4941 1	1.0931 0	2.4324-2
0.574	3.7857 1	9.4673-1	2.5008-2	0.514	4.5082 1	1.0961 0	2.4313-2
0.573	3.7960 1	9.4883-1	2.4996-2	0.513	4.5224 1	1.0990 0	2.4302-2
0.572	3.8063 1	9.5094-1	2.4984-2	0.512	4.5367 1	1.1020 0	2.4291-2
0.571	3.8166 1	9.5307-1	2.4972-2	0.511	4.5511 1	1.1050 0	2.4280-2
0.570	3.8270 1	9.5521-1	2.4960-2	0.510	4.5655 1	1.1080 0	2.4269-2
0.569	3.8375 1	9.5736-1	2.4948-2	0.509	4.5800 1	1.1110 0	2.4258-2
0.568	3.8480 1	9.5952-1	2.4936-2	0.508	4.5947 1	1.1141 0	2.4247-2
0.567	3.8586 1	9.6169-1	2.4924-2	0.507	4.6094 1	1.1171 0	2.4236-2
0.566	3.8692 1	9.6387-1	2.4912-2	0.506	4.6241 1	1.1202 0	2.4225-2
0.565	3.8799 1	9.6607-1	2.4900-2	0.505	4.6390 1	1.1233 0	2.4215-2
0.564	3.8906 1	9.6827-1	2.4888-2	0.504	4.6540 1	1.1264 0	2.4204-2
0.563	3.9014 1	9.7049-1	2.4876-2	0.503	4.6690 1	1.1296 0	2.4193-2
0.562	3.9122 1	9.7273-1	2.4864-2	0.502	4.6842 1	1.1327 0	2.4182-2
0.561	3.9231 1	9.7497-1	2.4852-2	0.501	4.6994 1	1.1359 0	2.4171-2
0.560	3.9341 1	9.7723-1	2.4840-2	0.500	4.7147 1	1.1391 0	2.4161-2
0.559	3.9451 1	9.7949-1	2.4828-2	0.499	4.7301 1	1.1423 0	2.4150-2
0.558	3.9562 1	9.8178-1	2.4816-2	0.498	4.7456 1	1.1456 0	2.4139-2
0.557	3.9673 1	9.8407-1	2.4804-2	0.497	4.7612 1	1.1488 0	2.4129-2
0.556	3.9785 1	9.8638-1	2.4793-2	0.496	4.7769 1	1.1521 0	2.4118-2
0.555	3.9898 1	9.8869-1	2.4781-2	0.495	4.7927 1	1.1554 0	2.4107-2
0.554	4.0011 1	9.9103-1	2.4769-2	0.494	4.8086 1	1.1587 0	2.4097-2
0.553	4.0124 1	9.9337-1	2.4757-2	0.493	4.8246 1	1.1620 0	2.4086-2
0.552	4.0239 1	9.9573-1	2.4746-2	0.492	4.8406 1	1.1654 0	2.4075-2
0.551	4.0354 1	9.9810-1	2.4734-2	0.491	4.8568 1	1.1688 0	2.4065-2
0.550	4.0469 1	1.0005 0	2.4722-2	0.490	4.8731 1	1.1722 0	2.4054-2
0.549	4.0585 1	1.0029 0	2.4710-2	0.489	4.8894 1	1.1756 0	2.4044-2
0.548	4.0702 1	1.0053 0	2.4699-2	0.488	4.9059 1	1.1791 0	2.4033-2
0.547	4.0820 1	1.0077 0	2.4687-2	0.487	4.9224 1	1.1825 0	2.4023-2
0.546	4.0938 1	1.0102 0	2.4675-2	0.486	4.9391 1	1.1860 0	2.4013-2
0.545	4.1057 1	1.0126 0	2.4664-2	0.485	4.9559 1	1.1895 0	2.4002-2
0.544	4.1176 1	1.0151 0	2.4652-2	0.484	4.9727 1	1.1930 0	2.3992-2
0.543	4.1296 1	1.0176 0	2.4641-2	0.483	4.9897 1	1.1966 0	2.3981-2
0.542	4.1417 1	1.0201 0	2.4629-2	0.482	5.0068 1	1.2002 0	2.3971-2
0.541	4.1538 1	1.0226 0	2.4618-2	0.481	5.0240 1	1.2038 0	2.3961-2
