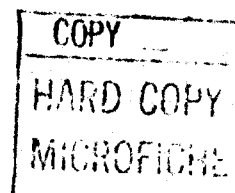


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COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRICAL ENGINEERING
Radiation Laboratory

*Surface Field Components for
a Perfectly Conducting Sphere*

by
J. A. DUCMANIS and
V. V. LIEPA



March 1965



Scientific Report No. 3
Contract No. AF 19(628)-2374
Project 5625
Task 563502

Contract With: Air Force Cambridge Research Laboratories
Office of Aerospace Research
L. G. Hanscom Field
Bedford, Massachusetts 01731

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**SURFACE FIELD COMPONENTS FOR A
PERFECTLY CONDUCTING SPHERE**

by
J. A. Ducmanis and V. V. Liepa

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ABSTRACT

For a plane wave incident on a perfectly conducting sphere of radius a , the surface field components are expressible in terms of series of the Mie type. These have been evaluated on an IBM 7090 computer and results are presented for $\theta = 0(5)180^\circ$, where θ denotes the angular position on the surface, and $ka = 0.1(0.1)5.0(0.2)10.0$, where k is the propagation constant.

INTRODUCTION

The increasing interest in sophisticated methods of controlling the scattering behavior of bodies using, for example, absorbers and reactive loading, has served to focus attention on the surface field, a knowledge of which is almost essential if these techniques are to be employed in anything near an optimum manner. Although the ultimate requirement is still, in general, the determination of the far field, it is now appreciated that an examination of the surface field can provide new insights into the scattering processes. An assumption about the currents induced on the surface of the body is often the basis for approximate techniques for cross section estimation, and the surface field is also the natural product of digital methods of far field computation involving the numerical solution of the integral equations (see, for example, Andreasen, 1965) or the point-by-point satisfaction of the boundary conditions (Mullin et al, 1965).

Studies of the surface field either by probe measurements (Senior, 1964) or by digital techniques have made it desirable to have some body whose field is known precisely and which can be used for calibration or checking purposes. The sphere is the natural candidate for this role. For plane wave incidence, an exact expression for the scattered field at all points of space is available in the form of an infinite series involving spherical Bessel and Legendre functions. The series has been quite extensively computed in the far zone, particularly for the back scattering direction (Hey et al, 1956; Bechtel, 1962), but curves showing the bistatic

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scattering in the E- and H-planes have also been given by King and Wu (1959) for 17 values of ka in the range 1.1 to 20. By comparison, however, the expressions for the surface field have received less attention, and it would appear that only plots for isolated values of ka have been obtained.

In the course of a recent investigation of reactive loading applied to a metallic sphere (Liepa and Senior, 1964), it was necessary to calculate the surface field components for a wide variety of ka and θ , where θ is the angular position on the sphere. The series were programmed for the IBM 7090 computer of The University of Michigan, and it seemed worthwhile to carry through the computation for a reasonably comprehensive set of values to permit a detailed numerical and conceptual picture of the surface field behavior. The tables presented here give both tangential components of the magnetic vector for $ka = 0.1(0.1)5.0(0.2)10.0$ and $\theta = 0(5)180^\circ$, and required 10.5 minutes of machine time to compile.

EXPRESSIONS FOR THE SURFACE FIELD COMPONENTS

Consider a perfectly conducting sphere of radius a whose center is at the origin of a Cartesian coordinate system (x, y, z) . A plane electromagnetic wave is assumed incident in the direction of the negative z axis and since there is no loss of generality in taking its electric vector to lie in the x direction, we choose

$$\underline{E}^i = \hat{x} e^{ikz}, \quad \underline{H}^i = -\hat{y} Y e^{ikz} \quad (1)$$

where Y is the intrinsic admittance of free space and a time factor $e^{i\omega t}$ has been suppressed.

If we also introduce the spherical polar coordinates (r, θ, ϕ) such that

$$x = r \sin \theta \cos \phi, \quad y = r \sin \theta \sin \phi, \quad z = r \cos \theta$$

with $\theta = 0$ representing the back scattering direction and $\theta = \pi$ the forward one, expressions for the total (incident plus scattered) field can be obtained from the standard Mie solution. For the magnetic vector in particular we have, on the surface $r = a$,

$$H_r = 0$$

$$H_\theta = \frac{Y}{ka} \sin \phi \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\xi_n'(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} + \frac{i}{\xi_n(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) \right\} \quad (2)$$

$$H_\phi = \frac{Y}{ka} \cos \phi \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\xi_n'(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) + \frac{i}{\xi_n(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} \right\} \quad (3)$$

(see, for example, Liepa and Senior, 1964), where

$$\zeta_n(ka) = ka h_n^{(2)}(ka)$$

and $h_n^{(2)}(ka)$ is the spherical Hankel function of the second kind. The primes denote differentiation with respect to ka . $P_n^1(\cos \theta)$ is the Legendre function of degree n and order unity as defined, for example, by Stratton (1941).

The tangential components H_θ and H_ϕ are directly related to the surface current $\underline{J}$ via the equation

$$\underline{J} = \hat{r} \times \underline{H} ,$$

implying

$$J_\theta = -H_\phi , \quad J_\phi = H_\theta ,$$

and for convenience they are written as

$$H_\theta = Y \sin \phi T_1(\theta) ,$$

$$H_\phi = Y \sin \phi T_2(\theta) .$$

T_1 and T_2 are, of course, functions of ka as well as θ , but are independent of ϕ . From equations (2) and (3), their expressions are

$$T_1(\theta) = \frac{1}{ka} \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\zeta_n'(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} + \frac{i}{\zeta_n(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) \right\} , \quad (4)$$

$$T_2(\theta) = \frac{1}{ka} \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\zeta_n'(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) + \frac{i}{\zeta_n(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} \right\} \quad (5)$$

and these are the functions that were computed.

COMPUTATION OF $T_1(\theta)$ AND $T_2(\theta)$

The series representations of T_1 and T_2 shown in equations (4) and (5) were programmed for The University of Michigan IBM 7090 computer. The procedure was quite straightforward. Because of the similarity of T_1 and T_2 , the terms in both series were evaluated within the same loop, and the series were terminated whenever the magnitudes of successive terms fell below 10^{-7} . With this criterion, the number of terms included was, in general, the same for T_1 and T_2 . It depended primarily on the value of ka and increased from 4 for $ka = 0.1$, through 9 and 17 for $ka = 1$ and 5 respectively, to 25 for $ka = 10$.

The evaluation of the spherical Hankel and Legendre functions was carried out using external subroutines which were originally prepared in connection with an investigation of reactive loading applied to a sphere. Although the present computation was limited to $ka \leq 10$, and required only the first 25 (or fewer) terms in the series, the subroutines are sufficient to produce at least five digit accuracy for n up to 44. The program is therefore capable of computing T_1 and T_2 for ka as large as (say) 20 with no appreciable modification.

A few comments about the two subroutines may be of interest. The function $\zeta'_n(ka)$ was written as a sum of spherical Hankel functions in the form

$$\zeta'_n(x) = \frac{1}{2n+1} \left\{ n h_{n-1}(x) - (n+1) h_{n+1}(x) \right\} + h_n(x),$$

and $h_n(x)$ was itself broken up into spherical Bessel functions of the first and

second kinds:

$$h_n^{(2)}(x) = j_n(x) - i y_n(x) .$$

$j_n(x)$ was obtained by numerical integration of the finite integral expression

$$j_n(x) = \frac{\left(\frac{x}{2}\right)^n}{n!} \int_0^{\pi/2} \cos(x \sin \phi) \cos^{2n+1} \phi \, d\phi$$

(see, for example, Adams and Hippisley, 1947). The range of integration was subdivided into $40+2n$ intervals, and to judge from spot checks, the resulting evaluations were accurate to six significant figures for $n \leq 20$, and to five for $20 \leq n \leq 44$.

The spherical Bessel functions of the second kind were determined from the finite series expansion

$$y_n(x) = \frac{(-1)^{n+1}}{x} \left\{ \cos\left(x + \frac{n\pi}{2}\right) \sum_{r=0}^{\leq \frac{n}{2}} \frac{(-1)^r (n+2r)!}{(2r)! (n-2r)! (2x)^{2r}} \right. \\ \left. - \sin\left(x + \frac{n\pi}{2}\right) \sum_{r=0}^{\leq \frac{n-1}{2}} \frac{(-1)^r (n+2r+1)!}{(2r+1)! (n-2r-1)! (2x)^{2r+1}} \right\}$$

(Watson, 1948), giving seven digit accuracy for $n \leq 20$, and five or better to $n=44$.

The most direct method of computing the Legendre function factors is to use the recurrence relations

$$P_{n+1}^1(\cos \theta) = \frac{2n+1}{n} \cos \theta P_n^1(\cos \theta) - \frac{n+1}{n} P_{n-1}^1(\cos \theta) \quad (6)$$

$$\frac{\partial}{\partial \theta} P_n^1(\cos \theta) = n \cos \theta \frac{P_n^1(\cos \theta)}{\sin \theta} - (n+1) \frac{P_{n-1}^1(\cos \theta)}{\sin \theta} \quad (7)$$

but because of the loss of accuracy accompanying their repeated use, equations (6) and (7) were employed only for the generation of functions for which $n > 32$. For $n \leq 32$, Tallqvist (1938) has given the expansion of $P_n(\cos\theta)$ in terms of cosines of multiple angles, and since

$$P_n^1(\cos\theta) = \frac{\partial}{\partial\theta} P_n(\cos\theta),$$

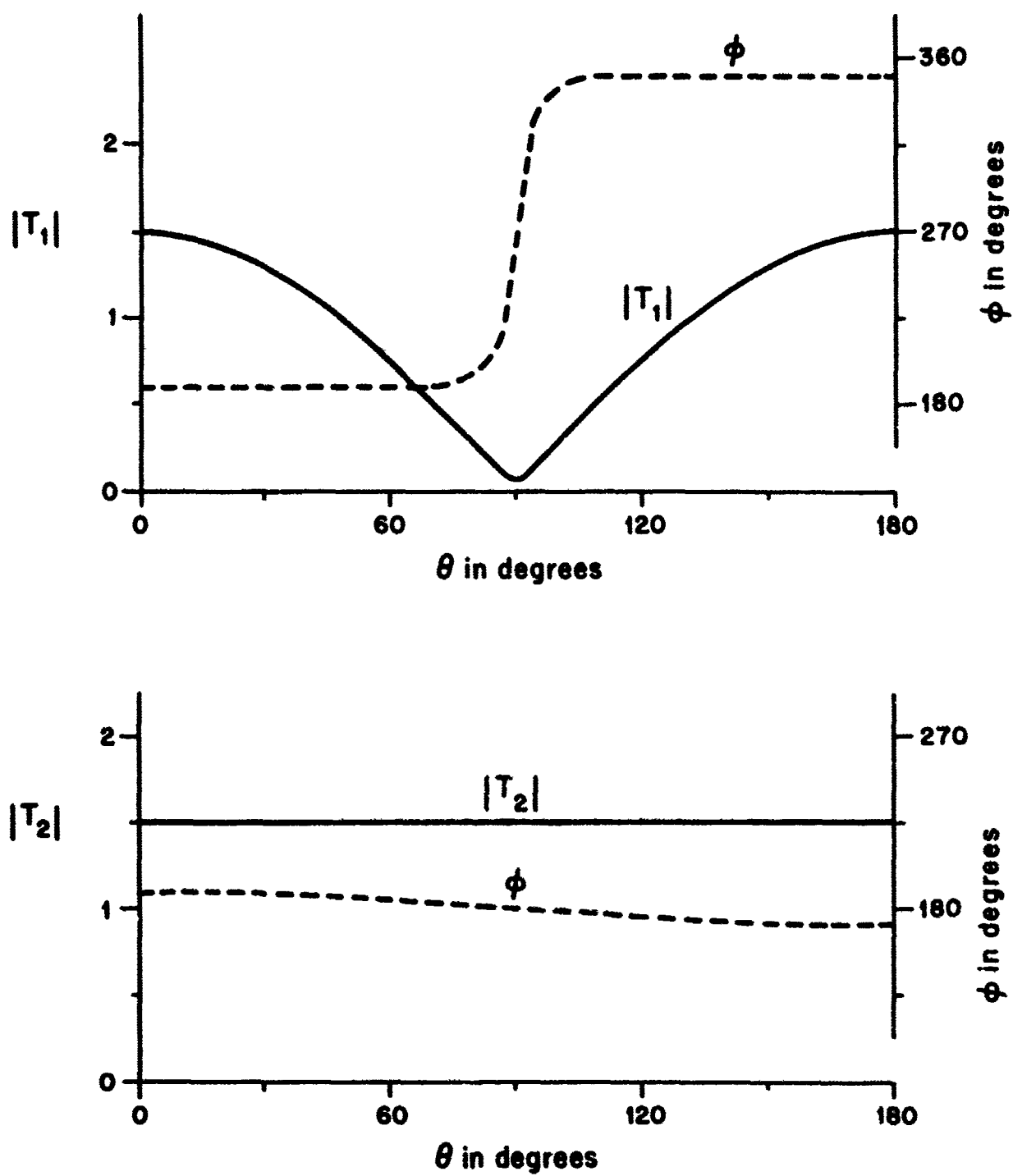
direct differentiation leads to a comparable expansion of $P_n^1(\cos\theta)$ in terms of sines of multiple angles. This was used to compute $P_n^1(\cos\theta)$ for $n \leq 32$, with $\frac{\partial}{\partial\theta} P_n^1(\cos\theta)$ determined from equation (7). The values of the two Legendre functions obtained in this manner are believed accurate to seven significant figures for $0 \leq n \leq 32$, and to five significant figures for $32 < n \leq 50$.

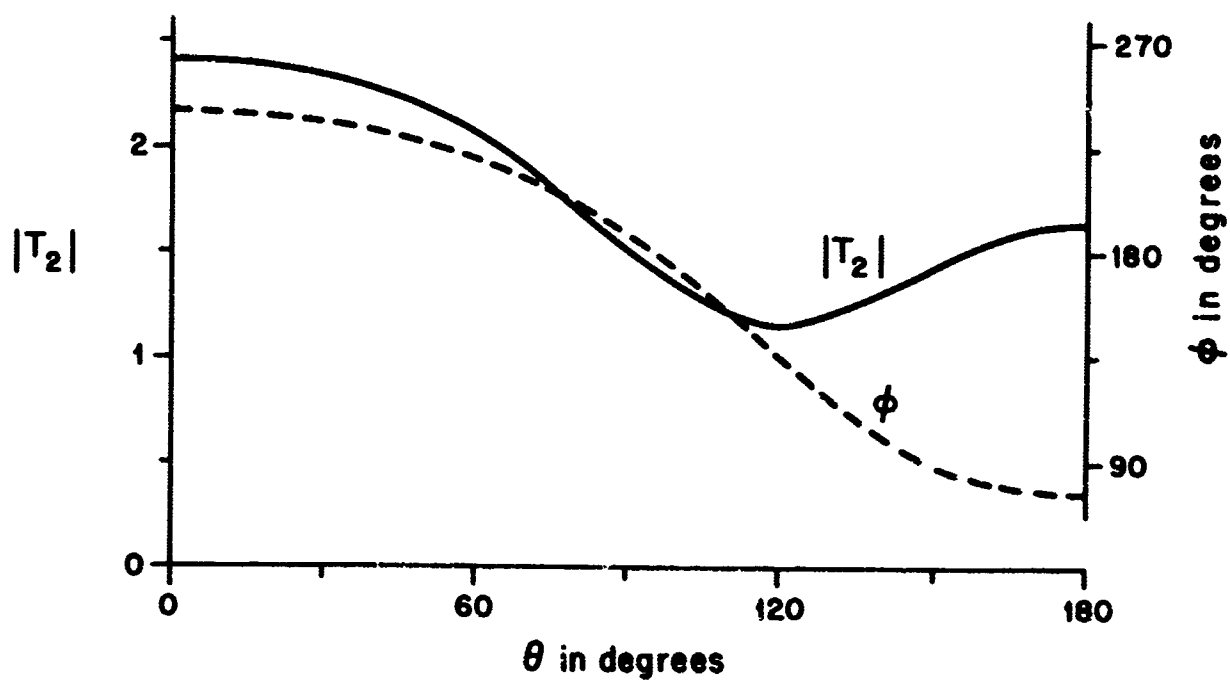
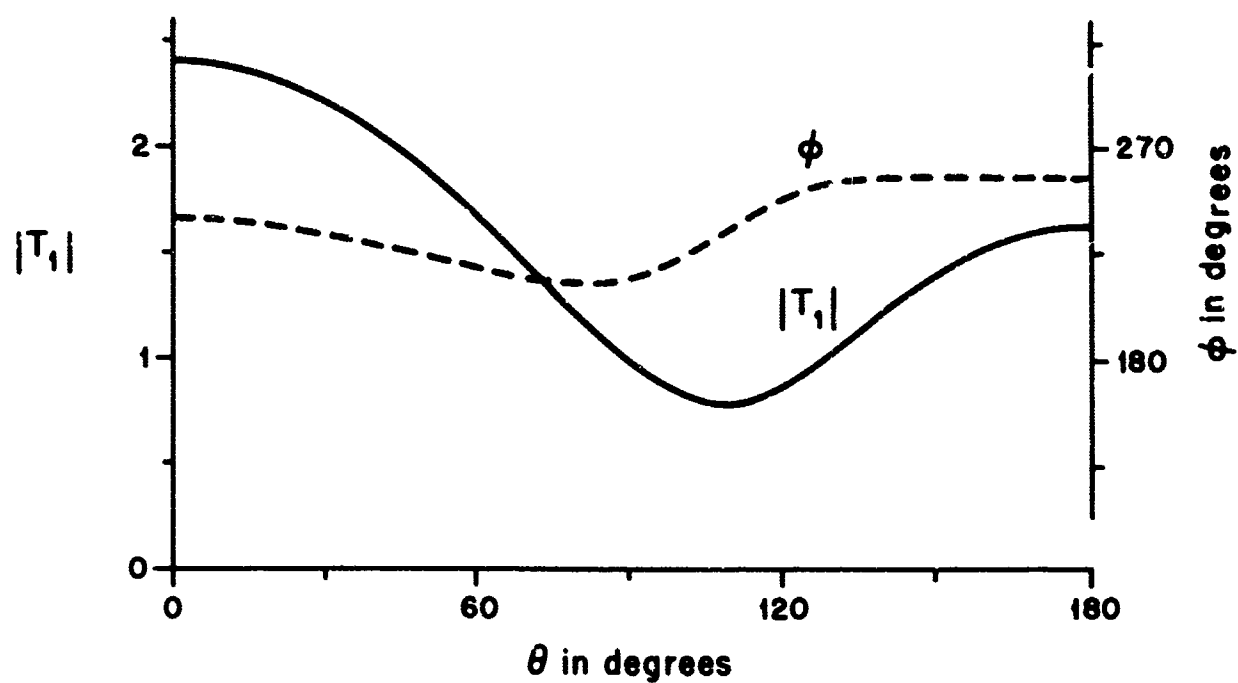
GRAPHS AND TABLES

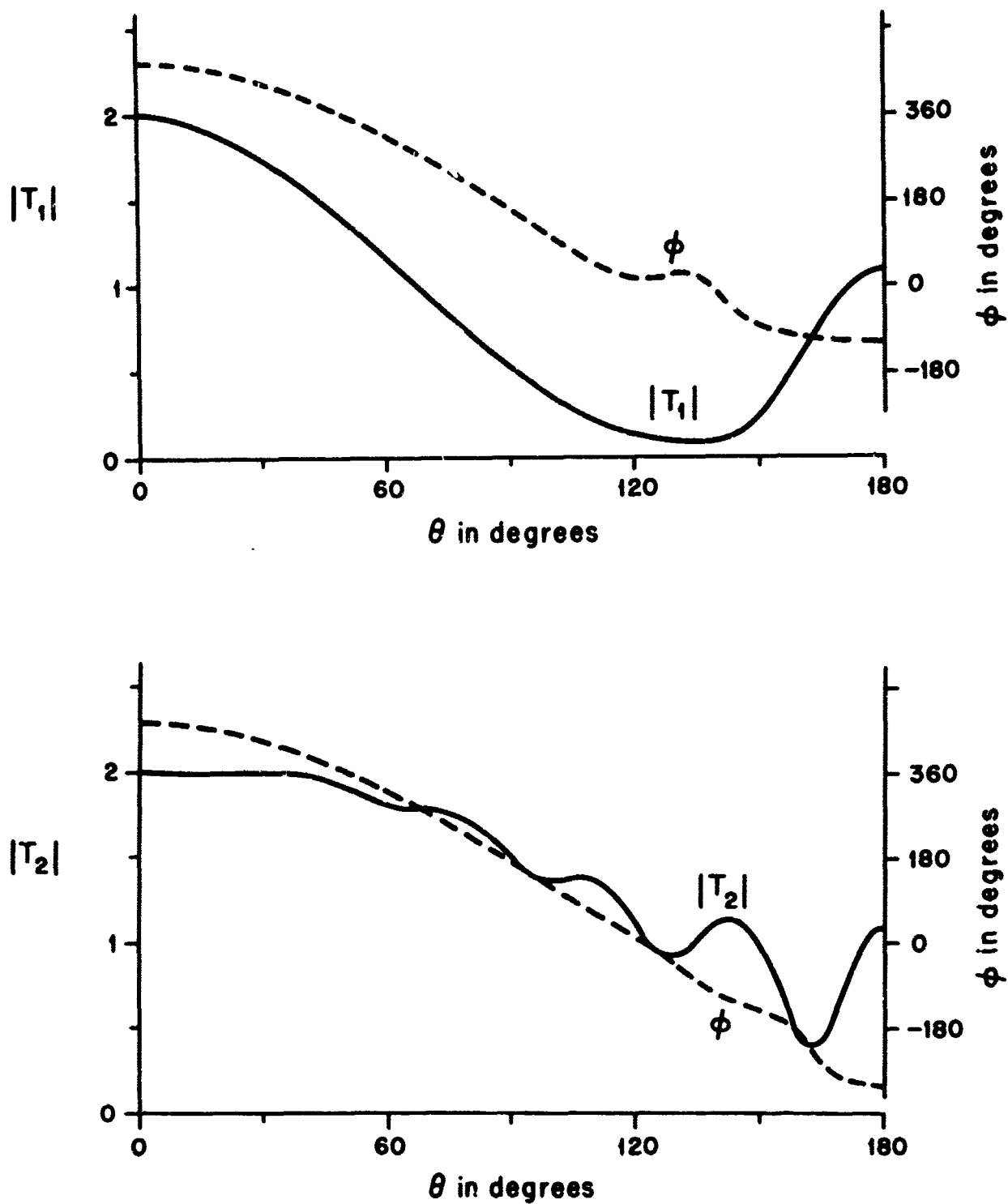
The functions $T_1(\theta)$ and $T_2(\theta)$ were computed for $ka=0.1(0.1)5.0(0.2)10.0$ and for $0 \leq \theta \leq 180^\circ$ in increments of 5° , and in the following tables the real and imaginary parts are presented along with the magnitudes and arguments. The arguments are given in degrees and since these are, of course, principal values, the addition (or subtraction) of integer multiples of 360° may be necessary to convert them into physically-meaningful phase angles. In this connection we note that the incident field was chosen to have zero phase in the plane of the shadow boundary. We also remark that for $ka=0$, $T_1(\theta) = -\frac{3}{2} \cos \theta$ and $T_2(\theta) = -\frac{3}{2}$.

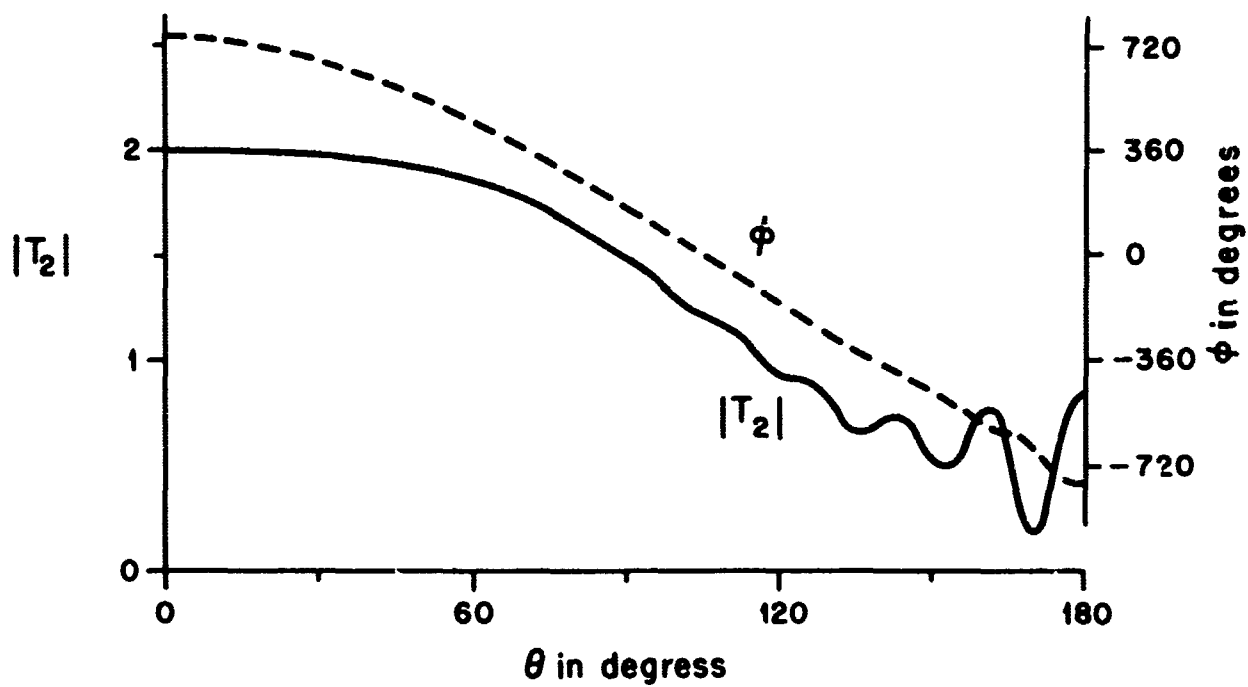
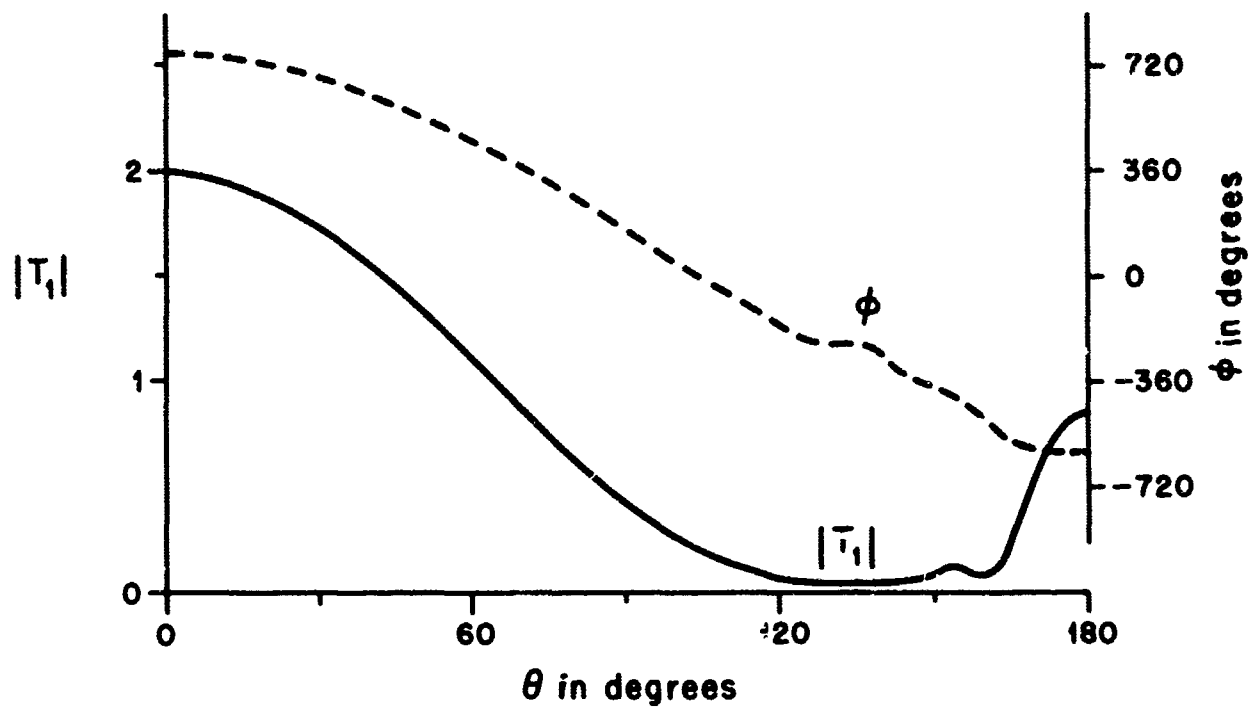
No detailed study of the accuracy of the tabulated values has been carried out, but from spot checks using a hand computer and standard tabulations of the Hankel and Legendre functions, it is believed that the results are accurate to all of the decimal places shown.

To illustrate the nature of the surface field components, the amplitudes and phases of $T_1(\theta)$ and $T_2(\theta)$ are plotted as functions of θ for $ka=0.1, 1.0, 5.0$ and 10.0 in Figures 1 through 4 respectively. The values were taken directly from the tables except for the addition of appropriate multiples of 360° to the listed arguments in accordance with the known physical behavior of the field.

FIG. 1: SURFACE CURRENT COMPONENTS FOR $k_2 = 0.1$

FIG. 2: SURFACE CURRENT COMPONENTS FOR $ka = 1.0$

FIG. 3: SURFACE CURRENT COMPONENTS FOR $ka = 5.0$

FIG. 4: SURFACE CURRENT COMPONENTS FOR $ka = 10.0$

ACKNOWLEDGEMENTS

The authors are indebted to Dr. T. B. A. Senior for his detailed assistance, and to Mr. H. E. Hunter for hand computations associated with the checking of the tables.

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TABLES OF $T_1(\theta)$ AND $T_2(\theta)$

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.48616	-.23432	1.50452	188.960
5	-1.48057	-.23305	1.49880	188.945
10	-1.46384	-.22930	1.48169	188.903
15	-1.43609	-.22318	1.45333	188.834
20	-1.39750	-.21487	1.41392	188.741
25	-1.34834	-.20462	1.36378	188.629
30	-1.28896	-.19274	1.30329	188.504
35	-1.21976	-.17959	1.23291	188.376
40	-1.14125	-.16557	1.15320	188.255
45	-1.05399	-.15111	1.06477	188.159
50	-.95862	-.13663	.96831	188.112
55	-.85583	-.12260	.86457	188.152
60	-.74641	-.10941	.75438	188.339
65	-.63117	-.09749	.63866	188.781
70	-.51100	-.08719	.51839	189.683
75	-.38683	-.07883	.39478	191.518
80	-.25962	-.07265	.26960	195.633
85	-.13038	-.06885	.14744	207.838
90	-.00010	-.06754	.06754	269.914
95	.13017	-.06876	.14722	332.155
100	.25942	-.07248	.26936	344.391
105	.38663	-.07857	.39453	348.513
110	.51080	-.08685	.51813	350.350
115	.63097	-.09707	.63839	351.254
120	.74621	-.10892	.75411	351.695
125	.85563	-.12203	.86429	351.883
130	.95842	-.13600	.96802	351.924
135	1.05579	-.15041	1.06447	351.877
140	1.14105	-.16481	1.15289	351.781
145	1.21956	-.17878	1.23260	351.660
150	1.28876	-.19188	1.30296	351.532
155	1.34814	-.20372	1.36345	351.407
160	1.39730	-.21394	1.41358	351.295
165	1.43589	-.22222	1.45298	351.202
170	1.46364	-.22833	1.48134	351.133
175	1.48037	-.23207	1.49845	351.091
180	1.48596	-.23333	1.50417	351.076

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.44658	-.47435	1.52236	198.155	0	-1.44658	-.47435	1.52236	198.155
5	-1.44134	-.47184	1.51661	198.127	5	-1.44691	-.47258	1.52213	198.088
10	-1.42566	-.46440	1.49939	198.043	10	-1.44790	-.46729	1.52144	197.887
15	-1.39959	-.45224	1.47084	197.907	15	-1.44952	-.45850	1.52031	197.553
20	-1.36326	-.43573	1.43120	197.725	20	-1.45172	-.44629	1.51877	197.089
25	-1.31683	-.41536	1.38078	197.506	25	-1.45443	-.43074	1.51687	196.497
30	-1.26052	-.39172	1.31998	197.263	30	-1.45757	-.41194	1.51466	195.782
35	-1.19464	-.36554	1.24931	197.013	35	-1.46103	-.39004	1.51220	194.947
40	-1.11954	-.33758	1.16933	196.780	40	-1.46473	-.36519	1.50957	194.000
45	-1.03567	-.30870	1.08070	196.598	45	-1.46853	-.33757	1.50683	192.946
50	-.94356	-.27976	.98416	196.515	50	-1.47233	-.30738	1.50407	191.792
55	-.84383	-.25165	.88055	196.606	55	-1.47600	-.27483	1.50137	190.548
60	-.73717	-.22520	.77081	196.987	60	-1.47943	-.24019	1.49880	189.222
65	-.62440	-.20123	.65602	197.863	65	-1.48252	-.20370	1.49645	187.823
70	-.50637	-.18046	.53756	199.615	70	-1.48516	-.16564	1.49437	186.364
75	-.38404	-.16354	.41741	203.066	75	-1.48728	-.12632	1.49263	184.855
80	-.25843	-.15097	.29929	210.292	80	-1.48880	-.08603	1.49128	183.307
85	-.13060	-.14313	.19376	227.622	85	-1.48967	-.04509	1.49036	181.734
90	-.00165	-.14027	.14028	269.325	90	-1.48987	-.00383	1.48988	180.147
95	.12730	-.14247	.19105	311.781	95	-1.48939	.03743	1.48986	178.560
100	.25513	-.14964	.29577	329.608	100	-1.48823	.07837	1.49029	176.986
105	.38074	-.16155	.41360	337.008	105	-1.48643	.11866	1.49115	175.436
110	.50307	-.17784	.53358	340.531	110	-1.48404	.15798	1.49242	173.924
115	.62109	-.19799	.65189	342.319	115	-1.48113	.19603	1.49404	172.460
120	.73387	-.22137	.76653	343.214	120	-1.47778	.23253	1.49597	171.058
125	.84053	-.24725	.87614	343.608	125	-1.47411	.26717	1.49812	169.727
130	.94026	-.27484	.97960	343.706	130	-1.47021	.29972	1.50045	168.478
135	1.03237	-.30328	1.07600	343.629	135	-1.46620	.32991	1.50286	167.319
140	1.11624	-.33171	1.16448	343.450	140	-1.46220	.35753	1.50528	166.260
145	1.19134	-.35926	1.24433	343.219	145	-1.45833	.38238	1.50763	165.308
150	1.25722	-.38509	1.31488	342.970	150	-1.45471	.40428	1.50984	164.469
155	1.31353	-.40841	1.37555	342.728	155	-1.45144	.42308	1.51184	163.749
160	1.35996	-.42853	1.42588	342.510	160	-1.44862	.43863	1.51357	163.154
165	1.39629	-.44484	1.46544	342.329	165	-1.44634	.45084	1.51497	162.687
170	1.42236	-.45686	1.49393	342.193	170	-1.44466	.45962	1.51601	162.351
175	1.43804	-.46421	1.51111	342.110	175	-1.44363	.46492	1.51664	162.149
180	1.44328	-.46669	1.51686	342.081	180	-1.44328	.46669	1.51686	162.081

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.38715	-.72483	1.56510	207.588	0	-1.38715	-.72483	1.56510	207.588
5	-1.38249	-.72112	1.55926	207.547	5	-1.38788	-.72219	1.56453	217.490
10	-1.36851	-.71011	1.54177	207.425	10	-1.39004	-.71429	1.56283	237.197
15	-1.34519	-.69211	1.51280	207.226	15	-1.39357	-.70118	1.56003	266.759
20	-1.31253	-.66765	1.47258	206.961	20	-1.39836	-.68293	1.55622	206.030
25	-1.27054	-.63742	1.42147	206.642	25	-1.40427	-.65966	1.55149	205.162
30	-1.21926	-.60230	1.35991	206.289	30	-1.41110	-.63149	1.54595	204.119
35	-1.15877	-.56332	1.28844	205.926	35	-1.41864	-.59861	1.53977	202.878
40	-1.08923	-.52163	1.20769	205.590	40	-1.42667	-.56123	1.53309	201.474
45	-1.01088	-.47846	1.11840	205.329	45	-1.43492	-.51960	1.52610	199.906
50	-.92408	-.43511	1.02139	205.214	50	-1.44314	-.47401	1.51899	198.183
55	-.82929	-.39287	.91764	205.349	55	-1.45105	-.42477	1.51195	196.316
60	-.72712	-.35303	.80829	205.898	60	-1.45842	-.37224	1.50517	194.318
65	-.61829	-.31680	.69473	207.130	65	-1.46499	-.31683	1.49886	192.253
70	-.50369	-.28530	.57887	209.528	70	-1.47054	-.25896	1.49317	189.987
75	-.38429	-.25947	.46368	214.028	75	-1.47490	-.19908	1.48828	187.687
80	-.26119	-.24013	.35479	222.595	80	-1.47791	-.13767	1.48431	185.322
85	-.13557	-.22785	.26513	239.248	85	-1.47945	-.07523	1.48137	182.911
90	-.00868	-.22300	.22317	267.772	90	-1.47947	-.01227	1.47952	180.475
95	.11821	-.22571	.25479	297.643	95	-1.47795	.05069	1.47882	178.036
100	.24383	-.23586	.33924	315.952	100	-1.47490	.11312	1.47924	175.614
105	.36693	-.25312	.44577	325.401	105	-1.47042	.17453	1.48075	173.231
110	.48634	-.27690	.55964	330.345	110	-1.46463	.23441	1.48327	170.957
115	.60095	-.30643	.67456	332.983	115	-1.45767	.29229	1.48669	168.662
120	.70977	-.34076	.78733	334.355	120	-1.44977	.34770	1.49088	166.513
125	.81195	-.37879	.89596	334.990	125	-1.44113	.40022	1.49567	164.479
130	.90675	-.41933	.99901	335.182	130	-1.43201	.44946	1.50089	162.575
135	.97355	-.46110	1.09534	335.104	135	-1.42269	.49506	1.50636	160.813
140	1.07191	-.50282	1.18398	334.869	140	-1.41341	.53669	1.51188	159.208
145	1.14145	-.54321	1.26411	334.551	145	-1.40447	.57406	1.51726	157.768
150	1.20195	-.58103	1.33502	334.200	150	-1.39611	.60694	1.52233	156.514
155	1.25323	-.61516	1.39637	333.855	155	-1.38858	.63510	1.52693	155.422
160	1.29522	-.64457	1.44675	333.543	160	-1.38210	.65838	1.53091	154.529
165	1.32788	-.66840	1.48662	333.281	165	-1.37686	.67663	1.53413	153.829
170	1.35120	-.68593	1.51534	333.086	170	-1.37300	.68974	1.53651	153.327
175	1.36519	-.69666	1.53267	332.965	175	-1.37064	.69763	1.53797	153.025
180	1.36985	-.70027	1.53846	332.924	180	-1.36985	.70027	1.53846	152.924

