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ABSTRACT

The eigenvalues and eigenfunctions of the vibrational states belonging to the ground electronic state of the hydrogen molecular ion have been calculated. The calculations have been done for the $J = 0, 2, 4,$ and 7 rotational states. Included is a discussion of the dependence of the eigenvalues as a function of the lowest-order dynamic corrections to the internuclear potential. Also, a calculation has been done to determine the number of bound states of the D_2^+ system.

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I. INTRODUCTION

In a study of the collision processes of the hydrogen molecular ion with electrons and other atomic systems, one is concerned in general with contributions from all the vibrational states belonging to the ground electronic state of the system. This follows from the fact that of the various mechanisms which lead to the formation of the molecular ion, whether in the laboratory or under astrophysical conditions, the ion is left in an excited vibrational state, and further transitions to the ground state must proceed via quadrupole emission. These quadrupole lifetimes are sufficiently long that the collision processes of interest can occur before the ion has settled into the ground state. With respect to the interpretation of most experiments performed in the laboratory, these states are sufficiently long-lived to be considered stable.^{1,2,3}

Calculations have been done to determine the eigenvalues and eigenfunctions of the vibrational states belonging to the ground electronic state of the H_2^+ system. These calculations have been carried out for several rotational states of the ion. We have included in these calculations a discussion of the dependence of the eigenvalues on the lowest-order dynamic corrections to the internuclear potential. In addition, a calculation has been done which gives the number of bound states for the D_2^+ ion. The eigenvalues and eigenfunctions for the H_2^+ ion are listed in the tables included at the end of this report.

II. QUANTITATIVE DISCUSSION

A general discussion of the three-body problem has been given in a previous paper;⁴ here we reproduce only that portion which is essential for the continuity of this discussion.

The Hamiltonian for the hydrogen molecular ion is given by

$$\left\{ -\frac{\hbar^2}{2M} [\nabla_1^2 + \nabla_2^2] - \frac{\hbar^2}{2m} \nabla_e^2 + \frac{e^2}{|\vec{r}_1 - \vec{r}_2|} - \frac{e^2}{|\vec{r}_1 - \vec{r}_e|} - \frac{e^2}{|\vec{r}_2 - \vec{r}_e|} \right\} \psi = E\psi, \quad (1)$$

where 1, 2 refer to the proton coordinates, and e to the electron coordinates.

Upon introduction of the transformation

$$\begin{aligned} \vec{r}_c &= (2M + m)^{-1} (M\vec{r}_1 + M\vec{r}_2 + m\vec{r}_e), \\ \vec{R}_e &= \vec{r}_e - \frac{1}{2}(\vec{r}_1 + \vec{r}_2), \\ \vec{r}_n &= \vec{r}_1 - \vec{r}_2, \end{aligned} \quad (2)$$

the center-of-mass motion is separated from the internal motion, and the equation for the internal motion becomes

$$\left[-\frac{\hbar^2}{2} \left\{ \frac{1}{M_n} \nabla_n^2 + \frac{1}{M_e} \nabla_e^2 \right\} + \frac{e^2}{r_n} - \frac{e^2}{|\vec{R}_e - \frac{1}{2}\vec{r}_n|} - \frac{e^2}{|\vec{R}_e + \frac{1}{2}\vec{r}_n|} \right] \psi(\vec{R}_e, \vec{r}_n) = W\psi(\vec{R}_e, \vec{r}_n), \quad (3)$$

where $M_n = \frac{M}{2}$, and $M_e = \frac{m}{1 + \frac{m}{2M}}$.

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To treat the equation for the internal motions, we introduce a solution of the form

$$\psi(\vec{R}_e, \vec{r}_n) = \sum_i \psi_i(\vec{R}_e, \vec{r}_n) \chi_i(\vec{r}_n) \quad (4)$$

Upon insertion of Eq. (4) into Eq. (3), multiplication by ψ_j^* , and integration over all values of \vec{R}_e , Eq. (3) becomes

$$\begin{aligned} -\frac{\hbar^2}{2M_n} \nabla_n^2 \chi_j + \left[\frac{e^2}{r_n} + W_j(r_n) - W \right] \chi_j + \mathcal{O}_{ij} - \sum_i \chi_i \int \psi_j^* \left[\frac{\hbar^2}{2M_e} \nabla_e^2 + W_j(r_n) \right. \\ \left. + \frac{e^2}{|\vec{R}_e - \frac{1}{2} \vec{r}_n|} + \frac{e^2}{|\vec{R}_e + \frac{1}{2} \vec{r}_n|} \right] \psi_i d^3\vec{R}_e = 0; \end{aligned} \quad (5)$$

here

$$\mathcal{O}_{ij} = -\frac{\hbar^2}{2M_n} \sum_i \left[\chi_i \int \psi_j^* \nabla_n^2 \psi_i d^3\vec{R}_e + 2 \int \psi_j^* \nabla_n \chi_i \cdot \nabla_n \psi_i d^3\vec{R}_e \right].$$

The electronic eigenfunctions, ψ_i , are defined by setting the integrand of the last term in Eq. (5) to zero; the electronic eigenvalues, $W_j(r_n)$, are then determined as a function of the internuclear separation, r_n . The values of $W_j(r_n)$ used here have been determined by a variational calculation described elsewhere.^{4,5}

The remaining terms in Eq. (5) serve to define the nuclear motion. The calculations discussed here have been done in two approximations; in the first approximation all the \mathcal{O}_{ij} are set to zero, in the second only the lowest-order term, \mathcal{O}_{00} , is retained. When atomic units are introduced, the equation for the vibrational motion is written

$$\left\{ \nabla_n^2 + \frac{M_n}{M_e} \left[W_v - W_0(r_n) - \frac{2}{r_n} \right] \right\} \chi_{0v}(r_n) = -\mathcal{G}_{00} \chi_{0v}(r_n) . \quad (6)$$

Here the first subscript on the χ designates the lowest electronic state of the system, and the second subscript is introduced to distinguish the various vibrational states belonging to this lowest electronic state.

The radial equation for a state of total orbital angular momentum J is obtained by introducing the substitution $\phi_{0v} = r_n \chi_{0v}$ and separating off the angular part of ϕ_{0v} . The first index on ϕ can be suppressed, and the radial equation becomes

$$\frac{d^2 \phi_v}{dr_n^2} + \left\{ \frac{M_n}{M_e} \left[W_v - W_0(r_n) - \frac{2}{r_n} \right] - \frac{J(J+1)}{r_n^2} - g_{00} \right\} \phi_v = 0 , \quad (7)$$

where $g_{00} = -\mathcal{G}_{00}$; g_{00} is tabulated in Reference 6.

The solutions for the ϕ_v and the W_v have been obtained by numerical solution of Eq. (7) using the IBM 701. The integrations extended over the range $0 \leq r_n \leq 20$ (in units of the Bohr radius a_0), the integration proceeding in steps of $\Delta r_n = 0.05$. For these calculations we have taken $M_n/M_e = 918.334$. The calculations have been done for the $J = 0$ and $J = 2$ rotational states, and for a few of the upper states for $J = 4$ and $J = 7$.

In the first approximation the g_{00} is set equal to zero. In this approximation the potential function for large r_n tends to the limiting value $W_0(\infty) = -\frac{m}{1 + \frac{m}{2M}} \frac{e^4}{2r_n^2}$, which differs from the correct

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limiting value, i.e. the atomic Rydberg, $R = -\frac{m}{1 + \frac{m}{M}} \frac{e^4}{2\hbar^2}$. In second approximation the lowest-order coupling term, g_{00} , has been included. The inclusion of this term removes to lowest order in m/M the discrepancy in the asymptotic value of the potential present in the first approximation.⁴ Table I is a comparison of some of the eigenvalues in first and second approximation, given in units of the atomic Rydberg.

The eigenvalues and normalized eigenfunctions calculated in second approximation are listed in Table II and III, respectively. The tabulation of the eigenfunctions is given for $J = 0$ and $J = 2$, tabulated in intervals $\Delta r_n = 0.05$. For the $J = 0$ (parahydrogen) state we find nineteen bound vibrational states. For the higher rotational quanta the potential function deforms in such a way as to reduce the number of bound states; at $J = 4$ there are eighteen bound states, at $J = 7$, seventeen bound states.

The error in the eigenvalues is determined primarily by the inaccuracies in the potential function. On the basis of the comparison of the first-approximation potential function used here with the previous exact calculations,^{6,7} we conclude that the correct eigenvalues are systematically lower by 4 to 5×10^{-3} electron volt than the values calculated here. Note that this absolute error is of the same order of magnitude as the g_{00} term. We believe the differences in the eigenvalues are more accurate than this error in the absolute values, however.

To test the convergence of the numerical integration for the rapidly varying higher-state wave functions, the integration was done for an interval $\Delta r_n = 0.025$, and by using a linear interpolation for the potential at the intermediate points; this test shifted the eigenvalues downward approximately three parts in 10^5 , which is small compared with the effect of the uncertainties in the potential.

III. THE D_2^+ ION

As a final calculation we have determined the number of bound states of the D_2^+ ion. The number of bound states is one less than the number of nodes of the lowest free-state solution. For this calculation the g_{00} term appropriate to D_2^+ was neglected; the integration proceeded in steps of $\Delta r_n = 0.025$, using a linear interpolation of the potential. In this approximation and for $J = 0$ we find 27 bound states for the D_2^+ ion.

Note that for D_2^+ there are $\sqrt{2}$ times as many levels as for H_2^+ . This result would follow rigorously for a parabolic potential or in the limit of applicability of the WKB solution.

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REFERENCES

1. G. Gibson, The Photodissociation of H_2^+ , April, 1956, UCRL-4671.
2. W. Linlor, C. F. Barnett, R. Reinhardt, Dissociation of H_2^+ by Photons, UCRL-4917, June, 1957.
3. S. L. Andersen, K. Gjötterud, T. Holtebekk, and O. Lönsjö, Nuclear Physics 7, 384 (1958).
4. S. Cohen, D. L. Judd, and R. J. Riddell, Jr., Mu-Mesonic Molecules: I. The Three-Body Problem, UCRL-8390, August, 1958.
5. S. Cohen, D. L. Judd, and R. J. Riddell, Jr., Tabulation of Potential Functions and Dynamic Correction Terms for the Hydrogen Molecular Ion, UCRL-8802, June, 1959.
6. E. A. Hylleraas, Z. Physik 71, 739 (1931).
7. Bates, Ledsham, and Stewart, Phil. Trans. Roy. Soc. London, Ser. A., 246, 215 (1953-54).

Table I. Comparison of eigenvalues with and without the lowest-order dynamic corrections to the potential.

	$g_{00} = 0$	$g_{00} \neq 0$
$v = 0$	-1.1947414	-1.1944982
$v = 2$	-1.1559646	-1.1557255
$v = 4$	-1.1216770	-1.1214401
$v = 6$	-1.0916400	-1.0914036
$v = 8$	-1.0657038	-1.0654659
$v = 10$	-1.0438166	-1.0435752
$v = 12$	-1.0260434	-1.0257969
$v = 14$	-1.0125960	-1.0123427
$v = 16$	-1.0038738	-1.0003612
$v = 18$	-1.0004024	-1.0001323
$W_0(\infty)$	-1.0002723	-1.0000000

Table II. Vibrational eigenvalues for the $J = 0, 2, 4$ and 7 rotational states.

	$J = 0$	$J = 2$	$J = 4$	$J = 7$
$v = 0$	-1.1944982	-1.1929112		
$v = 1$	-1.1745327	-1.1730291		
$v = 2$	-1.1557255	-1.1543024		
$v = 3$	-1.1380388	-1.1366937		
$v = 4$	-1.1214401	-1.1201708		
$v = 5$	-1.1059022	-1.1047073		
$v = 6$	-1.0914036	-1.0902817		
$v = 7$	-1.0779281	-1.0768785		
$v = 8$	-1.0654659	-1.0644884		
$v = 9$	-1.0540136	-1.0531084		
$v = 10$	-1.0435752	-1.0427433		
$v = 11$	-1.0341627	-1.0334056		
$v = 12$	-1.0257969	-1.0251171		-1.0197711
$v = 13$	-1.0185092	-1.0179104		-1.0132400
$v = 14$	-1.0123427	-1.0118297		-1.0078827
$v = 15$	-1.0073536	-1.0069335	-1.0059878	-1.0037775
$v = 16$	-1.0036121	-1.0032941	-1.0025902	-1.0010305
$v = 17$	-1.0011962	-1.0009937	-1.0005668	
$v = 18$	-1.0001323	-1.0000669		

Dissociation limit = $W_0(\infty) = -1.0000000$

Table III. Tabulation of the vibrational functions, $\phi(\text{PHI})$, versus the independent variable, R . These tabulations consist of six columns: R , the internuclear separation measured in units of the Bohr radius, a_0 , and ϕ , the reduced radial-vibrational eigenfunction. This pair of entries is repeated consecutively three times on each page. The tabulations are given in intervals of R of 0.05, from 0.05 to a maximum R which ranges from 6.00 for the lowest states to 20.0 for the highest states.

The first 19 eigenfunctions are for the nonrotating ($J=0$) case. The eigenvalue, W , appropriate to the eigenfunction is listed at the beginning of each tabulation. The second 19 eigenfunctions are for the $J=2$ case. The final tabulation is the unnormalized eigenfunction corresponding to the lowest energy free-state solution, $W = -1.0000000$.

In these tabulations the entries are interpreted as follows:

(a) The first two digits less 50 represent the power of ten by which the decimal number is to be multiplied.

(b) The remaining eight digits correspond to a decimal number between .10000000 and .99999999.

(c) A minus sign following these digits indicates that the number is negative. For example, 40.26644207- is interpreted as $-.26644207 \times 10^{40-50} = -.26644207 \times 10^{-10}$, and 52.10068000 means $+1.0068000 \times 10^2$.

J=0		V=0		W=-1.1944982	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2050000	51.13154606	51.4050000	45.64485950
49.5000000	28.15733438	51.2100000	51.12954192	51.4100000	45.39083234
50.1000000	31.35440381	51.2150000	51.12472988	51.4150000	45.23551713
50.1500000	34.10307063	51.2200000	51.11752923	51.4200000	45.14113655
50.2000000	35.72797899	51.2250000	51.10846894	51.4250000	44.84123583
50.2500000	37.14428748	51.2300000	50.98128373	51.4300000	44.49880537
50.3000000	38.21707548	51.2350000	50.87085590	51.4350000	44.29427354
50.3500000	39.26456404	51.2400000	50.75869748	51.4400000	44.17276171
50.4000000	40.26644207	51.2450000	50.64932722	51.4450000	44.10094563
50.4500000	41.22565717	51.2500000	50.54627619	51.4500000	43.58713360
50.5000000	42.16303104	51.2550000	50.45204634	51.4550000	43.33998456
50.5500000	43.10171108	51.2600000	50.36815664	51.4600000	43.19602716
50.6000000	43.55385398	51.2650000	50.29526058	51.4650000	43.11255585
50.6500000	44.26578323	51.2700000	50.23331105	51.4700000	42.64368452
50.7000000	45.11339063	51.2750000	50.18173767	51.4750000	42.36668045
50.7500000	45.43357332	51.2800000	50.13962018	51.4800000	42.20809759
50.8000000	46.14971024	51.2850000	50.10583977	51.4850000	42.11766968
50.8500000	46.47009479	51.2900000	49.79203298	51.4900000	41.66302783
50.9000000	47.13511152	51.2950000	49.58535402	51.4950000	41.37232279
50.9500000	47.35759754	51.3000000	49.42742048	51.5000000	41.20838955
51.1000000	47.87642356	51.3050000	49.30847918	51.5050000	41.11626525
51.1050000	48.19993115	51.3100000	49.22013899	51.5100000	40.64667352
51.1100000	48.42652017	51.3150000	49.15539170	51.5150000	40.35861636
51.1150000	48.85460221	51.3200000	49.10853570	51.5200000	40.19829967
51.1200000	49.16146018	51.3250000	48.75037625	51.5250000	40.10934857
51.1250000	49.28867410	51.3300000	48.51367674	51.5300000	39.60135202
51.1300000	49.49002805	51.3350000	48.34829099	51.5350000	39.32986218
51.1350000	49.79215951	51.3400000	48.23397473	51.5400000	39.18047872
51.1400000	50.12228704	51.3450000	48.15577499	51.5450000	38.98515317
51.1450000	50.18072712	51.3500000	48.10281395	51.5500000	38.53643077
51.1500000	50.25630220	51.3550000	47.67290072	51.5550000	38.29149246
51.1550000	50.34954189	51.3600000	47.43682734	51.5600000	38.15800408
51.1600000	50.45932952	51.3650000	47.28134542	51.5650000	37.85505449
51.1650000	50.58267233	51.3700000	47.17982447	51.5700000	37.46146109
51.1700000	50.71472435	51.3750000	47.11408820	51.5750000	37.24881691
51.1750000	50.84909022	51.3800000	46.71864849	51.5800000	37.13369217
51.1800000	50.97838733	51.3850000	46.44954574	51.5850000	36.71851398
51.1850000	51.10949830	51.3900000	46.27932342	51.5900000	36.38392681
51.1900000	51.11918009	51.3950000	46.17242820	51.5950000	36.20541806
51.1950000	51.12630604	51.4000000	46.10577073	51.6000000	36.10815669
51.2000000	51.13048514				

J=0

V=1

W=-1.1745326

R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2050000	50.19862116	51.4050000	47.12340325-
49.5000000	28.56818825	51.2100000	49.75171199-	51.4100000	46.78424193-
50.1000000	32.12761258	51.2150000	50.34400749-	51.4150000	46.49526385-
50.1500000	34.36966089	51.2200000	50.59072829-	51.4200000	46.31086924-
50.2000000	36.26013489	51.2250000	50.80135382-	51.4250000	46.19398218-
50.2500000	37.51405978	51.2300000	50.96618257-	51.4300000	46.12035775-
50.3000000	38.77042152	51.2350000	51.10802167-	51.4350000	45.74267131-
50.3500000	39.93453652	51.2400000	51.11429995-	51.4400000	45.45583628-
50.4000000	40.93581368	51.2450000	51.11579458-	51.4450000	45.27834771-
50.4500000	41.78721272	51.2500000	51.11313892-	51.4500000	45.16912474-
50.5000000	42.56424184	51.2550000	51.10714736-	51.4550000	45.10226786-
50.5500000	43.34879620	51.2600000	50.98711390-	51.4600000	44.61553572-
50.6000000	44.18794256	51.2650000	50.88706936-	51.4650000	44.36882188-
50.6500000	44.89117829	51.2700000	50.77927821-	51.4700000	44.22003637-
50.7000000	45.37511651	51.2750000	50.67039489-	51.4750000	44.13072235-
50.7500000	46.14129064	51.2800000	50.56560092-	51.4800000	43.77347008-
50.8000000	46.47977640	51.2850000	50.46856075-	51.4850000	43.45586394-
50.8500000	47.14789282	51.2900000	50.38156458-	51.4900000	43.26765862-
50.9000000	47.41651013	51.2950000	50.30572184-	51.4950000	43.15658085-
50.9500000	48.10780771	51.3000000	50.24121657-	51.5000000	42.91276461-
51.1000000	48.25786189	51.3050000	50.18755903-	51.5050000	42.53027048-
51.1050000	48.57279801	51.3100000	50.14381959-	51.5100000	42.30704331-
51.1100000	49.11870245	51.3150000	50.10882267-	51.5150000	42.17722393-
51.1150000	49.23043031	51.3200000	49.81300615-	51.5200000	42.10197667-
51.1200000	49.42057061	51.3250000	49.60003089-	51.5250000	41.58505869-
51.1250000	49.72407659	51.3300000	49.43769901-	51.5300000	41.33468426-
51.1300000	50.11793451	51.3350000	49.31571982-	51.5350000	41.19093788-
51.1350000	50.18218631	51.3400000	49.22529049-	51.5400000	41.10863032-
51.1400000	50.26752352	51.3450000	49.15910264-	51.5450000	40.61651479-
51.1450000	50.37409063	51.3500000	49.11124345-	51.5500000	40.34895765-
51.1500000	50.49887785	51.3550000	48.77036070-	51.5550000	40.19709692-
51.1550000	50.63513614	51.3600000	48.52855273-	51.5600000	40.11101919-
51.1600000	50.77238586	51.3650000	48.35941948-	51.5650000	39.62433130-
51.1650000	50.89715962	51.3700000	48.24231025-	51.5700000	39.35001739-
51.1700000	50.99445856	51.3750000	48.16200571-	51.5750000	39.19608339-
51.1750000	51.10497275	51.3800000	48.10744915-	51.5800000	39.10940606-
51.1800000	51.10510183	51.3850000	47.70714804-	51.5850000	38.61076408-
51.1850000	50.99092793	51.3900000	47.46192114-	51.5900000	38.33870745-
51.1900000	50.86794644	51.3950000	47.29956153-	51.5950000	38.18809023-
51.1950000	50.68694014	51.4000000	47.19291743-	51.6000000	38.10266084-
51.2000000	50.45869719	.	.	.	.

J=0		V=2		W=-1.1557254	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2050000	50.70731904-	51.4050000	48.14065874
49.5000000	29.14795334	51.2100000	50.84832897-	51.4100000	47.93928529
50.1000000	32.33137980	51.2150000	50.89627261-	51.4150000	47.62285111
50.1500000	34.95633187	51.2200000	50.84809698-	51.4200000	47.41023878
50.2000000	36.67066299	51.2250000	50.71170862-	51.4250000	47.26844809
50.2500000	38.13215888	51.2300000	50.50405605-	51.4300000	47.17456448
50.3000000	39.19734910	51.2350000	50.24815382-	51.4350000	47.11282882
50.3500000	40.23832070	51.2400000	49.30374872	51.4400000	46.72501248
50.4000000	41.23736025	51.2450000	50.30659385	51.4450000	46.46325649
50.4500000	42.19839061	51.2500000	50.55897692	51.4500000	46.29439729
50.5000000	43.14113129	51.2550000	50.77120833	51.4550000	46.18610800
50.5500000	43.86484602	51.2600000	50.93305045	51.4600000	46.11705625
50.6000000	44.46136322	51.2650000	51.10402789	51.4650000	45.73265485
50.6500000	45.21629059	51.2700000	51.10939677	51.4700000	45.45640767
50.7000000	45.89879842	51.2750000	51.10992891	51.4750000	45.28302651
50.7500000	46.33370621	51.2800000	51.10641708	51.4800000	45.17473891
50.8000000	47.11151649	51.2850000	50.99793335	51.4850000	45.10742579
50.8500000	47.33771594	51.2900000	50.91015651	51.4900000	44.65772675
50.9000000	47.93270514	51.2950000	50.80976414	51.4950000	44.40111240
50.9500000	48.23628749	51.3000000	50.70445968	51.5000000	44.24368274
51.1000000	48.55200751	51.3050000	50.60038696	51.5050000	44.14749835
51.1050000	49.11949346	51.3100000	50.50207651	51.5100000	43.88960672
51.1100000	49.24071914	51.3150000	50.41252312	51.5150000	43.53472115
51.1150000	49.45300795	51.3200000	50.33339837	51.5200000	43.32033499
51.1200000	49.79906673	51.3250000	50.26530627	51.5250000	43.19129910
51.1250000	50.13249189	51.3300000	50.20805722	51.5300000	43.11388170
51.1300000	50.20699635	51.3350000	50.16091993	51.5350000	42.67599546
51.1350000	50.30529654	51.3400000	50.12283901	51.5400000	42.40006285
51.1400000	50.42564204	51.3450000	49.92606354	51.5450000	42.23615451
51.1450000	50.56134374	51.3500000	49.68988767	51.5500000	42.13898917
51.1500000	50.70020733	51.3550000	49.50814033	51.5550000	41.81625744
51.1550000	50.82513202	51.3600000	49.37023185	51.5600000	41.47789833
51.1600000	50.91606272	51.3650000	49.26696261	51.5650000	41.27936831
51.1650000	50.95313227	51.3700000	49.19059082	51.5700000	41.16273248
51.1700000	50.92045741	51.3750000	49.13477357	51.5750000	40.94743910
51.1750000	50.80978652	51.3800000	48.94433153	51.5800000	40.54902101
51.1800000	50.62313824	51.3850000	48.65586995	51.5850000	40.31843016
51.1850000	50.37371928	51.3900000	48.45168139	51.5900000	40.18328433
51.1900000	49.84807852	51.3950000	48.30853724	51.5950000	40.10563965
51.1950000	50.21328570-	51.4000000	48.20911102	51.6000000	39.59764401
51.2000000	50.48758567-				

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49.50000000	29.32026144	51.21000000	50.59522806-	51.41000000	48.76499772-
50.10000000	32.71544617	51.21500000	50.34876598-	51.41500000	48.53412350-
50.15000000	35.20574446	51.22000000	49.50859133-	51.42000000	48.37009390-
50.20000000	37.14381739	51.22500000	50.25456374	51.42500000	48.25456669-
50.25000000	38.28265089	51.23000000	50.52462210	51.43000000	48.17387380-
50.30000000	39.42063196	51.23500000	50.72393035	51.43500000	48.11795800-
50.35000000	40.50582006	51.24000000	50.82917460	51.44000000	47.79504708-
50.40000000	41.50121559	51.24500000	50.83118111	51.44500000	47.53252204-
50.45000000	42.41638906	51.25000000	50.73456624	51.45000000	47.35453817-
50.50000000	43.29410658	51.25500000	50.55532250	51.45500000	47.23467514-
50.55000000	44.17874224	51.26000000	50.31717362	51.46000000	47.15446934-
50.60000000	44.94450521	51.26500000	49.47398801	51.46500000	47.10112978-
50.65000000	45.43802683	51.27000000	50.22703608-	51.47000000	46.65866036-
50.70000000	46.17981209	51.27500000	50.48262036-	51.47500000	46.42684877-
50.75000000	46.65852025	51.28000000	50.70132391-	51.48000000	46.27529126-
50.80000000	47.21672458	51.28500000	50.87155414-	51.48500000	46.17672461-
50.85000000	47.64529539	51.29000000	50.98808174-	51.49000000	46.11294178-
50.90000000	48.17490995	51.29500000	51.10512651-	51.49500000	45.71869405-
50.95000000	48.43405169	51.30000000	51.10657840-	51.50000000	45.45542939-
51.10000000	48.99122606	51.30500000	51.10392257-	51.50500000	45.28745317-
51.10500000	49.20927006	51.31000000	50.98068938-	51.51000000	45.18072675-
51.11000000	49.41011562	51.31500000	50.89960591-	51.51500000	45.11320841-
51.11500000	49.74867185	51.32000000	50.80483104-	51.52000000	44.70656282-
51.12000000	50.12768420	51.32500000	50.70404312-	51.52500000	44.43949677-
51.12500000	50.20391963	51.33000000	50.60342999-	51.53000000	44.27243506-
51.13000000	50.30548587	51.33500000	50.50759338-	51.53500000	44.16836167-
51.13500000	50.42967761	51.34000000	50.41964302-	51.54000000	44.10370066-
51.14000000	50.56744495	51.34500000	50.34138257-	51.54500000	43.63702816-
51.14500000	50.70277179	51.35000000	50.27356023-	51.55000000	43.39002849-
51.15000000	50.81381990	51.35500000	50.21612858-	51.55500000	43.23828428-
51.15500000	50.87610398	51.36000000	50.16848913-	51.56000000	43.14506463-
51.16000000	50.86736232	51.36500000	50.12970238-	51.56500000	42.88191130-
51.16500000	50.77314723	51.37000000	49.98656550-	51.57000000	42.53392785-
51.17000000	50.59172048	51.37500000	49.74193433-	51.57500000	42.32319351-
51.17500000	50.33679445	51.38000000	49.55195599-	51.58000000	42.19455453-
51.18000000	49.37083768	51.38500000	49.40640792-	51.58500000	42.11727219-
51.18500000	50.26761057-	51.39000000	49.29630660-	51.59000000	41.70067869-
51.19000000	50.53311349-	51.39500000	49.21400807-	51.59500000	41.41919413-
51.19500000	50.71898478-	51.40000000	49.15318091-	51.60000000	41.24579993-
51.20000000	50.79618135-

J=0		V=4		W=-1.1214400	
R	PHI	R	PHI	R	PHI
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49.5000000	29.61023442	51.2550000	50.49415829-	51.5050000	46.41335242
50.1000000	33.13599069	51.2600000	50.69252948-	51.5100000	46.27120357
50.1500000	35.38978253	51.2650000	50.79674800-	51.5150000	46.17721487
50.2000000	37.27163012	51.2700000	50.79812165-	51.5200000	46.11534565
50.2500000	38.53251533	51.2750000	50.70212727-	51.5250000	45.74793215
50.3000000	39.78992229	51.2800000	50.52554410-	51.5300000	45.48321932
50.3500000	40.94613175	51.2850000	50.29245518-	51.5350000	45.31110437
50.4000000	41.93301680	51.2900000	49.29979962-	51.5400000	45.19962026
50.4500000	42.77068119	51.2950000	50.23557630	51.5450000	45.12767156
50.5000000	43.54069890	51.3000000	50.48165032	51.5500000	44.81400588
50.5500000	44.32604759	51.3050000	50.69126728	51.5550000	44.51743403
50.6000000	45.17074653	51.3100000	50.85374999	51.5600000	44.32796369
50.6500000	45.78378278	51.3150000	50.96454519	51.5650000	44.20729388
50.7000000	46.31803735	51.3200000	51.10243338	51.5700000	44.13067196
50.7500000	47.11496655	51.3250000	51.10378152	51.5750000	43.82159404
50.8000000	47.37290032	51.3300000	51.10123039	51.5800000	43.51529189
50.8500000	48.10924960	51.3350000	50.95646462	51.5850000	43.32241161
50.9000000	48.29086760	51.3400000	50.87918978	51.5900000	43.20126517
50.9500000	48.70765489	51.3450000	50.78880742	51.5950000	43.12536172
51.1000000	49.15810778	51.3500000	50.69251795	51.6000000	42.77917702
51.1050000	49.32582908	51.3550000	50.59613616	51.6050000	42.48330014
51.1100000	49.62167771	51.3600000	50.50400864	51.6100000	42.29918596
51.1150000	50.11016285	51.3650000	50.41909773	51.6150000	42.18485931
51.1200000	50.18174236	51.3700000	50.34315870	51.6200000	42.11401154
51.1250000	50.27960938	51.3750000	50.27696514	51.6250000	41.70193043
51.1300000	50.40147052	51.3800000	50.22054556	51.6300000	41.43142581
51.1350000	50.53777204	51.3850000	50.17340550	51.6350000	41.26473597
51.1400000	50.67072087	51.3900000	50.13471938	51.6400000	41.16219670
51.1450000	50.77556393	51.3950000	50.10348573	51.6450000	40.99224560
51.1500000	50.82459928	51.4000000	49.78644670	51.6500000	40.60613531
51.1550000	50.79351403	51.4050000	49.59160218	51.6550000	40.36975800
51.1600000	50.66866851	51.4100000	49.44073378	51.6600000	40.22526122
51.1650000	50.45324428	51.4150000	49.32531715	51.6650000	40.13705623
51.1700000	50.17009001	51.4200000	49.23801556	51.6700000	39.83286827
51.1750000	50.14021216-	51.4250000	49.17268031	51.6750000	39.50552167
51.1800000	50.42623464-	51.4300000	49.12427378	51.6800000	39.30648479
51.1850000	50.63622623-	51.4350000	48.88749395	51.6850000	39.18561104
51.1900000	50.72971566-	51.4400000	48.62913165	51.6900000	39.11229029
51.1950000	50.68719948-	51.4450000	48.44283401	51.6950000	38.67864596
51.2000000	50.51529952-	51.4500000	48.30959191	51.7000000	38.40975347
51.2050000	50.24602703-	51.4550000	48.21503359	51.7050000	38.24717204
51.2100000	49.69705345	51.4600000	48.14842410	51.7100000	38.14896548
51.2150000	50.37261654	51.4650000	48.10183358	51.7150000	37.89701990
51.2200000	50.60709377	51.4700000	47.69465447	51.7200000	37.53970462
51.2250000	50.73187044	51.4750000	47.47123201	51.7250000	37.32446838
51.2300000	50.72716668	51.4800000	47.31796718	51.7300000	37.19491712
51.2350000	50.59699726	51.4850000	47.21345186	51.7350000	37.11701006
51.2400000	50.36672601	51.4900000	47.14258471	51.7400000	36.70189827
51.2450000	49.76829026	51.4950000	46.94794374	51.7450000	36.42078367

R	PHI	R	PHI	R	PHI
51.7500000	36.25207291	51.7700000	35.32274136	51.7900000	34.40939553
51.7550000	36.15093046	51.7750000	35.19284648	51.7950000	34.24399091
51.7600000	35.90301389	51.7800000	35.11509464	51.8000000	34.14478523
51.7650000	35.54009301	51.7850000	34.68708410	.	