0.540	4.1660 1	1.0251 0	2.4606-2	0.480	5.0413 1	1.2074 0	2.3950-2
0.539	4.1783 1	1.0276 0	2.4594-2	0.479	5.0587 1	1.2111 0	2.3940-2
0.538	4.1906 1	1.0302 0	2.4583-2	0.478	5.0762 1	1.2147 0	2.3930-2
0.537	4.2030 1	1.0327 0	2.4572-2	0.477	5.0938 1	1.2184 0	2.3920-2
0.536	4.2155 1	1.0353 0	2.4560-2	0.476	5.1115 1	1.2221 0	2.3909-2
0.535	4.2280 1	1.0379 0	2.4549-2	0.475	5.1294 1	1.2259 0	2.3899-2
0.534	4.2406 1	1.0405 0	2.4537-2	0.474	5.1473 1	1.2296 0	2.3889-2
0.533	4.2533 1	1.0432 0	2.4526-2	0.473	5.1654 1	1.2334 0	2.3879-2
0.532	4.2660 1	1.0458 0	2.4514-2	0.472	5.1835 1	1.2372 0	2.3869-2
0.531	4.2789 1	1.0485 0	2.4503-2	0.471	5.2018 1	1.2411 0	2.3859-2
0.530	4.2918 1	1.0511 0	2.4492-2	0.470	5.2202 1	1.2450 0	2.3849-2
0.529	4.3047 1	1.0538 0	2.4480-2	0.469	5.2388 1	1.2488 0	2.3839-2
0.528	4.3178 1	1.0565 0	2.4469-2	0.468	5.2574 1	1.2528 0	2.3829-2
0.527	4.3309 1	1.0592 0	2.4458-2	0.467	5.2762 1	1.2567 0	2.3819-2
0.526	4.3440 1	1.0620 0	2.4447-2	0.466	5.2950 1	1.2607 0	2.3809-2
0.525	4.3573 1	1.0647 0	2.4435-2	0.465	5.3140 1	1.2647 0	2.3799-2
0.524	4.3706 1	1.0675 0	2.4424-2	0.464	5.3331 1	1.2687 0	2.3789-2
0.523	4.3840 1	1.0703 0	2.4413-2	0.463	5.3524 1	1.2727 0	2.3779-2
0.522	4.3975 1	1.0731 0	2.4402-2	0.462	5.3718 1	1.2768 0	2.3769-2
0.521	4.4111 1	1.0759 0	2.4390-2	0.461	5.3912 1	1.2809 0	2.3759-2
0.520	4.4247 1	1.0787 0	2.4379-2	0.460	5.4109 1	1.2850 0	2.3749-2
0.519	4.4385 1	1.0816 0	2.4368-2	0.459	5.4306 1	1.2892 0	2.3739-2
0.518	4.4522 1	1.0844 0	2.4357-2	0.458	5.4505 1	1.2934 0	2.3730-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
0.457	5.4705 1	1.2976 0	2.3720-2	0.397	6.9559 1	1.6126 0	2.3183-2
0.456	5.4906 1	1.3018 0	2.3710-2	0.396	6.9864 1	1.6191 0	2.3175-2
0.455	5.5109 1	1.3061 0	2.3700-2	0.395	7.0171 1	1.6256 0	2.3167-2
0.454	5.5313 1	1.3104 0	2.3691-2	0.394	7.0480 1	1.6322 0	2.3159-2
0.453	5.5518 1	1.3147 0	2.3681-2	0.393	7.0792 1	1.6389 0	2.3151-2
0.452	5.5725 1	1.3191 0	2.3672-2	0.392	7.1105 1	1.6456 0	2.3143-2
0.451	5.5933 1	1.3235 0	2.3662-2	0.391	7.1422 1	1.6523 0	2.3135-2
0.450	5.6142 1	1.3279 0	2.3652-2	0.390	7.1740 1	1.6591 0	2.3127-2
0.449	5.6353 1	1.3323 0	2.3643-2	0.389	7.2061 1	1.6660 0	2.3119-2
0.448	5.6565 1	1.3368 0	2.3633-2	0.388	7.2385 1	1.6729 0	2.3111-2
0.447	5.6778 1	1.3413 0	2.3624-2	0.387	7.2711 1	1.6799 0	2.3104-2