KA = .4

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.31796	-.98814	1.64725	216.861	0	-1.31796	-.98814	1.64725	216.861
5	-1.31409	-.98330	1.64125	216.807	5	-1.31920	-.98465	1.64616	216.738
10	-1.30241	-.96892	1.62329	216.647	10	-1.32287	-.97422	1.64289	216.370
15	-1.28283	-.94539	1.59356	216.389	15	-1.32885	-.95689	1.63752	215.757
20	-1.25517	-.91337	1.55231	216.043	20	-1.33697	-.93273	1.63017	214.901
25	-1.21921	-.87372	1.49996	215.627	25	-1.34696	-.90185	1.62099	213.804
30	-1.17475	-.82758	1.43698	215.164	30	-1.35851	-.86440	1.61020	212.468
35	-1.12158	-.77624	1.36399	214.687	35	-1.37124	-.82059	1.59802	210.897
40	-1.05958	-.72117	1.28172	214.240	40	-1.38476	-.77065	1.58476	209.097
45	-.98871	-.66399	1.19098	213.884	45	-1.39862	-.71487	1.57073	207.073
50	-.90909	-.60637	1.09276	213.704	50	-1.41236	-.65362	1.55627	204.834
55	-.82097	-.55005	.98821	213.822	55	-1.42552	-.58729	1.54175	202.391
60	-.72482	-.49672	.87869	214.423	60	-1.43765	-.51635	1.52756	199.757
65	-.62128	-.44803	.76597	215.797	65	-1.44832	-.44135	1.51408	196.948
70	-.51120	-.40546	.65247	218.419	70	-1.45716	-.36284	1.50166	193.983
75	-.39563	-.37033	.54192	223.108	75	-1.46384	-.28148	1.49065	190.884
80	-.27578	-.34375	.44070	231.261	80	-1.46808	-.19793	1.48136	187.678
85	-.15299	-.32651	.36057	244.893	85	-1.46970	-.11290	1.47403	184.393
90	-.02871	-.31912	.32041	264.860	90	-1.46859	-.02712	1.46884	181.058
95	.09558	-.32177	.33567	286.544	95	-1.46472	.05865	1.46590	177.707
100	.21837	-.33431	.39931	303.153	100	-1.45816	.14367	1.46522	174.373
105	.33824	-.35627	.49126	313.513	105	-1.44905	.22722	1.46676	171.088
110	.45382	-.38687	.59634	319.553	110	-1.43762	.30858	1.47037	167.885
115	.56391	-.42506	.70617	322.992	115	-1.42418	.38708	1.47584	164.795
120	.66747	-.46955	.81609	324.874	120	-1.40908	.46208	1.48291	161.844
125	.76365	-.51888	.92326	325.805	125	-1.39275	.53301	1.49126	159.058
130	.85179	-.57145	1.02572	326.143	130	-1.37564	.59933	1.50052	156.458
135	.93144	-.62557	1.12201	326.114	135	-1.35822	.66058	1.51034	154.064
140	1.00233	-.67955	1.21097	325.864	140	-1.34100	.71635	1.52034	151.889
145	1.06435	-.73172	1.29162	325.492	145	-1.32445	.76628	1.53014	149.948
150	1.11754	-.78052	1.36313	325.069	150	-1.30903	.81009	1.53941	148.249
155	1.16203	-.82448	1.42481	324.644	155	-1.29518	.84752	1.54783	146.801
160	1.19800	-.86230	1.47607	324.254	160	-1.28328	.87840	1.55512	145.609
165	1.22568	-.89291	1.51643	323.927	165	-1.27367	.90255	1.56104	144.678
170	1.24527	-.91541	1.54553	323.680	170	-1.26660	.91989	1.56540	144.010
175	1.25695	-.92917	1.56310	323.527	175	-1.26229	.93032	1.56807	143.609
180	1.26083	-.93380	1.56897	323.476	180	-1.26083	.93380	1.56897	143.476

KA = .5

----- T1 ----- T2 -----

W	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.25335	-1.26189	1.77855	225.195	0	-1.25335	-1.26189	1.77855	225.195
5	-1.25043	-1.25602	1.77233	225.128	5	-1.25515	-1.25761	1.77679	225.056
10	-1.24162	-1.23855	1.75375	224.929	10	-1.26050	-1.24479	1.77154	224.641
15	-1.22666	-1.20994	1.72297	224.607	15	-1.26923	-1.22345	1.76289	223.948
20	-1.20518	-1.17091	1.68033	224.174	20	-1.28107	-1.19365	1.75098	222.977
25	-1.17671	-1.12251	1.62524	223.650	25	-1.29561	-1.15549	1.73602	221.728
30	-1.14069	-1.06601	1.56127	223.062	30	-1.31240	-1.10908	1.71827	220.200
35	-1.09660	-1.00295	1.48609	222.446	35	-1.33087	-1.05460	1.69806	218.394
40	-1.04395	-.93510	1.40151	221.852	40	-1.35041	-.99230	1.67578	216.309
45	-.98236	-.86437	1.30849	221.344	45	-1.37034	-.92247	1.65190	213.947
50	-.91161	-.79282	1.20814	221.013	50	-1.38995	-.84552	1.62692	211.312
55	-.83173	-.72258	1.10177	220.983	55	-1.40856	-.76191	1.60142	208.410
60	-.74296	-.65578	.99098	221.433	60	-1.42545	-.67222	1.57601	205.248
65	-.64586	-.59447	.87780	222.627	65	-1.44000	-.57709	1.55133	201.839
70	-.54126	-.54057	.76497	224.963	70	-1.45159	-.47727	1.52804	198.200
75	-.43026	-.49577	.65644	229.046	75	-1.45972	-.37359	1.50677	194.356
80	-.31422	-.46147	.55830	235.749	80	-1.46400	-.26695	1.48814	190.334
85	-.19470	-.43874	.48000	246.070	85	-1.46412	-.15831	1.47265	186.171
90	-.07339	-.42824	.43449	260.276	90	-1.45993	-.04866	1.46074	181.909
95	.04793	-.43022	.43289	276.357	95	-1.45142	.06100	1.45270	177.594
100	.16748	-.44450	.47501	290.645	100	-1.43869	.16963	1.44866	173.276
105	.28356	-.47047	.54932	301.078	105	-1.42200	.27625	1.44859	169.006
110	.39461	-.50714	.64258	307.886	110	-1.40174	.37991	1.45231	164.836
115	.49927	-.55317	.74516	312.069	115	-1.37841	.47970	1.45949	160.812
120	.59645	-.60691	.85093	314.502	120	-1.35259	.57480	1.46966	156.976
125	.68529	-.66652	.95597	315.796	125	-1.32497	.66446	1.48224	153.366
130	.76527	-.73000	1.05760	316.351	130	-1.29628	.74804	1.49663	150.012
135	.83610	-.79526	1.15391	316.434	135	-1.26729	.82495	1.51214	146.938
140	.89779	-.86023	1.24339	316.224	140	-1.23877	.89474	1.52810	144.160
145	.95053	-.92290	1.32485	315.845	145	-1.21150	.95700	1.54388	141.694
150	.99470	-.98137	1.39732	315.386	150	-1.18619	1.01145	1.55887	139.546
155	1.03078	-1.03393	1.45998	314.913	155	-1.16353	1.05783	1.57252	137.724
160	1.05933	-1.07907	1.51214	314.471	160	-1.14412	1.09597	1.58435	136.231
165	1.08086	-1.11553	1.55328	314.095	165	-1.12847	1.12575	1.59397	135.069
170	1.09585	-1.14230	1.58296	313.811	170	-1.11698	1.14707	1.60107	134.239
175	1.10469	-1.15866	1.60088	313.634	175	-1.10997	1.15988	1.60541	133.740
180	1.10761	1.16416	1.60688	313.574	180	-1.10761	1.16416	1.60688	133.574

KA = .6

T1

T2

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.21011	-1.53482	1.95450	231.746	0	-1.21011	-1.53482	1.95450	231.746
5	-1.20834	-1.52804	1.94807	231.664	5	-1.21249	-1.52985	1.95207	231.601
10	-1.20287	-1.50785	1.92886	231.419	10	-1.21953	-1.51494	1.94481	231.166
15	-1.19333	-1.47473	1.89707	231.021	15	-1.23100	-1.49008	1.93279	230.439
20	-1.17910	-1.42947	1.85302	230.482	20	-1.24653	-1.45529	1.91616	229.418
25	-1.15940	-1.37317	1.79716	229.825	25	-1.26558	-1.41059	1.89511	228.102
30	-1.13332	-1.30723	1.73011	229.076	30	-1.28752	-1.35605	1.86991	226.485
35	-1.09990	-1.23337	1.65257	228.274	35	-1.31156	-1.29177	1.84089	224.565
40	-1.05825	-1.15355	1.56542	227.467	40	-1.33685	-1.21796	1.80848	222.336
45	-1.00755	-1.06998	1.46970	226.721	45	-1.36246	-1.13489	1.77321	219.793
50	-.94724	-.98504	1.36659	226.121	50	-1.38740	-1.04293	1.73568	216.933
55	-.87700	-.90125	1.25753	225.781	55	-1.41069	-.94261	1.69663	213.751
60	-.79687	-.82115	1.14424	225.860	60	-1.43134	-.83456	1.65687	210.245
65	-.70725	-.74724	1.02886	226.575	65	-1.44843	-.71956	1.61732	206.417
70	-.60893	-.68184	.91417	228.233	70	-1.46114	-.59851	1.57897	202.275
75	-.50311	-.62707	.80395	231.259	75	-1.46873	-.47247	1.54285	197.832
80	-.39132	-.58467	.70354	236.206	80	-1.47064	-.34257	1.51001	193.112
85	-.27535	-.55597	.62042	243.652	85	-1.46648	-.21005	1.48145	188.151
90	-.15725	-.54182	.56418	253.816	90	-1.45605	-.07621	1.45804	182.996
95	-.03912	-.54255	.54396	265.876	95	-1.43933	.05761	1.44048	177.708
100	.07691	-.55793	.56321	277.848	100	-1.41655	.19009	1.42924	172.357
105	.15881	-.58723	.61683	287.825	105	-1.38810	.31994	1.42449	167.021
110	.29478	-.62919	.69482	295.104	110	-1.35459	.44591	1.42609	161.779
115	.39328	-.68218	.78743	299.964	115	-1.31677	.56686	1.43361	156.709
120	.48311	-.74419	.88725	302.991	120	-1.27557	.68176	1.44633	151.877
125	.56348	-.81296	.98915	304.727	125	-1.23200	.79969	1.46336	147.341
130	.63397	-.88610	1.09953	305.582	130	-1.18715	.88988	1.48365	143.145
135	.69454	-.96113	1.18581	305.853	135	-1.14218	.98171	1.50609	139.321
140	.74549	-1.03563	1.27604	305.748	140	-1.09821	1.06465	1.52956	135.889
145	.78740	-1.10727	1.35870	305.417	145	-1.05637	1.13834	1.55298	132.861
150	.82105	-1.17392	1.43256	304.969	150	-1.01772	1.20249	1.57536	130.243
155	.84734	-1.23366	1.49663	304.483	155	-.98324	1.25693	1.59582	128.035
160	.86723	-1.28482	1.55012	304.018	160	-.95379	1.30154	1.61360	126.235
165	.88160	-1.32605	1.59237	303.617	165	-.93009	1.33625	1.62808	124.839
170	.89125	-1.35626	1.62289	303.310	170	-.91273	1.36105	1.63876	123.846
175	.89679	-1.37470	1.64135	303.118	175	-.90214	1.37594	1.64532	123.251
180	.89859	-1.38089	1.64752	303.053	180	-.89859	1.38089	1.64752	123.053

KA = .7

T2

T1

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.20093	-1.78249	2.14930	236.030	0	-1.20093	-1.78249	2.14930	236.030
5	-1.20043	-1.77496	2.14278	235.929	5	-1.20382	-1.77703	2.14640	235.885
10	-1.19874	-1.75250	2.12326	235.627	10	-1.21240	-1.76062	2.13768	235.448
15	-1.19532	-1.71560	2.09095	235.134	15	-1.22638	-1.73321	2.12321	234.718
20	-1.18929	-1.66503	2.04615	234.463	20	-1.24526	-1.69474	2.10304	233.692
25	-1.17953	-1.60191	1.98933	233.635	25	-1.26838	-1.64511	2.07730	232.368
30	-1.16472	-1.52770	1.92105	232.678	30	-1.29490	-1.58429	2.04015	230.740
35	-1.14343	-1.44419	1.84204	231.630	35	-1.32382	-1.51226	2.00984	228.801
40	-1.11428	-1.35350	1.75316	230.537	40	-1.35404	-1.42909	1.96869	226.545
45	-1.07600	-1.25805	1.65544	229.460	45	-1.38431	-1.33498	1.92315	223.961
50	-1.02757	-1.16052	1.55007	228.477	50	-1.41336	-1.23025	1.87379	221.038
55	-.96831	-1.06376	1.43848	227.689	55	-1.43986	-1.11539	1.82134	217.763
60	-.89797	-.97073	1.32237	227.230	60	-1.46251	-.99108	1.76669	214.124
65	-.81678	-.88436	1.20384	227.275	65	-1.48009	-.85820	1.71090	210.116
70	-.72551	-.80745	1.08552	228.060	70	-1.49147	-.71781	1.65521	205.701
75	-.62542	-.74253	.97082	229.893	75	-1.49569	-.57117	1.60103	200.901
80	-.51823	-.69172	.86432	233.160	80	-1.49200	-.41968	1.54990	195.711
85	-.40606	-.65667	.77208	238.269	85	-1.47989	-.26490	1.50341	190.148
90	-.29130	-.63842	.70174	245.473	90	-1.45912	-.10846	1.46314	184.251
95	-.17649	-.63738	.66136	254.522	95	-1.42973	.04794	1.43053	178.080
100	-.06416	-.65329	.65643	264.391	100	-1.39206	.20262	1.40672	171.718
105	.04329	-.68524	.68661	273.614	105	-1.34673	.35395	1.39246	165.275
110	.14373	-.73175	.74574	281.113	110	-1.29462	.50037	1.38795	158.868
115	.23544	-.79082	.82513	286.579	115	-1.23686	.64049	1.39286	152.623
120	.31713	-.86007	.91667	290.240	120	-1.17474	.77307	1.40629	146.652
125	.38803	-.93681	1.01400	292.500	125	-1.10974	.89703	1.42695	141.051
130	.44789	-1.01825	1.11240	293.743	130	-1.04341	1.01152	1.45323	135.889
135	.49693	-1.10155	1.20845	294.281	135	-.97735	1.11587	1.48336	131.214
140	.53582	-1.18396	1.29957	294.350	140	-.91315	1.20960	1.51558	127.050
145	.56557	-1.26290	1.38376	294.124	145	-.85237	1.29240	1.54817	123.446
150	.58742	-1.33604	1.45947	293.734	150	-.79647	1.36408	1.57958	120.280
155	.60274	-1.40134	1.52547	293.273	155	-.74677	1.42460	1.60846	117.663
160	.61293	-1.45707	1.58074	292.815	160	-.70443	1.47395	1.63363	115.544
165	.61931	-1.50183	1.62452	292.410	165	-.67045	1.51221	1.65417	113.911
170	.62299	-1.53456	1.65620	292.096	170	-.64561	1.53945	1.66935	112.752
175	.62484	-1.55450	1.67538	291.898	175	-.63048	1.55576	1.67866	112.060
180	.62539	-1.56119	1.68180	291.830	180	-.62539	1.56119	1.68180	111.830

T2

T1

θ	T1			θ	T2		
	REAL	IMAGINARY	MAGNITUDE		REAL	IMAGINARY	MAGNITUDE
0	-1.22122	-1.96975	2.31760	0	-1.22122	-1.96975	2.31760
5	-1.22212	-1.96164	2.31119	5	-1.22460	-1.96413	2.31462
10	-1.22459	-1.93745	2.29201	10	-1.23463	-1.94722	2.30564
15	-1.22791	-1.89760	2.26023	15	-1.25095	-1.91890	2.29064
20	-1.23093	-1.84282	2.21612	20	-1.27297	-1.87897	2.26958
25	-1.23216	-1.77418	2.16007	25	-1.29987	-1.82721	2.24239
30	-1.22982	-1.69308	2.09260	30	-1.33062	-1.76335	2.20907
35	-1.22200	-1.60133	2.01433	35	-1.36400	-1.68722	2.16961
40	-1.20677	-1.50110	1.92603	40	-1.39861	-1.59869	2.12413
45	-1.18234	-1.39498	1.82863	45	-1.43291	-1.49777	2.07281
50	-1.14719	-1.28585	1.72321	50	-1.46526	-1.38466	2.01600
55	-1.10021	-1.17692	1.61108	55	-1.49398	-1.25976	1.95422
60	-1.04080	-1.07151	1.49379	60	-1.51740	-1.12374	1.88820
65	-.96902	-.97301	1.37323	65	-1.53392	-.97751	1.81891
70	-.88555	-.88470	1.25175	70	-1.54210	-.82228	1.74763
75	-.79173	-.80956	1.13235	75	-1.54069	-.65950	1.67591
80	-.68951	-.75015	1.01890	80	-1.52873	-.49085	1.60560
85	-.58136	-.70844	.91644	85	-1.50556	-.31820	1.53882
90	-.47008	-.68571	.83137	90	-1.47092	-.14357	1.47791
95	-.35870	-.68244	.77097	95	-1.42491	.03098	1.42524
100	-.25021	-.69835	.74182	100	-1.36802	.20338	1.38306
105	-.14745	-.73235	.74705	105	-1.30116	.37163	1.35319
110	-.05289	-.78268	.78446	110	-1.22557	.53386	1.33680
115	.03149	-.84695	.84754	115	-1.14281	.68841	1.33413
120	.10432	-.92237	.92825	120	-1.05467	.83385	1.34448
125	.16489	-1.00584	1.01927	125	-.96316	.96900	1.36625
130	.21312	-1.09414	1.11471	130	-.87039	1.09296	1.39719
135	.24955	-1.18409	1.21010	135	-.77852	1.20512	1.43471
140	.27526	-1.27265	1.30208	140	-.68969	1.30508	1.47611
145	.29173	-1.35704	1.38805	145	-.60593	1.39268	1.51879
150	.30071	-1.43483	1.46600	150	-.52918	1.46794	1.56041
155	.30410	-1.50392	1.53436	155	-.46115	1.53100	1.59895
160	.30379	-1.56262	1.59187	160	-.40335	1.58209	1.63270
165	.30150	-1.60958	1.63757	165	-.35700	1.62147	1.66032
170	.29873	-1.64380	1.67072	170	-.32327	1.64938	1.68076
175	.29659	-1.66460	1.69081	175	-.30271	1.66604	1.69331
180	.29580	-1.67157	1.69754	180	-.29580	1.67157	1.69754
			280.035				100.035
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
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			281.002				104.353
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			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.532
			281.901				122.863
			282.204				117.855
			282.132				113.513
			281.837				109.824
			281.431				100.763
			281.002				104.353
			280.610				102.419
			280.300				101.089
			280.103				100.298
			276.453				141.669
			279.310				134.827
			281.022				128.5

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T1

T2

θ	T1			θ	T2		
	REAL	IMAGINARY	MAGNITUDE		REAL	IMAGINARY	MAGNITUDE
0	-1.23978	-2.06844	2.41154	0	-1.23978	-2.06844	2.41154
5	-1.24220	-2.05996	2.40551	5	-1.24374	-2.06310	2.40900
10	-1.24915	-2.03462	2.38748	10	-1.25546	-2.04700	2.40133
15	-1.25974	-1.99278	2.35756	15	-1.27454	-2.01991	2.38841
20	-1.27255	-1.93503	2.31597	20	-1.30028	-1.98147	2.37001
25	-1.28569	-1.86230	2.26300	25	-1.33171	-1.93123	2.34587
30	-1.29694	-1.77589	2.19905	30	-1.36762	-1.86868	2.31567
35	-1.30384	-1.67749	2.12461	35	-1.40651	-1.79335	2.27912
40	-1.30388	-1.56927	2.04027	40	-1.44670	-1.70484	2.23594
45	-1.29469	-1.45386	1.94678	45	-1.48629	-1.60290	2.18594
50	-1.27420	-1.33434	1.84501	50	-1.52325	-1.48749	2.12906
55	-1.24080	-1.21417	1.73603	55	-1.55548	-1.35885	2.06543
60	-1.19352	-1.09708	1.62113	60	-1.58087	-1.21754	1.99539
65	-1.13216	-.98689	1.50191	65	-1.59739	-1.06449	1.91958
70	-1.05730	-.88738	1.38034	70	-1.60318	-.90098	1.83901
75	-.97037	-.80205	1.25893	75	-1.59666	-.72863	1.75505
80	-.87356	-.73391	1.14093	80	-1.57657	-.54939	1.66955
85	-.76970	-.68529	1.03056	85	-1.54208	-.36548	1.58480
90	-.66208	-.65773	.93326	90	-1.49286	-.17927	1.50359
95	-.55425	-.65184	.85562	95	-1.42907	.00674	1.42909
100	-.44976	-.66725	.80468	100	-1.35141	.19009	1.36472
105	-.35193	-.70270	.78591	105	-1.26107	.36841	1.31378
110	-.26362	-.75610	.80074	110	-1.15972	.53951	1.27907
115	-.18705	-.82468	.84563	115	-1.04943	.70149	1.26230
120	-.12371	-.90518	.91360	120	-.93259	.85275	1.26369
125	-.07425	-.99406	.99683	125	-.81181	.99208	1.28190
130	-.03851	-1.08769	1.08837	130	-.68985	1.11862	1.31423
135	-.01561	-1.18255	1.18265	135	-.56950	1.23186	1.35714
140	-.00402	-1.27536	1.27537	140	-.45351	1.33164	1.40675
145	-.00173	-1.36323	1.36323	145	-.34448	1.41805	1.45929
150	-.00644	-1.44367	1.44369	150	-.24482	1.49140	1.51136
155	-.01571	-1.51466	1.51474	155	-.15670	1.55217	1.56006
160	-.02715	-1.57460	1.57483	160	-.08199	1.60087	1.60297
165	-.03857	-1.62230	1.62276	165	-.02225	1.63807	1.63822
170	-.04814	-1.65692	1.65762	170	.02130	1.66423	1.66437
175	-.05447	-1.67789	1.67878	175	.04778	1.67977	1.68045
180	-.05667	-1.68492	1.68587	180	.05667	1.68492	1.68587
			268.074				88.074
			269.744				99.322
			269.406				95.765
			269.012				92.932
			268.638				90.778
			268.336				89.267
			268.141				88.371
			269.927				103.654
			269.819				108.807
			269.243				114.811
			267.972				121.662
			265.728				129.293
			262.218				137.560
			224.811				146.239
			229.626				155.052
			236.018				163.715
			243.397				171.993
			250.779				179.730
			257.220				186.848
			222.589				193.333
			221.078				199.212
			220.006				204.529
			219.575				213.679
			226.321				217.602
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
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			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
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			232.144				224.319
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			226.321				231.893
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			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
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			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
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			232.144				224.319
			230.277				221.140
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			226.321				231.893
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			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
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			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
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			232.144				224.319
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			226.321				231.893
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			232.144				224.319
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			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
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			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
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			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893
			224.379				229.683
			233.859				227.162
			232.144				224.319
			230.277				221.140
			228.314				233.801
			226.321				231.893

11

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.21165	-2.08056	2.40766	239.785	0	-1.21165	-2.08056	2.40766	239.785
5	-1.21567	-2.07192	2.40223	239.598	5	-1.21642	-2.07592	2.40606	239.631
10	-1.22736	-2.04608	2.38597	239.042	10	-1.23059	-2.06188	2.40118	239.170
15	-1.24569	-2.00324	2.35896	238.125	15	-1.25366	-2.03806	2.39277	238.403
20	-1.26893	-1.94395	2.32136	236.864	20	-1.28486	-2.00391	2.38045	237.333
25	-1.29482	-1.86860	2.27337	235.280	25	-1.32305	-1.95870	2.36368	235.962
30	-1.32066	-1.77855	2.21526	233.404	30	-1.36681	-1.90159	2.34184	234.292
35	-1.34343	-1.67524	2.14738	231.273	35	-1.41439	-1.83174	2.31426	232.326
40	-1.36003	-1.56069	2.07013	228.930	40	-1.46375	-1.74839	2.28023	230.064
45	-1.36745	-1.43753	1.98404	226.431	45	-1.51260	-1.65092	2.23909	227.504
50	-1.36301	-1.30893	1.88973	223.841	50	-1.55845	-1.53899	2.19027	224.640
55	-1.34454	-1.17858	1.78797	221.237	55	-1.59871	-1.41257	2.13336	221.463
60	-1.31055	-1.05056	1.67972	218.714	60	-1.63071	-1.27206	2.06818	217.957
65	-1.26080	-0.92917	1.56620	216.389	65	-1.65190	-1.11833	1.99485	214.098
70	-1.19549	-0.81871	1.44896	214.405	70	-1.65989	-0.95269	1.91386	209.854
75	-1.11617	-0.72322	1.33000	212.941	75	-1.65264	-0.77696	1.82617	205.180
80	-1.02530	-0.64620	1.21195	212.221	80	-1.62853	-0.59333	1.73325	200.018
85	-0.92610	-0.59043	1.09830	212.519	85	-1.58646	-0.40437	1.63718	194.299
90	-0.82240	-0.55769	0.99366	214.142	90	-1.52597	-0.21288	1.54075	187.942
95	-0.71833	-0.54873	0.90394	217.376	95	-1.44724	-0.02179	1.44741	180.863
100	-0.61805	-0.56313	0.83612	222.338	100	-1.35115	0.16600	1.36131	172.996
105	-0.52541	-0.59941	0.79709	228.764	105	-1.23922	0.34772	1.28708	164.326
110	-0.44371	-0.65512	0.79124	235.890	110	-1.11358	0.52087	1.22938	154.933
115	-0.37544	-0.72705	0.81826	242.688	115	-0.97686	0.68331	1.19213	145.027
120	-0.32218	-0.81145	0.87307	248.345	120	-0.83209	0.83335	1.17764	134.957
125	-0.28451	-0.90432	0.94802	252.536	125	-0.68258	0.96976	1.18590	125.141
130	-0.26201	-1.00163	1.03533	255.341	130	-0.53181	1.09182	1.21445	115.970
135	-0.25341	-1.09953	1.12836	257.022	135	-0.38325	1.19926	1.25901	107.722
140	-0.25668	-1.19458	1.22185	257.873	140	-0.24029	1.29223	1.31438	100.534
145	-0.26925	-1.28381	1.31174	258.155	145	-0.10615	1.37122	1.37532	94.426
150	-0.28824	-1.36478	1.39489	258.074	150	0.01626	1.43697	1.43706	89.352
155	-0.31066	-1.43563	1.46886	257.790	155	0.12433	1.49038	1.49556	85.231
160	-0.33360	-1.49499	1.53176	257.421	160	0.21582	1.53240	1.54753	81.983
165	-0.35445	-1.54189	1.58211	257.054	165	0.28888	1.56396	1.59042	79.535
170	-0.37101	-1.57574	1.61883	256.751	170	0.34210	1.58587	1.62235	77.827
175	-0.38163	-1.59617	1.64115	256.553	175	0.37444	1.59875	1.64201	76.819
180	-0.38528	-1.60299	1.64865	256.485	180	0.38528	1.60299	1.64865	76.485

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----- T1 -----				----- T2 -----					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.10768	-2.03831	2.31984	241.479	0	-1.10768	-2.03831	2.31984	241.479
5	-1.11337	-2.02974	2.31504	241.254	5	-1.11362	-2.03464	2.31947	241.307
10	-1.13003	-2.00403	2.30067	240.582	10	-1.13127	-2.02346	2.31823	240.791
15	-1.15645	-1.96124	2.27680	239.474	15	-1.16009	-2.00426	2.31579	239.937
20	-1.19065	-1.90156	2.24357	237.947	20	-1.19919	-1.97623	2.31161	238.750
25	-1.23001	-1.82539	2.20113	236.027	25	-1.24729	-1.93830	2.30494	237.239
30	-1.27132	-1.73346	2.14969	233.744	30	-1.30274	-1.88928	2.29488	235.412
35	-1.31104	-1.62702	2.08950	231.138	35	-1.36349	-1.82788	2.28040	233.279
40	-1.34542	-1.50787	2.02085	228.259	40	-1.42715	-1.75288	2.26038	230.849
45	-1.37078	-1.37852	1.94405	225.161	45	-1.49096	-1.66325	2.23369	228.127
50	-1.38377	-1.24217	1.85951	221.913	50	-1.55190	-1.55824	2.19921	225.117
55	-1.38163	-1.10269	1.76772	218.594	55	-1.60676	-1.43753	2.15596	221.818
60	-1.36244	-.96451	1.66928	215.296	60	-1.65226	-1.30128	2.10316	218.223
65	-1.32532	-.83238	1.56503	212.131	65	-1.68514	-1.15026	2.04029	214.317
70	-1.27057	-.71115	1.45605	209.236	70	-1.70239	-.98584	1.96724	210.075
75	-1.19971	-.60545	1.34383	206.778	75	-1.70137	-.80999	1.88434	205.458
80	-1.11542	-.51934	1.23040	204.966	80	-1.67993	-.62523	1.79251	200.414
85	-1.02137	-.45604	1.11856	204.061	85	-1.63664	-.43451	1.69333	194.868
90	-.92194	-.41769	1.01214	204.373	90	-1.57080	-.24112	1.58919	198.727
95	-.82192	-.40513	.91634	206.239	95	-1.48257	-.04849	1.48336	181.373
100	-.72613	-.41790	.83779	209.921	100	-1.37296	.13997	1.38008	174.179
105	-.63899	-.45427	.79401	215.410	105	-1.24385	.32105	1.28461	165.527
110	-.56428	-.51141	.76155	222.186	110	-1.09781	.49190	1.20298	155.664
115	-.50478	-.58562	.77314	229.240	115	-.93812	.65015	1.14138	145.277
120	-.46215	-.67264	.81610	235.508	120	-.76849	.79402	1.10501	134.064
125	-.43686	-.76796	.88352	240.365	125	-.59300	.92236	1.09654	122.737
130	-.42823	-.86714	.96712	243.718	130	-.41586	1.03466	1.11510	111.897
135	-.43452	-.96608	1.05930	245.783	135	-.24131	1.13097	1.15643	102.044
140	-.45318	-1.06119	1.15390	246.875	140	-.07342	1.21191	1.21414	93.467
145	-.48106	-1.14950	1.24610	247.291	145	.08402	1.27848	1.28124	86.240
150	-.51468	-1.22875	1.33219	247.273	150	.22753	1.33198	1.35127	80.306
155	-.55049	-1.29732	1.40928	247.007	155	.35408	1.37386	1.41875	75.548
160	-.58509	-1.35415	1.47515	246.632	160	.46111	1.40562	1.47932	71.838
165	-.61544	-1.39864	1.52806	246.249	165	.54650	1.42865	1.52961	69.067
170	-.63902	-1.43050	1.56674	245.929	170	.60864	1.44416	1.56718	67.147
175	-.65394	-1.44962	1.59029	245.719	175	.64639	1.45309	1.59037	66.019
180	-.65904	-1.45599	1.59820	245.647	180	.65904	1.45599	1.59820	65.647

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.92794	-1.97992	2.18659	244.889	0	-.92794	-1.97992	2.18659	244.889
5	-.93535	-1.97163	2.18224	244.620	5	-.93538	-1.97732	2.18740	244.683
10	-.95712	-1.94669	2.16926	243.818	10	-.95751	-1.96929	2.18974	244.670
15	-.99189	-1.90497	2.14774	242.495	15	-.99373	-1.95517	2.19321	243.058
20	-1.03746	-1.84635	2.11786	240.669	20	-1.04307	-1.93386	2.19723	241.659
25	-1.09083	-1.77083	2.07985	238.367	25	-1.10410	-1.90396	2.20093	239.891
30	-1.14837	-1.67875	2.03395	235.626	30	-1.17493	-1.86384	2.20326	237.773
35	-1.20595	-1.57094	1.98044	232.488	35	-1.25324	-1.81174	2.20296	235.227
40	-1.25921	-1.44887	1.91959	229.006	40	-1.33622	-1.74595	2.19860	232.572
45	-1.30376	-1.31484	1.85165	225.243	45	-1.42060	-1.66494	2.18864	229.528
50	-1.33554	-1.17202	1.77687	221.269	50	-1.50278	-1.56753	2.17152	226.208
55	-1.35111	-1.02438	1.69554	217.169	55	-1.57884	-1.45303	2.14570	222.624
60	-1.34798	-.87667	1.60798	213.038	60	-1.64473	-1.32137	2.10977	218.778
65	-1.32484	-.73411	1.51463	208.991	65	-1.69641	-1.17322	2.06258	214.667
70	-1.28177	-.60213	1.41615	205.163	70	-1.73006	-1.01001	2.00330	210.276
75	-1.22028	-.48599	1.31350	201.715	75	-1.74230	-.83392	1.93158	205.577
80	-1.14331	-.39037	1.20811	198.852	80	-1.73036	-.64784	1.84766	200.526
85	-1.05495	-.31901	1.10213	196.825	85	-1.69231	-.45524	1.75247	195.056
90	-.96021	-.27438	.99865	195.948	90	-1.62715	-.25997	1.64778	189.078
95	-.86458	-.25750	.90211	196.585	95	-1.53494	-.06609	1.53637	182.465
100	-.77358	-.26783	.81863	199.097	100	-1.41684	.12241	1.42212	175.062
105	-.69227	-.30338	.75583	203.665	105	-1.27503	.30178	1.31026	166.684
110	-.62492	-.36088	.72164	210.006	110	-1.11262	.46877	1.20734	157.153
115	-.57461	-.43611	.72137	217.197	115	-.93354	.62077	1.12109	146.377
120	-.54309	-.52425	.75484	223.988	120	-.74227	.75593	1.05943	134.478
125	-.53069	-.62028	.81632	229.451	125	-.54369	.87321	1.02864	121.938
130	-.53638	-.71936	.89732	233.291	130	-.34286	.97239	1.03107	109.422
135	-.55197	-.81714	.98946	235.673	135	-.14477	1.05401	1.06390	97.821
140	-.59233	-.90994	1.08574	236.938	140	.04579	1.11922	1.12015	87.657
145	-.63570	-.99491	1.18066	237.423	145	.22440	1.16969	1.19132	79.140
150	-.68402	-1.07003	1.26998	237.411	150	.38710	1.20741	1.26795	72.224
155	-.73318	-1.13405	1.35042	237.117	155	.53043	1.23454	1.34367	66.749
160	-.77932	-1.18634	1.41942	236.699	160	.65152	1.25323	1.41246	62.531
165	-.81902	-1.22672	1.47501	236.271	165	.74804	1.26544	1.47000	59.411
170	-.84947	-1.25532	1.51573	235.914	170	.81823	1.27287	1.51317	57.266
175	-.86859	-1.27235	1.54056	235.680	175	.86083	1.27679	1.53988	56.012
180	-.87511	-1.27801	1.54891	235.599	180	.87511	1.27801	1.54891	55.599

KA = 1.4

----- T1 -----				----- T2 -----					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.41947	-1.90283	1.94851	257.568	0	-.41947	-1.90283	1.94851	257.568
5	-.43033	-1.89569	1.94392	257.211	5	-.43045	-1.90114	1.95024	257.249
10	-.46236	-1.87407	1.93026	256.141	10	-.46318	-1.89975	1.95540	256.298
15	-.51401	-1.83730	1.90785	254.370	15	-.51702	-1.89463	1.96391	254.736
20	-.58270	-1.78449	1.87721	251.916	20	-.59087	-1.88518	1.97561	252.597
25	-.66487	-1.71463	1.83902	248.805	25	-.68310	-1.86925	1.99015	249.926

KA = 1.5

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.41947	-1.90283	1.94851	257.568	0	-.41947	-1.90283	1.94851	257.568
5	-.43033	-1.89569	1.94392	257.211	5	-.43045	-1.90214	1.95024	257.249
10	-.46236	-1.87407	1.93026	256.141	10	-.46318	-1.89975	1.95540	256.298
15	-.51401	-1.83730	1.90785	254.370	15	-.51702	-1.89463	1.96391	254.736
20	-.58270	-1.78449	1.87721	251.916	20	-.59087	-1.88518	1.97561	252.597
25	-.66487	-1.71463	1.83902	248.805	25	-.68310	-1.86925	1.99015	249.926
30	-.75610	-1.62694	1.79406	245.074	30	-.79147	-1.84430	2.00695	246.774
35	-.85124	-1.52114	1.74313	240.768	35	-.91310	-1.80759	2.02512	243.199
40	-.94466	-1.39774	1.68702	235.947	40	-1.04439	-1.75633	2.04339	239.262
45	-1.03052	-1.25829	1.62643	230.683	45	-1.18107	-1.68796	2.06013	235.019
50	-1.10324	-1.10561	1.56189	225.062	50	-1.31817	-1.60035	2.07333	230.523
55	-1.15783	-.94376	1.49374	219.184	55	-1.45020	-1.49208	2.08072	225.815
60	-1.19043	-.77799	1.42211	213.166	60	-1.57132	-1.36261	2.07984	220.931
65	-1.19867	-.61449	1.34700	207.142	65	-1.67555	-1.21249	2.06823	215.891
70	-1.18198	-.45995	1.26832	201.263	70	-1.75710	-1.04342	2.04356	210.703
75	-1.14175	-.32106	1.18603	195.706	75	-1.81074	-.85828	2.00385	205.361
80	-1.08133	-.20391	1.10039	190.679	80	-1.83204	-.66103	1.94764	199.840
85	-1.00576	-.11347	1.01214	186.437	85	-1.81777	-.45651	1.87421	194.097
90	-.92137	-.05307	.92289	183.297	90	-1.76611	-.25016	1.78374	188.062
95	-.83517	-.02409	.83552	181.652	95	-1.67681	-.04771	1.67749	181.630
100	-.75427	-.02589	.75471	181.966	100	-1.55123	.14526	1.55801	174.650
105	-.68514	-.05584	.68741	184.659	105	-1.39230	.32366	1.42943	166.913
110	-.63310	-.10970	.64253	189.831	110	-1.20434	.48321	1.29767	158.138
115	-.60183	-.18206	.62877	196.831	115	-.99281	.62073	1.17089	147.985
120	-.59319	-.26686	.65046	204.221	120	-.76396	.73431	1.05965	136.134
125	-.60713	-.35802	.70483	210.528	125	-.52454	.82334	.97624	122.501
130	-.64183	-.44993	.78383	215.031	130	-.28140	.88853	.93202	107.573
135	-.69403	-.53783	.87803	217.773	135	-.04123	.93169	.93260	92.534
140	-.75939	-.61812	.97916	219.144	140	.18972	.95563	.97428	78.771
145	-.83292	-.68841	1.08058	219.574	145	.40582	.96380	1.04575	67.166
150	-.90941	-.74748	1.17718	219.418	150	.60217	.96009	1.13330	57.904
155	-.98379	-.79513	1.26494	218.946	155	.77466	.94850	1.22464	50.761
160	-1.05141	-.83190	1.34072	218.352	160	.91995	.93289	1.31019	45.400
165	-1.10830	-.85877	1.40208	217.770	165	1.03545	.91677	1.38297	41.521
170	-1.15126	-.87690	1.44719	217.296	170	1.11924	.90303	1.43811	38.897
175	-1.17797	-.88730	1.47476	216.989	175	1.17002	.89388	1.47240	37.379
180	-1.18703	-.89068	1.48403	216.883	180	1.18703	.89068	1.48403	36.883

