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Tables of Eigenvalues
of the Wave Equation
in Oblate Spheroidal Coordinates

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ABSTRACT

The wave equation in prolate spheroidal coordinates was separated into radial and angle functions. The differential equation satisfied by the angle functions was written in the form of an eigenvalue problem, that is, as a linear operator operating on eigenfunctions to yield the same eigenfunctions multiplied by corresponding eigenvalues. The eigenvalues were numerically calculated by use of Galerkin's method. This method reduces to the evaluation of the characteristic roots of a large matrix. An 80 by 80 matrix is chosen and a detailed calculation on a high-speed computer leads to a tabulation. The table of prolate eigenvalues published here has the range $m = 0, 1, 2; l = m (1) m + 49; h = 0.1 (0.1) 0.9, 1.0 (0.2) 8.0, 10.0, 20.0 (20.0) 100.0$. The precision is 21 significant figures.

PROBLEM STATUS

This is an interim report on one phase of the problem; work on other phases continues.

AUTHORIZATION

NRL Problem S01-28
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TABLES OF EIGENVALUES OF THE WAVE EQUATION
IN PROLATE SPHEROIDAL COORDINATES

INTRODUCTION

In the solution of Helmholtz's wave equation $(\nabla^2 + k^2)\psi = 0$ by separation of variables in spheroidal coordinates (ξ, η, φ) the following equations occur:

$$\frac{d}{d\xi} \left[(\xi^2 - 1) \frac{dR}{d\xi} \right] - \left[A - h^2 \xi^2 + \frac{m^2}{\xi^2 - 1} \right] R = 0 , \quad 1 < \xi < \infty , \quad (1)$$

$$\frac{d}{d\eta} \left[(1 - \eta^2) \frac{dS}{d\eta} \right] + \left[A - h^2 \eta^2 - \frac{m^2}{1 - \eta^2} \right] S = 0 , \quad -1 \leq \eta \leq 1 , \quad (2)$$

$$\frac{d^2\Phi}{d\varphi^2} + m^2\Phi = 0 , \quad 0 \leq \varphi \leq 2\pi . \quad (3)$$

Here A is a separation constant, $h = kd/2$, $k = \omega/c$, d is the interfocal distance of the spheroid, R is a radial function, S is an angle function, and Φ is a rotational function. Equations (1) and (2) have the form of the Liouville equation

$$[p(z)\psi']' + [q(z) + \lambda r(z)]\psi = 0 , \quad (4)$$

with the identities

$$p(z) = 1 - \eta^2 \quad \text{or} \quad \xi^2 - 1$$

$$q(z) = -h^2 \eta^2 - \frac{m^2}{1 - \eta^2} \quad \text{or} \quad -h^2 \xi^2 + \frac{m^2}{\xi^2 - 1}$$

$$r(z) = 1$$

and

$$\lambda = A .$$

Since Eqs. (1) and (2) are identical, except for range of the variables η and ξ , we consider only Eq. (2). Here we seek the real eigenvalues $A = A_{ml}$ ($l = m, m+1, \dots$) for which the solutions of Eq. (2) over a range are nontrivial and nonsingular. The singularities of Eq. (4) are known to occur at $p(z) = 0$, i.e., at $\eta = \pm 1$. The range of interest is thus $-1 \leq \eta \leq +1$, or parametrically $\eta = \cos \theta$, $0 \leq \theta \leq \pi$. The boundary conditions are of the conventional type, $\alpha_1\psi + \alpha_2\psi' = 0$ at $\eta = 1$, and $\beta_1\psi + \beta_2\psi' = 0$ at $\eta = -1$. For these boundary conditions there will be a lowest eigenvalue A_{mm} which will be smaller in magnitude than any other A_{ml} , and all other eigenvalues can be ordered to form a monotonically increasing sequence $A_{m(l+1)} > A_{ml}$. To find the eigenvalue A_{ml} we use the method of Galerkin (1); i.e., we assume that the corresponding eigenfunction can be expanded in a finite orthogonal series $\{\phi_k(\eta)\}$ over the range $-1 \leq \eta \leq 1$ and write

$$\psi_s = \sum_{r=0}^{k-1} C_{sr} \phi_r , \quad s = m l , \quad (5)$$

in which ϕ_r is a solution of Eq. (4) and associated homogeneous boundary conditions in the range $-1 \leq \eta \leq +1$ with known eigenvalue λ_r . Substituting Eq. (5) into Eq. (2), multiplying by ϕ_q and integrating over the range according to Galerkin's procedure, one gets

$$\sum_{r=0}^k C_{sr} \left[\int_{-1}^{+1} (1-\eta^2) \phi_r'' \phi_q \, d\eta + \int_{-1}^{+1} (-2\eta) \phi_r' \phi_q \, d\eta \right. \\ \left. + \int_{-1}^{+1} \left(-h^2 \eta^2 - \frac{m^2}{1-\eta^2} + \lambda_s \right) \phi_r \phi_q \, d\eta \right] = 0 . \quad (6)$$

An appropriate choice of ϕ_r for the range of η is the associated Legendre function $P_{m+r}^m(\eta)$ which satisfies Eq. (2) for the condition $h=0$. This condition requires that

$$(1-\eta^2) P_{m+r}^{m''} = 2\eta P_{m+r}^{m'} - \left[(m+r)(m+r+1) - \frac{m^2}{1-\eta^2} \right] P_{m+r}^m . \quad (7)$$

Substituting $\phi_r = P_{m+r}^m$ and $\phi_q = P_q^m$ in Eq. (6) and using Eq. (7), it is easily seen that Eq. (6) can be written in the form

$$\sum_{r=0}^k C_{sr} L_{m+r, q} = 0 , \quad (8a)$$

where

$$L_{m+r, q} = \left[(\lambda_s - (m+r)(m+r+1)) \int_{-1}^{+1} P_{m+r}^m(\eta) P_q^m(\eta) \, d\eta - h^2 \int_{-1}^{+1} \eta^2 P_{m+r}^m P_q^m \, d\eta \right] = 0 . \quad (8b)$$

The quantity L can be regarded as a large (though finite) matrix having elements $L_{m+r, q}$ with eigenvalues λ_s . In this light, Eq. (8a) is an eigenvalue problem and the entities C_{sr} are the components of an eigenvector corresponding to each eigenvalue λ_s . Now let $m+r=p$ for convenience and write the normalization and recursion relations of P_p^m in the forms

$$\int_{-1}^{+1} \tilde{P}_p^m \tilde{P}_s^m \, d\eta = \begin{cases} 1 & p=s \\ 0 & p \neq s \end{cases} , \quad (9a)$$

$$\tilde{P}_p^m = \frac{P_p^m}{\sqrt{N(p, m)}} , \quad N(p, m) = \frac{2}{2p+1} \frac{(p+m)!}{(p-m)!} , \quad (9b)$$

$$(2p+1) \eta \tilde{P}_p^m = (p-m+1) \tilde{P}_{p+1}^m + (p+m) \tilde{P}_{p-1}^m . \quad (9c)$$

In normalized form the last equation reads

$$\eta \tilde{P}_p^m = A(p) \tilde{P}_{p+1}^m + B(p) \tilde{P}_{p-1}^m , \quad (9d)$$

where

$$A(p) = \sqrt{\frac{N(p+1, m)}{N(p, m)}} \frac{(p-m+1)}{(2p+1)} , \quad B(p) = \frac{p+m}{2p+1} \sqrt{\frac{N(p-1, m)}{N(p, m)}} . \quad (9e)$$

The products $A(q)B(p)$ may have the following two forms depending on the procedure of normalization:

$$A(q)B(p) = \frac{(q-m+1)}{(2q+1)} \frac{(p+m)}{(2p+1)} \frac{1}{N(p,m)} \sqrt{N(q+1,m) N(p-1,m)} \quad (9f)$$

or

$$A(q)B(p) = \frac{(q-m+1)}{(2q+1)} \frac{(p+m)}{(2p+1)} \sqrt{\frac{N(q+1,m) N(p-1,m)}{N(q,m) N(p,m)}}. \quad (9g)$$

Equation (9f) is designated as the nonnormalized form, and Eq. (9g) is the normalized form.

Expanding Eq. (8b) by use of Eq. (9d) one obtains further

$$L_{m+r,q} = L_{p,q} = 1 + 2 + 3 + 4 + 5 ,$$

where

$$1 = [\lambda_s - (p)(p+1)] \int_{-1}^{+1} \tilde{P}_p^m \tilde{P}_q^m d\eta \quad (10a)$$

$$2 = -h^2 B(q) B(p) \int_{-1}^{+1} \tilde{P}_{q-1}^m \tilde{P}_{p-1}^m d\eta \quad (10b)$$

$$3 = -h^2 A(p) A(q) \int_{-1}^{+1} \tilde{P}_{q+1}^m \tilde{P}_{p+1}^m d\eta \quad (10c)$$

$$4 = -h^2 A(q) B(p) \int_{-1}^{+1} \tilde{P}_{q+1}^m \tilde{P}_{p-1}^m d\eta \quad (10d)$$

$$5 = -h^2 A(p) B(q) \int_{-1}^{+1} \tilde{P}_{q-1}^m \tilde{P}_{p+1}^m d\eta . \quad (10e)$$

It is seen that any three consecutive terms of Eqs. (8a) satisfy the recursion relation

$$\begin{aligned} C_{s,p-m-2} & \left[(-h^2) \frac{(p-1-m)(p-m)}{(2p-3)(2p-1)} \right] + C_{s,p-m} \left\{ \lambda_s - p(p+1) \right. \\ & \left. - h^2 \left[\frac{(p+1-m)(p+1+m)}{(2p+1)(2p+3)} + \frac{(p+m)(p-m)}{(2p+1)(2p-1)} \right] \right\} \\ & + C_{s,p-m+2} \left[(-h^2) \frac{(p+2+m)(p+1+m)}{(2p+5)(2p+3)} \right] = 0 . \end{aligned} \quad (11)$$

This is the nonnormalized recursion relation between the constants $C_{s,r}$.

We return to Eq. (9d), which is in the form

$$\eta \tilde{P}_p^m = \sqrt{\frac{(p-m+1)(p+1+m)}{(2p+1)(2p+3)}} \tilde{P}_{p+1}^m + \sqrt{\frac{(p+m)(p-m)}{(2p-1)(2p+1)}} \tilde{P}_{p-1}^m.$$

Substituting this formula into Eq. (8b) one obtains

$$\sum_{p=m}^k C_{c,p-m} L_{p,q} = \sum_{p=m}^k C_{s,p-m} \left\{ (\lambda_s - p(p+1)) \int_{-1}^{+1} \tilde{P}_p \tilde{P}_q d\eta - h^2 \int_{-1}^{+1} [A(p)A(q) P_{p+1}^m P_{q+1}^m] d\eta \right. \\ \left. + [A(p)B(q) P_{p+1}^m P_{q-1}^m] + [B(p)A(q) P_{p-1} P_{q+1}] + [A(q)B(q) P_{p-1}^m P_{q-1}^m] \right\} = 0.$$

Using the properties of normalization shown in Eq. (9g) this reduces to the recursion relation

$$C_{s,p-m} \left\{ \lambda_s - p(p+1) - h^2 \left[\frac{(p-m+1)(p+1+m)}{(2p+1)(2p+3)} + \frac{(p+m)(p-m)}{(2p-1)(2p+1)} \right] \right. \\ \left. - h^2 \left[\sqrt{\frac{(p+m)(p-m)(p-m-1)(p-1-m)}{(2p-1)(2p+1)(2p-3)(2p-1)}} \right] C_{s,p-m-2} \right. \\ \left. - h^2 \left[\sqrt{\frac{(p-m+1)(p+1+m)(p+2+m)(p+2-m)}{(2p+1)(2p+3)(2p+3)(2p+5)}} \right] C_{s,p-m+2} \right\} = 0. \quad (12)$$

This is the normalized form of the recursion relation between the constants $C_{s,r}$.

In the computation of eigenvalues it is advantageous to use a matrix formulation with normalized elements as given by Eq. (12). However, in the determination of eigenvectors whose components are the constants $C_{s,r}$ it is convenient to obtain these in unnormalized form by use of Eq. (11) with appropriate choices of λ_s and then to normalize them to suit a particular requirement. In this report the following normalization for the components of the eigenvectors is used:

$$\sum_{r=0}^{\infty} C_{s,r} \frac{(r+2m)!}{r!} = \frac{(s+m)!}{(s-m)!}. \quad (13)$$

This choice of normalization (see Ref. 2) is arbitrary but very suitable to numerical computation.

COMPUTATION PROCEDURE

All elements in matrix L of Eq. (8b) are real. From Eqs. (11) and (12) it is seen that the subscripted elements $s=p$, $s=p+2$, and $s=p-2$ are non zero while all other elements of the matrix vanish. Furthermore, one notes that the matrix is symmetrical; i.e., $C_{s,s} = C_{s,s}$. Based on these observations, therefore, we are required to find the eigenvalues λ_s of a real symmetric matrix. To assist in the numerical computation we have used the standard IBM Share-Distributed 704-709 Fortran program 664

by Burton S. Garbow of Argonne National Laboratory (CO-OP ID F4 UCSD 1 EIGEN). This subroutine finds all scalar solutions to the matrix equation $Ax = \lambda x$, where A is a real symmetric matrix. Although the eigenvalues of the separated Helmholtz equation are infinite in number, finite sized matrices yield excellent and well converged eigenvalues provided the selected partition of the infinite matrix is "large enough". In our application we use an 80 by 80 matrix to compute 50 eigenvalues in double precision (21 significant digits).

METHOD OF CHECKING

In Eq. (11) we designate the ratio $C_{s,r}/C_{s,r+2}$ by the symbol γ_r^m . In the limit $r \rightarrow \infty$ we require that γ_r^m vanish. Changing r to $r+2$ so that the ratio of constants is γ_{r+2}^m

$$\gamma_{r+2}^m = C_{s,r+2}/C_{s,r} .$$

one sees by the recursion relation Eq. (11) that γ_{r+2}^m can be written as an infinite continued fraction $[\gamma_{r+2}^m]_\infty$ by the permutation of subscripts, i.e., increasing subscripts so that the ratios read $C_{s,r+4}/C_{s,r+2}$, $C_{s,r+6}/C_{s,r+4}$, etc. Another set of permutations is the set of decreasing subscripts $C_{s,r}/C_{s,r-2}$, $C_{s,r-2}/C_{s,r-4}$, etc. This latter set is limited by the requirement that $C_{s,r} = 0$ if $r < 0$. We can thus write γ_{r+2}^m as a finite continued fraction $[\gamma_{r+2}^m]_n$, using this latter set, i.e., the decreasing subscript set. Clearly one requires that

$$[\gamma_{r+2}^m]_\infty - [\gamma_{r+2}^m]_n \cdot U(\lambda_s) = 0 . \quad (14)$$

This is a transcendental equation in the unknown λ whose roots are the eigenvalues λ_s . A skillful procedure for finding these roots has been devised by Bouwkamp (3). He takes the first variation of $U(\lambda)$ due to a variation $\delta\lambda$, devises an equation for $\delta\lambda$ in terms of the γ_r^m ratios, and by iteration of Eq. (14) using $\lambda + \delta\lambda_1 + \delta\lambda_2$, etc., finally causes λ to converge to the true value λ_s . This method however requires a good first guess on λ_s , which can then be used as a basis for iteration. In the event that this guess is poor, the method yields a different eigenvalue λ_{s+n} , $n = 2, 4, 6, \dots$. Comparison of the matrix method noted above with the method of Bouwkamp shows that the matrix method agrees with Bouwkamp's method to all 21 significant digits for $h < 10$. For $h > 20$ Bouwkamp's method yields eigenvalues but not in a monotone series. Because these eigenvalues are sometimes identical for different m , t , h , it is seen that Bouwkamp's method fails for large h . The failure is attributable to wrongly chosen starting values. To overcome this difficulty an 80 by 80 matrix is used to obtain eigenvalues which provide starting values for Bouwkamp's method. This procedure of combining the two methods yields 50 correct eigenvalues up to $h = 80$. For $h = 100$ the same method yields approximately 30 eigenvalues with 21 significant digits. This limit in available eigenvalues with required accuracy is due to limitation of the Share program.

RANGE OF TABULATION

The range covered by these eigenvalue tables is as follows:

$$m = 0, 1, 2$$

$$t = m(1) m+49$$

$$h = 0.1 (0.1) 0.9, 1.0 (0.2) 8.0, 10.0, 20.0, 40.0, 60.0, 80.0, 100.0$$

The accuracy is considered to be 21 significant figures.

COMPARISON WITH OTHER PUBLICATIONS

The existing literature contains the following ranges of tabulation of prolate spheroidal eigenvalues.

Chang and Yeh (4):

$$m = 0 (1) 9, \ell = m (1) 9, h = 0.1 (0.1) 10 (1.0) 100$$

Accuracy = 12 significant figures.

Stukey and Layton (5):

$$m = 0 (1) 9, \ell = m (1) m + 9, h = 0.25 (0.25) 10.0 (1.0) 20.0$$

Accuracy = 11 significant figures.

The number of values of ℓ (i.e., the number of eigenfunctions for fixed m) in these latter collections is too limited to allow complete field calculations based on orthogonal expansions in eigenfunctions. For example, when $m = 0$, the Chang and Yeh tables contain ten values of ℓ . Since in many physical problems only even or odd integers are permitted, this number has been found to be too small to permit convergence, except for very small values of h . The NRL tables in contrast provide 50 values of ℓ for h as large as 80.

The increase in accuracy (from 12 to 21 figures) in these NRL tables is motivated by a desire to permit accurate determination of the components of the eigenvectors (that is the expansion constants $d_n(h, m, \ell)$), by a three-term recursion formula (6). Low accuracy of the eigenvalue results in poor d_n constants. By increasing the accuracy of the eigenvalue to 21 places, we are able to obtain well over 100 d_n constants having accuracy comparable to that of the eigenvalue. Accurate determination of functions involved in field calculations is not possible without this capability.

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TABLES OF EIGENVALUES OF THE
EXTERIOR ACOUSTIC RADIATION PROBLEM
FOR PROLATE SPHEROIDAL COORDINATES

Range of Parameters

$h = 0.1$ (0.1) 1.0, 1.2 (0.2) 8.0, 10, 20 (20.0) 100.0

$m = 0, 1, 2$

$\ell = m (1) m + 49$

PROBLATE EIGENVALUES H = 0.10

M = 0

L	EIGENVALUE	M = 1	EIGENVALUE	M = 2
0	3.33185232229902831206+003	1	2.00199954297902656333+000	2
1	2.0029993142277878097+000	2	6.0028532557522463209+000	3
2	6.0052391097705148434+000	3	1.2004666803023073977+001	4
3	1.20051140586316082+001	4	2.00480531381209115+001	5
4	2.0005065112575326907+001	5	3.0004871883817234612+001	6
5	3.00050428480352646030+001	6	4.2004909157895927610+001	7
6	4.20050303817750071982+001	7	5.60049321784437266184+001	8
7	5.6005022682625/604228+001	8	7.200494740941897571+001	9
8	7.2005017588666222927+001	9	9.0004958016395122034+001	10
9	9.00050140412266763610+001	10	1.10004965702456893302+002	11
10	1.100050147056342601+002	11	1.300049714519553967+002	12
11	1.5200500954756/81053+002	12	1.56004975864916927541+002	13
12	1.5600500807485/204501+002	13	1.80004979327152421189+002	14
13	1.82005006911532846648+002	14	2.1000498203934247454+002	15
14	2.1000500598875866484+002	15	2.40004984378831842+002	16
15	2.400050052378020753613+002	16	2.72004988614666188+002	17
16	2.72005004613980140781+002	17	3.0000498725073118139+002	18
17	3.0600500410529447403+002	18	3.42004989020029137949+002	19
18	3.42005003672/1807431+002	19	3.8000499012075420375438+002	20
19	3.80005003304221/21812+002	20	4.20004991062829496788+002	21
20	4.2000500298869+021+035+002	21	4.6200499535603171474+002	22
21	4.62005002716+0243527+002	22	5.0600499187662/32607+002	23
22	5.06005024607/26147766+002	23	5.52004965991832163744+002	24
23	5.52005002273581464+002	24	6.0000498772506142615+002	25
24	6.0000500209168749+/-002	25	6.50004997125170156570+002	26
25	6.2000502019301228829+002	26	7.0200497326634+05670+002	27
26	7.02005001798079400+002	27	7.56004975177799791366+002	28
27	7.26005001655+/-054704+002	28	8.12004995038133501884+002	29
28	8.1200500154466120232+002	29	8.7000498743318270657+002	30
29	9.32005001441+/-226264+002	30	9.300049782571961175+002	31
30	9.500050013485349211073+002	31	9.9200499708757316320+002	32
31	9.92005001264319191+002	32	1.0560049822345689834+003	33
32	1.056005001264319191+002	33	1.12200498328032311984+003	34
33	1.0560050011751802927+03	34	1.19004984236338760+003	35
34	1.120050011655+/-054704+003	35	1.260049953813501884+003	36
35	1.1900500105456443+003	36	1.320049859178070470+003	37
36	1.260050009621309730+003	37	1.4060498665936633862+003	38
37	1.332005000943172037+003	38	1.48200498734383861312+003	39
38	1.40600499649884564+003	39	1.560049977405771348+003	40
39	1.4920050005431324310+003	40	1.640049885637250126+003	41
40	1.560050001056/35690+003	41	1.7200499771426957944+003	42
41	1.6400050006431324310+003	42	1.8050049972316125048+003	43
42	1.7200500028035862+003	43	1.862004997244521251+003	44
43	1.8060050006514762024+003	44	1.9800499810689162197+003	45
44	1.892005000622921180+003	45	2.060049981869561054+003	46
45	1.940005000631324310+003	46	2.16200499826635591032+003	47
46	2.070005000622921180+003	47	2.266004991668743767851+003	48
47	2.1620050006514762024+003	48	2.3520049920268470378+003	49
48	2.25600500064586644+003	49	2.45000499846430227+003	50
49	2.45200500033496203991+003	50	2.55000499264611058927+003	51
50	2.55000499853020276532+003	51	2.6520049929203290174+003	

PROBLÈME EIGENVALUES H = 0,20

		M = 0		M = 1		M = 2	
		EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	0	1.330965976104292290*002	1	2.00799269351080376615*000	2	6.00571117820528177824*000	
	1	2.0239890246671145693*000	2	6.00173663842673777877*000	3	1.2013329742617990300*001	
	2	6.02096859094168553*000	3	1.20166688427180253021*001	4	2.0016103551743835973*001	
	3	1.20204497188541018426*001	4	2.00192266827644331847*001	5	3.0017436310377322366*001	
	4	3.0026258823244181*001	5	3.0019486602234576561*001	6	4.20181823741971874831*001	
	5	3.0020172740802642172*001	6	4.201963735518466315*001	7	5.618643072030138061*001	
	6	4.2020122472540577032*001	7	5.6019729334183996665*001	8	7.20189478492258151594*001	
	7	5.6020091422806416673*001	8	7.20197901295770555525*001	9	9.001916008313026930*001	
	8	7.202007089266498972*001	9	9.00198324639725543670*001	10	1.1001931386411524435*002	
	9	9.0020056592014203425*001	10	1.10019863138621480238*002	11	1.32019886081934402431*002	
	10	1.10020046250731108320*002	11	1.32019886081934402431*002	12	1.56019517183646377569*002	
	11	1.32020038406238612080*002	12	1.5601990369222515244*002	13	1.8201958644542510159*002	
	12	1.560200325103150605265*002	13	1.820199150795590*002	14	2.10019641790334158811*002	
	13	1.8202002786339331161*002	14	2.10019928549162713934*002	15	2.40019937507091178010*002	
	14	2.100200241355209324*002	15	2.40019944881707382684*002	16	2.7201972367353514843*002	
	15	2.400200221188956164593*002	16	2.72019944881707382684*002	17	3.06019754451886059250*002	
	16	2.72020018611654130860*002	17	3.060199510217209357*002	18	3.42019780356643424739*002	
	17	3.060200165465005229*002	18	3.42019956188630418991*002	19	3.800198036528575622*002	
	18	3.42020014799104987219*002	19	3.8001996057518018444*002	20	4.20019821221985573238*002	
	19	3.8002001336250697919*002	20	4.2001996433397978489922*002	21	4.62019837501884*987*002	
	20	4.2002001574902217*002	21	4.201967581279796743*002	22	5.0601985165189364047*002	
	21	4.6202001095864490939*002	22	5.0601997040902192612*002	23	5.52019864032579842236*002	
	22	5.0602000999547639573*002	23	5.5201997287074935339*002	24	6.0001987492359881805*002	
	23	5.52020009161242995512*002	24	6.00019884556338279770*002	25	6.50019881996474239744*002	
	24	6.000200084271106267*002	25	6.50019976972895132730*002	26	7.02019978680467802235*002	
	25	6.5002000777838435199*002	26	7.02019978680467802235*002	27	7.56019907561307565324551*002	
	26	7.020200072357924506*002	27	7.5601998020834344888*002	28	8.1201990761000174769*002	
	27	7.56020006668659468757*002	28	8.12019981573099863*002	29	8.70019982000966858745*002	
	28	8.12020006225070893862*002	29	8.7001998391195554960*002	30	9.3001998391195554960*002	
	29	8.7002000580920611240*002	30	9.3001998391195554960*002	31	9.800199849103243252*002	
	30	9.3002000543327337959*002	31	9.800199849103243252*002	32	1.05601998289731656616*003	
	31	9.9202000499654132682*002	32	1.056019985835854161*003	33	1.422019986648731218*003	
	32	1.056020004866338864*003	33	1.422019986648731218*003	34	1.1900199369729103814*003	
	33	1.122020045056172359*003	34	1.1900199874289251535*003	35	1.260019940479351260*003	
	34	1.1900200343169736*003	35	1.2600199881277171905*003	36	1.332019936988957624*003	
	35	1.26002004103102417*003	36	1.332019987682586421*003	37	1.40601998936120947388*003	
	36	1.332020039346965246*003	37	1.40601998936120947388*003	38	1.48001994003318335108*003	
	37	1.4060200339570467462*003	38	1.48201998907072227*003	39	1.5600199519155590941*003	
	38	1.4820200343169736*003	39	1.5600199904196435197*003	40	1.6400199542745234584*003	
	39	1.5600200308733876748420*003	40	1.6400199908798917412*003	41	1.7220199913437565674*003	
	40	1.640020030870510466*003	41	1.80601999171852939935*003	42	1.80601995848185949676*003	
	41	1.722020020029353966872*003	42	1.80601999171852939935*003	43	1.892019992051216414*003	
	42	1.80602002002794193537*003	43	1.89201999244657632085*003	44	1.9800199922318335108*003	
	43	1.89202002002794193537*003	44	1.98001999244657632085*003	45	2.0700199637788830795*003	
	44	1.980020020025149069344*003	45	2.0700199927751074330*003	46	2.1620199653275395946*003	
	45	2.07002002002405123082*003	46	2.1620199930865854401*003	47	2.2560199667621298668*003	
	46	2.16200002353662683817*003	47	2.2560199933797886344*003	48	2.3520199936163921692*003	
	47	2.25602002002234365275*003	48	2.3520199936163921692*003	49	2.4500199639860802149*003	
	48	2.3520200200214780/311/4*003	49	2.45001999386065030959*003	50	2.4500199713015584712*003	
	49	2.4500200200201860810893*003	50	2.45001999413549540291*003	51	2.65201997173015584712*003	