0.446	5.6993 1	1.3459 0	2.3614-2	0.386	7.3039 1	1.6869 0	2.3096-2
0.445	5.7210 1	1.3504 0	2.3605-2	0.385	7.3370 1	1.6940 0	2.3088-2
0.444	5.7427 1	1.3550 0	2.3595-2	0.384	7.3703 1	1.7011 0	2.3080-2
0.443	5.7647 1	1.3597 0	2.3586-2	0.383	7.4039 1	1.7083 0	2.3073-2
0.442	5.7868 1	1.3643 0	2.3577-2	0.382	7.4377 1	1.7155 0	2.3065-2
0.441	5.8090 1	1.3690 0	2.3567-2	0.381	7.4718 1	1.7228 0	2.3057-2
0.440	5.8314 1	1.3737 0	2.3558-2	0.380	7.5061 1	1.7301 0	2.3050-2
0.439	5.8539 1	1.3785 0	2.3549-2	0.379	7.5407 1	1.7376 0	2.3042-2
0.438	5.8766 1	1.3833 0	2.3539-2	0.378	7.5756 1	1.7450 0	2.3035-2
0.437	5.8994 1	1.3881 0	2.3530-2	0.377	7.6107 1	1.7525 0	2.3027-2
0.436	5.9224 1	1.3930 0	2.3521-2	0.376	7.6461 1	1.7601 0	2.3020-2
0.435	5.9455 1	1.3979 0	2.3512-2	0.375	7.6818 1	1.7678 0	2.3012-2
0.434	5.9688 1	1.4028 0	2.3503-2	0.374	7.7177 1	1.7755 0	2.3005-2
0.433	5.9923 1	1.4078 0	2.3493-2	0.373	7.7540 1	1.7832 0	2.2998-2
0.432	6.0159 1	1.4128 0	2.3484-2	0.372	7.7905 1	1.7911 0	2.2990-2
0.431	6.0397 1	1.4178 0	2.3475-2	0.371	7.8273 1	1.7989 0	2.2983-2
0.430	6.0636 1	1.4229 0	2.3466-2	0.370	7.8643 1	1.8069 0	2.2976-2
0.429	6.0877 1	1.4280 0	2.3457-2	0.369	7.9017 1	1.8149 0	2.2969-2
0.428	6.1120 1	1.4331 0	2.3448-2	0.368	7.9394 1	1.8230 0	2.2961-2
0.427	6.1364 1	1.4383 0	2.3439-2	0.367	7.9773 1	1.8311 0	2.2954-2
0.426	6.1611 1	1.4435 0	2.3430-2	0.366	8.0155 1	1.8393 0	2.2947-2
0.425	6.1858 1	1.4488 0	2.3421-2	0.365	8.0541 1	1.8476 0	2.2940-2
0.424	6.2108 1	1.4541 0	2.3412-2	0.364	8.0929 1	1.8559 0	2.2933-2
0.423	6.2359 1	1.4594 0	2.3404-2	0.363	8.1321 1	1.8643 0	2.2926-2
0.422	6.2612 1	1.4648 0	2.3395-2	0.362	8.1715 1	1.8728 0	2.2919-2
0.421	6.2867 1	1.4702 0	2.3386-2	0.361	8.2113 1	1.8814 0	2.2912-2
0.420	6.3124 1	1.4756 0	2.3377-2	0.360	8.2514 1	1.8900 0	2.2905-2
0.419	6.3382 1	1.4811 0	2.3368-2	0.359	8.2918 1	1.8987 0	2.2898-2
0.418	6.3642 1	1.4867 0	2.3360-2	0.358	8.3325 1	1.9074 0	2.2891-2
0.417	6.3904 1	1.4922 0	2.3351-2	0.357	8.3735 1	1.9162 0	2.2884-2
0.416	6.4168 1	1.4978 0	2.3342-2	0.356	8.4149 1	1.9251 0	2.2878-2
0.415	6.4434 1	1.5035 0	2.3334-2	0.355	8.4566 1	1.9341 0	2.2871-2
0.414	6.4702 1	1.5092 0	2.3325-2	0.354	8.4986 1	1.9431 0	2.2864-2
0.413	6.4971 1	1.5149 0	2.3316-2	0.353	8.5410 1	1.9522 0	2.2857-2