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.13471	-1.89802	1.90280	265.940	0	-.13471	-1.89802	1.90280	265.940
5	-.14720	-1.89173	1.89745	265.551	5	-.14743	-1.89804	1.90376	265.559
10	-.18412	-1.87253	1.88156	264.384	10	-.18537	-1.89769	1.90673	264.421
15	-.24386	-1.83947	1.85557	262.448	15	-.24792	-1.89582	1.91197	262.550
20	-.32373	-1.79118	1.82020	259.755	20	-.33400	-1.89055	1.91983	259.981
25	-.41999	-1.72606	1.77642	256.324	25	-.44196	-1.87939	1.93066	256.767
30	-.52792	-1.64262	1.72537	252.183	30	-.56949	-1.85937	1.94463	252.971
35	-.64192	-1.53988	1.66832	247.371	35	-.71354	-1.82725	1.96162	248.669
40	-.75578	-1.41771	1.60658	241.938	40	-.87021	-1.77971	1.98107	243.943
45	-.86295	-1.27714	1.54135	235.954	45	-1.03475	-1.71368	2.00185	238.876
50	-.95702	-1.12066	1.47369	229.503	50	-1.20156	-1.62655	2.02223	233.546
55	-1.03217	-.95228	1.40436	222.695	55	-1.36435	-1.51654	2.03993	228.024
60	-1.08374	-.77748	1.33378	215.656	60	-1.51628	-1.38292	2.05221	222.366
65	-1.10870	-.60290	1.26202	208.537	65	-1.65031	-1.22623	2.05601	216.613
70	-1.10605	-.43592	1.18885	201.511	70	-1.75955	-1.04844	2.04823	210.789
75	-1.07705	-.28404	1.11388	194.774	75	-1.83753	-.85293	2.02592	204.898
80	-1.02523	-.15418	1.03675	188.553	80	-1.87918	-.64438	1.98659	198.927
85	-.95608	-.05202	.95750	183.115	85	-1.88020	-.42856	1.92842	192.840
90	-.87665	.01860	.87685	178.785	90	-1.83835	-.21199	1.85053	186.578
95	-.79481	.05604	.79679	175.967	95	-1.75318	-.00143	1.75318	180.047
100	-.71851	.06103	.72110	175.145	100	-1.62619	.19649	1.63801	173.111
105	-.65500	.03652	.65602	176.809	105	-1.46074	.37582	1.50831	165.572
110	-.61015	-.01271	.61028	181.193	110	-1.26187	.53168	1.36930	157.152
115	-.58795	-.08056	.59344	187.802	115	-1.03591	.66058	1.22860	147.475
120	-.59027	-.16032	.61165	195.195	120	-.79013	.76064	1.09675	136.089
125	-.61679	-.24536	.66380	201.692	125	-.53229	.83161	.98738	122.622
130	-.66526	-.32968	.74247	206.361	130	-.27025	.87485	.91564	107.166
135	-.73182	-.40843	.83808	209.166	135	-.01154	.89312	.89321	90.740
140	-.81149	-.47813	.94187	210.506	140	.23688	.89031	.92128	75.101
145	-.89868	-.53676	1.04677	210.849	145	.46884	.87109	.98925	61.710
150	-.98768	-.58367	1.14725	210.581	150	.67911	.84058	1.08063	51.065
155	-1.07300	-.61934	1.23892	209.994	155	.86335	.80399	1.17974	42.961
160	-1.14976	-.64504	1.31834	209.293	160	1.01817	.76629	1.27431	36.966
165	-1.21382	-.66245	1.38282	208.624	165	1.14098	.73193	1.35556	32.680
170	-1.26190	-.67333	1.43030	208.084	170	1.22992	.70460	1.41745	29.808
175	-.79168	-.67919	1.45936	207.736	175	1.28375	.68706	1.45604	28.156
180	-1.30177	-.68102	1.46914	207.616	180	1.30177	.68102	1.46914	27.616

KA = 1.6

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.14419	-1.91346	1.91888	274.309	0	.14419	-1.91346	1.91888	274.309
5	.13022	-1.90816	1.91260	273.904	5	.13001	-1.91398	1.91840	273.886
10	.08882	-1.89184	1.89393	272.688	10	.08765	-1.91513	1.91713	272.620
15	.02163	-1.86324	1.86337	270.665	15	.01764	-1.91558	1.91566	270.528
20	-.06864	-1.82045	1.82175	267.841	20	-.07902	-1.91323	1.91485	267.635
25	-.17814	-1.76122	1.77021	264.224	25	-.20078	-1.90526	1.91581	263.984
30	-.30193	-1.68330	1.71016	259.831	30	-.34539	-1.88828	1.91961	259.634
35	-.43404	-1.58490	1.64326	254.584	35	-.50975	-1.85858	1.92722	254.663
40	-.56774	-1.46511	1.57127	248.818	40	-.68979	-1.81232	1.93915	249.163
45	-.69577	-1.32438	1.49603	242.285	45	-.88039	-1.74589	1.95530	243.240
50	-.81091	-1.16477	1.41925	235.155	50	-1.07543	-1.65623	1.97475	237.013
55	-.90644	-.99015	1.34240	227.527	55	-1.26783	-1.54120	1.99567	230.558
60	-.97683	-.80617	1.26654	219.533	60	-1.44982	-1.39989	2.01536	223.996
65	-1.01833	-.61995	1.19220	211.333	65	-1.61327	-1.23290	2.03044	217.388
70	-1.02943	-.43959	1.11936	203.123	70	-1.75010	-1.04251	2.03708	210.782
75	-1.01119	-.27344	1.04751	195.132	75	-1.85282	-.83270	2.03134	204.230
80	-.96729	-.12935	.97590	187.617	80	-1.91500	-.60906	2.00952	197.643
85	-.90370	-.01378	.90380	180.873	85	-1.93181	-.37845	1.96853	191.084
90	-.82820	.06885	.83105	175.248	90	-1.90037	-.14860	1.90617	184.471
95	-.74956	.11661	.75857	171.158	95	-1.82002	.07243	1.82146	177.721
100	-.67664	.13027	.68907	169.102	100	-1.69244	.27683	1.71493	170.710
105	-.61751	.11316	.62779	169.616	105	-1.52146	.45768	1.58881	163.258
110	-.57861	.07065	.58291	173.038	110	-1.31289	.60940	1.44743	155.101
115	-.56425	.00955	.56433	179.031	115	-1.07404	.72819	1.29762	145.863
120	-.57626	-.06276	.57967	186.216	120	-.81324	.81224	1.14939	135.035
125	-.61405	-.13905	.62959	192.760	125	-.53934	.86179	1.01665	122.040
130	-.67484	-.21301	.70766	197.518	130	-.26114	.87904	.91701	106.546
135	-.75415	-.27970	.80435	200.349	135	.01298	.86786	.86795	89.143
140	-.84639	-.33586	.91060	201.644	140	.27547	.83346	.87780	71.711
145	-.94539	-.37996	1.01888	201.895	145	.51974	.78196	.93893	56.390
150	-1.04496	-.41199	1.12324	201.517	150	.74035	.71995	1.03269	44.200
155	-1.13934	-.43321	1.21892	200.818	155	.93294	.65403	1.13936	35.032
160	-1.22347	-.44571	1.30213	200.017	160	1.09422	.59046	1.24336	28.352
165	-1.29317	-.45194	1.36987	199.264	165	1.22175	.53478	1.33367	23.640
170	-1.34521	-.45432	1.41985	198.662	170	1.31389	.49157	1.40283	20.512
175	-1.37732	-.45487	1.45049	198.276	175	1.36955	.46424	1.44610	18.725
180	-1.38817	-.45489	1.46080	198.144	180	1.38817	.45489	1.46080	18.144

KA = 1.7

T1				T2					
Θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	Θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.40031	-1.94064	1.98150	281.655	0	.40031	-1.94064	1.98150	281.655
5	.38505	-1.93651	1.97442	281.246	5	.38513	-1.94157	1.97940	281.219
10	.33979	-1.92355	1.95333	280.018	10	.33970	-1.94388	1.97334	270.913
15	.26610	-1.90018	1.91872	277.972	15	.26444	-1.94612	1.96401	277.738
20	.16666	-1.86394	1.87138	275.109	20	.16013	-1.94596	1.95254	274.764
25	.04534	-1.81186	1.81243	271.433	25	.02807	-1.94027	1.94047	270.829
30	-.09282	-1.74086	1.74333	266.948	30	-.12969	-1.92524	1.92960	266.146
35	-.24158	-1.64824	1.66585	261.661	35	-.31019	-1.89668	1.92188	260.712
40	-.39374	-1.53225	1.58203	255.589	40	-.50938	-1.85021	1.91905	254.607
45	-.54140	-1.39259	1.49413	248.755	45	-.72197	-1.78168	1.92240	247.941
50	-.67649	-1.23081	1.40447	241.205	50	-.94142	-1.68754	1.93237	240.844
55	-.79139	-1.05056	1.31528	233.009	55	-1.16002	-1.56525	1.94824	233.457
60	-.87963	-.85760	1.22851	224.273	60	-1.36914	-1.41370	1.96802	225.917
65	-.93665	-.65952	1.14554	215.150	65	-1.55959	-1.23357	1.98847	218.343
70	-.96035	-.46514	1.06707	205.843	70	-1.72211	-1.02749	2.00535	210.822
75	-.95155	-.28379	.99296	196.606	75	-1.84805	-.80016	2.01384	203.411
80	-.91401	-.12425	.92242	187.741	80	-1.92990	-.55816	2.00899	196.131
85	-.85422	.00611	.85424	179.590	85	-1.96195	-.30962	1.98623	188.968
90	-.78072	.10221	.78738	172.542	90	-1.94078	-.06373	1.94183	181.881
95	-.70322	.16181	.72159	167.042	95	-1.86554	.17000	1.87327	174.793
100	-.63157	.18573	.65831	163.612	100	-1.73808	.38241	1.77965	167.592
105	-.57468	.17767	.60152	162.820	105	-1.56281	.56542	1.66194	160.110
110	-.53963	.14365	.55842	165.094	110	-1.34635	.71269	1.52335	152.106
115	-.53097	.09120	.53875	170.254	115	-1.09707	.82008	1.36970	143.221
120	-.55053	.02847	.55126	177.040	120	-.82440	.88590	1.21014	132.941
125	-.59734	-.03678	.59848	183.523	125	-.53824	.91098	1.05811	120.576
130	-.66812	-.09789	.67525	188.335	130	-.24834	.89851	.93220	105.450
135	-.75774	-.14993	.77243	191.192	135	.03624	.85369	.85446	87.569
140	-.85995	-.18994	.88068	192.455	140	.30744	.78327	.84145	68.569
145	-.96807	-.21693	.99208	192.631	145	.55851	.69503	.89163	51.215
150	-1.07554	-.23169	1.10021	192.157	150	.78401	.59722	.98557	37.298
155	-1.17640	-.23631	1.19990	191.358	155	.97982	.49803	1.09913	26.944
160	-1.26554	-.23377	1.28695	190.466	160	1.14294	.40515	1.21263	19.518
165	-1.33889	-.22735	1.35805	189.637	165	1.27137	.32536	1.31234	14.354
170	-1.39336	-.22016	1.41064	188.979	170	1.36382	.26420	1.38917	10.964
175	-1.42685	-.21474	1.44292	188.559	175	1.41954	.22582	1.43739	9.030
180	-1.43815	-.21275	1.45380	188.415	180	1.43815	.21275	1.45380	8.415

KA = 1.8

T1

T2

θ	T1			θ	T2		
	REAL	IMAGINARY	MAGNITUDE		REAL	IMAGINARY	MAGNITUDE
0	.62125	-1.96550	2.06135	0	.62125	-1.96550	2.06135
5	.60498	-1.96272	2.05384	5	.60567	-1.96690	2.05804
10	.55663	-1.95370	2.03145	10	.55898	-1.97055	2.04829
15	.47769	-1.93648	1.99453	15	.48136	-1.97488	2.03270
20	.37070	-1.90806	1.94373	20	.37327	-1.97732	2.01224
25	.23942	-1.86468	1.87999	25	.23562	-1.97440	1.98841
30	.08891	-1.80237	1.80456	30	.07003	-1.96189	1.96314
35	-.07444	-1.71746	1.71907	35	-.12090	-1.93504	1.93881
40	-.24305	-1.60722	1.62550	40	-.33337	-1.88889	1.91808
45	-.40843	-1.47050	1.52617	45	-.56211	-1.81865	1.90354
50	-.56170	-1.30822	1.42371	50	-.80041	-1.72016	1.89727
55	-.69428	-1.12371	1.32089	55	-1.04007	-1.59042	1.90031
60	-.79873	-.92278	1.22045	60	-1.27171	-1.42805	1.91222
65	-.86957	-.71344	1.12479	65	-1.48516	-1.23371	1.93074
70	-.90406	-.50529	1.03569	70	-1.67006	-1.01040	1.95193
75	-.90268	-.30862	.95398	75	-1.81655	-.76357	1.97051
80	-.86928	-.13330	.87944	80	-1.91606	-.50091	1.98045
85	-.81082	.01236	.81091	85	-1.96199	-.23198	1.97565
90	-.73666	.12254	.74678	90	-1.95036	.03243	1.95063
95	-.65752	.19466	.68573	95	-1.88016	.28112	1.90106
100	-.58429	.22956	.62777	100	-1.75349	.50334	1.82430
105	-.52678	.23137	.57535	105	-1.57538	.68973	1.71975
110	-.49269	.20676	.53432	110	-1.35337	.83307	1.58922
115	-.48688	.16409	.51379	115	-1.09690	.92879	1.43731
120	-.51108	.11225	.52326	120	-.81656	.97537	1.27205
125	-.56396	.05960	.56710	125	-.52327	.97429	1.10597
130	-.64164	.01306	.64177	130	-.22762	.92986	.95731
135	-.73834	-.02247	.73868	135	.06077	.84875	.85092
140	-.84720	-.04441	.84837	140	.33361	.73944	.81121
145	-.96107	-.05243	.96250	145	.58419	.61152	.84572
150	-1.07310	-.04815	1.07418	150	.80743	.47509	.93683
155	-1.17726	-.03461	1.17777	155	.99971	.34004	1.05596
160	-1.26857	-.01572	1.26866	160	1.15869	.21561	1.17858
165	-1.34315	.00439	1.34316	165	1.28303	.10983	1.28773
170	-1.39823	.02189	1.39840	170	1.37205	.02945	1.37237
175	-1.43196	.03371	1.43236	175	1.42550	-.02080	1.42565
180	-1.44332	.03788	1.44381	180	1.44332	-.03708	1.44381
185	-1.44332	.03788	1.44381	185	1.44332	-.03708	1.44381
190	-1.44332	.03788	1.44381	190	1.44332	-.03708	1.44381
195	-1.44332	.03788	1.44381	195	1.44332	-.03708	1.44381
200	-1.44332	.03788	1.44381	200	1.44332	-.03708	1.44381
205	-1.44332	.03788	1.44381	205	1.44332	-.03708	1.44381
210	-1.44332	.03788	1.44381	210	1.44332	-.03708	1.44381
215	-1.44332	.03788	1.44381	215	1.44332	-.03708	1.44381
220	-1.44332	.03788	1.44381	220	1.44332	-.03708	1.44381
225	-1.44332	.03788	1.44381	225	1.44332	-.03708	1.44381
230	-1.44332	.03788	1.44381	230	1.44332	-.03708	1.44381
235	-1.44332	.03788	1.44381	235	1.44332	-.03708	1.44381
240	-1.44332	.03788	1.44381	240	1.44332	-.03708	1.44381
245	-1.44332	.03788	1.44381	245	1.44332	-.03708	1.44381
250	-1.44332	.03788	1.44381	250	1.44332	-.03708	1.44381
255	-1.44332	.03788	1.44381	255	1.44332	-.03708	1.44381
260	-1.44332	.03788	1.44381	260	1.44332	-.03708	1.44381
265	-1.44332	.03788	1.44381	265	1.44332	-.03708	1.44381
270	-1.44332	.03788	1.44381	270	1.44332	-.03708	1.44381
275	-1.44332	.03788	1.44381	275	1.44332	-.03708	1.44381
280	-1.44332	.03788	1.44381	280	1.44332	-.03708	1.44381
285	-1.44332	.03788	1.44381	285	1.44332	-.03708	1.44381
290	-1.44332	.03788	1.44381	290	1.44332	-.03708	1.44381
295	-1.44332	.03788	1.44381	295	1.44332	-.03708	1.44381
300	-1.44332	.03788	1.44381	300	1.44332	-.03708	1.44381
305	-1.44332	.03788	1.44381	305	1.44332	-.03708	1.44381
310	-1.44332	.03788	1.44381	310	1.44332	-.03708	1.44381
315	-1.44332	.03788	1.44381	315	1.44332	-.03708	1.44381
320	-1.44332	.03788	1.44381	320	1.44332	-.03708	1.44381
325	-1.44332	.03788	1.44381	325	1.44332	-.03708	1.44381
330	-1.44332	.03788	1.44381	330	1.44332	-.03708	1.44381
335	-1.44332	.03788	1.44381	335	1.44332	-.03708	1.44381
340	-1.44332	.03788	1.44381	340	1.44332	-.03708	1.44381
345	-1.44332	.03788	1.44381	345	1.44332	-.03708	1.44381
350	-1.44332	.03788	1.44381	350	1.44332	-.03708	1.44381
355	-1.44332	.03788	1.44381	355	1.44332	-.03708	1.44381
360	-1.44332	.03788	1.44381	360	1.44332	-.03708	1.44381
365	-1.44332	.03788	1.44381	365	1.44332	-.03708	1.44381
370	-1.44332	.03788	1.44381	370	1.44332	-.03708	1.44381
375	-1.44332	.03788	1.44381	375	1.44332	-.03708	1.44381
380	-1.44332	.03788	1.44381	380	1.44332	-.03708	1.44381
385	-1.44332	.03788	1.44381	385	1.44332	-.03708	1.44381
390	-1.44332	.03788	1.44381	390	1.44332	-.03708	1.44381
395	-1.44332	.03788	1.44381	395	1.44332	-.03708	1.44381
400	-1.44332	.03788	1.44381	400	1.44332	-.03708	1.44381
405	-1.44332	.03788	1.44381	405	1.44332	-.03708	1.44381
410	-1.44332	.03788	1.44381	410	1.44332	-.03708	1.44381
415	-1.44332	.03788	1.44381	415	1.44332	-.03708	1.44381
420	-1.44332	.03788	1.44381	420	1.44332	-.03708	1.44381
425	-1.44332	.03788	1.44381	425	1.44332	-.03708	1.44381
430	-1.44332	.03788	1.44381	430	1.44332	-.03708	1.44381
435	-1.44332	.03788	1.44381	435	1.44332	-.03708	1.44381
440	-1.44332	.03788	1.44381	440	1.44332	-.03708	1.44381
445	-1.44332	.03788	1.44381	445	1.44332	-.03708	1.44381
450	-1.44332	.03788	1.44381	450	1.44332	-.03708	1.44381
455	-1.44332	.03788	1.44381	455	1.44332	-.03708	1.44381
460	-1.44332	.03788	1.44381	460	1.44332	-.03708	1.44381
465	-1.44332	.03788	1.44381	465	1.44332	-.03708	1.44381
470	-1.44332	.03788	1.44381	470	1.44332	-.03708	1.44381
475	-1.44332	.03788	1.44381	475	1.44332	-.03708	1.44381
480	-1.44332	.03788	1.44381	480	1.44332	-.03708	1.44381
485	-1.44332	.03788	1.44381	485	1.44332	-.03708	1.44381
490	-1.44332	.03788	1.44381	490	1.44332	-.03708	1.44381
495	-1.44332	.03788	1.44381	495	1.44332	-.03708	1.44381
500	-1.44332	.03788	1.44381	500	1.44332	-.03708	1.44381
505	-1.44332	.03788	1.44381	505	1.44332	-.03708	1.44381
510	-1.44332	.03788	1.44381	510	1.44332	-.03708	1.44381
515	-1.44332	.03788	1.44381	515	1.44332	-.03708	1.44381
520	-1.44332	.03788	1.44381	520	1.44332	-.03708	1.44381
525	-1.44332	.03788	1.44381	525	1.44332	-.03708	1.44381
530	-1.44332	.03788	1.44381	530	1.44332	-.03708	1.44381
535	-1.44332	.03788	1.44381	535	1.44332	-.03708	1.44381
540	-1.44332	.03788	1.44381	540	1.44332	-.03708	1.44381
545	-1.44332	.03788	1.44381	545	1.44332	-.03708	1.44381
550	-1.44332	.03788	1.44381	550	1.44332	-.03708	1.44381
555	-1.44332	.03788	1.44381	555	1.44332	-.03708	1.44381
560	-1.44332	.03788	1.44381	560	1.44332	-.03708	1.44381
565	-1.44332	.03788	1.44381	565	1.44332	-.03708	1.44381
570	-1.44332	.03788	1.44381	570	1.44332	-.03708	1.44381
575	-1.44332	.03788	1.44381	575	1.44332	-.03708	1.44381
580	-1.44332	.03788	1.44381	580	1.44332	-.03708	1.44381
585	-1.44332	.03788	1.44381	585	1.44332	-.03708	1.44381
590	-1.44332	.03788	1.44381	590	1.44332	-.03708	1.44381
595	-1.44332	.03788	1.44381	595	1.44332	-.03708	1.44381
600	-1.44332	.03788	1.44381	600	1.44332	-.03708	1.44381
605	-1.44332	.03788	1.44381	605	1.44332	-.03708	1.44381
610	-1.44332	.03788	1.44381	610	1.44332	-.03708	1.44381
615	-1.44332	.03788	1.44381	615	1.44332	-.03708	1.44381
620	-1.44332	.03788	1.44381	620	1.44332	-.03708	1.44381
625	-1.44332	.03788	1.44381	625	1.44332	-.03708	1.44381
630	-1.44332	.03788	1.44381	630	1.44332	-.03708	1.44381
635	-1.44332	.03788	1.44381	635	1.44332	-.03708	1.44381
640	-1.44332	.03788	1.44381	640	1.44332	-.03708	1.44381
645	-1.44332	.03788	1.44381	645	1.44332	-.03708	1.44381
650	-1.44332	.03788	1.44381	650	1.44332	-.03708	1.44381
655	-1.44332	.03788	1.44381	655	1.44332	-.03708	1.44381
660	-1.44332	.03788	1.44381	660	1.44332	-.03708	1.44381
665	-1.44332	.03788	1.44381	665	1.44332	-.03708	1.44381

KA = 1.9

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.80261	-1.97070	2.12787	292.160	0	.80261	-1.97070	2.12787	292.160
5	.78562	-1.96950	2.12040	291.747	5	.78727	-1.97284	2.12412	291.755
10	.73506	-1.96509	2.09807	290.509	10	.74119	-1.97869	2.11296	290.535
15	.65224	-1.95517	2.06110	288.448	15	.66426	-1.98652	2.09464	288.489
20	.53949	-1.93614	2.00989	285.570	20	.55649	-1.99348	2.06970	285.597
25	.40035	-1.90344	1.94509	281.878	25	.41822	-1.99572	2.03907	281.836
30	.23977	-1.85214	1.86759	277.376	30	.25044	-1.98848	2.00419	277.178
35	.06415	-1.77750	1.77866	272.067	35	.05518	-1.96638	1.96716	271.607
40	-.11864	-1.67574	1.67994	265.950	40	-.16423	-1.92371	1.93071	265.120
45	-.29959	-1.54471	1.57350	259.024	45	-.40283	-1.85489	1.89813	257.747
50	-.46904	-1.38458	1.46187	251.286	50	-.65389	-1.75499	1.87285	249.565
55	-.61742	-1.19824	1.34795	242.739	55	-.90892	-1.62034	1.85786	245.710
60	-.73625	-.99146	1.23493	233.403	60	-1.15793	-1.44910	1.85491	231.373
65	-.81907	-.77263	1.12598	223.329	65	-1.38986	-1.24182	1.86382	221.780
70	-.86238	-.55213	1.02399	212.629	70	-1.59326	-1.00177	1.88202	212.160
75	-.86627	-.34126	.93106	201.501	75	-1.75709	-.73512	1.90468	202.703
80	-.83462	-.15102	.84817	190.256	80	-1.87171	-.45073	1.92521	193.540
85	-.77488	.00922	.77493	179.318	85	-1.92963	-.15972	1.93623	184.732
90	-.69723	.13287	.70978	169.210	90	-1.92635	.12533	1.93042	176.278
95	-.61349	.21695	.65072	160.525	95	-1.86072	.39131	1.90142	168.124
100	-.53563	.26235	.59643	153.904	100	-1.73517	.62570	1.84453	160.171
105	-.47441	.27362	.54767	150.025	105	-1.55544	.81763	1.75725	152.271
110	-.43820	.25820	.50861	149.493	110	-1.33010	.95883	1.63967	144.213
115	-.43212	.22527	.48731	152.466	115	-1.06977	1.04425	1.49494	135.692
120	-.45778	.18454	.49358	158.045	120	-.78617	1.07245	1.32974	126.244
125	-.51345	.14493	.53352	164.237	125	-.49127	1.04561	1.15527	115.166
130	-.59462	.11366	.60538	169.179	130	-.19637	.96923	.98892	101.453
135	-.69482	.09549	.70136	172.175	135	.08853	.85155	.85614	84.065
140	-.80664	.09255	.81193	173.454	140	.35514	.72287	.78750	63.194
145	-.92250	.10445	.92839	173.540	145	.59715	.53472	.80157	41.843
150	-1.03539	.12865	1.04335	172.917	150	.81012	.35907	.88613	23.904
155	-1.13936	.16110	1.15069	171.952	155	.99135	.18763	1.00895	10.718
160	-1.22967	.19696	1.24534	170.900	160	1.13947	.03120	1.13990	1.569
165	-1.30285	.23122	1.32321	169.936	165	1.25413	-.10081	1.25817	355.404
170	-1.35654	.25935	1.38111	169.176	170	1.33553	-.20076	1.35053	351.451
175	-1.38927	.27776	1.41676	168.694	175	1.38411	-.26302	1.40888	349.241
180	-1.40026	.28416	1.42880	168.529	180	1.40026	-.28416	1.42880	348.529

KA = 2.0

T2

T1

θ	T1			θ	T2		
	REAL	IMAGINARY	MAGNITUDE		REAL	IMAGINARY	MAGNITUDE
0	.94920	-1.94070	2.16040	0	.94920	-1.94070	2.16040
5	.93177	-1.94134	2.15337	5	.93462	-1.94409	2.15708
10	.87983	-1.94235	2.13233	10	.89070	-1.95360	2.14707
15	.79446	-1.94105	2.09734	15	.81698	-1.96732	2.13021
20	.67768	-1.93323	2.04857	20	.71291	-1.98209	2.10640
25	.53269	-1.91355	1.98631	25	.57813	-1.99355	2.07569
30	.36417	-1.87604	1.91105	30	.41286	-1.99634	2.03858
35	.17844	-1.81483	1.82358	35	.21833	-1.98424	1.99622
40	-.01649	-1.72495	1.72503	40	-.02278	-1.95063	1.95063
45	-.21113	-1.60316	1.61700	45	-.24597	-1.88889	1.90484
50	-.39507	-1.44872	1.50162	50	-.50471	-1.79306	1.86274
55	-.55777	-1.26395	1.38155	55	-.77035	-1.65853	1.82871
60	-.68960	-1.05449	1.25996	60	-1.03238	-1.48279	1.80679
65	-.78305	-.82904	1.14039	65	-1.27890	-1.26602	1.79955
70	-.83376	-.59872	1.02646	70	-1.49738	-1.01162	1.80707
75	-.84131	-.37590	.92147	75	-1.67562	-.72640	1.82630
80	-.80959	-.17277	.82782	80	-1.80285	-.42040	1.85121
85	-.74648	.00018	.74648	85	-1.87071	-.10639	1.87373
90	-.66307	.13553	.67678	90	-1.87417	.20108	1.88492
95	-.57226	.22985	.61670	95	-1.81205	.48678	1.87629
100	-.48720	.28411	.56399	100	-1.68720	.73617	1.84081
105	-.41965	.30332	.51779	105	-1.50622	.93667	1.77371
110	-.37862	.29571	.48042	110	-1.27886	1.07876	1.67308
115	-.36952	.27140	.45848	115	-1.01701	1.15675	1.54026
120	-.33379	.24091	.46163	120	-.73368	1.16926	1.38038
125	-.44921	.21378	.49749	125	-.44183	1.11912	1.20318
130	-.53063	.19742	.56616	130	-.15342	1.01302	1.02458
135	-.63090	.19646	.66078	135	.12132	.86083	.86934
140	-.74205	.21251	.77188	140	.37438	.67469	.77160
145	-.85618	.24434	.89036	145	.60013	.46809	.76109
150	-.96624	.28845	1.00838	150	.79517	.25491	.83503
155	-1.06650	.33979	1.11932	155	.95805	.04861	.95928
160	-1.15264	.39253	1.21765	160	1.08877	-.13845	1.09754
165	-1.22176	.44082	1.29885	165	1.18828	-.29561	1.22450
170	-1.27204	.47945	1.35940	170	1.25794	-.41421	1.32438
175	-1.30251	.50436	1.39675	175	1.29911	-.48794	1.38772
180	-1.31271	.51295	1.40937	180	1.31271	-.51295	1.40937
			158.657				338.657
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.592				98.612
			162.703				81.978
			164.019				60.975
			164.072				37.953
			163.378				17.774
			162.328				2.905
			161.194				352.753
			160.160				346.030
			159.348				341.774
			158.833				339.414
			148.543				122.1.7
			154.551				111.544
			159.5				

KA = 2.1

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.07229	-1.86665	2.15272	299.875	0	1.07229	-1.86665	2.15272	299.875
5	1.05468	-1.86941	2.14640	299.431	5	1.05878	-1.87187	2.15056	299.494
10	1.00208	-1.87663	2.12742	298.101	10	1.01793	-1.88681	2.14388	298.347
15	.91531	-1.88531	2.09575	295.896	15	.94892	-1.90932	2.13213	296.427
20	.79595	-1.89062	2.05134	292.831	20	.85056	-1.93586	2.11448	293.719
25	.64678	-1.88640	1.99420	288.925	25	.72172	-1.96151	2.09057	290.201
30	.47205	-1.86564	1.92443	284.199	30	.56174	-1.98010	2.05824	285.838
35	.27787	-1.82127	1.84234	278.675	35	.37096	-1.98447	2.01885	286.588
40	.07230	-1.74702	1.74852	272.370	40	.15128	-1.96681	1.97262	274.398
45	-.13481	-1.63844	1.64398	265.296	45	-.09341	-1.91922	1.92150	267.214
50	-.33232	-1.49372	1.53024	257.457	50	-.35683	-1.83443	1.86881	258.992
55	-.50867	-1.31449	1.40948	248.845	55	-.53026	-1.70658	1.81924	249.731
60	-.65305	-1.10611	1.28451	239.442	60	-.90270	-1.53214	1.77829	239.494
65	-.75675	-.87753	1.15877	229.227	65	-.116141	-1.31070	1.75122	228.456
70	-.81443	-.64059	1.03617	218.187	70	-1.39272	-1.04556	1.74152	216.897
75	-.82509	-.40872	.92078	206.352	75	-1.58323	-.74406	1.74936	205.172
80	-.79250	-.19539	.81624	193.850	80	-1.72099	-.41741	1.77088	193.633
85	-.72500	-.01226	.72511	180.969	85	-1.79674	-.08007	1.79852	182.552
90	-.63454	.13233	.64820	168.220	90	-1.80497	.25125	1.82237	172.075
95	-.53520	.23451	.58432	156.338	95	-1.74454	.55902	1.83192	162.233
100	-.44131	.29529	.53099	146.213	100	-1.61889	.82642	1.81762	152.956
105	-.36568	.32023	.48608	138.791	105	-1.43569	1.03890	1.77215	144.109
110	-.31800	.31840	.45000	134.965	110	-1.20605	1.18552	1.69116	135.492
115	-.30389	.30089	.42765	135.285	115	-.94339	1.25983	1.57390	126.827
120	-.32461	.27910	.42810	139.310	120	-.66210	1.26038	1.42370	117.714
125	-.37736	.26317	.46008	145.110	125	-.37626	1.19061	1.24865	107.538
130	-.45635	.26071	.52557	150.261	130	-.09845	1.05841	1.06298	95.314
135	-.55371	.27612	.61874	153.495	135	.16102	.87526	.88995	79.576
140	-.66095	.31042	.73021	154.843	140	.39462	.65515	.76482	58.938
145	-.76994	.36150	.85058	154.849	145	.59770	.41348	.72679	34.675
150	-.87374	.42486	.97156	154.068	150	.76825	.16601	.78598	12.193
155	-.96697	.49441	1.08604	152.919	155	.90644	-.07213	.90930	355.450
160	-1.04595	.56336	1.18802	151.692	160	1.01398	-.28716	1.05386	344.188
165	-1.10847	.62508	1.27257	150.581	165	1.09347	-.46723	1.18911	336.863
170	-1.15343	.67374	1.33578	149.710	170	1.14771	-.60282	1.29639	332.290
175	-1.18044	.70482	1.37484	149.159	175	1.17915	-.68698	1.36467	329.775
180	-1.18944	.71550	1.38806	148.971	180	1.18944	-.71550	1.38806	328.971

KA = 2.2

T1					T2				
e	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	9	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.18469	-1.74794	2.11158	304.128	0	1.18469	-1.74794	2.11158	304.128
5	1.16710	-1.75304	2.10601	303.654	5	1.17232	-1.75555	2.11099	303.734
10	1.11443	-1.76721	2.08926	302.236	10	1.13476	-1.77758	2.10890	302.553
15	1.02716	-1.78708	2.06124	299.889	15	1.07078	-1.81164	2.10443	300.585
20	.90638	-1.80727	2.02181	296.635	20	.97860	-1.85375	2.09619	297.830
25	.75427	-1.82077	1.97082	292.502	25	.85627	-1.89833	2.08251	294.278
30	.57458	-1.81954	1.90811	287.525	30	.70223	-1.93835	2.06164	289.914
35	.37304	-1.79524	1.83359	281.739	35	.51591	-1.96551	2.03209	284.707
40	.15764	-1.74026	1.74739	275.176	40	.29836	-1.97064	1.99310	278.609
45	-.06148	-1.64876	1.64990	267.864	45	.05289	-1.94431	1.94503	271.558
50	-.27248	-1.51775	1.54202	259.822	50	-.21454	-1.87763	1.88985	263.482
55	-.46276	-1.34800	1.42522	251.053	55	-.49511	-1.76320	1.83140	254.315
60	-.62023	-1.14448	1.30173	241.545	60	-.77729	-1.59618	1.77538	244.035
65	-.73488	-.91628	1.17457	231.270	65	-1.04740	-1.37524	1.72868	232.707
70	-.80024	-.67594	1.04751	220.187	70	-1.29060	-1.10340	1.69798	225.529
75	-.81457	-.43798	.92486	208.266	75	-1.49212	-.78835	1.68758	207.849
80	-.78148	-.21718	.81110	195.531	80	-1.63876	-.44243	1.69744	195.108
85	-.70967	-.02647	.71016	182.136	85	-1.72036	-.08187	1.72231	182.725
90	-.61197	.12484	.62458	168.470	90	-1.73094	.27434	1.75255	170.994
95	-.50366	.23240	.55469	155.230	95	-1.66955	.60613	1.77617	160.046
100	-.40034	.29727	.49864	143.404	100	-1.54040	.89421	1.78114	149.865
105	-.31585	.32559	.45361	134.130	105	-1.35250	1.12185	1.75722	140.326
110	-.26056	.32733	.41837	128.520	110	-1.11866	1.27649	1.69730	131.230
115	-.24028	.31463	.39589	127.369	115	-.85406	1.35078	1.59813	122.304
120	-.25601	.29980	.39423	130.496	120	-.57474	1.34313	1.46093	113.167
125	-.30438	.29355	.42287	136.038	125	-.29600	1.25760	1.29196	103.245
130	-.37878	.30367	.48548	141.281	130	-.03111	1.10325	1.10369	91.615
135	-.47072	.33427	.57733	144.620	135	.20965	.89316	.91743	76.790
140	-.57121	.38570	.68923	145.971	140	.41940	.64314	.76781	56.891
145	-.67201	.45493	.81152	145.903	145	.59476	.37049	.70072	31.919
150	-.76639	.53643	.93547	145.010	150	.73544	.09269	.74125	7.183
155	-.84955	.62306	1.05354	143.744	155	.84358	-.17356	.86125	348.374
160	-.91857	.70716	1.15924	142.409	160	.92299	-.41320	1.01126	335.883
165	-.97211	.78135	1.24720	141.209	165	.97823	-.61336	1.15462	327.912
170	-1.00994	.83926	1.31314	140.273	170	1.01381	-.76379	1.26933	323.006
175	-1.03236	.87603	1.35396	139.683	175	1.03351	-.85705	1.34263	320.332
180	-1.03978	.88863	1.36778	139.482	180	1.03978	-.88863	1.36778	319.482

KA = 2.3

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.29679	-1.59064	2.05227	309.189	0	1.29679	-1.59064	2.05227	3.9.189
5	1.27937	-1.59827	2.04725	308.676	5	1.28542	-1.60105	2.05321	3.8.760
10	1.22709	-1.61991	2.03221	307.144	10	1.25075	-1.63140	2.05568	3.7.476
15	1.14002	-1.65189	2.00709	304.611	15	1.19116	-1.67906	2.05867	3.5.353
20	1.01868	-1.68830	1.97182	301.106	20	1.10431	-1.73959	2.06051	3.2.4.8
25	.86456	-1.72133	1.92626	296.669	25	.98749	-1.80678	2.05902	298.659
30	.68074	-1.74190	1.87019	291.346	30	.83826	-1.87264	2.05169	294.115
35	.47245	-1.74039	1.80337	285.188	35	.65519	-1.92766	2.03596	288.772
40	.24749	-1.70774	1.72558	278.246	40	.43853	-1.96119	2.00963	282.6.4
45	.01621	-1.63667	1.63675	270.568	45	.19101	-1.96210	1.97137	275.560
50	-.20889	-1.52285	1.53711	262.190	50	-.08164	-1.91962	1.92136	267.565
55	-.41413	-1.36603	1.42742	253.135	55	-.37044	-1.82456	1.86179	258.523
60	-.58606	-1.17066	1.30916	243.406	60	-.66321	-1.67046	1.79730	248.346
65	-.71322	-.94590	1.18466	232.983	65	-.94525	-1.45485	1.73496	236.987
70	-.78787	-.70492	1.05719	221.819	70	-1.20032	-1.18017	1.68333	224.515
75	-.80738	-.46338	.93090	209.853	75	-1.41222	-.85438	1.65055	211.174
80	-.77504	-.23741	.81059	197.031	80	-1.56638	-.49085	1.64149	197.399
85	-.69989	-.04131	.70111	183.378	85	-1.65167	-.10763	1.65517	183.728
90	-.59563	.11459	.60656	169.110	90	-1.66172	.27390	1.68414	170.640
95	-.47875	.22538	.52915	154.791	95	-1.59589	.63097	1.71610	158.428
100	-.36613	.29220	.46844	141.407	100	-1.45947	.94160	1.73686	147.171
105	-.27270	.32179	.42180	130.280	105	-1.26312	1.18671	1.73313	136.787
110	-.20951	.32510	.38676	122.799	110	-1.02169	1.35198	1.69461	127.078
115	-.18250	.31536	.36435	120.758	115	-.75252	1.42910	1.61512	117.770
120	-.19233	.30579	.36125	122.168	120	-.47358	1.41633	1.49340	108.488
125	-.23499	.30772	.38718	127.367	125	-.20160	1.31831	1.33364	98.694
130	-.30307	.32904	.44734	132.647	130	.04941	1.14535	1.14642	87.530
135	-.38738	.37351	.53812	136.045	135	.26921	.91213	.95103	73.556
140	-.47856	.44073	.65059	137.357	140	.45180	.63627	.78036	54.623
145	-.56833	.52673	.77488	137.176	145	.59530	.33683	.68399	29.502
150	-.65035	.62490	.90192	136.143	150	.70149	.03295	.70226	2.689
155	-.72053	.72716	1.02368	134.738	155	.77488	-.25732	.81649	341.630
160	-.77693	.82499	1.13324	133.282	160	.82170	-.51781	.97125	327.782
165	-.81925	.91038	1.22473	131.984	165	.84884	-.73488	1.12275	319.116
170	-.84824	.97655	1.29351	130.978	170	.86279	-.89772	1.24511	313.864
175	-.86502	1.01837	1.33617	130.345	175	.86886	-.99854	1.32364	311.528
180	-.87049	1.03267	1.35062	130.129	180	.87049	-1.03267	1.35062	310.129