J=0		V=5		W=-1.1059021	
R	PHI	R	PHI	R	PHI
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49.50000000	30.10553359	51.25500000	50.68283060-	51.50500000	47.44851872-
50.10000000	33.23464475	51.26000000	50.53579173-	51.51000000	47.30754342-
50.15000000	35.67046663	51.26500000	50.29685968-	51.51500000	47.20992875-
50.20000000	37.46589498	51.27000000	48.89036601-	51.52000000	47.14267705-
50.25000000	38.91122264	51.27500000	50.28081322	51.52500000	46.96566493-
50.30000000	40.13476055	51.28000000	50.52888330	51.53000000	46.65096760-
50.35000000	41.16080819	51.28500000	50.70210266	51.53500000	46.43713941-
50.40000000	42.15786310	51.29000000	50.78106466	51.54000000	46.29246459-
50.45000000	43.12969515	51.29500000	50.76099884	51.54500000	46.19497594-
50.50000000	43.90417046	51.30000000	50.65017132	51.55000000	46.12953977-
50.55000000	44.54121996	51.30500000	50.46670942	51.55500000	45.85782027-
50.60000000	45.28103382	51.31000000	50.23458395	51.56000000	45.56626021-
50.65000000	46.12776025	51.31500000	49.20356167-	51.56500000	45.37266162-
50.70000000	46.51276009	51.32000000	50.27381798-	51.57000000	45.24453610-
50.75000000	47.18308310	51.32500000	50.50551680-	51.57500000	45.16001099-
50.80000000	47.58569823	51.33000000	50.70062103-	51.58000000	45.10441965-
50.85000000	48.16897521	51.33500000	50.85017828-	51.58500000	44.67964959-
50.90000000	48.44226571	51.34000000	50.95078374-	51.59000000	44.44126733-
50.95000000	49.10558190	51.34500000	51.10036799-	51.59500000	44.28580792-
51.10000000	49.23099949	51.35000000	51.10135935-	51.60000000	44.18468981-
51.10500000	49.46508944	51.35500000	50.98748249-	51.60500000	44.11908201-
51.11000000	49.86467947	51.36000000	50.93339692-	51.61000000	43.76616322-
51.11500000	50.14884357	51.36500000	50.85951747-	51.61500000	43.49193076-
51.12000000	50.23766041	51.37000000	50.77346163-	51.62000000	43.31523098-
51.12500000	50.35228569	51.37500000	50.68181315-	51.62500000	43.20161803-
51.13000000	50.48456360	51.38000000	50.58990333-	51.63000000	43.12871740-
51.13500000	50.61711338	51.38500000	50.50173932-	51.63500000	42.82031984-
51.14000000	50.72412194	51.39000000	50.42008946-	51.64000000	42.52191197-
51.14500000	50.77548909	51.39500000	50.34663330-	51.64500000	42.33151842-
51.15000000	50.74410954	51.40000000	50.28216041-	51.65000000	42.21025282-
51.15500000	50.61471021	51.40500000	50.22677668-	51.65500000	42.13314548-
51.16000000	50.39155986	51.41000000	50.18009984-	51.66000000	41.84195078-
51.16500000	50.10207535	51.41500000	50.14142996-	51.66500000	41.53167640-
51.17000000	50.20582031-	51.42000000	50.10988888-	51.67000000	41.33529864-
51.17500000	50.47290948-	51.42500000	49.84527211-	51.67500000	41.21118492-
51.18000000	50.64255817-	51.43000000	49.64401315-	51.68000000	41.13285004-
51.18500000	50.67556144-	51.43500000	49.48624451-	51.68500000	40.83473864-
51.19000000	50.56156300-	51.44000000	49.36397133-	51.69000000	40.52389930-
51.19500000	50.32345986-	51.44500000	49.27021456-	51.69500000	40.32845467-
51.20000000	49.13171631-	51.45000000	49.19904175-	51.70000000	40.20570689-
51.20500000	50.30024520	51.45500000	49.14552135-	51.70500000	40.12870359-
51.21000000	50.54697545	51.46000000	49.10563328-	51.71000000	39.80447283-
51.21500000	50.67285135	51.46500000	48.76155475-	51.71500000	39.50238531-
51.22000000	50.65156838	51.47000000	48.54545075-	51.72000000	39.31345152-
51.22500000	50.48974052	51.47500000	48.38822517-	51.72500000	39.19540921-
51.23000000	50.22403360	51.48000000	48.27466273-	51.73000000	39.12171692-
51.23500000	49.88406150-	51.48500000	48.19320169-	51.73500000	38.75759488-
51.24000000	50.38333935-	51.49000000	48.13515119-	51.74000000	38.47115992-
51.24500000	50.60323355-	51.49500000	47.94042345-	51.74500000	38.29283674-

R	PHI	R	PHI	R	PHI
51.7500000	38.18185587-	51.7700000	37.26880333-	51.7900000	36.39331296-
51.7550000	38.11287968-	51.7750000	37.16648352-	51.7950000	36.24286735-
51.7600000	37.70003993-	51.7800000	37.10296890-	51.8000000	36.14927014-
51.7650000	37.43401523-	51.7850000	36.63708050-	.	

J=0		V=6		W=-1.0914035	
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50.1000000	33.37445001	51.2600000	50.18907754	51.5100000	48.26544603
50.1500000	36.10668484	51.2650000	50.45538434	51.5150000	48.18964559
50.2000000	37.73935073	51.2700000	50.63254134	51.5200000	48.13483274
50.2500000	39.14428968	51.2750000	50.69013939	51.5250000	47.95416036
50.3000000	40.21278657	51.2800000	50.62214826	51.5300000	47.67220865
50.3500000	41.25302953	51.2850000	50.44541409	51.5350000	47.47154421
50.4000000	42.24734459	51.2900000	50.19400871	51.5400000	47.32942190
50.4500000	43.20218531	51.2950000	49.88668255-	51.5450000	47.22922712
50.5000000	44.14011730	51.3000000	50.35824898-	51.5500000	47.15890315
50.5500000	44.83292862	51.3050000	50.57652501-	51.5550000	47.10975325
50.6000000	45.42906869	51.3100000	50.71640378-	51.5600000	46.75541314
50.6500000	46.19328778	51.3150000	50.76420927-	51.5650000	46.51819565
50.7000000	46.76777330	51.3200000	50.71954528-	51.5700000	46.35432605
50.7500000	47.27096234	51.3250000	50.59321577-	51.5750000	46.24152830
50.8000000	47.85559214	51.3300000	50.40397022-	51.5800000	46.16415043
50.8500000	48.24327138	51.3350000	50.17481554-	51.5850000	46.11124375
50.9000000	48.62648728	51.3400000	49.70473154	51.5900000	45.75182728
50.9500000	49.14689055	51.3450000	50.31018701	51.5950000	45.50677636
51.0000000	49.31500180	51.3500000	50.52665007	51.6000000	45.34073426
51.0500000	49.62020824	51.3550000	50.70725035	51.6050000	45.22853852
51.1000000	50.11245919	51.3600000	50.84466440	51.6100000	45.15292868
51.1150000	50.18820365	51.3650000	50.93642361	51.6150000	45.10210432
51.1200000	50.29102064	51.3700000	50.98408462	51.6200000	44.68024224
51.1250000	50.41571414	51.3750000	50.99216330	51.6250000	44.45225598
51.1300000	50.54748027	51.3800000	50.96706990	51.6300000	44.30008319
51.1350000	50.66158838	51.3850000	50.91610331	51.6350000	44.19873283
51.1400000	50.72676527	51.3900000	50.84666351	51.6400000	44.13137153
51.1450000	50.71257966	51.3950000	50.76562637	51.6450000	43.86689797
51.1500000	50.59944245	51.4000000	50.67898392	51.6500000	43.57108375
51.1550000	50.38819894	51.4050000	50.59160955	51.6550000	43.37560064
51.1600000	50.10551989	51.4100000	50.50723862	51.6600000	43.24664648
51.1650000	50.19802123-	51.4150000	50.42849081	51.6650000	43.16172358
51.1700000	50.45813510-	51.4200000	50.35702870	51.6700000	43.10588794
51.1750000	50.61324045-	51.4250000	50.29370490	51.6750000	42.69234161
51.1800000	50.62246050-	51.4300000	50.23874224	51.6800000	42.45208178
51.1850000	50.47936165-	51.4350000	50.19190191	51.6850000	42.29482349
51.1900000	50.21650920-	51.4400000	50.15263346	51.6900000	42.19203218
51.1950000	50.10128725	51.4450000	50.12019885	51.6950000	42.12493355
51.2000000	50.39350584	51.4500000	49.93770758	51.7000000	41.81187843
51.2050000	50.58542658	51.4550000	49.72504673	51.7050000	41.52703386
51.2100000	50.62824331	51.4600000	49.55589739	51.7100000	41.34176514
51.2150000	50.51184166	51.4650000	49.42280024	51.7150000	41.22140830
51.2200000	50.26677347	51.4700000	49.31912263	51.7200000	41.14329509
51.2250000	49.44757220-	51.4750000	49.23912134	51.7250000	40.92659047
51.2300000	50.34580555-	51.4800000	49.17793638	51.7300000	40.59860128
51.2350000	50.56447087-	51.4850000	49.13153267	51.7350000	40.38641422
51.2400000	50.65110605-	51.4900000	48.96617179	51.7400000	40.24921358
51.2450000	50.58877719-	51.4950000	48.70541976	51.7450000	40.16062466

R	PHI	R	PHI	R	PHI
51.75000000	40.10343012	51.77000000	39.17664937	51.79000000	38.29835176
51.75500000	39.66570071	51.77500000	39.11342840	51.79500000	38.19090065
51.76000000	39.42802180	51.78000000	38.72714219	51.80000000	38.12153318
51.76500000	39.27514202	51.78500000	38.46635805	.	

J=0		V=7		W=-1.0779280	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.17681571	51.5000000	49.30316587-
49.5000000	30.25267591	51.2550000	50.44060598	51.5050000	49.23007165-
50.1000000	33.55949551	51.2600000	50.59895015	51.5100000	49.17353340-
50.1500000	36.15897765	51.2650000	50.61765627	51.5150000	49.13012549-
50.2000000	38.10990081	51.2700000	50.49642228	51.5200000	48.97032415-
50.2500000	39.21404223	51.2750000	50.26605220	51.5250000	48.71970534-
50.3000000	40.31482043	51.2800000	49.21122027-	51.5300000	48.53110309-
50.3500000	41.37314217	51.2850000	50.30439838-	51.5350000	48.39001865-
50.4000000	42.36331874	51.2900000	50.52804573-	51.5400000	48.28508002-
50.4500000	43.29558674	51.2950000	50.65185174-	51.5450000	48.20744801-
50.5000000	44.20371004	51.3000000	50.65716071-	51.5500000	48.15031284-
50.5500000	45.12031396	51.3050000	50.54787129-	51.5550000	48.10846883-
50.6000000	45.61516411	51.3100000	50.34709420-	51.5600000	47.77967087-
50.6500000	46.27476295	51.3150000	49.90848223-	51.5650000	47.55832311-
50.7000000	47.10808724	51.3200000	50.17948126	51.5700000	47.39837841-
50.7500000	47.37731017	51.3250000	50.42434784	51.5750000	47.28327386-
50.8000000	48.11768563	51.3300000	50.61173237	51.5800000	47.20076118-
50.8500000	48.33005447	51.3350000	50.72065339	51.5850000	47.14183191-
50.9000000	48.83706050	51.3400000	50.74239838	51.5900000	46.99895490-
50.9500000	49.19294160	51.3450000	50.67973095	51.5950000	46.70153508-
51.1000000	49.40594986	51.3500000	50.54467706	51.6000000	46.49128823-
51.1050000	49.78240886	51.3550000	50.35547369	51.6050000	46.34312774-
51.1100000	50.13850320	51.3600000	50.13337501	51.6100000	46.23903157-
51.1150000	50.22555100	51.3650000	50.10029701-	51.6150000	46.16610389-
51.1200000	50.33799999	51.3700000	50.32641804-	51.6200000	46.11515240-
51.1250000	50.46542160	51.3750000	50.52963590-	51.6250000	45.79648348-
51.1300000	50.58653559	51.3800000	50.69909148-	51.6300000	45.54970633-
51.1350000	50.67096021	51.3850000	50.82856427-	51.6350000	45.37859366-
51.1400000	50.68558637	51.3900000	50.91600925-	51.6400000	45.26022040-
51.1450000	50.60487793	51.3950000	50.96287222-	51.6450000	45.17851317-
51.1500000	50.42225068	51.4000000	50.97313657-	51.6500000	45.12223432-
51.1550000	50.15816101	51.4050000	50.95246539-	51.6550000	44.83549484-
51.1600000	50.13936807-	51.4100000	50.90730554-	51.6600000	44.57010080-
51.1650000	50.40396624-	51.4150000	50.84426268-	51.6650000	44.38837277-
51.1700000	50.56850168-	51.4200000	50.76951826-	51.6700000	44.26415653-
51.1750000	50.58599483-	51.4250000	50.68855243-	51.6750000	44.17939904-
51.1800000	50.44670195-	51.4300000	50.60588479-	51.6800000	44.12165976-
51.1850000	50.18475227-	51.4350000	50.52507429-	51.6850000	43.82389814-
51.1900000	50.12902375	51.4400000	50.44870784-	51.6900000	43.55720649-
51.1950000	50.40662133	51.4450000	50.37850972-	51.6950000	43.37636467-
51.2000000	50.56877458	51.4500000	50.31547132-	51.7000000	43.25389864-
51.2050000	50.56884590	51.4550000	50.25999254-	51.7050000	43.17108441-
51.2100000	50.40688400	51.4600000	50.21202693-	51.7100000	43.11514779-
51.2150000	50.12937372	51.4650000	50.17120898-	51.7150000	42.77418986-
51.2200000	50.18496086-	51.4700000	50.13696773-	51.7200000	42.51995237-
51.2250000	50.44849138-	51.4750000	50.10861550-	51.7250000	42.34888057-
51.2300000	50.58968546-	51.4800000	49.85419093-	51.7300000	42.23384781-
51.2350000	50.57229794-	51.4850000	49.66649455-	51.7350000	42.15661892-
51.2400000	50.40358702-	51.4900000	49.51616943-	51.7400000	42.10478561-
51.2450000	50.13008514-	51.4950000	49.39692023-	51.7450000	41.70062229-

R	PHI	R	PHI	R	PHI
51.7500000	41.46794259-	51.7700000	40.92461460-	51.7900000	40.18043631-
51.7550000	41.31240629-	51.7750000	40.61571162-	51.7950000	40.11965332-
51.7600000	41.20831310-	51.7800000	40.40920637-	51.8000000	39.78913524-
51.7650000	41.13888685-	51.7850000	40.27212381-	.	

J=0		V=8		W=-1.0654658	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.51973946	51.5000000	50.13227124
49.5000000	30.35713639	51.2550000	50.57711151	51.5050000	50.10605524
50.1000000	33.78935134	51.2600000	50.47994611	51.5100000	49.84411158
50.1500000	36.22373206	51.2650000	50.25720234	51.5150000	49.66716954
50.2000000	38.15430898	51.2700000	49.31375640-	51.5200000	49.52383881
50.2500000	39.29996365	51.2750000	50.31273180-	51.5250000	49.40872205
50.3000000	40.44011916	51.2800000	50.51956278-	51.5300000	49.31700223
50.3500000	41.52007837	51.2850000	50.60594161-	51.5350000	49.24446966
50.4000000	42.50453139	51.2900000	50.55610544-	51.5400000	49.18751427
50.4500000	43.40867830	51.2950000	50.38524622-	51.5450000	49.14308680
50.5000000	44.28019800	51.3000000	50.13326673-	51.5500000	49.10864885
50.5500000	45.16449504	51.3050000	50.14604324	51.5550000	48.82112190
50.6000000	45.83523301	51.3100000	50.39733781	51.5600000	48.61778872
50.6500000	46.37009833	51.3150000	50.57470083	51.5650000	48.46281603
50.7000000	47.14427912	51.3200000	50.64924515	51.5700000	48.34529910
50.7500000	47.49852693	51.3250000	50.61239568	51.5750000	48.25661327
50.8000000	48.15371789	51.3300000	50.47496335	51.5800000	48.18999128
50.8500000	48.42559741	51.3350000	50.26295278	51.5850000	48.14016158
50.9000000	49.10639578	51.3400000	49.11447460	51.5900000	48.10304626
50.9500000	49.24133078	51.3450000	50.24198812-	51.5950000	47.75510457
51.1000000	49.49870254	51.3500000	50.46318183-	51.6000000	47.55158745
51.1050000	49.94191153	51.3550000	50.62569786-	51.6050000	47.40170906
51.1100000	50.16295798	51.3600000	50.71325786-	51.6100000	47.29171177
51.1150000	50.25849764	51.3650000	50.72029953-	51.6150000	47.21124871
51.1200000	50.37572479	51.3700000	50.65095157-	51.6200000	47.15257450
51.1250000	50.49893000	51.3750000	50.51696059-	51.6250000	47.10991739
51.1300000	50.60135475	51.3800000	50.33504320-	51.6300000	46.78993688
51.1350000	50.64941766	51.3850000	50.12419999-	51.6350000	46.56637584
51.1400000	50.61198449	51.3900000	49.96704098	51.6400000	46.40517667
51.1450000	50.47268104	51.3950000	50.31079799	51.6450000	46.28923661
51.1500000	50.24091924	51.4000000	50.50446362	51.6500000	46.20604747
51.1550000	49.43634102-	51.4050000	50.66794341	51.6550000	46.14649628
51.1600000	50.31700970-	51.4100000	50.79543758	51.6600000	46.10395907
51.1650000	50.50752484-	51.4150000	50.88476511	51.6650000	45.73639989
51.1700000	50.55860898-	51.4200000	50.93677992	51.6700000	45.52072265
51.1750000	50.44995597-	51.4250000	50.95462849	51.6750000	45.36760357
51.1800000	50.20852346-	51.4300000	50.94300201	51.6800000	45.25909115
51.1850000	49.96073137	51.4350000	50.90742532	51.6850000	45.18233386
51.1900000	50.37156244	51.4400000	50.85367354	51.6900000	45.12812501
51.1950000	50.53218609	51.4450000	50.78730432	51.6950000	44.89908496
51.2000000	50.52694783	51.4500000	50.71334327	51.7000000	44.63003507
51.2050000	50.35685729	51.4550000	50.63608277	51.7050000	44.44094660
51.2100000	49.74956613	51.4600000	50.55900041	51.7100000	44.30820617
51.2150000	50.23086285-	51.4650000	50.48474836	51.7150000	44.21518496
51.2200000	50.46617835-	51.4700000	50.41521922	51.7200000	44.15005264
51.2250000	50.55974458-	51.4750000	50.35162725	51.7250000	44.10453292
51.2300000	50.48483683-	51.4800000	50.29462765	51.7300000	43.72733961
51.2350000	50.26580221-	51.4850000	50.24442788	51.7350000	43.50567493
51.2400000	49.31325255	51.4900000	50.20090208	51.7400000	43.35113441
51.2450000	50.32014112	51.4950000	50.16368765	51.7450000	43.24367734

R	PHI	R	PHI	R	PHI
51.75000000	43.16888408	51.77000000	42.38672719	51.79000000	41.87317626
51.75500000	43.11700903	51.77500000	42.26718286	51.79500000	41.60024313
51.76000000	42.80947452	51.78000000	42.18415520	51.80000000	41.41018079
51.76500000	42.56001356	51.78500000	42.12702286	.	

J=0		V=9		W=-1.0540135	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.51282001	51.5000000	50.40712893-
49.5000000	30.47933164	51.2550000	50.35419530	51.5050000	50.34789667-
50.1000000	34.10576455	51.2600000	49.91283889	51.5100000	50.29448314-
50.1500000	36.29909112	51.2650000	50.19842101-	51.5150000	50.24707420-
50.2000000	38.20584694	51.2700000	50.43329284-	51.5200000	50.20558494-
50.2500000	39.39945326	51.2750000	50.55057676-	51.5250000	50.16973321-
50.3000000	40.58477631	51.2800000	50.52202280-	51.5300000	50.13910764-
50.3500000	41.68909423	51.2850000	50.35875401-	51.5350000	50.11321956-
50.4000000	42.66623650	51.2900000	50.10530417-	51.5400000	49.91546986-
50.4500000	43.53748407	51.2950000	50.17419682	51.5450000	49.73564588-
50.5000000	44.36675626	51.3000000	50.41318850	51.5500000	49.58767496-
50.5500000	45.21411579	51.3050000	50.55847349	51.5550000	49.46685070-
50.6000000	46.10802171	51.3100000	50.58104793	51.5600000	49.36890431-
50.6500000	46.47513872	51.3150000	50.48017374	51.5650000	49.29003898-
50.7000000	47.18368167	51.3200000	50.28074987	51.5700000	49.22694067-
50.7500000	47.62868534	51.3250000	49.25637634	51.5750000	49.17675863-
50.8000000	48.19179384	51.3300000	50.23470163-	51.5800000	49.13707404-
50.8500000	48.52469874	51.3350000	50.45260278-	51.5850000	49.10585788-
50.9000000	49.12942310	51.3400000	50.59164642-	51.5900000	48.81426949-
50.9500000	49.28918385	51.3450000	50.63175963-	51.5950000	48.62397636-
51.1000000	49.58758372	51.3500000	50.57071087-	51.6000000	48.47642862-
51.1050000	50.10888136	51.3550000	50.42226687-	51.6050000	48.36251565-
51.1100000	50.18432232	51.3600000	50.21205552-	51.6100000	48.27492991-
51.1150000	50.28514149	51.3650000	49.27842143	51.6150000	48.20784815-
51.1200000	50.40239725	51.3700000	50.26433587	51.6200000	48.15666063-
51.1250000	50.51561561	51.3750000	50.46804239	51.6250000	48.11773890-
51.1300000	50.59412062	51.3800000	50.61659902	51.6300000	47.88243166-
51.1350000	50.60380481	51.3850000	50.69646707	51.6350000	47.65962089-
51.1400000	50.51877016	51.3900000	50.70319594	51.6400000	47.49182438-
51.1450000	50.33442388	51.3950000	50.64051840	51.6450000	47.36582586-
51.1500000	49.76467534	51.4000000	50.51858775	51.6500000	47.27147673-
51.1550000	50.19972557-	51.4050000	50.35182680	51.6550000	47.20101448-
51.1600000	50.42190694-	51.4100000	50.15670806	51.6600000	47.14852504-
51.1650000	50.52346023-	51.4150000	49.50221851-	51.6650000	47.10951875-
51.1700000	50.46814487-	51.4200000	50.25391319-	51.6700000	46.80599322-
51.1750000	50.26717162-	51.4250000	50.44189445-	51.6750000	46.59205701-
51.1800000	49.19524068	51.4300000	50.60485184-	51.6800000	46.43412933-
51.1850000	50.30024939	51.4350000	50.73679143-	51.6850000	46.31778320-
51.1900000	50.48179188	51.4400000	50.83483564-	51.6900000	46.23223631-
51.1950000	50.50211983	51.4450000	50.89881518-	51.6950000	46.16945195-
51.2000000	50.35310699	51.4500000	50.93068791-	51.7000000	46.12345506-
51.2050000	49.84363377	51.4550000	50.93395812-	51.7050000	45.89814092-
51.2100000	50.21358747-	51.4600000	50.91306591-	51.7100000	45.65249786-
51.2150000	50.44061727-	51.4650000	50.87290463-	51.7150000	45.47341072-
51.2200000	50.52130857-	51.4700000	50.81836706-	51.7200000	45.34304038-
51.2250000	50.42996636-	51.4750000	50.75407150-	51.7250000	45.24826969-
51.2300000	50.19792866-	51.4800000	50.68410710-	51.7300000	45.17947157-
51.2350000	49.98540390	51.4850000	50.61196062-	51.7350000	45.12959318-
51.2400000	50.36458673	51.4900000	50.54041974-	51.7400000	44.93476653-
51.2450000	50.51769364	51.4950000	50.47163382-	51.7450000	44.67356320-

R	PHI	R	PHI	R	PHI
51.75000000	44.48487047-	51.90500000	40.13207729-	52.10550000	35.38468100-
51.75500000	44.34870942-	51.91000000	39.93482543-	52.10600000	35.27109851-
51.76000000	44.25055828-	51.91500000	39.66149385-	52.10650000	35.19103924-
51.76500000	44.17987765-	51.92000000	39.46797141-	52.10700000	35.13461309-
51.77000000	44.12902826-	51.92500000	39.33098928-	52.10750000	34.94846942-
51.77500000	43.92479711-	51.93000000	39.23405332-	52.10800000	34.66823741-
51.78000000	43.66233298-	51.93500000	39.16547239-	52.10850000	34.47077347-
51.78500000	43.47401076-	51.94000000	39.11696334-	52.10900000	34.33163970-
51.79000000	43.33899650-	51.94500000	38.82659108-	52.10950000	34.23361329-
51.79500000	43.24227582-	51.95000000	38.58405265-	52.11000000	34.16455201-
51.80000000	43.17303939-	51.95500000	38.41260702-	52.11050000	34.11590105-
51.80500000	43.12351266-	51.96000000	38.29143927-	52.11100000	33.81629548-
51.81000000	42.88109105-	51.96500000	38.20582069-	52.11150000	33.57489489-
51.81500000	42.62817911-	51.97000000	38.14533226-	52.11200000	33.40486071-
51.82000000	42.44762001-	51.97500000	38.10260543-	52.11250000	33.28510679-
51.82500000	42.31879311-	51.98000000	37.72429618-	52.11300000	33.20076339-
51.83000000	42.22692931-	51.98500000	37.51121373-	52.11350000	33.14136783-
51.83500000	42.16145961-	51.99000000	37.36077072-	52.11400000	32.99538245-
51.84000000	42.11482521-	51.99500000	37.25456868-	52.11450000	32.70084817-
51.84500000	41.81624270-	52.10000000	37.17960786-	52.11500000	32.49343205-
51.85000000	41.57998642-	52.10050000	37.12670546-	52.11550000	32.34740226-
51.85500000	41.41194572-	52.10100000	36.89375089-	52.11600000	32.24456798-
51.86000000	41.29247829-	52.10150000	36.63036341-	52.11650000	32.17217844-
51.86500000	41.20757973-	52.10200000	36.44454978-	52.11700000	32.12120178-
51.87000000	41.14727231-	52.10250000	36.31347748-	52.11750000	31.85322298-
51.87500000	41.10444995-	52.10300000	36.22102960-	52.11800000	31.60055095-
51.88000000	40.74054694-	52.10350000	36.15583127-	52.11850000	31.42273199-
51.88500000	40.52487975-	52.10400000	36.10985508-	52.11900000	31.29749819-
51.89000000	40.37190850-	52.10450000	35.77437011-	52.11950000	31.20936360-
51.89500000	40.26344254-	52.10500000	35.54581004-	52.12000000	31.14728353-
51.90000000	40.18655851-