PROLATE EIGENVALUES $M = 0.30$

		$M = 0$		$M = 1$		$M = 2$	
		EIGENVALUE		EIGENVALUE		EIGENVALUE	
		L		L		L	
0	2,9880343734264445140+002	1	2.01796306015904128245+000	2	6.012841426664933747+000	2	6.012841426664933747+000
1	2.05394441287859147138+000	2	6.0395399522432500038+000	3	1.202981827509754919+001	3	1.202981827509754919+001
2	6.0722472491161091+000	3	1.20460267261012359334+001	4	2.0036320104016569506+001	4	2.0036320104016569506+001
3	1.20460267261012359334+001	4	2.0043253845800194795+001	5	3.00328655347429506+001	5	3.00328655347429506+001
4	2.0045598797402673511+001	5	3.0038533562015961206+001	6	4.2040911941400904995+001	6	4.2040911941400904995+001
5	3.0045393768406426447+001	6	4.2044187234548569467+001	7	5.6043948425145103285+001	7	5.6043948425145103285+001
6	4.20452791058432652152+001	7	5.6044393315102585781+001	8	7.2046340129036661167+001	8	7.2046340129036661167+001
7	5.6045208333501042731+001	8	7.2045296361758386166+001	9	9.0043411366277456166+001	9	9.0043411366277456166+001
8	7.2051615257301936961+001	9	9.0046245379003097900+001	10	1.1004345721804269528+002	10	1.1004345721804269528+002
9	9.00451289360152811303+001	10	1.1004493294856142665+002	11	1.3200371588404947937+002	11	1.3200371588404947937+002
10	1.1004510532418348216+002	11	1.3204474718373224983+002	12	1.5604391437830501706+002	12	1.5604391437830501706+002
11	1.3204508766595268363507+002	12	1.56044784191125263492+002	13	1.82044070188830101985+002	13	1.82044070188830101985+002
12	1.560450711022208580+002	13	1.620481515451315329+002	14	2.10044194628069289865+002	14	2.10044194628069289865+002
13	1.80045063472826581272+002	14	2.1004483989303782201+002	15	2.4004429529392607047+002	15	2.4004429529392607047+002
14	2.100445045981426431030+002	15	2.400445997206703422+002	16	2.72044876493599320586+002	16	2.72044876493599320586+002
15	2.40044504808666721876+002	16	2.72044876493599320586+002	17	3.0604444794258505246+002	17	3.0604444794258505246+002
16	2.720450241305704135+002	17	3.0604489025180722975+002	18	3.420450618737293367+002	18	3.420450618737293367+002
17	3.0604503768863861235+002	18	3.42044901830800262714+002	19	3.80044555670697412922+002	19	3.80044555670697412922+002
18	3.4204503371208499501+002	19	3.800449861666899610455+002	20	4.20044920096343350826+002	20	4.20044920096343350826+002
19	3.8004503033390493352+002	20	4.20044920096343350826+002	21	4.620446346663591851981+002	21	4.620446346663591851981+002
20	4.20045027436262179014+002	21	4.6204492737266672153+002	22	5.060446648561157865+002	22	5.060446648561157865+002
21	4.620450241305704135+002	22	5.06044933697899597643+002	23	5.52044694317993968990+002	23	5.52044694317993968990+002
22	5.060450277684512684+002	23	5.52044923082609261619+002	24	6.000445481804541230178+002	24	6.000445481804541230178+002
23	5.320450206668605818980+002	24	6.000449440988816693549+002	25	6.50044740461074945354+002	25	6.50044740461074945354+002
24	6.0004501919693927791+002	25	6.500449844010239201+002	26	7.0204475970767282604+002	26	7.0204475970767282604+002
25	6.20045017718463993562+002	26	7.0204495223029986831+002	27	7.56044776889222132359+002	27	7.56044776889222132359+002
26	7.0204501640451018479+002	27	7.0204501640451018479+002	28	8.1204497291037045335+002	28	8.1204497291037045335+002
27	7.56045015231252334780+002	28	8.1204495870781231103+002	29	8.70044961463112977884+002	29	8.70044961463112977884+002
28	8.120450141808617305b+002	29	9.30044963951461925710+002	30	9.9204483009961280n51+002	30	9.9204483009961280n51+002
29	8.70045012333952238794+002	30	9.92044962062720+002	31	9.92044962062720+002	31	9.92044962062720+002
30	9.30045012374375b7074+002	31	1.05604496825590138495+003	32	1.05604496825590138495+003	32	1.05604496825590138495+003
31	9.920450116050351576+002	32	1.122044970124510764+003	33	1.122044970124510764+003	33	1.122044970124510764+003
32	1.056045010901949005+003	33	1.1900449718329500416+003	34	1.26004497339862513948+003	34	1.26004497339862513948+003
33	1.1220450109012312586003+003	34	1.26004497339862513948+003	35	1.33204497339862513948+003	35	1.33204497339862513948+003
34	1.1900450096728569603+003	35	1.332044974378327251+003	36	1.40604497616247146743+003	36	1.40604497616247146743+003
35	1.2600450091351417891+003	36	1.40604497616247146743+003	37	1.47204498053883067913+003	37	1.47204498053883067913+003
36	1.33204500841298378+003	37	1.47204498053883067913+003	38	1.4820449822881080661+003	38	1.4820449822881080661+003
37	1.406045008160413768+003	38	1.4820449822881080661+003	39	1.56004497851686578434+003	39	1.56004497851686578434+003
38	1.48204500776596214+003	39	1.56004497851686578434+003	40	1.6400449795653076087+003	40	1.6400449795653076087+003
39	1.5600450073775013721+003	40	1.6400449795653076087+003	41	1.72204498053883067913+003	41	1.72204498053883067913+003
40	1.6400450070172132362+003	41	1.72204498053883067913+003	42	1.8060449814443450685+003	42	1.8060449814443450685+003
41	1.722045006683149392+003	42	1.8060449822881080661+003	43	1.8920449822881080661+003	43	1.8920449822881080661+003
42	1.806045006372266042+003	43	1.9800449830756462578+003	44	2.07004498381180325242+003	44	2.07004498381180325242+003
43	1.86204500608239318168+003	44	1.98004498381180325242+003	45	2.162044920360555n4n+003	45	2.162044920360555n4n+003
44	1.9800450058117763504+003	45	1.98004498381180325242+003	46	2.266044972857100517+003	46	2.266044972857100517+003
45	1.96604500575916819074+003	46	2.1620449845009260719+003	47	2.3204492333629041778+003	47	2.3204492333629041778+003
46	2.1620450053222212254+003	47	2.25604498514693244103+003	48	2.45004493120375615269+003	48	2.45004493120375615269+003
47	2.2560450051063520b+003	48	2.3520449857533226588+003	49	2.5200449863234240722+003	49	2.5200449863234240722+003
48	2.3520449857533226588+003	49	2.55004498685903047137+003	50	2.6520449339024777828+003	50	2.6520449339024777828+003

PROLATE EIGENVALUES H = 0.40

M = 0		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	5.29560091209143499764+002	1	2.03188346936991197323+000	2	6.02200753313230507431+000
1	2.0958242091881688956+000	2	6.06847197333336477616+000	3	1.205375922237137651+001
2	6.08406740139221376+000	3	1.21535386943+001	4	2.0064409979900593552+001
3	1.2081862351060030977+001	4	2.007691353281633553/2+001	5	3.0069700968381679+001
4	2.008108412435423712+001	5	3.0077971475383265590+001	6	4.207361568566169345+001
5	3.0080712690846246882+001	6	4.2078562599267295326+001	7	5.6074578741252253435+001
6	4.2080504268547331871+001	7	5.60789272781434349+001	8	7.207597164768788748+001
7	5.608037688485221440+001	8	7.20791683884675534309+001	9	9.007643631366445450+001
8	7.2080292177600899365+001	9	9.0079336230007345820+001	10	1.100725982097252728+002
9	9.008023320610971906+001	10	1.100794578150972227+002	11	1.32077193370128848274+002
10	1.1080190480264122710+002	11	1.320795487394737952853+002	12	1.56018072039552661693+002
11	1.320801588476359223+002	12	1.560796181852799648262+002	13	1.8217834693771378473+002
12	1.5608013402631616348+002	13	1.8207967326122952625+002	14	2.1007856972051770245+002
13	1.820801144958209775+002	14	2.100797170161536848051+002	15	2.40078749110945915962+002
14	2.10080099450+002	15	2.4007975249632483268+002	16	2.7207849671396159279+002
15	2.4008008659604179614+002	16	2.72079781701778910953+002	17	3.06079806024658549835+002
16	2.720800766985365636+002	17	3.06079806024658549835+002	18	3.4207912306890984670+002
17	3.0608006815388647747+002	18	3.4207982648900953893+002	19	3.800792104936408428+002
18	3.420800628537864+002	19	3.8007984387247361772+002	20	4.20079856778666927645+002
19	3.800800565320482914+002	20	4.20079856778666927645+002	21	4.62079871636105325948+002
20	4.200800491928394173+002	21	4.620798716361127323299+002	22	5.06079826161127323299+002
21	4.62080045167132+002	22	5.06079826161127323299+002	23	5.20795717433338671+002
22	5.06080041724/0182212+002	23	5.2079892595610123049+002	24	6.000795100611986+002
23	5.52080037363588805+002	24	6.000798242275774902+002	25	6.50079531243321416327+002
24	6.0008003413414282714+002	25	6.500795329673323469+002	26	7.0207957329673323469+002
25	6.50080056320482914+002	26	7.020797940294120356+002	27	7.58079603808234368164+002
26	7.020800296377078132+002	27	7.5807961560927346263919+002	28	8.12079631159092613919+002
27	7.5608002754266242793+002	28	8.120797927020752861+002	29	8.7007965577140531618+002
28	8.1208002564127604962+002	29	8.7007931890534175744+002	30	9.300796779906476732+002
29	8.70080023535268302525+002	30	9.300793628829137933+002	31	9.92079698140572333731+002
30	9.3008002238503522484+002	31	9.9207940273546261+002	32	1.05607994389610947549+003
31	9.9208002056843188651+002	32	1.05607994389610947549+003	33	1.12207994719991397151+003
32	1.05608001971204995212+003	33	1.12207994719991397151+003	34	1.1900797484001364316+003
33	1.122080018551681935+003	34	1.19007995021817671122+003	35	1.26007976238660213329+003
34	1.190080017490655285+003	35	1.19007995021817671122+003	36	1.3320799555288135635+003
35	1.2600800151852272450+003	36	1.3320799555288135635+003	37	1.40607995787043451218+003
36	1.332080015262061124294+003	37	1.40607995787043451218+003	38	1.4820799686994331071+003
37	1.40608001523187570+003	38	1.4820799686994331071+003	39	1.560079962031180249+003
38	1.482080014022425181+003	39	1.56007996203154566401+003	40	1.64007996170808449+003
39	1.56008001354024128319+003	40	1.6400799638858172806+003	41	1.72207996560517387111+003
40	1.64008001268871/0673+003	41	1.72207996560517387111+003	42	1.8060799672036519127+003
41	1.722080012064684180+003	42	1.8060799672036519127+003	43	1.89207984179272528159+003
42	1.806080011223187570+003	43	1.8920799686994331071+003	44	1.9800798820333825+003
43	1.8920800109953525936+003	44	1.9800799708876032975+003	45	2.07007997138975865708+003
44	1.9800800105380298+003	45	2.07007997138975865708+003	46	2.16207997260360+003
45	2.070080010522318906+003	46	2.16207997260360+003	47	2.256079973749299427+003
46	2.162080006243174452+003	47	2.256079973749299427+003	48	2.320798727528216447+003
47	2.2560800092251605626+003	48	2.35207997482125138029+003	49	2.4500798778371563767+003
48	2.352080008845/2684+003	49	2.45007997582873475426+003	50	2.5500799826293769814+003
49	2.45008000884925959384+003	50	2.65207988714501118595+003		

PROLATE EIGENVALUES $\mu = 0.50$		$\mu = 1$		$\mu = 2$	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	0	6.24146067425269924097*002	1	2.0497161622204062220437*000	2
	1	2.14957048635102664049*000	2	6.1069001304053324721*000	3
	2	6.13157927012663143654*000	3	1.2116750124186342603*001	4
	3	2.0126798457359794*001	4	2.0102058405255994*928*001	5
	4	2.0126734402917918225*001	5	3.0121850414220057186*002	6
	5	3.01261390130122197396*001	6	4.2113658031195109944*001	7
	6	4.21258067990785142449*001	7	5.61165368371902165302*001	8
	7	5.1256019826114717963*001	8	7.2118439825284154260*001	9
	8	7.21254666140213512337*001	9	9.0119764273016939073*001	10
	9	9.0125374057969724556*001	10	1.10120723581088317145*002	11
	10	1.10125304171902581922*002	11	1.3212430007202762899*002	12
	11	1.3212525315680352380*002	12	1.5612440835452380*002	13
	12	1.5612521369926292225*002	13	1.8212449326231824120*002	14
	13	1.82125183280390010737*002	14	2.1012456110219318012*002	15
	14	2.1012515874460877972*002	15	2.4012461615884766991*002	16
	15	2.401251388314729132*002	16	2.70124661457884145089*002	17
	16	2.70125122443144845208*002	17	3.061246991703824108*002	18
	17	3.06125108880343337/1108*002	18	3.421247309221420664*002	19
	18	3.4212509743249337061245*002	19	3.80124757899039887229*002	20
	19	3.80125078569480239484*002	20	4.201248080997803792*002	21
	20	4.201250792132522890294002	21	4.6212480094850160382*002	22
	21	4.6212507198964963061*002	22	5.0612481827354260979*002	23
	22	5.06125065727781635740*002	23	5.5212483346002977699*002	24
	23	5.52125060242126347*002	24	6.001242090912638307*002	25
	24	6.0012505416002187430*002	25	6.501248585898966656753*002	26
	25	6.5012505114772217066*002	26	7.02124869071429031021*002	27
	26	7.0212507847803525220*002	27	7.501248094850160382*002	28
	27	7.561250343966250507/28*002	28	8.12124424528160771671*002	29
	28	8.121250409352*21123347*002	29	8.70124462930169414819*002	30
	29	8.70125038201534*01318*002	30	9.3012449101203811101384*002	31
	30	9.30125038201534*01318*002	31	9.9212452903787446794*002	32
	31	9.92125038201534*01318*002	32	1.0611245576386796180*003	33
	32	1.061124913014657724*003	33	1.12124488636167284078*003	34
	33	1.121249181287090410*03	34	1.1901248943884668130300*002	35
	34	1.19012492280889311499*003	35	1.2601246292771955073*003	36
	35	1.26012492794290401*003	36	1.33212464932966392730*003	37
	36	1.33212493103963235282*003	37	1.40612474140910249513*003	38
	37	1.4061249346131079810*03	38	1.4821246848284071204*003	39
	38	1.482124380234136768*003	39	1.5601247006022998114*003	40
	39	1.5601249411392451463*003	40	1.64012471522217873361*003	41
	40	1.6401249439974105923*003	41	1.722124728872582879*003	42
	41	1.72212494666551135858*003	42	1.80612474140910249513*003	43
	42	1.8061249491473478428*003	43	1.89212475316848073395*003	44
	43	1.892124951458666549*003	44	1.9801247641344942125*003	45
	44	1.8921250117227042732*003	45	2.0701247744022515260*003	46
	45	1.8921250116763506120*003	46	2.162124784059187720*003	47
	46	2.16212501160466260/111*003	47	2.2561247930094087256*003	48
	47	2.25612495926341003*003	48	2.5212480146168474284*003	49
	48	2.25612501147216659044*003	49	2.4501248094099451753*003	50
	49	2.450125013556388928074486*003	50	2.55012481688118351921*003	51

PROLATE EIGENVALUES H = 0.60

M = 0

EIGENVALUE

L	EIGENVALUE
0	1.18102156512674029974*001
1	2.2151085145114877050h+000
2	6.153782066614824498*000
3	1.21686444667/151687131h+000
4	1.212Hn4296667Ht6Uy17r1*001
5	2.01731060452971955292*001
6	3.0175459974346961002/32*001
7	4.217661404153622971*001
8	5.617682632715237386*001
9	7.2178158382940298325*001
10	9.0178534163933189276*001
11	1.101782990984952817*002
12	1.32179001206979061239*002
13	1.56175674488030603548*002
14	1.82179226954629983200*002
15	2.101793377228303539*002
16	2.40179552342785988150*002
17	2.7217951604993510/3*002
18	3.061795081014473527*002
19	3.4217961610606644411*002
20	3.801795458568877905*002
21	4.2017967552214687521*002
22	4.621797160142605077*002
23	5.061797074962403442*002
24	5.52179723508728582273*002
25	6.0017978142526794871*002
26	6.5017979826233278006*002
27	7.021798132722483677870*002
28	7.5617982658164574606*002
29	8.12179838554655844265*002
30	8.6717984932870011087*002
31	9.30179890587398162526*002
32	9.9217988787547761786*002
33	1.056179875889777826*003
34	1.1221794015286761324*003
35	1.1901798987567173278*003
36	1.2601798959980132168*003
37	1.332179016234990261*003
38	1.40617990680488478789*003
39	1.4802179811586611655d+003
40	1.560179916009R074875*003
41	1.640179921091130036*003
42	1.7221799239154081122*003
43	1.80617992745597025723*003
44	1.89217993075497720299*003
45	1.98017993583391989195*003
46	2.070179936719393304*003
47	2.162179939406157324/3*003
48	2.2561799419318969662*003
49	2.35217994430291992458*003
50	2.4501799465316123288*003
51	2.5501799462914337607*003

M = 1

EIGENVALUE

L	EIGENVALUE
2	2.07141319499990734049*000
3	6.153782066614824498*000
4	1.21686444667/151687131h+000
5	2.01731060452971955292*001
6	4.217661404153622971*001
7	5.617682632715237386*001
8	7.2178158382940298325*001
9	9.0178534163933189276*001
10	1.101782990984952817*002
11	1.32179001206979061239*002
12	1.56175674488030603548*002
13	1.82179226954629983200*002
14	2.101793377228303539*002
15	2.40179552342785988150*002
16	2.7217951604993510/3*002
17	3.061795081014473527*002
18	3.4217961610606644411*002
19	3.801795458568877905*002
20	4.2017967552214687521*002
21	4.621797160142605077*002
22	5.061797074962403442*002
23	5.52179723508728582273*002
24	6.0017978142526794871*002
25	6.5017979826233278006*002
26	7.021798132722483677870*002
27	7.5617982658164574606*002
28	8.12179838554655844265*002
29	8.6717984932870011087*002
30	9.30179890587398162526*002
31	9.9217988787547761786*002
32	1.0561793640972704484*003
33	1.1221794015286761324*003
34	1.1901798987567173278*003
35	1.2601798959980132168*003
36	1.332179016234990261*003
37	1.40617990680488478789*003
38	1.4802179811586611655d+003
39	1.560179916009R074875*003
40	1.640179921091130036*003
41	1.7221799239154081122*003
42	1.80617992745597025723*003
43	1.89217993075497720299*003
44	1.98017993583391989195*003
45	2.070179936719393304*003
46	2.162179939406157324/3*003
47	2.2561799419318969662*003
48	2.35217994430291992458*003
49	2.4501799465316123288*003
50	2.5501799462914337607*003
51	2.6521797367092042265*003

M = 2

EIGENVALUE

L	EIGENVALUE
2	6.0211703490640081263*000
3	1.21970968851266641*001
4	2.044905897884963465*001
5	3.056956087096977522*001
6	4.226368123737560282*001
7	5.617682632715237386*001
8	7.2170565231695702448*001
9	9.0172470924028679078*001
10	1.1017306059504687588*002
11	1.3217882711293337*002
12	1.56175674488030603548*002
13	1.82179226954629983200*002
14	2.101793377228303539*002
15	2.40179552342785988150*002
16	2.7217951604993510/3*002
17	3.061795081014473527*002
18	3.4217961610606644411*002
19	3.801795458568877905*002
20	4.2017967552214687521*002
21	4.621797160142605077*002
22	5.061797074962403442*002
23	5.52179723508728582273*002
24	6.0017978142526794871*002
25	6.5017979826233278006*002
26	7.021798132722483677870*002
27	7.5617982658164574606*002
28	8.12179838554655844265*002
29	8.6717984932870011087*002
30	9.30179890587398162526*002
31	9.9217988787547761786*002
32	1.0561793640972704484*003
33	1.1221794015286761324*003
34	1.1901798987567173278*003
35	1.2601798959980132168*003
36	1.332179016234990261*003
37	1.40617990680488478789*003
38	1.4802179811586611655d+003
39	1.560179916009R074875*003
40	1.640179921091130036*003
41	1.7221799239154081122*003
42	1.80617992745597025723*003
43	1.89217993075497720299*003
44	1.98017993583391989195*003
45	2.0701797573880191270*003
46	2.1621796895514701522*003
47	2.261179702426376263*003
48	2.321797146266650356*003
49	2.40179726038070448*003
50	2.4501797367092042265*003
51	2.65217974691772904727*003

PROBLATE EIGENVALUES $\lambda = 0.70$

$m = 0$		$m = 1$		$m = 2$		$m = 3$	
EIGENVALUE				EIGENVALUE			
L	1.5963234560001/26327-001	1	2.09791662018199290115+000	2	6.069537542356661136706+000	3	1.21627938965089618850+001
1	2.2923465804320279431+000	2	6.2090683917344736169+000	3	2.0197217405987568131+001	4	3.0235722911775662750+001
2	0.2590469479844274434+000	3	1.2228980556905930491+001	4	4.22228102900042719+001	5	5.622645177250267291+001
3	1.225124223744026492+001	4	4.0238931394946478946+001	5	4.22407061272608003+001	6	5.622645177250267291+001
4	2.02456086618116/06294+001	5	4.224179806275544652+001	6	7.2232177354322143208+001	7	9.0234748768576740+45+001
5	3.027365457360446861+001	6	7.22425195806257842+001	7	1.10236644922858329164+002	8	1.3223804736548541100+002
6	4.2246667352505283726+001	7	8.02430208199031257776+001	8	1.5623912444949755761+002	9	1.872399629119406122+002
7	5.62462483313731761+001	8	9.024402656082281674+002	10	2.024211828576690364+002	11	2.723416526961734670+002
8	7.2245967265099053945b+001	9	1.1024338355690815736+002	12	3.02432322954870506+002	13	4.024064319874591752+002
9	9.025577161420/61673+001	10	1.1024426273951578015+002	14	5.024319578218927991+002	15	6.0244493232220508781+002
10	1.1024563022664640501+002	11	1.3223436556167324128117+002	16	7.0242432322954870506+002	17	8.0244493232220508781+002
11	1.322455254514955205+002	12	1.5624542988129887525+002	18	9.0244493232220508781+002	19	10.02425906569119117+002
12	1.56245443317354742207+002	13	1.8224402656082281674+002	20	1.02424535038057699640+002	21	2.02424535038057699640+002
13	1.822453796676546420+002	14	2.10244156402744790+002	22	3.024319578218927991+002	23	5.024319578218927991+002
14	2.112453298806024161d+002	15	2.4024426273951578015+002	24	6.0244493232220508781+002	25	8.0244493232220508781+002
15	2.402453298806024161d+002	16	2.723416526961734670+002	26	7.024243730540417064A+002	27	7.5624379315402283519+002
16	2.722452642665468821+002	17	3.0244422249208720727+002	28	8.12243413603297948+002	29	8.12243413603297948+002
17	3.024452253761/9484+002	18	3.4224449323349160763+002	30	9.3024401917830242180+002	31	9.9224408153750547327+002
18	3.422452015198538822+002	19	5.80244535038057699640+002	32	1.0562441363119003887+003	33	1.0562441363119003887+003
19	5.80245164055314039035+002	20	6.50244579420630613+002	34	1.1902442364402861906+003	35	1.1902442364402861906+003
20	6.20245164055314039035+002	21	6.60244617733559635801+002	36	1.3322443154000410966+003	37	1.4822443847352896991+003
21	6.60244617733559635801+002	22	5.024319578218927991+002	38	1.56024413561010309+003	39	1.56024413561010309+003
22	7.022451491126101123+002	23	7.5224468106614456725+002	40	1.640244440446143664+003	41	1.640244440446143664+003
23	7.52245130127947946+002	24	7.5224468106614456725+002	42	1.7222445793172489481+003	43	1.8922445181302617147+003
24	8.024511473477673+002	25	8.024470579316725129+002	44	1.980244595568152847+003	45	2.070244559581335144+003
25	8.5024510593306/5961d+002	26	8.5024474596643676562+002	46	2.1622445783343018738+003	47	2.2562445959109923324+003
26	9.0224509867160415+002	27	9.562447667636654295+002	48	2.35224492184375856+003	49	2.45024492038737386+003
27	7.0224509867160415+002	28	8.122447823956232359+002	50	2.550244625171715460+003	51	2.65224465627136159492+003
28	8.12245084667882129+002	29	8.702447919775536626+002				
29	8.702450791397149484+002	30	9.30244810295064990+23+002				
30	9.3024507400d4/5689422+85+002	31	9.92244822462899422+85+002				
31	9.9224509867160415+002	32	1.05624465103603297948+002				
32	1.05244509867160415+002	33	1.122447823956232359+002				
33	1.12224509867160415+002	34	1.19024485177605402746+003				
34	1.19024485177605402746+003	35	1.26024486101688080+32+003				
35	1.26024486101688080+32+003	36	1.3322443154000410966+003				
36	1.3322443154000410966+003	37	1.4822443847352896991+003				
37	1.4822443847352896991+003	38	1.56024413561010309+003				
38	1.56024413561010309+003	39	1.640244440446143664+003				
39	1.640244440446143664+003	40	1.7222445793172489481+003				
40	1.7222445793172489481+003	41	1.8922445181302617147+003				
41	1.8922445181302617147+003	42	1.980244595568152847+003				
42	1.980244595568152847+003	43	2.070244559581335144+003				
43	2.070244559581335144+003	44	2.1622445783343018738+003				
44	2.1622445783343018738+003	45	2.2562445959109923324+003				
45	2.2562445959109923324+003	46	2.35224492184375856+003				
46	2.35224492184375856+003	47	2.45024492038737386+003				
47	2.45024492038737386+003	48	2.550244625171715460+003				
48	2.550244625171715460+003	49	2.65224465627136159492+003				