KA = 2.4

T2

T1

P	T1			P	T2		
	REAL	IMAGINARY	MAGNITUDE		REAL	IMAGINARY	MAGNITUDE
0	1.41468	-1.40482	1.99370	0	1.41468	-1.40482	1.99370
5	1.39757	-1.41507	1.98887	5	1.40445	-1.41821	1.99560
10	1.34606	-1.44446	1.97442	10	1.37148	-1.45744	2.00127
15	1.25979	-1.48906	1.95048	15	1.31505	-1.51965	2.00955
20	1.13861	-1.54248	1.91720	20	1.23186	-1.60004	2.01931
25	.98320	-1.59618	1.87469	25	1.11856	-1.69177	2.02812
30	.79585	-1.64006	1.82296	30	.97192	-1.78598	2.03332
35	.58117	-1.66324	1.76186	35	.78970	-1.87198	2.03173
40	.34664	-1.65519	1.69110	40	.57147	-1.93758	2.02010
45	.10271	-1.60706	1.61034	45	.31945	-1.96985	1.99558
50	-.13748	-1.51308	1.51932	50	.03922	-1.95605	1.95644
55	-.35916	-1.37185	1.41808	55	-.25994	-1.88494	1.93278
60	-.54741	-1.18714	1.30728	60	-.56510	-1.74825	1.83731
65	-.68919	-.96811	1.18836	65	-.86031	-1.54208	1.76583
70	-.77528	-.72851	1.06385	70	-1.12785	-1.26814	1.69717
75	-.80203	-.48517	.93735	75	-1.34984	-.93443	1.64171
80	-.77227	-.25565	.81349	80	-1.51026	-.55529	1.60911
85	-.69530	-.05573	.69753	85	-1.59693	-.15061	1.50462
90	-.58567	.10321	.59469	90	-1.60318	.25577	1.62345
95	-.46108	.21560	.50900	95	-1.52886	.63826	1.65674
100	-.33975	.28267	.44197	100	-1.38061	.97206	1.68848
105	-.23772	.31179	.39208	105	-1.17113	1.23562	1.70244
110	-.16667	.31495	.35634	110	-.91775	1.41284	1.68475
115	-.13266	.30651	.33398	115	-.64038	1.49441	1.62584
120	-.13596	.30005	.32996	120	-.35928	1.47849	1.52151
125	-.17181	.30927	.35378	125	-.09284	1.37041	1.37355
130	-.23198	.34032	.41187	130	.14408	1.18176	1.19051
135	-.30663	.39715	.50175	135	.34135	.92886	.98960
140	-.38603	.47858	.61486	140	.49397	.63112	.80145
145	-.46202	.57962	.74124	145	.60191	.30926	.67671
150	-.52881	.69266	.87145	150	.66933	-.01614	.66952
155	-.58323	.80866	.99704	155	.70349	-.32586	.77530
160	-.62445	.91842	1.11060	160	.71345	-.60297	.93412
165	-.65338	1.01343	1.20580	165	.70876	-.83328	1.09393
170	-.67190	1.08660	1.27755	170	.69820	-1.00569	1.22430
175	-.68200	1.13265	1.32213	175	.68883	-1.11230	1.30832
180	-.68519	1.14836	1.33724	180	.68519	-1.14836	1.33724
			120.823				300.823
			127.360				358.619
			125.800				335.146
			124.212				319.798
			122.811				310.383
			121.731				304.770
			121.053				301.769
			114.333				163.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				93.876
			124.281				83.049
			127.670				69.822
			128.890				51.950
			128.559				27.194
			170.005				170.935
			154.939				157.341
			140.240				144.851
			127.323				133.465
			117.887				123.017
			113.404				113.196
			114.333				103.658
			119.054				

KA = 2.5

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.53983	-1.20227	1.95359	322.018	0	1.53983	-1.20227	1.95359	322.018
5	1.52316	-1.21510	1.94846	321.419	5	1.52963	-1.21854	1.95566	321.458
10	1.47281	-1.25222	1.93319	319.628	10	1.49829	-1.26638	1.96179	319.795
15	1.38793	-1.30946	1.90815	316.666	15	1.44360	-1.34282	1.97159	317.071
20	1.26761	-1.38003	1.87385	312.569	20	1.36223	-1.44278	1.98426	313.355
25	1.11165	-1.45476	1.83087	307.385	25	1.25021	-1.55897	1.99835	308.728
30	.92142	-1.52259	1.77969	301.181	30	1.10365	-1.68181	2.01160	303.274
35	.70074	-1.57142	1.72058	294.033	35	.91959	-1.79954	2.02089	297.067
40	.45663	-1.58924	1.65354	286.031	40	.69698	-1.89858	2.02247	290.158
45	.19958	-1.56558	1.57825	277.265	45	.43765	-1.96420	2.01237	282.561
50	-.05672	-1.49311	1.49419	267.825	50	.14714	-1.98164	1.98710	274.246
55	-.29636	-1.36914	1.40085	257.786	55	-.16489	-1.93754	1.94454	265.136
60	-.50290	-1.19669	1.29806	247.206	60	-.48457	-1.82160	1.88495	255.103
65	-.66153	-.98476	1.18633	236.108	65	-.79459	-1.62830	1.81183	243.988
70	-.76142	-.74772	1.06717	224.480	70	-1.07548	-1.35838	1.73258	231.630
75	-.79766	-.50355	.94331	212.264	75	-1.30752	-1.01976	1.65817	217.951
80	-.77254	-.27137	.81881	199.355	80	-1.47309	-.62762	1.60122	203.077
85	-.69548	-.06844	.69884	185.620	85	-1.55890	-.20362	1.57214	187.442
90	-.58187	.09253	.58918	170.965	90	-1.55800	.22592	1.57429	171.749
95	-.45065	.20539	.49525	155.498	95	-1.47093	.63254	1.60117	156.731
100	-.32141	.27140	.42067	139.822	100	-1.30598	.98855	1.63793	142.876
105	-.21129	.29862	.36581	125.282	105	-1.07830	1.26995	1.66599	130.334
110	-.13261	.30010	.32809	113.840	110	-.80818	1.45885	1.66776	118.986
115	-.09150	.29138	.30541	107.434	115	-.51854	1.54508	1.62978	108.552
120	-.08775	.28766	.30075	106.964	120	-.23227	1.52683	1.54439	98.650
125	-.11580	.30136	.32284	111.020	125	.03026	1.41025	1.41057	88.771
130	-.16659	.34046	.37903	116.073	130	.25326	1.20832	1.23458	78.162
135	-.22959	.40783	.46802	119.378	135	.42673	.93907	1.03148	65.562
140	-.29485	.50145	.58171	120.455	140	.54689	.62360	.82944	48.750
145	-.35442	.61534	.71011	119.941	145	.61579	.28418	.67820	24.773
150	-.40323	.74088	.84351	118.558	150	.64036	-.05742	.64293	354.876
155	-.43920	.86825	.97301	116.832	155	.63100	-.38122	.73722	328.862
160	-.46281	.98764	1.09070	115.108	160	.59998	-.66981	.89923	311.852
165	-.47632	1.09023	1.18974	113.600	165	.55984	-.90889	1.06747	301.632
170	-.48282	1.16880	1.26460	112.445	170	.52198	-1.08742	1.20620	295.642
175	-.48530	1.21807	1.31118	111.723	175	.49540	-1.19761	1.29602	292.473
180	-.48588	1.23484	1.32699	111.478	180	.48588	-1.23484	1.32699	291.478

KA = 2.6

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	1.66920	-.99459	1.94305	329.211	0	1.66920	-.99459
5	1.65314	-1.00991	1.93721	328.579	5	1.65923	-1.01338
10	1.60441	-1.05442	1.91988	326.687	10	1.62847	-1.06878
15	1.52165	-1.12382	1.89166	323.552	15	1.57448	-1.15781
20	1.40312	-1.21102	1.85346	319.203	20	1.49353	-1.27534
25	1.24761	-1.30631	1.80637	313.683	25	1.38112	-1.41386
30	1.05543	-1.39782	1.75152	307.055	30	1.23273	-1.56334
35	.82949	-1.47229	1.68988	299.397	35	1.04475	-1.71124
40	.57621	-1.51624	1.62203	290.808	40	.81557	-1.84276
45	.30595	-1.51755	1.54808	281.399	45	.54664	-1.94159
50	.03292	-1.46726	1.46762	271.285	50	.24351	-1.99099
55	-.22588	-1.36128	1.37989	260.579	55	-.08364	-1.97545
60	-.45237	-1.20173	1.28405	249.372	60	-.41995	-1.88253
65	-.62987	-.99743	1.17966	237.728	65	-.74650	-1.70493
70	-.74571	-.76328	1.06710	225.667	70	-1.04189	-1.44222
75	-.79361	-.51850	.94798	213.158	75	-1.28436	-1.10201
80	-.77509	-.28381	.82541	200.111	80	-1.45445	-.70021
85	-.69965	-.07816	.70400	186.374	85	-1.53767	-.26013
90	-.58346	.08440	.58953	171.769	90	-1.52678	.18949
95	-.44674	.19702	.48825	156.202	95	-1.42313	.61733
100	-.31044	.26097	.40556	139.948	100	-1.23696	.99290
105	-.19286	.28501	.34413	124.085	105	-.98627	1.28980
110	-.10693	.28336	.30286	110.675	110	-.69474	1.48853
115	-.05878	.27277	.27903	102.160	115	-.38876	1.57823
120	-.04764	.26944	.27362	100.027	120	-.09427	1.55735
125	-.06711	.28634	.29410	103.191	125	.16617	1.43312
130	-.10723	.33142	.34833	107.929	130	.37568	1.22004
135	-.15684	.40702	.43620	111.074	135	.52445	.93789
140	-.20582	.51026	.55021	111.967	140	.61005	.60940
145	-.24659	.63417	.68042	111.248	145	.63692	.25815
150	-.27496	.76922	.81689	109.670	150	.61508	-.09328
155	-.29010	.90491	.95028	107.775	155	.55843	-.42452
160	-.29394	1.03106	1.07214	105.912	160	.48279	-.71825
165	-.29024	1.13870	1.17511	104.300	165	.40403	-.96055
170	-.28340	1.22070	1.25316	103.070	170	.33639	-1.14085
175	-.27743	1.27193	1.30183	102.305	175	.29105	-1.25187
180	-.27512	1.28934	1.31837	102.045	180	.27512	-1.28934

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	1.66920	-.99459	1.94305	329.211	0	1.66920	-.99459
5	1.65314	-1.00991	1.93721	328.579	5	1.65923	-1.01338
10	1.60441	-1.05442	1.91988	326.687	10	1.62847	-1.06878
15	1.52165	-1.12382	1.89166	323.552	15	1.57448	-1.15781
20	1.40312	-1.21102	1.85346	319.203	20	1.49353	-1.27534
25	1.24761	-1.30631	1.80637	313.683	25	1.38112	-1.41386
30	1.05543	-1.39782	1.75152	307.055	30	1.23273	-1.56334
35	.82949	-1.47229	1.68988	299.397	35	1.04475	-1.71124
40	.57621	-1.51624	1.62203	290.808	40	.81557	-1.84276
45	.30595	-1.51755	1.54808	281.399	45	.54664	-1.94159
50	.03292	-1.46726	1.46762	271.285	50	.24351	-1.99099
55	-.22588	-1.36128	1.37989	260.579	55	-.08364	-1.97545
60	-.45237	-1.20173	1.28405	249.372	60	-.41995	-1.88253
65	-.62987	-.99743	1.17966	237.728	65	-.74650	-1.70493
70	-.74571	-.76328	1.06710	225.667	70	-1.04189	-1.44222
75	-.79361	-.51850	.94798	213.158	75	-1.28436	-1.10201
80	-.77509	-.28381	.82541	200.111	80	-1.45445	-.70021
85	-.69965	-.07816	.70400	186.374	85	-1.53767	-.26013
90	-.58346	.08440	.58953	171.769	90	-1.52678	.18949
95	-.44674	.19702	.48825	156.202	95	-1.42313	.61733
100	-.31044	.26097	.40556	139.948	100	-1.23696	.99290
105	-.19286	.28501	.34413	124.085	105	-.98627	1.28980
110	-.10693	.28336	.30286	110.675	110	-.69474	1.48853
115	-.05878	.27277	.27903	102.160	115	-.38876	1.57823
120	-.04764	.26944	.27362	100.027	120	-.09427	1.55735
125	-.06711	.28634	.29410	103.191	125	.16617	1.43312
130	-.10723	.33142	.34833	107.929	130	.37568	1.22004
135	-.15684	.40702	.43620	111.074	135	.52445	.93789
140	-.20582	.51026	.55021	111.967	140	.61005	.60940
145	-.24659	.63417	.68042	111.248	145	.63692	.25815
150	-.27496	.76922	.81689	109.670	150	.61508	-.09328
155	-.29010	.90491	.95028	107.775	155	.55843	-.42452
160	-.29394	1.03106	1.07214	105.912	160	.48279	-.71825
165	-.29024	1.13870	1.17511	104.300	165	.40403	-.96055
170	-.28340	1.22070	1.25316	103.070	170	.33639	-1.14085
175	-.27743	1.27193	1.30183	102.305	175	.29105	-1.25187
180	-.27512	1.28934	1.31837	102.045	180	.27512	-1.28934

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	1.66920	-.99459	1.94305	329.211	0	1.66920	-.99459
5	1.65314	-1.00991	1.93721	328.579	5	1.65923	-1.01338
10	1.60441	-1.05442	1.91988	326.687	10	1.62847	-1.06878
15	1.52165	-1.12382	1.89166	323.552	15	1.57448	-1.15781
20	1.40312	-1.21102	1.85346	319.203	20	1.49353	-1.27534
25	1.24761	-1.30631	1.80637	313.683	25	1.38112	-1.41386
30	1.05543	-1.39782	1.75152	307.055	30	1.23273	-1.56334
35	.82949	-1.47229	1.68988	299.397	35	1.04475	-1.71124
40	.57621	-1.51624	1.62203	290.808	40	.81557	-1.84276
45	.30595	-1.51755	1.54808	281.399	45	.54664	-1.94159
50	.03292	-1.46726	1.46762	271.285	50	.24351	-1.99099
55	-.22588	-1.36128	1.37989	260.579	55	-.08364	-1.97545
60	-.45237	-1.20173	1.28405	249.372	60	-.41995	-1.88253
65	-.62987	-.99743	1.17966	237.728	65	-.74650	-1.70493
70	-.74571	-.76328	1.06710	225.667	70	-1.04189	-1.44222
75	-.79361	-.51850	.94798	213.158	75	-1.28436	-1.10201
80	-.77509	-.28381	.82541	200.111	80	-1.45445	-.70021
85	-.69965	-.07816	.70400	186.374	85	-1.53767	-.26013
90	-.58346	.08440	.58953	171.769	90	-1.52678	.18949
95	-.44674	.19702	.48825	156.202	95	-1.42313	.61733
100	-.31044	.26097	.40556	139.948	100	-1.23696	.99290
105	-.19286	.28501	.34413	124.085	105	-.98627	1.28980
110	-.10693	.28336	.30286	110.675	110	-.69474	1.48853
115	-.05878	.27277	.27903	102.160	115	-.38876	1.57823
120	-.04764	.26944	.27362	100.027	120	-.09427	1.55735
125	-.06711	.28634	.29410	103.191	125	.16617	1.43312
130	-.10723	.33142	.34833	107.929	130	.37568	1.22004
135	-.15684	.40702	.43620	111.074	135	.52445	.93789
140	-.20582	.51026	.55021	111.967	140	.61005	.60940
145	-.24659	.63417	.68042	111.248	145	.63692	.25815
150	-.27496	.76922	.81689	109.670	150	.61508	-.09328
155	-.29010	.90491	.95028	107.775	155	.55843	-.42452
160	-.29394	1.03106	1.07214	105.912	160	.48279	-.71825
165	-.29024	1.13870	1.17511	104.300	165	.40403	-.96055
170	-.28340	1.22070	1.25316	103.070	170	.33639	-1.14085
175	-.27743	1.27193	1.30183	102.305	175	.29105	-1.25187
180	-.27512	1.28934	1.31837	102.045	180	.27512	-1.28934

T2			
	MAGNITUDE	ARGUMENT	
	1.94305	329.211	
	1.94422	328.585	
	1.94787	326.723	
	1.95436	323.671	
	1.96395	319.516	
	1.97648	314.329	
	1.99089	308.257	
	2.00495	301.415	
	2.01517	293.873	
	2.01707	285.724	
	2.00583	276.973	
	1.97722	267.575	
	1.92880	257.425	
	1.86120	246.354	
	1.77920	234.155	
	1.69234	220.630	
	1.61423	205.707	
	1.55952	189.602	
	1.53849	172.925	
	1.55126	156.550	
	1.58616	141.246	
	1.62367	127.404	
	1.64267	115.020	
	1.62540	103.838	
	1.56020	93.464	
	1.44272	83.386	
	1.27657	72.885	
	1.07456	60.787	
	.86228	44.970	
	.68724	22.063	
	.62211	351.377	
	.70147	322.758	
	.86543	303.908	
	1.04206	292.813	
	1.18941	286.429	
	1.28526	283.088	
	1.31837	282.045	

KA = 2.7

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL
0	1.79579	-.79151	1.96249	336.214	0	1.79579	-.79151	1.96249	336.214	0	1.79579
5	1.78055	-.80909	1.95575	335.563	5	1.78601	-.81222	1.96202	335.545	5	1.78601
10	1.73408	-.86039	1.93579	333.611	10	1.75573	-.87345	1.96099	333.550	10	1.75573
15	1.65444	-.94104	1.90334	330.369	15	1.70226	-.97237	1.96041	330.264	15	1.70226
20	1.53900	-1.04377	1.85956	325.854	20	1.62150	-1.10405	1.96168	325.750	20	1.62150
25	1.38544	-1.15848	1.80597	320.398	25	1.50839	-1.26109	1.96611	320.103	25	1.50839
30	1.19287	-1.27262	1.74428	313.147	30	1.35777	-1.43337	1.97436	313.448	30	1.35777
35	.96311	-1.37186	1.67618	305.071	35	1.16532	-1.60792	1.98579	305.932	35	1.16532
40	.70179	-1.44133	1.60310	295.962	40	.92880	-1.76908	1.99808	297.700	40	.92880
45	.41902	-1.46726	1.52592	285.938	45	.64928	-1.89919	2.00711	288.874	45	.64928
50	.12939	-1.43898	1.44478	275.138	50	.33225	-1.97972	2.00740	279.527	50	.33225
55	-.14901	-1.35091	1.35910	263.705	55	-.01159	-1.99302	1.99306	269.067	55	-.01159
60	-.39645	-1.20416	1.26775	251.777	60	-.36624	-1.92450	1.95904	259.225	60	-.36624
65	-.59424	-1.00728	1.16950	239.462	65	-.71109	-1.76492	1.90278	248.055	65	-.71109
70	-.72772	-.77569	1.06362	226.828	70	-1.02254	-1.51248	1.82570	235.939	70	-1.02254
75	-.78901	-.52988	.95043	213.884	75	-1.27652	-1.17430	1.73450	222.612	75	-1.27652
80	-.77875	-.29229	.83180	200.573	80	-1.45147	-.76681	1.64158	207.847	80	-1.45147
85	-.70642	-.08369	.71136	186.756	85	-1.53150	-.31484	1.56352	191.617	85	-1.53150
90	-.58894	.08043	.59441	172.224	90	-1.50895	.15055	1.51644	174.302	90	-1.50895
95	-.44781	.19239	.48739	156.750	95	-1.38609	.59532	1.50852	156.757	95	-1.38609
100	-.30539	.25350	.39689	140.305	100	-1.17525	.98626	1.53425	139.997	100	-1.17525
105	-.18112	.27322	.32781	123.541	105	-.89765	1.29480	1.57552	124.733	105	-.89765
110	-.08854	.26698	.28128	108.348	110	-.58076	1.53004	1.60854	111.164	110	-.58076
115	-.03370	.25281	.25505	97.593	115	-.25484	1.59078	1.61106	99.101	115	-.25484
120	-.01521	.24794	.24841	93.510	120	.05075	1.56604	1.56686	88.144	120	.05075
125	-.02572	.26585	.26739	95.526	125	.31099	1.43439	1.46771	77.767	125	.31099
130	-.05433	.31444	.31910	99.804	130	.50782	1.21209	1.31417	67.268	130	.50782
135	-.08930	.39548	.40543	102.724	135	.63159	.92072	1.11653	55.551	135	.63159
140	-.12039	.50518	.51933	103.404	140	.68140	.58454	.89777	40.625	140	.68140
145	-.14053	.63565	.65100	102.466	145	.66426	.22811	.70234	18.953	145	.66426
150	-.14654	.77657	.79028	100.686	150	.59358	-.12557	.60672	348.056	150	.59358
155	-.13901	.91693	.92741	98.620	155	.48702	-.45636	.66742	316.861	155	.48702
160	-.12146	1.04637	1.05340	96.621	160	.36422	-.74764	.83164	295.973	160	.36422
165	-.09920	1.15607	1.16031	94.904	165	.24463	-.98645	1.01633	283.928	165	.24463
170	-.07802	1.23915	1.24161	93.603	170	.14550	-1.16330	1.17237	277.129	170	.14550
175	-.06300	1.29086	1.29240	92.794	175	.08030	-1.27183	1.27436	273.613	175	.08030
180	-.05759	1.30840	1.30967	92.520	180	.05759	-1.30840	1.30967	272.520	180	.05759

KA = 2.8

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.90986	-.59907	2.00161	342.585	0	1.90986	-.59907	2.00161	342.585
5	1.89572	-.61865	1.99411	341.926	5	1.90049	-.62099	1.99937	341.905
10	1.85237	-.67596	1.97185	339.952	10	1.87136	-.68599	1.99313	339.868
15	1.77723	-.76667	1.93555	336.665	15	1.81951	-.79156	1.98423	336.489
20	1.66673	-.88345	1.88640	332.074	20	1.74034	-.93323	1.97477	331.798
25	1.51730	-1.01600	1.82605	326.193	25	1.62817	-1.10407	1.96721	325.859
30	1.32670	-1.15120	1.75653	319.051	30	1.47702	-1.29427	1.96385	318.773
35	1.09547	-1.27383	1.68009	310.695	35	1.28171	-1.49084	1.96606	310.686
40	.82826	-1.36768	1.59893	301.199	40	1.03918	-1.67767	1.97344	301.775
45	.53472	-1.41736	1.51488	290.670	45	.74990	-1.83604	1.98327	292.217
50	.22968	-1.41044	1.42902	279.249	50	.41919	-1.94583	1.99047	282.157
55	-.06776	-1.33974	1.34146	267.104	55	.05817	-1.98741	1.98826	271.677
60	-.33621	-1.20527	1.25128	254.414	60	-.31602	-1.94397	1.96949	260.767
65	-.55486	-1.01519	1.15692	241.341	65	-.68091	-1.80421	1.92843	249.323
70	-.70693	-.78543	1.05672	228.011	70	-1.01051	-1.56483	1.86275	237.147
75	-.78276	-.53779	.94970	214.491	75	-1.27808	-1.23224	1.77535	223.954
80	-.78198	-.29655	.83632	200.768	80	-1.45962	-.82320	1.67575	209.422
85	-.71392	-.08442	.71889	186.743	85	-1.53749	-.36393	1.57997	193.317
90	-.59624	.08150	.60179	172.216	90	-1.50343	.11232	1.50762	175.727
95	-.45174	.19267	.49111	156.902	95	-1.36049	.56891	1.47465	157.307
100	-.30422	.25033	.39397	140.550	100	-1.12324	.97012	1.48418	139.184
105	-.17427	.26473	.31694	123.356	105	-.81629	1.28539	1.52268	122.418
110	-.07598	.25252	.26370	106.745	110	-.47122	1.49281	1.56542	107.519
115	-.01525	.23308	.23357	93.744	115	-.12255	1.58117	1.58591	94.432
120	.01003	.22467	.22489	87.444	120	.19664	1.55052	1.56294	82.772
125	.00825	.24126	.24140	88.042	125	.45866	1.41112	1.48378	71.994
130	-.00872	.29065	.29078	91.718	130	.64411	1.18124	1.34544	61.397
135	-.02852	.37399	.37508	94.360	135	.74354	.88434	1.15538	49.944
140	-.04089	.48663	.48834	94.803	140	.75759	.54609	.93390	35.785
145	-.03937	.61977	.62102	93.635	145	.69605	.19173	.72197	15.401
150	-.02194	.76245	.76276	91.649	150	.57581	-.15588	.59654	344.853
155	.00930	.90336	.90341	89.410	155	.41849	-.47745	.63490	310.235
160	.04916	1.03223	1.03340	87.273	160	.24770	-.75778	.79724	260.101
165	.09070	1.14060	1.14420	85.453	165	.08653	-.98560	.98939	275.017
170	.12673	1.22217	1.22872	84.080	170	-.04468	-1.15313	1.15399	267.781
175	.15110	1.27270	1.28164	83.229	175	-.13009	-1.25542	1.26214	264.084
180	.15970	1.20980	1.29965	82.942	180	-.15970	-1.28980	1.29965	262.942

KA = 2.9

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.00109	-.41864	2.04441	348.184	0	2.00109	-.41864	2.04441	348.184
5	1.98842	-.43994	2.03651	347.524	5	1.99264	-.44111	2.04088	347.518
10	1.94928	-.50244	2.01300	345.546	10	1.96617	-.50789	2.03071	345.516
15	1.88043	-.60195	1.97443	342.250	15	1.91833	-.61700	2.01511	342.170
20	1.77725	-.73122	1.92179	337.636	20	1.84391	-.76464	1.99616	337.477
25	1.63482	-.87989	1.85656	331.710	25	1.73635	-.94468	1.97670	331.451
30	1.44938	-1.03449	1.78070	324.483	30	1.58861	-1.14800	1.96000	324.147
35	1.21999	-1.17903	1.69661	315.978	35	1.39435	-1.36198	1.94916	315.673
40	.95009	-1.29607	1.60701	306.243	40	1.14935	-1.57038	1.94605	306.200
45	.64864	-1.36860	1.51453	295.358	45	.85315	-1.75378	1.95029	295.941
50	.33050	-1.38237	1.42133	283.446	50	.51063	-1.89068	1.95842	285.114
55	.01566	-1.32851	1.32860	270.676	55	.13311	-1.95954	1.96406	273.886
60	-.27282	-1.20578	1.23626	257.251	60	-.26117	-1.94135	1.95884	262.338
65	-.51200	-1.02187	1.14296	243.387	65	-.64782	-1.82268	1.93438	250.434
70	-.68282	-.79318	1.04660	229.276	70	-.99816	-1.59853	1.88458	238.018
75	-.77370	-.54282	.94513	215.053	75	-1.28245	-1.27448	1.80803	224.821
80	-.78308	-.29705	.83753	200.773	80	-1.47378	-.86750	1.71014	210.482
85	-.72010	-.08063	.72461	186.389	85	-1.55232	-.40508	1.60431	194.625
90	-.60312	.08756	.60944	171.740	90	-1.50886	.07742	1.51084	177.063
95	-.45623	.19799	.49734	156.540	95	-1.34699	.54083	1.45151	158.124
100	-.30471	.25186	.39533	140.424	100	-1.08347	.94708	1.43905	138.843
105	-.17031	.26017	.31096	123.209	105	-.74640	1.26389	1.46783	120.564
110	-.06763	.24086	.25017	105.684	110	-.37172	1.46864	1.51495	104.203
115	-.00233	.21467	.21468	90.621	115	.00157	1.55060	1.55060	89.942
120	.02857	.20090	.20292	81.906	120	.33640	1.51130	1.54829	77.451
125	.03458	.21399	.21676	80.820	125	.60219	1.36315	1.49024	66.166
130	.02863	.26155	.26311	83.753	130	.77812	1.12675	1.36932	55.371
135	.02367	.34408	.34489	86.064	135	.85486	.82758	1.18982	44.071
140	.02994	.45605	.45703	86.244	140	.83467	.49262	.96920	30.549
145	.05319	.58786	.59026	84.830	145	.73010	.14746	.74484	11.418
150	.09421	.72805	.73412	82.627	150	.56161	-.18571	.59152	341.703
155	.14930	.86523	.87802	80.210	155	.35476	-.48914	.60425	305.952
160	.21153	.98948	1.01184	77.933	160	.13710	-.74980	.76223	280.362
165	.27235	1.09301	1.12644	76.008	165	-.06468	-.95889	.96107	266.141
170	.32320	1.17034	1.21415	74.562	170	-.22718	-1.11101	1.13399	258.444
175	.35687	1.21797	1.26918	73.669	175	-.33231	-1.20318	1.24923	254.560
180	.36865	1.23404	1.28793	73.367	180	-.36865	-1.23404	1.28793	253.367

KA = 3.0

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.06116	-.24727	2.07594	353.159
5	2.05040	-.27002	2.06810	352.498
10	2.01672	-.33697	2.04468	350.514
15	1.95620	-.44413	2.00598	347.209
20	1.86311	-.58449	1.95264	342.582
25	1.73106	-.74781	1.88568	336.636
30	1.55462	-.92043	1.80666	329.372
35	1.33113	-1.08572	1.71776	320.798
40	1.06257	-1.22510	1.62171	310.936
45	.75695	-1.31997	1.52161	299.833
50	.42896	-1.35419	1.42051	287.576
55	.09929	-1.31707	1.32081	274.311
60	-.20742	-1.20597	1.22368	260.241
65	-.46603	-1.02797	1.12867	245.613
70	-.65508	-.79985	1.03387	230.682
75	-.76094	-.54609	.93661	215.665
80	-.78074	-.29495	.83460	200.696
85	-.72332	-.07349	.72704	185.801
90	-.60769	.09757	.61548	170.878
95	-.45932	.20758	.50405	155.680
100	-.30496	.25761	.39920	139.811
105	-.16751	.25944	.30882	122.850
110	-.06205	.23230	.24144	104.954
115	.00613	.19833	.19842	88.229
120	.04098	.17784	.18249	77.025
125	.05326	.18566	.19315	73.992
130	.05702	.22915	.23614	76.527
135	.06583	.30810	.31506	77.940
140	.08984	.41609	.42567	77.816
145	.13405	.54277	.55908	76.127
150	.19793	.67637	.70473	73.689
155	.27613	.80565	.85166	71.082
160	.36000	.92133	.98917	68.657
165	.43942	1.01658	1.10749	66.623
170	.50451	1.08091	1.19836	65.102
175	.54711	1.13002	1.25550	64.166
180	.56193	1.14448	1.27499	63.849

KA = 3.1

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.08556	-.07932	2.08707	357.822	0	2.08556	-.07932	2.08707	357.822
5	2.07713	-.10331	2.07970	357.153	5	2.08121	-.10160	2.08369	357.255
10	2.05020	-.17412	2.05758	355.146	10	2.06664	-.16828	2.07348	355.345
15	2.00014	-.28804	2.02077	351.805	15	2.03742	-.27857	2.05637	352.214
20	1.92004	-.43845	1.96946	347.137	20	1.98646	-.43053	2.03258	347.771
25	1.80195	-.61535	1.90412	341.145	25	1.90463	-.62018	2.00306	341.964
30	1.63861	-.80509	1.82571	333.834	30	1.78171	-.84042	1.96997	334.747
35	1.42544	-.99054	1.73581	325.205	35	1.60773	-1.08011	1.93636	326.156
40	1.16268	-1.15206	1.63679	315.263	40	1.37481	-1.32349	1.90833	316.090
45	.85714	-1.26943	1.53171	304.028	45	1.07929	-1.55025	1.88895	304.846
50	.52304	-1.32457	1.42410	291.548	50	.72389	-1.73658	1.88141	292.629
55	.18163	-1.30479	1.31737	277.925	55	.31945	-1.85728	1.88455	279.759
60	-.14098	-1.20587	1.21408	263.332	60	-.11414	-1.88888	1.89232	266.542
65	-.41742	-1.03409	1.11516	248.018	65	-.54849	-1.81346	1.89460	253.172
70	-.62377	-.80653	1.01959	232.282	70	-.94894	-1.62242	1.87956	239.677
75	-.74416	-.54900	.92476	216.418	75	-1.27847	-1.31947	1.83724	225.904
80	-.77430	-.29189	.82749	200.655	80	-1.50285	-.92196	1.76311	211.528
85	-.72264	-.06464	.72553	185.111	85	-1.59624	-.46010	1.66122	196.079
90	-.60886	.10998	.61872	169.761	90	-1.54600	.02627	1.54622	179.026
95	-.45976	.22009	.50973	154.420	95	-1.35581	.49280	1.44259	160.025
100	-.30366	.26656	.40406	138.722	100	-1.04619	.89670	1.37789	139.400
105	-.16460	.26194	.30937	122.144	105	-.65220	1.20280	1.36824	118.468
110	-.05806	.22678	.23409	104.359	110	-.21874	1.38806	1.40520	98.956
115	.01112	.18457	.18490	86.553	115	.20569	1.44412	1.45869	81.894
120	.04798	.15659	.16377	72.965	120	.57559	1.37710	1.49255	67.317
125	.06468	.15798	.17071	67.735	125	.85423	1.20534	1.47735	54.615
130	.07643	.19575	.21014	68.672	130	1.01771	.95542	1.39590	43.192
135	.09743	.26887	.28598	70.081	135	1.05689	.65757	1.24475	31.889
140	.13772	.37001	.39481	69.585	140	.97715	.34137	1.03506	19.257
145	.20147	.48820	.52814	67.575	145	.79642	.03235	.79708	2.326
150	.28677	.61145	.67536	64.873	150	.54203	-.25007	.59693	335.233
155	.38664	.72897	.82516	62.059	155	.24689	-.49322	.55157	296.591
160	.49076	.83238	.96628	59.477	160	-.05421	-.69068	.69280	265.512
165	.58751	.91611	1.08831	57.327	165	-.32809	-.84082	.90257	248.684
170	.66581	.97706	1.18235	55.728	170	-.54605	-.94510	1.09151	239.982
175	.71667	1.01389	1.24161	54.745	175	-.68606	-1.00614	1.21778	235.711
180	.73430	1.02619	1.26185	54.414	180	-.73430	-1.02619	1.26185	234.414

KA = 3.2

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	2.07409	.09130	2.07610	2.521	0	2.07409	.09130
5	2.06838	.06621	2.06944	1.833	5	2.07292	.06921
10	2.04940	-.00804	2.04941	359.775	10	2.06766	.00292
15	2.01176	-.12810	2.01584	356.357	15	2.05315	-.10743
20	1.94737	-.28786	1.96853	351.591	20	2.02114	-.26081
25	1.84665	-.47775	1.90745	345.495	25	1.96082	-.45433
30	1.70035	-.68424	1.83286	338.080	30	1.85988	-.68196
35	1.50181	-.88985	1.74564	329.352	35	1.70595	-.93340
40	1.24927	-1.07395	1.64744	319.316	40	1.48864	-1.19318
45	.94805	-1.21471	1.54088	307.971	45	1.20196	-1.44064
50	.61168	-1.29196	1.42945	295.335	50	.84684	-1.65082
55	.26174	-1.29085	1.31712	281.462	55	.43334	-1.79666
60	-.07429	-1.20534	1.20763	266.473	60	-.01820	-1.85240
65	-.36682	-1.04073	1.10349	250.584	65	-.47747	-1.79778
70	-.58935	-.81423	1.00514	234.102	70	-.90658	-1.62238
75	-.72367	-.55296	.91075	217.383	75	-1.26434	-1.32903
80	-.76389	-.28951	.81691	200.756	80	-1.51212	-.93553
85	-.71801	-.05581	.72018	184.444	85	-1.62022	-.47378
90	-.60634	.12312	.61872	168.522	90	-1.57356	.01372
95	-.45710	.23405	.51353	152.886	95	-1.37525	.47962
100	-.30016	.27758	.40884	137.239	100	-1.04735	.87860
105	-.16078	.26698	.31165	121.057	105	-.62824	1.17407
110	-.05476	.22409	.23069	103.733	110	-.16737	1.34325
115	.01357	.17375	.17428	85.534	115	.28195	1.37963
120	.05052	.13812	.14707	69.908	120	.66989	1.29258
125	.06971	.13253	.14974	62.255	125	.95662	1.10435
130	.08758	.16348	.18547	61.821	130	1.11675	.84533
135	.11895	.22906	.25811	62.556	135	1.14125	.54868
140	.17371	.32101	.36500	61.580	140	1.03708	.24545
145	.25515	.42775	.49807	59.184	145	.82476	-.03911
150	.35995	.53732	.64674	56.182	150	.53471	-.28758
155	.47951	.63955	.79935	53.139	155	.20314	-.49072
160	.60195	.72728	.94408	50.386	160	-.13214	-.64644
165	.71427	.79648	1.06984	48.115	165	-.43533	-.75784
170	.80438	.84564	1.16711	46.433	170	-.67568	-.83076
175	.86259	.87479	1.22854	45.402	175	-.82970	-.87142
180	.88270	.88441	1.24954	45.056	180	-.88270	-.88441

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	2.07409	.09130	2.07610	2.521	0	2.07409	.09130
5	2.07292	.06921	2.07407	1.912	5	2.07292	.06921
10	2.06766	.00292	2.06766	.081	10	2.06766	.00292
15	2.05315	-.10743	2.05596	357.555	15	2.05315	-.10743
20	2.02114	-.26081	2.03789	352.647	20	2.02114	-.26081
25	1.96082	-.45433	2.01277	346.955	25	1.96082	-.45433
30	1.85988	-.68196	1.98097	339.863	30	1.85988	-.68196
35	1.70595	-.93340	1.94461	331.315	35	1.70595	-.93340
40	1.48864	-1.19318	1.90781	321.287	40	1.48864	-1.19318
45	1.20196	-1.44064	1.87621	309.839	45	1.20196	-1.44064
50	.84684	-1.65082	1.85536	297.157	50	.84684	-1.65082
55	.43334	-1.79666	1.84818	283.560	55	.43334	-1.79666
60	-.01820	-1.85240	1.85249	269.437	60	-.01820	-1.85240
65	-.47747	-1.79778	1.86511	255.126	65	-.47747	-1.79778
70	-.90658	-1.62238	1.85850	240.804	70	-.90658	-1.62238
75	-1.26434	-1.32903	1.83436	226.429	75	-1.26434	-1.32903
80	-1.51212	-.93553	1.77812	211.745	80	-1.51212	-.93553
85	-1.62022	-.47378	1.68807	196.300	85	-1.62022	-.47378
90	-1.57356	.01372	1.57362	179.500	90	-1.57356	.01372
95	-1.37525	.47962	1.45649	160.774	95	-1.37525	.47962
100	-1.04735	.87860	1.36706	140.007	100	-1.04735	.87860
105	-.62824	1.17407	1.33159	118.151	105	-.62824	1.17407
110	-.16737	1.34325	1.35364	97.102	110	-.16737	1.34325
115	.28195	1.37963	1.40814	78.450	115	.28195	1.37963
120	.66989	1.29258	1.45586	62.604	120	.66989	1.29258
125	.95662	1.10435	1.46107	49.100	125	.95662	1.10435
130	1.11675	.84533	1.40061	37.124	130	1.11675	.84533
135	1.14125	.54868	1.26630	25.677	135	1.14125	.54868
140	1.03708	.24545	1.06573	13.315	140	1.03708	.24545
145	.82476	-.03911	.82568	357.285	145	.82476	-.03911
150	.53471	-.28758	.60714	331.728	150	.53471	-.28758
155	.20314	-.49072	.53110	292.488	155	.20314	-.49072
160	-.13214	-.64644	.65981	258.448	160	-.13214	-.64644
165	-.43533	-.75784	.87398	240.125	165	-.43533	-.75784
170	-.67568	-.83076	1.07085	230.878	170	-.67568	-.83076
175	-.82970	-.87142	1.20324	226.405	175	-.82970	-.87142
180	-.88270	-.88441	1.24954	225.056	180	-.88270	-.88441