J=0		V=10		W=-1.0435751	
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50.0000000	50.0000000	51.2500000	50.28212894	51.5000000	50.80707956
49.5000000	30.61326134	51.2550000	49.12226774	51.5050000	50.74853745
50.1000000	34.13510833	51.2600000	50.26234555-	51.5100000	50.68461464
50.1500000	36.38127533	51.2650000	50.45646452-	51.5150000	50.61823774
50.2000000	38.26190166	51.2700000	50.51290836-	51.5200000	50.55187034
50.2500000	39.50742258	51.2750000	50.41784848-	51.5250000	50.48739026
50.3000000	40.74131119	51.2800000	50.20202438-	51.5300000	50.42621889
50.3500000	41.87133292	51.2850000	49.71093778	51.5350000	50.36932563
50.4000000	42.83982831	51.2900000	50.32537402	51.5400000	50.31730773
50.4500000	43.67502728	51.2950000	50.49360686	51.5450000	50.27044966
50.5000000	44.45860340	51.3000000	50.53455284	51.5500000	50.22879480
50.5500000	45.26637595	51.3050000	50.44142275	51.5550000	50.19220058
50.6000000	46.13359729	51.3100000	50.24069086	51.5600000	50.16039566
50.6500000	46.58367500	51.3150000	49.17136270-	51.5650000	50.13302153
50.7000000	47.22390963	51.3200000	50.27149286-	51.5700000	50.10967145
50.7500000	47.75972177	51.3250000	50.46635836-	51.5750000	49.89917718
50.8000000	48.22950351	51.3300000	50.56215401-	51.5800000	49.73334077
50.8500000	48.62097003	51.3350000	50.54249332-	51.5850000	49.59510415
50.9000000	49.15128361	51.3400000	50.41528587-	51.5900000	49.48063807
50.9500000	49.33335688	51.3450000	50.20863372-	51.5950000	49.38644178
51.1000000	49.66679222	51.3500000	49.36587091	51.6000000	49.30937699
51.1050000	50.12137846	51.3550000	50.27567646	51.6050000	49.24667181
51.1100000	50.20132666	51.3600000	50.46838767	51.6100000	49.19591350
51.1150000	50.30413410	51.3650000	50.58533399	51.6150000	49.15502499
51.1200000	50.41723047	51.3700000	50.61148347	51.6200000	49.12223842
51.1250000	50.51632462	51.3750000	50.54684987	51.6250000	48.96062348
51.1300000	50.56863941	51.3800000	50.40459852	51.6300000	48.75249855
51.1350000	50.54197531	51.3850000	50.20750046	51.6350000	48.58766277
51.1400000	50.41791366	51.3900000	49.16507004-	51.6400000	48.45759563
51.1450000	50.20442463	51.3950000	50.23872874-	51.6450000	48.35532286
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51.1650000	50.47721617-	51.4150000	50.68998564-	51.6650000	48.12592498
51.1700000	50.33811989-	51.4200000	50.64846193-	51.6700000	47.96594916
51.1750000	49.85979194-	51.4250000	50.55094435-	51.6750000	47.73938726
51.1800000	50.19604103	51.4300000	50.40885788-	51.6800000	47.56481385
51.1850000	50.41005468	51.4350000	50.23588993-	51.6850000	47.43061868
51.1900000	50.47907086	51.4400000	49.46271860-	51.6900000	47.32769594
51.1950000	50.37663971	51.4450000	50.14648588	51.6950000	47.24892861
51.2000000	50.13822180	51.4500000	50.33068977	51.7000000	47.18877196
51.2050000	50.15085542-	51.4550000	50.49698231	51.7050000	47.14291929
51.2100000	50.38655676-	51.4600000	50.63872237	51.7100000	47.10803509
51.2150000	50.48435014-	51.4650000	50.75185681	51.7150000	46.81543392
51.2200000	50.40980601-	51.4700000	50.83479860	51.7200000	46.61459650
51.2250000	50.19017350-	51.4750000	50.88793459	51.7250000	46.46258915
51.2300000	49.96715079	51.4800000	50.91329229	51.7300000	46.34772049
51.2350000	50.35122600	51.4850000	50.91395813	51.7350000	46.26104707
51.2400000	50.48712565	51.4900000	50.89375805	51.7400000	46.19574191
51.2450000	50.46039779	51.4950000	50.85675891	51.7450000	46.14660471

R	PHI	R	PHI	R	PHI
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51.76000000	45.61198320	51.91500000	41.51186504	52.10650000	37.43873001
51.76500000	45.45645817	51.92000000	41.37558421	52.10700000	37.32050258
51.77000000	45.34014048	51.92500000	41.27551763	52.10750000	37.23411778
51.77500000	45.25323761	51.93000000	41.20206329	52.10800000	37.17100352
51.78000000	45.18837659	51.93500000	41.14815809	52.10850000	37.12489565
51.78500000	45.14001350	51.94000000	41.10860937	52.10900000	36.91213527
51.79000000	45.10398534	51.94500000	40.79600692	52.10950000	36.66611015
51.79500000	44.77169899	51.95000000	40.58328119	52.11000000	36.48641125
51.80000000	44.57228321	51.95500000	40.42732085	52.11050000	36.35517198
51.80500000	44.42410601	51.96000000	40.31300333	52.11100000	36.25932561
51.81000000	44.31408757	51.96500000	40.22922696	52.11150000	36.18933594
51.81500000	44.23246200	51.97000000	40.16784445	52.11200000	36.13822671
51.82000000	44.17194485	51.97500000	40.12287870	52.11250000	36.10091057
51.82500000	44.12710826	51.98000000	39.89944978	52.11300000	35.73663198
51.83000000	43.93910838	51.98500000	39.65828090	52.11350000	35.53771980
51.83500000	43.69346650	51.99000000	39.48170560	52.11400000	35.39248917
51.84000000	43.51181443	51.99500000	39.35244482	52.11450000	35.28648247
51.84500000	43.37756047	52.10000000	39.25783473	52.11500000	35.20908797
51.85000000	43.27839165	52.10050000	39.18859750	52.11550000	35.15260469
51.85500000	43.20517742	52.10100000	39.13793554	52.11600000	35.11136727
51.86000000	43.15115253	52.10150000	39.10087063	52.11650000	34.81276884
51.86500000	43.11130654	52.10200000	38.73757012	52.11700000	34.59308165
51.87000000	42.81931974	52.10250000	38.53925447	52.11750000	34.43280576
51.87500000	42.60286539	52.10300000	38.39421915	52.11800000	34.31578389
51.88000000	42.44343360	52.10350000	38.28816255	52.11850000	34.23041980
51.88500000	42.32605013	52.10400000	38.21061748	52.11900000	34.16808775
51.89000000	42.23965951	52.10450000	38.15392541	52.11950000	34.12261606
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51.90000000	42.12936002

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50.10000000	34.16491522	51.26000000	50.43486262-	51.51000000	50.88744448-
50.15000000	36.46451457	51.26500000	50.46739347-	51.51500000	50.89602560-
50.20000000	38.31852207	51.27000000	50.34880465-	51.52000000	50.88532371-
50.25000000	39.61623731	51.27500000	50.11947345-	51.52500000	50.85860311-
50.30000000	40.89861167	51.28000000	50.14747540	51.53000000	50.81921499-
50.35000000	42.10537965	51.28500000	50.37063502	51.53500000	50.77038157-
50.40000000	43.10128579	51.29000000	50.48523898	51.54000000	50.71510273-
50.45000000	43.81138359	51.29500000	50.46087668	51.54500000	50.65600333-
50.50000000	44.54906787	51.30000000	50.30767541	51.55000000	50.59536420-
50.55000000	45.31745269	51.30500000	49.70495080	51.55500000	50.53501389-
50.60000000	46.15836587	51.31000000	50.18581999-	51.56000000	50.47642361-
50.65000000	46.68765690	51.31500000	50.39494893-	51.56500000	50.42068327-
50.70000000	47.26196157	51.32000000	50.50610368-	51.57000000	50.36856055-
50.75000000	47.88181730	51.32500000	50.49520104-	51.57500000	50.32053916-
50.80000000	48.26401633	51.33000000	50.36838836-	51.58000000	50.27687148-
50.85000000	48.70720113	51.33500000	50.15788310-	51.58500000	50.23762028-
50.90000000	49.17035364	51.34000000	49.87549810	51.59000000	50.20270586-
50.95000000	49.37062656	51.34500000	50.31481267	51.59500000	50.17194076-
51.10000000	49.73073656	51.35000000	50.47797935	51.60000000	50.14506506-
51.10500000	50.13085250	51.35500000	50.54701135	51.60500000	50.12177166-
51.11000000	50.21297072	51.36000000	50.51200862	51.61000000	50.10173010-
51.11500000	50.31465417	51.36500000	50.38309435	51.61500000	49.84602320-
51.12000000	50.42025641	51.37000000	50.18642522	51.62000000	49.70056501-
51.12500000	50.50288147	51.37500000	49.42100812-	51.62500000	49.57775433-
51.13000000	50.52944240	51.38000000	50.26403155-	51.63000000	49.47463165-
51.13500000	50.47152103	51.38500000	50.44493898-	51.63500000	49.38848286-
51.14000000	50.31921656	51.39000000	50.55936960-	51.64000000	49.31686070-
51.14500000	49.92196606	51.39500000	50.59368189-	51.64500000	49.25758416-
51.15000000	50.15864904-	51.40000000	50.54657123-	51.65000000	49.20873446-
51.15500000	50.36289686-	51.40500000	50.42780204-	51.65500000	49.16863921-
51.16000000	50.45388539-	51.41000000	50.25542668-	51.66000000	49.13585460-
51.16500000	50.39559961-	51.41500000	49.52484302-	51.66500000	49.10914397-
51.17000000	50.20155628-	51.42000000	50.15660924	51.67000000	48.87456113-
51.17500000	49.64232733	51.42500000	50.34902673	51.67500000	48.69903243-
51.18000000	50.30724770	51.43000000	50.50602436	51.68000000	48.55740496-
51.18500000	50.43711172	51.43500000	50.61427062	51.68500000	48.44346345-
51.19000000	50.40327034	51.44000000	50.66657818	51.69000000	48.35204871-
51.19500000	50.21653481	51.44500000	50.66156283	51.69500000	48.27889970-
51.20000000	49.53361740-	51.45000000	50.60301587	51.70000000	48.22051283-
51.20500000	50.30397959-	51.45500000	50.49859824	51.70500000	48.17401975-
51.21000000	50.43982547-	51.46000000	50.35866586	51.71000000	48.13708122-
51.21500000	50.40932529-	51.46500000	50.19481047	51.71500000	48.10779711-
51.22000000	50.22431396-	51.47000000	49.18823551	51.72000000	47.84628917-
51.22500000	49.45389634	51.47500000	50.15838277-	51.72500000	47.66335281-
51.23000000	50.29943060	51.48000000	50.32733719-	51.73000000	47.51917590-
51.23500000	50.44499447	51.48500000	50.48053755-	51.73500000	47.40574886-
51.24000000	50.43056520	51.49000000	50.61252198-	51.74000000	47.31666471-
51.24500000	50.26302088	51.49500000	50.71993295-	51.74500000	47.24681312-

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51.76000000	47.11600338-	51.91500000	43.31460440-	52.10650000	39.81214985-
51.76500000	46.89986852-	51.92000000	43.23956147-	52.10700000	39.61536359-
51.77000000	46.69731113-	51.92500000	43.18236671-	52.10750000	39.46622261-
51.77500000	46.53979971-	51.93000000	43.13878965-	52.10800000	39.35319738-
51.78000000	46.41746120-	51.93500000	43.10559805-	52.10850000	39.26755382-
51.78500000	46.32254835-	51.94000000	42.80324253-	52.10900000	39.20266051-
51.79000000	46.24899242-	51.94500000	42.61084850-	52.10950000	39.15349733-
51.79500000	46.19204655-	51.95000000	42.46443065-	52.11000000	39.11625118-
51.80000000	46.14800342-	51.95500000	42.35303083-	52.11050000	38.88038257-
51.80500000	46.11397168-	51.96000000	42.26829524-	52.11100000	38.66666933-
51.81000000	45.87699365-	51.96500000	42.20385693-	52.11150000	38.50481440-
51.81500000	45.67434795-	51.97000000	42.15486495-	52.11200000	38.38222279-
51.82000000	45.51817026-	51.97500000	42.11762517-	52.11250000	38.28939443-
51.82500000	45.39790078-	51.98000000	41.89324251-	52.11300000	38.21909064-
51.83000000	45.30535315-	51.98500000	41.67821038-	52.11350000	38.16586469-
51.83500000	45.23418942-	51.99000000	41.51485813-	52.11400000	38.12555655-
51.84000000	45.17950655-	51.99500000	41.39078893-	52.11450000	37.95045287-
51.84500000	45.13751571-	52.10000000	41.29657218-	52.11500000	37.71939811-
51.85000000	45.10529154-	52.10050000	41.22503805-	52.11550000	37.54453396-
51.85500000	44.80577312-	52.10100000	41.17073415-	52.11600000	37.41211268-
51.86000000	44.61633994-	52.10150000	41.12951705-	52.11650000	37.31191571-
51.86500000	44.47122015-	52.10200000	40.98237448-	52.11700000	37.23603618-
51.87000000	44.36010795-	52.10250000	40.74502932-	52.11750000	37.17863263-
51.87500000	44.27507708-	52.10300000	40.56495936-	52.11800000	37.13515786-
51.88000000	44.21003767-	52.10350000	40.42836283-	52.11850000	37.10227272-
51.88500000	44.16031269-	52.10400000	40.32475 44-	52.11900000	36.77364788-
51.89000000	44.12231357-	52.10450000	40.24618308-	52.11950000	36.58521788-
51.89500000	43.93287365-	52.10500000	40.18660093-	52.12000000	36.44248008-
51.90000000	43.71124649-

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V=12

W=-1.0257968

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50.1000000	34.19245434	51.2600000	50.43087870-	51.5100000	50.23956354
50.1500000	36.54117672	51.2650000	50.32208006-	51.5150000	50.38691364
50.2000000	38.37051329	51.2700000	50.10272958-	51.5200000	50.51860607
50.2500000	39.71590889	51.2750000	50.15179821	51.5250000	50.63109557
50.3000000	41.10422302	51.2800000	50.35744134	51.5300000	50.72224461
50.3500000	42.12197164	51.2850000	50.44922208	51.5350000	50.79133605
50.4000000	43.11694144	51.2900000	50.40069454	51.5400000	50.83867532
50.4500000	43.93400870	51.2950000	50.22962983	51.5450000	50.86555871
50.5000000	44.62982551	51.3000000	49.10312467-	51.5500000	50.87381888
50.5500000	45.36264718	51.3050000	50.24786741-	51.5550000	50.86583469
50.6000000	46.18005087	51.3100000	50.41590619-	51.5600000	50.84408865
50.6500000	46.77754514	51.3150000	50.46985654-	51.5650000	50.81125884
50.7000000	47.29435832	51.3200000	50.39817263-	51.5700000	50.76981822
50.7500000	47.98386892	51.3250000	50.22275807-	51.5750000	50.72221776
50.8000000	48.29221997	51.3300000	48.92608594	51.5800000	50.67052958
50.8500000	48.77571307	51.3350000	50.23944522	51.5850000	50.61670281
50.9000000	49.18496654	51.3400000	50.41307708	51.5900000	50.56224603
50.9500000	49.39782646	51.3450000	50.49179457	51.5950000	50.50851174
51.1000000	49.77421917	51.3500000	50.46083337	51.6000000	50.45650424
51.1050000	50.13658907	51.3550000	50.33025096	51.6050000	50.40698921
51.1100000	50.21850012	51.3600000	50.13044899	51.6100000	50.36051186
51.1150000	50.31629147	51.3650000	49.95980811-	51.6150000	50.31742073
51.1200000	50.41203753	51.3700000	50.30398025-	51.6200000	50.27790485
51.1250000	50.47755663	51.3750000	50.45499446-	51.6250000	50.24201963
51.1300000	50.48101054	51.3800000	50.52353435-	51.6300000	50.20971824
51.1350000	50.39891485	51.3850000	50.50050715-	51.6350000	50.18087434
51.1400000	50.22976545	51.3900000	50.39305695-	51.6400000	50.15530645
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51.1500000	50.22431970-	51.4000000	49.15625524-	51.6500000	50.11309540
51.1550000	50.38179243-	51.4050000	50.19302070	51.6550000	49.95957364
51.1600000	50.41325582-	51.4100000	50.37413448	51.6600000	49.81126874
51.1650000	50.30128587-	51.4150000	50.50380590	51.6650000	49.68357090
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51.1800000	50.35781912	51.4300000	50.48267710	51.6800000	49.40138035
51.1850000	50.40615582	51.4350000	50.35090314	51.6850000	49.33419817
51.1900000	50.29478140	51.4400000	50.18038042	51.6900000	49.27753226
51.1950000	49.65887565	51.4450000	48.92338556-	51.6950000	49.22990008
51.2000000	50.19032760-	51.4500000	50.19806525-	51.7000000	49.18999072
51.2050000	50.37167280-	51.4550000	50.36826122-	51.7050000	49.15665423
51.2100000	50.40550877-	51.4600000	50.50540973-	51.7100000	49.12888839
51.2150000	50.27819881-	51.4650000	50.59954184-	51.7150000	49.10582576
51.2200000	49.40235999-	51.4700000	50.64534109-	51.7200000	48.86719324
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51.2300000	50.38747359	51.4800000	50.59252148-	51.7300000	48.57910979
51.2350000	50.41223502	51.4850000	50.50299086-	51.7350000	48.47201302
51.2400000	50.28078427	51.4900000	50.38151919-	51.7400000	48.38409508
51.2450000	49.43758033	51.4950000	50.23732689-	51.7450000	48.31206695

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51.75500000	48.20509555	51.91000000	45.19027851	52.10600000	42.15158014
51.76000000	48.16592510	51.91500000	45.15052113	52.10650000	42.11920154
51.76500000	48.13406144	51.92000000	45.11903078	52.10700000	41.93729027
51.77000000	48.10818245	51.92500000	44.94097782	52.10750000	41.73693609
51.77500000	47.87195517	51.93000000	44.74364423	52.10800000	41.57934869
51.78000000	47.70200235	51.93500000	44.58751893	52.10850000	41.45542690
51.78500000	47.56456161	51.94000000	44.46403912	52.10900000	41.35797513
51.79000000	47.45355837	51.94500000	44.36641082	52.10950000	41.28135920
51.79500000	47.36401869	51.95000000	44.28924639	52.11000000	41.22111825
51.80000000	47.29187814	51.95500000	44.22827494	52.11050000	41.17376711
51.80500000	47.23382166	51.96000000	44.18011241	52.11100000	41.13654150
51.81000000	47.18715012	51.96500000	44.14207860	52.11150000	41.10728725
51.81500000	47.14966973	51.97000000	44.11205117	52.11200000	40.84291253
51.82000000	47.11960007	51.97500000	43.88351146	52.11250000	40.66223506
51.82500000	46.95498771	51.98000000	43.69649568	52.11300000	40.52022019
51.83000000	46.76198512	51.98500000	43.54895929	52.11350000	40.40866535
51.83500000	46.60756328	51.99000000	43.43259284	52.11400000	40.32098637
51.84000000	46.48411189	51.99500000	43.34083212	52.11450000	40.25212900
51.84500000	46.38549759	52.10000000	43.26848827	52.11500000	40.19800981
51.85000000	46.30678305	52.10050000	43.21146516	52.11550000	40.15551823
51.85500000	46.24399734	52.10100000	43.16652601	52.11600000	40.12212055
51.86000000	46.19395227	52.10150000	43.13111716	52.11650000	39.95904897
51.86500000	46.15408827	52.10200000	43.10322191	52.11700000	39.75298808
51.87000000	46.12235458	52.10250000	42.81250005	52.11750000	39.59127316
51.87500000	45.97108090	52.10300000	42.63946127	52.11800000	39.46415186
51.88000000	45.77034425	52.10350000	42.50321035	52.11850000	39.36439711
51.88500000	45.61082432	52.10400000	42.39593917	52.11900000	39.28597526
51.89000000	45.48412707	52.10450000	42.31149885	52.11950000	39.22442246
51.89500000	45.38354837	52.10500000	42.24503715	52.12000000	39.17602983
51.90000000	45.30374401

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50.1000000	34.21441576	51.2600000	50.32366782-	51.5100000	50.60773072
50.1500000	36.60205256	51.2650000	50.13324526-	51.5150000	50.55343295
50.2000000	38.41163303	51.2700000	50.10569003	51.5200000	50.46739784
50.2500000	39.79447570	51.2750000	50.30849022	51.5250000	50.35618843
50.3000000	41.11549416	51.2800000	50.40602277	51.5300000	50.22690451
50.3500000	42.13492083	51.2850000	50.36730359	51.5350000	49.86857102
50.4000000	43.12907552	51.2900000	50.20759818	51.5400000	49.57124505-
50.4500000	44.10282415	51.2950000	49.19375950-	51.5450000	50.19879941-
50.5000000	44.69123742	51.3000000	50.24096045-	51.5500000	50.33298788-
50.5500000	45.39657691	51.3050000	50.38932862-	51.5550000	50.45545732-
50.6000000	46.19607682	51.3100000	50.42173264-	51.5600000	50.56319995-
50.6500000	46.84270124	51.3150000	50.33134156-	51.5650000	50.65415693-
50.7000000	47.31728252	51.3200000	50.14670850-	51.5700000	50.72736516-
50.7500000	48.10539180	51.3250000	49.78888306	51.5750000	50.78259718-
50.8000000	48.31083220	51.3300000	50.28375488	51.5800000	50.82044520-
50.8500000	48.81860071	51.3350000	50.41488492	51.5850000	50.84193753-
50.9000000	49.19345395	51.3400000	50.44087832	51.5900000	50.84861873-
50.9500000	49.41189122	51.3450000	50.35816644	51.5950000	50.84218417-
51.1000000	49.79241594	51.3500000	50.18953751	51.6000000	50.82458271-
51.1050000	50.13796320	51.3550000	49.23396728-	51.6050000	50.79769162-
51.1100000	50.21732246	51.3600000	50.23139570-	51.6100000	50.76345650-
51.1150000	50.30885624	51.3650000	50.38919983-	51.6150000	50.72360935-
51.1200000	50.39332085	51.3700000	50.46494909-	51.6200000	50.67984149-
51.1250000	50.44255397	51.3750000	50.44567407-	51.6250000	50.63356024-
51.1300000	50.42717648	51.3800000	50.33814629-	51.6300000	50.58608686-
51.1350000	50.32905162	51.3850000	50.16578714-	51.6350000	50.53844153-
51.1400000	50.15398071	51.3900000	49.37450845	51.6400000	50.49155974-
51.1450000	49.62083347-	51.3950000	50.23421942	51.6450000	50.44610265-
51.1500000	50.25900559-	51.4000000	50.39086753	51.6500000	50.40262379-
51.1550000	50.37154278-	51.4050000	50.48270613	51.6550000	50.36151441-
51.1600000	50.35562384-	51.4100000	50.49734069	51.6600000	50.32303892-
51.1650000	50.21060996-	51.4150000	50.43523644	51.6650000	50.28735273-
51.1700000	49.14096112	51.4200000	50.30845335	51.6700000	50.25452165-
51.1750000	50.23392298	51.4250000	50.13746851	51.6750000	50.22453828-
51.1800000	50.36149048	51.4300000	49.52533123-	51.6800000	50.19733837-
51.1850000	50.34335010	51.4350000	50.23579057-	51.6850000	50.17281454-
51.1900000	50.18451550	51.4400000	50.38934712-	51.6900000	50.15082770-
51.1950000	49.51286444-	51.4450000	50.49577644-	51.6950000	50.13121800-
51.2000000	50.26703227-	51.4500000	50.54461213-	51.7000000	50.11381257-
51.2050000	50.37296718-	51.4550000	50.53283214-	51.7050000	49.98432952-
51.2100000	50.32465557-	51.4600000	50.46427170-	51.7100000	49.84899949-
51.2150000	50.14175595-	51.4650000	50.34838267-	51.7150000	49.73038491-
51.2200000	50.10050129	51.4700000	50.19854295-	51.7200000	49.62680035-
51.2250000	50.30310317	51.4750000	49.30176381-	51.7250000	49.53665260-
51.2300000	50.38424067	51.4800000	50.14096369	51.7300000	49.45845136-
51.2350000	50.31208885	51.4850000	50.30038125	51.7350000	49.39081981-
51.2400000	50.11621542	51.4900000	50.43587884	51.7400000	49.33249603-
51.2450000	50.12598603-	51.4950000	50.53840623	51.7450000	49.28233556-

R	PHI	R	PHI	R	PHI
51.75000000	49.23930527-	51.90500000	46.80131655-	52.10550000	44.20205534-
51.75500000	49.20248115-	51.91000000	46.65921965-	52.10600000	44.16502410-
51.76000000	49.17103983-	51.91500000	46.54209455-	52.10650000	44.13476629-
51.76500000	49.14425255-	51.92000000	46.44560287-	52.10700000	44.11004100-
51.77000000	49.12147735-	51.92500000	46.36614610-	52.10750000	43.89844399-
51.77500000	49.10215091-	51.93000000	46.30074795-	52.10800000	43.73344538-
51.78000000	48.85781380-	51.93500000	46.24694442-	52.10850000	43.59870766-
51.78500000	48.71940654-	51.94000000	46.20269817-	52.10900000	43.48865452-
51.79000000	48.60257657-	51.94500000	46.16632628-	52.10950000	43.39881124-
51.79500000	48.50411666-	51.95000000	46.13643871-	52.11000000	43.32543997-
51.80000000	48.42126377-	51.95500000	46.11188872-	52.11050000	43.26555894-
51.80500000	48.35164429-	51.96000000	45.91730007-	52.11100000	43.21666350-
51.81000000	48.29322456-	51.96500000	45.75182926-	52.11150000	43.17676936-
51.81500000	48.24426686-	51.97000000	45.61604486-	52.11200000	43.14419738-
51.82000000	48.20328943-	51.97500000	45.50465919-	52.11250000	43.11762952-
51.82500000	48.16903228-	51.98000000	45.41331232-	52.11300000	42.95939186-
51.83000000	48.14042549-	51.98500000	45.33842323-	52.11350000	42.78252408-
51.83500000	48.11656291-	51.99000000	45.27704122-	52.11400000	42.63813112-
51.84000000	47.96678297-	51.99500000	45.22674522-	52.11450000	42.52042548-
51.84500000	47.80124715-	52.10000000	45.18554164-	52.11500000	42.42433059-
51.85000000	47.66357178-	52.10050000	45.15179667-	52.11550000	42.34601984-
51.85500000	47.54916825-	52.10100000	45.12416508-	52.11600000	42.28208338-
51.86000000	47.45418602-	52.10150000	45.10154560-	52.11650000	42.22999458-
51.86500000	47.37539065-	52.10200000	44.83031870-	52.11700000	42.18746419-
51.87000000	47.31007590-	52.10250000	44.67882705-	52.11750000	42.15282193-
51.87500000	47.25597491-	52.10300000	44.55488169-	52.11800000	42.12453459-
51.88000000	47.21119504-	52.10350000	44.45350183-	52.11850000	42.10149414-
51.88500000	47.17415501-	52.10400000	44.37058600-	52.11900000	41.82679621-
51.89000000	47.14353763-	52.10450000	44.30279066-	52.11950000	41.67349000-
51.89500000	47.11824434-	52.10500000	44.24736097-	52.12000000	41.54830744-
51.90000000	46.97362293-