REGULATE EIGENVALUES $H = 0.80$	
$m = 0$	$m = 1$
EIGENVALUE	EIGENVALUE
L	L
0 2.073904976512551705 - 1.011	0 2.12615914455446517453 + 0.00
1 4.5211757751158 - 0.16280401	1 6.2276975044477563 - 145 + 0.00
2 6.539261681212678406 + 0.01	2 1.229914503357514124 + 0.01
3 1.20246455745560401265 + 0.01	3 0.83014449007323648 + 0.01
4 2.032164381203601254 + 0.01	4 5.321258371981397725 + 0.01
5 0.03319818670113051294 + 0.01	5 4.21214553432943294 + 0.01
6 4.2322826274714 - 0.545 - 0.01	6 2.3154867900566615 - 207 + 0.01
7 2.52166635754479477 - 0.01	7 2.3167994432104341 - 342 + 0.01
8 1.252130643283494640 + 0.01	8 9.0436661464851261R35 + 0.01
9 0.3216422044325527101 - 0.01	9 0.3174456894372706U9 * 0.01
10 1.152051042024774 - 0.102	10 1.05179154203111440 + 0.02
11 1.202320704122995412774012	11 1.2021425273991637205 + 0.02
12 1.0232056450465034 + 0.02	12 1.2021425273991637205 + 0.02
13 1.023205122995204012	13 1.023205122995204012
14 1.023205122995204012	14 1.023205122995204012
15 2.1320435 - 4.2 / 6.023205122995204012	15 2.1320435 - 4.2 / 6.023205122995204012
16 2.413203842 - 4.1 / 1.235202214 - 0.02	16 2.413203842 - 4.1 / 1.235202214 - 0.02
17 2.7232038235 - 4.0 / 3.235202214 - 0.02	17 2.7232038235 - 4.0 / 3.235202214 - 0.02
18 3.0232038235 - 4.0 / 5.023202214 - 0.02	18 3.0232038235 - 4.0 / 5.023202214 - 0.02
19 3.4232027211798 / 4 / 975 - 0.02	19 3.42319333711908542 * U7 + 0.02
20 3.53202244524612054 / 5 + 0.02	20 3.5319404343216144 * 39 + 0.02
21 4.235202214 - 7.2 / 5.023202214 - 0.02	21 4.2351945775012678 * 324 + 0.02
22 4.6235202214 - 7.2 / 5.023202214 - 0.02	22 4.6231950715316542 * 302 + 0.02
23 5.023202214 - 7.2 / 5.023202214 - 0.02	23 5.02319550948503429402 + 0.02
24 5.232021514 - 14 / 5.023202214 - 0.02	24 5.232195876553170513 + 0.02
25 6.0232021514 - 14 / 5.023202214 - 0.02	25 6.00519620594296771 / 1 + 0.02
26 6.232021514 - 14 / 5.023202214 - 0.02	26 6.23196492055314 * 78 + 0.02
27 7.023196748495511 * 344 + 0.02	27 7.023196748495511 * 344 + 0.02
28 7.561969971123891156 + 0.02	28 7.561969971123891156 + 0.02
29 7.72320122991703108843 + 0.02	29 7.723197197502972E939 + 0.02
30 8.02320122991703108843 + 0.02	30 8.0231975434893785 / 6 + 0.02
31 8.251977073567348335 + 0.02	31 8.251977073567348335 + 0.02
32 1.0561969746956916704 + 0.03	32 1.0561969746956916704 + 0.03
33 1.12218140926992241 + 0.03	33 1.12218140926992241 + 0.03
34 1.123197973298361047 + 0.03	34 1.123197973298361047 + 0.03
35 1.1903198091440684121 + 0.03	35 1.1903198091440684121 + 0.03
36 1.2603198195387119831 + 0.03	36 1.2603198195387119831 + 0.03
37 1.40631983K291360U3289 + 0.03	37 1.40631983K291360U3289 + 0.03
38 1.482319845893467316 + 0.03	38 1.482319845893467316 + 0.03
39 1.5603198542618935 - 59 + 0.03	39 1.5603198542618935 - 59 + 0.03
40 1.6403198615765604918 + 0.03	40 1.6403198615765604918 + 0.03
41 1.722339867084332 + 0.03	41 1.722339867084332 + 0.03
42 1.806319874121540826 + 0.03	42 1.806319874121540826 + 0.03
43 1.8923193721649503105 + 0.03	43 1.8923193721649503105 + 0.03
44 1.963194261982H918440 + 0.03	44 1.963194261982H918440 + 0.03
45 2.073198510482943 / 3 - 0.03	45 2.073198510482943 / 3 - 0.03
46 2.162319848663041M0728 + 0.03	46 2.162319848663041M0728 + 0.03
47 2.2563198922957458 / 1 + 0.03	47 2.2563198922957458 / 1 + 0.03
48 2.35731980360116868 + 0.03	48 2.35731980360116868 + 0.03
49 2.45319872229791680 + 0.03	49 2.45319872229791680 + 0.03
50 2.553198428462862 + 0.03	50 2.553198428462862 + 0.03
51 2.65231955217624651164 + 0.03	51 2.65231955217624651164 + 0.03

FIGURE 1

EIGENVALUE

EIGENVALUE

L

EIGENVALUE	
L	L
0 6.04664181455365541583 + 0.00	0 6.04664181455365541583 + 0.00
1 6.2276975044477563 - 145 + 0.00	1 6.2276975044477563 - 145 + 0.00
2 2.027566672003537363 + 0.01	2 2.027566672003537363 + 0.01
3 3.02749774787040524719 + 0.01	3 3.02749774787040524719 + 0.01
4 4.22105459088683646 + 0.01	4 4.22105459088683646 + 0.01
5 5.62841790211044024 + 0.01	5 5.62841790211044024 + 0.01
6 7.2352807961995722689 + 0.01	6 7.2352807961995722689 + 0.01
7 9.0436661464851261R35 + 0.01	7 9.0436661464851261R35 + 0.01
8 1.1609190379387370510297 + 0.02	8 1.1609190379387370510297 + 0.02
9 1.3210915379385102974 + 0.02	9 1.3210915379385102974 + 0.02
10 1.40150910930912921128 + 0.02	10 1.40150910930912921128 + 0.02
11 1.5213234102366361343 + 0.02	11 1.5213234102366361343 + 0.02
12 1.62316897660857747280 + 0.02	12 1.62316897660857747280 + 0.02
13 1.821344115497265071 + 0.02	13 1.821344115497265071 + 0.02
14 2.01150910930912921118 + 0.02	14 2.01150910930912921118 + 0.02
15 2.231561930912921128 + 0.02	15 2.231561930912921128 + 0.02
16 2.401519697469581290 + 0.02	16 2.401519697469581290 + 0.02
17 2.6031610763682AU91n69 + 0.02	17 2.6031610763682AU91n69 + 0.02
18 3.00316897660857747281 + 0.02	18 3.00316897660857747281 + 0.02
19 3.8031683766370537319 + 0.02	19 3.8031683766370537319 + 0.02
20 4.201171066370537319 + 0.02	20 4.201171066370537319 + 0.02
21 4.623174247706467037 + 0.02	21 4.623174247706467037 + 0.02
22 5.06319550948503429402 + 0.02	22 5.06319550948503429402 + 0.02
23 5.5231784420346280596 + 0.02	23 5.5231784420346280596 + 0.02
24 6.001180180542970151 + 0.02	24 6.001180180542970151 + 0.02
25 6.20118170745203275873 + 0.02	25 6.20118170745203275873 + 0.02
26 7.02318396437492951282 + 0.02	26 7.02318396437492951282 + 0.02
27 7.62618492565916704 + 0.02	27 7.62618492565916704 + 0.02
28 8.1631853614162608596 + 0.02	28 8.1631853614162608596 + 0.02
29 8.76318633864369735935 + 0.02	29 8.76318633864369735935 + 0.02
30 9.36319072207697347166 + 0.02	30 9.36319072207697347166 + 0.02
31 9.923188302765345465 + 0.02	31 9.923188302765345465 + 0.02
32 1.05631915502222227944 + 0.02	32 1.05631915502222227944 + 0.02
33 1.12218140926992241n03	33 1.12218140926992241n03
34 1.1903197973298361047 + 0.03	34 1.1903197973298361047 + 0.03
35 1.2603198091440684121 + 0.03	35 1.2603198091440684121 + 0.03
36 1.3331910804404882161 + 0.03	36 1.3331910804404882161 + 0.03
37 1.40631983K291360U3289 + 0.03	37 1.40631983K291360U3289 + 0.03
38 1.482319845893467316 + 0.03	38 1.482319845893467316 + 0.03
39 1.5603198542618935 - 59 + 0.03	39 1.5603198542618935 - 59 + 0.03
40 1.6403198615765604918 + 0.03	40 1.6403198615765604918 + 0.03
41 1.722339867084332 + 0.03	41 1.722339867084332 + 0.03
42 1.806319874121540826 + 0.03	42 1.806319874121540826 + 0.03
43 1.8923193721649503105 + 0.03	43 1.8923193721649503105 + 0.03
44 1.963194261982H918440 + 0.03	44 1.963194261982H918440 + 0.03
45 2.073198510482943 / 3 - 0.03	45 2.073198510482943 / 3 - 0.03
46 2.162319848663041M0728 + 0.03	46 2.162319848663041M0728 + 0.03
47 2.2563198922957458 / 1 + 0.03	47 2.2563198922957458 / 1 + 0.03
48 2.35731980360116868 + 0.03	48 2.35731980360116868 + 0.03
49 2.45319872229791680 + 0.03	49 2.45319872229791680 + 0.03
50 2.553198428462862 + 0.03	50 2.553198428462862 + 0.03
51 2.65231955217624651164 + 0.03	51 2.65231955217624651164 + 0.03

EIGENVALUE

EIGENVALUE

L

EIGENVALUE	
L	L
0 6.04664181455365541583 + 0.00	0 6.04664181455365541583 + 0.00
1 6.2276975044477563 - 145 + 0.00	1 6.2276975044477563 - 145 + 0.00
2 2.027566672003537363 + 0.01	2 2.027566672003537363 + 0.01
3 3.02749774787040524719 + 0.01	3 3.02749774787040524719 + 0.01
4 4.22105459088683646 + 0.01	4 4.22105459088683646 + 0.01
5 5.62841790211044024 + 0.01	5 5.62841790211044024 + 0.01
6 7.2352807961995722689 + 0.01	6 7.2352807961995722689 + 0.01
7 9.0436661464851261R35 + 0.01	7 9.0436661464851261R35 + 0.01
8 1.05631981950370510297 + 0.01	8 1.05631981950370510297 + 0.01
9 1.40150910930912921118 + 0.01	9 1.40150910930912921118 + 0.01
10 1.601519697469581290 + 0.01	10 1.601519697469581290 + 0.01
11 1.806319874121540826 + 0.01	11 1.806319874121540826 + 0.01
12 1.8923193721649503105 + 0.01	12 1.8923193721649503105 + 0.01
13 2.073198510482943 / 3 - 0.01	13 2.073198510482943 / 3 - 0.01
14 2.162319848663041M0728 + 0.01	14 2.162319848663041M0728 + 0.01
15 2.2563198922957458 / 1 + 0.01	15 2.2563198922957458 / 1 + 0.01
16 2.35731980360116868 + 0.01	16 2.35731980360116868 + 0.01
17 2.45319872229791680 + 0.01	17 2.45319872229791680 + 0.01

PROLATE EIGENVALUES M = 0,90

M = 0		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	2.011153496111525111370511-001	1	2.15906455911904142471+000	2	6.11445798221722579240+000
1	2.411469715/88863586987+000	2	6.346003272147906717+000	3	1.22685340952669157243+001
2	6.430668491591929894+000	3	1.2378683504940544815+001	4	2.032594730133545147+001
3	1.2416191149193/401	4	2.1389994466950960177+001	5	3.0353209233488204513+001
4	2.4114273070180/4315228+001	5	3.395197287822270679+001	6	4.23664078198661917371+001
5	3.40920356132863795112+001	6	4.2980753300997097546+001	7	5.6377311439154617+001
6	4.240797138778945865+001	7	5.39984153664585290+001	8	7.2363880986301914183+001
7	2.04072144422082291210+001	8	7.201057081613773821+001	9	9.036815497050876140+001
8	7.2406715191536011/208-C01	9	9.0018144181224550917+001	10	1.10391247737137056353+002
9	1.405363202213521517-C01	10	1.10402399423792268396+002	11	1.3239355797593280170+002
10	1.10406117132639240197+002	11	1.3240283645930061410+002	12	1.5639533029733767619+002
11	1.52405522317985021289+002	12	1.5640317164734255610+002	13	1.839671975496713218+002
12	1.26405755505064374+002	13	1.8240343440739822749+002	14	2.10397829374774564490+002
13	1.42405567208651298604+002	14	2.104036442360595960613+002	15	2.40398729669886627121+002
14	2.104055825638866496+002	15	2.4040381447658815603+002	16	2.72394702350532235512+002
15	2.404055834405050431204+002	16	2.404038547839109694+002	17	3.0640068783276074368704+002
16	2.724054923295480576+002	17	3.0640407183734757489+002	18	3.4240060569367487106+002
17	3.06405399132945352848+002	18	3.42404169117365911518+002	19	3.800104623892402026+002
18	3.424053701229522656+002	19	3.4240524943220521+002	20	4.200142373828674272+002
19	3.904153212243288191+002	20	4.21404323586791395827+002	21	4.626174959902418379+002
20	4.2040529351544612943+002	21	4.240434547839109694+002	22	5.064023283461193533+002
21	4.22402264090448343294+002	22	4.6404439029220960749+002	23	5.524028057317345654+002
22	2.064052109351134848+002	23	5.6240495683454623+002	24	6.0040452707290091596+002
23	2.2240520962211146283+002	24	6.004045321231876367+002	25	6.500269124732923345+002
24	6.00405203261947759807+002	25	6.500456351231876367+002	26	7.0202862524192225981+002
25	9.2040519760224173204+002	26	7.02404592989456228587+002	27	7.5640301541495358139-C02
26	7.0240451365851915615+002	27	7.5642450025461343441959+002	28	8.1203152461343441959+002
27	/ 2.6405161261204511663+002	28	e 12404656710647711603+002	29	8.7003275780666625087+002
28	1.1240515127030067/2+002	29	e 12404674025482677680+002	30	9.300338714729968422+002
29	9.7040514013175//46105+002	30	9.3040469518019048634+002	31	9.920388058115619650+002
30	9.504051310675305+002	31	9.50456351231876367+002	32	1.0564047315008668185+003
31	9.92405151226525166804+002	32	1.0564047315008668185+003	33	1.1220366340389381633+003
32	1.056405115601/6/206+003	33	1.1224047473037876866+003	34	1.1900373984876980304+003
33	1.1224047512063+003	34	1.1904476176192226450+003	35	1.260038099158975560+003
34	1.1224047512063+003	35	1.16404046827150752695+003	36	1.722041294035944059+003
35	1.16404046827150752695+003	36	1.72240478718022705/45+003	37	1.40640393558818245263+003
36	1.16404046827150752695+003	37	1.1640404793889533604+003	38	1.4820402076713812137+003
37	1.16404046827150752695+003	38	1.164245004389330614610+003	39	1.5004040389330614610+003
38	1.164245004389330614610+003	39	1.50245004389330614610+003	40	1.6004040389330614610+003
39	1.164245004389330614610+003	40	1.6004040389330614610+003	41	1.722041294035944059+003
40	1.6004040389330614610+003	41	1.72240478718022705/45+003	42	1.8064041699190746892+003
41	1.6004040389330614610+003	42	1.8920402076713812137+003	43	1.8920402076713812137+003
42	1.6004040389330614610+003	44	1.98040424290515204265+003	45	2.0004042758395029989+003
43	1.6004040389330614610+003	46	2.1620430666959109079+003	47	2.25660433557121093922+003
44	1.6004040389330614610+003	47	2.256604048743473916163+003	48	2.352043627036804863+003
45	1.6004040389330614610+003	49	2.4500438882064976061+003	50	2.55004422085423363+003
46	1.6004040389330614610+003	51	2.652040443482474690447+003	51	2.752040443482474690447+003

PROGLATE EIGENVALUES H = 1.00		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	U	L	U	L	U
3.190000551468273971468+000	2.19554815541300395688+000	1	6.1409499195769050915+000	2	6.1409499195769050915+000
2.5930843797714401220+000	6.424691437751342003+000	2	1.2331015129712577994+001	3	1.2331015129712577994+001
6.533471310523797643149+000	1.24679553303039144173025+001	3	2.042353049588713150+001	4	2.042353049588713150+001
1.251446214504404305+01	2.081696013053180916+001	4	3.046143887136587895+001	5	3.046143887136587895+001
2.0508274352570305972+001	3.04880657794488455722+001	5	4.24588916104798408+001	6	4.24588916104798408+001
3.050544042532217035329+001	4.2415779512822460656+001	6	5.646398085660717215+001	7	5.646398085660717215+001
4.2503816125957504394+001	5.6493727742521656733+001	7	7.243983456298074786+001	8	7.243983456298074786+001
5.65028445023371193234+001	7.24951465012296741605+001	8	9.047925J+4039.007370+001	9	9.047925J+4039.007370+001
7.250222161684296222+001	9.04961302331647010972+001	9	1.1043064544928302719+002	10	1.1043064544928302719+002
9.0501736436312603765+001	1.04966814455143916956+002	10	1.324859114920326710+002	11	1.324859114920326710+002
1.1050143926911208/2618+002	1.324973726113925464646+002	11	1.56488094776880076428+002	12	1.56488094776880076428+002
1.32501119127510638628+002	1.564977987899487128+002	12	1.822980615422706884+002	13	1.822980615422706884+002
1.626501203432H31684244+002	1.82498099100641022327+002	13	2.1046172691770168997+002	14	2.1046172691770168997+002
1.82500853522132145215+002	2.0498335349730325067+002	14	2.4092281329606912912+002	15	2.4092281329606912912+002
2.10500747803944212352+002	2.40496506732643490259+002	15	2.724931931994256537+002	16	2.724931931994256537+002
2.4050065191424619053+002	2.72498730787744831203+002	16	3.069395231636200104+002	17	3.069395231636200104+002
2.72501057682051702/04+002	3.06498882350731398221+002	17	3.42494591026960081526+002	18	3.42494591026960081526+002
3.06500512384659/352+002	3.4249889145645210165+002	18	3.801935298080046828+002	19	3.801935298080046828+002
5.42500458282328413448+002	5.049909262084102015+002	19	4.20495598263119841975+002	20	4.20495598263119841975+002
3.005004132642/445140+002	4.204997927807312015+002	20	4.6229599940354599989+002	21	4.6229599940354599989+002
4.20200372953442/4544+002	4.6249925407754301172+002	21	5.06934806057611529+002	22	5.06934806057611529+002
4.62501033454680648+002	5.0649931908981138428+002	22	5.5249665301378908844+002	23	5.5249665301378908844+002
5.06500309435780115295/7+002	5.524963195210982767+002	23	6.00496921278457431724+002	24	6.00496921278457431724+002
5.525002686014426529+002	6.0049942597285655512+002	24	6.509715851665516671+002	25	6.509715851665516671+002
6.005002608734/213595+002	6.5049947027885173461+002	25	7.0249736933601334787+002	26	7.0249736933601334787+002
6.505002407413287739+002	7.56499904516812131297+002	26	7.56497557522239949744+002	27	7.56497557522239949744+002
7.02500222912231914945+002	7.564995460524763537+002	27	8.1249776203983984429+002	28	8.1249776203983984429+002
7.56500205667714125230+002	7.56499516056774679217+002	28	8.70497767798779370551+002	29	8.70497767798779370551+002
2.01250019267522165992+002	2.124995716056774679217+002	29	9.3049801505850670724+002	30	9.3049801505850670724+002
6.705001781458545/38+002	6.7049961435743680099+002	30	9.9249813925892222461+002	31	9.9249813925892222461+002
9.3050016420082574695+002	9.30499947291467612479+002	31	1.0564996741211689229+003	32	1.0564996741211689229+003
9.9250015767713/4990226+002	1.0564996741211689229+003	32	1.1229483550705807568+003	33	1.1229483550705807568+003
1.056500161114160328+003	1.1224966453103650038+003	33	1.1949844915687543145+003	34	1.1949844915687543145+003
1.12250015935908862603+003	1.19049971085261746195+003	34	1.2604985353913089853+003	35	1.2604985353913089853+003
1.190500114149/16594+003	1.26049971085261746195+003	35	1.3249982481946266265450+003	36	1.3249982481946266265450+003
1.2605001241114412/597+003	1.32499874170452168486+003	36	1.40498687599757435+003	37	1.40498687599757435+003
1.33250011739/1429929+003	1.4064997531025016797+003	37	1.48249875495373841207+003	38	1.48249875495373841207+003
1.4065001112134/876202+003	1.48249976786827629510+003	38	1.56049881725122940870+003	39	1.56049881725122940870+003
1.462500115950862603+003	1.56049977943503447+003	39	1.641984749861821936+003	40	1.641984749861821936+003
1.560500102277207452+003	1.6404997902480203666+003	40	1.722989285932655582+003	41	1.722989285932655582+003
1.64050005335346378708+003	1.72249940249443399+003	41	1.8064987845526233662+003	42	1.8064987845526233662+003
1.7225002079248076880+003	1.80649980953994278505+003	42	1.884999249105677855+003	43	1.884999249105677855+003
1.80650006856/216032+003	1.8849991621125238472+003	43	1.98049906828076308769+003	44	1.98049906828076308769+003
1.9825000263604/052+003	1.98499126281342653+003	44	2.07499118812469569+003	45	2.07499118812469569+003
1.98499126281342653+003	2.07499118812469569+003	45	2.16249914675517604577+003	46	2.16249914675517604577+003
2.07499118812469569+003	2.16249914675517604577+003	46	2.256499847517513663640+003	47	2.256499847517513663640+003
2.16249914675517604577+003	2.352499853757025194+003	47	2.45049947347744745+003	48	2.45049947347744745+003
2.352499853757025194+003	2.45049947347744745+003	48	2.5524992766395582604+003	49	2.5524992766395582604+003
2.45049947347744745+003	2.5524992766395582604+003	49	2.65249930447327340869+003	50	2.65249930447327340869+003
2.65249930447327340869+003	2.65249930447327340869+003	50	2.65249930447327340869+003	51	2.65249930447327340869+003

PROBLATE EIGENVALUES $\mu = 1.20$

L		EIGENVALUE	
0	0	4.5n72e3339376e50/187-001	1
1	2.845610e85459e0792e031+000	2	
2	6.7738652e097P9e73+004+000	3	
3	1.274259e819026e41+750+001	4	
4	2.0733C45e8028e428+296+001	5	
5	3.7295053266786+763+001	6	
6	4.072569e35242673e-3+739+001	7	
7	5.6724465e16749444273+001	8	
8	7.272345e3564672e-87+001	9	
9	9.0722755e1471e07+98+001	10	
10	1.0722244e135465e429+002	11	
11	1.327721827955e273+e028+002	12	
12	1.567169261956e1611e089+002	13	
13	1.8272158e6436211e-30+002	14	
14	2.0721121e12153e456e193+e002	15	
15	2.4071e098e34713085e649+002	16	
16	2.7271e24103e72983e15+002	17	
17	3.06711354e057543854e+002	18	
18	3.4271229526549e002e09+002	19	
19	3.80713014e00144e-01+002	20	
20	4.2071e86e8765e221e314+002	21	
21	4.62271905827663e3479e07+002	22	
22	5.0671e098e26684e19e16+002	23	
23	5.527161369438719e011+002	24	
24	6.0071e201926892459e6+002	25	
25	6.5071e526783601699e64+002	26	
26	7.0271e321757438099e16+002	27	
27	7.5671e30291313447e805+002	28	
28	8.1271e41379258520+002	29	
29	8.7071e4528625639+002	30	
30	9.3071e488281079519e72+002	31	
31	9.9271e520107634422e03+002	32	
32	1.05671e954e41756748e60+003	33	
33	1.12271e44640568578394+003	34	
34	1.1971e961237317353+003	35	
35	1.1972e3014053e925e003	36	
36	1.26071e92e4481926688+003	37	
37	1.33271e9628734719e15+003	38	
38	1.40671e96169155193985+003	39	
39	1.48271e9615056704888e3+003	40	
40	1.56071e961179287950+003	41	
41	1.64071e961237317353+003	42	
42	1.72271e9628734719e15+003	43	
43	1.80671e9613665959453082+003	44	
44	1.98071e958508167e3+003	45	
45	2.07071e9772833766083+003	46	
46	2.16271e980647276262+003	47	
47	2.25671e982342451599+003	48	
48	2.35271e98789706664465+003	49	
49	2.45071e98193241607+003	50	
50	2.55071e9859598616302+003	51	

PROLATE EIGENVALUES M = 1.40

M = 1

L	EIGENVALUE
0	6.000644180390651327+000
1	3.14921925566718751491+000
2	7.061126094582441976+000
3	1.2919051612525847263+001
4	2.0946283488181713+001
5	3.0992263345778371290+001
6	4.29447475574589761+001
7	5.6998674121385261487+001
8	7.297125168597355851+001
9	9.09730394597035555625+001
10	1.1097432640800596195+002
11	1.329752852547172172+002
12	1.569760168559161673+002
13	1.8297559433588190701+002
14	2.10977046421548295+002
15	2.497742011095205492+002
16	2.7297772573680130827+002
17	3.0697797556299093838+002
18	3.4296955932981514045+002
19	3.809706755903480581+002
20	4.209774274657245+002
21	4.62978666216211367625+002
22	5.0697878075013519688+002
23	5.529735422136369397+002
24	6.00974067529943521+002
25	6.509745113656948663+002
26	7.0297492505416274574+002
27	7.569752882783735238+002
28	8.129756138258928096+002
29	8.7097798863547264281+002
30	9.3097333701990219013+002
31	9.9297537970117152525+002
32	1.056979447604962685+002
33	1.12297945119684493+003
34	1.1909770088524530745+003
35	1.2609795131221729876+003
36	1.332979537601701223+003
37	1.40697956216844352+003
38	1.482979585971357641+003
39	1.5609796538901915283+003
40	1.640979646574983669+003
41	1.722979625478945925+003
42	1.80696020227114052834+003
43	1.892979646939064981+003
44	1.980979661633785528+003
45	2.070979702686667850+003
46	2.1629797534976176864+003
47	2.25697972187655996+003
48	2.35297973660416477+003
49	2.4509794683296768442+003
50	2.5509797535881080+003
45	2.4509794683296768442+003
46	2.5509797535881080+003

L	EIGENVALUE	M = 2
1	6.3753248256615295801+000	2
2	6.82519345611044571711+000	3
3	1.2919051612525847263+001	4
4	2.0946283488181713+001	5
5	3.08552723162747607804+001	6
6	4.28922147162975220002+001	7
7	5.6998674121385261487+001	8
8	6.996848146205263536+001	9
9	7.297125168597355851+001	10
10	7.898416894212131+001	11
11	8.497752852547172172+002	12
12	9.097742011095205492+002	13
13	9.6998674121385261487+001	14
14	10.29775595677186641+002	15
15	10.8966509395677186641+002	16
16	11.4966832495734264000+002	17
17	12.0966955932981514045+002	18
18	12.6966955932981514045+002	19
19	13.2966955932981514045+002	20
20	13.8966955932981514045+002	21
21	14.4966832495734264000+002	22
22	15.0966832495734264000+002	23
23	15.6966832495734264000+002	24
24	16.2966955932981514045+002	25
25	16.8966832495734264000+002	26
26	17.4966832495734264000+002	27
27	18.0966832495734264000+002	28
28	18.6966832495734264000+002	29
29	19.2966832495734264000+002	30
30	19.8966832495734264000+002	31
31	20.4966832495734264000+002	32
32	21.0966832495734264000+002	33
33	21.6966832495734264000+002	34
34	22.2966832495734264000+002	35
35	22.8966832495734264000+002	36
36	23.4966832495734264000+002	37
37	24.0966832495734264000+002	38
38	24.6966832495734264000+002	39
39	25.2966832495734264000+002	40
40	25.8966832495734264000+002	41
41	26.4966832495734264000+002	42
42	27.0966832495734264000+002	43
43	27.6966832495734264000+002	44
44	28.2966832495734264000+002	45
45	28.8966832495734264000+002	46
46	29.4966832495734264000+002	47
47	30.0966832495734264000+002	48
48	30.6966832495734264000+002	49
49	31.2966832495734264000+002	50

L	EIGENVALUE	M = 1
1	6.27279642549792184331+000	2
2	6.26448073479067534163+001	3
3	7.07860444677682821570+001	4
4	7.2919051612525847263+001	5
5	8.08552723162747607804+001	6
6	8.6998674121385261487+001	7
7	9.297125168597355851+001	8
8	9.898416894212131+001	9
9	10.4966832495734264000+002	10
10	11.097742011095205492+002	11
11	11.6998674121385261487+001	12
12	12.29775595677186641+002	13
13	12.8966832495734264000+002	14
14	13.4966832495734264000+002	15
15	14.0966832495734264000+002	16
16	14.6966832495734264000+002	17
17	15.2966832495734264000+002	18
18	15.8966832495734264000+002	19
19	16.4966832495734264000+002	20
20	17.0966832495734264000+002	21
21	17.6966832495734264000+002	22
22	18.2966832495734264000+002	23
23	18.8966832495734264000+002	24
24	19.4966832495734264000+002	25
25	20.097742011272025+002	26
26	20.6966832495734264000+002	27
27	21.2966832495734264000+002	28
28	21.8966832495734264000+002	29
29	22.4966832495734264000+002	30
30	23.0966832495734264000+002	31
31	23.6966832495734264000+002	32
32	24.2966832495734264000+002	33
33	24.8966832495734264000+002	34
34	25.4966832495734264000+002	35
35	26.0966832495734264000+002	36
36	26.6966832495734264000+002	37
37	27.2966832495734264000+002	38
38	27.8966832495734264000+002	39
39	28.4966832495734264000+002	40
40	29.0966832495734264000+002	41
41	29.6966832495734264000+002	42
42	30.2966832495734264000+002	43
43	30.8966832495734264000+002	44
44	31.4966832495734264000+002	45
45	32.0966832495734264000+002	46
46	32.6966832495734264000+002	47
47	33.2966832495734264000+002	48
48	33.8966832495734264000+002	49
49	34.4966832495734264000+002	50