KA = 3.3

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	2.03025	.26926	2.04802	7.555	0	2.03025	.26926
5	2.02759	.24318	2.04212	6.839	5	2.03279	.24714
10	2.01750	.16581	2.02430	4.698	10	2.03843	.18056
15	1.99391	.04002	1.99431	1.150	15	2.04127	.06914
20	1.94750	-.12867	1.95174	356.220	20	2.03179	-.08692
25	1.86703	-.33127	1.89619	349.939	25	1.99744	-.28570
30	1.74120	-.55453	1.82737	342.334	30	1.92363	-.52212
35	1.56108	-.78074	1.74543	333.429	35	1.79533	-.78656
40	1.32273	-.98836	1.65121	323.232	40	1.59931	-1.06380
45	1.02971	-1.15391	1.54655	311.745	45	1.32682	-1.33271
50	.69459	-1.25504	1.43443	298.962	50	.97663	-1.56709
55	.33908	-1.27452	1.31885	284.898	55	.55754	-1.73796
60	-.00807	-1.20424	1.20426	269.616	60	.09009	-1.81716
65	-.31506	-1.04826	1.09458	253.272	65	-.39370	-1.78208
70	-.55271	-.82376	.99200	236.140	70	-.85262	-1.62045
75	-.70030	-.55910	.89612	218.603	75	-1.24111	-1.33440
80	-.75025	-.28912	.80403	201.075	80	-1.51574	-.94242
85	-.71000	-.04842	.71165	183.901	85	-1.64254	-.47852
90	-.60050	.13561	.61562	167.274	90	-1.60352	.01166
95	-.45142	.24823	.51517	151.195	95	-1.40090	.47736
100	-.29430	.28968	.41295	135.454	100	-1.05804	.87042
105	-.15559	.27389	.31500	119.600	105	-.61660	1.15281
110	-.05144	.22400	.22983	102.934	110	-.13048	1.30217
115	.01446	.16610	.16672	85.024	115	.34216	1.31437
120	.04975	.12314	.13281	68.001	120	.74727	1.20266
125	.06961	.11050	.13060	57.790	125	1.04206	.99396
130	.09176	.13403	.16243	55.606	130	1.19979	.72309
135	.13160	.19080	.23179	55.405	135	1.21174	.42661
140	.19883	.27160	.33660	53.794	140	1.08652	.13727
145	.29578	.36434	.46928	50.930	145	.84714	-.12006
150	.41775	.45720	.61931	47.582	150	.52695	-.33028
155	.55457	.54095	.77471	44.287	155	.16502	-.48811
160	.69292	.60988	.92309	41.353	160	-.19831	-.59648
165	.81863	.66180	1.05268	38.953	165	-.52524	-.66385
170	.91879	.69701	1.15326	37.185	170	-.78351	-.70113
175	.98320	.71710	1.21693	36.105	175	-.94864	-.71862
180	1.00541	.72359	1.23872	35.742	180	-1.00541	-.72359

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY
0	2.03025	.26926	2.04802	7.555	0	2.03025	.26926
5	2.02759	.24318	2.04212	6.839	5	2.03279	.24714
10	2.01750	.16581	2.02430	4.698	10	2.03843	.18056
15	1.99391	.04002	1.99431	1.150	15	2.04127	.06914
20	1.94750	-.12867	1.95174	356.220	20	2.03179	-.08692
25	1.86703	-.33127	1.89619	349.939	25	1.99744	-.28570
30	1.74120	-.55453	1.82737	342.334	30	1.92363	-.52212
35	1.56108	-.78074	1.74543	333.429	35	1.79533	-.78656
40	1.32273	-.98836	1.65121	323.232	40	1.59931	-1.06380
45	1.02971	-1.15391	1.54655	311.745	45	1.32682	-1.33271
50	.69459	-1.25504	1.43443	298.962	50	.97663	-1.56709
55	.33908	-1.27452	1.31885	284.898	55	.55754	-1.73796
60	-.00807	-1.20424	1.20426	269.616	60	.09009	-1.81716
65	-.31506	-1.04826	1.09458	253.272	65	-.39370	-1.78208
70	-.55271	-.82376	.99200	236.140	70	-.85262	-1.62045
75	-.70030	-.55910	.89612	218.603	75	-1.24111	-1.33440
80	-.75025	-.28912	.80403	201.075	80	-1.51574	-.94242
85	-.71000	-.04842	.71165	183.901	85	-1.64254	-.47852
90	-.60050	.13561	.61562	167.274	90	-1.60352	.01166
95	-.45142	.24823	.51517	151.195	95	-1.40090	.47736
100	-.29430	.28968	.41295	135.454	100	-1.05804	.87042
105	-.15559	.27389	.31500	119.600	105	-.61660	1.15281
110	-.05144	.22400	.22983	102.934	110	-.13048	1.30217
115	.01446	.16610	.16672	85.024	115	.34216	1.31437
120	.04975	.12314	.13281	68.001	120	.74727	1.20266
125	.06961	.11050	.13060	57.790	125	1.04206	.99396
130	.09176	.13403	.16243	55.606	130	1.19979	.72309
135	.13160	.19080	.23179	55.405	135	1.21174	.42661
140	.19883	.27160	.33660	53.794	140	1.08652	.13727
145	.29578	.36434	.46928	50.930	145	.84714	-.12006
150	.41775	.45720	.61931	47.582	150	.52695	-.33028
155	.55457	.54095	.77471	44.287	155	.16502	-.48811
160	.69292	.60988	.92309	41.353	160	-.19831	-.59648
165	.81863	.66180	1.05268	38.953	165	-.52524	-.66385
170	.91879	.69701	1.15326	37.185	170	-.78351	-.70113
175	.98320	.71710	1.21693	36.105	175	-.94864	-.71862
180	1.00541	.72359	1.23872	35.742	180	-1.00541	-.72359

215.742

KA = 3.4

----- T1 -----

----- T2 -----

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.96001	.45669	2.01251	13.116	0	1.96001	.45669	2.01251	13.116
5	1.95060	.42972	2.00714	12.362	5	1.96651	.43423	2.01387	12.451
10	1.96007	.34949	1.99098	10.110	10	1.98380	.36635	2.01734	10.463
15	1.95163	.21834	1.96581	6.384	15	2.00531	.25234	2.02112	7.172
20	1.92483	.04107	1.92527	1.222	20	2.02034	.09168	2.02242	2.598
25	1.86676	-.17405	1.87485	354.673	25	2.01462	-.11449	2.01787	356.747
30	1.76404	-.41422	1.81202	346.785	30	1.97130	-.36187	2.00423	349.598
35	1.60536	-.66162	1.73635	337.602	35	1.87262	-.64136	1.97941	341.094
40	1.38443	-.89388	1.64793	327.151	40	1.70231	-.93782	1.94355	331.149
45	1.10282	-1.08586	1.54768	315.444	45	1.44863	-1.22953	1.90007	319.677
50	.77191	-1.21292	1.43772	302.473	50	1.10774	-1.48892	1.85580	306.649
55	.41332	-1.25522	1.32152	288.226	55	.68686	-1.68496	1.81958	292.178
60	.05700	-1.20232	1.20367	272.714	60	.20628	-1.78699	1.79886	276.585
65	-.26308	-1.05678	1.08904	256.021	65	-.30044	-1.76995	1.79527	265.366
70	-.51494	-.83553	.98147	238.354	70	-.78894	-1.61978	1.80170	244.031
75	-.67523	-.56810	.88243	220.075	75	-1.20915	-1.33805	1.80344	227.897
80	-.73450	-.29160	.79026	201.653	80	-1.51263	-.94423	1.78315	211.974
85	-.69957	-.04341	.70092	183.551	85	-1.66082	-.47494	1.72739	195.959
90	-.59206	.14651	.60992	166.101	90	-1.63250	.02054	1.63263	179.279
95	-.44315	.26175	.51468	149.431	95	-1.42875	.48747	1.50962	161.161
100	-.28613	.30212	.41611	133.442	100	-1.07410	.87447	1.38506	140.849
105	-.14872	.28217	.31896	117.792	105	-.61335	1.14195	1.29624	118.241
110	-.00741	.22625	.23116	101.835	110	-.10483	1.26814	1.27246	94.725
115	.01480	.16167	.16234	84.771	115	.38861	1.25175	1.31069	72.753
120	.04695	.11205	.12149	67.266	120	.80886	1.11064	1.37396	53.935
125	.06586	.09264	.11366	54.592	125	1.11046	.87707	1.41506	38.303
130	.09051	.10849	.14129	50.165	130	1.26568	.59107	1.39689	25.032
135	.13688	.15553	.20719	48.649	135	1.26640	.29309	1.29987	13.031
140	.21438	.22355	.30973	46.199	140	1.12303	.61778	1.12317	.907
145	.32438	.30002	.44185	42.766	145	.86110	-.21034	.88642	346.273
150	.46078	.37350	.59314	39.027	150	.51661	-.37882	.64062	323.748
155	.61196	.43535	.75130	35.459	155	.13101	-.48683	.50415	285.062
160	.76332	.48316	.90338	32.333	160	-.25346	-.54293	.59918	244.975
165	.89978	.51528	1.03689	29.799	165	-.59771	-.56162	.82017	223.217
170	1.00787	.53461	1.14088	27.943	170	-.86870	-.55943	1.03325	212.761
175	1.07711	.54440	1.20687	26.813	175	-1.04157	-.55126	1.17846	207.890
180	1.10093	.54732	1.22948	26.434	180	-1.10093	-.54732	1.22948	206.434

KA = 3.5

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.87045	.65267	1.98105	19.236	0	1.87045	.65267	1.98105	19.236
5	1.87439	.62493	1.97583	18.439	5	1.88083	.62949	1.98338	18.505
10	1.88369	.54218	1.96017	16.057	10	1.90959	.55945	1.98985	16.329
15	1.89097	.40617	1.93409	12.123	15	1.94962	.44139	1.99896	12.757
20	1.88466	.22083	1.89755	6.683	20	1.98925	.27431	2.00808	7.851
25	1.85029	-.00642	1.85030	359.801	25	2.01177	.05869	2.01363	1.670
30	1.77240	-.26341	1.79187	351.547	30	2.00126	-.20177	2.01140	354.243
35	1.63729	-.53238	1.72167	341.988	35	1.93436	-.49837	1.99753	345.553
40	1.43615	-.79020	1.63919	331.179	40	1.79276	-.81589	1.96968	335.529
45	1.16838	-1.01013	1.54450	319.155	45	1.56154	-1.13191	1.92863	324.063
50	.84395	-1.16512	1.43866	305.918	50	1.23400	-1.41736	1.87928	311.044
55	.48423	-1.23251	1.32422	291.449	55	.81535	-1.63899	1.83065	296.449
60	.12021	-1.19925	1.20526	275.724	60	.32526	-1.76351	1.79325	280.450
65	-.21190	-1.06610	1.08696	258.758	65	-.20158	-1.76325	1.77474	263.478
70	-.47728	-.84953	.97442	240.672	70	-.71785	-1.62236	1.77408	246.132
75	-.64976	-.58011	.87104	221.758	75	-1.16909	-1.34100	1.77973	228.937
80	-.71790	-.29723	.77700	202.491	80	-1.50176	-.94266	1.77311	212.117
85	-.68783	-.04122	.68907	183.430	85	-1.67255	-.46429	1.73580	195.514
90	-.58185	.15528	.60221	165.058	90	-1.65684	.03965	1.65731	178.629
95	-.43276	.27405	.51223	147.656	95	-1.45443	.50990	1.54122	160.680
100	-.27573	.31435	.41814	131.256	100	-1.09089	.89141	1.40876	140.747
105	-.13985	.29130	.32313	115.645	105	-.61413	1.14278	1.29734	118.254
110	-.04197	.23045	.23424	100.322	110	-.08678	1.24299	1.24602	93.994
115	.01562	.16025	.16101	84.432	115	.42380	1.19403	1.26701	70.459
120	.04344	.10486	.11350	67.496	120	.85584	1.01896	1.33069	49.973
125	.05995	.07922	.09935	52.881	125	1.16165	.75621	1.38610	33.063
130	.08541	.08740	.12221	45.662	130	1.31302	.45163	1.38853	18.981
135	.13630	.12408	.18431	42.313	135	1.30291	.15011	1.31153	6.572
140	.22166	.17801	.28429	38.767	140	1.14381	-.11152	1.14924	354.432
145	.34187	.23632	.41560	34.654	145	.86380	-.30913	.91745	340.309
150	.48949	.28806	.56796	30.476	150	.50124	-.43316	.66247	319.168
155	.65159	.32650	.72881	26.614	155	.09943	-.48768	.49771	281.524
160	.81253	.34972	.88459	23.287	160	-.29832	-.48743	.57147	238.532
165	.95662	.35989	1.02207	20.617	165	-.65250	-.45350	.79462	214.800
170	1.07011	.36163	1.12957	18.672	170	-.93018	-.40861	1.01597	203.715
175	1.14254	.36007	1.19794	17.492	175	-1.10684	-.37264	1.16789	198.617
180	1.16742	.35907	1.22139	17.097	180	-1.16742	-.35907	1.22139	197.097

KA = 3.6

----- T1 -----					----- T2 -----				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.76837	.85327	1.96346	25.758	0	1.76837	.85327	1.96346	25.758
5	1.77563	.82495	1.95790	24.919	5	1.78224	.82923	1.96571	24.951
10	1.79471	.74021	1.94136	22.413	10	1.82140	.75653	1.97227	22.556
15	1.81770	.60014	1.91421	18.271	15	1.87844	.63368	1.98244	18.641
20	1.83208	.40767	1.87689	12.545	20	1.94109	.45920	1.99466	13.310
25	1.82190	.16918	1.82974	5.305	25	1.99253	.23300	2.00610	6.670
30	1.76972	-.10397	1.77277	356.638	30	2.01222	-.04179	2.01265	358.810
35	1.65941	-.39428	1.70561	346.634	35	1.97750	-.35680	2.00943	349.772
40	1.47961	-.67805	1.62758	335.380	40	1.86618	-.69672	1.99199	339.527
45	1.22736	-.92696	1.53807	322.938	45	1.66015	-1.03832	1.95811	327.977
50	.91106	-1.11147	1.43715	309.341	50	1.34963	-1.35096	1.90960	314.972
55	.55161	-1.20596	1.32613	294.580	55	.93741	-1.59899	1.85351	300.381
60	.18097	-1.19447	1.20810	278.615	60	.44212	-1.74624	1.80134	284.208
65	-.16246	-1.07565	1.08785	261.411	65	-.10089	-1.76227	1.76516	266.723
70	-.44085	-.86525	.97109	243.001	70	-.64170	-1.62921	1.75103	248.502
75	-.62510	-.59476	.86284	223.575	75	-1.12167	-1.34764	1.75336	230.229
80	-.70162	-.30585	.76539	203.553	80	-1.48229	-.93984	1.75513	212.377
85	-.67581	-.04186	.67710	183.544	85	-1.67545	-.44887	1.73454	194.998
90	-.57066	.16172	.59313	164.177	90	-1.67312	.06687	1.67446	177.711
95	-.42073	.28475	.50803	145.910	95	-1.47377	.54297	1.57061	159.775
100	-.26323	.32585	.41889	128.932	100	-1.10400	.92019	1.43721	140.189
105	-.12872	.30070	.32709	113.174	105	-.61477	1.15508	1.30850	118.023
110	-.03448	.23602	.23852	98.312	110	-.07288	1.22738	1.22954	93.398
115	.01791	.16132	.16231	83.665	115	.45012	1.14268	1.22814	68.500
120	.04047	.10118	.10897	68.201	120	.88927	.92982	1.28661	46.277
125	.05330	.07006	.08803	52.735	125	1.19533	.63407	1.35309	27.944
130	.07791	.07088	.10533	42.295	130	1.34031	.30772	1.37519	12.931
135	.13119	.09690	.16309	36.452	135	1.31886	.00057	1.31886	.025
140	.22177	.13585	.26007	31.491	140	1.14598	-.24810	1.17253	347.784
145	.34898	.17455	.39020	26.572	145	.85235	-.41459	.94783	334.061
150	.50413	.20274	.54337	21.908	150	.47641	-.49240	.68654	314.174
155	.67315	.21527	.70673	17.734	155	.06861	-.49087	.49564	277.957
160	.83968	.21247	.86615	14.200	160	-.33355	-.43133	.54525	232.285
165	.98777	.19900	1.00761	11.391	165	-.68923	-.34195	.76939	206.387
170	1.10376	.18187	1.11865	9.357	170	-.96666	-.25200	.99897	194.611
175	1.17750	.16814	1.18945	8.127	175	-1.14256	-.18669	1.15771	189.280
180	1.20277	.16294	1.21376	7.715	180	-1.20277	-.16294	1.21376	187.715

KA = 3.7

θ	T1				θ	T2			
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT		REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.65897	1.05214	1.96448	32.383	0	1.65897	1.05214	1.96448	32.383
5	1.66942	1.02352	1.95821	31.512	5	1.67575	1.02735	1.96560	31.511
10	1.69797	.93763	1.93965	28.908	10	1.72363	.95227	1.96919	28.925
15	1.73628	.79475	1.90952	24.595	15	1.79521	.82506	1.97573	24.683
20	1.77100	.59672	1.86883	18.621	20	1.87801	.64370	1.98526	18.925
25	1.78487	.34865	1.81860	11.553	25	1.95467	.40741	1.99668	11.774
30	1.75859	.06083	1.75965	1.981	30	2.00352	.11864	2.00703	3.389
35	1.67367	-.24972	1.69220	351.514	35	2.00005	-.21472	2.01154	353.872
40	1.51614	-.55895	1.61589	339.763	40	1.91947	-.57735	2.00442	343.260
45	1.28056	-.83706	1.52987	326.829	45	1.74056	-.94528	1.98068	331.494
50	.97354	-1.05205	1.43338	312.780	50	1.45028	-1.28621	1.93847	318.431
55	.61537	-1.17514	1.32652	297.639	55	1.04871	-1.56192	1.88133	313.878
60	.23885	-1.18722	1.21100	281.375	60	.55292	-1.73308	1.81915	287.695
65	-.11540	-1.06451	1.09064	263.926	65	-.00155	-1.76610	1.76610	269.950
70	-.40649	-.88179	.97098	245.251	70	-.56265	-1.64076	1.73455	251.072
75	-.60218	-.61126	.85806	225.429	75	-1.06788	-1.35694	1.72675	231.798
80	-.68661	-.31687	.75620	204.773	80	-1.45394	-.93842	1.73048	212.839
85	-.66436	-.04500	.66588	183.875	85	-1.66808	-.43196	1.72310	194.518
90	-.55918	.16586	.58326	163.478	90	-1.67888	.09874	1.68178	176.634
95	-.40752	.29358	.50226	144.231	95	-1.48356	.58351	1.59419	158.529
100	-.24879	.33609	.41815	126.510	100	-1.10985	.95837	1.46636	139.189
105	-.11518	.30965	.33037	110.404	105	-.61173	1.17742	1.32685	117.454
110	-.02449	.24211	.24334	95.776	110	-.06005	1.22108	1.22255	92.815
115	.02240	.16403	.16555	82.222	115	.46984	1.09874	1.19498	66.848
120	.03901	.10027	.10759	60.742	120	.91037	.84547	1.24242	42.883
125	.04707	.06465	.07997	53.939	125	1.21157	.51385	1.31603	22.983
130	.06924	.05872	.09079	40.300	130	1.34654	.16318	1.35640	6.910
135	.12274	.07424	.14345	31.169	135	1.31240	-.15150	1.32112	353.415
140	.21570	.09784	.23686	24.399	140	1.12719	-.38828	1.19220	340.993
145	.34641	.11612	.36535	18.531	145	.82431	-.52381	.97667	327.566
150	.50499	.11964	.51897	13.328	150	.44599	-.55484	.71186	308.793
155	.67650	.10502	.68460	8.824	155	.03708	-.49616	.49754	274.274
160	.84419	.07499	.84751	5.076	160	-.35979	-.37600	.52041	226.262
165	.94222	.03685	.99290	2.127	165	-.70769	-.22982	.74407	197.901
170	1.10747	.00007	1.10747	.004	170	-.97720	-.09370	.98168	185.477
175	1.18041	-.02631	1.18071	358.723	175	-1.14728	.00168	1.14728	179.915
180	1.20536	-.03587	1.20589	358.296	180	-1.20536	.03587	1.20589	178.296

KA = 3.8

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.54494	1.24164	1.98205	38.788	0	1.54494	1.24164	1.98205	38.788
5	1.55843	1.21312	1.97493	37.898	5	1.56396	1.21652	1.98139	37.877
10	1.59599	1.12721	1.95391	35.233	10	1.61869	1.14029	1.98001	35.163
15	1.64897	.98333	1.91991	30.809	15	1.70197	1.01062	1.97941	34.712
20	1.70339	.78203	1.87433	24.660	20	1.80161	.82471	1.98140	24.597
25	1.74086	.52690	1.81885	16.839	25	1.90021	.58080	1.98699	16.996
30	1.74035	.22692	1.75508	7.429	30	1.97552	.28035	1.99531	8.077
35	1.68108	-.10174	1.68416	356.537	35	2.00166	-.06959	2.00287	358.019
40	1.54644	-.43489	1.60643	344.293	40	1.95160	-.45395	2.00370	346.936
45	1.32842	-.74148	1.52135	330.831	45	1.80111	-.84822	1.99085	334.782
50	1.03164	-.98707	1.42779	316.265	50	1.53385	-1.21844	1.95890	321.537
55	.67559	.1.13964	1.32484	300.660	55	1.14685	-1.52363	1.90712	316.969
60	.29378	-1.17664	1.21276	284.019	60	.65517	-1.72094	1.84143	290.842
65	-.07097	-1.09161	1.09392	266.280	65	.09407	-1.77309	1.77558	273.037
70	-.37457	-.89802	.97300	247.359	70	-.48271	-1.65699	1.72587	253.758
75	-.58150	-.62860	.85631	227.229	75	-1.00919	-1.37139	1.70269	233.651
80	-.67345	-.32947	.74972	206.069	80	-1.41749	-.94134	1.70158	213.588
85	-.65409	-.05015	.65601	184.384	85	-1.65038	-.41741	1.70234	194.193
90	-.54797	.16786	.57311	162.968	90	-1.67322	.13100	1.67834	175.523
95	-.39360	.30033	.49509	142.655	95	-1.48215	.62742	1.60948	157.056
100	-.23272	.34454	.41577	124.038	100	-1.10617	1.00252	1.49287	137.814
105	-.09935	.31731	.33250	107.386	105	-.60241	1.20751	1.34944	116.514
110	-.01188	.24773	.24801	92.745	110	-.04564	1.22325	1.22411	92.137
115	.02948	.16733	.16991	80.008	115	.48529	1.06297	1.16851	65.461
120	.03970	.10116	.10867	68.574	120	.92090	.76817	1.19923	39.823
125	.04211	.06222	.07513	55.910	125	.21136	.39914	1.27542	18.237
130	.06042	.05053	.07876	39.910	130	1.33189	.02246	1.33208	.966
135	.11206	.05621	.12536	26.638	135	1.28298	-.30130	1.31708	346.784
140	.20455	.06473	.21455	17.560	140	1.08633	-.52748	1.20762	334.111
145	.33512	.06252	.34090	10.568	145	.77828	-.63308	1.00325	320.874
150	.49285	.04110	.49456	4.767	150	.40252	-.61813	.73764	303.072
155	.66216	-.00103	.66215	359.911	155	.00358	-.50298	.50299	273.408
160	.82629	-.05862	.82837	355.942	160	-.37795	-.32278	.49702	223.498
165	.96997	-.12169	.97758	352.849	165	-.70833	-.12030	.71847	189.639
170	1.08104	-.17827	1.09564	350.636	170	-.96182	.06159	.96379	176.306
175	1.15097	-.21737	1.17131	349.305	175	-1.12073	.18678	1.13619	170.538
180	1.17481	-.23131	1.19736	348.862	180	-1.17461	.23131	1.19736	168.802

KA = 3.9

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.42617	1.41433	2.00855	44.761	0	1.42617	1.41433	2.00855	44.761
5	1.44252	1.38640	2.00074	43.864	5	1.44686	1.38961	2.00609	43.844
10	1.48863	1.30192	1.97763	41.172	10	1.50678	1.31433	1.99946	41.097
15	1.55565	1.15935	1.94014	36.695	15	1.59929	1.18545	1.99073	36.547
20	1.62914	.95771	1.88979	30.450	20	1.71281	.99903	1.98287	32.254
25	1.68975	.69890	1.82859	22.470	25	1.83038	.75188	1.97879	22.332
30	1.71490	.39618	1.75873	12.818	30	1.92964	.44392	1.98005	12.956
35	1.68161	.04657	1.68225	1.586	35	1.98378	.08090	1.98543	2.335
40	1.57058	-.30798	1.60050	348.905	40	1.96383	-.32290	1.99020	350.663
45	1.37110	-.64138	1.51370	334.930	45	1.84272	-.74270	1.98676	338.048
50	1.08559	-.91688	1.42098	319.816	50	1.60070	-1.14297	1.96689	324.471
55	.73255	-1.09913	1.32088	303.683	55	1.23155	-1.47984	1.92527	309.768
60	.34605	-1.16197	1.21240	286.584	60	.74797	-1.70647	1.86319	293.669
65	-.02891	-1.09590	1.09628	268.489	65	.18449	-1.78126	1.79078	275.913
70	-.34496	-.91279	.97580	249.298	70	-.40379	-1.67751	1.72542	256.466
75	-.56307	-.64569	.85672	228.910	75	-.94768	-1.39219	1.68413	235.756
80	-.66231	-.34279	.74576	207.364	80	-1.37492	-.95123	1.67190	214.677
85	-.64534	-.05570	.64783	185.021	85	-1.62396	-.40890	1.67464	194.133
90	-.53752	.16797	.56315	162.647	90	-1.65711	.15944	1.66476	174.504
95	-.37949	.30489	.48679	141.221	95	-1.46967	.67050	1.61539	155.476
100	-.21556	.35072	.41166	121.576	100	-1.09221	1.04902	1.51438	126.156
105	-.08168	.32294	.33311	104.193	105	-.58522	1.24276	1.37366	115.216
110	.00307	.25191	.25193	89.301	110	-.02748	1.23268	1.23299	91.277
115	.03908	.17017	.17460	77.067	115	.49899	1.03571	1.14965	64.276
120	.04275	.10284	.11137	67.428	120	.92338	.69988	1.15864	37.101
125	.03893	.06195	.07316	57.854	125	1.19694	.29327	1.23234	13.767
130	.05225	.04582	.06949	41.246	130	1.29807	-.11006	1.30273	355.154
135	.10020	.04277	.10895	23.114	135	1.23167	-.44395	1.30923	340.179
140	.18957	.03711	.19317	11.076	140	1.02381	-.66095	1.21863	327.155
145	.31650	.01513	.31686	2.737	145	.71407	-.73844	1.52723	314.049
150	.46916	-.03064	.47016	356.262	150	.34735	-.87970	.76331	297.069
155	.63160	-.09971	.63942	351.029	155	-.03289	-.51053	.51159	266.313
160	.78744	-.18429	.80872	346.828	160	-.38923	-.27285	.47534	215.031
165	.92246	-.27170	.96164	343.588	165	-.69246	-.01650	.69266	181.365
170	1.02586	-.34758	1.08315	341.283	170	-.92188	.20916	.94531	167.217
175	1.09052	-.39904	1.16123	339.901	175	-1.06427	.36284	1.12442	161.174
180	1.11248	-.41724	1.10815	339.441	180	-1.11248	.41724	1.10815	159.441

KA = 4.0

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.30020	1.56439	2.03417	50.269	0	1.30020	1.56439	2.03417	50.269
5	1.31929	1.53761	2.02603	49.370	5	1.32220	1.54100	2.03049	49.370
10	1.37360	1.45622	2.00183	46.672	10	1.38627	1.46836	2.02009	46.666
15	1.45422	1.31756	1.96232	42.178	15	1.48644	1.34545	2.00493	42.150
20	1.54637	1.11903	1.90880	35.891	20	1.61196	1.16377	1.90816	35.828
25	1.62997	.86046	1.84315	27.830	25	1.74561	.61913	1.97369	27.755
30	1.60101	.54713	1.76781	18.829	30	1.86824	.60928	1.96508	18.062
35	1.67437	.19249	1.68540	6.558	35	1.94939	.23797	1.96386	6.960
40	1.50806	-.18012	1.59824	353.529	40	1.95938	-.18185	1.96780	354.698
45	1.40846	-.53790	1.50767	339.098	45	1.83841	-.62556	1.97035	341.489
50	1.13561	-.84192	1.41366	323.447	50	1.65329	-1.05630	1.96192	327.425
55	.70572	-1.05351	1.31483	306.751	55	1.30437	-1.42712	1.93341	312.427
60	.39627	-1.14268	1.20944	289.126	60	.83175	-1.68677	1.88069	296.248
65	.01142	-1.08660	1.03666	270.596	65	.26899	-1.78863	1.80874	278.553
70	-.31709	-.92522	.97805	251.082	70	-.32768	-1.70153	1.73281	259.099
75	-.54653	-.66166	.85819	230.444	75	-.88596	-1.41985	1.67359	238.037
80	-.65309	-.35606	.74384	208.599	80	-1.32927	-.96979	1.64544	216.113
85	-.63826	-.06410	.64147	185.735	85	-1.59182	-.40911	1.64355	194.414
90	-.52819	.18648	.55381	162.505	90	-1.63305	.18075	1.64302	173.654
95	-.36576	.30727	.47770	139.967	95	-1.44775	.70925	1.61215	153.900
100	-.19797	.35436	.40591	119.191	100	-1.06846	1.09460	1.52963	134.328
105	-.06285	.32600	.33200	100.913	105	-.55947	1.28058	1.39746	113.500
110	.01974	.25391	.25460	85.554	110	-.60375	1.24782	1.24783	90.172
115	.05077	.17167	.17902	73.523	115	.51359	1.01673	1.13909	63.250
120	.04803	.10441	.11492	65.297	120	.52097	.64173	1.12250	34.869
125	.03776	.06303	.07347	59.073	125	1.17159	.19872	1.18833	9.626
130	.04538	.04399	.06320	44.110	130	1.34815	-.23086	1.26922	349.521
135	.08821	.03371	.09444	20.916	135	1.16096	-.57532	1.29572	333.539
140	.17219	.01529	.17287	5.075	140	.94141	-.78453	1.22545	320.194
145	.29233	-.02510	.29340	355.093	145	.63259	-.83627	1.04858	307.105
150	.43598	-.09385	.44597	347.852	150	.28050	-.73703	.78860	290.836
155	.58713	-.18844	.61663	342.206	155	-.07315	-.51786	.52300	261.960
160	.73016	-.29857	.78885	337.760	160	-.39516	-.22704	.45574	209.880
165	.85234	-.40898	.94538	334.367	165	-.66221	.07900	.66690	173.196
170	.94473	-.50303	1.07031	331.967	170	-.85993	.34496	.92654	158.142
175	1.00194	-.56610	1.15080	330.534	175	-.98072	.52481	1.11231	151.847
180	1.02127	-.58828	1.17859	330.057	180	-1.02127	.58828	1.17859	150.057

KA = 4.1

T1

T2

θ	REAL	IMAGINARY	M. GNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.16341	1.68853	2.05053	55.433	0	1.16341	1.68853	2.05053	55.433
5	1.18516	1.66348	2.04250	54.532	5	1.18663	1.66745	2.04657	54.563
10	1.24748	1.58687	2.01851	51.828	10	1.25461	1.60231	2.03506	51.939
15	1.34151	1.45487	1.97897	47.322	15	1.36206	1.48786	2.01716	47.527
20	1.45230	1.26303	1.92469	41.013	20	1.49915	1.31658	1.99521	41.290
25	1.55916	1.00891	1.85712	32.906	25	1.65045	1.08076	1.97282	33.218
30	1.63680	.69543	1.77841	23.019	30	1.79415	.77528	1.95449	23.370
35	1.65802	.33408	1.69135	11.392	35	1.90226	.40124	1.94412	11.911
40	1.59805	-.05281	1.59892	358.107	40	1.94251	-.03039	1.94275	359.144
45	1.44020	-.43205	1.50361	343.301	45	1.88238	-.49571	1.94655	345.247
50	1.18184	-.76276	1.40661	327.162	50	1.69525	-.95674	1.94659	330.561
55	.83863	-1.00295	1.30737	309.901	55	1.36793	-1.36347	1.93139	315.093
60	.44523	-1.11863	1.20398	291.703	60	.90779	-1.65982	1.89185	298.675
65	.05087	-1.09334	1.09453	272.664	65	.34737	-1.79344	1.82677	280.962
70	-.29017	-.93482	.97882	252.755	70	-.25599	-1.72782	1.74668	261.573
75	-.53125	-.67596	.85974	231.835	75	-.82679	-1.45387	1.67252	240.374
80	-.64543	-.36871	.74332	209.738	80	-1.28406	-.99736	1.62590	217.838
85	-.63282	-.07185	.63689	186.478	85	-1.55769	-.41920	1.61311	195.062
90	-.52028	.16378	.54545	162.526	90	-1.60444	.19308	1.61602	173.138
95	-.35298	.30768	.46826	138.923	95	-1.41893	.74134	1.60092	152.415
100	-.18073	.35545	.39876	116.951	100	-1.03626	1.13676	1.53820	132.352
105	-.04372	.32626	.32918	97.633	105	-.52507	1.31864	1.41934	111.712
110	.03733	.25331	.25605	81.616	110	.02702	1.26686	1.26715	88.778
115	.06393	.17125	.18280	69.528	115	.53174	1.00502	1.13702	62.118
120	.05519	.10519	.11879	62.314	120	.91712	.59378	1.09256	32.920
125	.03865	.06476	.07541	59.170	125	1.13915	.11662	1.14511	5.845
130	.04028	.04442	.05997	47.797	130	1.18588	-.33779	1.23305	344.101
135	.07707	.02862	.08221	20.370	135	1.07425	-.69253	1.27813	327.192
140	.15387	-.00082	.15387	359.696	140	.84169	-.89500	1.22861	313.242
145	.26452	-.05777	.27075	347.680	145	.53543	-.92350	1.06756	300.112
150	.39566	-.14751	.42227	339.553	150	.20247	-.78786	.81346	284.413
155	.53147	-.26552	.59411	333.454	155	-.11778	-.52385	.53693	257.328
160	.65751	-.39904	.76913	328.747	160	-.39738	-.18565	.43861	205.041
165	.76298	-.53041	.92923	325.194	165	-.62009	.16446	.64153	165.146
170	.84122	-.64094	1.05757	322.696	170	-.77916	.46597	.90786	149.119
175	.88895	-.71450	1.14050	321.209	175	-.87369	.66885	1.10032	142.564
180	.90495	-.74028	1.16917	320.716	180	-.90495	.74028	1.16917	140.716

KA = 4.2

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.01224	1.78620	2.05308	60.460	0	1.01224	1.78620	2.05308	60.460
5	1.03663	1.76342	2.04555	59.551	5	1.03686	1.76831	2.04988	59.615
10	1.10695	1.69320	2.02293	56.825	10	1.10929	1.71225	2.04018	57.063
15	1.21445	1.57045	1.98524	52.285	15	1.22482	1.61132	2.02399	52.760
20	1.34418	1.38873	1.93272	45.934	20	1.37443	1.45570	2.00203	46.645
25	1.47498	1.14313	1.86610	37.776	25	1.54339	1.23466	1.97647	38.659
30	1.58040	.83389	1.78690	27.818	30	1.71016	.93971	1.95133	28.788
35	1.63118	.47017	1.69759	16.079	35	1.84616	.56863	1.93175	17.119
40	1.59968	.07289	1.60134	2.609	40	1.91750	.12977	1.92188	3.872
45	1.46597	-.32474	1.50151	347.509	45	1.88893	-.35421	1.92185	349.379
50	1.22440	-.68011	1.40061	330.949	50	1.73038	-.84461	1.92551	333.983
55	.88877	-.94793	1.29941	313.155	55	1.42508	-1.28842	1.92117	317.883
60	.49367	-1.09009	1.19666	294.364	60	.97770	-1.62448	1.89600	301.042
65	.09033	-1.08621	1.08996	274.754	65	.41980	-1.79412	1.84258	283.170
70	-.26337	-.94147	.97761	254.372	70	-.18998	-1.75467	1.76492	263.821
75	-.51658	-.68832	.86061	233.112	75	-.77267	-1.49271	1.68083	242.632
80	-.63893	-.38041	.74360	210.769	80	-1.24262	-1.03287	1.61584	219.734
85	-.62893	-.07953	.63394	187.207	85	-1.52528	-.43876	1.58713	196.048
90	-.51401	.16030	.53843	162.680	90	-1.57477	.19607	1.58693	172.903
95	-.34165	.30649	.45898	138.105	95	-1.38599	.76565	1.58341	151.083
100	-.16452	.35426	.39060	114.911	100	-.99723	1.17378	1.54021	130.351
105	-.02510	.32383	.32480	94.433	105	-.48231	1.35485	1.43814	109.595
110	.05503	.25003	.25601	77.588	110	.06591	1.28767	1.28936	87.070
115	.07787	.16864	.18576	65.214	115	.55573	.99881	1.14300	60.909
120	.06381	.10471	.12262	58.644	120	.91503	.55491	1.07014	31.234
125	.04152	.06654	.07843	58.035	125	1.10332	.04681	1.10431	2.429
130	.03733	.04645	.05959	51.208	130	1.11506	-.43002	1.19511	338.911
135	.06760	.02684	.07273	21.652	135	.97493	-.79386	1.25726	320.845
140	.13592	-.01169	.13642	355.085	140	.72742	-.99010	1.22860	306.305
145	.23485	-.08304	.24910	340.527	145	.42442	-.99795	1.08445	293.040
150	.35045	-.19133	.39928	331.367	150	.11401	-.83012	.83792	277.820
155	.46733	-.33007	.57214	324.767	155	-.15724	-.52722	.55310	252.451
160	.57260	-.48421	.74988	319.781	160	-.39745	-.14847	.42427	200.483
165	.65783	-.63393	.91357	316.060	165	-.56865	.23891	.61680	157.211
170	.71907	-.75877	1.04537	313.461	170	-.68288	.57019	.88964	140.139
175	.75546	-.84138	1.13077	311.920	175	-.74699	.79222	1.08885	133.317
180	.76748	-.87025	1.16033	311.409	180	-.76748	.87025	1.16033	131.409