0.412	6.5243 1	1.5207 0	2.3308-2	0.352	8.5837 1	1.9614 0	2.2851-2
0.411	6.5516 1	1.5265 0	2.3299-2	0.351	8.6267 1	1.9707 0	2.2844-2
0.410	6.5792 1	1.5323 0	2.3291-2	0.350	8.6701 1	1.9800 0	2.2838-2
0.409	6.6069 1	1.5382 0	2.3282-2	0.349	8.7138 1	1.9894 0	2.2831-2
0.408	6.6349 1	1.5442 0	2.3274-2	0.348	8.7579 1	1.9989 0	2.2824-2
0.407	6.6630 1	1.5502 0	2.3266-2	0.347	8.8024 1	2.0085 0	2.2818-2
0.406	6.6913 1	1.5562 0	2.3257-2	0.346	8.8472 1	2.0182 0	2.2811-2
0.405	6.7199 1	1.5623 0	2.3249-2	0.345	8.8923 1	2.0279 0	2.2805-2
0.404	6.7486 1	1.5684 0	2.3240-2	0.344	8.9379 1	2.0377 0	2.2799-2
0.403	6.7776 1	1.5746 0	2.3232-2	0.343	8.9838 1	2.0476 0	2.2792-2
0.402	6.8068 1	1.5808 0	2.3224-2	0.342	9.0300 1	2.0576 0	2.2786-2
0.401	6.8362 1	1.5871 0	2.3216-2	0.341	9.0767 1	2.0676 0	2.2780-2
0.400	6.8658 1	1.5934 0	2.3207-2	0.340	9.1237 1	2.0778 0	2.2774-2
0.399	6.8956 1	1.5997 0	2.3199-2	0.339	9.1712 1	2.0880 0	2.2767-2
0.398	6.9256 1	1.6061 0	2.3191-2	0.338	9.2190 1	2.0983 0	2.2761-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
0.337	9.2672 1	2.1087 0	2.2755-2	0.277	1.3048 2	2.9297 0	2.2454-2
0.336	9.3158 1	2.1192 0	2.2749-2	0.276	1.3129 2	2.9474 0	2.2450-2
0.335	9.3648 1	2.1298 0	2.2743-2	0.275	1.3211 2	2.9653 0	2.2446-2
0.334	9.4142 1	2.1405 0	2.2737-2	0.274	1.3293 2	2.9833 0	2.2442-2
0.333	9.4640 1	2.1512 0	2.2731-2	0.273	1.3377 2	3.0015 0	2.2438-2
0.332	9.5142 1	2.1621 0	2.2725-2	0.272	1.3461 2	3.0198 0	2.2435-2
0.331	9.5648 1	2.1730 0	2.2719-2	0.271	1.3545 2	3.0384 0	2.2431-2
0.330	9.6159 1	2.1841 0	2.2713-2	0.270	1.3631 2	3.0571 0	2.2427-2
0.329	9.6674 1	2.1952 0	2.2707-2	0.269	1.3717 2	3.0759 0	2.2424-2
0.328	9.7193 1	2.2064 0	2.2701-2	0.268	1.3804 2	3.0950 0	2.2420-2
0.327	9.7716 1	2.2177 0	2.2696-2	0.267	1.3892 2	3.1142 0	2.2417-2
0.326	9.8244 1	2.2291 0	2.2690-2	0.266	1.3981 2	3.1336 0	2.2413-2
0.325	9.8776 1	2.2407 0	2.2684-2	0.265	1.4070 2	3.1531 0	2.2410-2
0.324	9.9313 1	2.2523 0	2.2678-2	0.264	1.4161 2	3.1729 0	2.2406-2
0.323	9.9854 1	2.2640 0	2.2673-2	0.263	1.4252 2	3.1928 0	2.2403-2
0.322	1.0040 2	2.2758 0	2.2667-2	0.262	1.4344 2	3.2129 0	2.2399-2
0.321	1.0095 2	2.2877 0	2.2662-2	0.261	1.4436 2	3.2332 0	2.2396-2
0.320	1.0151 2	2.2997 0	2.2656-2	0.260	1.4530 2	3.2536 0	2.2393-2