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50.1000000	34.22704282	51.2600000	50.18849374-	51.5100000	49.18605478
50.1500000	36.63672100	51.2650000	49.24194843	51.5150000	50.13088033-
50.2000000	38.43483688	51.2700000	50.22889956	51.5200000	50.27115192-
50.2500000	39.83846936	51.2750000	50.35108112	51.5250000	50.39307856-
50.3000000	41.12174072	51.2800000	50.34833493	51.5300000	50.48973339-
50.3500000	42.14200285	51.2850000	50.22365318	51.5350000	50.55639020-
50.4000000	43.13560044	51.2900000	49.21869599	51.5400000	50.59073501-
50.4500000	44.10778371	51.2950000	50.18796663-	51.5450000	50.59249675-
50.5000000	44.72268784	51.3000000	50.33693298-	51.5500000	50.56334991-
50.5500000	45.41335540	51.3050000	50.37852153-	51.5550000	50.50636647-
50.6000000	46.20364966	51.3100000	50.30194260-	51.5600000	50.42578549-
50.6500000	46.87168844	51.3150000	50.13305323-	51.5650000	50.32645648-
50.7000000	47.32667201	51.3200000	49.75853071	51.5700000	50.21361332-
50.7500000	48.10793820	51.3250000	50.26330351	51.5750000	49.92422100-
50.8000000	48.31644203	51.3300000	50.37681766	51.5800000	49.32166362
50.8500000	48.82775789	51.3350000	50.38695719	51.5850000	50.15571837
50.9000000	49.19412924	51.3400000	50.29353231	51.5900000	50.27436579
50.9500000	49.40976669	51.3450000	50.12349754	51.5950000	50.38495950
51.0000000	49.78058645	51.3500000	49.78126692-	51.6000000	50.48503843
51.1050000	50.13436666	51.3550000	50.26089054-	51.6050000	50.57286174
51.1100000	50.20885547	51.3600000	50.38162024-	51.6100000	50.64733593
51.1150000	50.29210955	51.3650000	50.41401508-	51.6150000	50.70796178
51.1200000	50.36463176	51.3700000	50.35324510-	51.6200000	50.75475557
51.1250000	50.39950635	51.3750000	50.21526298-	51.6250000	50.78814345
51.1300000	50.37065552	51.3800000	49.31505376-	51.6300000	50.80890583
51.1350000	50.26505520	51.3850000	50.15894431	51.6350000	50.81804186
51.1400000	49.94000037	51.3900000	50.31807526	51.6400000	50.81675952
51.1450000	50.10314952-	51.3950000	50.41620440	51.6450000	50.80631833
51.1500000	50.26754895-	51.4000000	50.43700817	51.6500000	50.78807417
51.1550000	50.34128957-	51.4050000	50.37915802	51.6550000	50.76330990
51.1600000	50.29249092-	51.4100000	50.25529167	51.6600000	50.73333351
51.1650000	50.13354557-	51.4150000	49.88361480	51.6650000	50.69929312
51.1700000	49.77917116	51.4200000	49.93067671-	51.6700000	50.66233164
51.1750000	50.25873387	51.4250000	50.26010361-	51.6750000	50.62337857
51.1800000	50.33393254	51.4300000	50.38796860-	51.6800000	50.58335826
51.1850000	50.26993535	51.4350000	50.45941022-	51.6850000	50.54295509
51.1900000	49.91451247	51.4400000	50.46638251-	51.6900000	50.50286782
51.1950000	50.12700184-	51.4450000	50.41026831-	51.6950000	50.46356277
51.2000000	50.29232946-	51.4500000	50.30068282-	51.7000000	50.42547577
51.2050000	50.33324370-	51.4550000	50.15333282-	51.7050000	50.38893185
51.2100000	50.23159141-	51.4600000	49.12594402	51.7100000	50.35417064
51.2150000	49.30371404-	51.4650000	50.17720279	51.7150000	50.32136091
51.2200000	50.18502860	51.4700000	50.32222278	51.7200000	50.29060677
51.2250000	50.32375793	51.4750000	50.43299396	51.7250000	50.26196059
51.2300000	50.32803625	51.4800000	50.49952766	51.7300000	50.23542967
51.2350000	50.19666963	51.4850000	50.51715359	51.7350000	50.21098632
51.2400000	49.15856964-	51.4900000	50.48620827	51.7400000	50.18857377
51.2450000	50.22322406-	51.4950000	50.41157799	51.7450000	50.16811469

R	PHI	R	PHI	R	PHI
51.75000000	50.14951489	51.90500000	48.18963162	52.10550000	46.15510309
51.75500000	50.13267005	51.91000000	48.16239515	52.10600000	46.13165759
51.76000000	50.11746848	51.91500000	48.13899987	52.10650000	46.11174581
51.76500000	50.10379517	51.92000000	48.11891715	52.10700000	45.94826597
51.77000000	49.91534680	51.92500000	48.10168858	52.10750000	45.80463458
51.77500000	49.80572764	51.93000000	47.86917160	52.10800000	45.68262125
51.78000000	49.70798631	51.93500000	47.74259980	52.10850000	45.57908368
51.78500000	49.62105832	51.94000000	47.63419778	52.10900000	45.49114843
51.79000000	49.54393416	51.94500000	47.54140964	52.10950000	45.41655909
51.79500000	49.47566351	51.95000000	47.46202123	52.11000000	45.35322017
51.80000000	49.41535975	51.95500000	47.39413392	52.11050000	45.29951532
51.80500000	49.36220098	51.96000000	47.33610361	52.11100000	45.25391669
51.81000000	49.31543042	51.96500000	47.28652466	52.11150000	45.21526930
51.81500000	49.27435491	51.97000000	47.24417944	52.11200000	45.18245786
51.82000000	49.23834280	51.97500000	47.20803111	52.11250000	45.15465987
51.82500000	49.20682141	51.98000000	47.17718068	52.11300000	45.13106011
51.83000000	49.17927329	51.98500000	47.15086481	52.11350000	45.11107452
51.83500000	49.15523287	51.99000000	47.12842151	52.11400000	44.94107215
51.84000000	49.13428296	51.99500000	47.10929024	52.11450000	44.79744042
51.84500000	49.11605020	52.10000000	46.92984676	52.11500000	44.67549523
51.85000000	49.10020244	52.10050000	46.79094380	52.11550000	44.57230380
51.85500000	48.86443766	52.10100000	46.67262618	52.11600000	44.48468662
51.86000000	48.74512788	52.10150000	46.57189369	52.11650000	44.41056679
51.86500000	48.64177578	52.10200000	46.48613493	52.11700000	44.34763043
51.87000000	48.55234222	52.10250000	46.41316208	52.11750000	44.29439724
51.87500000	48.47502713	52.10300000	46.35106614	52.11800000	44.24919531
51.88000000	48.40825253	52.10350000	46.29825583	52.11850000	44.21095716
51.88500000	48.35063190	52.10400000	46.25333655	52.11900000	44.17849057
51.89000000	48.30095393	52.10450000	46.21515288	52.11950000	44.15100768
51.89500000	48.25815749	52.10500000	46.18268742	52.12000000	44.12767881
51.90000000	48.22131880

J=0

V=15.

W=-1.0073535

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49.5000000	31.10322768	51.2550000	50.23891004-	51.5050000	50.27915128-
50.1000000	34.22621194	51.2600000	49.73973879-	51.5100000	50.37957806-
50.1500000	36.63375725	51.2650000	50.12064942	51.5150000	50.44736367-
50.2000000	38.43241080	51.2700000	50.27012609	51.5200000	50.47827270-
50.2500000	39.83315487	51.2750000	50.31890522	51.5250000	50.47131516-
50.3000000	41.12084942	51.2800000	50.25046274	51.5300000	50.42862517-
50.3500000	42.14079035	51.2850000	49.91304623	51.5350000	50.35476011-
50.4000000	43.13424189	51.2900000	50.10079930-	51.5400000	50.25621335-
50.4500000	44.10651299	51.2950000	50.25876276-	51.5450000	50.14056839-
50.5000000	44.71265672	51.3000000	50.32968871-	51.5500000	49.15947616-
50.5500000	45.40660870	51.3050000	50.29169912-	51.5550000	50.10970828
50.6000000	46.19975063	51.3100000	50.15921553-	51.5600000	50.22905540
50.6500000	46.85217536	51.3150000	49.23995889	51.5650000	50.33579802
50.7000000	47.31815393	51.3200000	50.20032928	51.5700000	50.42489215
50.7500000	48.10467268	51.3250000	50.31686393	51.5750000	50.49270284
50.8000000	48.30537771	51.3300000	50.34069272	51.5800000	50.53701914
50.8500000	48.79442974	51.3350000	50.26712183	51.5850000	50.55696693
50.9000000	49.18515643	51.3400000	50.11892292	51.5900000	50.55291403
50.9500000	49.38807498	51.3450000	49.61871972-	51.5950000	50.52622098
51.1000000	49.73331993	51.3500000	50.22668883-	51.6000000	50.47911938
51.1050000	50.12505791	51.3550000	50.33354527-	51.6050000	50.41438145
51.1100000	50.19226364	51.3600000	50.35719174-	51.6100000	50.33524319
51.1150000	50.26535796	51.3650000	50.29405827-	51.6150000	50.24505009
51.1200000	50.32573761	51.3700000	50.16134732-	51.6200000	50.14726548
51.1250000	50.34889195	51.3750000	48.85807602	51.6250000	49.45125695
51.1300000	50.31259108	51.3800000	50.17686357	51.6300000	49.58250324-
51.1350000	50.20819894	51.3850000	50.30712053	51.6350000	50.16018619-
51.1400000	49.50204472	51.3900000	50.37313443	51.6400000	50.25824039-
51.1450000	50.12207378-	51.3950000	50.36329246	51.6450000	50.35051647-
51.1500000	50.25443805-	51.4000000	50.28179582	51.6500000	50.43537167-
51.1550000	50.29788692-	51.4050000	50.14632257	51.6550000	50.51172397-
51.1600000	50.23116414-	51.4100000	49.16381059-	51.6600000	50.57869543-
51.1650000	49.74826550-	51.4150000	50.17633830-	51.6650000	50.63592705-
51.1700000	50.11196538	51.4200000	50.30585458-	51.6700000	50.68317772-
51.1750000	50.25322097	51.4250000	50.38416312-	51.6750000	50.72065449-
51.1800000	50.28829843	51.4300000	50.40017260-	51.6800000	50.74858358-
51.1850000	50.19996599	51.4350000	50.35339076-	51.6850000	50.76756375-
51.1900000	49.24405232	51.4400000	50.25297200-	51.6900000	50.77811720-
51.1950000	50.16288238-	51.4450000	50.11539971-	51.6950000	50.78106898-
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R	PHI	R	PHI	R	PHI
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52.15600000	42.19494847-	52.17300000	40.23902939-	52.19000000	38.29145316-
52.15650000	42.17129674-	52.17350000	40.20998527-	52.19050000	38.25600958-
52.15700000	42.15051367-	52.17400000	40.18446955-	52.19100000	38.22487170-
52.15750000	42.13225066-	52.17450000	40.16205348-	52.19150000	38.19752404-
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52.15850000	42.10210154-	52.17550000	40.12506047-	52.19250000	38.15239764-
52.15900000	41.89710844-	52.17600000	40.10986208-	52.19300000	38.13385958-
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52.16000000	41.69256350-	52.17700000	39.84780663-	52.19400000	38.10327535-
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52.16150000	41.46973983-	52.17850000	39.57472006-	52.19550000	37.69985668-
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52.16450000	41.21606020-	52.18150000	39.26407934-	52.19850000	37.32130238-
52.16500000	41.18982392-	52.18200000	39.23197528-	52.19900000	37.28218407-
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50.1500000	36.58016979	51.2650000	50.15569502	51.5150000	50.35810560-
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50.2500000	39.76173908	51.2750000	50.25244653	51.5250000	50.21701715-
50.3000000	41.11040849	51.2800000	50.15764388	51.5300000	50.11493685-
50.3500000	42.12850818	51.2850000	48.41931664	51.5350000	48.34698806-
50.4000000	43.12239360	51.2900000	50.15145435-	51.5400000	50.10831589
50.4500000	43.96981601	51.2950000	50.25407880-	51.5450000	50.21203942
50.5000000	44.64785254	51.3000000	50.26897890-	51.5500000	50.30053141
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50.6500000	46.76965629	51.3150000	50.10573436	51.5650000	50.42861688
50.7000000	47.28652972	51.3200000	50.23061265	51.5700000	50.41945990
50.7500000	47.93963757	51.3250000	50.28455165	51.5750000	50.38567114
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50.9000000	49.16414628	51.3400000	48.20762176-	51.5900000	50.17025183
50.9500000	49.34220790	51.3450000	50.15040861-	51.5950000	49.75179207
51.1000000	49.64270981	51.3500000	50.25807295-	51.6000000	49.23461014-
51.1050000	50.10883259	51.3550000	50.29747040-	51.6050000	50.12109696-
51.1100000	50.16592665	51.3600000	50.26008892-	51.6100000	50.21349496-
51.1150000	50.22669436	51.3650000	50.15726197-	51.6150000	50.29711855-
51.1200000	50.27470397	51.3700000	49.15791298-	51.6200000	50.36899484-
51.1250000	50.28905282	51.3750000	50.12965460	51.6250000	50.42700321-
51.1300000	50.25178647	51.3800000	50.24537273	51.6300000	50.46962117-
51.1350000	50.15764790	51.3850000	50.30614210	51.6350000	50.49616207-
51.1400000	49.21690702	51.3900000	50.30022877	51.6400000	50.50643701-
51.1450000	50.12041475-	51.3950000	50.23070038	51.6450000	50.50096520-
51.1500000	50.22224866-	51.4000000	50.11366453	51.6500000	50.48058769-
51.1550000	50.24464298-	51.4050000	49.26202912-	51.6550000	50.44667711-
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51.1850000	50.14027157	51.4350000	50.16767218-	51.6850000	49.55358427-
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51.1950000	50.16407843-	51.4450000	49.91654398	51.6950000	50.10295351
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51.2350000	49.32526304	51.4850000	49.15116968-	51.7350000	50.59604458
51.2400000	50.12937583-	51.4900000	50.13635838-	51.7400000	50.63222588
51.2450000	50.23771860-	51.4950000	50.24271263-	51.7450000	50.66226481

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51.77500000	50.72816480	52.10250000	49.38700506	52.12750000	47.52236325
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52.1520000	45.64828088	52.1690000	44.30075415	52.1860000	43.13829575
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52.1530000	45.54134418	52.1700000	44.25097346	52.1870000	43.11536043
52.1535000	45.49467436	52.1705000	44.22926167	52.1875000	43.10536185
52.1540000	45.45202346	52.1710000	44.20942653	52.1880000	42.96226930
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52.1550000	45.37742110	52.1720000	44.17475248	52.1890000	42.80265315
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52.1565000	45.28792732	52.1735000	44.13319519	52.1905000	42.61145629
52.1570000	45.26308295	52.1740000	44.12166648	52.1910000	42.55842175
52.1575000	45.24037853	52.1745000	44.11113510	52.1915000	42.51000395
52.1580000	45.21963199	52.1750000	44.10151455	52.1920000	42.46576270
52.1585000	45.20067287	52.1755000	43.92726304	52.1925000	42.42537442
52.1590000	45.18334908	52.1760000	43.84698136	52.1930000	42.38846860
52.1595000	45.16751853	52.1765000	43.77364647	52.1935000	42.35477808
52.1600000	45.15305380	52.1770000	43.70665621	52.1940000	42.32399163
52.1605000	45.13983619	52.1775000	43.64546344	52.1945000	42.29588823
52.1610000	45.12775911	52.1780000	43.58956619	52.1950000	42.27020668
52.1615000	45.11672364	52.1785000	43.53850761	52.1955000	42.24676336
52.1620000	45.10664051	52.1790000	43.49186742	52.1960000	42.22534024
52.1625000	44.97427444	52.1795000	43.44926594	52.1965000	42.20578372
52.1630000	44.89009431	52.1800000	43.41035008	52.1970000	42.18791271
52.1635000	44.81318172	52.1805000	43.37480521	52.1975000	42.17159777
52.1640000	44.74290756	52.1810000	43.34233491	52.1980000	42.15668927
52.1645000	44.67870181	52.1815000	43.31267884	52.1985000	42.14307748
52.1650000	44.62003787	52.1820000	43.28558762	52.1990000	42.13063982
52.1655000	44.56644155	52.1825000	43.26084519	52.1995000	42.11928196
52.1660000	44.51747237	52.1830000	43.23824231	52.2000000	42.10890477
52.1665000	44.47273372	52.1835000	43.21759985		

J=0		V=17		W=-1.0011962	
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50.1000000	34.16363071	51.2600000	49.28598491	51.5100000	50.24190751-
50.1500000	36.45786400	51.2650000	50.13858411	51.5150000	50.18619851-
50.2000000	38.31204103	51.2700000	50.19431796	51.5200000	50.11249748-
50.2500000	39.60066356	51.2750000	50.17476660	51.5250000	49.28274302-
50.3000000	40.87020005	51.2800000	49.88387612	51.5300000	49.58527373
50.3500000	42.10122527	51.2850000	49.31515433-	51.5350000	50.14030914
50.4000000	42.96338981	51.2900000	50.14040179-	51.5400000	50.21041722
50.4500000	43.76270264	51.2950000	50.19925999-	51.5450000	50.26362820
50.5000000	44.50897374	51.3000000	50.18818616-	51.5500000	50.29642751
50.5500000	45.28950735	51.3050000	50.11220629-	51.5550000	50.30709649
50.6000000	46.14171817	51.3100000	48.18725864	51.5600000	50.29568544
50.6500000	46.60212551	51.3150000	50.11573076	51.5650000	50.26377857
50.7000000	47.22374863	51.3200000	50.19268044	51.5700000	50.21427921
50.7500000	47.73221957	51.3250000	50.20926026	51.5750000	50.15099418
50.8000000	48.21233475	51.3300000	50.16161894	51.5800000	49.78374109
50.8500000	48.54861748	51.3350000	49.65416514	51.5850000	48.10533706
50.9000000	49.12687913	51.3400000	49.50156348-	51.5900000	49.76337402-
50.9500000	49.26359973	51.3450000	50.15170601-	51.5950000	50.14958087-
51.1000000	49.49311259	51.3500000	50.21132902-	51.6000000	50.21492595-
51.1050000	49.83116952	51.3550000	50.21386596-	51.6050000	50.26940235-
51.1100000	50.12603142	51.3600000	50.16000638-	51.6100000	50.31072721-
51.1150000	50.17104654	51.3650000	49.64969056-	51.6150000	50.33752384-
51.1200000	50.20551303	51.3700000	49.46482266	51.6200000	50.34910528-
51.1250000	50.21370343	51.3750000	50.14681120	51.6250000	50.34562189-
51.1300000	50.18261022	51.3800000	50.21259073	51.6300000	50.32776279-
51.1350000	50.10932353	51.3850000	50.22957370	51.6350000	50.29686577-
51.1400000	48.64904936	51.3900000	50.19527743	51.6400000	50.25458144-
51.1450000	49.98033937-	51.3950000	50.11850990	51.6450000	50.20297387-
51.1500000	50.16928979-	51.4000000	49.16646698	51.6500000	50.14418318-
51.1550000	50.17916204-	51.4050000	49.88763664-	51.6550000	49.80539993-
51.1600000	50.12037720-	51.4100000	50.17663915-	51.6600000	49.14249370-
51.1650000	49.13251657-	51.4150000	50.23052264-	51.6650000	49.52471143
51.1700000	49.99717989	51.4200000	50.24128907-	51.6700000	50.11767191
51.1750000	50.17067708	51.4250000	50.20923527-	51.6750000	50.17950933
51.1800000	50.16773337	51.4300000	50.13847077-	51.6800000	50.23648643
51.1850000	49.90633706	51.4350000	49.44989416-	51.6850000	50.28727270
51.1900000	49.27470707-	51.4400000	49.56017837	51.6900000	50.33090633
51.1950000	50.13399428-	51.4450000	50.14814627	51.6950000	50.36660420
51.2000000	50.18064031-	51.4500000	50.21734225	51.7000000	50.39393155
51.2050000	50.14575807-	51.4550000	50.25393435	51.7050000	50.41261087
51.2100000	49.44612639-	51.4600000	50.25358621	51.7100000	50.42266460
51.2150000	49.77443734	51.4650000	50.21753873	51.7150000	50.42423264
51.2200000	50.16565515	51.4700000	50.15180513	51.7200000	50.41769258
51.2250000	50.18065322	51.4750000	49.66032771	51.7250000	50.40349162
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51.2400000	50.11691549-	51.4900000	50.19581001-	51.7400000	50.32132717
51.2450000	50.18451067-	51.4950000	50.25005615-	51.7450000	50.28314264

R	PHI	R	PHI	R	PHI
51.75000000	50.24085471	52.10000000	50.41672367-	52.12500000	49.48834162-
51.75500000	50.19522147	52.10050000	50.40315648-	52.12550000	49.46537850-
51.76000000	50.14701517	52.10100000	50.38975143-	52.12600000	49.44345355-
51.76500000	49.96950678	52.10150000	50.37653159-	52.12650000	49.42251972-
51.77000000	49.45724780	52.10200000	50.36352345-	52.12700000	49.40253836-
51.77500000	48.60297790-	52.10250000	50.35074315-	52.12750000	49.38346646-
51.78000000	49.57722269-	52.10300000	50.33821189-	52.12800000	49.36526751-
51.78500000	50.10882367-	52.10350000	50.32594070-	52.12850000	49.34790286-
51.79000000	50.15886352-	52.10400000	50.31394553-	52.12900000	49.33133721-
51.79500000	50.20742423-	52.10450000	50.30223266-	52.12950000	49.31553550-
51.80000000	50.25415756-	52.10500000	50.29081411-	52.13000000	49.30046461-
51.80500000	50.29875440-	52.10550000	50.27969252-	52.13050000	49.28609275-
51.81000000	50.34098205-	52.10600000	50.26887566-	52.13100000	49.27238865-
51.81500000	50.38063010-	52.10650000	50.25836315-	52.13150000	49.25932390-
51.82000000	50.41756913-	52.10700000	50.24815968-	52.13200000	49.24686830-
51.82500000	50.45167386-	52.10750000	50.23826240-	52.13250000	49.23499687-
51.83000000	50.48290344-	52.10800000	50.22867396-	52.13300000	49.22368109-
51.83500000	50.51120164-	52.10850000	50.21938942-	52.13350000	49.21289822-
51.84000000	50.53660086-	52.10900000	50.21040948-	52.13400000	49.20262198-
51.84500000	50.55909801-	52.10950000	50.20172778-	52.13450000	49.19283162-
51.85000000	50.57878229-	52.11000000	50.19334314-	52.13500000	49.18350318-
51.85500000	50.59568864-	52.11050000	50.18524806-	52.13550000	49.17461740-
51.86000000	50.60994922-	52.11100000	50.17744044-	52.13600000	49.16615221-
51.86500000	50.62162533-	52.11150000	50.16991202-	52.13650000	49.15808997-
51.87000000	50.63087781-	52.11200000	50.16265949-	52.13700000	49.15041082-
51.87500000	50.63778453-	52.11250000	50.15567461-	52.13750000	49.14309833-
51.88000000	50.64252427-	52.11300000	50.14895274-	52.13800000	49.13613438-
51.88500000	50.64518113-	52.11350000	50.14248573-	52.13850000	49.12950392-
51.89000000	50.64594504-	52.11400000	50.13626842-	52.13900000	49.12319039-
51.89500000	50.64489753-	52.11450000	50.13029239-	52.13950000	49.11718016-
51.90000000	50.64223317-	52.11500000	50.12455219-	52.14000000	49.11145806-
51.90500000	50.63802745-	52.11550000	50.11903934-	52.14050000	49.10601131-
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51.91500000	50.62563638-	52.11650000	50.10867068-	52.14150000	48.95891527-
51.92000000	50.61770532-	52.11700000	50.10380113-	52.14200000	48.91194497-
51.92500000	50.60873003-	52.11750000	49.99131483-	52.14250000	48.86724422-
51.93000000	50.59889604-	52.11800000	49.94656087-	52.14300000	48.82470515-
51.93500000	50.58823780-	52.11850000	49.90367203-	52.14350000	48.78422470-
51.94000000	50.57693289-	52.11900000	49.86259308-	52.14400000	48.74570585-
51.94500000	50.56499777-	52.11950000	49.82324953-	52.14450000	48.70905496-
51.95000000	50.55260578-	52.12000000	49.78558743-	52.14500000	48.67418299-
51.95500000	50.53975416-	52.12050000	49.74953711-	52.14550000	48.64100565-
51.96000000	50.52661184-	52.12100000	49.71504621-	52.14600000	48.60944207-
51.96500000	50.51315681-	52.12150000	49.68204791-	52.14650000	48.57941465-
51.97000000	50.49955356-	52.12200000	49.65049198-	52.14700000	48.55085074-
51.97500000	50.48576223-	52.12250000	49.62031514-	52.14750000	48.52367889-
51.98000000	50.47194476-	52.12300000	49.59147074-	52.14800000	48.49783378-
51.98500000	50.45804229-	52.12350000	49.56389872-	52.14850000	48.47325036-
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R	PHI	R	PHI	R	PHI
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52.1510000	48.36724098-	52.1680000	47.64589045-	52.1850000	47.11186535-
52.1515000	48.34905180-	52.1685000	47.61354403-	52.1855000	47.10622835-
52.1520000	48.33175476-	52.1690000	47.58279936-	52.1860000	47.10086743-
52.1525000	48.31530804-	52.1695000	47.55359955-	52.1865000	46.95782933-
52.1530000	48.29966953-	52.1700000	47.52584522-	52.1870000	46.90947271-
52.1535000	48.28480089-	52.1705000	47.49948736-	52.1875000	46.86361107-
52.1540000	48.27066387-	52.1710000	47.47443430-	52.1880000	46.81999288-
52.1545000	48.25722355-	52.1715000	47.45064321-	52.1885000	46.77862772-
52.1550000	48.24444500-	52.1720000	47.42802947-	52.1890000	46.73928371-
52.1555000	48.23229696-	52.1725000	47.40655621-	52.1895000	46.70197397-
52.1560000	48.22074785-	52.1730000	47.38614551-	52.1900000	46.66648596-
52.1565000	48.20976928-	52.1735000	47.36676549-	52.1905000	46.63283453-
52.1570000	48.19933237-	52.1740000	47.34834469-	52.1910000	46.60082561-
52.1575000	48.18941172-	52.1745000	47.33085501-	52.1915000	46.57047378-
52.1580000	48.17998083-	52.1750000	47.31423087-	52.1920000	46.54160356-
52.1585000	48.17101705-	52.1755000	47.29844774-	52.1925000	46.51422806-
52.1590000	48.16249596-	52.1760000	47.28344521-	52.1930000	46.48818863-
52.1595000	48.15439778-	52.1765000	47.26920270-	52.1935000	46.46349676-
52.1600000	48.14669972-	52.1770000	47.25566480-	52.1940000	46.44001061-
52.1605000	48.13938422-	52.1775000	47.24281357-	52.1945000	46.41773887-
52.1610000	48.13243017-	52.1780000	47.23059809-	52.1950000	46.39655572-
52.1615000	48.12582224-	52.1785000	47.21900323-	52.1955000	46.37646576-
52.1620000	48.11954078-	52.1790000	47.20798140-	52.1960000	46.35735960-
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52.1630000	48.10789918-	52.1800000	47.18757591-	52.1970000	46.32200331-
52.1635000	48.10250928-	52.1805000	47.17813837-	52.1975000	46.30565318-
52.1640000	47.97385644-	52.1810000	47.16916583-	52.1980000	46.29010822-
52.1645000	47.92518331-	52.1815000	47.16065197-	52.1985000	46.27535574-
52.1650000	47.87891414-	52.1820000	47.15255711-	52.1990000	46.26133289-
52.1655000	47.83496306-	52.1825000	47.14487675-	52.1995000	46.24802003-
52.1660000	47.79318384-	52.1830000	47.13757394-	52.2000000	46.23536907-
52.1665000	47.75349900-	52.1835000	47.13064571-		