PROLATE EIGENVALUES M = 1.60

N = 0

EIGENVALUE

L	EIGENVALUE
0	7.64471910441286998/177-001
1	3.4015870226778427-677+000
2	7.391252424310P76-30+000
3	1.3330565E47-77P46-126+001
4	2.13062556605705-38+001
5	3.1262267247-78927-722+001
6	4.326100224217442029+001
7	5.7266004153846343+001
8	7.3269909856326384918+001
9	8.1227292457-295+002-001
10	9.1255525660900519-116+001
11	1.122483047646411-20+002
12	1.332P401692626P43-29+002
13	1.54242354784728717-1A9+002
14	1.81819C5C0308413-780+002
15	2.12825151706-03P06-677+002
16	2.412A215F48236949-37+002
17	2.732P1724922086-449+002
18	3.07P172563644-702+002
19	3.432P154C54649=03-96+002
20	3.812P13659452F94/668+002
21	4.22P1253523234-405+002
22	4.638P112S2352139-63H+002
23	5.032P10299016054-59H+002
24	5.532PAC9E30715P06-47H+002
25	6.024PAC87402311P2H-17H+002
26	6.525PAC874023234-405+002
27	7.032PCT45061573-H66+002
28	7.57PAC65541054-51-38H+002
29	8.134P64723215-91H+002
30	8.724P64723215-91H+002
31	9.32PCT565050462-RH0+002
32	1.0572P928*50-989445474+003
33	1.1232P78737010522+003
34	1.1912P9364324427-056+003
35	1.1928E041505325-762+003
36	1.1932P64723215-91H+003
37	1.3332P94351925363045+003
38	1.4032P946211889403427+003
39	1.4832P9487393J102516+003
40	1.5612T95152868766025+003
41	1.6412P95365727-05304+003
42	1.6442P604159493-352+003
43	1.6912P958138126102807+003
44	1.8912P961E20565-96599+003
45	2.0712P96348225652827+003
46	2.1632P965C3247-056839+003
47	2.1632P965C3247-056839+003
48	2.2572P96495530159869-003
49	2.3532P9678642198-8498-003
50	2.4512P969150666792255+003
51	2.5512P970361400296335+003

N = 2

EIGENVALUE

L	EIGENVALUE
1	2.4839944426724486883+000
2	7.071912764156495922+000
3	1.32072024414385350+001
4	3.123746617301679/3442+001
5	4.3261100224217442029+001
6	5.7195995-0420344781+001
7	7.3214987959736844785+001
8	7.3269909856326384918+001
9	9.1227292457-295+002-001
10	1.12274373949569204998+002
11	1.332471958165525822+002
12	1.5722P096486622320178+002
13	1.832559562159710995+002
14	2.11277933974229956114+002
15	2.41273695213689108+002
16	2.7322996332677221075+002
17	3.07264885084700235+002
18	3.43264494536559174949+002
19	3.8126785133920337283+002
20	4.2129901320192775323+002
21	4.6322P00235519213735+002
22	5.0724682713461350053+002
23	5.32275091559362018199+002
24	6.012731089619882537+002
25	6.51277911347468005076+002
26	7.0327437747-02846467+002
27	7.572709866229417+002
28	8.132732864516658450+002
29	8.712770749867769108+002
30	9.312504955003458596+002
31	9.932735954929780125+002
32	1.0572P5641250133871565+003
33	1.1232P890485137821+003
34	1.1912761327917450306+003
35	1.2127634793565768540+003
36	1.3332P645456046371668+003
37	1.4072774531209112395+003
38	1.4832P64895258694896+003
39	1.56127767713505697951+003
40	1.64127719505100595944+003
41	1.73227787283608131397+003
42	1.8072P958138126102807+003
43	1.8912P960429514499+003
44	1.9812P961E20565-96599+003
45	2.07127778215351516623+003
46	2.1632P965C3247-056839+003
47	2.2572P96495530159869-003
48	2.3532P9678642198-8498-003
49	2.4512P969150666792255+003
50	2.5512P970361400296335+003
51	2.6532P9661240321567+003

UNBALANCED EIGENVALUES $\mathbf{H} = 1.80$ $\mathbf{M} = \mathbf{I}$

EIGENVALUE

L	C	EIGENVALUE
1	1	9.4200652 / 4.8031943 * 2.96 - 001
2	3	3.8725757013P7.4H - 0.47 + 000
3	7	7.7861245132561772.579 + 000
4	1	1.36228618226143Y - 6.05 + 001
5	2	2.1459518261422.364 + 001
6	3	1.4457528405PP82 * H90 + 001
7	4	3.63905985556204 9.09 + 001
8	5	5.763444794101491 2.3H + 001
9	6	7.347392704225.31 - 3.54 + 001
10	7	9.14297864457.5 - 3.47 + 001
11	8	1.1626752937587.379 + 002
12	9	1.3667154C9A512291827.002
13	10	1.53656214760927.014 + 002
14	11	1.57224742 / 556577 - 8.92 + 002
15	12	1.871240573512134.729 + 002
16	13	2.1162251472370.54 - 8.77 + 002
17	14	2.416142665955224593.002
18	15	2.7366709744.814403.002
19	16	3.0761079211793562743.002
20	17	3.4361224211422123560.002
21	18	3.836060984010818.002
22	19	4.2167656891561491.002
23	20	4.6361F070C78523133756.002
24	21	5.0761238A70707806468.002
25	22	5.5309550351029095477.002
26	23	5.91603812645186770.002
27	24	6.3162510782007785375.002
28	25	6.810479505923444887.002
29	26	7.210625019478014394.002
30	27	7.630117896702261901.002
31	28	8.07612377044A02649.002
32	29	8.516103812645186770.002
33	30	8.71137288665842102.002
34	31	9.3161360693739532777.002
35	32	9.931614947991356319.002
36	33	1.057191581579032993.003
37	34	1.1236146686376331695.003
38	35	1.196151623603692189.003
39	36	1.261615315522R403481.003
40	37	1.2616154315522R403481.003
41	38	1.3316192329111908898.003
42	39	1.40761936F0816609214.003
43	40	1.4831940C5406803539.003
44	41	1.4831940C5406803539.003
45	42	1.5616194515602002243.003
46	43	1.64161945E3787830611.003
47	44	1.72316194842054442002.003
48	45	1.807616142686180944.003
49	46	1.893616149592302113947.003
50	47	1.981617045442261268.003
51	48	2.07617209643156594.003
52	49	2.1636173393327.476120.003
53	50	2.25617450295319924.003
54	51	2.353617554453055.0845.003
55	52	2.4516176523567937107.003
56	53	2.5516177444947.841892.003
57	54	2.65361783131153576727.003

 $\mathbf{M} = 2$

EIGENVALUE

L	C	EIGENVALUE
1	1	6.44361007194659755725.000
2	2	7.3483147327030524396.000
3	3	1.3525449C3599676630.001
4	4	2.15688710422504418199.001
5	5	3.1416595220003391058.001
6	6	4.36240435057238769.001
7	7	5.7515166978159599.001
8	8	7.353848359882678216.001
9	9	9.15546701491094447313.001
10	10	1.115677147446467851.002
11	11	1.33578147509630200.002
12	12	1.5750267407452191630.002
13	13	1.838806655578752741.002
14	14	2.115677136596029867223.002
15	15	2.4595849723499738414.002
16	16	2.735987132950052192.002
17	17	3.070109344832700141.002
18	18	3.436105155252035.002
19	19	3.810479505923444887.002
20	20	4.210625019478014394.002
21	21	4.630117896702261901.002
22	22	5.0760595802461440.002
23	23	5.5309550351029095477.002
24	24	6.01603812645186770.002
25	25	6.516103812645186770.002
26	26	7.030117896702261901.002
27	27	7.5612377044A02649.002
28	28	8.17137288665842102.002
29	29	8.71137288665842102.002
30	30	9.3161360693739532777.002
31	31	9.931614947991356319.002
32	32	1.057191581579032993.003
33	33	1.1236146686376331695.003
34	34	1.196151623603692189.003
35	35	1.2616154315522R403481.003
36	36	1.3316192329111908898.003
37	37	1.40761936F0816609214.003
38	38	1.4831940C5406803539.003
39	39	1.5616194515602002243.003
40	40	1.64161945E3787830611.003
41	41	1.72316194842054442002.003
42	42	1.807616142686180944.003
43	43	1.893616149592302113947.003
44	44	1.981617045442261268.003
45	45	2.07617209643156594.003
46	46	2.1636173393327.476120.003
47	47	2.25617450295319924.003
48	48	2.353617554453055.0845.003
49	49	2.4516176523567937107.003
50	50	2.5516177444947.841892.003

 $\mathbf{M} = 2$

EIGENVALUE

L	C	EIGENVALUE
1	1	2.603214365958704075.000
2	2	7.3483147327030524396.000
3	3	1.3525449C3599676630.001
4	4	2.15688710422504418199.001
5	5	3.1416595220003391058.001
6	6	4.36240435057238769.001
7	7	5.7515166978159599.001
8	8	7.353848359882678216.001
9	9	9.15546701491094447313.001
10	10	1.115677147446467851.002
11	11	1.33578147509630200.002
12	12	1.5750267407452191630.002
13	13	1.838806655578752741.002
14	14	2.115677136596029867223.002
15	15	2.4595849723499738414.002
16	16	2.735987132950052192.002
17	17	3.070109344832700141.002
18	18	3.436105155252035.002
19	19	3.810479505923444887.002
20	20	4.210625019478014394.002
21	21	4.630117896702261901.002
22	22	5.0760595802461440.002
23	23	5.5309550351029095477.002
24	24	6.01603812645186770.002
25	25	6.516103812645186770.002
26	26	7.030117896702261901.002
27	27	7.5612377044A02649.002
28	28	8.17137288665842102.002
29	29	8.71137288665842102.002
30	30	9.3161360693739532777.002
31	31	9.931614947991356319.002
32	32	1.057191581579032993.003
33	33	1.1236146686376331695.003
34	34	1.196151623603692189.003
35	35	1.2616154315522R403481.003
36	36	1.3316192329111908898.003
37	37	1.40761936F0816609214.003
38	38	1.4831940C5406803539.003
39	39	1.5616194515602002243.003
40	40	1.64161945E3787830611.003
41	41	1.72316194842054442002.003
42	42	1.807616142686180944.003
43	43	1.893616149592302113947.003
44	44	1.981617045442261268.003
45	45	2.07617209643156594.003
46	46	2.1636173393327.476120.003
47	47	2.25617450295319924.003
48	48	2.353617554453055.0845.003
49	49	2.4516176523567937107.003
50	50	2.5516177444947.841892.003

 $\mathbf{M} = 2$

EIGENVALUE

L	C	EIGENVALUE
1	1	2.603214365958704075.000
2	2	7.3483147327030524396.000
3	3	1.3525449C3599676630.001
4	4	2.15688710422504418199.001
5	5	3.1416595220003391058.001
6	6	4.36240435057238769.001
7	7	5.7515166978159599.001
8	8	7.353848359882678216.001
9	9	9.15546701491094447313.001
10	10	1.115677147446467851.002
11	11	1.33578147509630200.002
12	12	1.5750267407452191630.002
13	13	1.838806655578752741.002
14	14	2.115677136596029867223.002
15	15	2.4595849723499738414.002
16	16	2.735987132950052192.002
17	17	3.070109344832700141.002
18	18	3.436105155252035.002
19	19	3.810479505923444887.002
20	20	4.210625019478014394.002
21	21	4.630117896702261901.002
22	22	5.0760595802461440.002
23	23	5.5309550351029095477.002
24	24	6.01603812645186770.002
25	25	6.516103812645186770.002
26	26	7.030117896702261901.002
27	27	7.5612377044A02649.002
28	28	8.17137288665842102.002
29	29	8.71137288665842102.002
30	30	9.3161360693739532777.002
31	31	9.9316149479913

DIRECT EIGENVALUES $m = 2.0$ $\nu = 1$

EIGENVALUE

L	EIGENVALUE
1	1.127724564845971e-244e+000
2	4.281125454557561e-010e+000
3	9.2257135711058591e-010e+000
4	1.41010234205734e-010e+001
5	2.2054825717455497e-010e+001
6	4.203526376925297e-010e+001
7	4.402474240643191e-010e+001
8	5.401475654626410e-010e+001
9	7.401414174653F2407e-010e+001
10	9.201125447366774e-010e+001
11	1.120056155521422e-010e+001
12	1.5305646406476194e-010e+001
13	1.57994625539A110614e-010e+001
14	1.59944127235340992e-010e+001
15	1.7948490555458791375e-010e+001
16	1.1995659571412399868e-010e+002
17	1.339922623956640539e-010e+002
18	1.57994625539A110614e-010e+002
19	1.63997050C47376n45212e-010e+002
20	1.839961034052237674309e-010e+002
21	1.92013580141583254e-001
22	2.19347165842675179e-002
23	2.39460629712R664954e-002
24	2.579544023157055313e-002
25	2.73974398n03367895e-002
26	2.8797644807226607e-002
27	3.43979390146229828e-002
28	3.819B1639A9R7R027573e-002
29	4.21983292836446848e-002
30	4.63984706271076262e-002
31	5.07986012708190107e-002
32	5.53982644394216227e-002
33	6.019888873242124797e-002
34	6.5199819157770RA31454e-002
35	7.019976016647310852e-002
36	7.439974732903268e-002
37	7.839985902134518903e-002
38	8.23999016949527e-002
39	8.61999154214536198276e-002
40	9.1999132165e-002
41	9.3199245399371n5265e-002
42	9.939922674227451459e-002
43	1.057993563834633106Re-003
44	1.12399511e3421799503e-003
45	1.191991059729816895e-003
46	1.26199434n324n8780e-002
47	1.3199926992387518861e-003
48	1.4079961896574731919e-003
49	1.483994755639A226631e-003
50	1.5619950613n042236805e-003
51	1.6419957255639A226631e-003
52	1.7239961896574731919e-003
53	1.8079961896574731919e-003
54	1.893992295596435112e-003
55	1.9819949182n036952e-003
56	2.071996145024727371e-003
57	2.163997587234220684e-003
58	2.2579989391784585A21e-003
59	2.353997029239n557617e-003
60	2.451997140157n7206Re-003
61	2.5519972523621636946e-003
62	2.653997356134569534e-003

 $\nu = 2$

EIGENVALUE

L	EIGENVALUE
1	6.54249527439057051176e-000
2	1.32982504737825070463e-001
3	2.1605113037414851904e-001
4	3.17470319A9202158219e-001
5	4.38234669749922663837e-001
6	5.7869527034295n274743e-001
7	7.3899494572247285559e-001
8	9.192013580141583254e-001
9	1.193437165842675179e-002
10	1.339460629712R664954e-002
11	1.579544023157055313e-002
12	1.839961034052237674309e-002
13	1.8999146229828e-002
14	2.1196622573R60280e-002
15	2.41970544132R8A82694e-002
16	2.73974398n03367895e-002
17	3.43979390146229828e-002
18	3.819B1639A9R7R027573e-002
19	4.21983292836446848e-002
20	4.63984706271076262e-002
21	5.07986012708190107e-002
22	5.53982644394216227e-002
23	6.019888873242124797e-002
24	6.5199819157770RA31454e-002
25	7.019976016647310852e-002
26	7.439974732903268e-002
27	7.839985902134518903e-002
28	8.23999016949527e-002
29	8.61999154214536198276e-002
30	9.1999245399371n5265e-002
31	9.939922674227451459e-002
32	1.057993563834633106Re-003
33	1.12399511e3421799503e-003
34	1.191991059729816895e-003
35	1.26199434n324n8780e-002
36	1.3199926992387518861e-003
37	1.4079961896574731919e-003
38	1.483994755639A226631e-003
39	1.5619950613n042236805e-003
40	1.6419957255639A226631e-003
41	1.7239961896574731919e-003
42	1.8079961896574731919e-003
43	1.893992295596435112e-003
44	1.9819949182n036952e-003
45	2.071996145024727371e-003
46	2.163997587234220684e-003
47	2.2579989391784585A21e-003
48	2.353997029239n557617e-003
49	2.451997140157n7206Re-003
50	2.5519972523621636946e-003
51	2.653997356134569534e-003

PROBLÈME EIGENVALUFS		w = 2.20
l	EIGENVALUE	EIGENVALUE
0	2.87355914567563482245+0000	2.87355914567563482245+0000
1	7.9861491121083761402+0000	7.9861491121083761402+0000
2	1.426842067581747523122+0003	1.426842067581747523122+0003
3	1.45665510865319855+0000	1.45665510865319855+0000
4	2.24985268349596290+0001	2.24985268349596290+0001
5	3.23784070766441360128+0001	3.23784070766441360128+0001
6	4.4394575214535768434+0001	4.4394575214535768434+0001
7	8.839722615640593022+0000	8.839722615640593022+0000
8	7.44010192720061226301+0000	7.44010192720061226301+0000
9	5.2404313C31788639276+0000	5.2404313C31788639276+0000
10	1.1241579977530125247+0000	1.1241579977530125247+0000
11	1.3441551889154471+0000	1.3441551889154471+0000
12	1.5841288368126052760+0000	1.5841288368126052760+0000
13	1.84417922773713191123+0000	1.84417922773713191123+0000
14	2.1241474779098993020+0002	2.1241474779098993020+0002
15	2.744159620616911217502+0000	2.744159620616911217502+0000
16	3.7841416391754783213+0000	3.7841416391754783213+0000
17	4.441679780718173671+0000	4.441679780718173671+0000
18	5.8241712472921746893+0000	5.8241712472921746893+0000
19	4.224139579898497833+0000	4.224139579898497833+0000
20	4.644163651122719471+0002	4.644163651122719471+0002
21	5.08417843905173734+0002	5.08417843905173734+0002
22	7.084147830517383234+0002	7.084147830517383234+0002
23	6.544102453899946696+0002	6.544102453899946696+0002
24	6.0219183845240151599+0000	6.0219183845240151599+0000
25	6.52419324131361751562+0000	6.52419324131361751562+0000
26	7.08415629562050187486+0000	7.08415629562050187486+0000
27	6.144196605052631383234+0002	6.144196605052631383234+0002
28	6.722191377914145764+0000	6.722191377914145764+0000
29	5.324183076513110250+0002	5.324183076513110250+0002
30	5.944190412330312449+0000	5.944190412330312449+0000
31	1.0584189777990297536+0001	1.0584189777990297536+0001
32	1.12441930152724570451+0000	1.12441930152724570451+0000
33	1.1924193041048551342+0000	1.1924193041048551342+0000
34	1.2622191377914145764+0000	1.2622191377914145764+0000
35	1.3344191846516071325+0001	1.3344191846516071325+0001
36	1.4041926738872946178+0000	1.4041926738872946178+0000
37	1.48441926738872946178+0000	1.48441926738872946178+0000
38	1.562193041048551342+0000	1.562193041048551342+0000
39	1.642419493381331793041+0001	1.642419493381331793041+0001
40	2.25841951516041360737+0000	2.25841951516041360737+0000
41	2.7244193621651438+0000	2.7244193621651438+0000
42	1.8084193960975735559+0001	1.8084193960975735559+0001
43	1.884419424662680208+0000	1.884419424662680208+0000
44	1.9824194520055856016+0001	1.9824194520055856016+0001
45	2.072194785751274753+0000	2.072194785751274753+0000
46	2.164419493381331793041+0001	2.164419493381331793041+0001
47	2.25841951516041360737+0000	2.25841951516041360737+0000
48	2.4521953798539321447+0001	2.4521953798539321447+0001
49	2.5521957468101895343+0001	2.5521957468101895343+0001
50	2.6522054608522641376+0003	2.6522054608522641376+0003

PRELATE EIGENVALUES M = 2.40			
M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE
0	0.02127732501551773741+000	2	6.76466007002181009103+000
1	6.342929435056216335+000	3	1.38460244723567665488+001
2	1.2596180105011649049+000	4	2.23052730474620716943+001
3	1.566128630791492155+001	5	3.12971317226596350+001
4	2.297774598209679141+001	6	4.46894048805000133264+001
5	3.2923974292438052+001	7	5.8655358346678896702+001
6	4.4923667C78129550212+001	8	7.473239127016821843+001
7	5.891371C6C512549801+001	9	9.2757408551423286457+001
8	7.4904921245C2270828+001	10	1.1278684067491800137+002
9	9.2499993653614669220+001	11	1.3480023682304624867+002
10	1.128892121856118760314+002	12	1.5881613140885209842+002
11	1.348947681656604479+002	13	1.8485415282720946681+002
12	1.588256563059838981+002	14	2.128280350499066881+002
13	1.848813630976784886+002	15	2.428781145506624497+002
14	2.1288442278922949205+002	16	2.7483667945798697011+002
15	2.42883782322013380+002	17	3.088776353594264081+002
16	2.7488449F30255905890+002	18	3.4485110825693093193+002
17	3.088827231141997815+002	19	3.82844934133533861+002
18	3.4488516172818863713+002	20	4.2288656792758239875+002
19	3.828864228088110108632+002	21	4.64888722990361207571+002
20	4.2288415531745125993+002	22	5.088109847044127975+002
21	4.6488616197447892+002	23	5.5488221190038061477+002
22	5.048848325661159358+002	24	6.028842088420878352+002
23	5.2488015621345195699+002	25	6.52886906808512145697+002
24	6.0288213603957163750+002	26	7.0488660984303143505+002
25	6.5288470561557482469+002	27	7.5887754272509925896+002
26	7.048865CE3073290147+002	28	8.1488679269688145929+002
27	7.548843286568737263+002	29	8.7288673729525121787+002
28	8.1488616729781418447681+002	30	9.32886466381861061538+002
29	8.728842021252938533+002	31	9.948870126882256445344+002
30	9.3288485236972P261754+002	32	1.0588607269807500955+003
31	9.94884173900185+1603+002	33	1.124871273986255133+003
32	1.0588612505599307156+003	34	1.12487173986255133+003
33	1.0588616642276963+003	35	1.262817232272359911979+003
34	1.1248815680664195754+003	36	1.334726529558668717+003
35	1.19288647833P7216109+003	37	1.408873045073125457+003
36	1.262811256106164610+003	38	1.48487339816188097954+003
37	1.33486132054751494710+003	39	1.5628732813281391+003
38	1.4088612505599307156+003	40	1.642740354521008556+003
39	1.4848611673705022158+003	41	1.724374319589015796+003
40	1.562811273376113827+003	42	1.8088745846069134535+003
41	1.6428611256106164610+003	43	1.8987484317129412+003
42	1.72488110211803703163+003	44	1.9826750612605830676+003
43	1.80886057364r4715320+003	45	2.0720527631466720371+003
44	1.8948605293456412957+003	46	2.16487547614824522+003
45	1.942406680071359265+003	47	2.2588756663100956088+003
46	2.072806492675804240+003	48	2.35487584317129412+003
47	2.1648061319687937970+003	49	2.4522760099076184620+003
48	2.2588077928896739491+003	50	2.5528761665748160925+003
49	2.354807474550059874+003	51	2.6548763141893647380+003

PROLATE EIGENVALUES		M = 2.60
L	EIGENVALUE	
1	1.724334CC465526326535+000	
2	5.73022632792565r4	1.2
3	9.8541352527299672278+000	3
4	1.56174947500169273335+001	4
5	2.350750142656836521+001	5
6	3.46152C662806373820+001	6
7	4.543661455515602446983+001	7
8	5.921541C52805118925+001	8
9	7.541236363694051852+001	9
10	9.340575103812190521+001	10
11	1.134nC9571182554	11
12	1.3539744548422673674+002	12
13	1.593947340621225+002	13
14	1.8739260CF656+922086+002	14
15	2.1739C913371572069550+002	15
16	2.4388552522323r8A9526+002	16
17	2.7538E4C7623r59+368+002	17
18	3.038770C0198A915751+002	18
19	3.6539E67571F8125+674+002	19
20	4.2739E43408842053864+002	20
21	4.6539442053864205765760+002	21
22	5.06344507364125140004+002	22
23	5.5539413C8170450772+002	23
24	6.133927591F996242130+002	24
25	6.539312C6173564694054+002	25
26	7.053242458236371H31+002	26
27	7.5939201345427215123+002	27
28	8.153924C519222840365+002	28
29	8.739246128124592885+002	29
30	9.3382446103601308+003	30
31	9.9534225530984329408+002	31
32	1.05382173564255384+003	32
33	1.1253826289634841747+003	33
34	1.1938E14584660525854+003	34
35	1.2633815C64439601308+003	35
36	1.3438E1321067021273+003	36
37	1.40938E17C86701352541+003	37
38	1.49538E161834245053116+003	38
39	1.4P53E15325261567572+003	39
40	1.5338E28289634841747+003	40
41	1.64338E12857218362+003	41
42	1.72538E1321067021273+003	42
43	1.80938E125979279797+003	43
44	1.8538E12024770492787+003	44
45	1.9P38E114898P70301+003	45
46	2.0338E15869967227189+003	46
47	2.16536E152186529335+003	47
48	2.2938E1CC83105342662+003	48
49	2.35538E0567126586534+003	49
50	2.4338E05284176060837+003	50
51	2.5533795678345386800+003	51