0.319	1.0206 2	2.3118 0	2.2651-2	0.259	1.4624 2	3.2743 0	2.2390-2
0.318	1.0263 2	2.3241 0	2.2645-2	0.258	1.4719 2	3.2951 0	2.2386-2
0.317	1.0320 2	2.3364 0	2.2640-2	0.257	1.4815 2	3.3162 0	2.2383-2
0.316	1.0377 2	2.3488 0	2.2634-2	0.256	1.4912 2	3.3374 0	2.2380-2
0.315	1.0435 2	2.3614 0	2.2629-2	0.255	1.5010 2	3.3588 0	2.2377-2
0.314	1.0493 2	2.3740 0	2.2624-2	0.254	1.5109 2	3.3804 0	2.2374-2
0.313	1.0552 2	2.3868 0	2.2618-2	0.253	1.5208 2	3.4023 0	2.2371-2
0.312	1.0612 2	2.3997 0	2.2613-2	0.252	1.5309 2	3.4243 0	2.2368-2
0.311	1.0672 2	2.4126 0	2.2608-2	0.251	1.5410 2	3.4465 0	2.2365-2
0.310	1.0732 2	2.4257 0	2.2603-2	0.250	1.5513 2	3.4689 0	2.2362-2
0.309	1.0793 2	2.4390 0	2.2598-2	0.249	1.5616 2	3.4916 0	2.2359-2
0.308	1.0854 2	2.4523 0	2.2593-2	0.248	1.5720 2	3.5144 0	2.2356-2
0.307	1.0916 2	2.4657 0	2.2588-2	0.247	1.5825 2	3.5375 0	2.2353-2
0.306	1.0979 2	2.4793 0	2.2583-2	0.246	1.5931 2	3.5607 0	2.2351-2
0.305	1.1042 2	2.4930 0	2.2578-2	0.245	1.6038 2	3.5842 0	2.2348-2
0.304	1.1105 2	2.5068 0	2.2573-2	0.244	1.6146 2	3.6079 0	2.2345-2
0.303	1.1170 2	2.5207 0	2.2568-2	0.243	1.6255 2	3.6318 0	2.2343-2
0.302	1.1234 2	2.5348 0	2.2563-2	0.242	1.6365 2	3.6560 0	2.2340-2
0.301	1.1299 2	2.5489 0	2.2558-2	0.241	1.6476 2	3.6803 0	2.2337-2
0.300	1.1365 2	2.5632 0	2.2553-2	0.240	1.6588 2	3.7049 0	2.2335-2
0.299	1.1432 2	2.5777 0	2.2549-2	0.239	1.6701 2	3.7297 0	2.2332-2
0.298	1.1498 2	2.5922 0	2.2544-2	0.238	1.6815 2	3.7548 0	2.2330-2
0.297	1.1566 2	2.6069 0	2.2539-2	0.237	1.6930 2	3.7800 0	2.2327-2
0.296	1.1634 2	2.6217 0	2.2535-2	0.236	1.7046 2	3.8056 0	2.2325-2
0.295	1.1703 2	2.6366 0	2.2530-2	0.235	1.7163 2	3.8313 0	2.2323-2
0.294	1.1772 2	2.6517 0	2.2525-2	0.234	1.7282 2	3.8573 0	2.2320-2
0.293	1.1842 2	2.6669 0	2.2521-2	0.233	1.7401 2	3.8835 0	2.2318-2
0.292	1.1913 2	2.6823 0	2.2516-2	0.232	1.7521 2	3.9100 0	2.2316-2
0.291	1.1984 2	2.6978 0	2.2512-2	0.231	1.7643 2	3.9367 0	2.2313-2
0.290	1.2055 2	2.7134 0	2.2508-2	0.230	1.7765 2	3.9637 0	2.2311-2
0.289	1.2128 2	2.7291 0	2.2503-2	0.229	1.7889 2	3.9909 0	2.2309-2
0.288	1.2201 2	2.7450 0	2.2499-2	0.228	1.8014 2	4.0183 0	2.2307-2
0.287	1.2274 2	2.7611 0	2.2495-2	0.227	1.8140 2	4.0461 0	2.2305-2
0.286	1.2349 2	2.7773 0	2.2490-2	0.226	1.8267 2	4.0740 0	2.2303-2
0.285	1.2424 2	2.7936 0	2.2486-2	0.225	1.8395 2	4.1023 0	2.2300-2