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50.10000000	33.83926341	51.26000000	49.20553781	51.51000000	50.10368068-
50.15000000	36.23478919	51.26500000	49.73703571	51.51500000	49.69201397-
50.20000000	38.15998078	51.27000000	49.97804818	51.52000000	49.27862600-
50.25000000	39.30790526	51.27500000	49.83767773	51.52500000	49.16162436
50.30000000	40.44597838	51.28000000	49.37479956	51.53000000	49.58719142
50.35000000	41.51864552	51.28500000	49.23161470-	51.53500000	49.96073319
50.40000000	42.49345330	51.29000000	49.75530978-	51.54000000	50.12519643
50.45000000	43.39051184	51.29500000	50.10078898-	51.54500000	50.14395914
50.50000000	44.26048275	51.30000000	49.90423452-	51.55000000	50.15122722
50.55000000	45.14808613	51.30500000	49.48639985-	51.55500000	50.14683750
50.60000000	45.72446057	51.31000000	48.98068490	51.56000000	50.13153553
50.65000000	46.30758874	51.31500000	49.65205498	51.56500000	50.10679469
50.70000000	47.11420731	51.32000000	49.99632554	51.57000000	49.74672410
50.75000000	47.37340202	51.32500000	50.10259637	51.57500000	49.37557918
50.80000000	48.10816949	51.33000000	49.73820007	51.58000000	48.19722741-
50.85000000	48.27915283	51.33500000	49.22670650	51.58500000	49.41404744-
50.90000000	48.64473778	51.34000000	49.35292200-	51.59000000	49.78376073-
50.95000000	49.13374529	51.34500000	49.83252350-	51.59500000	50.11087618-
51.10000000	49.24976036	51.35000000	50.10799384-	51.60000000	50.13725230-
51.10500000	49.42013479	51.35500000	50.10329940-	51.60500000	50.15634991-
51.11000000	49.63553088	51.36000000	49.71110805-	51.61000000	50.16743651-
51.11500000	49.86000087	51.36500000	49.20439153-	51.61500000	50.17028751-
51.12000000	50.10294085	51.37000000	49.35484452	51.62000000	50.16504928-
51.12500000	50.10648079	51.37500000	49.82788418	51.62500000	50.15228899-
51.13000000	49.90202723	51.38000000	50.11040092	51.63000000	50.13282333-
51.13500000	49.52878600	51.38500000	50.11240440	51.63500000	50.10775316-
51.14000000	48.11483447	51.39000000	49.89027170	51.64000000	49.78283420-
51.14500000	49.50785452-	51.39500000	49.46066517	51.64500000	49.45758593-
51.15000000	49.85374853-	51.40000000	48.67748440-	51.65000000	49.11492443-
51.15500000	49.88815106-	51.40500000	49.58283305-	51.65500000	49.23184712
51.16000000	49.58016141-	51.41000000	49.98121654-	51.66000000	49.57075816
51.16500000	48.37786264-	51.41500000	50.11883582-	51.66500000	49.89054440
51.17000000	49.52216468	51.42000000	50.11703553-	51.67000000	50.11818933
51.17500000	49.86086515	51.42500000	49.93696261-	51.67500000	50.14366798
51.18000000	49.82478929	51.43000000	49.53609351-	51.68000000	50.16489621
51.18500000	49.42205794	51.43500000	48.41994053-	51.68500000	50.18141287
51.19000000	49.17291010-	51.44000000	49.45958455	51.69000000	50.19296687
51.19500000	49.69366507-	51.44500000	49.88691167	51.69500000	50.19942880
51.20000000	49.90270670-	51.45000000	50.11747477	51.70000000	50.20085036
51.20500000	49.70211361-	51.45500000	50.12835009	51.70500000	50.19737804
51.21000000	49.18045064-	51.46000000	50.12024334	51.71000000	50.18929883
51.21500000	49.42713719	51.46500000	49.94917974	51.71500000	50.17696154
51.22000000	49.84665296	51.47000000	49.56405736	51.72000000	50.16081140
51.22500000	49.88985148	51.47500000	49.10305374	51.72500000	50.14132224
51.23000000	49.53778660	51.48000000	49.37174891-	51.73000000	50.11902281
51.23500000	48.53663813-	51.48500000	49.80011764-	51.73500000	49.94442033
51.24000000	49.62608426-	51.49000000	50.11316883-	51.74000000	49.68127736
51.24500000	49.93337577-	51.49500000	50.13305135-	51.74500000	49.40607128

R	PHI	R	PHI	R	PHI
51.75000000	49.12397562	52.10000000	50.27251929	52.12500000	50.43457162
51.75500000	49.16017463-	52.10050000	50.28657003	52.12550000	50.43145367
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51.76500000	49.71693222-	52.10150000	50.31290351	52.12650000	50.42491976
51.77000000	49.98173391-	52.10200000	50.32518182	52.12700000	50.42151462
51.77500000	50.12329759-	52.10250000	50.33690404	52.12750000	50.41809025
51.78000000	50.14679107-	52.10300000	50.34802035	52.12800000	50.41455335
51.78500000	50.16841371-	52.10350000	50.35859029	52.12850000	50.41100890
51.79000000	50.18798293-	52.10400000	50.36856488	52.12900000	50.40736104
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51.86500000	50.21035797-	52.11150000	50.45758940	52.13650000	50.34942574
51.87000000	50.19679786-	52.11200000	50.46003500	52.13700000	50.34544189
51.87500000	50.18202182-	52.11250000	50.46216263	52.13750000	50.34151887
51.88000000	50.16619341-	52.11300000	50.46390996	52.13800000	50.33754627
51.88500000	50.14941455-	52.11350000	50.46536766	52.13850000	50.33363494
51.89000000	50.13184402-	52.11400000	50.46647108	52.13900000	50.32967879
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52.15600000	50.20945902	52.17300000	50.12493226	52.19000000	49.71514402
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50.3000000	46.12531688	51.2800000	55.34499727	51.5300000	55.46449720
50.3500000	47.21224202	51.2850000	55.17793447-	51.5350000	55.78907557
50.4000000	48.26481070	51.2900000	55.63705147-	51.5400000	56.10459645
50.4500000	49.25390914	51.2950000	55.86809295-	51.5450000	56.12161692
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50.7000000	53.10447914	51.3200000	55.84473651	51.5700000	55.67154174
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51.1050000	55.39514096	51.3550000	55.89090547-	51.6050000	56.13119408-
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51.1150000	55.80936361	51.3650000	55.20834995-	51.6150000	56.14444230-
51.1200000	55.96894485	51.3700000	55.26887770	51.6200000	56.14063124-
51.1250000	56.10022152	51.3750000	55.68133609	51.6250000	56.13033299-
51.1300000	55.84871961	51.3800000	55.93219319	51.6300000	56.11424505-
51.1350000	55.49713682	51.3850000	55.96734225	51.6350000	55.93269174-
51.1400000	54.10458183	51.3900000	55.78444613	51.6400000	55.68448451-
51.1450000	55.47728393-	51.3950000	55.42936742	51.6450000	55.40906386-
51.1500000	55.80129069-	51.4000000	54.17608782-	51.6500000	55.11790672-
51.1550000	55.83295973-	51.4050000	55.46144893-	51.6550000	55.17776332
51.1600000	55.54492890-	51.4100000	55.81300877-	51.6600000	55.46739277
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51.1750000	55.79404707	51.4250000	55.82655019-	51.6750000	56.12108889
51.1800000	55.76138234	51.4300000	55.49662449-	51.6800000	56.13939967
51.1850000	55.39215508	51.4350000	54.80847378-	51.6850000	56.15369815
51.1900000	55.15194169-	51.4400000	55.34835704	51.6900000	56.16374077
51.1950000	55.62715208-	51.4450000	55.72065708	51.6950000	56.16942250
51.2000000	55.81841341-	51.4500000	55.97897807	51.7000000	56.17076483
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51.2100000	55.16948169-	51.4600000	56.10340411	51.7100000	56.16106110
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51.2200000	55.75618723	51.4700000	55.51368148	51.7200000	56.13674943
51.2250000	55.79978287	51.4750000	55.12569183	51.7250000	56.12006673
51.2300000	55.49126944	51.4800000	55.27932327-	51.7300000	56.10095372
51.2350000	54.31557721-	51.4850000	55.64981960-	51.7350000	55.79875540
51.2400000	55.54080466-	51.4900000	55.94177008-	51.7400000	55.57301589
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51.76500000	55.62511970-	52.10150000	56.27479787	52.12650000	56.19496680
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51.79000000	56.16138665-	52.10400000	56.31420153	52.12900000	56.15451855
51.79500000	56.17596695-	52.10450000	56.32031569	52.12950000	56.14620126
51.80000000	56.18851328-	52.10500000	56.32585845	52.13000000	56.13782051
51.80500000	56.19896509-	52.10550000	56.33083932	52.13050000	56.12938127
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51.82000000	56.21758269-	52.10700000	56.34251563	52.13200000	56.10375966
51.82500000	56.21961062-	52.10750000	56.34535722	52.13250000	55.95132580
51.83000000	56.21963591-	52.10800000	56.34769415	52.13300000	55.86469152
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51.85000000	56.20143953-	52.11000000	56.35225647	52.13500000	55.51529330
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52.1640000	56.42091428-	52.1810000	56.62173381-	52.1980000	56.76074758-
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52.1655000	56.44123882-	52.1825000	56.63638570-	52.1995000	56.77032124-
52.1660000	56.44790221-	52.1830000	56.64116265-	52.2000000	56.77342117-
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50.1000000	31.23793347	51.2150000	51.12557167	51.4150000	45.26799023
50.1500000	33.75768277	51.2200000	51.11875489	51.4200000	45.16103305
50.2000000	35.55681139	51.2250000	51.10999514	51.4250000	44.96242888
50.2500000	37.11225632	51.2300000	50.99862925	51.4300000	44.57220789
50.3000000	38.17146210	51.2350000	50.88936059	51.4350000	44.33848731
50.3500000	39.21184183	51.2400000	50.77750557	51.4400000	44.19925255
50.4000000	40.21603828	51.2450000	50.66770257	51.4450000	44.11673633
50.4500000	41.18511736	51.2500000	50.56363674	51.4500000	43.68079219
50.5000000	42.13521674	51.2550000	50.46797364	51.4550000	43.39526935
50.5500000	42.85237263	51.2600000	50.38239047	51.4600000	43.22850926
50.6000000	43.46873661	51.2650000	50.30768138	51.4650000	43.13155479
50.6500000	44.22705330	51.2700000	50.24391493	51.4700000	42.75432803
50.7000000	44.97736066	51.2750000	50.19060838	51.4750000	42.43084511
50.7500000	45.37691292	51.2800000	50.14690159	51.4800000	42.24515709
50.8000000	46.13120923	51.2850000	50.11171107	51.4850000	42.13899010
50.8500000	46.41521742	51.2900000	49.83858686	51.4900000	41.78521916
50.9000000	47.12022958	51.2950000	49.62168401	51.4950000	41.44209612
50.9500000	47.32048132	51.3000000	49.45534659	51.5000000	41.24808991
51.1000000	47.79082570	51.3050000	49.32963865	51.5050000	41.13877701
51.1050000	48.18158668	51.3100000	49.23595272	51.5100000	40.77390091
51.1100000	48.38982256	51.3150000	49.16705607	51.5150000	40.43029038
51.1150000	48.78579803	51.3200000	49.11703198	51.5200000	40.23855207
51.1200000	49.14932609	51.3250000	48.81152129	51.5250000	40.13188724
51.1250000	49.26848059	51.3300000	48.55717477	51.5300000	39.72718565
51.1300000	49.45822570	51.3350000	48.37889304	51.5350000	39.39992182
51.1350000	49.74464574	51.3400000	48.25527521	51.5400000	39.21937792
51.1400000	50.11553861	51.3450000	48.17044941	51.5450000	39.12005899
51.1450000	50.17159958	51.3500000	48.11282385	51.5500000	38.65543036
51.1500000	50.24453038	51.3550000	47.74053289	51.5550000	38.35707769
51.1550000	50.33505271	51.3600000	47.48210459	51.5600000	38.19405427
51.1600000	50.44230463	51.3650000	47.31138900	51.5650000	38.10528589
51.1650000	50.56358335	51.3700000	47.19958977	51.5700000	37.56967681
51.1700000	50.69432947	51.3750000	47.12698449	51.5750000	37.30795975
51.1750000	50.82838784	51.3800000	46.80212402	51.5800000	37.16589543
51.1800000	50.95853008	51.3850000	46.50316306	51.5850000	36.89388540
51.1850000	51.10771645	51.3900000	46.31350691	51.5900000	36.47885727
51.1900000	51.11771313	51.3950000	46.19406542	51.5950000	36.25686258
51.1950000	51.12524509	51.4000000	46.11937157	51.6000000	36.13559252
51.2000000	51.12989238				

J=2

V=1

W=-1.1730290

R	PHI	R	PHI	R	PHI
50.00000000	50.00000000	51.20500000	50.24173927	51.40500000	47.13811513-
49.50000000	28.31279882	51.21000000	49.30248225-	51.41000000	46.88020184-
50.10000000	31.85684336	51.21500000	50.30028880-	51.41500000	46.55741711-
50.15000000	34.27179466	51.22000000	50.55097414-	51.42000000	46.35085453-
50.20000000	36.19902633	51.22500000	50.76780814-	51.42500000	46.21953883-
50.25000000	37.40007893	51.23000000	50.94039744-	51.43000000	46.13658988-
50.30000000	38.60878947	51.23500000	51.10629799-	51.43500000	45.84514491-
50.35000000	39.74867682	51.24000000	51.11343602-	51.44000000	45.52015023-
50.40000000	40.75923327	51.24500000	51.11573183-	51.44500000	45.31848465-
50.45000000	41.64624018	51.25000000	51.11377077-	51.45000000	45.19403708-
50.50000000	42.46836109	51.25500000	51.10833684-	51.45500000	45.11764934-
50.55000000	43.29258068	51.26000000	51.10030857-	51.46000000	44.71002320-
50.60000000	44.15923368	51.26500000	50.90563794-	51.46500000	44.42658080-
50.65000000	44.76227377	51.27000000	50.79909822-	51.47000000	44.25517671-
50.70000000	45.32379233	51.27500000	50.69033025-	51.47500000	44.15200404-
50.75000000	46.12302633	51.28000000	50.58476394-	51.48000000	43.90178792-
50.80000000	46.42125868	51.28500000	50.48631492-	51.48500000	43.53290387-
50.85000000	47.13089804	51.29000000	50.39751067-	51.49000000	43.31372188-
50.90000000	47.37149079	51.29500000	50.31966249-	51.49500000	43.18401347-
50.95000000	47.96867698	51.30000000	50.25311523-	51.50000000	43.10755103-
51.10000000	48.23334769	51.30500000	50.19749737-	51.50500000	42.62646356-
51.10500000	48.52191067	51.31000000	50.15195809-	51.51000000	42.36369576-
51.11000000	49.10887667	51.31500000	50.11536686-	51.51500000	42.21047440-
51.11500000	49.21272008	51.32000000	49.86474422-	51.52000000	42.12142661-
51.12000000	49.39068445	51.32500000	49.64029204-	51.52500000	41.69846882-
51.12500000	49.67674688	51.33000000	49.46856648-	51.53000000	41.40060394-
51.13000000	50.11088822	51.33500000	49.33905553-	51.53500000	41.22914130-
51.13500000	50.17231530	51.34000000	49.24269948-	51.54000000	41.13070470-
51.14000000	50.25451213	51.34500000	49.17192750-	51.54500000	40.74372487-
51.14500000	50.35797464	51.35000000	49.12057866-	51.55000000	40.42205310-
51.15000000	50.48018413	51.35500000	48.83753947-	51.55500000	40.23900160-
51.15500000	50.61496603	51.36000000	48.57637169-	51.56000000	40.13497127-
51.16000000	50.75240629	51.36500000	48.39310440-	51.56500000	39.76099793-
51.16500000	50.87948191	51.37000000	48.26580283-	51.57000000	39.42773723-
51.17000000	50.98140867	51.37500000	48.17823372-	51.57500000	39.24024362-
51.17500000	51.10435380	51.38000000	48.11855640-	51.58000000	39.13439030-
51.18000000	51.10534939	51.38500000	47.78250348-	51.58500000	38.75217680-
51.18500000	51.10031465	51.39000000	47.51261289-	51.59000000	38.41819828-
51.19000000	50.89005433	51.39500000	47.33338481-	51.59500000	38.23282375-
51.19500000	50.71807922	51.40000000	47.21530896-	51.60000000	38.12740461-
51.20000000	50.49708034				

J=2

V=2

W=-1.1543023

R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2050000	50.67581368-	51.4050000	48.15559240
49.5000000	28.81448283	51.2100000	50.83041451-	51.4100000	48.10420366
50.1000000	32.22251153	51.2150000	50.89402812-	51.4150000	47.69298556
50.1500000	34.70322928	51.2200000	50.86175227-	51.4200000	47.45774367
50.2000000	36.51321943	51.2250000	50.73971334-	51.4250000	47.30038859
50.2500000	38.10288240	51.2300000	50.54340265-	51.4300000	47.19588842
50.3000000	39.15599712	51.2350000	50.29487115-	51.4350000	47.12696834
50.3500000	40.19100152	51.2400000	49.19347706-	51.4400000	46.81815697
50.4000000	41.19266806	51.2450000	50.25808110	51.4450000	46.52423017
50.4500000	42.16296070	51.2500000	50.51529080	51.4500000	46.33407010
50.5000000	43.11723257	51.2550000	50.73506750	51.4550000	46.21177099
50.5500000	43.72606832	51.2600000	50.90613384	51.4600000	46.13356366
50.6000000	44.39127218	51.2650000	51.10232350	51.4650000	45.83826312
50.6500000	45.18521577	51.2700000	51.10865375	51.4700000	45.52362010
50.7000000	45.77683925	51.2750000	51.11005077	51.4750000	45.32558806
50.7500000	46.29100405	51.2800000	51.10725991	51.4800000	45.20156014
50.8000000	46.98081789	51.2850000	51.10118891	51.4850000	45.12424913
50.8500000	47.29948452	51.2900000	50.92791437	51.4900000	44.76277446
50.9000000	47.83370120	51.2950000	50.82971228	51.4950000	44.46642213
50.9500000	48.21282903	51.3000000	50.72520381	51.5000000	44.28411667
51.1000000	48.50090121	51.3050000	50.62080724	51.5050000	44.17243086
51.1050000	49.10921289	51.3100000	50.52134764	51.5100000	44.10427460
51.1100000	49.22155551	51.3150000	50.43009288	51.5150000	43.62843155
51.1150000	49.41981132	51.3200000	50.34895585	51.5200000	43.37746960
51.1200000	49.74551774	51.3250000	50.27873630	51.5250000	43.22601416
51.1250000	50.12443961	51.3300000	50.21939227	51.5300000	43.13490206
51.1300000	50.19571059	51.3350000	50.17029441	51.5350000	42.80287732
51.1350000	50.29058106	51.3400000	50.13044976	51.5400000	42.47639897
51.1400000	50.40787258	51.3450000	49.98680818	51.5450000	42.28195257
51.1450000	50.54165454	51.3500000	49.73761073	51.5500000	42.16637706
51.1500000	50.68055793	51.3550000	49.54508498	51.5550000	41.97965700
51.1550000	50.80819298	51.3600000	49.39844033	51.5600000	41.57505680
51.1600000	50.90489580	51.3650000	49.28822278	51.5650000	41.33704244
51.1650000	50.95069473	51.3700000	49.20641886	51.5700000	41.19683654
51.1700000	50.92901551	51.3750000	49.14642138	51.5750000	41.11489804
51.1750000	50.83036269	51.3800000	49.10291077	51.5800000	40.66752821
51.1800000	50.65512455	51.3850000	48.71692899	51.5850000	40.38816746
51.1850000	50.41476267	51.3900000	48.49522119	51.5900000	40.22399774
51.1900000	50.13101437	51.3950000	48.33928978	51.5950000	40.12943444
51.1950000	50.16685128-	51.4000000	48.23063474	51.6000000	39.73415202
51.2000000	50.44619666-	.	.	.	.

J=2

V=3

W=-1.1366936

R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2050000	50.76692010-	51.4050000	49.11873149-
49.5000000	29.17628280	51.2100000	50.62736115-	51.4100000	48.83816747-
50.1000000	32.48037914	51.2150000	50.39410322-	51.4150000	48.58699179-
50.1500000	35.15129613	51.2200000	50.10280683-	51.4200000	48.40795128-
50.2000000	37.11006659	51.2250000	50.20346470	51.4250000	48.28144358-
50.2500000	38.22007215	51.2300000	50.48148848	51.4300000	48.19279938-
50.3000000	39.33256940	51.2350000	50.69448145	51.4350000	48.13118065-
50.3500000	40.40551076	51.2400000	50.81700131	51.4400000	47.88673925-
50.4000000	41.40700045	51.2450000	50.83742886	51.4450000	47.59565115-
50.4500000	42.34219364	51.2500000	50.75802885	51.4500000	47.39770396-
50.5000000	43.24444895	51.2550000	50.59287181	51.4550000	47.26399658-
50.5500000	44.15016808	51.2600000	50.36440242	51.4600000	47.17426095-
50.6000000	44.80169922	51.2650000	49.99340876	51.4650000-	47.11440797-
50.6500000	45.37547228	51.2700000	50.17523106-	51.4700000	46.74722496-
50.7000000	46.15559550	51.2750000	50.43514771-	51.4750000	46.48559056-
50.7500000	46.57503306	51.2800000	50.66136895-	51.4800000	46.31404287-
50.8000000	47.19091226	51.2850000	50.84113230-	51.4850000	46.20215681-
50.8500000	47.57326295	51.2900000	50.96805076-	51.4900000	46.12954940-
50.9000000	48.15666032	51.2950000	51.10414693-	51.4950000	45.82662694-
50.9500000	48.39185678	51.3000000	51.10652789-	51.5000000	45.52525032-
51.1000000	48.90179206	51.3050000	51.10465375-	51.5050000	45.33242079-
51.1050000	49.19182737	51.3100000	50.99406632-	51.5100000	45.20956303-
51.1100000	49.37872063	51.3150000	50.91723700-	51.5150000	45.13162516-
51.1150000	49.69642167	51.3200000	50.82501306-	51.5200000	44.82371025-
51.1200000	50.11963753	51.3250000	50.72529458-	51.5250000	44.51373666-
51.1250000	50.19246277	51.3300000	50.62455159-	51.5300000	44.31930398-
51.1300000	50.29045365	51.3350000	50.52768705-	51.5350000	44.19785179-
51.1350000	50.41163221	51.3400000	50.43809802-	51.5400000	44.12218794-
51.1400000	50.54791344	51.3450000	50.35784061-	51.5450000	43.75258574-
51.1450000	50.68430411	51.3500000	50.28786949-	51.5500000	43.46199540-
51.1500000	50.79977268	51.3550000	50.22829457-	51.5550000	43.28299805-
51.1550000	50.87011980	51.3600000	50.17862793-	51.5600000	43.17273793-
51.1600000	50.87260562	51.3650000	50.13799992-	51.5650000	43.10529181-
51.1650000	50.79145511	51.3700000	50.10533536-	51.5700000	42.63912334-
51.1700000	50.62288698	51.3750000	49.79487589-	51.5750000	42.38788646-
51.1750000	50.37820934	51.3800000	49.59332863-	51.5800000	42.23410435-
51.1800000	49.83876334	51.3850000	49.43831305-	51.5850000	42.14147993-
51.1850000	50.22189354-	51.3900000	49.32060609-	51.5900000	41.84749445-
51.1900000	50.49540981-	51.3950000	49.23229924-	51.5950000	41.50832433-
51.1950000	50.69542825-	51.4000000	49.16679780-	51.6000000	41.29883497-
51.2000000	50.79091028-				

J=2

V=4

W=-1.1201708

R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.17105379-	51.5000000	46.71532293
49.5000000	29.33582873	51.2550000	50.44815921-	51.5050000	46.47262877
50.1000000	32.91298338	51.2600000	50.66116672-	51.5100000	46.31095229
50.1500000	35.28661416	51.2650000	50.78386145-	51.5150000	46.20374730
50.2000000	37.20788820	51.2700000	50.80479998-	51.5200000	46.13297843
50.2500000	38.41464657	51.2750000	50.72690349-	51.5250000	45.86462105
50.3000000	39.62462995	51.2800000	50.56493715-	51.5300000	45.56012775
50.3500000	40.75866063	51.2850000	50.34170992-	51.5350000	45.36159628
50.4000000	41.75785312	51.2900000	49.83850722-	51.5400000	45.23264496
50.4500000	42.63359703	51.2950000	50.18212126	51.5450000	45.14919377
50.5000000	43.44962491	51.3000000	50.43289081	51.5500000	44.95377992
50.5500000	44.27409065	51.3050000	50.65039559	51.5550000	44.60790611
50.6000000	45.14503708	51.3100000	50.82273916	51.5600000	44.38633599
50.6500000	45.67244472	51.3150000	50.94418860	51.5650000	44.24483919
50.7000000	46.27549284	51.3200000	51.10144103	51.5700000	44.15474952
50.7500000	47.10051408	51.3250000	51.10373274	51.5750000	43.97556033
50.8000000	47.32895442	51.3300000	51.10197411	51.5800000	43.61347632
50.8500000	47.97213616	51.3350000	50.97005496	51.5850000	43.38485813
50.9000000	48.26100966	51.3400000	50.89711262	51.5900000	43.24088075
50.9500000	48.64023760	51.3450000	50.80935662	51.5950000	43.15043190
51.1000000	49.14419572	51.3500000	50.71420896	51.6000000	42.93745619
51.1050000	49.29950801	51.3550000	50.61776694	51.6050000	42.58300188
51.1100000	49.57592421	51.3600000	50.52466991	51.6100000	42.36185195
51.1150000	50.10285004	51.3650000	50.43816579	51.6150000	42.22416422
51.1200000	50.17100693	51.3700000	50.36025834	51.6200000	42.13861421
51.1250000	50.26518923	51.3750000	50.29192607	51.6250000	41.85562953
51.1300000	50.38389702	51.3800000	50.23335508	51.6300000	41.52726563
51.1350000	50.51868000	51.3850000	50.18416329	51.6350000	41.32438959
51.1400000	50.65294411	51.3900000	50.14359783	51.6400000	41.19926253
51.1450000	50.76287837	51.3950000	50.11069739	51.6450000	41.12221700
51.1500000	50.82105814	51.4000000	49.84417253	51.6500000	40.74853150
51.1550000	50.80245553	51.4050000	49.63718599	51.6550000	40.45781015
51.1600000	50.69162245	51.4100000	49.47627738	51.6600000	40.27962820
51.1650000	50.48906147	51.4150000	49.35270619	51.6650000	40.17057660
51.1700000	50.21461793	51.4200000	49.25888781	51.6700000	40.10392560
51.1750000	49.93700915-	51.4250000	49.18842083	51.6750000	39.63242812
51.1800000	50.38586118-	51.4300000	49.13602754	51.6800000	39.38441919
51.1850000	50.60980398-	51.4350000	48.97444421	51.6850000	39.23341263
51.1900000	50.72294038-	51.4400000	48.69288596	51.6900000	39.14157509
51.1950000	50.70220461-	51.4450000	48.48918762	51.6950000	38.85785085
51.2000000	50.54997172-	51.4500000	48.34302447	51.7000000	38.51929579
51.2050000	50.29427979-	51.4550000	48.23896293	51.7050000	38.31406173
51.2100000	49.16754526	51.4600000	48.16542685	51.7100000	38.18976874
51.2150000	50.32485166	51.4650000	48.11383071	51.7150000	38.11456830
51.2200000	50.57341835	51.4700000	47.77874309	51.7200000	37.69110133
51.2250000	50.71849191	51.4750000	47.52979517	51.7250000	37.41656360
51.2300000	50.73650613	51.4800000	47.35850468	51.7300000	37.25088928
51.2350000	50.62741070	51.4850000	47.24134808	51.7350000	37.15100064
51.2400000	50.41302414	51.4900000	47.16167423	51.7400000	36.90814053
51.2450000	50.13141088	51.4950000	47.10778724	51.7450000	36.54583507

R	PHI	R	PHI	R	PHI
51.7500000	36.32783270	51.7700000	35.42410899	51.7900000	34.54358630
51.7550000	36.19680085	51.7750000	35.25407306	51.7950000	34.32480516
51.7600000	36.11805066	51.7800000	35.15202951	51.8000000	34.19325241
51.7650000	35.70789163	51.7850000	34.90992554	.	