PROLATE EIGENVALUES $\mathbf{M} = 3.00$

L	$m = 1$	EIGENVALUE	L	$m = 2$	EIGENVALUE
1	2.1367322261613131907+0000	1	5.55968390643064041950+000	2	7.1511005249166207194+000
2	6.820883286637815740+000	2	6.2846622676739725+001	3	1.682778213755425811+001
3	1.119538649526244917+001	3	1.440812173433071084+001	4	2.35870933318128495909+001
4	1.68853220195794985+001	4	1.445r43775255223396+001	5	3.3361510702781332634+001
5	2.4705346301467324987+001	5	4.45r43775255223396+001	6	4.611659353292145n30+001
6	3.4631280798515417836+001	6	4.4471e71464464803145n01	7	6.02205506638154453132+001
7	4.65912749485176569+001	7	6.0805387738380075090+001	8	7.0286910635645+836156+001
8	6.0561635604952951267+001	8	7.685708952019542085+001	9	7.6286910635645+836156+001
9	7.655215694708552+001	9	8.449014572525955090+001	10	9.143637803694333329+002
10	9.45449494770722491191+001	10	1.14491298129761907368+002	11	1.3387318657549337725+002
11	1.145381027586828051+002	11	1.6442879240038842361+002	12	1.6047519162967098697+002
12	1.36586051953298603942+002	12	1.6949407410611056581+002	13	1.8619094397494312078+002
13	1.6053271286159294993+002	13	1.6949494664841638971+002	14	2.1443012877114n198865+002
14	1.8652128353686871379+002	14	2.14497091367833468+002	15	2.444390372480n9929n+002
15	2.145156729569153672+002	15	2.44497091367833468+002	16	2.7644631355967215305+002
16	2.44513507673919315183+002	16	2.7694673119391543854+002	17	3.1045239147179n734131+002
17	2.76513522441016021275+002	17	3.104971112524830986+002	18	3.464574286241555453+002
18	3.1051201973618629495+002	18	3.4697427564319500777+002	19	3.8446177895301320558+002
19	3.465127767562867279+002	19	4.4497654976326844979+002	20	4.24465463507445167+002
20	3.84506677707102956256+002	20	4.2449792176422116759+002	21	4.61669155565304+002
21	4.2450674295265890284+002	21	4.6649116510386553920+002	22	5.104713859152765304+002
22	4.6655194499164219185+002	22	5.04982848961348348+002	23	5.56473790945176214+002
23	5.10507251630301703876+002	23	5.564943150515207547+002	24	6.044759042497123554n+002
24	5.565466453321220939+002	24	6.04498559560452060+002	25	6.5447771348535n39640R+002
25	6.045611205342913821+002	25	6.544967315948319846+002	26	7.0679429050275865384+002
26	7.545066461768612934+002	26	7.06987734352209828R+002	27	7.60480762657455452+002
27	7.06552171475343837+002	27	7.0698866452893140+002	28	8.1648223203465193144+002
28	7.6n5n64784012132933+002	28	7.16498942506319914372+002	29	8.7448343502272950+002
29	8.165n45127605477089+002	29	8.7449601415956787465+002	30	9.3448449795654332193+002
30	8.74496013435592+002	30	8.7449607973588189058+002	31	9.96485471446331517527+002
31	9.3451925060010021093+002	31	9.96495137141351582+002	32	1.0624871619120893274+003
32	9.84501622402951232+002	32	1.064956919141046962173+003	33	1.1264871619120893274+003
33	1.0605346825456767664+003	33	1.1264592383848345675012+003	34	1.19448789843754831731+003
34	1.12650346391143213+003	34	1.19446928242606956622+003	35	1.2644885732735433930+003
35	1.19453077119494796+003	35	1.26446932274187377+003	36	1.3364891931291941628n+003
36	1.2645125027743603+003	36	1.3364959357418773325+003	37	1.410489763n27376534+003
37	1.33650274863422351078+003	37	1.410495932809976432+003	38	1.4649n2904360739555+003
38	1.41056203781984866+003	38	1.4845942516792887166+003	39	1.5644907773871433071+003
39	1.4865124700943142918+003	39	1.5644954517105429326+003	40	1.64491228566647126+003
40	1.5644950243103412039+003	40	1.6449494810286355531+003	41	1.7264916474035A137661+003
41	1.6449522318606228312H+003	41	1.72649595059462916n23+003	42	1.80492036911420864n+003
42	1.72650125470504965+003	42	1.810595251067807213+003	43	1.8964923997759389739+003
43	1.8105022651201492382+003	43	1.896495567246673644+003	44	1.9849273837221420157+003
44	1.8964951343121653787+003	44	1.9844957708597014+003	45	2.0744930541155142077+003
45	1.9845184826380102664+003	45	2.074495955758710047+003	46	2.166493510025842559+003
46	2.074512318606228312H+003	46	2.1664959601551042672+003	47	2.2604936284251623386+003
47	2.16649166254520190652+003	47	2.26049596236276327429+003	48	2.3564938892039142005+003
48	2.2605162196633155808+003	48	2.3564946350825682967+003	49	2.45494134105505428+003
49	2.4544956536038834966+003	49	2.4544956536038834966+003	50	2.554493645607413787+003
50	2.65449495134389138548+003	50	2.65449495134389138548+003	51	2.65449495134389138548+003

PRBLATE EIGENVALUES $\mathbf{H} = 3.20$

$\mathbf{H} = 0$	$\mathbf{H} = 1$	$\mathbf{H} = 2$
EIGENVALUE		
L		
0	3.67664328644100383355+000	2
1	1.0001699620942442427+001	3
2	1.6818295307867569095+001	4
3	2.50260039666603656+001	5
4	3.507803530964262522+001	6
5	4.668653832254053876+001	7
6	6.080588474832511294+001	8
7	7.688165953206754872+001	9
8	9.493191708619604431966+001	10
9	1.1496784241349369545+002	11
10	1.3699426765613845542+002	12
11	1.6101429594421997204+002	13
12	1.87029853185762244622+002	14
13	2.15042186888130935515+002	15
14	2.4505213545898748081+002	16
15	2.7706297880493137425+002	17
16	3.1106703375459879088+002	18
17	3.470726977949395311+002	19
18	3.850749588179459149+002	20
19	4.25081596278143332786+002	21
20	4.67085128561509629759+002	22
21	5.11088193376985534336+002	23
22	5.5709869965100477856+002	24
23	6.05093221451067449427+002	25
24	6.5505298469835039395+002	26
25	7.070971423260086437+002	27
26	7.6109878669973043826+002	28
27	8.17100259431242047665+002	29
28	8.75101583668290611075+002	30
29	9.3510277870737260613+002	31
30	9.971038608975905946+002	32
31	1.06110484403099195603+003	33
32	1.12710573985018259623+003	34
33	1.19511951594362908228+003	35
34	1.26510258742966748893+003	36
35	1.33711958857967211262+003	37
36	1.4111195971699111486+003	38
37	1.48711961303179617423+003	39
38	1.56511963211582029+003	40
39	1.64511965091995838223+003	41
40	1.7271107241046569478+003	42
41	1.8111196630399659+003	43
42	1.8971196807145153192+003	44
43	1.985119716718546510+003	45
44	2.0751197236996352908+003	46
45	2.16711971624415261128+003	47
46	2.26111974736439703+003	48
47	2.3571197579353604613+003	49
48	2.455119765877451631+003	50
49	2.5551197767977351375+003	51
50	2.6571198357330474490+003	

PHGLA1T EIGENVALUES M = 3.40		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	2.1551714468*9.5704b6341*000	1	3.85261930101133567102*000	2	7.43823234840080215958*000
1	7.98304982143296097*000	2	1.04653934718563902187*001	3	1.55737813881375039423*001
2	1.27183303971615575824*001	3	1.743217588474205743*001	4	2.45871878880236140318*001
3	2.83817905361505054694*001	4	2.568532755587918626*001	5	3.50568128890665267404*001
4	2.91063860013439328472*001	5	3.57448231476236078323*001	6	4.729454224837942701*001
5	3.598347971907424014*001	6	4.776276336712398937*001	7	6.1429928402672506813*001
6	4.79211184776746978202*001	7	6.17700735758722975887*001	8	7.75148809569254546*001
7	6.1684233553912393902*001	8	7.77367087636679395*001	9	9.55715245460036104087*001
8	7.746532191114866104*001	9	9.577566445164782933*001	10	1.156116203031119099*002
9	9.5843863046458/43*91*001	10	1.157768663805183297*002	11	1.37777638900082147988*002
10	1.156320275025776944*002	11	1.37777638900082147988*002	12	1.616632708851184831*002
11	1.37823219871421469927*002	12	1.61778161708803750*002	13	1.8768052103205035270*002
12	1.616164837619974443*002	13	1.87785290065539334*002	14	2.15694179752638316963*002
13	1.478112142740857071*002	14	2.15778797007137949*002	15	2.4570518600282955696*002
14	2.1580701286190288109*002	15	2.4577899789260637961*002	16	2.7771418900615432710*002
15	2.45803608560190785*002	16	2.777791521574214649*002	17	3.1172164976797790060*002
16	2.77900810702095721*002	17	3.11779727309875290536*002	18	3.4772790328019864810*002
17	3.179848404527483426*002	18	3.47779369622468714*002	19	3.8573319786741183688*002
18	3.4779652735204943871*002	19	3.85779447895540820225*002	20	4.2573772087300401142*002
19	3.85734866141402647*2*002	20	4.257795122332073891*002	21	4.6774161585091467727*002
20	4.257934438870205485*2*002	21	4.6777956577161085019*002	22	5.117449943340589843*002
21	4.6777961080215872*002	22	5.1177979530375059428*002	23	5.57747944089436192059*002
22	5.1179121503625665*3*002	23	5.577796490538297661*002	24	6.05750329420460174666*002
23	5.5779021791452421249*002	24	6.0577968183024001194*002	25	6.55752822595483148443*002
24	c.057893978440186073*002	25	6.5577971013708607506*002	26	7.07754853736068289634*002
25	c.057896728<21525748*002	26	7.0777973425537041008*002	27	7.6177975630375059428*002
26	7.077802866565034017*002	27	7.61779798432204136814*002	28	8.17758286067837346758*002
27	7.6178745376000044203*002	28	8.177797752729717634*002	29	8.7575974390021407399*002
28	8.177869385513857002	29	8.7577979207277903613*002	30	9.35761059387742769634*002
29	c.757864749.00140720*002	30	9.35779874072077417722*002	31	9.97779820392509495544*002
30	9.3578605326457626*002	31	9.9777986180041148345*003	32	1.0617633325009393407*003
31	9.9778656716401156344*002	32	1.061779832394960230816*003	33	1.127764318317919391*003
32	1.06177987732702231949*003	33	1.1277798432204136814*003	34	1.1957652190345107153*003
33	1.061785018220641248003	34	1.1957798529738132*003	35	1.26576044820227489326*003
34	1.192784731160720423*003	35	1.26577986180041148345*003	36	1.33776680204764152176*003
35	1.26578447680011513*003	36	1.3377798699417274048*003	37	1.411764997101970235*003
36	1.33778422561583*003	37	1.41177987732702231949*003	38	1.487768143059877884*003
37	1.411784032432*003	38	1.4877798840863119213*003	39	1.55777989029757964384*003
38	1.4127785316261248003	39	1.55777989029757964384*003	40	1.645768289520131592*003
39	1.56578356076304315422*003	40	1.6457798960316795156*003	41	1.7277799012668905192*003
40	1.6457823162*003	41	1.7277799012668905192*003	42	1.81177990613564317206*003
41	1.727783267935*420*4*003	42	1.81177990613564317206*003	43	1.89777991062271747*3*003
42	2.811783115364189326*003	43	1.89777991062271747*3*003	44	1.985771347662312789*003
43	2.811783115364189326*003	44	1.9857799148862401839*003	45	2.075771521340593682*003
44	2.957782973922*4*003	45	2.075779918717754005*003	46	2.1677718831613732396*003
45	2.97578272173/2*003	46	2.1677799224196975306*003	47	2.261779822222229740*003
46	2.167782602794*2*003	47	2.261779925843509835*003	48	2.3577799299883457885*003
47	2.261782493627/c104*2*003	48	2.4557799299883457885*003	49	2.4557799299883457885*003
48	2.357782391323*1435019*003	49	2.45577993191435019*003	50	2.455779934791002999*003
49	2.4557798226570<21613*003	50	2.455779934791002999*003	51	2.65777338634548938322*003

PROLATE EIGENVALUES - = 3,60

M = 2

M = 1

EIGENVALUE

L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	4,03211405065209185937*000	1	1,0954939756443331128*001	2	7,56992168927865919840*000
1	61582864501145241163543*000	2	1,59717812551579809992*001	3	1,56690512683250293*001
2	1,354430877-186088911C*001	3	1,80788912908567337616*001	4	2,5129241695070n67548*001
3	1,2135315165*001	4	2,63816137265024266*001	5	3,56690512683250293*001
4	2,688252833208-021014*001	5	3,64547843740327680517*001	6	4,7940133561332921310*001
5	3,672970458-47/860540*001	6	4,8472323147567110713*001	7	6,20928283075669146563*001
6	4,865280505-38/7604626*001	7	6,2470815389952617700*001	8	7,81876372267795128604*001
7	6,260756322729642731*001	8	7,8480266322729642731*001	9	7,8480266322729642731*001
8	7,857822968-546-32702*001	9	9,6648126805208236924*001	10	1,1629524996886824600*002
9	9,6552804461-1946110414*001	10	1,1648143921055917451*002	11	1,38327719865583986184*002
10	1,162436037-3829466924*002	11	1,3848151143737728264*002	12	1,6235222801523517999*002
11	1,38532314881/881402	12	1,628147683099410333*002	13	1,88481396535964496666*002
12	1,6222245944-0/06474/2*002	13	1,88481396535964496666*002	14	2,16386190752698900750*002
13	1,885161515-1022628988*002	14	2,16481299549576547719*002	15	2,6359826327663150235*002
14	2,165130153-36114-15894*002	15	2,16481199758198693816*002	16	2,78408129421896327041*002
15	2,465088537-8802785221*002	16	2,7848103685891785681*002	17	3,1244182617121705927*002
16	2,785054341410*004/4*002	17	3,12481014170999641724*002	18	3,48423142810769261264*002
17	3,125025897-58187317*002	18	3,48480932199308236654*002	19	3,862893384514849643*002
18	3,465001986309093*002	19	3,86450057829912120125*002	20	4,2644397869675157619*002
19	3,864981678-4488006884*002	20	4,264807906795918598*002	21	4,6481352257257296399*002
20	4,264964295-5113626927*002	21	4,6848073017897454737*002	22	5,1244182617121705927*002
21	4,684949295-8781299823*002	22	5,1248067567885205045*002	23	5,56445047728833353796*002
22	5,124936263-77501923*4*002	23	5,58480626566164606822*002	24	6,06447876561267298957*002
23	5,8492486868-393096165*002	24	6,064806256673607364*002	25	6,54450374213564103095*002
24	6,06491484624117748666*002	25	6,5648054219355014077*002	26	7,0845259059225597295*002
25	6,564905985-5921858627*002	26	7,08480505917889595069*002	27	7,645456652080403759*002
26	7,08489611340597227787*002	27	7,6248047299613255998*002	28	8,18456335656339189401*002
27	7,624898108-39060303002	28	8,1848044305588319*002	29	8,56459360782229897065*002
28	8,1848847907726350710*002	29	8,7648041576648451541*003	30	9,364593647962142419095*003
29	8,764879125-3202938523*002	30	9,36480390839141172989*002	31	9,9846059814739297858*002
30	9,3648924209236265*002	31	9,3648023680236173*002	32	1,06246183969668154321*003
31	9,984869375-348142469*002	32	1,06248034708949203856*003	33	1,0846462914559525529205*003
32	1,0624865161-1781923*003	33	1,084803278429699928*003	34	1,196463896662907353422*003
33	1,128486132443/154034*003	34	1,19648031012858435146*003	35	1,26646447962142419095*003
34	1,19648578158175169*003	35	1,2664802283576260847*003	36	1,26648029375967746*003
35	1,2664854596834920986*003	36	1,3384802786562724084*003	37	1,412466382821593668120*003
36	1,3384851641408103206*003	37	1,4124802080972762009*003	38	1,898469893550518994*003
37	1,41248489173*0279289*003	38	1,48848025166441645813*003	39	1,56646477330831452256*003
38	1,4884864-77925020352*003	39	1,5664802395977606*003	40	2,07647076553605965270*003
39	1,488486440845968669151*003	40	1,6464802283576260847*003	41	2,1664711597790711661*003
40	1,66484193-3583U247657*003	41	1,72848017482668652005*003	42	2,2624715292841968623*003
41	1,728483993-262426642U8*003	42	2,2624801677326263137*003	43	2,35847187600464*003
42	1,81248380733216025697*003	43	2,3584801989508253125*003	44	1,884670344307784879*003
43	1,8984836340974/357206*003	44	1,98648019n38011236295*003	45	2,07647076553605965270*003
44	1,986483472426251246*003	45	2,0764801823500676431*003	46	2,1664711597790711661*003
45	2,17648332119/334723*003	46	2,168480174822668652005*003	47	2,2624715292841968623*003
46	2,168483179541423212*003	47	2,3624801677326263137*003	48	2,45647220189073564287*003
47	2,26483047481717652*003	48	2,3584801610356462931*003	49	2,55647250853393075570*003
48	2,35848292277022205447*003	49	2,4564801547972845761*003	50	2,55648014887083569603*003
49	2,456482805-6866675211*003	50	2,65847279742365419979*003		

PROBLATE EIGENVALUES H = 3.80		H = 1		H = 2	
	EIGENVALUE		EIGENVALUE		EIGENVALUE
L	2.96580102291963611003+000	0	4.12145930574326392529+000	2	7.74455647496324956814+000
1	9.1913201388/064341486/+000	1	1.14404383201424234980+001	3	1.6385140047900799931+001
2	1.4408161287985409505+001	2	1.18750817812464046451+001	4	2.5698275072240409565+001
3	2.0102603765822142334+001	3	2.71285255981590926254+001	5	3.631568907279332034127+001
4	2.77121638810951446266+001	4	3.38287280988624283061+001	6	4.8663540449723666095+001
5	3.7523935308430355093+001	5	4.922505794865280626118+001	7	6.2794729591027088503+001
6	4.9429789584696994942+001	6	6.3228684780974992363+001	8	7.8990178735993436274+001
7	6.3374674441925/647844+001	7	7.9228958063047056983+001	9	9.69700278901911206643+001
8	7.9339051983030411794+001	8	9.7228303306710814707+001	10	1.17018874467826492873+002
9	9.7314663389201039.0+001	9	1.17227434455384586430+002	11	1.390447068473873270+002
10	1.172979763118288126751+002	10	1.3922658091243026547+002	12	1.63081264120388393224+002
11	1.39284024923813653038+002	11	1.63225812469905817703+002	13	1.891019537799362013+002
12	1.6327403668430499039+002	12	1.89225142979506491613+002	14	2.1711830152920675906+002
13	1.89266622754735619860+002	13	2.1722456694354009950+002	15	2.47134458838585875034+002
14	2.172600026920150422+002	14	2.4722407303932751+002	16	2.7914217538940932023+002
15	2.4725499386671270414+002	15	2.79223649188779862385+002	17	3.13151045594790654701+002
16	2.7925081560136/09831.002	16	3.1322328435086762487+002	18	3.49156873729009729919+002
17	3.1322436992991889981+002	17	3.49222969018617547910+002	19	3.87164755690161006525+002
18	3.4924447098310624758+002	18	3.8716475567539495+002	20	4.271016993966337725+002
19	3.87242010958401343206+002	19	4.27222455358929768337+002	21	4.69174730037146749970+002
20	4.2723906695/0/93728+002	20	4.692222-6988603936467+002	22	5.131672849630872222+002
21	4.69238887374208773065+002	21	5.13222062615120730875+002	23	5.5918221735421941776+002
22	5.1323650385161104948+002	22	5.5922189953904771437+002	24	6.072680012513606233+002
23	5.59235127749710226770+002	23	6.072221754686674544373+002	25	6.5718798342663626432+002
24	6.0723391354379388750+002	24	6.57221625502090642160+002	26	7.09190381643811087909+002
25	6.5723284002414/078063+002	25	7.09221509850589536679+002	27	7.631921963306478216+002
26	7.0923166624440675188+002	26	7.63221405938518924054+002	28	8.1919433343539774684+002
27	7.63231059038516104948+002	27	8.19223103225721405858343+002	29	8.77196153320237959397+002
28	8.19230272145138243925+002	28	9.3772211227521405858343+002	30	9.3719710492677010668+002
29	8.77229585/9297283475+002	29	9.377221150646311964912+002	31	9.991990494775203765+003
30	9.372288966053142278528+002	30	9.9922108069919817070+002	32	1.06322010688015980307+003
31	9.992288405/34612206+002	31	1.06322101688015980307+003	33	1.129220154704562278263+003
32	1.063228842402/22829+002	32	1.12922095850374976495+003	34	1.5627054320192617+003
33	1.1292242908432542656+003	33	1.1972209497145873164+003	35	1.2672058077482575175+003
34	1.1972270386954380044+003	34	1.26722085576124611299+003	36	1.339204735744023904+003
35	1.26722661464003024+003	35	1.3392208104059396861+003	37	1.413205295352168795+003
36	1.33922625615618948249+003	36	1.48922076459760214693+003	38	1.48922060534612951087+003
37	1.4132259560938/882976+003	37	1.48922072988927417302+003	39	1.5627054320192617+003
38	1.48922562077308976+003	38	1.56722069402961535399+003	40	1.64720740356860571536+003
39	1.567225306232386862+003	39	1.6472206607169023931+003	41	1.72922062997002317423+003
40	1.647225079/9638813793+003	40	1.72922062997002317423+003	42	1.81320856644722123955+003
41	1.72922483702852532837+003	41	1.813220608800797901+003	43	1.899220548832504522623+003
42	1.8132246132807022336+003	42	1.8992205739562913944+003	44	1.9872095752385786296+003
43	1.8992244022120178072+003	43	1.9872205487804451172+003	45	2.0722003020506656841+003
44	1.9872220206553134371522+003	44	2.07722052522798286158+003	46	2.16921456019455013+003
45	2.0772240238584738475+003	45	2.0772240238584738475+003	47	2.26322085506100019861+003
46	2.16922285221405729940+003	46	2.16922285221405729940+003	48	2.359221229573675433+003
47	2.2632233891572165823+003	47	2.2632233891572165823+003	49	2.4572219126839332335+003
48	2.3592224446277825111+003	48	2.3592224446277825111+003	50	2.5572204273060671687+003
49	2.4572224446277825111+003	49	2.4572224446277825111+003	51	2.65921222466076917672+003

PROLATE EIGENVALUES H = 4.00

		M = 0		M = 1		M = 2	
		EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	0	3.172067422 9745079378•000	1	4.3995930671655061046•000	2	7.903604960177934103•000	
	2	9.805943808883925•000	2	1.19487193889235199217•001	3	1.68129585075664979275•001	
	3	1.15026299961890925•001	3	1.9465260539663018161183053•001	4	2.6223486618161183053•001	
	4	2.10448960619428<551•001	4	2.791188168515852959602•001	5	3.69862675008479300216•001	
	5	2.854685473<67310232•001	5	3.8005632033554609182•001	6	4.934222843697206430•001	
	6	3.836714381284105099034•001	6	5.00222996403092619•001	7	6.3557753434877069234•001	
	7	5.025269752121•05879•001	7	6.40222996403092619•001	8	7.9652482373246331374•001	
	8	6.1446115075410•08905•001	8	8.0020292670794904112•001	9	9.7792401081891085442•001	
	9	6.01432348052347017667•001	9	9.80174261761923839212•001	10	1.17826437378919265885•002	
	10	9.8113805842828802•001	10	1.1801504493286634060•002	11	1.39821414058064239730•002	
	11	1.180926748•022<33•05•002	11	1.4001300959547390127•002	12	1.635051327891086070•002	
	12	1.14076963•148•273•01•002	12	1.640113062986160418901•002	13	1.89472946244230068783•002	
	13	1.6406495562684•472•35•002	13	1.90009887387849191433•002	14	2.17890625109111936097•002	
	14	1.90055619840275556182638•002	14	2.18002927553812638•002	15	2.47904816878109328950•002	
	15	2.1140410940•963•16078•002	15	2.4800770861454328803•002	16	2.791638972053•002	
	16	2.146042010•67•391395•002	16	2.8000686903835756433•002	17	3.13259559935382941•002	
	17	2.810324945291•23124•002	17	3.1400615521827483081•002	18	3.4993395645715831496•002	
	18	3.250294111936•393505•002	18	3.5000554226677169470•002	19	3.8794071821727764139•002	
	19	3.850264532•207•853626•002	19	3.8800501787272203788•002	20	4.2794685691415625710•002	
	20	4.2900456162611728111•002	20	4.2800456162611728111•002	21	4.6995145769350520356•002	
	21	4.7000416384754219675•002	21	4.7000416384754219675•002	22	5.13955731923533390813•002	
	22	4.78003217382•3740881396•002	22	5.1400615521827483081•002	23	5.595949151500108411•002	
	23	5.140198414•4914842•78•002	23	5.6000350790772381156•002	24	6.07962780867725278696•002	
	24	5.08181810•399039022•002	24	6.08003235900141162168•002	25	6.5765683544148186072•002	
	25	6.0016167246•267•257•62•002	25	6.580029940012315187377•002	26	7.096825094085541088•002	
	26	6.156154314•412•679•01•002	26	7.00002778008683•002	27	7.639905235089743051•002	
	27	7.100142651•8•6056612•002	27	7.6400258434336897616•002	28	8.1997265071015746386•002	
	28	7.640132620•9•0•17•79•002	28	8.20002410088069102080•002	29	8.7797450862465567308•002	
	29	8.12002115222•6057668280•002	29	8.78002252748964343633•002	30	9.3797611511661393152•002	
	30	9.3800211022252354904•002	30	9.3800211022252354904•002	31	9.39976214360612204408•002	
	31	1.0000198071951873044•003	31	1.0000198071951873044•003	32	1.063979892430458023•003	
	32	1.064001866271085615645•003	32	1.064001866271085615645•003	33	1.1298023505612928861•003	
	33	1.130404202840384940583•003	33	1.130404202840384940583•003	34	1.1997813729972999571•003	
	34	1.1500204918•7613540314•003	34	1.1980016561067668073•003	35	1.2679824151979197018•003	
	35	1.17401234510/2•1343394•003	35	1.26800156539491189962•003	36	1.3399d3372127829029•003	
	36	1.17481040417•406•7162•42•003	36	1.34000148191191521599•003	37	1.41398425285973934386•003	
	37	1.1750019120•4965633966•003	37	1.414000490019953572•003	38	1.489985065299019066143•003	
	38	1.1750019120•4965633966•003	38	1.49000133371806113633•003	39	1.56785163161762615•003	
	39	1.1750019120•4965633966•003	39	1.56800126778491469868•003	40	1.6798651198309948676•003	
	40	1.1750019120•4965633966•003	40	1.6480012066073851196•003	41	1.72998715761217195207•003	
	41	1.1750019120•4965633966•003	41	1.73000114973882386939•003	42	1.8339877578955877251•003	
	42	1.1750019120•4965633966•003	42	1.8140010967837515703•003	43	1.899883169893563618•003	
	43	1.1750019120•4965633966•003	43	1.9000010473940039900•003	44	1.981988385833377122•003	
	44	1.1750019120•4965633966•003	44	1.98800100125703392085•003	45	2.079893259616265430•003	
	45	1.1750019120•4965633966•003	45	2.0780009580367634762•003	46	2.16998978205707908104•003	
	46	1.1750019120•4965633966•003	46	2.1700009176583956574•003	47	2.2639902094943616977•003	
	47	1.1750019120•4965633966•003	47	2.2640008791658322217•003	48	2.35999061062789920746•003	
	48	1.1750019120•4965633966•003	48	2.3600008440744703084•003	49	2.4579909875750594233•003	
	49	2.360000422539•003	49	2.4580008105580465071•003	50	2.5579913422446007533•003	
	50	2.45800077898857174414•003	50	2.6559916735847642073•003			

PROLATE EIGENVALUES M = 4,20

M = 0		EIGENVALUE	
L	U	L	U
0	3.577750613286432481+000	1	4,58671645538795326367+000
1	1.0424264618432979061868+001	2	1.2468899384333128818+001
2	1.6251943402152531+001	3	2.0201832716280609356+001
3	2.2051504132154171523+001	4	2.873551829317927065+001
4	2.95316167257950487017+001	5	3.884714155685047135+001
5	3.9260397791806277581+001	6	5.086181351619287382+001
6	5.112218678606277581+001	7	6.485907936168966362+001
7	6.5042307581545344931+001	8	8.0853774764453321161+001
8	8.091003227934944917+001	9	9.884873981564102874+001
9	9.495583391521472062+001	10	1.188447375049135041+002
10	1.143059456822050847+002	11	1.408409680569104294+002
11	1.409118377951730251+002	12	1.6483810356133745881+002
12	1.648975042297489866+002	13	1.90835755282270587+002
13	1.95862975482942791+002	14	2.18833816128453804221+002
14	2.1987736627249022165+002	15	2.488322027892206591+002
15	2.488701313326+28122+002	16	2.80830475094427607+002
16	2.8086418745834235260+002	17	3.148297021908347638+002
17	3.1485924329305845+002	18	3.50828753229595952+002
18	3.549553887785782205612+002	19	3.88827886408203900+002
19	3.885155972245+843402+002	20	4.2882716166551524320+002
20	4.24853920294134812+002	21	4.706265309164748281+002
21	4.7084593322469945152+002	22	5.14829579660595959975+002
22	5.14935622669945152+002	23	5.60825493615321395+002
23	5.60841689217793207506+002	24	6.08825064646097287588+002
24	6.09539994821052276025+002	25	6.5802468350470099139+002
25	6.2195843920294197+400594+002	26	7.1078625159635423210+002
26	7.1283704141222+37722+002	27	7.6482403900431862215+002
27	7.6484366901906144+002	28	8.0279088073256899194+002
28	8.124347270762258720+002	29	8.78792844778246045977+002
29	8.74537463294632050+002	30	9.3879461590437720354+002
30	9.353265445266062094+002	31	1.00082309157911466589+003
31	1.010382049162+93322+003	32	1.0647976738603963918+003
32	1.064822906570079963+003	33	1.1307989990660268415+003
33	1.1308227377738637708+003	34	1.1988020293718858843+003
34	1.1988219758437848631+003	35	1.2688013377203804646+003
35	1.26882441889248163+003	36	1.340802330277370+003
36	1.34082231058872349174+003	37	1.4148032771759240133+003
37	1.41482190160943262+003	38	1.4908041354579115381+003
38	1.490820748879428678+003	39	1.5688049384891720996+003
39	1.5688219758437848631+003	40	1.6488056336858980+003
40	1.64882188021614742472+003	41	1.730806359577059714+003
41	1.7308217914322105939+003	42	1.8148213694777667450+003
42	1.81482170613693196288+003	43	1.900821631624412350599+003
43	1.900821631624412350599+003	44	1.98808160745924180+003
44	1.98808160745924180+003	45	2.07882149223969834625+003
45	2.07882149223969834625+003	46	2.170821422137931890+003
46	2.170821422137931890+003	47	2.264809608094535050+003
47	2.3608213135310521106+003	48	2.3608213135310521106+003
48	2.458810495053472579+003	49	2.55881080631154380665+003
49	2.55881080631154380665+003	50	2.55881080631154380665+003
50	2.55881080631154380665+003	51	2.660811116126708009681+003