KA = 4.3

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.84434	1.85917	2.04192	65.575	0	.84434	1.85917	2.04192	65.575
5	.87139	1.83912	2.03511	64.648	5	.87075	1.84511	2.04025	64.736
10	.94977	1.77664	2.01458	61.871	10	.94869	1.80003	2.03473	62.209
15	1.07096	1.66537	1.98000	57.256	15	1.07393	1.71571	2.02410	57.956
20	1.22011	1.49680	1.93108	50.815	20	1.23801	1.57986	2.00715	51.917
25	1.37576	1.26334	1.86782	42.561	25	1.42671	1.37851	1.98388	44.016
30	1.51039	.96233	1.79091	32.503	30	1.61848	1.09943	1.95658	34.188
35	1.59274	.60027	1.70210	20.650	35	1.78404	.73659	1.93012	22.435
40	1.59222	.19628	1.60427	7.027	40	1.88774	.29518	1.91067	8.887
45	1.48539	-.21678	1.50112	351.697	45	1.89154	-.20395	1.90250	353.846
50	1.26327	-.59476	1.39628	334.789	50	1.76184	-.72186	1.90399	337.720
55	.93744	-.88917	1.29206	316.514	55	1.47834	-1.20276	1.90581	320.869
60	.54214	-1.05764	1.18850	297.139	60	1.04304	-1.58034	1.89352	303.425
65	.13048	-1.07562	1.08350	276.917	65	.48671	-1.78923	1.85425	285.216
70	-.23597	-.94540	.97441	255.986	70	-.13038	-1.77995	1.78472	265.811
75	-.50190	-.69878	.86035	234.312	75	-.72540	-1.53395	1.69682	244.691
80	-.63318	-.39095	.74415	211.693	80	-1.20757	-1.07405	1.61612	221.651
85	-.62642	-.08678	.63240	187.888	85	-1.49762	-.46608	1.56847	197.287
90	-.50948	.15650	.53297	162.924	90	-1.54706	.19056	1.55875	172.978
95	-.33210	.30422	.45038	137.509	95	-1.35146	.78201	1.56140	149.944
100	-.14990	.35126	.38191	113.111	100	-.95307	1.20447	1.53594	128.354
105	-.00766	.31906	.31915	91.376	105	-.43178	1.38720	1.45285	107.289
110	.07214	.24423	.25466	73.544	110	.11351	1.30780	1.31272	85.039
115	.09198	.16378	.18784	60.680	115	.58724	.99562	1.15591	59.467
120	.07346	.10269	.12626	54.421	120	.91727	.52312	1.05595	29.696
125	.04623	.06782	.08208	55.717	125	1.06722	-.01190	1.06728	359.361
130	.03674	.04934	.06151	53.327	130	1.03901	-.50771	1.15642	333.958
135	.06042	.02757	.06641	24.525	135	.86619	-.87844	1.23367	314.598
140	.11937	-.01808	.12073	351.389	140	.60130	-1.06814	1.22576	299.377
145	.20482	-.10145	.22857	333.650	145	.30149	-1.05728	1.09942	285.916
150	.30229	-.22548	.57712	323.280	150	.01602	-.86178	.86193	271.065
155	.39709	-.38179	.55085	316.125	155	-.22168	-.52646	.57122	247.165
160	.47824	-.55323	.73129	310.842	160	-.39665	-.11486	.41294	196.150
165	.54011	-.71813	.89857	306.947	165	-.51018	.30195	.59284	149.381
170	.58180	-.85465	1.03389	304.245	170	-.57420	.65628	.87201	131.184
175	.60520	-.94457	1.12182	302.648	175	-.60422	.89291	1.07813	124.086
180	.61266	-.97593	1.15230	302.119	180	-.61266	.97593	1.15230	122.119

KA = 4.4

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.65933	1.91072	2.02128	70.962	0	.65933	1.91072	2.02128	70.962
5	.68904	1.89375	2.01520	70.006	5	.68796	1.90081	2.02148	70.103
10	.77551	1.84005	1.99680	67.146	10	.77268	1.86770	2.02122	67.525
15	.91054	1.74200	1.96562	62.404	15	.90953	1.80172	2.01827	63.215
20	1.07955	1.58898	1.92101	55.808	20	1.09042	1.68819	2.00973	57.141
25	1.26090	1.37065	1.86241	47.388	25	1.30129	1.50991	1.99328	49.244
30	1.42618	1.08125	1.78972	37.168	30	1.52042	1.25077	1.96878	39.442
35	1.54213	.72434	1.70377	25.159	35	1.71756	.90072	1.93941	27.673
40	1.57515	.31689	1.60671	11.375	40	1.85514	.46131	1.91164	13.964
45	1.49808	-.10888	1.50203	355.843	45	1.89224	-.04898	1.89288	358.517
50	1.29829	-.50758	1.39398	338.647	50	1.79167	-.59148	1.88677	341.731
55	.98470	-.82756	1.28628	319.956	55	1.52951	-1.10808	1.88871	324.078
60	.59091	-1.02211	1.18063	300.034	60	1.10519	-1.52749	1.88539	305.887
65	.17173	-1.06222	1.07601	279.183	65	.54888	-1.77747	1.86029	287.161
70	-.20750	-.94706	.96953	257.642	70	-.07718	-1.80127	1.80292	267.547
75	-.48677	-.70751	.85878	235.472	75	-.68576	-1.57462	1.71747	246.467
80	-.62782	-.40025	.74455	212.519	80	-1.18041	-1.11789	1.62574	223.442
85	-.62508	-.09327	.63200	188.487	85	-1.47673	-.49862	1.55864	198.657
90	-.50666	.15291	.52923	163.206	90	-1.52356	.17816	1.53394	173.330
95	-.32451	.30148	.44294	137.107	95	-1.31747	.79085	1.53661	149.025
100	-.13720	.34707	.37320	111.569	100	-.90547	1.22800	1.52573	126.403
105	.00814	.31247	.31258	88.507	105	-.37443	1.41377	1.46252	104.834
110	.08813	.23624	.25215	69.542	110	.16974	1.32457	1.33540	82.698
115	.10575	.15673	.18907	55.993	115	.62712	.99255	1.17407	57.714
120	.08373	.09887	.12956	49.742	120	.92550	.49580	1.04994	28.179
125	.05257	.06809	.08602	52.330	125	1.03320	-.06133	1.03501	356.603
130	.03854	.05233	.06499	53.632	130	.96050	-.57156	1.11769	329.245
135	.05588	.02990	.06337	28.150	135	.75090	-.94580	1.20764	308.447
140	.10496	-.02089	.10702	348.746	140	.46596	-1.12767	1.22015	292.451
145	.17557	-.11374	.20919	327.564	145	.16870	-1.09954	1.11240	278.723
150	.25278	-.25038	.35579	315.273	150	-.09024	-.88073	.88534	264.150
155	.32283	-.42062	.53022	307.506	155	-.28089	-.51980	.59091	241.617
160	.37701	-.60551	.71328	301.908	160	-.39589	-.08396	.40469	191.974
165	.41282	-.78190	.88419	297.832	165	-.44667	.35347	.56961	141.044
170	.43277	-.92705	1.02308	295.024	170	-.45601	.72318	.85494	102.234
175	.44176	-1.02224	1.11361	293.371	175	-.44888	.96920	1.06810	114.851
180	.44418	-1.05537	1.14503	292.825	180	-.44418	1.05537	1.14503	112.825

KA = 4.5

T2

T1

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.45904	1.94471	1.99815	76.719	0	.45904	1.94471	1.99815	76.719
5	.49135	1.93103	1.99256	75.724	5	.49025	1.93892	1.99994	75.810
10	.58579	1.88682	1.97566	72.752	10	.58277	1.91780	2.00439	73.097
15	.73457	1.80318	1.94706	67.835	15	.73279	1.87044	2.00886	68.606
20	.92352	1.66744	1.90611	61.020	20	.93241	1.78008	2.00950	62.354
25	1.13106	1.45651	1.85202	52.358	25	1.16758	1.62656	2.00224	54.328
30	1.32803	1.19140	1.78413	41.896	30	1.41616	1.39008	1.98439	44.468
35	1.47930	.84252	1.70240	29.663	35	1.64680	1.05645	1.95654	32.681
40	1.54821	.43439	1.60800	15.673	40	1.81990	.62333	1.92368	18.907
45	1.50370	-.00171	1.50370	359.935	45	1.89146	.10631	1.89444	3.217
50	1.32910	-.41941	1.39371	342.486	50	1.82056	-.45688	1.87702	345.912
55	1.03032	-.76402	1.28269	323.442	55	1.57960	-1.00638	1.87295	327.498
60	.63990	-.98435	1.17406	303.027	60	1.16535	-1.46633	1.87361	308.476
65	.21418	-1.04675	1.06844	281.564	65	.60749	-1.75771	1.85973	289.066
70	-.17772	-.94697	.96350	259.371	70	-.02943	-1.81631	1.81655	269.072
75	-.47085	-.71477	.85592	236.626	75	-.65329	-1.61165	1.73903	247.935
80	-.62251	-.40830	.74446	213.261	80	-1.16134	-1.16113	1.64223	224.995
85	-.62461	-.09872	.63236	188.981	85	-1.46350	-.53355	1.55772	200.030
90	-.50534	.15002	.52714	163.465	90	-1.50571	.16085	1.51428	173.902
95	-.31879	.29890	.43700	136.844	95	-1.28582	.79290	1.51063	148.340
100	-.12651	.34234	.36496	110.281	100	-.85623	1.24376	1.50999	124.544
105	.02206	.30463	.30542	85.859	105	-.31181	1.43273	1.46627	102.278
110	.10263	.22645	.24862	65.619	110	.23364	1.33528	1.35557	80.075
115	.11872	.14763	.18945	51.194	115	.67518	.98655	1.19547	55.613
120	.09418	.09310	.13243	44.671	120	.94044	.47014	1.05141	26.561
125	.06017	.06686	.08995	48.012	125	1.00283	-.10353	1.00816	354.106
130	.04256	.05468	.06929	52.106	130	.88182	-.62253	1.07942	324.779
135	.05407	.03291	.06330	31.330	135	.63180	-.99571	1.17925	302.396
140	.09313	-.02106	.09548	347.255	140	.32423	-1.16740	1.21159	285.522
145	.14796	-.12071	.19095	320.793	145	.02858	-1.12276	1.12312	271.458
150	.20328	-.26650	.33517	307.335	150	-.20298	-.88484	.90782	257.080
155	.24647	-.44660	.51010	298.894	155	-.34418	-.50571	.61172	235.762
160	.27139	-.64056	.69568	292.961	160	-.39572	-.05474	.39949	187.876
165	.27900	-.82426	.87020	288.700	165	-.37995	.39351	.54700	133.995
170	.27548	-.97452	1.01271	285.785	170	-.33120	.76999	.83820	113.274
175	.26894	-1.07267	1.10587	284.075	175	-.28460	1.01952	1.05850	105.597
180	.26593	-1.10675	1.13825	283.511	180	-.26593	1.10675	1.13825	103.511

KA = 4.6

----- T1 -----					----- T2 -----				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.24742	1.96455	1.98006	82.822	0	.24742	1.96455	1.98006	82.822
5	.28216	1.95428	1.97455	81.784	5	.28133	1.96258	1.98264	81.842
10	.38414	1.91993	1.95798	78.680	10	.38202	1.95265	1.98967	78.930
15	.54610	1.85142	1.93028	73.566	15	.54584	1.92296	1.99893	74.153
20	.75450	1.73413	1.89116	66.487	20	.76503	1.85515	2.00670	67.590
25	.98805	1.55222	1.84001	57.522	25	1.02554	1.72661	2.00821	59.291
30	1.21707	1.29347	1.77604	46.743	30	1.30481	1.51422	1.99885	49.248
35	1.40474	.95494	1.69859	34.208	35	1.57039	1.19981	1.97628	37.381
40	1.51138	.54851	1.60783	19.947	40	1.78052	.77695	1.94265	23.575
45	1.50185	.10414	1.50545	3.966	45	1.88803	.25787	1.90556	7.777
50	1.35517	-.33102	1.39501	346.273	50	1.84803	-.32132	1.87576	350.137
55	1.07375	-.69936	1.28143	326.923	55	1.62893	-.89973	1.86089	331.086
60	.68871	-.94515	1.16946	306.080	60	1.22462	-1.39754	1.81817	311.227
65	.25762	-1.02990	1.06163	284.044	65	.66419	-1.72926	1.85243	291.011
70	-.14661	-.94564	.95694	261.187	70	.01469	-1.82319	1.82325	270.462
75	-.45394	-.72087	.85189	237.801	75	-.62638	-1.64239	1.75779	249.124
80	-.61690	-.41515	.74358	213.939	80	-1.14933	-1.20082	1.66220	226.255
85	-.62463	-.10292	.63305	189.357	85	-1.45774	-.56811	1.56453	201.292
90	-.50516	.14825	.52646	163.644	90	-1.49426	.14067	1.50086	174.622
95	-.31469	.29703	.43273	136.653	95	-1.25802	.78916	1.48505	147.900
100	-.11770	.33766	.35759	109.217	100	-.80738	1.25153	1.48936	122.827
105	.03402	.29608	.29803	83.445	105	-.24606	1.44267	1.46350	99.679
110	.11539	.21526	.24424	61.808	110	.30337	1.33762	1.37159	77.222
115	.13051	.13666	.18896	46.319	115	.73028	.97482	1.21803	53.162
120	.10432	.08528	.13474	39.264	120	.96192	.44342	1.05920	24.749
125	.06856	.06373	.09361	42.911	125	.97706	-.14063	.98713	351.810
130	.04841	.05571	.07380	49.011	130	.80498	-.66177	1.04208	320.576
135	.05483	.03576	.06546	33.116	135	.51175	-1.02819	1.14851	296.461
140	.08404	-.01951	.08628	346.930	140	.17940	-1.18633	1.19982	278.599
145	.12264	-.12315	.17380	314.883	145	-.11572	-1.12520	1.13120	264.129
150	.15503	-.27437	.31514	299.468	150	-.31974	-.87219	.92895	249.867
155	.16995	-.45988	.49028	290.282	155	-.41022	-.48230	.63317	229.617
160	.16405	-.65809	.67823	283.998	160	-.39634	-.02620	.39721	183.782
165	.14200	-.84444	.85629	279.546	165	-.31178	.42224	.52488	126.442
170	.11386	-.99593	1.00242	276.522	170	-.20294	.79604	.82151	104.302
175	.09105	-1.09446	1.09824	274.755	175	-.11549	1.04261	1.04898	96.321
180	.08235	-1.12859	1.13159	274.173	180	-.08235	1.12859	1.13159	94.173

KA = 4.7

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.02995	1.97238	1.97261	89.130	0	.C2995	1.97238	1.97261	89.130
5	.06685	1.96558	1.96671	88.552	5	.C6636	1.97376	1.97488	88.074
10	.17555	1.94125	1.94917	84.833	10	.17468	1.97372	1.98143	84.942
15	.34952	1.88827	1.92035	79.513	15	.35152	1.95999	1.99127	79.832
20	.57609	1.79017	1.88058	72.162	20	.58950	1.91321	2.00197	72.875
25	.83455	1.62849	1.82988	62.866	25	.87481	1.80891	2.00934	64.191
30	1.09505	1.38775	1.76776	51.724	30	1.18474	1.62115	2.00792	53.841
35	1.31934	1.06159	1.69341	38.822	35	1.48585	1.32808	1.99288	41.791
40	1.46481	.65895	1.60620	24.221	40	1.73432	.91909	1.96281	27.921
45	1.49218	.20821	1.50663	7.944	45	1.87965	.40264	1.92230	12.091
50	1.37582	-.24296	1.39711	349.985	50	1.87264	-.18743	1.88200	354.284
55	1.11427	-.63416	1.28209	330.354	55	1.67723	-.79006	1.85400	334.777
60	.73671	-.90510	1.16702	309.144	60	1.28395	-1.32210	1.84295	314.161
65	.30165	-1.01218	1.05617	286.595	65	.72095	-1.69208	1.83927	293.078
70	-.11432	-.94351	.95041	263.091	70	.05772	-1.82093	1.82185	271.816
75	-.43593	-.72610	.84691	239.021	75	-.60251	-1.66509	1.77075	250.108
80	-.61069	-.42091	.74169	214.576	80	-1.14239	-1.23476	1.68217	227.225
85	-.62467	-.10581	.63357	189.613	85	-1.45843	-.60003	1.57704	202.363
90	-.50562	.14785	.52679	143.700	90	-1.48935	.11958	1.49415	175.410
95	-.31175	.29628	.43108	136.458	95	-1.23540	.78090	1.46151	147.703
100	-.11048	.33353	.35105	108.328	100	-.76115	1.25162	1.46489	121.305
105	.04411	.28731	.29008	81.272	105	-.17984	1.44289	1.45406	97.105
110	.12624	.20309	.23913	58.136	110	.37632	1.32997	1.38219	74.201
115	.14070	.12406	.18759	41.403	115	.79042	.95518	1.23981	50.392
120	.11360	.07542	.13636	33.582	120	.98900	.41330	1.07188	22.680
125	.07710	.05848	.09677	37.177	125	.95631	-.17468	.97213	349.649
130	.05553	.05493	.07811	44.692	130	.73182	- .69068	1.00629	316.656
135	.05778	.03774	.06902	33.151	135	.39376	-1.04376	1.11557	290.669
140	.07769	-.01705	.07954	347.623	140	.03518	-1.18414	1.18467	271.702
145	.10014	-.12187	.15773	309.408	145	-.26041	-1.10605	1.13630	256.751
150	.10926	-.27467	.29560	291.691	150	-.43739	-.84146	.94835	242.535
155	.09529	-.46086	.47061	281.682	155	-.47722	-.44835	.65479	223.213
160	.05788	-.65819	.66073	275.025	160	-.39767	.00261	.39768	179.624
165	.00554	-.84222	.84223	270.377	165	-.24397	.44005	.50316	119.004
170	-.04771	-.99079	.99194	267.243	170	-.07469	.80118	.80465	95.326
175	-.08707	-1.08692	1.09041	265.420	175	.05386	1.03787	1.03926	87.029
180	-.10155	-1.12014	1.12474	264.820	180	.10155	1.12014	1.12474	84.820

KA = 4.8

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.18724	1.96861	1.97750	95.433	0	-.18724	1.96861	1.97750	95.433
5	-.14862	1.96528	1.97089	94.325	5	-.14888	1.97283	1.97844	94.316
10	-.03440	1.95107	1.95137	91.010	10	-.03452	1.98133	1.98163	90.998
15	.14976	1.91390	1.91975	85.526	15	.15306	1.98175	1.98765	85.584
20	.39236	1.83561	1.87707	77.935	20	.40725	1.95426	1.99624	78.228
25	.67370	1.69522	1.82418	68.327	25	.71506	1.87315	2.00499	69.106
30	.96411	1.47405	1.76134	56.813	30	1.05408	1.71022	2.00897	58.353
35	1.22425	1.16219	1.68804	43.510	35	1.39034	1.44021	2.00181	46.009
40	1.40883	.76540	1.60332	28.515	40	1.67812	1.04834	1.97866	31.993
45	1.47438	.31021	1.50666	11.882	45	1.86346	.53896	1.93983	16.131
50	1.39039	-.15552	1.39906	353.618	50	1.89245	-.05702	1.89331	358.274
55	1.15103	-.56872	1.28387	333.706	55	1.72387	-.67903	1.85279	338.501
60	.78313	-.86449	1.16646	312.173	60	1.34411	-1.24136	1.82965	317.276
65	.34572	-.99392	1.05233	289.180	65	.77975	-1.64701	1.82226	295.334
70	-.08112	-.94090	.94439	265.072	70	.10242	-1.80971	1.81261	273.239
75	-.41679	-.73077	.84127	240.302	75	-.57871	-1.67922	1.77614	250.985
80	-.60359	-.42581	.73867	215.201	80	-1.13802	-1.26179	1.69918	227.952
85	-.62428	-.10747	.63346	189.768	85	-1.46403	-.62768	1.59291	203.206
90	-.50617	.14887	.52761	163.611	90	-1.49072	.09936	1.49403	176.187
95	-.30945	.29683	.42880	136.193	95	-1.21899	.76973	1.40167	147.730
100	-.10447	.33026	.34639	107.554	100	-.71969	1.24514	1.43817	120.028
105	.05250	.27873	.28363	79.333	105	-.11603	1.43370	1.43838	94.627
110	.13510	.19035	.23342	54.636	110	.44952	1.31179	1.38667	71.085
115	.14898	.11020	.18531	36.490	115	.85310	.92629	1.25929	47.355
120	.12146	.06375	.13718	27.692	120	1.02025	.37791	1.08799	20.325
125	.08513	.05108	.09928	30.963	125	.94058	-.20767	.96324	347.549
130	.06324	.05207	.08192	39.470	130	.66389	-.71103	.97278	313.037
135	.06242	.03832	.07324	31.546	135	.28079	-1.04370	1.08082	285.058
140	.07392	-.01440	.07531	348.974	140	-.10455	-1.16146	1.16615	264.856
145	.08082	-.11772	.14280	304.471	145	-.40141	-1.06513	1.13826	249.350
150	.06707	-.26827	.27652	284.036	150	-.55243	-.79216	.96576	235.109
155	.02449	-.45038	.45105	273.112	155	-.54297	-.40308	.67624	214.589
160	-.04418	-.64158	.64310	266.061	160	-.39939	.03252	.40071	175.345
165	-.12653	-.81818	.82791	261.209	165	-.17822	.44768	.48185	111.707
170	-.20460	-.95956	.98113	257.964	170	.05000	.78597	.78756	86.360
175	-.26030	-1.05047	1.08224	256.083	175	.21861	1.00572	1.02921	77.736
180	-.28047	-1.08177	1.11754	255.465	180	.26047	1.08177	1.11754	75.465

KA = 4.9

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.39838	1.95185	1.99209	101.536	0	-.39838	1.95185	1.99209	101.536
5	-.35858	1.95202	1.98468	100.409	5	-.35894	1.95855	1.99117	100.385
10	-.24042	1.94807	1.96285	97.036	10	-.24100	1.97461	1.98927	96.958
15	-.04846	1.92709	1.92770	91.441	15	-.04632	1.98788	1.98842	91.335
20	.20730	1.86935	1.88081	83.672	20	.21993	1.97846	1.99065	83.657
25	.50858	1.75149	1.82383	73.808	25	.54628	1.91991	1.99611	74.117
30	.82639	1.55162	1.75796	61.960	30	.91143	1.78216	2.00170	62.914
35	1.12073	1.25618	1.60346	48.261	35	1.28144	1.53681	2.00077	50.178
40	1.34389	.86753	1.59958	32.844	40	1.60902	1.16495	1.98545	35.905
45	1.44828	.40997	1.50519	15.805	45	1.83671	.66653	1.95371	19.945
50	1.39828	-.06873	1.39997	357.186	50	1.90541	.06905	1.90665	2.075
55	1.18331	-.50301	1.28578	336.970	55	1.76792	-.56805	1.85694	342.187
60	.82725	-.82332	1.16713	315.136	60	1.40546	-1.15702	1.82045	320.538
65	.38926	-.97521	1.05003	291.760	65	.84214	-1.52572	1.80431	297.823
70	-.04732	-.93801	.93922	267.112	70	.15122	-1.79087	1.79724	274.827
75	-.39656	-.73515	.83529	241.656	75	-.55221	-1.68549	1.77365	251.860
80	-.59536	-.43016	.73452	215.848	80	-1.13367	-1.28178	1.71119	228.509
85	-.62304	-.10820	.63237	189.852	85	-1.47274	-.65010	1.60984	203.818
90	-.50630	.15114	.52838	163.379	90	-1.49769	.08165	1.49991	176.880
95	-.30728	.29869	.42853	135.812	95	-1.20939	.75760	1.42709	147.936
100	-.09923	.32802	.34270	106.832	100	-.68474	1.23391	1.41117	119.028
105	.05944	.27066	.27711	77.614	105	-.05717	1.41641	1.41756	92.311
110	.14197	.17747	.22727	51.341	110	.52008	1.28355	1.38491	67.943
115	.15506	.09552	.18214	31.632	115	.91574	.88771	1.27539	44.159
120	.12744	.05064	.13713	21.671	120	1.05393	.33599	1.10619	17.682
125	.09201	.04175	.10104	24.407	125	.92946	-.24150	.96032	345.435
130	.07087	.04710	.08509	33.610	130	.60233	-.72495	.94252	309.721
135	.06817	.03717	.07765	28.603	135	.17541	-1.03006	1.04489	279.664
140	.07244	-.01220	.07347	350.438	140	-.23619	-1.11994	1.14457	258.091
145	.06493	-.11160	.12911	300.190	145	-.53473	-1.00358	1.13715	241.950
150	.02939	-.25627	.25795	276.542	150	-.66132	-.72473	.98111	227.619
155	-.04066	-.42971	.43163	264.594	155	-.60520	-.34633	.69729	209.781
160	-.13940	-.60965	.62539	257.120	160	-.40099	.06423	.40610	170.899
165	-.25056	-.77381	.81337	252.058	165	-.11606	.44624	.46109	104.579
170	-.35240	-.90379	.97006	248.699	170	.16776	.75178	.77027	77.420
175	-.42371	-.98666	1.07379	246.759	175	.37411	.94771	1.01888	68.458
180	-.44932	-1.01507	1.11037	246.123	180	.44932	1.01507	1.11007	66.123

KA = 5.0

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.57897	1.91942	2.01070	107.331	0	-.59897	1.91942	2.01070	107.331
5	-.55862	1.92318	2.00267	106.197	5	-.55952	1.92850	2.00802	106.179
10	-.43833	1.92980	1.97895	102.797	10	-.44099	1.95184	2.00104	102.731
15	-.24134	1.92502	1.94068	97.144	15	-.24370	1.97763	1.99259	97.025
20	.02419	1.88949	1.88964	89.267	20	.02940	1.98613	1.98635	89.152
25	.34184	1.79575	1.82800	79.222	25	.36920	1.95042	1.98505	79.281
30	.68383	1.61932	1.75778	67.106	30	.75640	1.83877	1.98827	67.640
35	1.01009	1.34284	1.68027	53.052	35	1.15786	1.61982	1.99109	54.442
40	1.27055	.96497	1.59545	37.216	40	1.52516	1.27048	1.98500	39.795
45	1.41389	.50744	1.50220	19.743	45	1.79739	.78616	1.96180	23.624
50	1.39915	.01758	1.39926	.720	50	1.90978	.19003	1.91927	5.700
55	1.21053	-.43678	1.28692	340.159	55	1.80828	-.45822	1.86544	345.780
60	.86848	-.78138	1.16825	318.022	60	1.46783	-1.07097	1.81700	323.885
65	.43179	-.95598	1.04897	294.307	65	.90894	-1.54052	1.78868	300.541
70	-.01323	-.93498	.93507	269.189	70	.20573	-1.76664	1.77858	276.642
75	-.37536	-.73953	.82933	243.089	75	-.52091	-1.68559	1.76424	252.627
80	-.58598	-.43435	.72941	216.547	80	-1.12718	-1.29550	1.71723	228.974
85	-.62071	-.10838	.63010	189.905	85	-1.48279	-.66697	1.62589	204.219
90	-.50563	.15434	.52866	163.025	90	-1.50926	.06782	1.51078	177.427
95	-.30480	.30167	.42885	135.295	95	-1.20658	.74663	1.41891	148.251
100	-.09437	.32684	.34019	106.106	100	-.65732	1.22032	1.38609	118.309
105	.06521	.26333	.27129	76.091	105	-.00515	1.39313	1.39314	90.212
110	.14697	.16487	.22087	48.286	110	.58564	1.24662	1.37733	64.837
115	.15890	.08057	.17816	26.887	115	.97595	.63974	1.28750	40.710
120	.13120	.03662	.13621	15.596	120	1.08818	.28672	1.12532	14.761
125	.09725	.03090	.10204	17.629	125	.92209	-.27792	.96307	343.227
130	.07782	.04018	.08758	27.306	130	.54761	-.73485	.91645	306.693
135	.07448	.03414	.08193	24.624	135	.07946	-1.00547	1.00861	274.519
140	.07290	-.01098	.07372	351.436	140	-.35679	-1.06206	1.12039	251.431
145	.05247	-.10441	.11686	296.682	145	-.65696	-.92339	1.13324	234.569
150	-.00316	-.23997	.23999	269.246	150	-.76088	-.64038	.99450	220.085
155	-.09879	-.40048	.41248	256.143	155	-.66168	-.27842	.71787	202.820
160	-.22553	-.56434	.60774	248.217	160	-.40181	.09833	.41366	166.249
165	-.36345	-.71132	.79879	242.935	165	-.05865	.43712	.44103	97.642
170	-.48729	-.82587	.95891	239.458	170	.27575	.70066	.75297	68.517
175	-.57301	-.89103	1.06527	237.459	175	.51633	.86628	1.00848	59.254
180	-.60362	-.92261	1.10252	236.805	180	.60362	.92261	1.10252	56.855

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
0	-.95933	1.79521	2.03546	118.119	-.95933	1.79521	2.03546	118.119	
5	-.91979	1.80668	2.02724	116.981	-.92297	1.80986	2.03161	117.020	
10	-.80081	1.83604	2.00308	113.565	-.81227	1.85009	2.02055	113.704	
15	-.60243	1.86844	1.96316	107.871	-.62334	1.90454	2.00395	108.123	
20	-.32817	1.88016	1.90859	99.901	-.35288	1.95348	1.98509	100.240	
25	.01960	1.84116	1.84119	89.670	-.00277	1.96869	1.96869	90.381	
30	.39005	1.71985	1.76352	77.222	.41425	1.91505	1.95934	77.744	
35	.77122	1.49076	1.67844	62.646	.86905	1.75507	1.95844	63.617	
40	1.10139	1.14419	1.58815	46.092	1.31272	1.45722	1.96131	47.985	
45	1.32151	.69541	1.49331	27.754	1.67806	1.00755	1.95731	30.982	
50	1.37982	.18968	1.39280	7.827	1.88818	.42197	1.93476	12.597	
55	1.24901	-.30131	1.28484	346.437	1.87305	-.24502	1.88901	352.547	
60	.94104	-.69381	1.16916	323.600	1.59171	-.90077	1.82891	330.494	
65	.51245	-.91509	1.04881	299.249	1.05395	1.42812	1.77492	306.427	
70	.05461	-.92838	.92998	273.366	.33286	1.71245	1.74450	281.000	
75	-.33089	-.74912	.81895	246.168	-.44026	1.67620	1.73305	255.284	
80	-.56401	-.44376	.71765	218.195	1.10218	1.30964	1.71171	229.916	
85	-.61259	-.10891	.62220	190.081	1.50057	-.68482	1.64945	204.531	
90	-.50120	.16189	.52670	162.099	1.54053	.05589	1.54154	177.922	
95	-.29782	.30989	.42980	133.862	1.21774	.73621	1.42299	148.844	
100	-.08447	.32729	.33802	104.472	-.62451	1.19621	1.34942	117.568	
105	.07450	.25150	.26231	73.500	.07554	1.33859	1.34072	86.770	
110	.15225	.14197	.20817	43.000	.69583	1.15433	1.34783	58.919	
115	.16007	.05190	.16827	17.965	1.08138	.71934	1.29878	33.632	
120	.13176	.00817	.13202	3.547	1.15080	.16508	1.16258	8.163	
125	.10173	.00664	.10194	3.735	.91316	-.36419	.98311	338.257	
130	.08600	.02168	.09063	13.840	.45707	-.75191	.87993	301.294	
135	.08668	.02237	.08952	14.473	-.08110	-.93489	.93810	265.042	
140	.07771	-.01305	.07880	350.468	-.55758	-.90698	1.06637	238.475	
145	.03691	-.09020	.09746	292.254	-.85797	-.71728	1.11830	219.896	
150	-.05213	-.19966	.20635	255.366	-.92149	-.42818	1.01612	204.922	
155	-.19080	-.32341	.37550	239.461	-.74929	-.11224	.75765	188.518	
160	-.36450	-.44250	.57329	230.520	-.39768	.17517	.43455	156.228	
165	-.54689	-.54249	.77031	224.768	.03947	.40182	.40375	84.393	
170	-.70688	-.61551	.93730	221.047	.45423	.55732	.71899	50.819	
175	-.81606	-.65909	1.04898	218.926	.74860	.64533	.98836	40.763	
180	-.85478	-.67348	1.08822	218.235	.85478	.67348	1.08822	38.235	

KA = 5.4

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.26584	1.57933	2.02401	128.712	0	-1.26584	1.57933	2.02401	128.712
5	-1.22926	1.59932	2.01715	127.546	5	-1.23530	1.60178	2.02279	127.540
10	-1.11789	1.65403	1.99637	124.055	10	-1.14043	1.66532	2.01638	124.404
15	-.92810	1.72772	1.96123	118.244	15	-.97262	1.75802	2.00914	118.953
20	-.65787	1.79454	1.91132	110.133	20	-.72125	1.85888	1.99390	111.206
25	-.31213	1.82026	1.84684	99.732	25	-.57935	1.93704	1.97384	101.081
30	.09086	1.76671	1.76905	87.056	30	.04922	1.95276	1.95338	88.553
35	.51542	1.59957	1.68056	72.140	35	.54207	1.86162	1.93894	73.765
40	.90753	1.29932	1.58488	55.067	40	1.05254	1.62316	1.93455	57.039
45	1.20163	.87292	1.48523	35.996	45	1.50911	1.21378	1.93667	38.610
50	1.33493	.36167	1.38306	15.159	50	1.82335	.64156	1.93292	19.385
55	1.26730	-.16014	1.27738	352.798	55	1.90790	-.04207	1.90837	358.737
60	1.00026	-.59930	1.16606	329.072	60	1.70276	-.74036	1.85675	336.500
65	.58618	-.86943	1.04857	303.988	65	1.20282	-1.32474	1.78933	312.238
70	.12026	-.92057	.52839	277.443	70	.47616	-1.66462	1.73139	285.963
75	-.28567	-.76050	.81239	249.412	75	-.33805	-1.66756	1.70148	258.540
80	-.53965	-.45624	.70667	220.212	80	-1.05756	-1.31613	1.68842	231.218
85	-.60117	-.11202	.61151	190.555	85	-1.50647	-.68596	1.65529	204.462
90	-.49305	.16849	.52104	161.133	90	-1.57081	.06726	1.57225	177.548
95	-.28748	.31910	.42950	132.016	95	-1.23940	.74986	1.44858	148.623
100	-.07273	.33045	.33836	102.413	100	-.61230	1.18942	1.33778	117.239
105	.08301	.24364	.25739	71.185	105	.12825	1.28820	1.29457	84.315
110	.15362	.12369	.19723	38.838	110	.77465	1.05057	1.30529	53.546
115	.15460	.02756	.15704	10.107	115	1.15742	.57487	1.29232	26.413
120	.12410	-.01755	.12533	351.948	120	1.19270	.01471	1.19279	.707
125	.09789	-.01782	.09950	349.682	125	.89926	-.47350	1.01630	332.231
130	.09135	-.00065	.09135	359.593	130	.38289	-.77705	.86626	296.231
135	.09520	.00382	.09527	2.298	135	-.20210	-.85246	.87609	256.662
140	.08398	-.02253	.08695	344.982	140	-.69929	-.72521	1.00744	226.042
145	.03052	-.08032	.08592	290.804	145	-.98992	-.46858	1.09522	205.331
150	-.08112	-.15638	.17617	242.581	150	-1.01693	-.17242	1.03145	189.623
155	-.24898	-.23241	.34059	223.028	155	-.79070	.08653	.79542	173.754
160	-.45370	-.29355	.54038	212.904	160	-.37877	.26392	.46164	145.132
165	-.66433	-.33325	.74323	206.640	165	.11473	.35281	.37100	71.986
170	-.84637	-.35340	.91719	202.663	170	.57421	.37582	.68626	33.205
175	-.96938	-.36082	1.03435	200.416	175	.89693	.36872	.96977	22.347
180	-1.01279	-.36236	1.07566	199.686	180	1.01279	.36236	1.07566	19.686

KA = 5.6

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.52926	1.27793	1.99292	140.116	0	-1.52926	1.27793	1.99292	140.116
5	-1.49702	1.30681	1.98717	138.881	5	-1.50480	1.30991	1.99506	138.961
10	-1.39739	1.38819	1.96971	135.189	10	-1.42695	1.40170	2.00024	135.511
15	-1.22300	1.50592	1.93998	129.081	15	-1.28345	1.54036	2.00498	129.802
20	-.96598	1.63273	1.89708	120.610	20	-1.05767	1.70282	2.00456	121.846
25	-.62422	1.73092	1.84004	109.831	25	-.73451	1.85478	1.99492	111.604
30	-.20889	1.75600	1.76838	96.784	30	-.30869	1.95109	1.97536	98.990
35	.24891	1.66440	1.68291	81.494	35	.20582	1.93959	1.95040	83.943
40	.69561	1.42559	1.58625	63.990	40	.76740	1.77001	1.92920	66.561
45	1.06026	1.03622	1.48253	44.343	45	1.30354	1.40822	1.91894	47.211
50	1.26917	.53130	1.37592	22.718	50	1.71698	.85368	1.91750	26.436
55	1.26848	-.01373	1.26856	359.380	55	1.90422	.15442	1.91047	4.636
60	1.04753	-.49701	1.15945	334.618	60	1.78523	-.58820	1.87964	341.764
65	.65276	-.81750	1.04614	308.607	65	1.33723	-1.23247	1.81856	317.334
70	.18219	-.91015	.92820	281.320	70	.61954	-1.62940	1.74321	290.818
75	-.24219	-.77295	.81000	252.603	75	-.22416	-1.66929	1.68428	262.352
80	-.51579	-.47203	.69918	222.464	80	-.99467	-1.32610	1.65768	233.128
85	-.58899	-.11884	.60386	191.407	85	-1.49306	-.67998	1.64061	204.486
90	-.48278	.17234	.51262	160.355	90	-1.58590	.09642	1.58893	176.521
95	-.27403	.32724	.42683	129.943	95	-1.25421	.78790	1.48115	147.863
100	-.05791	.33450	.33748	99.822	100	-.60476	1.20645	1.34953	116.623
105	.09324	.23870	.25627	68.663	105	.16324	1.25345	1.26403	82.580
110	.15433	.11015	.18961	35.515	110	.82385	.94934	1.25697	49.048
115	.14574	.00898	.14601	3.526	115	1.19680	.41963	1.26824	19.322
120	.11064	-.03798	.11698	341.055	120	1.19971	-.15510	1.20969	352.634
125	.08664	-.03927	.09512	335.615	125	.86343	-.60334	1.05335	325.055
130	.08674	-.02362	.08990	344.765	130	.31029	-.81618	.87317	290.816
135	.09684	-.01921	.09872	348.778	135	-.29200	-.77242	.82577	249.292
140	.08704	-.03893	.09535	335.900	140	-.78191	-.53135	.94536	214.198
145	.02835	-.07715	.08219	290.176	145	-1.04485	-.20064	1.06394	190.870
150	-.09389	-.11644	.14958	231.121	150	-1.03433	.10551	1.03969	174.176
155	-.27442	-.13865	.30746	206.805	155	-.77259	.30332	.83000	158.565
160	-.49049	-.13416	.50850	195.298	160	-.33576	.36062	.49273	132.956
165	-.70903	-.10572	.71689	188.480	165	.16932	.29854	.34321	65.439
170	-.89534	-.06633	.89779	184.237	170	.63003	.17611	.65419	15.617
175	-1.01999	-.03317	1.02053	181.863	175	.94968	.06459	.95188	3.891
180	-1.06376	-.02032	1.06396	181.094	180	1.06376	.02032	1.06396	1.094