0.284	1.2499 2	2.8101 0	2.2482-2	0.224	1.8525 2	4.1308 0	2.2298-2
0.283	1.2576 2	2.8267 0	2.2478-2	0.223	1.8656 2	4.1596 0	2.2296-2
0.282	1.2653 2	2.8435 0	2.2474-2	0.222	1.8788 2	4.1886 0	2.2295-2
0.281	1.2730 2	2.8604 0	2.2470-2	0.221	1.8921 2	4.2179 0	2.2293-2
0.280	1.2809 2	2.8775 0	2.2466-2	0.220	1.9055 2	4.2475 0	2.2291-2
0.279	1.2888 2	2.8947 0	2.2462-2	0.219	1.9191 2	4.2774 0	2.2289-2
0.278	1.2967 2	2.9121 0	2.2458-2	0.218	1.9327 2	4.3075 0	2.2287-2

TABLE D

ϕ	ξ/η	τ/η	τ/ξ	ϕ	ξ/η	τ/η	τ/ξ
0.217	1.9465 2	4.3379 0	2.2285-2	0.157	3.0720 2	6.8268 0	2.2223-2
0.216	1.9605 2	4.3686 0	2.2283-2	0.156	3.0972 2	6.8828 0	2.2223-2
0.215	1.9745 2	4.3996 0	2.2282-2	0.155	3.1228 2	6.9395 0	2.2222-2
0.214	1.9887 2	4.4309 0	2.2280-2	0.154	3.1486 2	6.9968 0	2.2222-2
0.213	2.0031 2	4.4625 0	2.2278-2	0.153	3.1748 2	7.0547 0	2.2221-2
0.212	2.0175 2	4.4944 0	2.2277-2	0.152	3.2012 2	7.1134 0	2.2221-2
0.211	2.0321 2	4.5266 0	2.2275-2	0.151	3.2280 2	7.1727 0	2.2220-2
0.210	2.0469 2	4.5591 0	2.2273-2	0.150	3.2551 2	7.2327 0	2.2220-2
0.209	2.0617 2	4.5918 0	2.2272-2	0.149	3.2825 2	7.2935 0	2.2219-2
0.208	2.0767 2	4.6249 0	2.2270-2	0.148	3.3103 2	7.3550 0	2.2219-2
0.207	2.0919 2	4.6584 0	2.2269-2	0.147	3.3383 2	7.4172 0	2.2218-2
0.206	2.1072 2	4.6921 0	2.2267-2	0.146	3.3668 2	7.4802 0	2.2218-2
0.205	2.1226 2	4.7262 0	2.2266-2	0.145	3.3955 2	7.5440 0	2.2217-2
0.204	2.1382 2	4.7605 0	2.2265-2	0.144	3.4247 2	7.6086 0	2.2217-2
0.203	2.1539 2	4.7952 0	2.2263-2	0.143	3.4542 2	7.6740 0	2.2217-2
0.202	2.1698 2	4.8303 0	2.2262-2	0.142	3.4840 2	7.7402 0	2.2216-2
0.201	2.1858 2	4.8656 0	2.2260-2	0.141	3.5143 2	7.8072 0	2.2216-2
0.200	2.2020 2	4.9014 0	2.2259-2	0.140	3.5449 2	7.8752 0	2.2215-2
0.199	2.2183 2	4.9374 0	2.2258-2	0.139	3.5760 2	7.9440 0	2.2215-2
0.198	2.2348 2	4.9738 0	2.2257-2	0.138	3.6074 2	8.0137 0	2.2214-2
0.197	2.2514 2	5.0106 0	2.2255-2	0.137	3.6393 2	8.0843 0	2.2214-2
0.196	2.2682 2	5.0477 0	2.2254-2	0.136	3.6716 2	8.1559 0	2.2214-2
0.195	2.2851 2	5.0851 0	2.2253-2	0.135	3.7043 2	8.2284 0	2.2213-2
0.194	2.3023 2	5.1229 0	2.2252-2	0.134	3.7375 2	8.3019 0	2.2213-2
0.193	2.3195 2	5.1611 0	2.2251-2	0.133	3.7711 2	8.3765 0	2.2212-2
0.192	2.3370 2	5.1997 0	2.2250-2	0.132	3.8052 2	8.4520 0	2.2212-2