PROBLATE EIGENVALUES H = 4.40

M = 1

M = 2

EIGENVALUE		EIGENVALUE	
L	M	L	M
1	4.775624802288950805447*000	2	8.23287544038668295444*000
1	1.1045729426/335205360894*001	2	1.77596234070532667263*001
2	1.719019980226230894*001	3	2.096511678635241257595757*001
3	2.3108886785*08/98475*001	4	2.7558709288976211*001
4	3.0537604277553256217*001	5	3.845775778826553398*001
5	4.02048942771943601684*001	6	5.09888218259545168838*001
6	5.20356520466610465214*001	7	6.5135833010777153459*001
7	6.59437364109128520001	8	8.127706844194129706*001
8	8.148276205454/069941*001	9	9.3684381496661499923*001
9	9.9441016961598*177*001	10	1.19431249344920740979*002
10	1.19811027782630438686*002	11	1.41764445265154365282*002
11	1.417886361611822866*002	12	1.6570635853805888109*002
12	1.657718434474<26217*002	13	1.9153597675387325591*002
13	1.91702878381357510848*002	14	2.195562545658530337*002
14	2.1975859714801001138016*002	15	2.4957247806995353496*002
15	2.49697654714361011444*002	16	2.8185671420603878042*002
16	2.816956749492049570406*002	17	3.15596552007600249608*002
17	3.15694004624203855001*002	18	3.5105635163286388035*002
18	3.51726493036/095*002	19	3.89613299246723412525*002
19	3.89717392644053494*002	20	4.298118237982570048*002
20	4.2969031446472337010*002	21	4.7162543499368576955*002
21	4.7168940116750123688*002	22	5.15630288466442528841*002
22	5.15687901347662264998*002	23	5.61687937279313*002
23	5.61705697219334964*002	24	6.19382267434697416*002
24	6.197036344674056122*002	25	6.5964149724169000485*002
25	6.59701810612743275924*002	26	7.1164396255317728222*002
26	7.11700192791983<403617*002	27	7.656858022973797112*002
27	7.65698744245/423164*002	28	8.21649287980295890663*002
28	8.2169744321935027019*002	29	8.79651362660817205901*002
29	8.79696283354167405612*002	30	9.3965323509860245068*002
30	9.39695229587538579*002	31	1.0016443798008146448*003
31	1.00169427529142937*003	32	1.056564124124613570177540*003
32	1.0626993292864079*003	33	1.131657860527472027*003
33	1.131692618521441489*003	34	1.19965913792194502023*003
34	1.199691896882035d82*003	35	1.2696603075216356282*003
35	1.2696912341125334214*003	36	1.3416613811628252583*003
36	1.3416906227350522/0501*003	37	1.415662369151185649*003
37	1.416900661429402601*003	38	1.4916632803143512798*103
38	1.491689549262/220215*003	39	1.5696641226662370157*003
39	1.569689071462087693*003	40	1.64966490241449040403*003
40	1.649688628*003	41	1.73166562615059867450*003
41	1.73168821665204497*003	42	1.81566629896019351697*003
42	1.815687834142983102*003	43	1.90166824503071206098*003
43	1.90168747788537326*003	44	1.9896675098392206736*003
44	1.9896871450420053708*003	45	2.079682236226955468*003
45	2.079686834496621208*003	46	2.171682049586844055*003
46	2.1716865421683134677*003	47	2.2656819640154390086*003
47	2.2656862701015145820*003	48	2.361681884212096343*003
48	2.361686013061/809129960*003	49	2.45968180920780922960*003
49	2.459685773-C3d139579*003	50	2.6616706885853620571*003

PROLATE EIGENVALUES $\lambda = 4.60$ $M = 0$

L	EIGENVALUE	L	EIGENVALUE
0	3.78742741956673378924*000	1	4.96603213815058711605*000
1	1.166787169375489406*001	2	1.96603213815058711605*000
2	1.81681511401938083824*001	3	2.1753367527790558426*001
3	2.4219100840119364*001	4	3.0502685397600307192*001
4	3.1596532235637268294*001	5	4.0634703665089996935*001
5	4.1201901431969175077*001	6	5.2576285046137409864*001
6	5.3003795689510843*001	7	6.6664213009854084630*001
7	6.6890919101243260565*001	8	8.265056585261678252*001
8	8.281889538296994623*001	9	1.0063897794453714462*002
9	1.007696586701817965*002	10	1.20629650006688706772*002
10	1.20734369704419433*002	11	1.42622203655516305932*002
11	1.427081592100913141*002	12	1.6661623052207301430*002
12	1.6668814322487428374*002	13	1.9261139514348050310*002
13	1.926724984661984068684*002	14	2.05064017401816273269*002
14	2.0660036169092119102*002	15	2.05064171531816273269*002
15	2.5064993739524252*002	16	2.826014435223938309*002
16	2.82641639<800832259*002	17	3.16599145665916273617*002
17	3.16634719359612795818*002	18	3.5259719359612795818*002
18	3.526289442248623461*002	19	3.9059552225946732221*002
19	3.906240230317767811*002	20	4.3059408094606247882*002
20	4.3060567823870298894021*002	21	4.72592829735624705942*002
21	4.72616170735441523*002	22	5.16591736921336102118*002
22	5.166130154295<8865/1*002	23	5.625907701626601649*002
23	5.6261025194266216475*002	24	6.10589929605651492767*002
24	6.106027734268523854*002	25	6.60591773534268523854*002
25	6.6060567823870298894022*002	26	7.12588450773918624647*002
26	7.12603769637503962*002	27	7.6558790816123002214*002
27	7.6660206212251405228*002	28	8.2258736953852083010*002
28	8.226688390548052083010*002	29	8.805503233690611864*002
29	8.8055991679071933749*002	30	9.405864455934526336*002
30	9.4059792251615250711*002	31	1.002586045894904495*003
31	1.002596302558737206*003	32	1.06658568287339080958*003
32	1.066595705494<66502*003	33	1.1325853515990220869*003
33	1.132594854416523191*003	34	1.205850482367897693*003
34	1.2059940482367897693*003	35	1.270584770033602969*003
35	1.27059322597319958*003	36	1.3425845141884529789*013
36	1.342592515265451*003	37	1.4165615632007460921*003
37	1.416591849746085248*003	38	1.492584406028963160*003
38	1.49259124158082269*003	39	1.5705854855912550513*003
39	1.57059061837583215*003	40	1.65058536714789724584*013
40	1.65059017803748*003	41	1.732583976158314339*003
41	1.732583976158314339*003	42	1.81658333582133570841*03
42	1.8165839223005830131*03	43	1.9025831849006481042*03
43	1.9025831849006481042*03	44	1.99058304412685941965*003
44	1.99058304412685941965*003	45	2.081582912403927829*003
45	2.081582912403927829*003	46	2.1725827890007200296*003
46	2.17258770213760694*003	47	2.265826733282404023*003
47	2.265826733282404023*003	48	2.36258256466346331448*003
48	2.36258731190742530*003	49	2.46248659144737*003
49	2.46248659144737*003	50	2.56058236622842301676*003
50	2.56058236622842301676*003	51	2.6625702679614226656*003

 $M = 1$

L	EIGENVALUE	L	EIGENVALUE
0	3.78742741956673378924*000	1	4.96603213815058711605*000
1	1.166787169375489406*001	2	1.96603213815058711605*000
2	1.81681511401938083824*001	3	2.1753367527790558426*001
3	2.4219100840119364*001	4	3.0502685397600307192*001
4	3.1596532235637268294*001	5	4.0634703665089996935*001
5	4.1201901431969175077*001	6	5.2576285046137409864*001
6	5.3003795689510843*001	7	6.6664213009854084630*001
7	6.6890919101243260565*001	8	8.265056585261678252*001
8	8.281889538296994623*001	9	1.0063897794453714462*002
9	1.007696586701817965*002	10	1.20629650006688706772*002
10	1.20734369704419433*002	11	1.42622203655516305932*002
11	1.427081592100913141*002	12	1.6661623052207301430*002
12	1.6668814322487428374*002	13	1.9261139514348050310*002
13	1.926724984661984068684*002	14	2.05064017401816273269*002
14	2.0660036169092119102*002	15	2.05064171531816273269*002
15	2.5064993739524252*002	16	2.826014435223938309*002
16	2.82641639<800832259*002	17	3.16599145665916273617*002
17	3.16634719359612795818*002	18	3.5259719359612795818*002
18	3.526289442248623461*002	19	3.9059552225946732221*002
19	3.906240230317767811*002	20	4.3059408094606247882*002
20	4.3060567823870298894021*002	21	4.72592829735624705942*002
21	4.72616170735441523*002	22	5.16591736921336102118*002
22	5.166130154295<8865/1*002	23	5.625907701626601649*002
23	5.6261025194266216475*002	24	6.10589929605651492767*002
24	6.106027734268523854*002	25	6.60591773534268523854*002
25	6.6060567823870298894022*002	26	7.12588450773918624647*002
26	7.12603769637503962*002	27	7.6558790816123002214*002
27	7.6660206212251405228*002	28	8.2258736953852083010*002
28	8.226688390548052083010*002	29	8.805503233690611864*002
29	8.805991679071933749*002	30	9.405864455934526336*002
30	9.4059792251615250711*002	31	1.002586045894904495*003
31	1.002596302558737206*003	32	1.06658568287339080958*003
32	1.066595705494<66502*003	33	1.1325853515990220869*003
33	1.132594854416523191*003	34	1.205850482367897693*003
34	1.2059940482367897693*003	35	1.270584770033602969*003
35	1.27059322597319958*003	36	1.3425845141884529789*013
36	1.342592515265451*003	37	1.4165615632007460921*003
37	1.416591849746085248*003	38	1.492584406028963160*003
38	1.49259124158082269*003	39	1.5705854855912550513*003
39	1.57059061837583215*003	40	1.65058536714789724584*013
40	1.65059017803748*003	41	1.732583976158314339*003
41	1.732583976158314339*003	42	1.81658333582133570841*03
42	1.8165839223005830131*03	43	1.9025831849006481042*03
43	1.9025831849006481042*03	44	1.99058304412685941965*003
44	1.99058304412685941965*003	45	2.081582912403927829*003
45	2.081582912403927829*003	46	2.1725827890007200296*003
46	2.17258770213760694*003	47	2.265826733282404023*003
47	2.265826733282404023*003	48	2.36258256466346331448*003
48	2.36258731190742530*003	49	2.46248659144737*003
49	2.46248659144737*003	50	2.56058236622842301676*003
50	2.56058236622842301676*003	51	2.6625702679614226656*003

 $M = 2$

L	EIGENVALUE
0	8.4019265667333717693*000
1	1.813563143903*001
2	2.822719407245388663*001
3	3.9237689332384682477*001
4	5.17342231713205083*001
5	6.599088699372005305*001
6	8.214971473091010435*001
7	1.002488781830230378*002
8	1.002488781830230378*002
9	1.203164177486944537522*002
10	1.423683207245388663*002
11	1.66400780764218814398*002
12	1.922826294729002979*002
13	2.04497754445182585*002
14	2.203164177486944537522*002
15	2.506695614063501411*002
16	2.82480103318896274495*002
17	3.1692369949768646207*002
18	3.5250196809918792315*002
19	3.90564043729634460*002
20	4.30564913562163337576*002
21	4.722281202655021792*002
22	5.16279140374944797*002
23	5.6253235804816525522*002
24	6.103625253446177913*002
25	6.605368561483338539*002
26	7.12527761642559839*002
27	7.655436086187155*002
28	8.2254185821427669039*002
29	8.805503233690611864*002
30	9.405599376975890911*002
31	1.065553767825611453*003
32	1.1325853515990220869*003
33	1.205850482367897693*003
34	1.270584770033602969*003
35	1.3425845141884529789*013
36	1.4165615632007460921*003
37</	

PROLATE EIGENVALUES $\lambda = 4.00$

$\lambda = 0$		$\lambda = 1$		$\lambda = 2$		EIGENVALUE	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	3.9915000250<0.0497538617+000	1	5.15769824623971302612+000	2	0.57361336879370149203+000	2	0.57361336879370149203+000
1	1.229009278547037071+001	2	1.40649776039136598638+001	3	1.06649776039021568570180+001	3	1.06649776039021568570180+001
2	1.9164951261427005068+001	3	2.2564799003691028651001	4	2.09171716885050510031+001	4	2.09171716885050510031+001
3	2.537960154570789054+001	4	3.14438194504608154686+001	5	4.0049637840453568317+001	5	4.0049637840453568317+001
4	3.2716088864995/912540+001	5	4.1638520296704249985+001	6	5.2603398363959329380+001	6	5.2603398363959329380+001
5	4.2252784927792/8160942+001	6	5.3651205754907246148+001	7	6.6893968755391346026+001	7	6.6893968755391346026+001
6	5.4017500353999105261+001	7	6.7365121612183050262+001	8	8.049357098865361+001	8	8.049357098865361+001
7	6.7884404364024/504352+001	8	6.36142712248472199929+001	9	1.0116986559417125097+001	9	1.0116986559417125097+001
8	8.37998098827235951223+001	9	1.01598851831662849752+002	10	1.21242394459934008769+002	10	1.21242394459934008769+002
9	1.01742066704230380964+002	10	1.215858594879355165229+002	11	1.4329400907962026441+002	11	1.4329400907962026441+002
10	1.217007139052893601+002	11	1.4357565654407653331382+002	12	1.67332163218010186859+002	12	1.67332163218010186859+002
11	1.436700017827684882694+002	12	1.675678870572953162+002	13	1.93361229570922323633+002	13	1.93361229570922323633+002
12	1.67646577649402113346+002	13	1.935615023384270167+002	14	2.21383920973516471979+002	14	2.21383920973516471979+002
13	1.936282598786603147872+002	14	2.215561695070899849+002	15	2.5140199833034201235+002	15	2.5140199833034201235+002
14	2.21613666625019022550152+002	15	2.8554851863232981520053+002	16	2.834166480015135374469+002	16	2.834166480015135374469+002
15	2.5160184676921785763+002	16	2.83548515333310694612+002	17	3.1742866946402356728595+002	17	3.1742866946402356728595+002
16	2.83592138557676/27705+002	17	3.17545212371232349137+002	18	3.53438072674877530900+002	18	3.53438072674877530900+002
17	3.17584064835603636084+002	18	3.5354233310186279473+002	19	3.9144717407701533353+002	19	3.9144717407701533353+002
18	3.53577277936542434422+002	19	3.91540264067531968+002	20	4.3145435668121967593+002	20	4.3145435668121967593+002
19	4.315715172968387868702+002	20	4.31535246691325079883+002	21	4.73460517110592760192+002	21	4.73460517110592760192+002
20	4.316665658630577/791418+002	21	4.735367467628137698+002	22	5.1746584202681246208+002	22	5.1746584202681246208+002
21	4.7356233083195332230+002	22	5.17535342066271050526+002	23	5.634348494970739249+002	23	5.634348494970739249+002
22	5.17558634353358149086+002	23	5.63534348494970739249+002	24	6.1147453726173724868+002	24	6.1147453726173724868+002
23	5.6355402631191318925+002	24	6.115390325576086229+002	25	6.61478114492680100804+002	25	6.61478114492680100804+002
24	6.11552661205/679627+002	25	6.1282885400216193+002	26	7.1348126885400216193+002	26	7.1348126885400216193+002
25	6.61550047178005019707+002	26	7.1353110124197111230+002	27	7.67484102797060347356+002	27	7.67484102797060347356+002
26	7.1354781503422678590+002	27	7.675303092143569141703+002	28	8.2348662379061442554+002	28	8.2348662379061442554+002
27	7.6754582273576739901+002	28	8.2352980306224553926+002	29	8.8148686876766202411+002	29	8.8148686876766202411+002
28	8.235403126272/070794+002	29	8.81529044519670367555+002	30	9.4149092623742472522+002	30	9.4149092623742472522+002
29	8.6154243082839287071+002	30	9.415288466304490962+002	31	1.0674944400192503834+003	31	1.0674944400192503834+003
30	9.4154098852551498040+002	31	1.035294223943266302+003	32	1.1334959671979785152+003	32	1.1334959671979785152+003
31	1.035396669011269715+003	32	1.067524649615716124+003	33	1.2014973576240433312+003	33	1.2014973576240433312+003
32	1.0675384123508564042+003	33	1.13352293373243914+003	34	1.271498330311037032+003	34	1.271498330311037032+003
33	1.133537838325002800+003	34	1.271526306599763039+003	35	1.3714998347337327977994+003	35	1.3714998347337327977994+003
34	1.201536362422/321918+003	35	1.343529284979842951+003	36	1.4175008772023031836+003	36	1.4175008772023031836+003
35	1.271535465715597062+003	36	1.417529332083681206552+003	37	1.49350163479200088+003	37	1.49350163479200088+003
36	1.3435346368/0120984280+003	37	1.417526183681206552+003	38	1.57150227789215467762+003	38	1.57150227789215467762+003
37	1.4175384123508564042+003	38	1.4175323320311037032+003	39	1.6515036265566870349+003	39	1.6515036265566870349+003
38	1.493533173861113548864+003	39	1.57152906639304201403+003	40	1.7335044129626326682+003	40	1.7335044129626326682+003
39	1.57153246368011633860+003	40	1.651528211010246314+003	41	1.81750951438938766708+003	41	1.81750951438938766708+003
40	1.65153188602379002+003	41	1.735254592698762294+003	42	2.3635082445496137191+003	42	2.3635082445496137191+003
41	1.7335313393453876523+003	42	1.8175243001274792291+003	43	1.9915064591929408561+003	43	1.9915064591929408561+003
42	1.8175307226443233136+003	43	1.9915299691707891809+003	44	2.0815070521396992922+003	44	2.0815070521396992922+003
43	1.90353030117386332932+003	44	1.9915299691707891809+003	45	2.1735076068837332777+003	45	2.1735076068837332777+003
44	1.99152982668/0990618+003	45	2.081538238755205276+003	46	2.2675081266531926163+003	46	2.2675081266531926163+003
45	2.0815294444541072581+003	46	2.17352366180666044+003	47	2.36350861433065571171+003	47	2.36350861433065571171+003
46	2.173529003454963266850+003	47	2.26752350983558104171+003	48	2.4615090725090176269+003	48	2.4615090725090176269+003
47	2.26752863176245159141+003	48	2.363523367109546592+003	49	2.5615095035266852995+003	49	2.5615095035266852995+003
48	2.36352828430325461+003	49	2.4615232329081637325+003	50	2.66350990949102696903+003	50	2.66350990949102696903+003

PROLATE EIGENVALUES $\mu = 5.00$		
$\nu = 0$		
L	EIGENVALUE	EIGENVALUE
0	4.19512867261637171649e+000	8.35042229646413203293e+000
1	1.2911702325043939760e+001	1.46425624868199202e+001
2	2.01765147202337672861e+001	2.339761312481093532e+001
3	2.658725567073977374e+001	2.247143568000319296e+001
4	3.3497096n9.4675884665e+001	4.265818215186618719e+001
5	4.3354895e1228786275e+001	5.265818215186618719e+001
6	5.50ans56223515137725374e+001	6.467179670882892573e+001
7	6.89247245061771406e+001	7.8647260383972129377e+001
8	8.4825530e61399a220690e+001	8.4621683476104154320e+001
9	1.027585613n10e779975e+002	9.02601215261776378044e+002
10	1.22771038898544013672e+002	1.2258479252779643759e+002
11	1.44571828C3933684615e+002	1.44571828C3933684615e+002
12	1.6456150600189327563e+002	1.6456150600189327563e+002
13	1.866473249864141971e+002	1.9455e194790547586151e+002
14	2.0267650167310e727438e+002	2.0238e4238e4055020725e+002
15	2.52595257290089719164e+002	2.5254e8452e010339753e+002
16	2.87556216224912e+002	2.8453e20047830242908e+002
17	3.185322956933080890e+002	3.18405556066401109e+002
18	3.545298369905895156e+002	3.5441598761110459887e+002
19	3.9252e15152644258187e+002	3.9242766813315880711e+002
20	4.3252e7122466628503e+002	4.323221994068063351e+002
21	4.74521596682372673500e+002	4.744386012793064996e+002
22	5.185174556725874H316e+002	5.1844412506872853487e+002
23	5.6451129147807127339e+002	5.64489270000046711e+002
24	6.1251e69921930304243e+002	6.124568227817303400e+002
25	6.6251e31219463912175e+002	6.624568227817303400e+002
26	7.14521291148758158e+002	7.144501090759177934e+002
27	7.6851e1291148758158e+002	7.684630161822861618e+002
28	8.2451e384C89n5895269e+002	8.246561457344054493e+002
29	8.7251e15662254346770e+002	8.724679509966115374e+002
30	9.4252e103547122349e+002	9.4247060602547459192e+002
31	1.0645e9548021908500e+003	1.0645e9548021908500e+003
32	1.1345e8947231593n924e+003	1.13447520544096379e+003
33	1.2452e10512e113e11532e+002	1.2024766928463024758e+003
34	1.2452e10512e113e11532e+002	1.2274780639269333001e+003
35	1.3445e842664492489826e+002	1.344792102997559419e+003
36	1.4445e75751343031945e+003	1.418480376267612238e+003
37	1.4185e71825081270665e+003	1.494481386772103652e+003
38	1.4945e681e26155565e+003	1.49448548472255385e+003
39	1.5725e6477161948469e+003	1.592486020583405211e+003
40	1.6525e1627576702682e+003	1.6524831518364125203e+003
41	1.7345e5876672004710e+003	1.734483948432041772e+003
42	1.8145e5598e810899678e+003	1.81448471742835811149e+003
43	1.9045e5345e212001015e+003	1.90448548472255385e+003
44	1.9925e510811638472e+003	1.992486020583405211e+003
45	2.0825e4887518988P237e+003	2.08248662552765706e+003
46	2.1745e468834344676209e+003	2.1744872536709551062e+003
47	2.2685e448e0228e086498e+003	2.2684877807359129521e+003
48	2.3644882e7263528736e+003	2.3644882e7263528736e+003
49	2.4624887431899546454e+003	2.4624887431899546454e+003
50	2.56248920524646438e+003	2.56248920524646438e+003
51	2.664489662371913986224e+003	2.664489662371913986224e+003

M = 2		
L	EIGENVALUE	EIGENVALUE
1	8.35042229646413203293e+000	8.74767425193947245198e+000
2	1.46425624868199202e+001	1.9135981e10357872662e+001
3	2.339761312481093532e+001	2.9287846135243820314e+001
4	2.247143568000319296e+001	4.0892932687926734905e+001
5	4.265818215186618719e+001	5.3514570255303765520e+001
6	5.50ans56223515137725374e+001	6.8323043416743335e+001
7	6.8647260383972129377e+001	6.467179670882892573e+001
8	8.4621683476104154320e+001	8.46213188351693370931e+001
9	1.02601215261776378044e+002	1.22093569e90482510e+002
10	1.2258479252779643759e+002	1.4426414362802029955e+002
11	1.44571828C3933684615e+002	1.683043416743335e+002
12	1.6456150600189327563e+002	1.943350793517973931e+002
13	1.9455e194790547586151e+002	2.223588019941615434e+002
14	2.2452e15152644258187e+002	2.523777609503028593e+002
15	2.5254e8452e010339753e+002	2.839299406324112e+002
16	2.8453e20047830242908e+002	3.18405556066401109e+002
17	3.185322956933080890e+002	3.5441598761110459887e+002
18	3.545298369905895156e+002	3.9242766813315880711e+002
19	3.9252e15152644258187e+002	4.323221994068063351e+002
20	4.3252e7122466628503e+002	4.744386012793064996e+002
21	4.74521596682372673500e+002	5.1844412506872853487e+002
22	5.185174556725874H316e+002	5.64448927000046711e+002
23	5.6451129147807127339e+002	6.124531269487623104e+002
24	6.1251e69921930304243e+002	6.624568227817303400e+002
25	6.6251e31219463912175e+002	7.144501090759177934e+002
26	7.14521291148758158e+002	7.684630161822861618e+002
27	7.6851e1291148758158e+002	8.246561457344054493e+002
28	8.2451e384C89n5895269e+002	8.824679509966115374e+002
29	8.7251e15662254346770e+002	9.4247060602547459192e+002
30	9.4252e103547122349e+002	9.924780639269333001e+002
31	1.0645e9548021908500e+003	1.064471931982371724e+003
32	1.1345e8947231593n924e+003	1.13447520544096379e+003
33	1.2452e10512e113e11532e+002	1.2024766928463024758e+003
34	1.2452e10512e113e11532e+002	1.2274780639269333001e+003
35	1.3445e842664492489826e+002	1.344792102997559419e+003
36	1.4445e75751343031945e+003	1.418480376267612238e+003
37	1.4185e71825081270747826e+003	1.494481386772103652e+003
38	1.4945e681e26155565e+003	1.49448548472255385e+003
39	1.5725e6477161948469e+003	1.592486020583405211e+003
40	1.6525e1627576702682e+003	1.6524831518364125203e+003
41	1.7345e5876672004710e+003	1.734483948432041772e+003
42	1.8145e5598e810899678e+003	1.81448471742835811149e+003
43	1.9045e5345e212001015e+003	1.90448548472255385e+003
44	1.9925e510811638472e+003	1.992486020583405211e+003
45	2.0825e4887518988P237e+003	2.08248662552765706e+003
46	2.1745e468834344676209e+003	2.1744872536709551062e+003
47	2.2685e448e0228e086498e+003	2.2684877807359129521e+003
48	2.3644882e7263528736e+003	2.3644882e7263528736e+003
49	2.4624887431899546454e+003	2.4624887431899546454e+003
50	2.56248920524646438e+003	2.56248920524646438e+003
51	2.664489662371913986224e+003	2.664489662371913986224e+003