KA = 5.8

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.75330	.91954	1.97980	152.325	0	-1.75330	.91954	1.97980	152.325
5	-1.72630	.95659	1.97362	151.008	5	-1.73380	.96027	1.98196	151.020
10	-1.64122	1.06275	1.95526	147.075	10	-1.67034	1.07837	1.98820	147.154
15	-1.48714	1.22243	1.92508	140.580	15	-1.54884	1.26091	1.99720	140.651
20	-1.25042	1.40622	1.88326	131.503	20	-1.34900	1.48429	2.00572	132.266
25	-.92157	1.58041	1.82947	120.247	25	-1.04974	1.71224	2.00841	121.512
30	-.50394	1.68930	1.76286	106.611	30	-.63756	1.89524	1.99960	108.593
35	-.02249	1.68247	1.68262	90.766	35	-.11734	1.97353	1.97702	93.453
40	.47124	1.51760	1.58908	72.750	40	.47686	1.88601	1.94536	75.611
45	.90223	1.17920	1.48476	52.580	45	1.07519	1.58583	1.91595	55.863
50	1.18636	.69266	1.37427	30.315	50	1.57533	1.06092	1.89927	33.959
55	1.25526	.13474	1.26247	6.127	55	1.86027	.35328	1.89352	10.753
60	1.08449	-.38788	1.15176	340.320	60	1.83062	-.43245	1.88101	346.709
65	.71280	-.75841	1.04080	313.224	65	1.44436	-1.14070	1.84048	321.700
70	.23996	-.89514	.92675	285.007	70	.74915	-1.60118	1.76777	295.074
75	-.20133	-.78424	.80980	255.568	75	-.11006	-1.68294	1.68654	266.258
80	-.49447	-.48938	.69570	224.703	80	-.91975	-1.34799	1.63187	235.694
85	-.57836	-.12862	.59249	192.538	85	-1.45977	-.68011	1.61042	204.981
90	-.47234	.17298	.50302	159.887	90	-1.57829	.12932	1.58358	175.316
95	-.25853	.33275	.42138	127.846	95	-1.24948	.83963	1.50538	146.099
100	-.03986	.33718	.33953	96.745	100	-.58723	1.24322	1.37493	115.284
105	.10657	.23438	.25747	65.549	105	.19317	1.23841	1.25338	81.135
110	.15679	.09969	.18580	32.448	110	.85051	.86222	1.21111	45.392
115	.13446	-.00427	.13653	358.207	115	1.19908	.26993	1.22909	12.687
120	.09424	-.05202	.10764	331.102	120	1.16403	-.32765	1.20927	344.279
125	.06985	-.05516	.08931	321.703	125	.79294	-.74160	1.08569	316.916
130	.07440	-.04367	.08627	329.586	130	.22532	-.86601	.89484	284.584
135	.08385	-.04294	.09958	334.458	135	-.36209	-.70273	.79053	242.740
140	.08335	-.05946	.10239	324.497	140	-.81133	-.34611	.88207	233.153
145	.02576	-.06042	.08444	287.764	145	-1.02245	.06064	1.02424	176.606
150	-.09510	-.08383	.12677	221.394	150	-.96831	.37855	1.03967	158.648
155	-.27077	-.05196	.27571	190.867	155	-.68718	.51687	.85987	143.051
160	-.47662	.01889	.47700	177.731	160	-.26157	.45592	.52562	119.844
165	-.68052	.11619	.69037	170.311	165	.20727	.24497	.32089	49.766
170	-.85115	.21552	.87801	165.791	170	.62168	-.02076	.62202	358.087
175	-.96378	.28939	1.00629	163.287	175	.90348	-.23509	.93356	345.415
180	-1.00305	.31665	1.05184	162.480	180	1.00305	-.31664	1.05184	342.480

KA = 6.0

----- T1 -----

T2

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.92365	.53826	1.99754	164.368	0	-1.92365	.53826	1.99754	164.368
5	-1.90300	.58163	1.98990	163.005	5	-1.90891	.58435	1.99635	162.980
10	-1.83586	.70745	1.96746	158.926	10	-1.85954	.71954	1.99390	158.846
15	-1.70796	.90192	1.93147	152.163	15	-1.76067	.93342	1.99280	152.070
20	-1.49997	1.13936	1.88363	142.780	20	-1.58971	1.20542	1.99504	142.828
25	-1.19466	1.38018	1.82540	130.879	25	-1.32081	1.50114	1.99949	131.344
30	-.78665	1.57148	1.75738	116.592	30	-.93292	1.76976	2.00060	117.796
35	-.29318	1.65315	1.67894	100.057	35	-.42133	1.94542	1.99052	112.220
40	.23811	1.57100	1.58894	81.381	40	.18912	1.95540	1.96453	84.476
45	.72972	1.29582	1.49716	60.615	45	.83389	1.73712	1.92690	64.357
50	1.08772	.84267	1.37595	37.766	50	1.40843	1.26228	1.89130	41.868
55	1.22853	.28099	1.26026	12.883	55	1.78431	.56173	1.87065	17.475
60	1.11212	-.27398	1.14538	346.160	60	1.84349	-.26030	1.86178	351.963
65	.76746	-.69210	1.03343	317.956	65	1.52387	-1.03523	1.84224	325.810
70	.29463	-.87391	.92224	288.631	70	.85963	-1.56893	1.78899	298.719
75	-.16403	-.79197	.80878	258.298	75	-.00491	-1.70424	1.70424	269.835
80	-.47595	-.50591	.69460	226.747	80	-.84332	-1.38577	1.62221	238.677
85	-.57033	-.13969	.58719	193.763	85	-1.41525	-.69748	1.57778	206.236
90	-.46336	.17094	.49388	159.751	90	-1.55195	.15080	1.55926	174.450
95	-.24273	.33483	.41356	125.940	95	-1.22285	.89023	1.51257	143.946
100	-.01996	.33658	.33717	93.393	100	-.55134	1.28960	1.40252	113.148
105	.12258	.22814	.25899	61.750	105	.23016	1.24088	1.26204	79.492
110	.16178	.08990	.18508	29.060	110	.86701	.79605	1.17703	42.557
115	.12875	-.01375	.12948	353.904	115	1.17318	.14027	1.18153	6.818
120	.07767	-.05981	.09803	322.402	120	1.08864	-.48466	1.19165	336.002
125	.05042	-.06393	.08142	308.259	125	.68406	-.87160	1.10798	308.126
130	.05645	-.05767	.08069	314.387	130	.11867	-.91718	.92482	277.372
135	.07483	-.06325	.09798	319.793	135	-.42484	-.64541	.77268	236.645
140	.07153	-.08019	.10746	311.734	140	-.80028	-.18399	.82116	192.948
145	.01932	-.08807	.09017	282.375	145	-.93318	.29102	.97750	162.679
150	-.09003	-.06041	.10842	213.859	150	-.82545	.61872	1.03159	143.146
155	-.24470	.01982	.24550	175.369	155	-.53658	.70327	.88459	127.343
160	-.41981	.15047	.44596	160.281	160	-.15411	.53727	.55894	106.005
165	-.58715	.30957	.66377	152.200	165	.23392	.19553	.30488	39.893
170	-.72267	.46235	.85792	147.390	170	.55673	-.19508	.58992	340.689
175	-.80988	.57231	.99169	144.753	175	.76714	-.49852	.91489	326.983
180	-.83987	.61230	1.03937	143.906	180	.83987	-.61230	1.03937	323.906

KA = 6.2

----- T2 -----

----- T1 -----

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-2.01534	.15551	2.02134	175.588	0	-2.01534	.15551	2.02134	175.588
5	-2.00270	.20287	2.01295	174.216	5	-2.00733	.20290	2.01756	174.228
10	-1.95853	.34180	1.98813	170.100	10	-1.97774	.34383	2.00740	170.138
15	-1.86522	.56150	1.94790	163.246	15	-1.91025	.57294	1.99431	163.305
20	-1.69764	.83998	1.89408	153.674	20	-1.77909	.87639	1.98324	153.775
25	-1.43021	1.14015	1.82906	141.439	25	-1.55284	1.22586	1.97839	141.711
30	-1.04759	1.40825	1.75517	126.645	30	-1.20208	1.57311	1.97981	127.385
35	-.55740	1.57818	1.67372	109.453	35	-.71176	1.84869	1.98097	111.057
40	-.00111	1.58435	1.58435	90.040	40	-.09664	1.96868	1.97105	92.810
45	.54320	1.38270	1.48557	68.552	45	.58494	1.85247	1.94263	72.476
50	.97264	.97438	1.37675	45.051	50	1.22706	1.45089	1.90020	49.778
55	1.18772	.42145	1.26027	19.537	55	1.69019	.77781	1.86058	24.711
60	1.13064	-.15774	1.14159	352.058	60	1.83719	-.06822	1.83845	357.873
65	.81793	-.61961	1.02612	322.855	65	1.58493	-.90822	1.82671	330.186
70	.34808	-.84628	.91507	292.357	70	.95332	-1.52318	1.79691	302.041
75	-.12691	-.79503	.80510	260.931	75	.08601	-1.72527	1.72741	272.854
80	-.45902	-.52002	.69362	228.565	80	-.77676	-1.43591	1.63255	241.589
85	-.56482	-.15040	.58450	194.910	85	-1.37356	-.73437	1.55755	208.131
90	-.45692	.16742	.48663	159.877	90	-1.51908	.15307	1.52677	174.246
95	-.22855	.33387	.40460	124.394	95	-1.18064	.92843	1.50197	141.819
100	-.00034	.33207	.33207	90.058	100	-.49531	1.33417	1.42314	110.367
105	.13953	.21850	.25925	57.437	105	.28369	1.25292	1.28463	77.242
110	.16866	.07879	.18616	25.041	110	.88769	.74940	1.16172	40.171
115	.12345	-.02139	.12529	350.172	115	1.13415	.03688	1.13475	1.862
120	.06327	-.06263	.08903	315.289	120	.98494	-.61353	1.16040	328.081
125	.03160	-.06566	.07287	295.701	125	.54131	-.97826	1.11804	298.958
130	.03624	-.06415	.07368	299.459	130	-.01340	-.95739	.95749	269.198
135	.05420	-.07725	.09437	305.053	135	-.49162	-.59596	.77257	230.480
140	.05215	-.09746	.11053	298.150	140	-.76544	-.05112	.76714	183.821
145	.00703	-.09708	.09733	274.139	145	-.79550	.47440	.92622	149.190
150	-.08377	-.04565	.09540	208.588	150	-.62217	.80422	1.01679	127.726
155	-.20472	.07276	.21727	160.434	155	-.33172	.84174	.90475	111.509
160	-.33210	.25047	.41596	142.976	160	-.01647	.59196	.59219	91.594
165	-.44436	.45753	.63780	134.164	165	.25490	.15045	.29599	30.551
170	-.52814	.65111	.83837	129.047	170	.44864	-.33263	.55850	323.446
175	-.57843	.78824	.97771	126.272	175	.55956	-.70077	.89677	308.607
180	-.59503	.83774	1.02755	125.385	180	.59503	-.83774	1.02755	305.385

KA = 6.4

----- T1 -----					----- T2 -----				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-2.01024	-.22425	2.02271	186.365	0	-2.01024	-.22425	2.02271	186.365
5	-2.00751	-.17493	2.01512	184.980	5	-2.01231	-.17809	2.02018	185.057
10	-1.99204	-.02872	1.99225	180.826	10	-2.01202	-.03875	2.01239	181.103
15	-1.94296	.20749	1.95401	173.904	15	-1.98998	.19428	1.99944	174.424
20	-1.82915	.51690	1.90779	164.220	20	-1.91515	.51551	1.98332	164.935
25	-1.61614	.86692	1.83398	151.790	25	-1.74832	.90509	1.96871	152.630
30	-1.27731	1.20516	1.75611	136.665	30	-1.44993	1.32045	1.96109	137.676
35	-.80860	1.46138	1.67016	118.956	35	-.99336	1.69168	1.96177	120.422
40	-.24279	1.55941	1.57820	98.849	40	-.38264	1.92580	1.96345	101.238
45	.34386	1.43965	1.48015	76.566	45	.33031	1.92433	1.95247	80.260
50	.84074	1.08722	1.37437	52.286	50	1.03780	1.61482	1.91955	57.272
55	1.13191	.55385	1.26014	26.073	55	1.58816	.98949	1.87119	31.925
60	1.13957	-.04152	1.14032	357.913	60	1.82352	.13577	1.82856	4.258
65	.86470	-.54299	1.02105	327.873	65	1.63803	-.76124	1.80628	335.074
70	.40169	-.81364	.90740	296.276	70	1.03645	-1.45884	1.78953	305.392
75	-.08864	-.79398	.79891	263.630	75	.16268	-1.73645	1.74405	275.352
80	-.44210	-.52132	.69119	230.237	80	-.72667	-1.48788	1.65584	243.970
85	-.56105	-.15956	.58329	195.875	85	-1.34601	-.78318	1.55728	210.193
90	-.45329	.16405	.48206	160.104	90	-1.49227	.13790	1.49862	174.720
95	-.21727	.33137	.39625	123.252	95	-1.13264	.94923	1.47781	140.035
100	.01708	.32453	.32498	86.988	100	-.42284	1.36656	1.43048	107.193
105	.15547	.20533	.25755	52.867	105	.35757	1.26233	1.31199	74.185
110	.17613	.06522	.18782	20.319	110	.92300	.71269	1.16613	37.673
115	.12049	-.02911	.12395	346.415	115	-.09618	-.04335	1.09703	357.735
120	.05237	-.06264	.08165	309.900	120	.86685	-.70940	1.12012	320.704
125	.01601	-.06199	.06403	284.480	125	.37429	-1.05029	1.11499	289.614
130	.01701	-.06351	.06575	284.991	130	-.16877	-.97321	.98773	260.162
135	.03098	-.08360	.08916	290.332	135	-.56918	-.54425	.78751	223.717
140	.02701	-.10836	.11168	283.997	140	-.72168	.05493	.72377	175.647
145	-.01157	-.10388	.10452	263.646	145	-.62956	.60395	.87242	136.189
150	-.08004	-.03696	.08816	204.798	150	-.37931	.92111	.99615	112.382
155	-.15882	.10657	.19126	146.136	155	-.08896	.91632	.92062	95.545
160	-.22637	.31413	.38720	125.777	160	.14394	.60814	.62494	76.684
165	-.27008	.55002	.61275	116.153	165	.27430	.10695	.29441	21.301
170	-.28994	.76674	.81973	110.714	170	.31277	-.42539	.52800	306.325
175	-.29489	.91855	.96473	107.798	175	.30429	-.82523	.87954	290.241
180	-.29509	.97304	1.01680	106.871	180	.29509	-.97304	1.01680	286.871

KA = 6.6

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.90915	-.60291	2.00208	197.526	0	-1.90915	-.60291	2.00208	197.526
5	-1.91767	-.55312	1.99585	196.089	5	-1.92380	-.55827	2.00316	196.182
10	-1.93511	-.40393	1.97682	191.790	10	-1.96000	-.42187	2.00489	192.147
15	-1.93773	-.15789	1.94415	184.658	15	-1.99467	-.18850	2.00356	185.398
20	-1.88882	.17426	1.89684	174.729	20	-1.99041	.14357	1.99559	175.874
25	-1.74502	.56590	1.83448	162.033	25	-1.89897	.56294	1.98065	163.488
30	-1.46763	.96783	1.75802	146.597	30	-1.66921	1.03429	1.96368	148.216
35	-1.03914	1.30758	1.67020	128.474	35	-1.26138	1.49041	1.95254	130.242
40	-.48095	1.49950	1.57474	107.783	40	-.66711	1.83303	1.95065	109.999
45	.13531	1.46825	1.47447	84.734	45	.06947	1.94870	1.94994	87.958
50	.69328	1.18116	1.36959	59.589	50	.83951	1.74217	1.93389	64.272
55	1.06069	.67695	1.25831	32.547	55	1.47852	1.18149	1.89260	38.628
60	1.13783	.07272	1.14015	3.657	60	1.80567	.33816	1.93706	10.607
65	.90696	-.46443	1.01896	332.884	65	1.68929	-.60173	1.79326	340.394
70	.45545	-.77802	.90153	300.344	70	1.11651	-1.37533	1.77147	309.070
75	-.04848	-.79024	.79173	266.490	75	.23130	-1.72981	1.74520	277.616
80	-.42396	-.54030	.68678	231.879	80	-.69071	-1.52938	1.67812	245.695
85	-.55778	-.16656	.58212	196.627	85	-1.33562	-.83169	1.57340	211.911
90	-.45171	.16232	.47999	160.234	90	-1.47924	.11308	1.48356	175.629
95	-.20889	.32922	.38990	122.395	95	-1.08883	.95305	1.44701	138.804
100	.03141	.31559	.31715	84.316	100	-.34266	1.37947	1.42140	103.950
105	.16892	.18943	.25381	48.276	105	.44763	1.25658	1.33393	70.393
110	.18260	.04879	.18900	14.959	110	.97532	.67273	1.18482	34.596
115	.11878	-.03851	.12487	342.038	115	1.06811	-.10931	1.07368	354.157
120	.04498	-.06220	.07676	305.870	120	.74746	-.77341	1.07557	314.023
125	.00490	-.05535	.05556	275.058	125	.19637	-1.08073	1.09843	280.298
130	.00116	-.05727	.05728	271.163	130	-.33846	-.95250	1.01085	250.438
135	.00821	-.08216	.08257	275.708	135	-.65699	-.47795	.81244	216.035
140	-.00106	-.11086	.11086	269.454	140	-.67876	.14173	.69340	168.205
145	-.03511	-.10506	.11078	251.519	145	-.45411	.67962	.81737	123.750
150	-.08054	-.03082	.08623	200.941	150	-.12014	.96209	.96956	97.118
155	-.11334	.12328	.16746	132.593	155	.17052	.91589	.93163	79.453
160	-.11498	.34051	.35940	108.658	160	.31481	.57590	.65633	61.337
165	-.08321	.58227	.58819	98.133	165	.29334	.06071	.29955	11.693
170	-.03296	.80077	.80145	92.357	170	.16473	-.47007	.49810	289.313
175	.01168	.95207	.95214	89.297	175	.02785	-.86219	.86264	271.850
180	.02936	1.00605	1.00648	88.329	180	-.02936	-1.00605	1.00648	268.329

KA = 6.8

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.72973	-.97411	1.98516	209.386	0	-1.72973	-.97411	1.98516	209.386
5	-1.74967	-.92516	1.97921	207.868	5	-1.75673	-.93039	1.98790	207.906
10	-1.80087	-.77687	1.96129	203.335	10	-1.82935	-.79590	1.99499	203.513
15	-1.85772	-.52728	1.93110	195.846	15	-1.92233	-.56259	2.00296	196.313
20	-1.87928	-.18043	1.88792	185.484	20	-1.99383	-.22362	2.00633	186.399
25	-1.81430	.24419	1.83066	172.334	25	-1.98799	.21689	1.99978	173.774
30	-1.61223	.70239	1.75859	156.459	30	-1.84223	.73155	1.98217	158.342
35	-1.24091	1.12135	1.67251	137.897	35	-1.50207	1.25855	1.95963	140.041
40	-.70784	1.40745	1.57542	116.699	40	-.94352	1.69847	1.94295	119.053
45	-.07669	1.46971	1.47171	92.987	45	-.19885	1.92688	1.93711	95.892
50	.53322	1.25623	1.36472	67.001	50	.62537	1.82781	1.93184	71.112
55	.97444	.79010	1.25450	39.036	55	1.35302	1.34426	1.90721	44.814
60	1.12411	.18392	1.13905	9.292	60	1.77836	.52810	1.85512	16.539
65	.94290	-.38527	1.01858	337.775	65	1.73935	-.43856	1.79378	345.849
70	.50802	-.74090	.89834	304.437	70	1.20035	-1.27682	1.75246	313.232
75	-.00674	-.78522	.78525	269.508	75	.30235	-1.70364	1.73026	280.064
80	-.40392	-.54792	.68071	233.603	80	-.65905	-1.55339	1.68742	247.010
85	-.55364	-.17162	.57963	197.222	85	-1.33724	-.86989	1.59528	213.045
90	-.45064	.16291	.47918	160.125	90	-1.48189	.08807	1.48450	176.599
95	-.20233	.32877	.38634	121.609	95	-1.05762	.94527	1.41849	138.211
100	.04286	.30683	.30981	82.047	100	-.26670	1.37190	1.39758	101.001
105	.17902	.17209	.24832	43.870	105	.54297	1.22829	1.34295	66.152
110	.18645	.02997	.18885	9.131	110	1.03919	.61838	1.20926	30.755
115	.11657	-.05022	.12693	336.692	115	1.05276	-.17171	1.06667	350.736
120	.03986	-.06307	.07461	302.292	120	.63775	-.81182	1.03236	308.153
125	-.00177	-.04808	.04811	267.890	125	.02336	-1.06919	1.06945	271.252
130	-.00983	-.04758	.04859	258.332	130	-.50761	-.88869	1.02344	240.265
135	-.01122	-.07398	.07483	261.376	135	-.74746	-.38714	.84177	207.381
140	-.02848	-.10430	.10812	254.730	140	-.64091	.21868	.67719	161.160
145	-.06071	-.09832	.11555	238.306	145	-.28579	.70709	.76266	112.007
150	-.08504	-.02385	.08832	195.666	150	.13039	.92787	.93698	82.001
155	-.07303	.12635	.14594	120.029	155	.42128	.83708	.93711	63.285
160	-.00961	.33219	.33233	91.657	160	.47915	.49017	.68546	45.652
165	.09666	.55536	.56371	80.127	165	.31026	.00765	.31035	1.412
170	.21586	.75262	.78297	73.996	170	.02004	-.46810	.46853	272.451
175	.30905	.88700	.93930	70.790	175	-.24074	-.81050	.84550	253.457
180	.34421	.93453	.99591	69.780	180	-.34421	-.93453	.99591	249.780

KA = 7.0

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.49325	-1.31705	1.99108	221.412	0	-1.49325	-1.31705	1.99108	221.412
5	-1.52360	-1.27074	1.98397	219.829	5	-1.52984	-1.27502	1.99150	219.809
10	-1.60610	-1.12873	1.96306	215.099	10	-1.63182	-1.14497	1.99344	215.055
15	-1.71481	-.88416	1.92933	207.276	15	-1.77516	-.91659	1.99783	207.309
20	-1.80658	-.53361	1.88374	196.456	20	-1.91800	-.57847	2.00334	196.783
25	-1.82437	-.08797	1.82649	182.761	25	-2.00079	-.12755	2.00485	183.648
30	-1.70690	.41563	1.75677	166.315	30	-1.95150	.41753	1.99566	167.924
35	-1.40693	.90642	1.67364	147.208	35	-1.69989	1.00240	1.97343	149.473
40	-.91505	1.28457	1.57763	125.487	40	-1.20230	1.52933	1.94534	128.173
45	-.28586	1.44394	1.47197	101.198	45	-.47295	1.86564	1.92465	104.225
50	.36438	1.31187	1.36154	74.477	50	.39002	1.87619	1.91630	78.257
55	.87431	.89288	1.24966	45.602	55	1.20250	1.47829	1.90561	55.874
60	1.09759	.29201	1.13577	14.898	60	1.73321	.70165	1.86985	22.039
65	.97076	-.30548	1.01769	342.532	65	1.78462	-.27907	1.80631	351.112
70	.55768	-.70256	.89700	308.442	70	1.29106	-1.17172	1.74349	317.774
75	.03558	-.77969	.78050	272.613	75	.38466	-1.66429	1.70817	283.014
80	-.38194	-.55530	.67397	235.480	80	-.62056	-1.56160	1.68038	248.328
85	-.54766	-.17574	.57517	197.791	85	-1.34190	-.89379	1.61232	213.666
90	-.44857	.16532	.47806	159.769	90	-1.49704	.07131	1.49874	177.273
95	-.19610	.33035	.38417	120.694	95	-1.04318	.93546	1.40118	138.116
100	.05230	.29934	.30388	80.089	100	-.20510	1.35052	1.36600	98.635
105	.18565	.15480	.24172	39.823	105	.63115	1.17829	1.33668	61.824
110	.18657	.01011	.18684	3.100	110	1.10489	.54400	1.23155	26.214
115	.11210	-.06370	.12894	330.394	115	1.04746	-.24060	1.07474	347.064
120	.03531	-.06589	.07475	298.186	120	.54416	-.83531	.99692	303.082
125	-.00495	-.04201	.04230	263.275	125	-.13079	-1.02309	1.03141	262.715
130	-.01552	-.03689	.04003	247.183	130	-.65990	-.78342	1.02431	229.891
135	-.02521	-.06129	.06627	247.644	135	-.82893	-.26727	.87095	197.870
140	-.05180	-.08984	.10371	240.034	140	-.60723	.29499	.67509	154.090
145	-.08479	-.08307	.11870	224.412	145	-.13688	.69753	.71083	101.102
150	-.09193	-.01348	.09292	188.342	150	.34968	.82857	.89934	67.119
155	-.04080	.12029	.12702	108.735	155	.63794	.68665	.93726	47.106
160	.08004	.29545	.30610	74.842	160	.61833	.35312	.71206	29.730
165	.25178	.47709	.53945	62.177	165	.32108	-.05482	.32572	350.310
170	.43109	.63130	.76445	55.672	170	-.10779	-.42606	.43948	255.802
175	.56630	.73313	.92638	52.316	175	-.47389	-.67930	.82826	235.100
180	.61652	.76853	.98526	51.263	180	-.61652	-.76853	.98526	231.263

KA = 7.2

----- T1 -----					----- T2 -----				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.21196	-1.60385	2.01027	232.923	0	-1.21196	-1.60395	2.01027	232.923
5	-1.25122	-1.56279	2.00196	231.318	5	-1.25483	-1.56669	2.00727	231.307
10	-1.36107	-1.43466	1.97757	226.508	10	-1.37747	-1.45001	1.99999	226.470
15	-1.51684	-1.20716	1.93856	218.514	15	-1.56023	-1.23966	1.99276	218.468
20	-1.67547	-.86822	1.88706	207.393	20	-1.76568	-.91759	1.98988	207.460
25	-1.77649	-.41825	1.82506	193.248	25	-1.93502	-.47149	1.99163	193.694
30	-1.74963	.11528	1.75342	176.230	30	-1.98984	.09055	1.99190	177.394
35	-1.53281	.66648	1.67144	156.500	35	-1.84456	.72300	1.98120	158.597
40	-1.09951	1.13162	1.57781	134.175	40	-1.43285	1.33085	1.95556	137.114
45	-.48702	1.39007	1.47292	109.308	45	-.74507	1.77369	1.92383	112.786
50	.19058	1.34695	1.36036	81.947	50	.13618	1.89687	1.90176	85.894
55	.76231	.98481	1.24538	52.258	55	1.02439	1.59072	1.89202	57.219
60	1.05862	.39740	1.13075	20.576	60	1.66415	.86071	1.87356	27.348
65	.98980	-.22421	1.01487	347.237	65	1.81881	-.12757	1.82328	355.988
70	.60327	-.66238	.89593	312.326	70	1.38539	-1.06916	1.74998	322.341
75	.07740	-.77380	.77766	275.712	75	.47988	-1.62240	1.69188	286.477
80	-.35865	-.56339	.66786	237.520	80	-.56900	-1.56186	1.66228	249.983
85	-.53980	-.18033	.56913	198.473	85	-1.34121	-.90509	1.61803	214.013
90	-.44476	.16834	.47555	159.269	90	-1.51764	.06820	1.51917	177.427
95	-.18901	.33342	.38327	119.548	95	-1.04293	.93403	1.40004	138.153
100	.06089	.29358	.29983	78.282	100	-.16139	1.32644	1.33622	96.937
105	.18948	.13892	.23495	36.247	105	.70354	1.11367	1.31728	57.718
110	.18279	-.00906	.18301	357.163	110	1.16201	.44962	1.24596	21.153
115	.10439	-.07754	.13004	323.395	115	1.04481	-.32326	1.09368	342.838
120	.02979	-.07031	.07636	292.958	120	.46624	-.85589	.97464	298.579
125	-.00614	-.03821	.03870	260.869	125	-.25842	-.95485	.98920	254.856
130	-.01663	-.02750	.03214	238.846	130	-.78226	-.64507	1.01393	219.509
135	-.03300	-.04691	.05736	234.875	135	-.88880	-.11946	.89680	187.655
140	-.06867	-.06988	.09797	225.499	140	-.57210	.37775	.68556	146.564
145	-.10410	-.06027	.12629	210.071	145	-.01276	.66469	.66481	91.100
150	-.09875	.00174	.09876	178.991	150	.52202	.68097	.85804	52.527
155	-.01727	.10985	.11120	98.936	155	.80004	.47963	.93280	30.943
160	.14790	.23892	.28100	58.240	160	.71560	.17344	.73632	13.624
165	.36923	.36017	.51581	44.288	165	.32036	-.12722	.34470	338.341
170	.59306	.45320	.74640	37.386	170	-.20940	-.35403	.41132	239.396
175	.75881	.50942	.91395	33.875	175	-.64995	-.48585	.81147	216.779
180	.81987	.52795	.97515	32.779	180	-.81987	-.52795	.97515	212.779

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-0.88751	-1.81331	2.01885	243.921	0	-0.88751	-1.81331	2.01885	243.921
5	-0.93438	-1.78042	2.01071	242.309	5	-0.93495	-1.78548	2.01546	242.362
10	-1.06809	-1.67480	1.98639	237.473	10	-1.07333	-1.69462	2.00536	237.649
15	-1.26643	-1.47814	1.94647	229.411	15	-1.28864	-1.52025	1.99293	229.714
20	-1.48838	-1.16859	1.89232	218.137	20	-1.54968	-1.23435	1.98119	218.538
25	-1.67220	-0.73413	1.82625	203.702	25	-1.80133	-0.81207	1.97592	204.266
30	-1.74045	-0.18979	1.75077	186.223	30	-1.96200	-0.24340	1.97766	187.216
35	-1.61685	0.40669	1.66721	165.881	35	-1.93303	0.42155	1.97846	167.698
40	-1.25575	0.95051	1.57492	142.877	40	-1.62539	1.10598	1.96598	145.767
45	-0.67650	1.30780	1.47741	117.352	45	-1.00232	1.65630	1.93597	121.180
50	0.01322	1.5023	1.3012	89.359	50	-0.12501	1.89676	1.90087	93.771
55	0.64100	1.06494	1.24277	58.956	55	0.82409	1.68825	1.87865	63.981
60	1.00868	0.49997	1.12579	26.366	60	1.56949	1.00959	1.86617	32.752
65	1.00047	-0.14079	1.01032	351.990	65	1.83480	0.01594	1.83487	4.498
70	0.64440	-0.61952	0.89390	316.128	70	1.47470	-0.97405	1.76734	326.555
75	0.11778	-0.76714	0.77613	278.729	75	0.58211	-1.58634	1.68977	290.151
80	-0.33517	-0.57255	0.66344	239.655	80	-0.50466	-1.56293	1.64238	252.145
85	-0.53090	-0.18638	0.56267	199.344	85	-1.32953	-0.90922	1.61070	214.367
90	-0.43939	0.17074	0.47140	158.765	90	-1.53453	0.07917	1.53657	177.047
95	-0.18045	0.33706	0.38233	118.163	95	-1.04839	0.94745	1.41308	137.895
100	0.06983	0.28935	0.29766	76.433	100	-0.13182	1.30967	1.31629	95.747
105	0.19178	0.12516	0.22901	33.128	105	0.75697	1.04386	1.28943	54.052
110	0.17594	-0.02609	0.17787	351.564	110	1.20164	0.34001	1.24882	15.799
115	0.09337	-0.09020	0.12983	315.989	115	1.03426	-0.42185	1.11698	337.811
120	0.02225	-0.07541	0.07863	286.436	120	0.29715	-0.88242	0.96767	294.231
125	-0.00705	-0.03692	0.03758	259.186	125	-0.35886	-0.87720	0.94776	247.751
130	-0.01477	-0.02096	0.02564	234.826	130	-0.86650	-0.48563	0.99331	209.268
135	-0.03521	-0.03342	0.04854	223.503	135	-0.91534	0.04989	0.91670	176.880
140	-0.07802	-0.04726	0.09122	211.203	140	-0.52643	0.46966	0.70549	138.262
145	-0.11604	-0.03197	0.12036	195.405	145	0.08776	0.62090	0.62737	81.954
150	-0.10254	0.02194	0.10486	167.922	150	0.63928	0.50409	0.81411	58.257
155	-0.00117	0.09885	0.09885	90.678	155	0.89345	0.23581	0.92404	14.785
160	0.19151	0.17152	0.25709	41.848	160	0.75741	-0.03515	0.75822	357.343
165	0.44135	0.21934	0.49285	26.426	165	0.30197	-0.20737	0.36632	325.521
170	0.68877	0.23857	0.72892	19.104	170	-0.27987	-0.26315	0.38416	223.237
175	0.86963	0.24010	0.90216	15.435	175	-0.75431	-0.25184	0.79523	198.462
180	0.93582	0.23846	0.96572	14.295	180	-0.93582	-0.23846	0.96572	194.295

KA = 7.6

----- T1 -----

T2 -----

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-.52004	-1.93924	2.00776	254.988	0	-.52004	-1.93924	2.00776	254.988
5	-.57354	-1.91693	2.00089	253.343	5	-.57227	-1.92413	2.00743	253.437
10	-.72845	-1.84110	1.97997	248.413	10	-.72661	-1.86890	2.00518	248.755
15	-.96582	-1.68738	1.94424	240.214	15	-.97308	-1.74565	1.99855	240.863
20	-1.24802	-1.42372	1.89328	228.762	20	-1.28624	-1.51465	1.98711	229.662
25	-1.51390	-1.02438	1.82791	214.084	25	-1.61536	-1.13627	1.97497	215.123
30	-1.68067	-.48956	1.75052	196.240	30	-1.87831	-.58974	1.96872	197.431
35	-1.65880	.13450	1.66424	175.364	35	-1.96714	.10297	1.96983	177.004
40	-1.38283	.74541	1.57094	151.673	40	-1.77298	.85559	1.96863	154.239
45	-.85162	1.19820	1.47002	125.403	45	-1.23188	1.51229	1.95053	129.166
50	-.15877	1.35075	1.36004	96.704	50	-.37982	1.87522	1.91330	101.450
55	.51292	1.13161	1.24243	65.617	55	.61119	1.77264	1.87505	70.976
60	.94962	.59858	1.12253	32.224	60	1.45154	1.15235	1.85334	38.445
65	1.00382	-.05539	1.00535	356.841	65	1.82762	.15596	1.83426	4.877
70	.68130	-.57337	.89046	319.916	70	1.54961	-.88416	1.78411	330.292
75	.15618	-.75891	.77481	281.629	75	.68214	-1.55811	1.70089	293.644
80	-.31259	-.58231	.66091	241.773	80	-.43235	-1.57082	1.62923	254.611
85	-.52216	-.19404	.55705	200.386	85	-1.30504	-.91370	1.59310	214.997
90	-.43322	.17177	.46603	158.372	90	-1.53993	.09884	1.54310	176.327
95	-.17039	.34026	.38054	116.599	95	-1.04929	.97538	1.43260	137.090
100	.07998	.28586	.29684	74.370	100	-.10843	1.30554	1.31004	94.748
105	.19394	.11338	.22465	30.311	105	.79312	.97786	1.25907	50.955
110	.16734	-.04031	.17213	346.455	110	1.21813	.22398	1.23855	10.418
115	.07969	-.10040	.12819	308.438	115	1.00551	-.53208	1.13761	332.114
120	.01223	-.07988	.08081	278.708	120	.32707	-.91786	.97440	289.613
125	-.00920	-.03745	.03856	256.192	125	-.43651	-.80024	.91155	241.389
130	-.01194	-.01774	.02139	236.057	130	-.90946	-.31889	.96374	199.323
135	-.03329	-.02261	.04024	214.181	135	-.89967	.22927	.92842	165.703
140	-.07988	-.02481	.08364	197.255	140	-.46051	.56751	.73085	129.058
145	-.11993	-.00109	.11893	180.524	145	.17009	.57471	.59936	73.513
150	-.10059	.04578	.11052	155.527	150	.69977	.31687	.76817	24.362
155	.00985	.08969	.09023	83.733	155	.91052	-.02165	.91078	358.638
160	.21112	.10153	.23426	25.684	160	.73453	-.25433	.77731	340.901
165	.46507	.07014	.47033	8.576	165	.26031	-.28985	.38959	311.926
170	.71159	.01005	.71166	.809	170	-.31790	-.16443	.35790	207.351
175	.88934	-.04696	.89058	356.977	175	-.77916	-.00180	.77917	180.133
180	.95394	-.07015	.95652	355.794	180	-.95394	.07015	.95652	175.794

KA = 7.8

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-0.11897	-1.98786	1.99142	266.575	0	-0.11897	-1.98786	1.99142	266.575
5	-0.17796	-1.97742	1.98541	264.857	5	-0.17655	-1.98614	1.99397	264.920
10	-0.35087	-1.93555	1.96709	259.725	10	-0.34775	-1.96927	1.99974	259.985
15	-0.62272	-1.83265	1.93556	251.233	15	-0.62511	-1.90376	2.00376	251.822
20	-0.96055	-1.62718	1.88954	239.446	20	-0.98729	-1.73994	2.00053	240.428
25	-1.30572	-1.27960	1.82819	224.421	25	-1.38801	-1.42377	1.98839	225.729
30	-1.57213	-0.77367	1.75218	206.203	30	-1.74683	-0.91681	1.97281	207.692
35	-1.65837	-0.14100	1.66435	184.860	35	-1.95035	-0.22366	1.96313	186.542
40	-1.47895	.52240	1.56850	160.546	40	-1.87360	.58028	1.96141	162.792
45	-1.00989	1.06378	1.46680	133.512	45	-1.42695	1.33632	1.95498	136.878
50	-0.32901	1.31804	1.35849	104.016	50	-0.61884	1.82561	1.92764	108.726
55	.37995	1.18286	1.24238	72.192	55	.39458	1.84048	1.88230	77.899
60	.88277	.69127	1.12122	38.063	60	1.31572	1.29120	1.84345	44.461
65	1.00078	.03099	1.00126	1.773	65	1.79757	.29924	1.82231	9.451
70	.71453	-.52378	.88594	323.757	70	1.60559	-.79193	1.79027	333.746
75	.19268	-.74820	.77261	284.441	75	.77269	-1.53371	1.71736	296.739
80	-.29140	-.59165	.65952	243.778	80	-.35882	-1.58761	1.62765	257.265
85	-.51448	-.20274	.55298	201.508	85	-1.27068	-.92599	1.57229	216.082
90	-.42718	.17128	.46224	158.152	90	-1.53131	.11803	1.53586	175.593
95	-.15930	.34215	.37741	114.966	95	-1.03835	1.01154	1.44961	135.749
100	.09157	.28195	.29645	72.007	100	-.08257	1.31413	1.31672	93.595
105	.19689	.10272	.22207	27.553	105	.81782	.92254	1.23285	48.444
110	.15828	-.05179	.16654	341.883	110	1.21143	.11228	1.21662	5.295
115	.06445	-.10730	.12517	300.989	115	.95251	-.64447	1.15005	325.917
120	.00004	-.08229	.08229	270.031	120	.24695	-.95933	.99061	284.435
125	-.01343	-.03845	.04073	250.749	125	-.49897	-.73036	.88453	235.660
130	-.00987	-.01733	.01995	240.349	130	-.91377	-.15869	.92745	189.852
135	-.02911	-.01543	.03295	207.931	135	-.83864	.40346	.93064	154.309
140	-.07529	-.00509	.07546	183.868	140	-.36735	.66280	.75779	118.997
145	-.11238	.02894	.11605	165.561	145	.24149	.53036	.58275	65.519
150	-.09107	.07070	.11529	142.180	150	.70798	.13688	.72109	10.943
155	.01844	.08333	.08534	77.521	155	.85177	-.26788	.89290	342.542
160	.20935	.03622	.21246	9.816	160	.64450	-.46234	.79318	324.345
165	.44225	-.07196	.44807	350.759	165	.19215	-.36629	.41363	297.681
170	.66227	-.20857	.69434	342.519	170	-.32554	-.06804	.33257	191.806
175	.81783	-.32180	.87886	338.522	175	-.72484	.23819	.76298	161.809
180	.87378	-.36561	.94718	337.294	180	-.87377	.36561	.94718	157.294