J=2		V=5		W=-1.1047072	
R	PHI	R	PHI	R	PHI
50.00000000	50.00000000	51.25000000	50.69771623-	51.50000000	47.73340009-
49.50000000	29.58062003	51.25500000	50.69648940-	51.50500000	47.50670275-
50.10000000	33.15749746	51.26000000	50.57101439-	51.51000000	47.34843125-
50.15000000	35.49293426	51.26500000	50.34735484-	51.51500000	47.23851351-
50.20000000	37.35653898	51.27000000	49.66198778-	51.52000000	47.16256181-
50.25000000	38.70951195	51.27500000	50.22574304	51.52500000	47.11033354-
50.30000000	40.10656544	51.28000000	50.48410882	51.53000000	46.74584925-
50.35000000	41.12895820	51.28500000	50.67360492	51.53500000	46.50224594-
50.40000000	42.12824933	51.29000000	50.77210571	51.54000000	46.33695287-
50.45000000	43.10665465	51.29500000	50.77201297	51.54500000	46.22525335-
50.50000000	43.75215394	51.30000000	50.67909773	51.55000000	46.15006622-
50.55000000	44.45519544	51.30500000	50.50962726	51.55500000	45.99646330-
50.60000000	45.23886466	51.31000000	50.28649131	51.56000000	45.65957181-
50.65000000	46.10969436	51.31500000	49.35235064	51.56500000	45.43524910-
50.70000000	46.44457227	51.32000000	50.21948871-	51.57000000	45.28637805-
50.75000000	47.16024158	51.32500000	50.45655180-	51.57500000	45.18789564-
50.80000000	47.51733535	51.33000000	50.66000050-	51.58000000	45.12294647-
50.85000000	48.15058385	51.33500000	50.81967304-	51.58500000	44.80238515-
50.90000000	48.39755421	51.34000000	50.93102546-	51.59000000	44.52234905-
50.95000000	48.95714464	51.34500000	50.99433927-	51.59500000	44.33922817-
51.10000000	49.21115959	51.35000000	51.10136183-	51.60000000	44.21979448-
51.10500000	49.42865496	51.35500000	50.99535179-	51.60500000	44.14209340-
51.11000000	49.80349925	51.36000000	50.94735819-	51.61000000	43.91664440-
51.11500000	50.13945706	51.36500000	50.87778534-	51.61500000	43.59011061-
51.12000000	50.22454913	51.37000000	50.79436747-	51.62000000	43.37914591-
51.12500000	50.33574914	51.37500000	50.70390430-	51.62500000	43.24313818-
51.13000000	50.46605606	51.38000000	50.61199574-	51.63000000	43.15563448-
51.13500000	50.59943798	51.38500000	50.52293667-	51.63500000	42.99447783-
51.14000000	50.71122823	51.39000000	50.43976271-	51.64000000	42.63438238-
51.14500000	50.77176627	51.39500000	50.36439348-	51.64500000	42.40401943-
51.15000000	50.75323762	51.40000000	50.29781765-	51.65000000	42.25690705-
51.15500000	50.63833538	51.40500000	50.24029622-	51.65500000	42.16311697-
51.16000000	50.42821576	51.41000000	50.19155970-	51.66000000	42.10341820-
51.16500000	50.14679452	51.41500000	50.15098336-	51.66500000	41.65477844-
51.17000000	50.16090925-	51.42000000	50.11773299-	51.67000000	41.41401366-
51.17500000	50.43699717-	51.42500000	49.90878725-	51.67500000	41.26144539-
51.18000000	50.62392206-	51.43000000	49.69478420-	51.68000000	41.16489758-
51.18500000	50.67929080-	51.43500000	49.52634558-	51.68500000	41.10388123-
51.19000000	50.58792520-	51.44000000	49.39529273-	51.69000000	40.65368392-
51.19500000	50.36744612-	51.44500000	49.29442358-	51.69500000	40.41089271-
51.20000000	49.65425516-	51.45000000	49.21757002-	51.70000000	40.25800873-
51.20500000	50.25131952	51.45500000	49.15957079-	51.70500000	40.16184844-
51.21000000	50.51247816	51.46000000	49.11619345-	51.71000000	40.10142876-
51.21500000	50.66075254	51.46500000	48.84027218-	51.71500000	39.63506543-
51.22000000	50.66485893	51.47000000	48.60366716-	51.72000000	39.39726781-
51.22500000	50.52581297	51.47500000	48.43095821-	51.72500000	39.24830731-
51.23000000	50.27539191	51.48000000	48.30580741-	51.73000000	39.15506957-
51.23500000	49.32357280-	51.48500000	48.21574677-	51.73500000	38.96770725-
51.24000000	50.33392085-	51.49000000	48.15136571-	51.74000000	38.60340137-

R	PHI	R	PHI	R	PHI
51.75000000	38.23411416-	51.77000000	37.34967210-	51.79000000	36.51700537-
51.75500000	38.14569599-	51.77500000	37.21713434-	51.79500000	36.32007870-
51.76000000	37.90591167-	51.78000000	37.13464689-	51.80000000	36.19725173-
51.76500000	37.56311810-	51.78500000	36.83524577-	.	

J=2		V=6		W=-1.0902816	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.43854606-	51.5000000	48.56928712
49.5000000	29.92819731	51.2550000	50.17153359-	51.5050000	48.41220591
50.1000000	33.25125971	51.2600000	50.13198011	51.5100000	48.29688103
50.1500000	35.78416406	51.2650000	50.40900959	51.5150000	48.21273226
50.2000000	37.56570585	51.2700000	50.60584390	51.5200000	48.15169109
50.2500000	39.11233439	51.2750000	50.68789716	51.5250000	48.10765906
50.3000000	40.16825370	51.2800000	50.64440644	51.5300000	47.76065725
50.3500000	41.20291171	51.2850000	50.48790350	51.5350000	47.53512436
50.4000000	42.20095763	51.2900000	50.24931024	51.5400000	47.37490782
50.4500000	43.16629160	51.2950000	49.29549656-	51.5450000	47.26161978
50.5000000	44.11658827	51.3000000	50.30425936-	51.5500000	47.18187078
50.5500000	44.70078702	51.3050000	50.53518204-	51.5550000	47.12597010
50.6000000	45.36486108	51.3100000	50.69285932-	51.5600000	46.86945757
50.6500000	46.16605800	51.3150000	50.76082705-	51.5650000	46.59808924
50.7000000	46.66618400	51.3200000	50.73596525-	51.5700000	46.41008944
50.7500000	47.23737909	51.3250000	50.62679694-	51.5750000	46.28031226
50.8000000	47.75657740	51.3300000	50.45046914-	51.5800000	46.19103378
50.8500000	48.21708306	51.3350000	50.22915019-	51.5850000	46.12981765
50.9000000	48.56403648	51.3400000	49.13500359	51.5900000	45.87975612
50.9500000	49.13340729	51.3450000	50.25529763	51.5950000	45.59462482
51.1000000	49.28856470	51.3500000	50.47767800	51.6000000	45.40088665
51.1050000	49.57305134	51.3550000	50.66692100	51.6050000	45.26961319
51.1100000	50.10480752	51.3600000	50.81454622	51.6100000	45.18090213
51.1150000	50.17694012	51.3650000	50.91701553	51.6150000	45.12110697
51.1200000	50.27608341	51.3700000	50.97499474	51.6200000	44.80901449
51.1250000	50.39813347	51.3750000	50.99233512	51.6250000	44.53931481
51.1300000	50.52971451	51.3800000	50.97501809	51.6300000	44.35880856
51.1350000	50.64747660	51.3850000	50.93013183	51.6350000	44.23826035
51.1400000	50.72091169	51.3900000	50.86504688	51.6400000	44.15792196
51.1450000	50.71916313	51.3950000	50.78674726	51.6450000	44.10448805
51.1500000	50.62070114	51.4000000	50.70142410	51.6500000	43.69016695
51.1550000	50.42307484	51.4050000	50.61420062	51.6550000	43.45512939
51.1600000	50.14903644	51.4100000	50.52907732	51.6600000	43.29966517
51.1650000	50.15421357-	51.4150000	50.44893494	51.6650000	43.19700906
51.1700000	50.42396780-	51.4200000	50.37566075	51.6700000	43.12933309
51.1750000	50.59757507-	51.4250000	50.31030084	51.6750000	42.84787691
51.1800000	50.63034734-	51.4300000	50.25323189	51.6800000	42.55510812
51.1850000	50.51012247-	51.4350000	50.20433004	51.6850000	42.36296939
51.1900000	50.26336880-	51.4400000	50.16312464	51.6900000	42.23704370
51.1950000	49.49763661	51.4450000	50.12892752	51.6950000	42.15462484
51.2000000	50.35050436	51.4500000	50.10093726	51.7000000	42.10074795
51.2050000	50.56233347	51.4550000	49.78317021	51.7050000	41.65573495
51.2100000	50.63150615	51.4600000	49.60250608	51.7100000	41.42634525
51.2150000	50.54117066	51.4650000	49.45978222	51.7150000	41.27693077
51.2200000	50.31519455	51.4700000	49.34817752	51.7200000	41.17970144
51.2250000	49.10946654	51.4750000	49.26173744	51.7250000	41.11650673
51.2300000	50.29638809-	51.4800000	49.19538752	51.7300000	40.75464566
51.2350000	50.53325343-	51.4850000	49.14488790	51.7350000	40.48842853
51.2400000	50.64550495-	51.4900000	49.10675853	51.7400000	40.31583579
51.2450000	50.61013095-	51.4950000	48.78186254	51.7450000	40.20410049

R	PHI	R	PHI	R	PHI
51.7500000	40.13177115	51.7700000	39.22743236	51.7900000	38.38818439
51.7550000	39.85034327	51.7750000	39.14642075	51.7950000	38.24903333
51.7600000	39.54817924	51.7800000	38.94111580	51.8000000	38.15897063
51.7650000	39.35330945	51.7850000	38.60517647	.	

J=2		V=7		W=-1.0768784	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.12013012	51.5000000	49.33211573-
49.5000000	30.13889858	51.2550000	50.39639610	51.5050000	49.25285650-
50.1000000	33.37527088	51.2600000	50.57782074	51.5100000	49.19132742-
50.1500000	36.11681115	51.2650000	50.62447449	51.5150000	49.14392043-
50.2000000	37.84064535	51.2700000	50.52952368	51.5200000	49.10765323-
50.2500000	39.16659752	51.2750000	50.31803510	51.5250000	48.80094131-
50.3000000	40.24888475	51.2800000	49.38612440	51.5300000	48.59285316-
50.3500000	41.29919348	51.2850000	50.24914844-	51.5350000	48.43668042-
50.4000000	42.29516357	51.2900000	50.48804756-	51.5400000	48.32014279-
50.4500000	43.24311622	51.2950000	50.63441561-	51.5450000	48.23365458-
50.5000000	44.16952124	51.3000000	50.66506843-	51.5500000	48.16980066-
50.5500000	45.10124845	51.3050000	50.57929706-	51.5550000	48.12289025-
50.6000000	45.52328346	51.3100000	50.39638025-	51.5600000	47.88589970-
50.6500000	46.23616540	51.3150000	50.14985158-	51.5650000	47.63622650-
50.7000000	46.93843112	51.3200000	50.11981143	51.5700000	47.45526844-
50.7500000	47.33080360	51.3250000	50.37247698	51.5750000	47.32465123-
50.8000000	48.10416646	51.3300000	50.57437197	51.5800000	47.23073992-
50.8500000	48.29486806	51.3350000	50.70204454	51.5850000	47.16347206-
50.9000000	48.75467462	51.3400000	50.74407856	51.5900000	47.11546131-
50.9500000	49.17552316	51.3450000	50.70071969	51.5950000	46.81312242-
51.1000000	49.37261309	51.3500000	50.58197247	51.6000000	46.57102358-
51.1050000	49.72460494	51.3550000	50.40471915	51.6050000	46.39992648-
51.1100000	50.12943627	51.3600000	50.18957148	51.6100000	46.27937149-
51.1150000	50.21275128	51.3650000	49.42143113-	51.6150000	46.19467277-
51.1200000	50.32192555	51.3700000	50.27077674-	51.6200000	46.13532978-
51.1250000	50.44791059	51.3750000	50.48010496-	51.6250000	45.93861769-
51.1300000	50.57098350	51.3800000	50.65821547-	51.6300000	45.64957773-
51.1350000	50.66193277	51.3850000	50.79780653-	51.6350000	45.44859996-
51.1400000	50.68774746	51.3900000	50.89583829-	51.6400000	45.30917900-
51.1450000	50.62139117	51.3950000	50.95292831-	51.6450000	45.21267633-
51.1500000	50.45313154	51.4000000	50.97243618-	51.6500000	45.14602255-
51.1550000	50.19925400	51.4050000	50.95961565-	51.6550000	45.10007974-
51.1600000	49.96171630-	51.4100000	50.92070142-	51.6600000	44.68474314-
51.1650000	50.36901837-	51.4150000	50.86225407-	51.6650000	44.46773148-
51.1700000	50.55150844-	51.4200000	50.79053774-	51.6700000	44.31899152-
51.1750000	50.59280659-	51.4250000	50.71120342-	51.6750000	44.21722327-
51.1800000	50.47691707-	51.4300000	50.62899286-	51.6800000	44.14770665-
51.1850000	50.23111789-	51.4350000	50.54771386-	51.6850000	44.10029798-
51.1900000	49.78997708	51.4400000	50.47018632-	51.6900000	43.68014115-
51.1950000	50.36719570	51.4450000	50.39835403-	51.6950000	43.46063292-
51.2000000	50.55171889	51.4500000	50.33339835-	51.7000000	43.31157919-
51.2050000	50.57976603	51.4550000	50.27587460-	51.7050000	43.21051343-
51.2100000	50.44336371	51.4600000	50.22585696-	51.7100000	43.14206434-
51.2150000	50.18155235	51.4650000	50.18306776-	51.7150000	42.95771577-
51.2200000	50.13155658-	51.4700000	50.14699531-	51.7200000	42.64492800-
51.2250000	50.40876904-	51.4750000	50.11698732-	51.7250000	42.43389328-
51.2300000	50.57476050-	51.4800000	49.92327211-	51.7300000	42.29160616-
51.2350000	50.58647131-	51.4850000	49.72288400-	51.7350000	42.19582364-
51.2400000	50.44334118-	51.4900000	49.56173836-	51.7400000	42.13136473-
51.2450000	50.18526173-	51.4950000	49.43340107-	51.7450000	41.88067947-

R	PHI	R	PHI	R	PHI
51.75000000	41.58976905-	51.77000000	41.11778010-	51.79000000	40.23230367-
51.75500000	41.39478927-	51.77500000	40.78639753-	51.79500000	40.15445800-
51.76000000	41.26394731-	51.78000000	40.52403858-	51.80000000	40.10214667-
51.76500000	41.17644813-	51.78500000	40.34941253-	.	

J=2		V=8		W=-1.0644883	
R	PHI	R	PHI	R	PHI
50.00000000	50.00000000	51.25000000	50.49086102	51.50000000	50.14244073
49.50000000	30.19620288	51.25500000	50.57728173	51.50500000	50.11461964
50.10000000	33.52915135	51.26000000	50.50921501	51.51000000	49.91548835
50.15000000	36.16430879	51.26500000	50.30797205	51.51500000	49.72608305
50.20000000	38.11798116	51.27000000	49.27995789	51.52000000	49.57203002
50.25000000	39.23338133	51.27500000	50.25942020-	51.52500000	49.44781289
50.30000000	40.34782133	51.28000000	50.48504522-	51.53000000	49.34846305
50.35000000	41.41689119	51.28500000	50.59812027-	51.53500000	49.26960355
50.40000000	42.40979702	51.29000000	50.57655533-	51.54000000	49.20745471
50.45000000	43.33608569	51.29500000	50.42930846-	51.54500000	49.15880361
50.50000000	44.23316037	51.30000000	50.19151475-	51.55000000	49.12096025
50.55000000	45.13843531	51.30500000	49.85475074	51.55500000	48.91699720
50.60000000	45.71059912	51.31000000	50.34617925	51.56000000	48.69203871
50.65000000	46.31820102	51.31500000	50.54229874	51.56500000	48.52001629
50.70000000	47.12531982	51.32000000	50.64104878	51.57000000	48.38914482
50.75000000	47.43733875	51.32500000	50.62935761	51.57500000	48.29006274
50.80000000	48.13616459	51.33000000	50.51382633	51.58000000	48.21539431
50.85000000	48.38059558	51.33500000	50.31722199	51.58500000	48.15937070
50.90000000	48.96039320	51.34000000	49.72765266	51.59000000	48.11751210
50.95000000	49.21986531	51.34500000	50.18237513-	51.59500000	47.86361612
51.10000000	49.45855899	51.35000000	50.41311533-	51.60000000	47.63268046
51.10500000	49.87418397	51.35500000	50.59114649-	51.60500000	47.46209512
51.11000000	50.15268218	51.36000000	50.69777586-	51.61000000	47.33652520
51.11500000	50.24459095	51.36500000	50.72491365-	51.61500000	47.24439686
51.12000000	50.35923408	51.37000000	50.67439659-	51.62000000	47.17701765
51.12500000	50.48248295	51.37500000	50.55617012-	51.62500000	47.12788768
51.13000000	50.58909864	51.38000000	50.38576464-	51.63000000	46.92167627
51.13500000	50.64624179	51.38500000	50.18163853-	51.63500000	46.66268853
51.14000000	50.62202512	51.39000000	49.37311958	51.64000000	46.46540622
51.14500000	50.49747584	51.39500000	50.25372370	51.64500000	46.34031768
51.15000000	50.27790703	51.40000000	50.45317901	51.65000000	46.24311257
51.15500000	48.14825507-	51.40500000	50.62495438	51.65500000	46.17332872
51.16000000	50.27991847-	51.41000000	50.76225487	51.66000000	46.12334159
51.16500000	50.48608748-	51.41500000	50.86197151	51.66500000	45.87610942
51.17000000	50.56020843-	51.42000000	50.92417324	51.67000000	45.62122617
51.17500000	50.47571607-	51.42500000	50.95139704	51.67500000	45.43975879
51.18000000	50.25207967-	51.43000000	50.94791609	51.68000000	45.31080123
51.18500000	49.47256215	51.43500000	50.91901407	51.68500000	45.21932248
51.19000000	50.33253502	51.44000000	50.87038179	51.69000000	45.15454083
51.19500000	50.51566536	51.44500000	50.80761414	51.69500000	45.10874001
51.20000000	50.53896622	51.45000000	50.73586474	51.70000000	44.76409432
51.20500000	50.39449401	51.45500000	50.65960969	51.70500000	44.53621645
51.21000000	50.12702474	51.46000000	50.58254025	51.71000000	44.37583032
51.21500000	50.18035914-	51.46500000	50.50752840	51.71500000	44.26310222
51.22000000	50.43297981-	51.47000000	50.43667537	51.72000000	44.18397526
51.22500000	50.55437425-	51.47500000	50.37138291	51.72500000	44.12850414
51.23000000	50.50936091-	51.48000000	50.31246624	51.73000000	43.89663872
51.23500000	50.31330289-	51.48500000	50.26026246	51.73500000	43.62499892
51.24000000	49.25486844-	51.49000000	50.21474591	51.74000000	43.43523147
51.24500000	50.27025742	51.49500000	50.17562674	51.74500000	43.30280168

R	PHI	R	PHI	R	PHI
51.75000000	43.21047925	51.90500000	38.19971184	52.10550000	33.21504525
51.75500000	43.14618064	51.91000000	38.13670882	52.10600000	33.14663197
51.76000000	43.10144130	51.91500000	37.93560529	52.10650000	32.99976907
51.76500000	42.70339427	51.92000000	37.64017106	52.10700000	32.68162156
51.77000000	42.48736693	51.92500000	37.43793576	52.10750000	32.46468760
51.77500000	42.33744255	51.93000000	37.29952950	52.10800000	32.31677693
51.78000000	42.23347645	51.93500000	37.20482701	52.10850000	32.21593458
51.78500000	42.16143513	51.94000000	37.14004142	52.10900000	32.14718633
51.79000000	42.11155183	51.94500000	36.95730548	52.10950000	32.10032087
51.79500000	41.77035433	51.95000000	36.65429304	52.11000000	31.68374336
51.80000000	41.53168013	51.95500000	36.44712086	52.11050000	31.46598833
51.80500000	41.36674736	51.96000000	36.30549992	52.11100000	31.31756772
51.81000000	41.25284258	51.96500000	36.20870542	52.11150000	31.21641117
51.81500000	41.17422469	51.97000000	36.14255912	52.11200000	31.14746981
51.82000000	41.11999265	51.97500000	35.97363858	52.11250000	31.10048735
51.82500000	40.82602637	51.98000000	35.66488131	52.11300000	30.68469876
51.83000000	40.56837613	51.98500000	35.45398003	52.11350000	30.46652569
51.83500000	40.39092061	51.99000000	35.30993989	52.11400000	30.31785634
51.84000000	40.26875711	51.99500000	35.21157701	52.11450000	30.21655986
51.84500000	40.18469610	52.10000000	35.14441470	52.11500000	30.14753742
51.85000000	40.12687877	52.10050000	34.98561873	52.11550000	30.10051326
51.85500000	39.87128523	52.10100000	34.67260870	52.11600000	29.68472535
51.86000000	39.59810644	52.10150000	34.45895913	52.11650000	29.46645975
51.86500000	39.41043994	52.10200000	34.31314464	52.11700000	29.31774333
51.87000000	39.28156577	52.10250000	34.21363718	52.11750000	29.21644740
51.87500000	39.19309671	52.10300000	34.14573740	52.11800000	29.14742805
51.88000000	39.13238550	52.10350000	33.99409843	52.11850000	29.10042149
51.88500000	38.90736450	52.10400000	33.67803644	52.11900000	28.68391495
51.89000000	38.62173324	52.10450000	33.46242709	52.11950000	28.46577327
51.89500000	38.42590434	52.10500000	33.31535645	52.12000000	28.31711710
51.90000000	38.29168255	.	.	.	.

J=2		V=9		W=-1.0531083	
R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.52543774	51.5000000	50.42915748-
49.5000000	30.26313818	51.2550000	50.39447142	51.5050000	50.36829026-
50.1000000	33.70851445	51.2600000	50.14756398	51.5100000	50.31303373-
50.1500000	36.21951134	51.2650000	50.14220434-	51.5150000	50.26368933-
50.2000000	38.15729351	51.2700000	50.39286793-	51.5200000	50.22026298-
50.2500000	39.31061765	51.2750000	50.53698791-	51.5250000	50.18254015-
50.3000000	40.46191208	51.2800000	50.53888376-	51.5300000	50.15015683-
50.3500000	41.55212879	51.2850000	50.40169219-	51.5350000	50.12265447-
50.4000000	42.54093481	51.2900000	50.16352633-	51.5400000	49.99527391-
50.4500000	43.44187781	51.2950000	50.11485318	51.5450000	49.80255708-
50.5000000	44.30512107	51.3000000	50.36664927	51.5500000	49.64332060-
50.5500000	45.18017295	51.3050000	50.53521379	51.5550000	49.51277680-
50.6000000	45.91901414	51.3100000	50.58598489	51.5600000	49.40653989-
50.6500000	46.40855659	51.3150000	50.51200821	51.5650000	49.32067544-
50.7000000	47.15958396	51.3200000	50.33271858	51.5700000	49.25172365-
50.7500000	47.55174311	51.3250000	49.87316352	51.5750000	49.19668832-
50.8000000	48.16999027	51.3300000	50.17506014-	51.5800000	49.15301170-
50.8500000	48.46958006	51.3350000	50.40575493-	51.5850000	49.11853605-
50.9000000	49.11694143	51.3400000	50.56550692-	51.5900000	48.91462007-
50.9500000	49.26379228	51.3450000	50.63030347-	51.5950000	48.70303087-
51.1000000	49.54112675	51.3500000	50.59369781-	51.6000000	48.53842734-
51.1050000	50.10124642	51.3550000	50.46571546-	51.6050000	48.41093116-
51.1100000	50.17310854	51.3600000	50.26924735-	51.6100000	48.31258504-
51.1150000	50.27059529	51.3650000	49.34927733-	51.6150000	48.23702147-
51.1200000	50.38616248	51.3700000	50.20429258	51.6200000	48.17917971-
51.1250000	50.50101002	51.3750000	50.41803810	51.6250000	48.13506070-
51.1300000	50.58578585	51.3800000	50.58214461	51.6300000	48.10152274-
51.1350000	50.60654067	51.3850000	50.68083051	51.6350000	47.76110325-
51.1400000	50.53571301	51.3900000	50.70732665	51.6400000	47.56914146-
51.1450000	50.36515500	51.3950000	50.66326801	51.6450000	47.42456097-
51.1500000	50.11591849	51.4000000	50.55714292	51.6500000	47.31597205-
51.1550000	50.16078424-	51.4050000	50.40225264	51.6550000	47.23463297-
51.1600000	50.39452536-	51.4100000	50.21451316	51.6600000	47.17386116-
51.1650000	50.51685018-	51.4150000	49.10431189	51.6650000	47.12856669-
51.1700000	50.48597300-	51.4200000	50.19456661-	51.6700000	46.94886548-
51.1750000	50.30535872-	51.4250000	50.38733358-	51.6750000	46.69898279-
51.1800000	49.27663666-	51.4300000	50.55771252-	51.6800000	46.51398267-
51.1850000	50.25938409	51.4350000	50.69880668-	51.6850000	46.37729723-
51.1900000	50.46137842	51.4400000	50.80687529-	51.6900000	46.27650517-
51.1950000	50.50995428	51.4450000	50.88098517-	51.6950000	46.20231940-
51.2000000	50.38752742	51.4500000	50.92247846-	51.7000000	46.14781389-
51.2050000	50.13443841	51.4550000	50.93440037-	51.7050000	46.10783603-
51.2100000	50.16450466-	51.4600000	50.92089683-	51.7100000	45.78561457-
51.2150000	50.40921369-	51.4650000	50.88670650-	51.7150000	45.57158073-
51.2200000	50.51856059-	51.4700000	50.83669470-	51.7200000	45.41532877-
51.2250000	50.45737293-	51.4750000	50.77554039-	51.7250000	45.30142280-
51.2300000	50.24702087-	51.4800000	50.70746644-	51.7300000	45.21850037-
51.2350000	49.43327064	51.4850000	50.63612774-	51.7350000	45.15821272-
51.2400000	50.32076627	51.4900000	50.56450666-	51.7400000	45.11443631-
51.2450000	50.49911642	51.4950000	50.49494822-	51.7450000	44.82687407-

R	PHI	R	PHI	R	PHI
51.75000000	44.59687861-	51.90500000	40.17705707-	52.10550000	35.56040960-
51.75500000	44.43044956-	51.91000000	40.12566441-	52.10600000	35.39604463-
51.76000000	44.31014500-	51.91500000	39.89167198-	52.10650000	35.27986738-
51.76500000	44.22326976-	51.92000000	39.63255165-	52.10700000	35.19775625-
51.77000000	44.16059556-	51.92500000	39.44863080-	52.10750000	35.13972688-
51.77500000	44.11542251-	51.93000000	39.31811822-	52.10800000	34.98719225-
51.78000000	43.82892510-	51.93500000	39.22552695-	52.10850000	34.69742530-
51.78500000	43.59486923-	51.94000000	39.15985351-	52.10900000	34.49268304-
51.79000000	43.42660160-	51.94500000	39.11328262-	52.10950000	34.34802820-
51.79500000	43.30572504-	51.95000000	38.80264778-	52.11000000	34.24583094-
51.80000000	43.21895720-	51.95500000	38.56860516-	52.11050000	34.17363508-
51.80500000	43.15671800-	51.96000000	38.40273890-	52.11100000	34.12263516-
51.81000000	43.11210399-	51.96500000	38.28521122-	52.11150000	33.86611150-
51.81500000	42.80145018-	51.97000000	38.20194923-	52.11200000	33.61165935-
51.82000000	42.57265803-	51.97500000	38.14297285-	52.11250000	33.43194670-
51.82500000	42.40896620-	51.98000000	38.10120523-	52.11300000	33.30501902-
51.83000000	42.29191874-	51.98500000	37.71629752-	52.11350000	33.21538349-
51.83500000	42.20827066-	51.99000000	37.50690533-	52.11400000	33.15208025-
51.84000000	42.14852325-	51.99500000	37.35867881-	52.11450000	33.10738085-
51.84500000	42.10586917-	52.10000000	37.25376506-	52.11500000	32.75814573-
51.85000000	41.75432971-	52.10050000	37.17951802-	52.11550000	32.53527702-
51.85500000	41.53725054-	52.10100000	37.12698020-	52.11600000	32.37789363-
51.86000000	41.38249328-	52.10150000	36.89808581-	52.11650000	32.26679012-
51.86500000	41.27221307-	52.10200000	36.63511902-	52.11700000	32.18833283-
51.87000000	41.19365963-	52.10250000	36.44910663-	52.11750000	32.13295389-
51.87500000	41.13772743-	52.10300000	36.31754296-	52.11800000	31.93846410-
51.88000000	40.97917277-	52.10350000	36.22449990-	52.11850000	31.66245552-
51.88500000	40.69592364-	52.10400000	36.15870540-	52.11900000	31.46753307-
51.89000000	40.49446199-	52.10450000	36.11218393-	52.11950000	31.32996205-
51.89500000	40.35121942-	52.10500000	35.79292976-	52.12000000	31.23279607-
51.90000000	40.24940413-	.	.	.	.