PRALATE EIGENVALUES W = 5.20

W = r

W = 1

EIGENVALUE

L	C	4.39836411499704600892+000
1	1.353203737902+7.20508+001	1
2	1.5204266311433720664+001	2
3	2.4250014258158799655+001	3
4	3.43575027871676275+001	4
5	4.37228808018157389+001	5
6	5.5738418530706457596+001	6
7	6.8810911444702436849+001	7
8	8.923877234061985720+000	8
9	1.96313497246708954983+001	9
10	3.036056662361270905+001	10
11	4.176683231048743855+001	11
12	5.1456703592195548839+001	12
13	6.1050110449263531366+001	13
14	7.1031350196727162288+001	14
15	8.10232174929397377202+002	15
16	9.1045275396524908756+002	16
17	10.106931724353088553956+002	17
18	11.1069592671378194155+002	18
19	12.109558628678530444209+002	19
20	13.10936475251997996195+002	20
21	14.10736267184427557012+002	21
22	15.10645105516277369160+002	22
23	16.1069592671378194155+002	23
24	17.109558628678530444209+002	24
25	18.10936475251997996195+002	25
26	19.10736267184427557012+002	26
27	20.10645105516277369160+002	27
28	21.1069592671378194155+002	28
29	22.109558628678530444209+002	29
30	23.10936475251997996195+002	30
31	24.10736267184427557012+002	31
32	25.10645105516277369160+002	32
33	26.1069592671378194155+002	33
34	27.109558628678530444209+002	34
35	28.10936475251997996195+002	35
36	29.10736267184427557012+002	36
37	30.10645105516277369160+002	37
38	31.1069592671378194155+002	38
39	32.109558628678530444209+002	39
40	33.10936475251997996195+002	40
41	34.10736267184427557012+002	41
42	35.10645105516277369160+002	42
43	36.1069592671378194155+002	43
44	37.109558628678530444209+002	44
45	38.10936475251997996195+002	45
46	39.10736267184427557012+002	46
47	40.10645105516277369160+002	47
48	41.1069592671378194155+002	48
49	42.109558628678530444209+002	49
50	43.10936475251997996195+002	50
51	44.2.66550942163924115140+003	51

EIGENVALUE

L	C	8.923877234061985720+000
2	1.5204266311433720664+001	3
3	2.4250014258158799655+001	4
4	3.43575027871676275+001	5
5	4.37228808018157389+001	6
6	5.5738418530706457596+001	7
7	6.8810911444702436849+001	8
8	8.923877234061985720+000	9
9	1.96313497246708954983+001	10
10	3.036056662361270905+001	11
11	4.176683231048743855+001	12
12	5.1456703592195548839+001	13
13	6.1050110449263531366+001	14
14	7.1031350196727162288+001	15
15	8.10232174929397377202+002	16
16	9.1045275396524908756+002	17
17	10.106931724353088553956+002	18
18	11.1069592671378194155+002	19
19	12.109558628678530444209+002	20
20	13.10936475251997996195+002	21
21	14.10736267184427557012+002	22
22	15.10645105516277369160+002	23
23	16.1069592671378194155+002	24
24	17.109558628678530444209+002	25
25	18.10936475251997996195+002	26
26	19.10736267184427557012+002	27
27	20.10645105516277369160+002	28
28	21.1069592671378194155+002	29
29	22.109558628678530444209+002	30
30	23.10936475251997996195+002	31
31	24.10736267184427557012+002	32
32	25.10645105516277369160+002	33
33	26.1069592671378194155+002	34
34	27.109558628678530444209+002	35
35	28.10936475251997996195+002	36
36	29.10736267184427557012+002	37
37	30.10645105516277369160+002	38
38	31.1069592671378194155+002	39
39	32.109558628678530444209+002	40
40	33.10936475251997996195+002	41
41	34.10736267184427557012+002	42
42	35.10645105516277369160+002	43
43	36.1069592671378194155+002	44
44	37.109558628678530444209+002	45
45	38.10936475251997996195+002	46
46	39.10736267184427557012+002	47
47	40.10645105516277369160+002	48
48	41.1069592671378194155+002	49
49	42.109558628678530444209+002	50
50	43.10936475251997996195+002	51

EIGENVALUE

L	C	8.923877234061985720+000
2	1.5204266311433720664+001	3
3	2.4250014258158799655+001	4
4	3.43575027871676275+001	5
5	4.37228808018157389+001	6
6	5.5738418530706457596+001	7
7	6.8810911444702436849+001	8
8	8.923877234061985720+000	9
9	1.96313497246708954983+001	10
10	3.036056662361270905+001	11
11	4.176683231048743855+001	12
12	5.1456703592195548839+001	13
13	6.1050110449263531366+001	14
14	7.1031350196727162288+001	15
15	8.10232174929397377202+002	16
16	9.1045275396524908756+002	17
17	10.106931724353088553956+002	18
18	11.1069592671378194155+002	19
19	12.109558628678530444209+002	20
20	13.10936475251997996195+002	21
21	14.10736267184427557012+002	22
22	15.10645105516277369160+002	23
23	16.1069592671378194155+002	24
24	17.109558628678530444209+002	25
25	18.10936475251997996195+002	26
26	19.10736267184427557012+002	27
27	20.10645105516277369160+002	28
28	21.1069592671378194155+002	29
29	22.109558628678530444209+002	30
30	23.10936475251997996195+002	31
31	24.10736267184427557012+002	32
32	25.10645105516277369160+002	33
33	26.1069592671378194155+002	34
34	27.109558628678530444209+002	35
35	28.10936475251997996195+002	36
36	29.10736267184427557012+002	37
37	30.10645105516277369160+002	38
38	31.1069592671378194155+002	39
39	32.109558628678530444209+002	40
40	33.10936475251997996195+002	41
41	34.10736267184427557012+002	42
42	35.10645105516277369160+002	43
43	36.1069592671378194155+002	44
44	37.109558628678530444209+002	45
45	38.10936475251997996195+002	46
46	39.10736267184427557012+002	47
47	40.10645105516277369160+002	48
48	41.1069592671378194155+002	49
49	42.109558628678530444209+002	50

PROLATE EIGENVALUES $H = 5.40$		
L	EIGENVALUE	EIGENVALUE
0	4.6015424629527660831+000	2
1	1.4151813171494349598+001	1
2	2.22322564214412891+001	2
3	2.9130228154424828363+001	3
4	3.244453093718721044+001	4
5	4.57445175207412108375+001	5
6	5.7361151960406518557+001	6
7	7.1486663580127693897+001	7
8	8.7015604604302643+001	8
9	1.049232736856732233A+002	9
10	1.2486284914775410152+002	10
11	1.466915222160538666423+002	11
12	1.7062836321961319851+002	12
13	1.966623890224483+002	13
14	2.24651841150176293262+002	14
15	2.247251542997907092+002	15
16	2.8663395203537832994+002	16
17	3.2062684931936229+002	17
18	3.56624761416181812336+002	18
19	3.9462037508522035948+002	19
20	4.346515574378222+002	20
21	4.766127649320+002	21
22	5.2061047027881056019+002	22
23	5.665079196510128857802+002	23
24	6.14605755157641164343+002	24
25	6.646079622605169897+002	25
26	7.166020519670166641+002	26
27	7.70604917852629688+002	27
28	8.2062091988773004629+002	28
29	8.84597828828107657431+002	29
30	9.4459687477593184024+002	30
31	1.0065956502993727729+003	31
32	1.06661051516511771038+002	32
33	1.070648717443229195647+002	33
34	1.1365938503983385314+003	34
35	1.1366668181891293364+003	35
36	1.27459234168206724964+003	36
37	1.42056106626710691144+003	37
38	1.4965905011561268445+003	38
39	1.5745397504326897596+003	39
40	1.6545919581949457148+003	40
41	1.736589040889387188+003	41
42	1.82056675084031793687+003	42
43	1.9065982347929552056+003	43
44	1.99659828903518612+003	44
45	2.094580181891293383+003	45
46	2.1765872051597143479+003	46
47	2.27058699783805308+003	47
48	2.36656622102289+003	48
49	2.46456364019645841+003	49
50	2.5645961550198254046+003	50

L	EIGENVALUE	EIGENVALUE
0	9.10199976302187832712+000	2
1	2.0351318206662281842+001	3
2	3.111428082167260182+001	4
3	4.2605270191526697482+001	5
4	5.543054629942018376+001	6
5	6.92906682355157764+001	7
6	8.606653203957217764+001	8
7	1.0179427834478900+002	9
8	1.2426700273970226957+002	10
9	1.432700263225241638+002	11
10	1.737225189010906697+002	12
11	1.737225189010906697+002	13
12	1.960555103691908671+002	14
13	2.443126879040341141+002	15
14	2.545157079421971324+002	16
15	2.86667917643225759159+002	17
16	3.2081277472850591931+002	18
17	3.56492187465135759137+002	19
18	3.94501614725532149119+002	19
19	4.350947323502242233+002	20
20	4.751619169039712317+002	21
21	5.202198764782181079+002	22
22	5.66527110662481264+002	23
23	6.1453140631273750015+002	24
24	6.645352134518870246+002	25
25	7.105412958145866728+002	26
26	8.265443721417329022+002	27
27	8.84596682327222128+002	28
28	9.4459580545378626+002	29
29	1.00655103350477701012+003	30
30	1.0755285700037124+003	31
31	1.13655456649324279+003	32
32	1.20555942407018078+003	33
33	1.245573023433245761+003	34
34	1.3465585595643634638+003	35
35	1.346591696247758172+003	36
36	1.49565679238676421+003	37
37	1.5755617289215463053+003	38
38	2.085662783745010506+003	39
39	2.165562632179697956+003	40
40	2.17656742305363+003	41
41	2.366567980861966947+003	42
42	2.46456425769798532+003	43
43	2.5645680358338530+003	44
44	2.66656931469333+003	45
45	2.765634691082518871+003	46
46	2.80564248n44753n0621+003	47
47	2.936567980861966947+003	48
48	2.99565647195168363+003	49
49	2.5645680358338530+003	50

PR3LATE EIGENVALUES M = 5.60

M = 0		EIGENVALUE	
L		4.80384327270H4P4D7622+000	1
1	1.476921625829592+001	2	
2	2.32711414052C4A081769+001	3	
3	3.0459C7223122914492+001	4	
4	3.781101627090022971771+001	5	
5	4.7024652706190022971771+001	6	
6	5.8579E1394722681925+001	7	
7	7.233451272445+452138+001	8	
8	8.8180134275850007281+001	9	
9	1.06076317431462854+002	10	
10	1.260722102731641356+002	11	
11	1.479473105524r290518+002	12	
12	1.71905101586460328870+002	13	
13	1.97872342759172164+002	14	
14	2.2584681347644+24730+002	15	
15	2.5582571+32600292346+002	16	
16	2.87BnE45441225211320+002	17	
17	3.21791992741382192935+002	18	
18	3.51774177762678480818+002	19	
19	3.9577171765C7908363+002	20	
20	4.3576231577405245+002	21	
21	4.77747982C1405840999+002	22	
22	5.21716997415290270600+002	23	
23	5.677139536559371084+002	24	
24	6.1571126813786293526+002	25	
25	6.657088742508313046+002	26	
26	7.17725513463725811244+002	27	
27	7.71775513463725811244+002	28	
28	8.27722771385618911+002	29	
29	8.857152F255655509764+002	30	
30	9.457134622979P920197+002	31	
31	1.07775CC0945684900132+003	32	
32	1.071712861945684900132+003	33	
33	1.1377705451575136412+003	34	
34	1.2056585466435176+003	35	
35	1.275654977437920702+003	36	
36	1.3476541716669274946+003	37	
37	1.42427463550517310+003	38	
38	1.4977C141572076220+003	39	
39	1.575652116048029554+003	40	
40	1.655651622156283085+003	41	
41	1.73765+0975+057159503+003	42	
42	1.82165910Y64355r75r52M+003	43	
43	1.90768999298771598648+003	44	
44	1.995689553485914048+003	45	
45	2.08568913665071978772+003	46	
46	2.17768748611705463+003	47	
47	2.1776504545x8707718845+003	48	
48	2.3676P04410383349891+003	49	
49	2.46568772511174753+003	50	
50	2.5656874212773519176+003	51	

M = 2		EIGENVALUE	
L		5.9334059735640598411+000	1
1	1.6341661208500325996+001	2	
2	2.6002505558659121925+001	3	
3	2.680215055594470+001	4	
4	2.556446560654795414+001	5	
5	4.5982563322178857366+001	6	
6	5.8011097742476296225+001	7	
7	7.19627405565203651+001	8	
8	8.7912P84571693446277+001	9	
9	1.05872348867984656538+002	10	
10	1.2535806470326357371+002	11	
11	1.4742198943906563457+002	12	
12	1.468122340154064406+002	13	
13	1.9750260589944705272+002	14	
14	2.2552911218866154735+002	15	
15	2.555499664884529099020+002	16	
16	2.875666915193514573443+002	17	
17	3.2596330702909+002	18	
18	3.5759199637294121961+002	19	
19	3.95601027342706594387+002	20	
20	4.5635090321463524375+002	21	
21	4.77615812191721623355+002	22	
22	5.162167384036527333+002	23	
23	5.6762675797552129668091+002	24	
24	6.19631197590118168+002	25	
25	6.563509828954895272+002	26	
26	7.1738544664552523962+002	27	
27	7.176416052299779200+002	28	
28	8.27643359527938133+002	29	
29	8.85646782965535647407+002	30	
30	9.564898452029236952+002	31	
31	1.0716527741508237844+003	32	
32	1.376544119202873449+003	33	
33	1.526555905102439415+003	34	
34	1.756626187804350847+003	35	
35	1.7376634586632353736+003	36	
36	1.347658529037006813+003	37	
37	1.2165967369375433731+003	38	
38	1.5756617129463665105+003	39	
39	1.656626187804350847+003	40	
40	1.7376634586632353736+003	41	
41	1.8166423845612363+003	42	
42	1.9766496487529863162+003	43	
43	2.4566684246493798451+003	44	
44	2.853662736082509734+003	45	
45	2.173668645708640376+003	46	
46	2.2166741804044890820+003	47	
47	2.366679371326811414+003	48	
48	2.4656684246493798451+003	49	
49	2.656688831052536046+003	50	
50	2.6676693147724314168+003	51	

PRBLATE EIGENVALUES M = 5,80		
M = 0	EIGENVALUE	EIGENVALUE
L	5.0061701089404791081+000	6.1289492666799152918+000
1	1.538556813675722319+001	1.691663897911181009+001
2	2.4312556102786160698+001	2.69179025671672730+001
3	3.18174166535214214+001	3.466691391625734492+001
4	3.92362520246301457+001	4.71773492746602324+001
5	4.8367881708877161644+001	5.921770547675947190+001
6	5.9856257172717257582181+001	7.316059097891714130+001
7	7.35568125599357582181+001	8.9100408642951805639+001
8	8.939160173656318866+001	1.070514355016510412+002
9	1.07272871431357415659+002	1.274801211660911652702+002
10	1.27186132115635+002	1.481051051171431714+002
11	1.491253531795012273+002	1.7295354776362045105+002
12	1.7307751848813197953+002	1.989403151347994545+002
13	1.9904221982666154664+002	2.2692485817411663319+002
14	2.2701556937254238065+002	2.5691215655262723411+002
15	2.56986445873532930+002	2.89016044804789+002
16	2.889666670295258115+002	2.22892748510594755065+002
17	3.22952600979686838+002	3.5888524776584219064+002
18	3.58936451982115105+002	4.967842426841724984+002
19	3.9692473035724711887+002	4.368732916790387101+002
20	4.369147011877584280+002	4.7886552212069939280+002
21	4.78906053284571144895+002	5.2286438703805795247+002
22	5.228965479866+002	5.68760733133978077488+002
23	5.6889194552604569294+002	6.168575104134108589+002
24	6.168861663223595360+002	6.668546513268949830+002
25	6.6668107755113r251688+002	7.188521114682951964+002
26	7.18876251354864200+002	7.728414141581+002
27	7.728724889286943882+002	8.2284779643370994103+002
28	8.28868593816547638+002	8.86449572281175570+002
29	8.8486553438708184+002	9.6484429451799526104+002
30	9.468662452PC17806910+002	1.0088427819799663586+003
31	1.0088995740863741675+003	1.0728414141581+003
32	1.0728575164208r09693+003	1.1388401611027109503+003
33	1.1388401611027109503+003	1.206796130327811593+003
34	1.1388401611027109503+003	1.2068479643370994103+003
35	1.2068479643370994103+003	1.2068479643370994103+003
36	1.2068479643370994103+003	1.2068479643370994103+003
37	1.42836103571588622+003	1.42836103571588622+003
38	1.4988752890724482565+003	1.4988752890724482565+003
39	1.57668142271328586+003	1.57668142271328586+003
40	1.6568738180755295225+003	1.6568738180755295225+003
41	1.73848133162096894310+003	1.73848133162096894310+003
42	1.822812551603319044+003	1.822812551603319044+003
43	1.908831983140636991+003	1.908831983140636991+003
44	1.99681492913299401+003	1.99681492913299401+003
45	2.06681095687124848+003	2.06681095687124848+003
46	2.068291499287142288+003	2.068291499287142288+003
47	2.1788304916236719897+003	2.1788304916236719897+003
48	2.27281052702721614+003	2.27281052702721614+003
49	2.36882964372709631+003	2.36882964372709631+003
50	2.46682926515160719634+003	2.46682926515160719634+003
51	2.566828694722163700352+003	2.566828694722163700352+003
	2.6668094342150287014+003	2.6668094342150287014+003

PROLATE EIGENVALUES $\mu = 6.00$ $M = 1$ $N = 2$

EIGENVALUE

FIGENVALLE

EIGENVALUE

FIGENVALUE

L

EIGENVALUE

EIGENVALUE

L

EIGENVALLE

EIGENVALLE

L

EIGENVALLE

1	6.3249538485926025351+000	2	9.64609562251007215807+000
2	1.7995219356282282081+001	3	2.1690165133369150053+001
3	2.7891122444251875+001	4	3.34372563793767+001
4	7.81668415170803606+001	5	4.555134372563793767+001
5	4.8153197638160968+001	6	5.8600679405444491+001
6	4.97731245356246742+001	7	7.3122277830420041552+001
7	6.1180756953131038996+001	8	8.94072501092475759+001
8	7.45266529000598877+001	9	1.07562412128360840028+002
9	9.065115565165447115+001	10	1.27665652301669150+002
10	1.051645346571H+001	11	1.497362506594534480+002
11	1.2841687990266029347+002	12	1.73784201560110489+002
12	1.5034743467224702857+002	13	1.99821025444445156165+002
13	2.0025151329602511343+002	14	2.27848652442227121+002
14	2.242166552466720526+002	15	2.898874745913487500920+002
15	2.5A185314318185541716+002	16	2.909494381929113231+002
16	2.9116686483086102+002	17	3.239110774326744713+002
17	3.241461561623042439326+002	18	3.599112725953713869956+002
18	3.60132445651623202+002	19	3.979222324934477271+002
19	3.98115518151504510626+002	20	4.3793039376514092603+002
20	4.3806133251979510662+002	21	4.7993701877539928795+002
21	4.801077104351127959+002	22	5.2394281689991388878+002
22	4.8019784930748031793128+002	23	5.699479502502838351550+002
23	5.24085315739774764618+002	24	6.1795234557461043487+002
24	5.7008164561471626520+002	25	6.679562501906169161+002
25	6.14075273139382543+002	26	7.1995606215826152752592+002
26	6.680414595481732309+002	27	7.396263033221863334+002
27	7.2005125615961101578+002	28	8.299653050541642242+002
28	7.7405425962190836+002	29	8.8796773452383665072+002
29	8.3N053520191610296+002	30	9.4796987317522567302+002
30	8.8F05185246214951230+002	31	1.039735851914910189+003
31	9.48044459156811663301+002	32	1.13997185912188672+003
32	1.0100454612713550596n+003	33	1.207947746302476+003
33	1.140042703156095365+003	34	1.6579881877698216999+003
34	1.2N0n301633120976786+003	35	1.3499719976120291042+003
35	1.27803574749466759412+003	36	1.4239463201221419811+003
36	1.3503381246214951230+003	37	1.499881352943327019+003
37	1.4240325421584586+003	38	1.577001814141067519+003
38	1.50004016363120976786+003	39	1.6780172454819224272+003
39	1.57802855829554239+003	40	1.650164026302182+003
40	1.658102744639P819164+003	41	1.740156243334614469+003
41	1.74002616471701054653+003	42	1.82398747673053487+003
42	1.8240245463014769565+003	43	1.90998467972446765+003
43	1.91003811668235347+003	44	1.9979881242277815394+003
44	1.98022751661758734+003	45	2.087986375511233578+003
45	2.08802176143586023438+003	46	2.1799873108945655252+002
46	2.180020824502146056+003	47	2.2397847673053487+003
47	2.2740195655710281462+003	48	2.36998350455362928+003
48	2.300142249924564289+003	49	2.467988234549831520+003
49	2.4660109912545934827+003	50	2.5679902676683999204+003
50	2.56999686850095394198+003	51	2.66801056217565238043+003

PROLATE EIGENVALUES		H = 6.20
M = 1	EIGENVALUE	EIGENVALUE
L		
0	0	9.830192591797f834919+000
1	1.52135381C54490140865+000	2.22210241798107871+001
2	1.806713386929535621+001	3.4284187489657480694+001
3	2.0742841C20945392533+001	4.6564906693759196902+001
4	2.4252636621750135+001	5.969402274363676215+001
5	4.969402274363676215+001	6.969402274363676215+001
6	7.177230283935868688+001	7.42992716891847067748+001
7	7.569771616767401254310+001	8.061003221633598863+001
8	5.161988645301025635229+001	9.0877432639361069594+002
9	1.09547631531458064471+001	1.288486769701103876+002
10	1.0980444680831102399+002	1.5095459525713135746+002
11	1.2494977354732124306+002	1.7500561553212951921+002
12	1.514453928325310955+002	2.010427193450646664+002
13	1.7515125464638133915+002	2.290724265505A504249+002
14	2.0388416150891563916361+002	2.59092420215390878167+002
15	2.29367272706194960+002	2.9110956353247212267+002
16	2.5934917158735481727+002	3.251234473479250489+002
17	2.9133126816135159970+002	3.61137850357455408+002
18	2.52532238C938831308+002	3.991441935670367298+002
19	3.613712201819768265+002	4.391521013225407478+002
20	3.9930253C95606437160+002	4.81158A07403591052071+002
21	3.92925843849359192251+002	5.7116950507325741695+002
22	4.8129895677457449+002	6.191738A554992311246+002
23	5.252202764948101148+002	6.6917587946611850158+002
24	5.7126916669695731416+002	7.21180905121216298+002
25	6.1926417056267221667+002	7.75183M035370N876743+002
26	6.6926641747125391846+002	8.31186+6763566448531+002
27	7.2126861580187567345+002	8.89188A0682735444867+002
28	7.7526668340277783439+002	9.491974781200652180+003
29	8.151283031953893527+002	1.01119279924095916380+003
30	F.8926259533764255507+002	1.075194510362n158301+003
31	5.49233535953219369+002	1.14119606440362n158301+003
32	1.032518273064426672+003	1.2091974781200652180+003
33	1.032518273064426672+003	1.27919877014330305591+003
34	1.412481553739490674+003	1.3511919326301660733+003
35	1.209265523541394346+003	1.425201038203419639+003
36	1.2792308688072032102+003	1.5012029356648779+003
37	1.3512507357390313467+003	1.5792029587761473761+003
38	1.032518273064426672+003	1.65920386163536919272+003
39	1.412481553739490674+003	1.7412045997328A553678+003
40	1.209265523541394346+003	1.8251532327873857+003
41	1.2792308688072032102+003	1.911206131755973379+003
42	1.3512507357390313467+003	1.9992066477567491988+003
43	1.42524249556291936856+003	2.089723927377021014+003
44	1.50121345673567265903+003	2.15792029587761473761+003
45	1.9992066477567491988+003	2.181207972354801963+003
46	2.089353024969195762+003	2.275203105686772159+003
47	2.18123465095002019847+003	2.37120A73502107515534+003
48	2.2752424913012833851+003	2.469209251767520801+003
49	2.371241695255540831+003	2.56623242885166331498+003
50	2.469209251767520801+003	2.6712100827221683893+003

PROBLEMS

2

CERVICINE

ECONOMIC

400

5	6118888879012705322-000	1	1.001537965522894024-001
1	1.72263158066347372586-001	2	1.91806429442541257367-000
2	1.74431667877879666165-001	3	1.865901850523369659-001
3	1.9681549285119730138-001	4	1.9681549285119730138-001
4	4.3852415564058108390-001	5	4.1013606735092415529-001
5	5.2778678354602629496-001	6	6.1013606735092415529-001
6	4.0082187675265567-001	7	7.703760280924052191-001
7	7.757516442998186-001	8	5.2941855996918586-001
8	9.311526847860294809-001	9	1.108564146221742332-002
9	1.1114465102156892708-002	10	1.30795361361302646-002
10	1.312131437581928562-002	11	1.52741034389674184-002
11	1.5262166556550-002	12	1.7626686853511260243-002
12	1.7626686853511260243-002	13	1.762668685351126024-002
13	1.762668685351126024-002	14	1.762668685351126024-002
14	2.026851005338151439-002	15	2.306553972189214889-002
15	2.3075622474-002	16	2.60633576606507391337-002
16	2.9261169716572162-002	17	3.265979361096390862-002
17	3.265979361096390862-002	18	3.625852140590718120-002
18	3.625852140590718120-002	19	4.0056404455373576080-002
19	4.0056404455373576080-002	20	4.40449079129112237-002
20	4.40449079129112237-002	21	4.82424233037205023-002
21	4.82424233037205023-002	22	5.2628196824808648086-002
22	5.265521928621513840-002	23	5.72421794979740005353-002
23	5.72421794979740005353-002	24	6.2043595832760003666-002
24	6.2051518761028739674-002	25	6.70435959617783143407-002
25	6.70355241042745693012570-002	26	7.22442573032576179-002
26	7.22533726680019720-002	27	7.764561955164598736125-002
27	7.76522660542558439704-002	28	8.324613131376045612-002
28	8.324613131376045612-002	29	8.9045713417356990433-002
29	8.9045713417356990433-002	30	9.50452384618680377-002
30	9.505151417652216665-002	31	1.0124419404688743755-003
31	1.0124419404688743755-003	32	1.0764598297363239093-003
32	1.0764598297363239093-003	33	1.12424731293033268655-003
33	1.12424731293033268655-003	34	1.210458620014939479-003
34	1.210458620014939479-003	35	1.280598930709190526-003
35	1.280598930709190526-003	36	1.3524410195298591278-003
36	1.352577157376061240-003	37	1.4266620300638462678-003
37	1.42652625626235435097289-003	38	1.5102545916232874-003
38	1.5102545916232874-003	39	1.5804638794535504293-003
39	1.580516766905163937-003	40	1.660464689528412323-003
40	1.6605252480521068033-003	41	1.7426654392061679624-003
41	1.74267717084451540-003	42	1.8264663134041889-003
42	1.826504663134041889-003	43	1.912495317673097219-003
43	1.912495317673097219-003	44	2.00046738314614783888-003
44	2.00046738314614783888-003	45	2.0906794462547281010-003
45	2.0906794462547281010-003	46	2.18266468919280725415-003
46	2.1824710175816335039-003	47	2.1824710175816335039-003
47	2.1824710175816335039-003	48	2.4704452509628632060144-003
48	2.4704452509628632060144-003	49	2.4704452509628632060144-003
49	2.4704452509628632060144-003	50	2.57044505458158215554-003
50	2.57044505458158215554-003	51	2.6724561664728510515-003