0.191	2.3546 2	5.2386 0	2.2248-2	0.131	3.8398 2	8.5286 0	2.2211-2
0.190	2.3724 2	5.2780 0	2.2247-2	0.130	3.8748 2	8.6063 0	2.2211-2
0.189	2.3904 2	5.3177 0	2.2246-2	0.129	3.9104 2	8.6851 0	2.2210-2
0.188	2.4085 2	5.3578 0	2.2245-2	0.128	3.9465 2	8.7651 0	2.2210-2
0.187	2.4268 2	5.3983 0	2.2244-2	0.127	3.9831 2	8.8462 0	2.2209-2
0.186	2.4453 2	5.4391 0	2.2243-2	0.126	4.0202 2	8.9285 0	2.2209-2
0.185	2.4640 2	5.4804 0	2.2242-2	0.125	4.0579 2	9.0120 0	2.2208-2
0.184	2.4828 2	5.5221 0	2.2242-2	0.124	4.0962 2	9.0967 0	2.2208-2
0.183	2.5018 2	5.5643 0	2.2241-2	0.123	4.1350 2	9.1827 0	2.2207-2
0.182	2.5211 2	5.6068 0	2.2240-2	0.122	4.1744 2	9.2701 0	2.2207-2
0.181	2.5405 2	5.6498 0	2.2239-2	0.121	4.2145 2	9.3588 0	2.2206-2
0.180	2.5601 2	5.6932 0	2.2238-2	0.120	4.2552 2	9.4488 0	2.2206-2
0.179	2.5799 2	5.7370 0	2.2237-2	0.119	4.2965 2	9.5403 0	2.2205-2
0.178	2.5999 2	5.7813 0	2.2236-2	0.118	4.3384 2	9.6333 0	2.2204-2
0.177	2.6201 2	5.8260 0	2.2236-2	0.117	4.3811 2	9.7277 0	2.2204-2
0.176	2.6406 2	5.8712 0	2.2235-2	0.116	4.4245 2	9.8237 0	2.2203-2
0.175	2.6612 2	5.9169 0	2.2234-2	0.115	4.4685 2	9.9212 0	2.2202-2
0.174	2.6820 2	5.9630 0	2.2233-2	0.114	4.5133 2	1.0020 1	2.2202-2
0.173	2.7031 2	6.0096 0	2.2233-2	0.113	4.5589 2	1.0121 1	2.2201-2
0.172	2.7243 2	6.0567 0	2.2232-2	0.112	4.6052 2	1.0224 1	2.2200-2
0.171	2.7458 2	6.1043 0	2.2231-2	0.111	4.6523 2	1.0328 1	2.2199-2
0.170	2.7675 2	6.1524 0	2.2231-2	0.110	4.7003 2	1.0434 1	2.2198-2
0.169	2.7895 2	6.2010 0	2.2230-2	0.109	4.7491 2	1.0542 1	2.2198-2
0.168	2.8117 2	6.2501 0	2.2229-2	0.108	4.7988 2	1.0652 1	2.2197-2
0.167	2.8341 2	6.2997 0	2.2229-2	0.107	4.8493 2	1.0763 1	2.2196-2
0.166	2.8567 2	6.3499 0	2.2228-2	0.106	4.9008 2	1.0877 1	2.2195-2
0.165	2.8796 2	6.4006 0	2.2227-2	0.105	4.9532 2	1.0993 1	2.2194-2
0.164	2.9027 2	6.4519 0	2.2227-2	0.104	5.0066 2	1.1111 1	2.2193-2
0.163	2.9261 2	6.5037 0	2.2226-2	0.103	5.0610 2	1.1231 1	2.2191-2
0.162	2.9498 2	6.5560 0	2.2226-2	0.102	5.1165 2	1.1354 1	2.2190-2
0.161	2.9737 2	6.6090 0	2.2225-2	0.101	5.1730 2	1.1478 1	2.2189-2
0.160	2.9978 2	6.6626 0	2.2225-2	0.100	5.2306 2	1.1605 1	2.2188-2
0.159	3.0223 2	6.7167 0	2.2224-2	0.099	5.2893 2	1.1735 1	2.2186-2
0.158	3.0470 2	6.7714 0	2.2224-2	0.098	5.3492 2	1.1867 1	2.2185-2

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