J=2

V=10

W=-1.0427432

R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	50.32561898	51.5000000	50.82548347
49.5000000	30.33634127	51.2550000	49.68546643	51.5050000	50.77018261
50.1000000	33.90427070	51.2600000	50.21094356-	51.5100000	50.70832928
50.1500000	36.27958927	51.2650000	50.42597054-	51.5150000	50.64299811
50.2000000	38.19996576	51.2700000	50.51270367-	51.5200000	50.57681182
50.2500000	39.39427354	51.2750000	50.44814623-	51.5250000	50.51181808
50.3000000	40.58513700	51.2800000	50.25419604-	51.5300000	50.44960067
50.3500000	41.69768016	51.2850000	49.11657991	51.5350000	50.39127758
50.4000000	42.68146591	51.2900000	50.27491863	51.5400000	50.33757726
50.4500000	43.55465860	51.2950000	50.46554438	51.5450000	50.28889480
50.5000000	44.38135983	51.3000000	50.53610096	51.5500000	50.24536396
50.5500000	45.22406754	51.3050000	50.47212532	51.5550000	50.20691254
50.6000000	46.11363112	51.3100000	50.29299526	51.5600000	50.17332184
50.6500000	46.50181385	51.3150000	49.44378811	51.5650000	50.14427006
50.7000000	47.19453316	51.3200000	50.21480366-	51.5700000	50.11937411
50.7500000	47.66683833	51.3250000	50.42691638-	51.5750000	49.98219083
50.8000000	48.20347654	51.3300000	50.54818725-	51.5800000	49.80383121
50.8500000	48.55601807	51.3350000	50.55662877-	51.5850000	49.65454150
50.9000000	49.13679246	51.3400000	50.45445146-	51.5900000	49.53042796
50.9500000	49.30438375	51.3450000	50.26511934-	51.5950000	49.42789480
51.1000000	49.61485695	51.3500000	49.26703551-	51.6000000	49.34369086
51.1050000	50.11305241	51.3550000	50.21675246	51.6050000	49.27492251
51.1100000	50.18947444	51.3600000	50.42365895	51.6100000	49.21905393
51.1150000	50.28939364	51.3650000	50.56176321	51.6150000	49.17388840
51.1200000	50.40179479	51.3700000	50.61232733	51.6200000	49.13754543
51.1250000	50.50404588	51.3750000	50.57152263	51.6250000	49.10843001
51.1300000	50.56437575	51.3800000	50.44915731	51.6300000	48.85201866
51.1350000	50.55008594	51.3850000	50.26555989	51.6350000	48.66743465
51.1400000	50.44024328	51.3900000	49.47363805	51.6400000	48.52130314
51.1450000	50.23856052	51.3950000	50.17689308-	51.6450000	48.40602332
51.1500000	49.19700355-	51.4000000	50.38069067-	51.6500000	48.31538848
51.1550000	50.27211680-	51.4050000	50.54252120-	51.6550000	48.24435816
51.1600000	50.44611538-	51.4100000	50.64767594-	51.6600000	48.18886161
51.1650000	50.48415671-	51.4150000	50.68892620-	51.6650000	48.14562744
51.1700000	50.36773679-	51.4200000	50.66611544-	51.6700000	48.11203932
51.1750000	50.12957527-	51.4250000	50.58510755-	51.6750000	47.86013706
51.1800000	50.15299571	51.4300000	50.45616527-	51.6800000	47.65898477
51.1850000	50.38298796	51.4350000	50.29229734-	51.6850000	47.50388627
51.1900000	50.47851238	51.4400000	50.10752243-	51.6900000	47.38457045
51.1950000	50.40388637	51.4450000	49.84470797	51.6950000	47.29298190
51.2000000	50.18434159	51.4500000	50.27150526	51.7000000	47.22282339
51.2050000	50.10209853-	51.4550000	50.44354640	51.7050000	47.16918736
51.2100000	50.35286545-	51.4600000	50.59317158	51.7100000	47.12826035
51.2150000	50.47835882-	51.4650000	50.71553761	51.7150000	46.97087609
51.2200000	50.43435763-	51.4700000	50.80831470	51.7200000	46.73385415
51.2250000	50.23720259-	51.4750000	50.87125226	51.7250000	46.55393289
51.2300000	49.43316777	51.4800000	50.90586021	51.7300000	46.41757223
51.2350000	50.30989193	51.4850000	50.91484980	51.7350000	46.31438191
51.2400000	50.47218987	51.4900000	50.90179728	51.7400000	46.23640567
51.2450000	50.47726089	51.4950000	50.87064582	51.7450000	46.17756421

R	PHI	R	PHI	R	PHI
51.75000000	46.13322042	51.90500000	42.12588913	52.10550000	38.11855494
51.75500000	45.99844730	51.91000000	41.92681290	52.10600000	37.86867571
51.76000000	45.74754504	51.91500000	41.68214679	52.10650000	37.63644695
51.76500000	45.55914718	51.92000000	41.50193827	52.10700000	37.46626509
51.77000000	45.41783950	51.92500000	41.36924461	52.10750000	37.34156452
51.77500000	45.31196390	51.93000000	41.27156511	52.10800000	37.25019640
51.78000000	45.23271638	51.93500000	41.19967985	52.10850000	37.18325734
51.78500000	45.17345745	51.94000000	41.14679080	52.10900000	37.13421840
51.79000000	45.12918657	51.94500000	41.10788762	52.10950000	36.98296492
51.79500000	44.96142328	51.95000000	40.79278648	52.11000000	36.71983925
51.80000000	44.71498754	51.95500000	40.58244720	52.11050000	36.52712155
51.80500000	44.53135179	51.96000000	40.42783448	52.11100000	36.38597450
51.81000000	44.39461915	51.96500000	40.31420823	52.11150000	36.28260991
51.81500000	44.29288598	51.97000000	40.23071960	52.11200000	36.20691341
51.82000000	44.21724753	51.97500000	40.16938702	52.11250000	36.15148700
51.82500000	44.16104899	51.98000000	40.12433888	52.11300000	36.11090035
51.83000000	44.11932145	51.98500000	39.91257462	52.11350000	35.81186016
51.83500000	43.88358142	51.99000000	39.66967867	52.11400000	35.59428937
51.84000000	43.65396106	51.99500000	39.49136480	52.11450000	35.43502260
51.84500000	43.48377557	52.10000000	39.36048156	52.11500000	35.31841205
51.85000000	43.35771046	52.10050000	39.26442759	52.11550000	35.23306244
51.85500000	43.26437670	52.10100000	39.19394421	52.11600000	35.17057310
51.86000000	43.19531106	52.10150000	39.14223148	52.11650000	35.12484305
51.86500000	43.14422824	52.10200000	39.10429540	52.11700000	34.91361424
51.87000000	43.10646361	52.10250000	38.7646928	52.11750000	34.66863115
51.87500000	42.78557285	52.10300000	38.56061279	52.11800000	34.48925861
51.88000000	42.57944630	52.10350000	38.41095604	52.11850000	34.35802795
51.88500000	42.42725574	52.10400000	38.30122108	52.11900000	34.26193691
51.89000000	42.31493212	52.10450000	38.22076740	52.11950000	34.19163303
51.89500000	42.23206314	52.10500000	38.16178774	52.12000000	34.14014895
51.90000000	42.17094697	.	.	.	.

J=2

V=11

W=-1.0334055

R	PHI	R	PHI	R	PHI
50.0000000	50.0000000	51.2500000	49.57281719	51.5000000	50.77155838-
49.5000000	30.41062159	51.2550000	50.21053907-	51.5050000	50.83646850-
50.1000000	34.11024973	51.2600000	50.40843220-	51.5100000	50.87643976-
50.1500000	36.34025204	51.2650000	50.47222328-	51.5150000	50.89345078-
50.2000000	38.24293886	51.2700000	50.38361462-	51.5200000	50.89019535-
50.2500000	39.47833435	51.2750000	50.17346064-	51.5250000	50.86978655-
50.3000000	40.70860372	51.2800000	49.90905023	51.5300000	50.83551302-
50.3500000	41.84299526	51.2850000	50.32856537	51.5350000	50.79060515-
50.4000000	42.82115197	51.2900000	50.47012920	51.5400000	50.73812665-
50.4500000	43.66616412	51.2950000	50.47715073	51.5450000	50.68080470-
50.5000000	44.45625520	51.3000000	50.35085454	51.5500000	50.62104703-
50.5500000	45.26686117	51.3050000	50.12887880	51.5550000	50.56081677-
50.6000000	46.13462544	51.3100000	50.12764164-	51.5600000	50.50174675-
50.6500000	46.59096059	51.3150000	50.35188622-	51.5650000	50.44503454-
50.7000000	47.22752504	51.3200000	50.48883460-	51.5700000	50.39158516-
50.7500000	47.77388784	51.3250000	50.50781511-	51.5750000	50.34199336-
50.8000000	48.23407774	51.3300000	50.40782884-	51.5800000	50.29660710-
50.8500000	48.63335350	51.3350000	50.21511586-	51.5850000	50.25556840-
50.9000000	49.15409882	51.3400000	49.25125432	51.5900000	50.21886130-
50.9500000	49.33863682	51.3450000	50.26040278	51.5950000	50.18634752-
51.1000000	49.67446339	51.3500000	50.44260752	51.6000000	50.15780349-
51.1050000	50.12203678	51.3550000	50.53746611	51.6050000	50.13294715-
51.1100000	50.20078774	51.3600000	50.52985518	51.6100000	50.11146394-
51.1150000	50.30011343	51.3650000	50.42479636	51.6150000	49.93023949-
51.1200000	50.40600810	51.3700000	50.24440159	51.6200000	49.77297641-
51.1250000	50.49312792	51.3750000	49.22182244	51.6250000	49.63965522-
51.1300000	50.52900157	51.3800000	50.20392202-	51.6300000	49.52726119-
51.1350000	50.48406425	51.3850000	50.39826451-	51.6350000	49.43300238-
51.1400000	50.34519916	51.3900000	50.53285566-	51.6400000	49.35434026-
51.1450000	50.12741654	51.3950000	50.59076093-	51.6450000	49.28899516-
51.1500000	50.12288618-	51.4000000	50.56721941-	51.6500000	49.23494793-
51.1550000	50.33753187-	51.4050000	50.46889185-	51.6550000	49.19042759-
51.1600000	50.44823557-	51.4100000	50.31146394-	51.6600000	49.15389633-
51.1650000	50.41327365-	51.4150000	50.11655148-	51.6650000	49.12402973-
51.1700000	50.23800598-	51.4200000	49.91860134	51.6700000	48.99696231-
51.1750000	49.21088171	51.4250000	50.29048155	51.6750000	48.79935458-
51.1800000	50.27310497	51.4300000	50.45940093	51.6800000	48.63937888-
51.1850000	50.42536471	51.4350000	50.58366300	51.6850000	48.51024987-
51.1900000	50.41945860	51.4400000	50.65424776	51.6900000	48.40631079-
51.1950000	50.25559609	51.4450000	50.66796461	51.6950000	48.32286989-
51.2000000	48.56558258-	51.4500000	50.62699941	51.7000000	48.25605376-
51.2050000	50.26577655-	51.4550000	50.53773885	51.7050000	48.20267860-
51.2100000	50.42616299-	51.4600000	50.40965291	51.7100000	48.16013789-
51.2150000	50.42616087-	51.4650000	50.25385370	51.7150000	48.12630635-
51.2200000	50.26604686-	51.4700000	49.82021413	51.7200000	47.99456725-
51.2250000	48.60979381-	51.4750000	49.94727761-	51.7250000	47.78190330-
51.2300000	50.25718516	51.4800000	50.26648595-	51.7300000	47.61377919-
51.2350000	50.42774122	51.4850000	50.42515598-	51.7350000	47.48110567-
51.2400000	50.44502791	51.4900000	50.56460540-	51.7400000	47.37658670-
51.2450000	50.30455610	51.4950000	50.68079052-	51.7450000	47.29438289-

R	PHI	R	PHI	R	PHI
51.75000000	47.22983040-	51.90500000	43.70925425-	52.10550000	40.20180444-
51.75500000	47.17921500-	51.91000000	43.54195698-	52.10600000	40.15337949-
51.76000000	47.13958394-	51.91500000	43.41399451-	52.10650000	40.11656466-
51.76500000	47.10859567-	51.92000000	43.31615247-	52.10700000	39.88578380-
51.77000000	46.84396924-	51.92500000	43.24136605-	52.10750000	39.67306158-
51.77500000	46.65523531-	51.93000000	43.18422073-	52.10800000	39.51138187-
51.78000000	46.50821041-	51.93500000	43.14056871-	52.10850000	39.38851311-
51.78500000	46.39380703-	51.94000000	43.10723362-	52.10900000	39.29514215-
51.79000000	46.30488384-	51.94500000	42.81784298-	52.10950000	39.22419746-
51.79500000	46.23583763-	51.95000000	42.62360483-	52.11000000	39.17029274-
51.80000000	46.18227846-	51.95500000	42.47539454-	52.11050000	39.12934181-
51.80500000	46.14077205-	51.96000000	42.36233267-	52.11100000	38.98230918-
51.81000000	46.10863526-	51.96500000	42.27610462-	52.11150000	38.74600068-
51.81500000	45.83774580-	51.97000000	42.21035630-	52.11200000	38.56649446-
51.82000000	45.64558578-	51.97500000	42.16023494-	52.11250000	38.43016976-
51.82500000	45.49717419-	51.98000000	42.12203415-	52.11300000	38.32662292-
51.83000000	45.38263803-	51.98500000	41.92924882-	52.11350000	38.24799800-
51.83500000	45.29430948-	51.99000000	41.70747524-	52.11400000	38.18828180-
51.84000000	45.22623934-	51.99500000	41.53854566-	52.11450000	38.14294584-
51.84500000	45.17381630-	52.10000000	41.40989048-	52.11500000	38.10851427-
51.85000000	45.13346937-	52.10050000	41.31192561-	52.11550000	37.82378722-
51.85500000	45.10243555-	52.10100000	41.23734151-	52.11600000	37.62529495-
51.86000000	44.78579169-	52.10150000	41.18056726-	52.11650000	37.47465630-
51.86500000	44.60250460-	52.10200000	41.13735625-	52.11700000	37.36024873-
51.87000000	44.46176203-	52.10250000	41.10447312-	52.11750000	37.27343819-
51.87500000	44.35374389-	52.10300000	40.79452744-	52.11800000	37.20750396-
51.88000000	44.27088229-	52.10350000	40.60417736-	52.11850000	37.15747965-
51.88500000	44.20734835-	52.10400000	40.45937996-	52.11900000	37.11948274-
51.89000000	44.15865585-	52.10450000	40.34924854-	52.11950000	36.90651725-
51.89500000	44.12135390-	52.10500000	40.26549294-	52.12000000	36.68750713-
51.90000000	43.92789810-

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49.50000000	30.47903425	51.25500000	50.36154579-	51.50500000	49.15833964
50.10000000	34.12846510	51.26000000	50.43355030-	51.51000000	50.17483438
50.15000000	36.39582164	51.26500000	50.35486976-	51.51500000	50.32605005
50.20000000	38.28218927	51.27000000	50.15473691-	51.52000000	50.46376099
50.25000000	39.55492628	51.27500000	49.97843082	51.52500000	50.58384920
50.30000000	40.82074175	51.28000000	50.31924767	51.53000000	50.68361101
50.35000000	41.97444928	51.28500000	50.43918191	51.53500000	50.76180516
50.40000000	42.94688982	51.29000000	50.42215574	51.54000000	50.81827736
50.45000000	43.76593101	51.29500000	50.27621903	51.54500000	50.85394442
50.50000000	44.52277851	51.30000000	49.47638164	51.55000000	50.87034352
50.55000000	45.30453903	51.30500000	50.19534605-	51.55500000	50.86964315
50.60000000	46.15291664	51.31000000	50.38368784-	51.56000000	50.85419227
50.65000000	46.66765727	51.31500000	50.46685421-	51.56500000	50.82660517
50.70000000	47.25548341	51.32000000	50.42523127-	51.57000000	50.78934724
50.75000000	47.86296249	51.32500000	50.27286230-	51.57500000	50.74490841
50.80000000	48.25897812	51.33000000	49.51239473-	51.58000000	50.69543246
50.85000000	48.69455463	51.33500000	50.18337199	51.58500000	50.64296410
50.90000000	49.16731438	51.34000000	50.37473323	51.59000000	50.58912031
50.95000000	49.36357074	51.34500000	50.47995193	51.59500000	50.53539013
51.10000000	49.71496526	51.35000000	50.47803822	51.60000000	50.48282892
51.10500000	50.12749776	51.35500000	50.37267400	51.60500000	50.43237293
51.11000000	50.20627344	51.36000000	50.18912606	51.61000000	50.38464666
51.11500000	50.30225679	51.36500000	49.32955011-	51.61500000	50.34008798
51.12000000	50.39917971	51.37000000	50.24888446-	51.62000000	50.29896379
51.12500000	50.47024103	51.37500000	50.41810272-	51.62500000	50.26139515
51.13000000	50.48381159	51.38000000	50.51136965-	51.63000000	50.22738929
51.13500000	50.41469468	51.38500000	50.51496817-	51.63500000	50.19686292
51.14000000	50.25767292	51.39000000	50.43146088-	51.64000000	50.16966769
51.14500000	49.37239224	51.39500000	50.27763509-	51.64500000	50.14560754
51.15000000	50.19294745-	51.40000000	49.80160725-	51.65000000	50.12445715
51.15500000	50.36406136-	51.40500000	50.12956126	51.65500000	50.10597430
51.16000000	50.41660751-	51.41000000	50.32079632	51.66000000	49.89911159
51.16500000	50.32626775-	51.41500000	50.46774511	51.66500000	49.76022129
51.17000000	50.11918000-	51.42000000	50.55273406	51.67000000	49.64070215
51.17500000	50.13231588	51.42500000	50.56749875	51.67500000	49.53831039
51.18000000	50.33438388	51.43000000	50.51327586	51.68000000	49.45095847
51.18500000	50.40812634	51.43500000	50.39933993	51.68500000	49.37673030
51.19000000	50.32257002	51.44000000	50.24103374	51.69000000	49.31388712
51.19500000	50.10938089	51.44500000	49.57094357	51.69500000	49.26086825
51.20000000	50.14813765-	51.45000000	50.13272690-	51.70000000	49.21628476
51.20500000	50.34793698-	51.45500000	50.31000733-	51.70500000	49.17891110
51.21000000	50.41044262-	51.46000000	50.45923664-	51.71000000	49.14767310
51.21500000	50.31070151-	51.46500000	50.56901265-	51.71500000	49.12163627
51.22000000	49.88104209-	51.47000000	50.63244453-	51.72000000	48.99991670
51.22500000	50.17002218	51.47500000	50.64717175-	51.72500000	48.82043404
51.23000000	50.36356999	51.48000000	50.61484707-	51.73000000	48.67195497
51.23500000	50.41882324	51.48500000	50.54041171-	51.73500000	48.54940086
51.24000000	50.31597359	51.49000000	50.43117985-	51.74000000	48.44846068
51.24500000	49.94848508	51.49500000	50.29588945-	51.74500000	48.36549241

R	PHI	R	PHI	R	PHI
51.75000000	48.29742736	51.90500000	45.30998375	52.10550000	42.27165382
51.75500000	48.24169190	51.91000000	45.24602956	52.10600000	42.21428678
51.76000000	48.19613221	51.91500000	45.19520129	52.10650000	42.16901854
51.76500000	48.15895266	51.92000000	45.15482147	52.10700000	42.13329900
51.77000000	48.12866015	51.92500000	45.12275500	52.10750000	42.10511947
51.77500000	48.10401630	51.93000000	44.97299898	52.10800000	41.82888646
51.78000000	47.83996769	51.93500000	44.77100442	52.10850000	41.65354476
51.78500000	47.67756236	51.94000000	44.61076952	52.10900000	41.51524351
51.79000000	47.54598691	51.94500000	44.48370366	52.10950000	41.40618466
51.79500000	47.43952281	51.95000000	44.38297215	52.11000000	41.32017795
51.80000000	47.35348065	51.95500000	44.30314217	52.11050000	41.25237026
51.80500000	47.28402268	51.96000000	44.23989461	52.11100000	41.19890292
51.81000000	47.22801355	51.96500000	44.18979942	52.11150000	41.15675784
51.81500000	47.18289630	51.97000000	44.15013169	52.11200000	41.12352965
51.82000000	47.14658900	51.97500000	44.11872938	52.11250000	40.97343371
51.82500000	47.11739916	51.98000000	43.93876082	52.11300000	40.76699174
51.83000000	46.93952839	51.98500000	43.74210887	52.11350000	40.60433467
51.83500000	46.75136300	51.99000000	43.58654078	52.11400000	40.47611021
51.84000000	46.60047899	51.99500000	43.46350160	52.11450000	40.37510295
51.84500000	46.47958604	52.10000000	43.36620849	52.11500000	40.29547986
51.85000000	46.38279645	52.10050000	43.28929088	52.11550000	40.23277149
51.85500000	46.30536051	52.10100000	43.22849220	52.11600000	40.18333841
51.86000000	46.24345153	52.10150000	43.18044409	52.11650000	40.14441547
51.86500000	46.19398898	52.10200000	43.14247854	52.11700000	40.11373157
51.87000000	46.15449576	52.10250000	43.11248532	52.11750000	39.89576040
51.87500000	46.12298167	52.10300000	42.88793722	52.11800000	39.70532624
51.88000000	45.97849322	52.10350000	42.70083145	52.11850000	39.55542189
51.88500000	45.77817534	52.10400000	42.55308154	52.11900000	39.43723582
51.89000000	45.61859684	52.10450000	42.43642966	52.11950000	39.34418591
51.89500000	45.49153709	52.10500000	42.34434013	52.12000000	39.27082175
51.90000000	45.39041896	.	.	.	.

J=2

V=13

W=-1.0179103

R	PHI	R	PHI	R	PHI
50.00000000	50.00000000	51.25000000	50.28770809-	51.50000000	50.57826372
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50.10000000	34.14282993	51.26000000	50.34892753-	51.51000000	50.61803654
50.15000000	36.43945754	51.26500000	50.18020761-	51.51500000	50.57976011
50.20000000	38.31288680	51.27000000	49.53607004	51.52000000	50.50778266
50.25000000	39.61462773	51.27500000	50.26957214	51.52500000	50.40805362
50.30000000	40.90776485	51.28000000	50.39385094	51.53000000	50.28730019
50.35000000	42.10758932	51.28500000	50.38627222	51.53500000	50.15269452
50.40000000	43.10432476	51.29000000	50.25174954	51.54000000	49.11121750
50.45000000	43.84173007	51.29500000	49.35945062	51.54500000	50.13095595-
50.50000000	44.57278829	51.30000000	50.19179254-	51.55000000	50.26802328-
50.55000000	45.33249910	51.30500000	50.36145135-	51.55500000	50.39543001-
50.60000000	46.16627621	51.31000000	50.42361857-	51.56000000	50.50971592-
50.65000000	46.72258909	51.31500000	50.36259371-	51.56500000	50.60835879-
50.70000000	47.27502607	51.32000000	50.19857823-	51.57000000	50.68995629-
50.75000000	47.92333910	51.32500000	49.20665607	51.57500000	50.75387710-
50.80000000	48.27519797	51.33000000	50.23481481	51.58000000	50.80036606-
50.85000000	48.73235093	51.33500000	50.38803778	51.58500000	50.83016076-
50.90000000	49.17488276	51.34000000	50.44297111	51.59000000	50.84458053-
50.95000000	49.37627869	51.34500000	50.38870336	51.59500000	50.84515391-
51.10000000	49.73169287	51.35000000	50.24121294	51.60000000	50.83372171-
51.10500000	50.12881181	51.35500000	49.37413099	51.60500000	50.81210175-
51.11000000	50.20530311	51.36000000	50.17514042-	51.61000000	50.78222422-
51.11500000	50.29553249	51.36500000	50.34974756-	51.61500000	50.74583981-
51.12000000	50.38187231	51.37000000	50.45057909-	51.62000000	50.70468594-
51.12500000	50.43733780	51.37500000	50.45923906-	51.62500000	50.66023585-
51.13000000	50.43239028	51.38000000	50.37686026-	51.63000000	50.61388920-
51.13500000	50.34675198	51.38500000	50.22215060-	51.63500000	50.56675315-
51.14000000	50.18223945	51.39000000	49.26083044-	51.64000000	50.51985126-
51.14500000	49.29821474-	51.39500000	50.17486008	51.64500000	50.47393338-
51.15000000	50.23255522-	51.40000000	50.34584566	51.65000000	50.42963671-
51.15500000	50.36062813-	51.40500000	50.45937110	51.65500000	50.38743053-
51.16000000	50.36566717-	51.41000000	50.49924702	51.66000000	50.34764983-
51.16500000	50.23954718-	51.41500000	50.46187964	51.66500000	50.31051261-
51.17000000	49.23824230-	51.42000000	50.35567406	51.67000000	50.27613884-
51.17500000	50.20160357	51.42500000	50.19835789	51.67500000	50.24456707-
51.18000000	50.34827765	51.43000000	49.13571830	51.68000000	50.21577101-
51.18500000	50.35572092	51.43500000	50.17319153-	51.68500000	50.18967407-
51.19000000	50.21853865	51.44000000	50.33808158-	51.69000000	50.16616118-
51.19500000	48.89533313-	51.44500000	50.46187857-	51.69500000	50.14509071-
51.20000000	50.23389964-	51.45000000	50.53175915-	51.70000000	50.12630281-
51.20500000	50.36335603-	51.45500000	50.54214119-	51.70500000	50.10962779-
51.21000000	50.34343492-	51.46000000	50.49442154-	51.71000000	49.94891484-
51.21500000	50.18198753-	51.46500000	50.39599523-	51.71500000	49.81920967-
51.22000000	49.54901357	51.47000000	50.25873702-	51.72000000	49.70547399-
51.22500000	50.27078910	51.47500000	49.97201915-	51.72500000	49.60609377-
51.23000000	50.37875159	51.48000000	49.73091167	51.73000000	49.51954351-
51.23500000	50.33629219	51.48500000	50.23731617	51.73500000	49.44440165-
51.24000000	50.16114346	51.49000000	50.38249175	51.74000000	49.37935440-
51.24500000	49.77536440-	51.49500000	50.49847160	51.74500000	49.32320188-

R	PHI	R	PHI	R	PHI
51.75000000	49.27485325-	51.90500000	47.10146768-	52.10550000	44.28060378-
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51.76000000	49.19774317-	51.91500000	46.69066973-	52.10650000	44.18831717-
51.76500000	49.16731862-	51.92000000	46.56947934-	52.10700000	44.15424367-
51.77000000	49.14135973-	51.92500000	46.46937507-	52.10750000	44.12632447-
51.77500000	49.11925485-	51.93000000	46.38672550-	52.10800000	44.10344506-
51.78000000	49.10046718-	51.93500000	46.31851813-	52.10850000	43.84703540-
51.78500000	48.84527427-	51.94000000	46.26225215-	52.10900000	43.69348276-
51.79000000	48.71026828-	51.94500000	46.21585633-	52.10950000	43.56773656-
51.79500000	48.59610609-	51.95000000	46.17761337-	52.11000000	43.46472810-
51.80000000	48.49971745-	51.95500000	46.14610297-	52.11050000	43.38039572-
51.80500000	48.41845415-	51.96000000	46.12014850-	52.11100000	43.31132265-
51.81000000	48.35003770-	51.96500000	45.98778151-	52.11150000	43.25478828-
51.81500000	48.29251334-	51.97000000	45.81187451-	52.11200000	43.20848844-
51.82000000	48.24420784-	51.97500000	45.66712888-	52.11250000	43.17060398-
51.82500000	48.20369250-	51.98000000	45.54805633-	52.11300000	43.13957995-
51.83000000	48.16974984-	51.98500000	45.45013477-	52.11350000	43.11420196-
51.83500000	48.14134465-	51.99000000	45.36962612-	52.11400000	42.93420530-
51.84000000	48.11759831-	51.99500000	45.30345381-	52.11450000	42.76425870-
51.84500000	47.97766448-	52.10000000	45.24907632-	52.11500000	42.62509423-
51.85000000	47.81219457-	52.10050000	45.20440439-	52.11550000	42.51131958-
51.85500000	47.67425665-	52.10100000	45.16771228-	52.11600000	42.41814963-
51.86000000	47.55936936-	52.10150000	45.13758282-	52.11650000	42.34199819-
51.86500000	47.46375951-	52.10200000	45.11284602-	52.11700000	42.27963550-
51.87000000	47.38425523-	52.10250000	44.92542069-	52.11750000	42.22867354-
51.87500000	47.31819323-	52.10300000	44.75878687-	52.11800000	42.18693742-
51.88000000	47.26334030-	52.10350000	44.62206823-	52.11850000	42.15283200-
51.88500000	47.21782589-	52.10400000	44.50990401-	52.11900000	42.12490046-
51.89000000	47.18008489-	52.10450000	44.41790970-	52.11950000	42.10206820-
51.89500000	47.14880937-	52.10500000	44.34246228-	52.12000000	41.83370249-
51.90000000	47.12290721-