KA = 8.0

----- T1 -----					----- T2 -----				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.29372	-1.96738	1.98919	278.491	0	.29372	-1.96738	1.98919	278.491
5	.23121	-1.96904	1.98257	276.697	5	.23206	-1.97738	1.99095	276.693
10	.04591	-1.96239	1.96293	271.340	10	.04777	-1.99543	1.99600	271.371
15	-.25221	-1.91408	1.93063	262.494	15	-.25442	-1.98638	2.00261	262.701
20	-.63670	-1.77477	1.88553	250.265	20	-.65787	-1.89515	2.00609	252.856
25	-1.05387	-1.49209	1.82674	234.766	25	-1.12196	-1.65611	2.00038	235.884
30	-1.41699	-1.03271	1.75338	216.085	30	-1.57000	-1.21248	1.98368	217.678
35	-1.61472	-.41084	1.66617	194.275	35	-1.88565	-.54681	1.96333	196.171
40	-1.54164	.28817	1.56834	169.412	40	-1.93009	.28380	1.95084	171.635
45	-1.14863	.90796	1.46415	141.675	45	-1.58849	1.12511	1.94659	144.690
50	-.49353	1.26250	1.35554	111.351	50	-.83985	1.74106	1.93304	115.752
55	.24312	1.21718	1.24122	78.705	55	.17973	1.88597	1.89452	84.556
60	.80859	.77606	1.12075	43.824	60	1.16917	1.42499	1.84325	50.632
65	.99175	.11699	.99863	6.728	65	1.75071	.45019	1.80767	14.421
70	.74472	-.47104	.88119	327.686	70	1.64494	-.68974	1.78370	337.251
75	.22794	-.73442	.76898	287.243	75	.85108	-1.50649	1.73028	299.464
80	-.27128	-.59955	.65807	245.654	80	-.29060	-1.61138	1.63737	259.777
85	-.50813	-.21156	.55041	202.604	85	-1.23368	-.95020	1.55720	217.604
90	-.42205	.16960	.45485	158.108	90	-1.51264	.12837	1.51808	175.149
95	-.14810	.34230	.37297	113.395	95	-1.01386	1.04743	1.45775	134.067
100	.10407	.27660	.29553	69.381	100	-.04728	1.33121	1.33205	92.034
105	.20082	.09210	.22093	24.637	105	.83977	.88059	1.21682	46.359
110	.14976	-.06113	.16175	337.795	110	1.18750	.01375	1.18757	.663
115	.04901	-.11067	.12104	293.885	115	.87538	-.74820	1.15156	319.479
120	-.01327	-.08158	.08265	260.764	120	.15090	-.99989	1.01121	278.582
125	-.01965	-.03847	.04319	242.944	125	-.55541	-.66919	.86965	230.308
130	-.00967	-.01860	.02097	242.534	130	-.88775	-.01578	.88790	181.019
135	-.02462	-.01195	.02737	205.888	135	-.73615	.55733	.92332	142.871
140	-.06626	.01010	.06702	171.331	140	-.24483	.74416	.78340	108.212
145	-.09754	.05487	.11191	150.641	145	.30933	.48776	.57758	57.618
150	-.07354	.09356	.11901	128.169	150	.67396	-.02221	.67433	358.112
155	.02706	.07944	.08392	71.188	155	.72660	-.48011	.87089	326.544
160	.19088	-.01893	.19181	354.336	160	.49308	-.63746	.80591	307.722
165	.37975	-.19347	.42619	333.003	165	.09786	-.42686	.43794	282.912
170	.54959	-.39551	.67711	324.260	170	-.30788	.01783	.30840	176.685
175	.66518	-.55635	.86718	320.091	175	-.60045	.44408	.74682	143.515
180	.70589	-.61755	.93789	318.819	180	-.70589	.61755	.93789	138.819

T1

T2

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.69041	-1.87939	2.00219	290.171	0	.69041	-1.87939	2.00219	290.171
5	.62740	-1.89297	1.99423	288.337	5	.62856	-1.89919	2.00050	288.313
10	.43826	-1.92162	1.97096	282.848	10	.44177	-1.94773	1.99720	282.779
15	.12654	-1.92980	1.93395	273.752	15	.12921	-1.99174	1.99592	273.712
20	-.29024	-1.86241	1.88489	261.142	20	-.30074	-1.97516	1.99793	261.343
25	-.76657	-1.65571	1.82456	245.157	25	-.81646	-1.82434	1.99870	245.890
30	-1.21830	-1.25923	1.75226	225.942	30	-1.34726	-1.46493	1.99026	227.396
35	-1.52738	-.66753	1.66688	203.607	35	-1.77501	-.85435	1.96992	215.712
40	-1.56841	.04085	1.56917	178.216	40	-1.94686	-.02470	1.94702	180.727
45	-1.26500	.73459	1.46282	149.856	45	-1.72134	.88241	1.93434	152.859
50	-.65037	1.18552	1.35220	118.749	50	-1.04526	1.61963	1.92763	122.837
55	.10312	1.23412	1.23842	85.223	55	-.03143	1.90371	1.90397	90.946
60	.72698	.85164	1.11972	49.515	60	1.01810	1.54864	1.85332	56.678
65	.97666	.20134	.99720	11.648	65	1.69526	.60727	1.80074	19.719
70	.77229	-.41595	.87718	331.694	70	1.67425	-.57455	1.77039	341.060
75	.26285	-.71768	.76430	290.115	75	.91900	-1.47051	1.73406	302.003
80	-.25142	-.60554	.65566	247.452	80	-.23201	-1.63674	1.65310	261.932
85	-.50286	-.21974	.54877	203.604	85	-1.20228	-.98476	1.55411	219.320
90	-.41831	.16742	.45057	158.187	90	-1.49175	.12634	1.49709	175.159
95	-.13775	.34095	.36773	112.000	95	-.97888	1.07593	1.45459	132.296
100	.11651	.26940	.29352	66.613	100	.00105	1.34974	1.34974	89.955
105	.20534	.08062	.22060	21.436	105	.86763	.84914	1.21401	44.383
110	.14227	-.06926	.15821	334.043	110	1.15567	-.06802	1.15767	356.632
115	.03466	-.11098	.11626	287.345	115	.77935	-.83459	1.14190	313.040
120	-.02626	-.07745	.08178	251.269	120	.03725	-1.03058	1.03126	272.070
125	-.02707	-.03640	.04536	233.365	125	-.61399	-.61321	.86776	224.964
130	-.01177	-.02016	.02335	239.724	130	-.84266	.10479	.84915	172.911
135	-.02149	-.01136	.02430	207.853	135	-.60155	.67923	.90731	131.530
140	-.05517	.02011	.05872	159.976	140	-.09592	.79988	.80561	96.838
145	-.07659	.07437	.10675	135.844	145	.37928	.44279	.58303	49.418
150	-.04884	.11139	.12163	113.670	150	.61076	-.15278	.62958	345.956
155	.03752	.07661	.08531	63.905	155	.55094	-.64128	.84544	310.667
160	.16136	-.06092	.17248	339.317	160	.29297	-.76136	.81578	291.047
165	.28784	-.28477	.40490	315.308	165	-.01847	-.46189	.46226	267.710
170	.38834	-.53399	.66027	306.026	170	-.27179	.08806	.28570	162.048
175	.44952	-.72834	.85581	301.632	175	-.42186	.59701	.73102	125.245
180	.46962	-.80160	.92903	300.364	180	-.46962	.80160	.92903	120.364

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.04868	-1.71907	2.01369	301.384	0	1.04868	-1.71907	2.01369	301.384
5	.98869	-1.74458	2.00525	299.541	5	.99180	-1.74836	2.01008	299.565
10	.80585	-1.80899	1.98036	294.911	10	.81659	-1.82674	2.00095	294.086
15	.49579	-1.87585	1.94027	284.805	15	.51297	-1.92378	1.99130	284.930
20	.06467	-1.88598	1.88739	271.964	20	.07626	-1.98436	1.98582	272.201
25	-.45365	-1.76574	1.82319	255.591	25	-.47531	-1.92932	1.98701	256.160
30	-.98194	-1.44780	1.74938	235.854	30	-1.08015	-1.66888	1.98794	237.088
35	-1.39758	-.90533	1.66519	212.935	35	-1.61948	-1.13524	1.97775	215.030
40	-1.55765	-.19029	1.56913	186.965	40	-1.92564	-.33193	1.95404	189.780
45	-1.35627	.54758	1.46264	158.014	45	-1.82801	.61868	1.92986	161.302
50	-.79721	1.08926	1.34982	126.200	50	-1.23739	1.46516	1.91776	130.182
55	-.03891	1.23422	1.23484	91.805	55	-.23945	1.89037	1.90547	97.219
60	.63796	.91750	1.11749	55.188	60	.83497	1.65459	1.86704	62.401
65	.95515	.28301	.99619	16.505	65	1.63656	.76356	1.80592	25.012
70	.79723	-.35952	.87455	335.727	70	1.69991	-.44863	1.75811	345.216
75	.29792	-.69872	.75958	293.092	75	.98086	-1.42230	1.72772	304.591
80	-.23160	-.60980	.65209	249.252	80	-.18316	-1.65664	1.66673	263.691
85	-.49808	-.22682	.54729	204.484	85	-1.18152	-1.02321	1.56300	220.893
90	-.41592	.16558	.44767	158.292	90	-1.47617	.11388	1.48056	175.589
95	-.12887	.33884	.36252	110.823	95	-.93931	1.09297	1.44114	130.676
100	.12796	.26059	.29031	63.846	100	.06161	1.36169	1.36308	87.459
105	.20972	.06781	.22041	17.919	105	.90655	.82087	1.22297	42.160
110	.13577	-.07716	.15617	330.392	110	1.12474	-.13502	1.13282	353.154
115	.02221	-.10923	.11146	281.494	115	.67250	-.89870	1.12246	306.808
120	-.03762	-.07032	.07975	241.853	120	-.09102	-1.04232	1.04629	265.009
125	-.03456	-.03173	.04691	222.557	125	-.67911	-.55498	.87704	219.256
130	-.01590	-.02065	.02607	232.405	130	-.78911	.20372	.81498	165.524
135	-.02071	-.01223	.02405	210.571	135	-.44715	.76220	.88368	120.398
140	-.04419	.02533	.05093	150.182	140	.07172	.81957	.82271	84.999
145	-.05223	.08617	.10076	121.223	145	.45338	.38856	.59710	40.597
150	-.01888	.12166	.12312	98.820	150	.53117	-.25302	.58835	334.529
155	.05060	.07278	.08864	55.192	155	.34414	-.74093	.81695	294.914
160	.12633	-.08902	.15454	324.828	160	.66189	-.82053	.82286	274.313
165	.17832	-.34032	.38421	297.654	165	-.14923	-.46286	.48632	252.130
170	.19676	-.61302	.64382	287.795	170	-.22434	.14048	.26469	147.946
175	.19399	-.82245	.84502	283.271	175	-.20897	.68438	.71557	106.979
180	.18995	-.90082	.92063	281.907	180	-.18995	.90082	.92063	101.907

KA = 8.6

----- T1 -----

----- T2 -----

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.35717	-1.48312	2.01036	312.461	0	1.35717	-1.48312	2.01036	312.461
5	1.30338	-1.52073	2.00285	310.599	5	1.30933	-1.52325	2.00864	310.681
10	1.13615	-1.62175	1.98012	305.014	10	1.15731	-1.63483	2.00301	305.295
15	.84242	-1.74973	1.94197	295.709	15	.88002	-1.78882	1.99356	296.195
20	.41522	-1.84280	1.88899	282.698	20	.45685	-1.93029	1.98361	283.315
25	-.12613	-1.81881	1.82318	266.033	25	-.11109	-1.97575	1.97888	266.782
30	-.71505	-1.59412	1.74715	245.841	30	-.77530	-1.82280	1.98084	246.958
35	-1.22898	-1.11934	1.66232	222.327	35	-1.41977	-1.38100	1.98063	224.207
40	-1.50933	-.42449	1.56788	195.708	40	-1.86356	-.62509	1.96560	198.543
45	-1.42006	.35077	1.46274	166.125	45	-1.90536	.34627	1.93657	169.700
50	-.93117	.97611	1.34902	133.650	50	-1.41541	1.28481	1.91158	137.769
55	-.18107	1.21850	1.23188	98.453	55	-.44609	1.84569	1.89883	103.587
60	.54205	.97361	1.11433	60.893	60	.70737	1.73655	1.87509	67.837
65	.92678	.36142	.99475	21.304	65	1.57435	.91080	1.81883	30.050
70	.81897	-.30264	.87310	339.719	70	1.72517	-.31750	1.75414	349.572
75	.33305	-.67841	.75575	296.148	75	1.04220	-1.36169	1.71476	307.429
80	-.20961	-.61289	.64774	251.119	80	-.13950	-1.66549	1.67133	265.212
85	-.49310	-.23275	.54527	205.268	85	-1.17096	-1.05779	1.57800	222.093
90	-.41439	.16474	.44593	158.319	90	-1.47035	.09640	1.47351	176.249
95	-.12144	.33687	.35809	109.823	95	-.90217	1.09821	1.42126	129.403
100	.13786	.25077	.28617	61.202	100	.12900	1.36085	1.36695	84.585
105	.21312	.05364	.21976	14.128	105	.95625	.78721	1.23859	39.462
110	.12971	-.08559	.15541	326.581	110	1.10046	-.19298	1.11725	350.054
115	.01180	-.10659	.10724	276.317	115	.56400	-.93973	1.09599	300.971
120	-.04646	-.06113	.07679	232.764	120	-.22640	-1.02825	1.05288	257.583
125	-.04087	-.02449	.04765	210.933	125	-.74993	-.48598	.89363	212.945
130	-.02116	-.01905	.02847	221.989	130	-.73490	.23572	.78849	158.754
135	-.02241	-.01299	.02590	210.098	135	-.28640	.80422	.85369	109.602
140	-.03492	.02689	.04407	142.400	140	.24609	.79609	.83325	72.822
145	-.02728	.09002	.09407	106.860	145	.52898	.31770	.61706	30.989
150	.01355	.12269	.12343	83.697	150	.44585	-.32552	.55204	323.866
155	.06582	.06578	.09306	44.981	155	.12705	-.77519	.78553	279.308
160	.09050	-.10422	.13803	310.971	160	-.17857	-.80737	.82689	257.528
165	.06343	-.35841	.36398	280.036	165	-.28333	-.42368	.50969	236.227
170	-.00483	-.62753	.62755	269.559	170	-.17194	.17533	.24556	134.441
175	-.07487	-.83090	.83427	264.851	175	.01578	.70005	.70023	88.708
180	-.10423	-.90638	.91235	263.440	180	.10423	.90638	.91235	83.440

KA = 8.8

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.61283	-1.17798	1.99721	323.856	0	1.61283	-1.17798	1.99721	323.856
5	1.56750	-1.22743	1.99089	321.937	5	1.57554	-1.23017	1.99891	322.018
10	1.42282	-1.36464	1.97146	316.196	10	1.45206	-1.37790	2.00178	316.501
15	1.15723	-1.55422	1.93773	306.670	15	1.21199	-1.59204	2.00087	307.281
20	.75017	-1.73323	1.88861	293.404	20	.81968	-1.81690	1.99324	294.282
25	.20457	-1.81284	1.82434	276.438	25	.25748	-1.96553	1.98232	277.463
30	-.42725	-1.69416	1.74721	255.846	30	-.44395	-1.92554	1.97605	257.017
35	-1.02728	-1.30453	1.66045	231.781	35	-1.17788	-1.58687	1.97625	233.415
40	-1.42491	-.64896	1.56573	204.486	40	-1.75556	-.89636	1.97115	207.048
45	-1.45463	.14774	1.46212	174.201	45	-1.94629	.07411	1.94770	177.819
50	-1.04919	.84811	1.34911	141.050	50	-1.57516	1.08588	1.91318	145.419
55	-.32082	1.18772	1.23028	105.116	55	-.65250	1.77293	1.88919	110.206
60	.44030	1.02006	1.11103	66.653	60	.54033	1.79289	1.87254	73.229
65	.89126	.43635	.99234	26.086	65	1.50397	1.04378	1.83068	34.761
70	.83667	-.24571	.87200	343.634	70	1.74959	-.18707	1.75956	353.897
75	.36762	-.65735	.75316	299.216	75	1.10774	-1.29212	1.70196	310.607
80	-.18722	-.61543	.64327	253.080	80	-.09391	-1.66223	1.66488	266.767
85	-.48733	-.23787	.54228	206.018	85	-1.16565	-1.08330	1.59132	222.903
90	-.41289	.16508	.44467	158.208	90	-1.47488	.08031	1.47707	176.883
95	-.11496	.33570	.35484	108.903	95	-.87355	1.09534	1.40103	128.573
100	.14604	.24074	.28157	58.758	100	.19513	1.34555	1.35963	81.748
105	.21479	.03854	.21822	10.171	105	1.01180	.74177	1.25457	36.246
110	.12320	-.09482	.15546	322.417	110	1.08462	-.24915	1.11287	347.063
115	.00299	-.10399	.10404	271.646	115	.46216	-.96134	1.06666	295.676
120	-.05242	-.05102	.07315	224.229	120	-.35859	-.98618	1.04935	250.018
125	-.04492	-.01533	.04747	198.848	125	-.82089	-.39967	.91301	205.960
130	-.02624	-.01494	.03020	209.655	130	-.68404	.35764	.77189	152.398
135	-.02595	-.01230	.02872	205.356	135	-.13215	.80853	.81926	99.283
140	-.02823	.02631	.03859	137.014	140	.41252	.72761	.83642	60.449
145	-.00438	.08673	.08685	92.890	145	.54929	.22497	.64013	20.576
150	.04510	.11399	.12259	68.414	150	.36237	-.37582	.52207	313.956
155	.08167	.05396	.09788	33.455	155	-.07986	-.74723	.75148	263.899
160	.05757	-.10875	.12314	297.895	160	-.40482	-.72195	.82771	240.719
165	-.04507	-.34117	.34413	262.475	165	-.40716	-.34248	.53204	220.069
170	-.19566	-.57914	.61130	251.333	170	-.11979	.19468	.22858	121.605
175	-.32920	-.75479	.82345	246.436	175	.22919	.64536	.68485	70.448
180	-.38237	-.81917	.90402	244.978	180	.38237	.81917	.90402	64.978

KA = 9.0

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.81281	-.82147	1.99025	335.622	0	1.81281	-.82147	1.99025	335.622
5	1.77742	-.88140	1.98396	333.624	5	1.78566	-.88470	1.99280	333.644
10	1.66014	-1.05125	1.96499	327.657	10	1.69116	-1.06591	1.99905	327.778
15	1.43189	-1.29836	1.93289	317.800	15	1.49358	-1.33696	2.00456	318.167
20	1.05910	-1.56128	1.88661	304.151	20	1.14590	-1.64309	2.00320	304.892
25	.52737	-1.74723	1.82509	286.796	25	.61209	-1.89580	1.99216	287.893
30	-.12823	-1.74405	1.74876	265.795	30	-.09937	-1.97470	1.97720	267.119
35	-.79901	-1.45556	1.66044	241.236	35	-.89920	-1.75128	1.96864	242.822
40	-1.30700	-.85869	1.56384	213.304	40	-1.59943	-1.14381	1.96634	215.570
45	-1.45919	-.05807	1.46035	182.279	45	-1.94432	-.19415	1.95399	185.702
50	-1.14870	.70684	1.34875	148.394	50	-1.71072	.87384	1.92098	152.942
55	-.45558	1.14220	1.22970	111.745	55	-.85708	1.67789	1.88412	117.058
60	.33412	1.05680	1.10836	72.455	60	.36058	1.82727	1.86251	78.837
65	.84869	.50790	.98905	30.898	65	1.42003	1.16210	1.83493	39.296
70	.84965	-.18856	.87032	347.487	70	1.76989	-.06176	1.77097	358.001
75	.40090	-.63564	.75151	302.239	75	1.17902	-1.21960	1.69632	314.031
80	-.16415	-.61792	.63935	255.123	80	-.04062	-1.65080	1.65130	268.590
85	-.48049	-.24283	.53836	206.811	85	-1.15917	-1.09889	1.59726	223.471
90	-.41075	.16625	.44312	157.965	90	-1.48686	.07109	1.48856	177.262
95	-.10873	.33554	.35271	107.955	95	-.85625	1.09107	1.38694	128.124
100	.15278	.23118	.27710	56.541	100	.25290	1.31923	1.34325	79.148
105	.21435	.02328	.21562	6.199	105	1.06604	.68222	1.26565	32.617
110	.11542	-.10450	.15570	317.843	110	1.07501	-.31045	1.11895	343.892
115	-.00497	-.10192	.10204	267.210	115	.37200	-.97079	1.03963	290.966
120	-.05565	-.04112	.06919	216.462	120	-.47778	-.91934	1.03608	242.539
125	-.04604	-.00536	.04635	186.640	125	-.88378	-.29329	.93118	198.359
130	-.02989	-.00868	.03113	196.197	130	-.63638	.42672	.76620	146.157
135	-.03024	-.00938	.03166	197.235	135	.00594	.78298	.78300	89.565
140	-.02425	.02521	.03498	133.887	140	.55672	.61848	.83214	48.038
145	.01449	.07800	.07934	79.473	145	.65506	.10879	.66403	9.430
150	.07254	.09647	.12070	53.060	150	.28452	-.41100	.49987	304.693
155	.09594	.03657	.10268	20.864	155	-.25938	-.66677	.71545	248.743
160	.02981	-.10565	.10978	285.754	160	-.59470	-.57256	.82553	223.913
165	-.13729	-.29431	.32476	244.992	165	-.50659	-.22252	.55331	203.714
170	-.35712	-.47618	.59521	233.132	170	-.07141	.20190	.21415	109.479
175	-.54340	-.60435	.81273	228.040	175	.41026	.52914	.66956	52.212
180	-.61622	-.65015	.89578	226.535	180	.61622	.65015	.89578	46.535

KA = 9.2

----- T1 -----					----- T2 -----				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.94866	-.43665	1.99698	347.370	0	1.94866	-.43665	1.99698	347.370
5	1.92452	-.50440	1.98952	345.314	5	1.93136	-.50710	1.99682	345.288
10	1.83903	-.69975	1.96766	339.168	10	1.86630	-.71200	1.99750	339.118
15	1.65667	-.99512	1.93257	329.008	15	1.71570	-1.02840	2.00031	329.061
20	1.33177	-1.33396	1.88496	314.953	20	1.42462	-1.40735	2.00254	315.349
25	.83218	-1.62343	1.82430	297.140	25	.94005	-1.76260	1.99762	298.072
30	.17313	-1.74097	1.74956	275.679	30	.24566	-1.96727	1.98255	277.118
35	-.55064	-1.56741	1.66131	250.643	35	-.59359	-1.87346	1.96525	252.420
40	-1.15891	-1.04859	1.56289	222.139	40	-1.39934	-1.36788	1.95685	224.349
45	-1.43406	-.26311	1.45799	190.397	45	-1.89738	-.45794	1.95186	193.569
50	-1.22807	.55384	1.34718	155.725	50	-1.81622	.65195	1.92969	160.254
55	-.58324	1.08203	1.22921	118.326	55	-1.05435	1.56622	1.88804	123.948
60	.22508	1.08354	1.10667	78.265	60	.16968	1.84553	1.85332	84.747
65	.79967	.57614	.98560	35.772	65	1.31966	1.26878	1.83065	43.874
70	.85774	-.13077	.86765	351.332	70	1.78131	.05668	1.78221	1.823
75	.43232	-.61300	.75011	305.193	75	1.25321	-1.14991	1.70083	317.461
80	-.14096	-.62059	.63639	257.203	80	.02185	-1.63763	1.63777	270.764
85	-.47281	-.24827	.53402	207.704	85	-1.14638	-1.10741	1.59391	224.009
90	-.40769	.16758	.44079	157.654	90	-1.50085	.07163	1.50256	177.268
95	-.10212	.33617	.35133	106.898	95	-.84834	1.09237	1.38310	127.833
100	.15865	.22253	.27330	54.514	100	.29888	1.28841	1.32262	76.940
105	.21195	.00873	.21213	2.358	105	1.11210	.61019	1.26050	28.753
110	.10595	-.11395	.15560	312.917	110	1.06601	-.38149	1.13221	340.309
115	-.01284	-.10037	.10119	262.710	115	.29367	-.97638	1.01958	286.740
120	-.05679	-.03229	.06533	209.621	120	-.57733	-.83478	1.01497	235.332
125	-.04422	.00416	.04441	174.620	125	-.92982	-.16826	.94492	190.257
130	-.03123	-.00114	.03125	182.083	130	-.58780	.49854	.77075	139.697
135	-.03401	-.00406	.03425	186.813	135	.12316	.73766	.74787	80.521
140	-.02236	.02497	.03351	131.849	140	.66742	.47788	.82086	35.603
145	.02832	.06598	.07180	66.772	145	.68636	-.02821	.68694	357.646
150	.09328	.07206	.11787	37.685	150	.21200	-.43779	.48642	295.838
155	.10626	.01385	.10716	7.425	155	-.39975	-.54782	.67817	233.882
160	.00799	-.09813	.09846	274.657	160	-.73045	-.37404	.82065	207.116
165	-.20635	-.22591	.30597	227.590	165	-.56899	-.07179	.57350	187.192
170	-.47494	-.33194	.57945	214.950	170	-.02831	.20070	.20269	98.028
175	-.69721	-.39700	.80232	209.658	175	.54266	.36598	.65454	33.996
180	-.78320	-.41827	.88789	208.105	180	.78320	.41827	.88789	28.105

KA = 9.4

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.00780	-.04327	2.00826	358.765	0	2.00780	-.04327	2.00826	358.765
5	1.99650	-.11548	1.99984	356.690	5	2.00180	-.11585	2.00515	356.688
10	1.94795	-.32707	1.97521	350.469	10	1.97059	-.33106	1.99821	350.463
15	1.82093	-.65793	1.93614	340.134	15	1.87472	-.67618	1.99294	340.166
20	1.55832	-1.06022	1.88479	325.770	20	1.65232	-1.11419	1.99288	326.037
25	1.10992	-1.44540	1.82239	307.521	25	1.23456	-1.56613	1.99421	308.248
30	.46887	-1.68435	1.74839	285.556	30	.58009	-1.90099	1.98753	286.970
35	-.28834	-1.63634	1.66155	260.006	35	-.27375	-1.95072	1.96983	262.012
40	-.98438	-1.21384	1.56282	230.959	40	-1.16494	-1.56666	1.95231	233.366
45	-1.38044	-.46341	1.45615	198.557	45	-1.80823	-.71617	1.94490	201.607
50	-1.28661	.39114	1.34475	163.090	50	-1.88729	.42146	1.93377	167.412
55	-.70222	1.00749	1.22806	124.877	55	-1.23649	1.44048	1.89839	130.642
60	.11466	1.09979	1.10575	84.048	60	-.02639	1.85161	1.85180	90.817
65	.74518	.64082	.98282	40.694	65	1.20340	1.36765	1.82171	48.655
70	.86127	-.07206	.86428	355.217	70	1.77933	.16964	1.78740	5.446
75	.46167	-.58898	.74836	308.391	75	1.32442	-1.08559	1.71248	320.659
80	-.11820	-.62330	.63441	259.262	80	.09065	-1.62810	1.63062	273.187
85	-.46483	-.25453	.52996	208.704	85	-1.12488	-1.11372	1.58295	224.714
90	-.40385	.16848	.43759	157.355	90	-1.51065	.08107	1.51283	176.928
95	-.09475	.33713	.35019	105.697	95	-.84417	1.10342	1.38930	127.418
100	.16435	.21483	.27049	52.584	100	.33393	1.25979	1.30330	75.154
105	.20813	-.00452	.20818	358.755	105	1.14500	.53046	1.26191	24.858
110	.09480	-.12238	.15480	307.763	110	1.05020	-.46291	1.14769	336.213
115	-.02125	-.09898	.10124	257.881	115	.22300	-.98440	1.00934	282.764
120	-.05678	-.02495	.06202	203.721	120	-.65465	-.74105	.98880	228.542
125	-.04000	.01218	.04182	163.064	125	-.95135	-.02999	.95183	181.805
130	-.02991	.00659	.03062	167.579	130	-.53159	.57514	.78318	132.747
135	-.03605	.00323	.03620	174.878	135	.21964	.68214	.71663	72.152
140	-.02143	.02640	.03400	129.064	140	.73751	.31796	.80313	23.322
145	.03702	.05280	.06448	54.965	145	.68420	-.17916	.70727	345.327
150	.10565	.04338	.11421	22.323	150	.14138	-.46062	.48182	287.063
155	.11035	-.01294	.11111	353.312	155	-.49505	-.40595	.64021	219.353
160	-.00837	-.08888	.08927	264.622	160	-.79999	-.14570	.81315	190.322
165	-.24855	-.14500	.28775	210.259	165	-.58442	.09764	.59252	170.515
170	-.53999	-.16275	.56398	196.772	170	.00975	.19425	.19449	87.127
175	-.77690	-.15487	.79219	191.274	175	.61565	.17403	.63978	15.784
180	-.86779	-.14790	.88030	189.672	180	.86779	.14790	.88030	9.672

KA = 9.6

----- T2 -----

----- T1 -----

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.98046	.34622	2.01050	9.916	0	1.98046	.34622	2.01050	9.916
5	1.98378	.27280	2.00245	7.830	5	1.98872	.27561	2.00773	7.890
10	1.97764	.05417	1.97839	1.569	10	1.99922	.06149	2.00017	1.762
15	1.91575	-.29879	1.93891	351.135	15	1.96881	-.29624	1.99097	351.443
20	1.73009	-.75004	1.88567	336.562	20	1.82744	-.77672	1.98565	336.973
25	1.35219	-1.21964	1.82097	317.950	25	1.49106	-1.31335	1.98699	318.626
30	.75128	-1.57630	1.74618	295.483	30	.89486	-1.77568	1.98843	296.746
35	-.01836	-1.66045	1.66055	269.367	35	.04829	-1.97775	1.97834	271.399
40	-.78747	-1.35014	1.56300	239.747	40	-.90712	-1.73382	1.95678	242.382
45	-1.29999	-.65454	1.45548	206.725	45	-1.68237	-.96506	1.93951	209.840
50	-1.32410	.22152	1.34250	170.502	50	-1.92224	.18258	1.93089	174.574
55	-.81137	.91928	1.22613	131.432	55	-1.39670	1.29929	1.90753	137.071
60	.00413	1.10498	1.10499	89.786	60	-.22037	1.84539	1.85850	96.810
65	.68616	.70122	.98108	45.622	65	1.97457	1.46138	1.81392	53.673
70	.86080	-.01259	.86089	359.162	70	1.76169	.28109	1.78398	9.065
75	.48904	-.56321	.74590	310.968	75	1.38685	-1.02466	1.72432	323.541
80	-.09626	-.62560	.63296	261.253	80	.16068	-1.62440	1.63235	275.649
85	-.45718	-.26153	.52670	209.772	85	-1.09537	-1.12309	1.56381	225.716
90	-.39970	.16859	.43380	157.130	90	-1.51182	.09428	1.51480	176.409
95	-.08654	.33785	.34876	104.368	95	-.33709	1.12399	1.40145	126.577
100	.17046	.20772	.26870	50.627	100	.36208	1.23813	1.28999	73.649
105	.20362	-.01631	.20428	355.421	105	1.16292	.44972	1.24685	21.142
110	.08235	-.12914	.15316	302.527	110	1.02104	-.55094	1.16020	331.649
115	-.03051	-.09711	.10179	252.557	115	.15359	-.99744	1.00920	278.754
120	-.05650	-.01897	.05959	198.557	120	-.71105	-.64636	.96092	222.271
125	-.03431	.01806	.03877	152.237	125	-.94367	.11287	.95040	173.186
130	-.02607	.01335	.02929	152.879	130	-.46082	.65408	.80011	125.156
135	-.03553	.01156	.03736	161.980	135	.29901	.62365	.69163	64.385
140	-.02016	.02964	.03584	124.219	140	.76461	.15228	.77963	11.264
145	.04125	.04023	.05762	44.281	145	.64238	-.33323	.72357	332.582
150	.10895	.01342	.10978	7.022	150	.06785	-.48057	.48534	278.030
155	.10655	-.04159	.11438	338.679	155	-.54469	-.25648	.60266	205.214
160	-.02057	-.07975	.08236	255.540	160	-.79783	.09035	.80293	173.539
165	-.26312	-.06076	.27004	193.004	165	-.54702	.27030	.61016	153.705
170	-.54851	.01346	.54868	178.595	170	.04405	.18456	.18974	76.576
175	-.77612	.09688	.78214	172.885	175	.62453	-.02647	.62509	357.573
180	-.86261	.13302	.87281	171.234	180	.86261	-.13302	.87281	351.234

KA = 9.8

T1					T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.86628	.72389	2.00175	21.200	0	1.86628	.72389	2.00175	21.200
5	1.88540	.65192	1.99493	19.074	5	1.89125	.65714	2.00217	19.161
10	1.92565	.43409	1.97397	12.703	10	1.95015	.45052	2.00151	13.008
15	1.93658	.07132	1.93789	2.109	15	1.99454	.09230	1.99667	2.650
20	1.84043	-.41414	1.88645	347.318	20	1.94524	-.41337	1.98868	348.003
25	1.55098	-.95453	1.82118	328.390	25	1.70355	-1.01645	1.98375	329.177
30	1.01226	-1.42116	1.74482	305.461	30	1.18264	-1.59406	1.98485	306.572
35	.25257	-1.63959	1.65893	278.757	35	.36423	-1.94901	1.98275	280.585
40	-.57247	-1.45404	1.56267	248.510	40	-.63388	-1.86050	1.96552	251.186
45	-1.19439	-.83202	1.45562	214.861	45	-1.52545	-1.19824	1.93979	218.150
50	-1.34030	.04833	1.34117	177.935	50	-1.92265	-.06387	1.92371	181.903
55	-.90971	.81860	1.22379	138.018	55	-1.53222	1.13897	1.90918	143.375
60	-.10560	1.09863	1.10369	95.491	60	-.40696	1.82354	1.86840	102.581
65	.62322	.75639	.98007	50.514	65	.93789	1.55048	1.81207	58.830
70	.85678	.04716	.85807	3.151	70	1.72984	.39550	1.77448	12.878
75	.51475	-.53548	.74277	313.869	75	1.43785	-.96217	1.73008	326.211
80	-.07511	-.62694	.63142	263.168	80	.22700	-1.62532	1.64110	277.951
85	-.45022	-.26881	.52437	210.840	85	-1.06152	-1.13939	1.55726	227.026
90	-.39573	.16787	.42986	157.013	90	-1.50380	.10678	1.50758	175.938
95	-.07778	.33781	.34665	102.966	95	-.82227	1.15023	1.41392	125.560
100	.17719	.20057	.26762	48.542	100	.38902	1.22523	1.28551	72.385
105	.19907	-.02684	.20387	352.321	105	1.16804	.37461	1.22665	17.782
110	.06926	-.13385	.15071	297.358	110	.97531	-.63884	1.16591	326.775
115	-.04048	-.09401	.10235	246.705	115	.07913	-1.01421	1.01729	274.461
120	-.05657	-.01382	.05823	193.728	120	-.75124	-.55698	.93520	216.554
125	-.02814	.02164	.03550	142.434	125	-.90652	.25019	.94041	164.571
130	-.02037	.01822	.02732	138.189	130	-.37074	.72923	.81807	116.949
135	-.03214	.01967	.03768	148.530	135	.36691	.56624	.67472	57.058
140	-.01744	.03417	.03836	117.036	140	.75146	-.00599	.75148	359.543
145	.04219	.02951	.05149	34.969	145	.55931	-.47718	.73520	319.531
150	.10361	-.01483	.10467	351.853	150	-.01205	-.49545	.49562	268.503
155	.09415	-.06926	.11688	323.660	155	-.55297	-.11297	.56439	191.547
160	-.03024	-.07166	.07778	247.121	160	-.72607	.31136	.79002	156.789
165	-.25215	.01830	.25281	175.849	165	-.45647	.42878	.62627	136.792
170	-.50265	.17869	.53346	160.430	170	.07629	.17233	.18846	66.122
175	-.69688	.33236	.77208	154.502	175	.57130	-.21502	.61042	339.375
180	-.76962	.39551	.86529	152.801	180	.76961	-.39551	.86529	332.801

KA -10.0

----- T2 -----

----- T1 -----

°	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	°	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.67498	1.08000	1.99298	32.813	0	1.67498	1.08000	1.99298	32.813
5	1.70986	1.01173	1.98676	30.613	5	1.71667	1.01760	1.99561	30.658
10	1.79703	.80161	1.96771	24.041	10	1.82464	.82157	2.00107	24.240
15	1.88384	.44062	1.93468	13.164	15	1.94695	.47205	2.00336	13.629
20	1.88523	-.06365	1.88631	358.060	20	1.99729	-.04171	1.99772	358.804
25	1.69897	-.65931	1.82242	338.790	25	1.86365	-.68896	1.98692	339.711
30	1.24340	-1.22448	1.74510	315.439	30	1.43710	-1.36219	1.98011	316.533
35	.51717	-1.57493	1.65766	288.179	35	.66959	-1.86249	1.97920	289.774
40	-.34399	-1.52313	1.56149	257.274	40	-.34928	-1.93950	1.97070	259.791
45	-1.06529	-.99188	1.45556	222.956	45	-1.34190	-1.40828	1.94524	226.383
50	-1.33485	-.12503	1.34069	165.351	50	-1.89245	-.31454	1.91841	189.437
55	-.99626	.70705	1.22166	144.637	55	-1.64464	.95806	1.90334	149.778
60	-.21392	1.08062	1.10159	101.198	60	-.58421	1.78203	1.87535	108.151
65	.55658	.80547	.97907	55.356	65	.79807	1.63289	1.81748	63.953
70	.84940	.10650	.85605	7.147	70	1.68839	.51506	1.76520	16.965
75	.53918	-.50589	.73936	316.824	75	1.47878	-.89326	1.72763	328.866
80	-.05441	-.62693	.62928	265.040	80	.28653	-1.62731	1.65234	279.986
85	-.44397	-.27588	.52270	211.856	85	-1.02872	-1.16350	1.55306	228.518
90	-.39237	.16657	.42626	156.998	90	-1.49001	.11179	1.49419	175.709
95	-.06897	.33679	.34377	101.574	95	-.79816	1.17665	1.42182	124.150
100	.18435	.19282	.26677	46.286	100	.42045	1.21952	1.28996	70.978
105	.19483	-.03659	.19824	349.364	105	1.16584	.30925	1.20616	14.856
110	.05625	-.13650	.14764	292.396	110	.91394	-.71945	1.16314	321.790
115	-.05061	-.08917	.10253	240.422	115	-.00486	-1.03029	1.03030	269.730
120	-.05718	-.00882	.05785	188.772	120	-.78199	-.47574	.91533	211.315
125	-.02241	.02322	.03227	133.978	125	-.84418	.37305	.92294	156.159
130	-.01381	.02066	.02485	123.758	130	-.26015	.79249	.83410	108.173
135	-.02621	.02638	.03718	134.820	135	.42944	.51028	.66693	49.917
140	-.01257	.03905	.04103	107.848	140	.70526	-.14645	.72030	348.269
145	.04130	.02122	.04643	27.190	145	.43871	-.59773	.74145	306.277
150	.09108	-.03888	.09903	336.884	150	-.10354	-.50048	.51107	258.311
155	.07360	-.09300	.11860	308.358	155	-.52791	.01447	.52811	178.430
160	-.03899	-.06462	.07547	238.897	160	-.59423	.49699	.77467	140.092
165	-.22017	.08532	.23612	158.816	165	-.31852	.55613	.64088	119.802
170	-.41013	.31713	.51844	142.287	170	.10795	.15701	.19054	55.490
175	-.54947	.52813	.76213	136.135	175	.46439	-.37338	.59588	321.200
180	-.60007	.61312	.85790	134.384	180	.60007	-.61312	.85790	314.384