J=2

V=14

W=-1.0118296

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50.10000000	34.15079903	51.26000000	50.22619074-	51.51000000	49.87247743
50.15000000	36.46342106	51.26500000	49.24704153-	51.51500000	49.61209712-
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50.80000000	48.27962889	51.33000000	50.35366322	51.58000000	49.38782076-
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50.90000000	49.17522137	51.34000000	50.32656368	51.59000000	50.20473858
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51.10000000	49.72001522	51.35000000	49.20403397-	51.60000000	50.42431397
51.10500000	50.12536481	51.35500000	50.21155863-	51.60500000	50.51859197
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51.11500000	50.27959527	51.36500000	50.41186006-	51.61500000	50.66889128
51.12000000	50.35443474	51.37000000	50.37857700-	51.62000000	50.72380323
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51.13500000	50.28331104	51.38500000	49.99883940	51.63500000	50.81050547
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51.77500000	49.91375417	51.93000000	48.10927084	52.10800000	45.94507784
51.78000000	49.80575329	51.93500000	47.93659638	52.10850000	45.80431897
51.78500000	49.70930770	51.94000000	47.80245351	52.10900000	45.68438912
51.79000000	49.62339445	51.94500000	47.68725594	52.10950000	45.58232694
51.79500000	49.54704276	51.95000000	47.58837007	52.11000000	45.49538273
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51.83000000	49.21113111	51.98500000	47.19649036	52.11350000	45.15934696
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51.87500000	48.57629639	52.10300000	46.47064757	52.11800000	44.36815190
51.88000000	48.49690297	52.10350000	46.40113580	52.11850000	44.31268907
51.88500000	48.42816215	52.10400000	46.34181983	52.11900000	44.26545765
51.89000000	48.36869504	52.10450000	46.29123450	52.11950000	44.22534272
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50.1000000	34.14955937	51.2600000	50.11497854-	51.5100000	50.33129940-
50.1500000	36.45916808	51.2650000	49.77215419	51.5150000	50.41476640-
50.2000000	38.32626622	51.2700000	50.24093968	51.5200000	50.46389251-
50.2500000	39.63985331	51.2750000	50.31523972	51.5250000	50.47611382-
50.3000000	40.94299844	51.2800000	50.27409222	51.5300000	50.45204989-
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50.4500000	43.86588432	51.2950000	50.22385020-	51.5450000	50.20459059-
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50.6500000	46.72612313	51.3150000	49.26166587-	51.5650000	50.27297599
50.7000000	47.27411089	51.3200000	50.15529353	51.5700000	50.37148901
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50.8000000	48.26887802	51.3300000	50.34107448	51.5800000	50.50920530
50.8500000	48.70704317	51.3350000	50.29424577	51.5850000	50.54383154
50.9000000	49.16657830	51.3400000	50.16539711	51.5900000	50.55474481
50.9500000	49.35297874	51.3450000	48.85659056-	51.5950000	50.54265419
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51.1100000	50.18121112	51.3600000	50.35624130-	51.6100000	50.38823097
51.1150000	50.25361687	51.3650000	50.31942497-	51.6150000	50.30666244
51.1200000	50.31642682	51.3700000	50.20713294-	51.6200000	50.21542250
51.1250000	50.34594697	51.3750000	49.47176122-	51.6250000	50.11771804
51.1300000	50.31935154	51.3800000	50.12353748	51.6300000	49.16716588
51.1350000	50.22556367	51.3850000	50.26776932	51.6350000	49.84785614-
51.1400000	49.75199531	51.3900000	50.35604437	51.6400000	50.18417987-
51.1450000	49.96331417-	51.3950000	50.37197762	51.6450000	50.27936021-
51.1500000	50.23682922-	51.4000000	50.31457319	51.6500000	50.36845651-
51.1550000	50.29580976-	51.4050000	50.19694807	51.6550000	50.45014170-
51.1600000	50.24686813-	51.4100000	49.42729650	51.6600000	50.52329863-
51.1650000	50.10342117-	51.4150000	50.11933239-	51.6650000	50.58732960-
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51.1750000	50.23364648	51.4250000	50.35867273-	51.6750000	50.68664123-
51.1800000	50.28881800	51.4300000	50.39832060-	51.6800000	50.72197496-
51.1850000	50.22145411	51.4350000	50.37543039-	51.6850000	50.74821770-
51.1900000	49.58393228	51.4400000	50.29551935-	51.6900000	50.76576676-
51.1950000	50.13096886-	51.4450000	50.17218545-	51.6950000	50.77533788-
51.2000000	50.26435977-	51.4500000	49.24366346-	51.7000000	50.77752467-
51.2050000	50.28303128-	51.4550000	50.12691821	51.7050000	50.77317998-
51.2100000	50.17815829-	51.4600000	50.26156452	51.7100000	50.76297061-
51.2150000	48.50416556	51.4650000	50.36305173	51.7150000	50.74778012-
51.2200000	50.18729594	51.4700000	50.42006085	51.7200000	50.72825990-
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51.2300000	50.26979564	51.4800000	50.38620817	51.7300000	50.67932455-
51.2350000	50.13528221	51.4850000	50.30259623	51.7350000	50.65123631-
51.2400000	49.56626426-	51.4900000	50.18697972	51.7400000	50.62145457-
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R	PHI	R	PHI	R	PHI
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51.76000000	50.49571431-	52.10100000	48.31173092-	52.12600000	45.67868399-
51.76500000	50.46451363-	52.10150000	48.27681431-	52.12650000	45.59911388-
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51.77500000	50.40432181-	52.10250000	48.21810203-	52.12750000	45.46681316-
51.78000000	50.37569718-	52.10300000	48.19352254-	52.12800000	45.41203688-
51.78500000	50.34823274-	52.10350000	48.17167233-	52.12850000	45.36367432-
51.79000000	50.32202014-	52.10400000	48.15225452-	52.12900000	45.32097800-
51.79500000	50.29712225-	52.10450000	48.13500349-	52.12950000	45.28328417-
51.80000000	50.27357617-	52.10500000	48.11968211-	52.13000000	45.25000944-
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51.81000000	50.23058457-	52.10600000	47.94002716-	52.13100000	45.19470786-
51.81500000	50.21111893-	52.10650000	47.83286387-	52.13150000	45.17182172-
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R	PHI	R	PHI	R	PHI
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52.15100000	43.12895806-	52.16800000	41.17883957-	52.18500000	39.24669770-
52.15150000	43.11372430-	52.16850000	41.15767928-	52.18550000	39.21748448-
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52.15600000	42.36671552-	52.17300000	40.50757244-	52.19000000	38.69944594-
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52.16200000	41.81016339-	52.17900000	40.11192433-	52.19600000	38.15407275-
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52.16350000	41.55536000-	52.18050000	39.76691957-	52.19750000	38.10554604-
52.16400000	41.48967076-	52.18100000	39.67611926-	52.19800000	37.93040657-
52.16450000	41.43174950-	52.18150000	39.59606584-	52.19850000	37.82017206-
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J=2		V=16		W=-1.0032941	
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50.00000000	50.00000000	51.25000000	50.25102160-	51.50000000	50.28175356-
49.50000000	30.50824502	51.25500000	50.18157920-	51.50500000	50.34597645-
50.10000000	34.13587190	51.26000000	49.38604554-	51.51000000	50.37625124-
50.15000000	36.41684648	51.26500000	50.12046900	51.51500000	50.37089418-
50.20000000	38.29599739	51.27000000	50.23349840	51.52000000	50.33172367-
50.25000000	39.58017415	51.27500000	50.25781550	51.52500000	50.26338748-
50.30000000	40.85443685	51.28000000	50.18549420	51.53000000	50.17276773-
50.35000000	42.10091067	51.28500000	49.44562249	51.53500000	49.68041818-
50.40000000	42.97427131	51.29000000	50.11306305-	51.54000000	49.42049457
50.45000000	43.78201808	51.29500000	50.23138643-	51.54500000	50.14903811
50.50000000	44.52890385	51.30000000	50.27013562-	51.55000000	50.24530211
50.55000000	45.30482959	51.30500000	50.21760011-	51.55500000	50.32457731
50.60000000	46.15117576	51.31000000	49.92876041-	51.56000000	50.38224251
50.65000000	46.65070425	51.31500000	49.62302040	51.56500000	50.41545285
50.70000000	47.24496904	51.32000000	50.19826456	51.57000000	50.42315319
50.75000000	47.81225631	51.32500000	50.27646076	51.57500000	50.40589983
50.80000000	48.23870220	51.33000000	50.26651675	51.58000000	50.36570332
50.85000000	48.62519371	51.33500000	50.18127703	51.58500000	50.30565557
50.90000000	49.14663145	51.34000000	49.43905755	51.59000000	50.22972921
50.95000000	49.30912398	51.34500000	50.10603322-	51.59500000	50.14232756
51.10000000	49.58728764	51.35000000	50.22745344-	51.60000000	49.48139841
51.10500000	50.10065489	51.35500000	50.28886809-	51.60500000	49.48298460-
51.11000000	50.15546441	51.36000000	50.27589716-	51.61000000	50.14263425-
51.11500000	50.21549830	51.36500000	50.19366558-	51.61500000	50.23108141-
51.12000000	50.26562194	51.37000000	49.63999032-	51.62000000	50.31031559-
51.12500000	50.28566382	51.37500000	49.81062527	51.62500000	50.37779319-
51.13000000	50.25709805	51.38000000	50.20765241	51.63000000	50.43152438-
51.13500000	50.17242072	51.38500000	50.28784216	51.63500000	50.47033883-
51.14000000	49.43176163	51.39000000	50.30544750	51.64000000	50.49356766-
51.14500000	49.98434293-	51.39500000	50.25843962	51.64500000	50.50127607-
51.15000000	50.20765027-	51.40000000	50.15830914	51.65000000	50.49388794-
51.15500000	50.24378621-	51.40500000	49.26493188	51.65500000	50.47241072-
51.16000000	50.18906062-	51.41000000	50.11058781-	51.66000000	50.43803118-
51.16500000	49.60428076-	51.41500000	50.22709851-	51.66500000	50.39234837-
51.17000000	49.93031258	51.42000000	50.30245292-	51.67000000	50.33696719-
51.17500000	50.20830667	51.42500000	50.32461650-	51.67500000	50.27374702-
51.18000000	50.23538704	51.43000000	50.29140962-	51.68000000	50.20440945-
51.18500000	50.16066906	51.43500000	50.21001072-	51.68500000	50.13080617-
51.19000000	49.15085398	51.44000000	49.94941164-	51.69000000	49.54547610-
51.19500000	50.13807436-	51.44500000	49.34941585	51.69500000	49.22711524
51.20000000	50.23091187-	51.45000000	50.15969038	51.70000000	49.99618429
51.20500000	50.22160647-	51.45500000	50.26141748	51.70500000	50.17482502
51.21000000	50.11365351-	51.46000000	50.32658322	51.71000000	50.24730926
51.21500000	49.45489607	51.46500000	50.34759028	51.71500000	50.31607290
51.22000000	50.18569713	51.47000000	50.32310711	51.72000000	50.38043992
51.22500000	50.24548294	51.47500000	50.25778524	51.72500000	50.43975538
51.23000000	50.19894108	51.48000000	50.16092780	51.73000000	50.49366383
51.23500000	49.66405466	51.48500000	49.45064278	51.73500000	50.54181496
51.24000000	49.95309886-	51.49000000	49.76024980-	51.74000000	50.58412337
51.24500000	50.21800771-	51.49500000	50.18883036-	51.74500000	50.62048857

R	PHI	R	PHI	R	PHI
51.75000000	50.65103535	52.10000000	49.70382510	52.12500000	48.11885499
51.75500000	50.67585119	52.10050000	49.65243593	52.12550000	48.10919103
51.76000000	50.69521071	52.10100000	49.60454706	52.12600000	48.10030738
51.76500000	50.70932993	52.10150000	49.55994994	52.12650000	47.92140891
51.77000000	50.71857791	52.10200000	49.51844493	52.12700000	47.84634952
51.77500000	50.72324977	52.10250000	49.47984012	52.12750000	47.77736005
51.78000000	50.72375974	52.10300000	49.44395457	52.12800000	47.71396001
51.78500000	50.72044175	52.10350000	49.41061455	52.12850000	47.65569664
51.79000000	50.71371894	52.10400000	49.37965659	52.12900000	47.60216058
51.79500000	50.70393232	52.10450000	49.35092397	52.12950000	47.55296868
51.80000000	50.69148693	52.10500000	49.32427079	52.13000000	47.50777374
51.80500000	50.67670831	52.10550000	49.29955706	52.13050000	47.46625168
51.81000000	50.65996564	52.10600000	49.27665229	52.13100000	47.42810771
51.81500000	50.64155499	52.10650000	49.25543215	52.13150000	47.39306853
51.82000000	50.62179927	52.10700000	49.23578114	52.13200000	47.36088265
51.82500000	50.60095789	52.10750000	49.21758934	52.13250000	47.33132042
51.83000000	50.57930257	52.10800000	49.20075550	52.13300000	47.30416796
51.83500000	50.55705360	52.10850000	49.18518269	52.13350000	47.27923136
51.84000000	50.53443092	52.10900000	49.17078226	52.13400000	47.25632952
51.84500000	50.51161663	52.10950000	49.15746930	52.13450000	47.23529877
51.85000000	50.48878052	52.11000000	49.14516618	52.13500000	47.21598600
51.85500000	50.46607008	52.11050000	49.13379873	52.13550000	47.19825270
51.86000000	50.44360994	52.11100000	49.12329966	52.13600000	47.18196924
51.86500000	50.42151203	52.11150000	49.11360436	52.13650000	47.16701865
51.87000000	50.39986710	52.11200000	49.10465437	52.13700000	47.15329169
51.87500000	50.37875526	52.11250000	48.96393868	52.13750000	47.14068934
51.88000000	50.35823809	52.11300000	48.88771910	52.13800000	47.12911925
51.88500000	50.33836907	52.11350000	48.81740448	52.13850000	47.11849787
51.89000000	50.31918558	52.11400000	48.75255450	52.13900000	47.10874713
51.89500000	50.30071932	52.11450000	48.69275362	52.13950000	46.99796684
51.90000000	50.28298854	52.11500000	48.63762263	52.14000000	46.91580500
51.90500000	50.26600795	52.11550000	48.58680334	52.14050000	46.84038950
51.91000000	50.24978089	52.11600000	48.53996918	52.14100000	46.77116543
51.91500000	50.23430871	52.11650000	48.49681406	52.14150000	46.70762874
51.92000000	50.21958358	52.11700000	48.45705752	52.14200000	46.64931194
51.92500000	50.20559719	52.11750000	48.42043577	52.14250000	46.59578909
51.93000000	50.19233386	52.11800000	48.38670882	52.14300000	46.54666770
51.93500000	50.17977826	52.11850000	48.35565065	52.14350000	46.50158596
51.94000000	50.16790916	52.11900000	48.32705603	52.14400000	46.46021364
51.94500000	50.15670644	52.11950000	48.30073142	52.14450000	46.42224564
51.95000000	50.14614568	52.12000000	48.27650139	52.14500000	46.38740313
51.95500000	50.13620400	52.12050000	48.25420096	52.14550000	46.35542922
51.96000000	50.12685524	52.12100000	48.23368035	52.14600000	46.32608903
51.96500000	50.11807499	52.12150000	48.21479840	52.14650000	46.29916536
51.97000000	50.10983661	52.12200000	48.19742745	52.14700000	46.27446075
51.97500000	50.10211527	52.12250000	48.18144699	52.14750000	46.25179149
51.98000000	49.94884879	52.12300000	48.16674873	52.14800000	46.23099169
51.98500000	49.88120888	52.12350000	48.15322975	52.14850000	46.21190624
51.99000000	49.81798258	52.12400000	48.14079798	52.14900000	46.19439549
51.99500000	49.75893303	52.12450000	48.12936583	52.14950000	46.17832857

R	PHI	R	PHI	R	PHI
52.1500000	46.16358765	52.1670000	44.86484929	52.1840000	43.45366566
52.1505000	46.15006275	52.1675000	44.79309435	52.1845000	43.41595909
52.1510000	46.13765449	52.1680000	44.72728921	52.1850000	43.38138456
52.1515000	46.12627016	52.1685000	44.66693893	52.1855000	43.34968359
52.1520000	46.11582598	52.1690000	44.61159487	52.1860000	43.32061545
52.1525000	46.10624409	52.1695000	44.56083845	52.1865000	43.29396396
52.1530000	45.97454008	52.1700000	44.51429265	52.1870000	43.26952594
52.1535000	45.89389884	52.1705000	44.47160590	52.1875000	43.24711965
52.1540000	45.81992431	52.1710000	44.43246100	52.1880000	43.22657436
52.1545000	45.75206054	52.1715000	44.39656192	52.1885000	43.20773756
52.1550000	45.68980849	52.1720000	44.36364171	52.1890000	43.19046492
52.1555000	45.63269998	52.1725000	44.33345154	52.1895000	43.17462901
52.1560000	45.58031614	52.1730000	44.30576696	52.1900000	43.16010788
52.1565000	45.53226140	52.1735000	44.28037853	52.1905000	43.14679500
52.1570000	45.48818352	52.1740000	44.25709785	52.1910000	43.13458732
52.1575000	45.44774911	52.1745000	44.23574809	52.1915000	43.12339563
52.1580000	45.41066191	52.1750000	44.21617119	52.1920000	43.11313301
52.1585000	45.37664097	52.1755000	44.19821789	52.1925000	43.10372472
52.1590000	45.34543699	52.1760000	44.18175551	52.1930000	42.95097272
52.1595000	45.31681403	52.1765000	44.16665857	52.1935000	42.87188207
52.1600000	45.29056167	52.1770000	44.15281584	52.1940000	42.79935450
52.1605000	45.26648122	52.1775000	44.14012129	52.1945000	42.73286788
52.1610000	45.24439537	52.1780000	44.12848175	52.1950000	42.67189766
52.1615000	45.22413729	52.1785000	44.11780776	52.1955000	42.61600620
52.1620000	45.20555731	52.1790000	44.10802090	52.1960000	42.56475210
52.1625000	45.18851572	52.1795000	43.99046089	52.1965000	42.51776730
52.1630000	45.17288572	52.1800000	43.90817029	52.1970000	42.47468115
52.1635000	45.15855047	52.1805000	43.83270908	52.1975000	42.43518324
52.1640000	45.14540284	52.1810000	43.76351770	52.1980000	42.39896274
52.1645000	45.13334454	52.1815000	43.70007106	52.1985000	42.36575786
52.1650000	45.12228523	52.1820000	43.64189586	52.1990000	42.33530876
52.1655000	45.11214251	52.1825000	43.58855158	52.1995000	42.30739331
52.1660000	45.10284028	52.1830000	43.53963918	52.2000000	42.28179537
52.1665000	44.94309029	52.1835000	43.49478945		

J=2		V=17		W=-1.0009936	
R	PHI	R	PHI	R	PHI
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49.5000000	30.39288803	51.2550000	50.11288192-	51.5050000	50.27006823-
50.1000000	34.10499817	51.2600000	48.13416714-	51.5100000	50.25536904-
50.1500000	36.32198172	51.2650000	50.11139116	51.5150000	50.21513775-
50.2000000	38.22853908	51.2700000	50.18082582	51.5200000	50.15415296-
50.2500000	39.44779637	51.2750000	50.18056881	51.5250000	49.78787070-
50.3000000	40.65918416	51.2800000	50.11163179	51.5300000	48.36811853
50.3500000	41.77807465	51.2850000	47.70993865	51.5350000	49.85878237
50.4000000	42.75070315	51.2900000	50.11097736-	51.5400000	50.16094928
50.4500000	43.60207451	51.2950000	50.18336733-	51.5450000	50.22311510
50.5000000	44.40680845	51.3000000	50.19169655-	51.5500000	50.26802185
50.5500000	45.23419523	51.3050000	50.13420654-	51.5550000	50.29293500
50.6000000	46.11599297	51.3100000	49.31419000-	51.5600000	50.29679817
50.6500000	46.49851137	51.3150000	49.82044290	51.5650000	50.28010027
50.7000000	47.18734830	51.3200000	50.16952551	51.5700000	50.24472796
50.7500000	47.61997622	51.3250000	50.20411355	51.5750000	50.19362185
50.8000000	48.18178886	51.3300000	50.17629940	51.5800000	50.13054965
50.8500000	48.47492683	51.3350000	49.95734214	51.5850000	49.59679053
50.9000000	49.11106965	51.3400000	49.12943290-	51.5900000	49.14611757-
50.9500000	49.23339311	51.3450000	50.11819721-	51.5950000	49.88144617-
51.1000000	49.44176339	51.3500000	50.19093331-	51.6000000	50.15702167-
51.1050000	49.75388015	51.3550000	50.21227168-	51.6050000	50.21796325-
51.1100000	50.11584872	51.3600000	50.17782078-	51.6100000	50.26825365-
51.1150000	50.15959748	51.3650000	49.97774223-	51.6150000	50.30599290-
51.1200000	50.19518553	51.3700000	48.67936802	51.6200000	50.32991924-
51.1250000	50.20767768	51.3750000	50.10988098	51.6250000	50.33958948-
51.1300000	50.18379037	51.3800000	50.18722039	51.6300000	50.33511058-
51.1350000	50.11888124	51.3850000	50.22171839	51.6350000	50.31727600-
51.1400000	49.22671750	51.3900000	50.20683624	51.6400000	50.28724725-
51.1450000	49.80059834-	51.3950000	50.14710356	51.6450000	50.24667242-
51.1500000	50.15607943-	51.4000000	49.56336902	51.6500000	50.19735290-
51.1550000	50.17640411-	51.4050000	49.46069175-	51.6550000	50.14136810-
51.1600000	50.13010179-	51.4100000	50.13944755-	51.6600000	49.80752102-
51.1650000	49.32268981-	51.4150000	50.20607815-	51.6650000	49.17636268-
51.1700000	49.79083557	51.4200000	50.23426420-	51.6700000	49.46046400
51.1750000	50.15753639	51.4250000	50.22001359-	51.6750000	50.10839784
51.1800000	50.16848447	51.4300000	50.16707431-	51.6800000	50.16781573
51.1850000	50.10568752	51.4350000	49.85608445-	51.6850000	50.22281206
51.1900000	48.43461436-	51.4400000	49.10066463	51.6900000	50.27223806
51.1950000	50.11315252-	51.4450000	50.10422600	51.6950000	50.31509133
51.2000000	50.17187933-	51.4500000	50.18230461	51.7000000	50.35070854
51.2050000	50.15366292-	51.4550000	50.23310285	51.7050000	50.37856889
51.2100000	49.66188025-	51.4600000	50.25006385	51.7100000	50.39845884
51.2150000	49.51630241	51.4650000	50.23189478	51.7150000	50.41028121
51.2200000	50.14727948	51.4700000	50.18214944	51.7200000	50.41419596
51.2250000	50.17832236	51.4750000	50.10841646	51.7250000	50.41044078
51.2300000	50.13115421	51.4800000	49.20817387	51.7300000	50.39945290
51.2350000	49.26508197	51.4850000	49.69386009-	51.7350000	50.38170655
51.2400000	49.90298350-	51.4900000	50.15141811-	51.7400000	50.35781711
51.2450000	50.16947421-	51.4950000	50.21609134-	51.7450000	50.32840187

R	PHI	R	PHI	R	PHI
51.75000000	50.29416580	52.10000000	50.45797288-	52.12500000	49.65930671-
51.75500000	50.25578744	52.10050000	50.44502259-	52.12550000	49.63082846-
51.76000000	50.21398850	52.10100000	50.43216655-	52.12600000	49.60352545-
51.76500000	50.16944433	52.10150000	50.41935618-	52.12650000	49.57734648-
51.77000000	50.12283826	52.10200000	50.40664841-	52.12700000	49.55225579-
51.77500000	49.74797084	52.10250000	50.39406442-	52.12750000	49.52820625-
51.78000000	49.25927555	52.10300000	50.38163394-	52.12800000	49.50516331-
51.78500000	49.23221136-	52.10350000	50.36937282-	52.12850000	49.48308449-
51.79000000	49.72140626-	52.10400000	50.35730512-	52.12900000	49.46193539-
51.79500000	50.12037455-	52.10450000	50.34544155-	52.12950000	49.44167719-
51.80000000	50.16752219-	52.10500000	50.33380181-	52.13000000	49.42227701-
51.80500000	50.21322399-	52.10550000	50.32239259-	52.13050000	49.40369942-
51.81000000	50.25718650-	52.10600000	50.31122872-	52.13100000	49.38591285-
51.81500000	50.29914297-	52.10650000	50.30031346-	52.13150000	49.36888543-
51.82000000	50.33890028-	52.10700000	50.28965803-	52.13200000	49.35258588-
51.82500000	50.37627540-	52.10750000	50.27926277-	52.13250000	49.33698616-
51.83000000	50.41116452-	52.10800000	50.26913638-	52.13300000	49.32050621-
51.83500000	50.44345624-	52.10850000	50.25927668-	52.13350000	49.30777017-
51.84000000	50.47312315-	52.10900000	50.24968989-	52.13400000	49.29410019-
51.84500000	50.50011213-	52.10950000	50.24037203-	52.13450000	49.28102238-
51.85000000	50.52445807-	52.11000000	50.23132682-	52.13500000	49.26851122-
51.85500000	50.54615224-	52.11050000	50.22254882-	52.13550000	49.25654417-
51.86000000	50.56527905-	52.11100000	50.21404037-	52.13600000	49.24509754-
51.86500000	50.58186282-	52.11150000	50.20579491-	52.13650000	49.23415035-
51.87000000	50.59602502-	52.11200000	50.19781309-	52.13700000	49.22368137-
51.87500000	50.60781156-	52.11250000	50.19008810-	52.13750000	49.21367070-
51.88000000	50.61737083-	52.11300000	50.18261871-	52.13800000	49.20409884-
51.88500000	50.62476087-	52.11350000	50.17539803-	52.13850000	49.19494731-
51.89000000	50.63014790-	52.11400000	50.16842389-	52.13900000	49.18619826-
51.89500000	50.63359402-	52.11450000	50.16168879-	52.13950000	49.17783469-
51.90000000	50.63527671-	52.11500000	50.15518994-	52.14000000	49.16984022-
51.90500000	50.63525635-	52.11550000	50.14891956-	52.14050000	49.16219854-
51.91000000	50.63371603-	52.11600000	50.14287423-	52.14100000	49.15489514-
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51.94000000	50.59824579-	52.11900000	50.11098915-	52.14400000	49.11739782-
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51.97500000	50.52167026-	52.12250000	49.82086522-	52.14750000	48.84840923-
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R	PHI	R	PHI	R	PHI
52.15000000	48.67221418-	52.16700000	48.13633900-	52.18400000	47.27286346-
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52.15100000	48.61234327-	52.16800000	48.12406447-	52.18500000	47.24815821-
52.15150000	48.58441594-	52.16850000	48.11834598-	52.18550000	47.23665720-
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52.15300000	48.50798846-	52.17000000	48.10271861-	52.18700000	47.20523972-
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52.15450000	48.44147535-	52.17150000	47.89146563-	52.18850000	47.17798560-
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52.15550000	48.40200876-	52.17250000	47.81106231-	52.18950000	47.16185105-
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52.16000000	48.26354717-	52.17700000	47.52982846-	52.19400000	47.10549492-
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52.16450000	48.17257128-	52.18150000	47.34589178-	52.19850000	46.68710209-
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V=18

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50.1500000	36.14571840	51.2650000	49.53174805	51.5150000	49.80036137-
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50.2500000	39.20268379	51.2750000	49.78015779	51.5250000	49.12457684-
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50.3500000	41.35203310	51.2850000	48.53554243-	51.5350000	49.59903753
50.4000000	42.33955592	51.2900000	49.53791804-	51.5400000	49.89889171
50.4500000	43.27223896	51.2950000	49.83049663-	51.5450000	50.11247169
50.5000000	44.18387412	51.3000000	49.83111693-	51.5500000	50.12611418
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50.7000000	46.84485569	51.3200000	49.78641238	51.5700000	49.87776801
50.7500000	47.27935871	51.3250000	49.90116222	51.5750000	49.59841202
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50.8500000	48.21358888	51.3350000	49.35315898	51.5850000	48.54306578-
50.9000000	48.49893640	51.3400000	49.13680828-	51.5900000	49.38622370-
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51.0000000	49.19788617	51.3500000	49.87741015-	51.6000000	49.96809895-
51.0500000	49.33710949	51.3550000	49.92796307-	51.6050000	50.11888462-
51.1000000	49.51697072	51.3600000	49.73263783-	51.6100000	50.13489769-
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51.1200000	49.86606764	51.3700000	49.12509581	51.6200000	50.14690143-
51.1250000	49.91746729	51.3750000	49.56820642	51.6250000	50.14283223-
51.1300000	49.80629949	51.3800000	49.87685854	51.6300000	50.13250754-
51.1350000	49.51356080	51.3850000	49.98298165	51.6350000	50.11662030-
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51.1450000	49.36863564-	51.3950000	49.56308519	51.6450000	49.71652595-
51.1500000	49.69820562-	51.4000000	49.13802950	51.6500000	49.44606585-
51.1550000	49.77725080-	51.4050000	49.31610333-	51.6550000	49.15961188-
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51.1800000	49.73846433	51.4300000	49.63701131-	51.6800000	50.11729069
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51.77500000	49.62231595-	52.10250000	50.23897187	52.12750000	50.42191889
51.78000000	49.84390626-	52.10300000	50.25073213	52.12800000	50.42032089
51.78500000	50.10548179-	52.10350000	50.26209720	52.12850000	50.41867660
51.79000000	50.12529502-	52.10400000	50.27301476	52.12900000	50.41690115
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51.80000000	50.16039162-	52.10500000	50.29360854	52.13000000	50.41315311
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51.81500000	50.19996521-	52.10650000	50.32137677	52.13150000	50.40701109
51.82000000	50.20941001-	52.10700000	50.32979188	52.13200000	50.40480324
51.82500000	50.21693652-	52.10750000	50.33783309	52.13250000	50.40258310
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51.87000000	50.20535930-	52.11200000	50.39312247	52.13700000	50.38023325
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51.88000000	50.18673353-	52.11300000	50.40163470	52.13800000	50.37487234
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51.90000000	50.13772550-	52.11500000	50.41507433	52.14000000	50.36385866
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52.15000000	50.30642177	52.16700000	50.21656867	52.18400000	50.14729684
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52.15200000	50.29500941	52.16900000	50.20730642	52.18600000	50.14051436
52.15250000	50.29220012	52.16950000	50.20504190	52.18650000	50.13886498
52.15300000	50.28935851	52.17000000	50.20278742	52.18700000	50.13722427
52.15350000	50.28657087	52.17050000	50.20056033	52.18750000	50.13560777
52.15400000	50.28375212	52.17100000	50.19834333	52.18800000	50.13400018
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52.16000000	50.25127889	52.17700000	50.17324627	52.19400000	50.11598937
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