PROBLÈME EIGENVALEUS M = 6.60

M = 0		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	5.81347662353505220936e+000	1	6.91512952114846342899e+000	2	1.02017227014128496187e+001
1	1.783717482178734384e+001	2	1.9245327565958360505e+001	3	2.32983294626879161931e+001
2	2.848435629450228450e+001	3	2.0624662131974248951e+001	4	3.59575623535948753052e+001
3	3.7487761052908146012e+001	4	4.139549548173807546e+001	5	4.86655963387201371002e+001
4	4.54943118005225858736e+001	5	5.2372566537422322809e+001	6	6.2074539902395878168e+001
5	5.437915619461852359e+001	6	6.451561218951675055e+001	7	7.677144012042391140e+001
6	6.5511086774050008876e+001	7	7.84263972245683630e+001	8	9.312733641970531788644e+001
7	7.9018478901904735908e+001	8	8.431433353527849716e+001	9	1.1132463646769688495e+001
8	9.47212851929186573967e+001	9	1.122207121354632022e+002	10	1.31443780341861270177e+002
9	1.1252161242779135062e+002	10	1.32147352185225536885e+002	11	1.5352102957438719123e+002
10	1.3238327922138046e+002	11	1.5408992219949941516e+002	12	1.775739763780201037e+002
11	1.54282484806474136540e+002	12	1.7804454882365498855e+002	13	2.03618830733136835e+002
12	1.7820191611137638023e+002	13	2.0400823588783129799e+002	14	2.316399924309476926e+002
13	2.04146648827601259608e+002	14	2.31977927926621848609e+002	15	2.61664143975565125025e+002
14	2.320919156497655837e+002	15	2.619546215704206552e+002	16	2.93678197621361333278e+002
15	2.6205247699616435025e+002	16	2.939345688818959751e+002	17	3.27691155364982799554e+002
16	2.930261255662671332e+002	17	2.9719748340178696e+002	18	3.637023856974975459e+002
17	3.27923124315953480e+002	18	3.63905150613786853664e+002	19	4.0171129659809218613e+002
18	3.639705828951169235e+002	19	4.0198956168956134e+002	20	4.4171872242142749617e+002
19	4.0195145058620563840e+002	20	4.4180900869929298992e+002	21	4.837491989054302259e+002
20	4.4193465708662343332e+002	21	4.8387185072425502303e+002	22	5.27730306159429629e+002
21	4.8392082157074416337e+002	22	5.278619586423132657e+002	23	5.73734862453498731e+002
22	5.2765085177788321893e+002	23	5.738570346911605388e+002	24	6.21738351065351133e+002
23	5.73897718883452867e+002	24	6.2185093298521155458e+002	25	6.717425523941631423e+002
24	6.2188753098571279702e+002	25	6.720025513755147659e+002	26	7.237453095334603764e+002
25	6.71875947456382e+002	26	7.238471053618844616e+002	27	7.777497795604791195e+002
26	7.2387251535184908321e+002	27	7.7838401974621561e+002	28	8.3375349230877204687e+002
27	7.7865886975361985210e+002	28	8.33832547661965338861e+002	29	8.9175245523941631423e+002
28	8.338559402025522672294e+002	29	8.919206419232447010e+002	30	9.517543440363117262e+002
29	8.718546012617818305e+002	30	8.518259161377816530e+002	31	1.0137540428630723535e+003
30	9.5184677840634460714e+002	31	1.0138230652308869959e+003	32	1.077497795604791195e+003
31	1.013845073243610734e+003	32	1.07820462238527192e+003	33	1.14375496411626385e+003
32	1.07744143479408670055e+003	33	1.14318106178587251e+003	34	1.2117602257948770784e+003
33	1.077441434794078670055e+003	34	1.218180744174662057024e+003	35	1.28176137589349750389e+003
34	1.211813944193964886e+003	35	1.281813944193964886e+003	36	1.3537624232391216176e+003
35	1.281813944193964886e+003	36	1.3538121152226819720e+003	37	1.4278104348621576721e+003
36	1.3537624232391216176e+003	37	1.4278104348621576721e+003	38	1.50376426799296355e+003
37	1.4278104348621576721e+003	38	1.5038889059504239178e+003	39	1.58176503039048303e+003
38	1.5038889059504239178e+003	39	1.58180744174662057024e+003	40	1.6617658865944749135e+003
39	1.58180744174662057024e+003	40	1.66180744174662057024e+003	41	1.74376537846469592e+003
40	1.66180744174662057024e+003	41	1.7438048664962164006e+003	42	1.82776719027089168537e+003
41	1.74381643641783333e+003	42	1.8278137153945222979e+003	43	1.9137677908510387733e+003
42	1.8278137153945222979e+003	43	1.9138r2645970168857e+003	44	2.0017683480418516185e+003
43	1.913810577606149243e+003	44	2.0018r16717764566087e+003	45	2.091768870983670492e+003
44	2.0018r16717764566087e+003	45	2.0918r06869880744155e+003	46	2.18376935593463330e+003
45	2.0918r16717764566087e+003	46	2.1837698241644623766e+003	47	2.277769812719596124e+003
46	2.1837698241644623766e+003	47	2.2777698241644623766e+003	48	2.37377023068240907461e+003
47	2.2777698241644623766e+003	48	2.37377023068240907461e+003	49	2.471776350363572436e+003
48	2.37377023068240907461e+003	49	2.471776350363572436e+003	50	2.5717710173405263822e+003
49	2.471776350363572436e+003	50	2.571776681116715934463e+003	51	2.67377136811003597331e+003

PR39ATE EIGENVALUES M = 6,80

M = 0

M = 1

M = 2

EIGENVALUE

L	EIGENVALUE
0	6.01149265426564119690+000
1	1.844748151968024742120+001
2	1.9523512673574453591+001
3	3.89422772612811600399+001
4	4.714911256844683+001
5	5.614563756068324779.84+001
6	6.7074681871237168.65+001
7	8.01135327805506174.304+001
8	9.61742152461.37+001
9	1.1395417367471172.304+002
10	1.33797448605841283083+002
11	1.5547729054551852454+002
12	1.794249386125995846+002
13	2.05381705064657812846+002
14	2.3353909479593301592+002
15	2.6332122H71367050177+002
16	2.95278712516954854+002
17	3.2927810223516954854+002
18	3.6526230070228062640+002
19	4.0324893518057937812+002
20	4.43234246604125485333+002
21	4.8569550839127801523+002
22	5.2921571145287765761+002
23	5.75207940435213423+002
24	6.23201708E6.835343471+002
25	6.73085710928923213428+002
26	7.251895932524955.88167+002
27	7.750905209816525+002
28	8.35093156465783478.9+002
29	8.93095095951560358+002
30	9.530966219972033177+002
31	1.015094847068134070+003
32	1.07909985253793743070+003
33	1.14510105218236463774+003
34	1.283103290050827937+003
35	1.3551020479661516035+003
36	1.4291051997733072800+003
37	1.5051058634555793572+003
38	1.58310746293908677786+003
39	1.6631073051134933427+003
40	1.7451079350984431738+003
41	1.8291473142666803693+003
42	1.91514607627957232037+003
43	1.9716661203407+003
44	2.0393149258508431716+003
45	2.0931518383513478640+003
46	2.18514282793569076894+003
47	2.2791418760531203630+003
48	2.37511269406982622+003
49	2.4731451048351542606+003
50	2.573193618900294610+003

L

EIGENVALUE

L	EIGENVALUE
2	7.11247116519237300410+000
3	1.9832587376337417788+001
4	3.15774902501230568670+001
5	4.2634833820542190106+001
6	5.3768495650446557+001
7	6.595747257341062215+001
8	7.98634322113738601493+001
9	9.573593576561602091597+001
10	1.1362879055734522+002
11	1.3554755757025617175+002
12	1.5547729054551852454+002
13	1.794249386125995846+002
14	2.05381705064657812846+002
15	2.3353909479593301592+002
16	2.6332122H71367050177+002
17	2.95278712516954854+002
18	3.2927810223516954854+002
19	3.6526230070228062640+002
20	4.0324893518057937812+002
21	4.43234246604125485333+002
22	4.8569550839127801523+002
23	5.2921571145287765761+002
24	5.75207940435213423+002
25	6.23201708E6.835343471+002
26	6.73085710928923213428+002
27	7.251895932524955.88167+002
28	7.750905209816525+002
29	8.35093156465783478.9+002
30	8.93095095951560358+002
31	9.530966219972033177+002
32	1.015094847068134070+003
33	1.07909985253793743070+003
34	1.14510105218236463774+003
35	1.283103290050827937+003
36	1.3551020479661516035+003
37	1.4291051997733072800+003
38	1.5051058634555793572+003
39	1.58310746293908677786+003
40	1.6631073051134933427+003
41	1.7451079350984431738+003
42	1.8291473142666803693+003
43	1.91514607627957232037+003
44	2.0393149258508431716+003
45	2.0931518383513478640+003
46	2.18514282793569076894+003
47	2.2791418760531203630+003
48	2.37511269406982622+003
49	2.4731451048351542606+003
50	2.573193618900294610+003

L

EIGENVALUE

L	EIGENVALUE
2	1.03889495165365045416+001
3	2.38438650160593563861+001
4	3.6H12591202756483924+001
5	4.975049921684528860+001
6	6.32991122366993993+001
7	7.80662742A040914120+001
8	9.4453018506104634675+001
9	1.126634487026724114+002
10	1.300857910976550556+002
11	1.548679848540955428+002
12	1.78921264676485214+002
13	2.0495970199453541319+002
14	2.3353909479593301592+002
15	2.6300857910976550556+002
16	2.90244710457241801+002
17	3.12247116519237300410+000
18	3.290375736751092969+002
19	3.6505641975504391453+002
20	4.30636428674820328+002
21	4.8569550839127801523+002
22	5.290375736751092969+002
23	5.7507882297652524379+002
24	6.23086264293480805+002
25	6.73085710928923213428+002
26	7.250995151263938169+002
27	7.750905209816525+002
28	8.35093156465783478.9+002
29	8.93095095951560358+002
30	9.530966219972033177+002
31	1.015094847068134070+003
32	1.07909985253793743070+003
33	1.14510105218236463774+003
34	1.283103290050827937+003
35	1.3551020479661516035+003
36	1.4291051997733072800+003
37	1.5051058634555793572+003
38	1.58310746293908677786+003
39	1.6631073051134933427+003
40	1.7451079350984431738+003
41	1.8291473142666803693+003
42	1.91514607627957232037+003
43	2.0393149258508431716+003
44	2.0931518383513478640+003
45	2.18514282793569076894+003
46	2.2791418760531203630+003
47	2.37511269406982622+003
48	2.4731451048351542606+003
49	2.57311267456692262+003
50	2.67511262929056211262+003

PROGLATE EIGENVALUES H = 7.00

M = 0

M = 1

M = 2

EIGENVALUE

EIGENVALUE

L

L	EIGENVALUE
0	0.21625285122050955647+0.001
1	1.9056577802764925230+0.001
2	3.056020086074/J40613+001
3	4.00537212766246059+001
4	4.89105849214496599218+001
5	5.77775076414113323+001
6	6.8701439262108214145+001
7	7.204637081261625812+001
8	9.78457051572468231+001
9	1.153427855489487142+002
10	1.3515787724083696816+002
11	1.571279543579415296000+002
12	1.8029254349782660687+002
13	2.0652319550433504+002
14	2.38911418184257596+002
15	2.68416591<1650952132+002
16	2.9601051036461286416+002
17	3.3076730440343572436+002
18	3.6073894956760645183+002
19	4.047148918J0894052942+002
20	4.446430204184080220+002
21	4.8667654254824125481+002
22	5.306107733529916356+002
23	5.766016398210800094+002
24	6.245935828866230345+002
25	6.745864469069156819970+002
26	7.265809378435350023+002
27	7.805744138658860223+002
28	8.365693169558923978/4+002
29	9.945672479845125+002
30	9.5456165734194698562+002
31	1.0492529091138916416+002
32	1.1658199301148047250+002
33	1.3807701373135150087+002
34	1.46572441174<285032+003
35	1.766456320482501619805+002
36	1.945683243364214810+003
37	2.14568321894174967+003
38	2.34568321894174967+003
39	2.50655842<441-31920+003
40	2.6845520961960127/2+003
41	2.845683220482501619805+003
42	3.045683220482501619805+003
43	3.245683220482501619805+003
44	3.4305757611<22169921U0+003
45	3.60555842<441-31920+003
46	3.845683220482501619805+003
47	4.04553924711213865214+003
48	4.24553315432782298444+003
49	4.4705345370509220350+003
50	4.74749307550780318J572+003
51	5.5715221724624922966+003

L	EIGENVALUE
2	7.30993703776517178080+000
3	2.0423246993289995603+001
4	3.25361139865054437212+001
5	4.3890537212766246059+001
6	5.52016415334850382604+001
7	6.7446152163964264255+001
8	8.13493732067599916086+001
9	9.720566115167298980+001
10	1.1500257907547979386+002
11	1.3498519827092835562+002
12	1.56909496796129982107+002
13	1.8069457741567205436247+002
14	2.0680142300257658024+002
15	2.347624905572405994+002
16	2.643976536898781042+002
17	2.96413301140642998125+002
18	3.3045255838734589581+002
19	3.6643532231914638365+002
20	4.044432553465990025+002
21	4.44449782240665170698+002
22	5.3045980152256203624+002
23	5.7646368703776623679+002
24	6.2446703129877843185+002
25	6.7264725567501582850+002
26	7.8047466876232387841+002
27	8.36476613137298424156+002
28	8.9447883052407294317+002
29	9.54479419638892855579+002
30	1.0164812572357002167+003
31	1.080482954408777620+003
32	1.16496127782668137838+003
33	1.2144844244259613257+003
34	1.284485537183183191+003
35	1.356489383186068680739+003
36	1.4304817456131069+003
37	1.50648949468001251850+003
38	1.5844894946842117+003
39	1.66448940894068488693+003
40	1.746489383183156859+003
41	1.83049014626889797610+003
42	1.916496127784917791+003
43	1.916558620115527530+003
44	2.0052853837144111202+003
45	2.0944914621965477742+003
46	2.18649184930811212+003
47	2.28049219669123630710+003
48	2.37649240348244300748+003
49	2.47449307550780318J572+003
50	2.5715221724624922966+003
51	2.6764934050305241499+003

PROBLATE EIGENVALUES H = 7.20

M = 0		M = 1		M = 2	
EIGENVALUE				EIGENVALUE	
L	7.417480720484456248064000	1	7.50764995990383017494000	2	1.0765803688562366020001
0	-4.966506055989000587200001	2	2.1011238778446573958001	3	2.4946633612207201080001
1	3.159433844316989783352001	3	3.3500334206927027650001	4	3.8554733936374893749001
2	4.184212970121899907907001	4	4.5168827634000812520001	5	5.1983613870201577582001
3	5.06763296457698915040001	5	5.666882743934439761490001	6	6.58430714236265510001
4	5.9574158106048912390001	6	6.8980619364640539130001	7	8.077087869930474940001
5	7.03922934842265787170001	7	8.288447613634108275940001	8	9.7229682686047547300001
6	8.3617827276610193660001	8	9.872396517975573114480001	9	1.154701801574040219390002
7	9.92433178835119503160001	9	1.1658417600367159100002	10	1.57690776540459930180002
8	1.1636269477465632800002	10	1.364753030307271496970002	11	1.8174554339671319250002
9	1.36165430129167345480002	11	1.58388845019131883783002	12	2.07782710585392736930002
10	1.36620353188853590689002	12	1.821313607622683107260002	13	2.4587702922148372640002
11	1.4250152935115072130002	13	2.0826557421437742853002	14	2.658288485644765647460002
12	2.0842431571795304110002	14	2.362191749285226339440002	15	2.97843234332241730060002
13	2.36155607561342907220002	15	2.66182749966272970002	16	3.31855511092071854280002
14	2.4613565932423636500002	16	2.9625563392525240002	17	3.6788407522457021820002
15	2.663089529114042240002	17	3.32127490219722680450002	18	4.058711051152083768330002
16	2.922103061031950500002	18	3.681051516218396203870002	19	4.4587702922148372640002
17	3.0818636670043228504002	19	4.06087456524307360090002	20	4.878892730077529902590002
18	4.061195471913539054002	20	4.46077231315165909260002	21	5.778897703712403395380002
19	4.4613565932423636500002	21	4.808560972710226723140002	22	6.2589204361475773140002
20	5.060596532423536500002	22	5.32042264976376848360002	23	6.75895200525915143090002
21	4.84116792421453030240002	23	5.780338070450555985890002	24	7.228971984703971921040002
22	5.3204959234603684100002	24	6.260184934885260357410002	25	7.81899197889798707450002
23	6.78042691940041956920002	25	6.76011253905705550710002	26	8.379007644840454116260002
24	6.260171343518086352610002	26	7.82047822097709346600002	27	9.559035399711469274270002
25	6.760150362423536500002	27	8.73099873792676700002	28	1.017930703102179870730003
26	7.060596532423536500002	28	9.59993741224955610670002	29	1.08190574463683281332003
27	7.12049277842210740840002	29	9.599980109876872920640002	30	1.507910203153683399610003
28	7.0204901469221769140002	30	9.59998720905432354290003	31	1.21590661160122401280003
29	8.61031713690587517940002	31	1.081908161137769680003	32	1.5859103521031340910003
30	8.646024245004109990040002	32	1.14797227438176645910003	33	1.21590661160122401280003
31	9.1610150362423536500003	33	1.14797227438176645910003	34	1.2859029228124559760003
32	1.0105113954001154070003	34	1.2159740009258225600003	35	1.35790398829788967990003
33	1.050505944466126031942003	35	1.285971012626783742260003	36	1.4319573523454911660003
34	1.14800079444285870210003	36	1.285971012626783742260003	37	1.507910203153683399610003
35	1.23599612942510007+003	37	1.4319573523454911660003	38	2.005912034042884591140003
36	1.2859919200421432400003	38	1.5079633981321975970003	39	2.0959151661716473460003
37	1.3579880268361270450003	39	1.583981235505631956780003	40	2.1879137637818015547003
38	1.45198443949512493442003	40	1.6659523042880708660003	41	2.28191324791469160003
39	1.57198135042857734840003	41	1.74795736797276761200003	42	2.37791403319706568014003
40	1.7295978026836127045003	42	1.8319556395103565070003	43	2.47591428528322952050003
41	1.861970149103282670003	43	1.9179501964106125030003	44	2.57591521511459692520003
42	1.9179673877636479413003	44	2.005912511631983113740003	45	2.67791473198473411620003
43	2.0195617372046947840003	45	2.0959510163426666150003	46	2.4946633612207201080001
44	2.09565746852952400003	46	2.187949781341565421860003	47	3.1560629951635948740002
45	2.1879618343397400003	47	2.2819493319706568014003	48	3.6769077654045993018002
46	2.2819493319706568014003	48	2.37794380483235130003	49	4.28528328522952050003
47	2.4759142852832295205003	49	2.47594628792999889830003	50	2.57591521511459692520003
48	2.575954960227048270003	50	2.57599452591258162901A+003	51	2.67791473198473411620003

PROLATE EIGENVALUES $\mathbf{H} = 7.40$		$\mathbf{H} = 1$		$\mathbf{H} = 2$	
\mathbf{L}		EIGENVALUE		EIGENVALUE	
0.618617953/5921183016+000	1	7.705536914344226217+6+000	2	1.09554575789962772546+001	2
2.0272721941965710020+001	2	2.0602402225848430423+001	3	2.55031930136960923682+001	3
5.262592378495630573409+001	3	3.4469537847866235+095+001	4	3.9403253176334102+001	4
4.3345381764801515248+001	4	4.6460783598715687605+001	5	5.3129668788294631992+001	5
2.247442258/0062470521+001	5	5.816876680449138+7+001	6	6.71604078563609154+6+001	6
6.1433511301610842601+001	6	7.0560312766838492818+001	7	8.217999782658329634+001	7
7.21469130811661012423+001	7	8.446832713600339169+001	8	9.8631486549953045282+001	8
6.533664307384936209+001	8	1.0029126752739629894+002	9	1.1693799459714367388+002	9
1.008545220021053257+002	9	1.1813364889633892145+002	10	1.370811670818162088+002	10
1.165405364+005/036204+002	10	1.3800861965001853+543+002	11	1.5916695255953447050+002	11
1.5832053984569360+002	11	1.599096605885657399+002	12	1.8322163447987002412+002	12
1.50129422994168272594+002	12	1.8383191498772976933+002	13	2.09254160515239231+002	13
1.840362527424+010+002	13	2.097693388343139149+002	14	2.3728383550363689677+002	14
2.024407413+02+002	14	2.377034694590810492+002	15	2.673022829984713022+002	15
2.578643133+0302114643+002	15	2.6667801383575399+47+002	16	2.9964372142934001993+002	16
2.570134511521152853+002	16	2.9964372142934001993+002	17	3.332639160833692829+002	17
2.9975309922684+592+7+002	17	3.336149776758643119+002	18	3.69344785922629581+002	18
3.3571125944+59125110+002	18	4.075689026254512073+002	19	4.073408727208683291+002	19
3.69676120901549761580+002	19	4.69590052654512073+002	20	4.69590052654512073+002	20
4.0764628659432+6+12+002	20	4.4755205566985801604+002	21	4.8935019881663925922+002	21
4.4762076879911+86394+002	21	4.8935060041425052867+002	22	5.333536496492187612+1+002	22
4.895987592+521+814+0+02	22	5.792131969596413+45+002	23	5.793653154138664423+002	23
2.335796401+34+425+9+002	23	6.2735666965696162221+002	24	6.2735666965696162221+002	24
2.795629278+0+0+02	24	6.275000751318311938+002	25	6.733610266090175419+2+002	25
6.275482331+966+28692+002	25	6.774916833455703798+002	26	7.2936279846917881227+002	26
6.773557433+361914+19+002	26	7.2948347309672043975+002	27	7.8336432948634263103+002	27
7.29237641+0061244382+002	27	7.834761338860860932401+002	28	8.3965661361962+6+002	28
7.835134064+684+613117+0+02	28	8.394654694515916071+002	29	8.9736682776461037222+002	29
8.392141793+02+8694+7+002	29	8.97463613162621186+0+02	30	9.5736785154527912945+002	30
9.7445187812598+0+02	30	9.574512491139908924+002	31	1.0193687655920646529+003	31
9.744863831+361914+19+002	31	1.0194538426088108275+003	32	1.083369522856327597+003	32
1.1+1948112+324+32+003	32	1.0834895864490422117+003	33	1.1493702919813933667+003	33
1.3475422+590+5+490+32+003	33	1.1494492102212343994+003	34	1.21737043554610906+003	34
1.249469797+011+590+33+0+03	34	1.21744122273987398170+003	35	1.28737354603159793+003	35
1.217464056+416+28771+9+003	35	1.28737354603159793+003	36	1.359532056297396983+003	36
1.237459944+164+605+10+003	36	1.35943725471301906+003	37	1.433372535747890559+6+003	37
1.345456161+161+705+0+03	37	1.434185573936051620+003	38	1.509372971770772041+003	38
1.435451624+665+21+2442+0+03	38	1.509429205703196447+0+03	39	1.5873637306381202711+003	39
1.504447950+21+74+220+0+03	39	1.58746753521553+6225+003	40	1.6673737354603159793+003	40
1.2174445483514+43745+0+03	40	1.6674244799842496520+003	41	1.7493740+03699051040495+003	41
1.237459944+164+605+10+003	41	1.7494236820808167094+003	42	1.8334204031807163812+003	42
1.345456161+161+705+0+03	42	1.8334204031807163812+003	43	1.91937466219707087+003	43
1.435451624+665+21+2442+0+03	43	1.919485716375991877+003	44	2.00737492277840689351+003	44
1.504447950+21+74+220+0+03	44	2.0074168176717361154+003	45	2.09737516319852992+003	45
1.2174445483514+43745+0+03	45	2.0974152630348762649+003	46	2.1893753950851040495+003	46
1.237459944+164+605+10+003	46	2.1894437660211389184+003	47	2.28337354603159793+003	47
1.345456161+161+705+0+03	47	2.28342362282861622+003	48	2.3793758016320345182+003	48
1.435451624+665+21+2442+0+03	48	2.379410423434088213+003	49	2.4773759885163794000+003	49
1.504447950+21+74+220+0+03	49	2.4770980504527005350+003	50	2.57737615549084698+003	50
1.2174445483514+43745+0+03	50	2.5774086355159220286922+003		2.67937631559220286922+003	

PROBLATE EIGENVALUES H = 7.60

M = 0		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	6.81967453638873881476+000	1	7.90357830266236977399+000	2	1.11456709047800711260+001
1	2.0879144404280390213702+001	2	2.219440678167809649+001	3	2.6062792175147297240+001
2	3.3555037823349340603+001	3	3.544317672886739275773+001	4	4.0334461452399267289+001
3	4.4817231605376650213+001	4	4.77674575485183076440+001	5	5.420375592780015474+001
4	5.4300286610025163167+001	5	5.9699583715116405409+001	6	6.8266753829417963575+001
5	6.35565302382938676791+001	6	7.21844365081829742293+001	7	8.3626421041610587273+001
6	7.39726061793825720+001	7	8.6102857720039338713+001	8	1.0017282977183618669+002
7	8.7060722757527775+001	8	1.01907997215548204987+002	9	1.1844900550682754874+002
8	1.02519037358735493521+002	9	1.1973087447305107733+002	10	1.3858989840n18010508+002
9	1.20268543103542634122+002	10	1.39589342093667954602+002	11	1.6088666334943750009+002
10	1.3992365574114221842+002	11	1.6147822025382492735+002	12	1.8441167243522378676+002
11	1.6104406404050193597+002	12	1.8539039421481964101+002	13	2.10776791507339541177+002
12	1.85667815036282478+002	13	2.13207911358379+002	14	2.3880105365027722871+002
13	2.115018485492410786+002	14	2.3926321183058656270+002	15	2.68816126732273313292+002
14	2.394176292373660751+002	15	2.69216518268755998666+002	16	3.068305068749251149+002
15	2.693405439872418960+002	16	3.011777825261444036643+002	17	3.348395993373065307679+002
16	3.01293688424299662513+002	17	3.3514535584299662513+002	18	3.7084667402278098738+002
17	3.3524128661225371696+002	18	3.71117848991795688912+002	19	4.0885248468245040901+002
18	3.712083065202422564+002	19	4.09094408995735938944+002	20	4.488563030666008294057+002
19	4.09152388240329261+002	20	4.49074254881832790484+002	21	4.90595678186837085561+002
20	4.491469415690720+002	21	4.910568020020124690510+002	22	5.80864637982190595013+002
21	4.911253575915266114+002	22	5.350415907316403879084+002	23	5.80864637982190595013+002
22	5.35101337942321312831+002	23	5.81028254558809429865+002	24	6.2886648169240534227+002
23	5.8108220254558809429865+002	24	6.290144985591981351360+002	25	6.79868020324098165934+002
24	6.29066515421701028953+002	25	6.79008347953790024+002	26	7.008693158819177364+002
25	6.790511323944496811+002	26	7.30996813444803790480+002	27	7.84870415737472986700+002
26	7.31039194246152221+002	27	7.84988527011374354560+002	28	8.408713565109585345R+002
27	7.8502790286743546+002	28	8.40981090123401488219+002	29	9.9887216819731748774+002
28	8.4101762356513+002	29	8.9897330754381837+002	30	9.9887216819731748774+002
29	8.9008868923350524+002	30	9.5896833471011408274+002	31	1.020873418050863855+003
30	9.590001593058000444+002	31	1.0209628423565270285+003	32	1.0848701893980669358+003
31	1.02094253121942963+003	32	1.0849578459124282710+003	33	1.1508744923721412058+003
32	1.0649887901549360370+003	33	1.150953287519949283+003	34	1.218874911763500502289+003
33	1.1509795542380591046+003	34	1.21894911763500502289+003	35	1.28875246779131924+003
34	1.2169733542828809256+003	35	1.2889452935846920147+003	36	1.36867856179156300686+003
35	1.2689616305213316+003	36	1.3609417773914502Y00+003	37	1.43487591679341239558+003
36	1.36094583124904860+003	37	1.4349256081948681809+003	38	1.5108761584635352146+003
37	1.434959412239297911+003	38	1.5109355453499151U2+003	39	1.588827773261845243+003
38	1.510925333017344112+003	39	1.5889327773261845243+003	40	1.68887664916914645952+003
39	1.5469515612221324+003	40	1.6689302110349012345+003	41	1.75092782703132513627+003
40	1.66896065489406070+003	41	1.78349256081948681809+003	42	1.83867703200610625785+003
41	1.75094431957475932+003	42	1.83892354110691623084+003	43	1.9208771893710913927+003
42	1.834944801529223864+003	43	1.92092354110691623084+003	44	2.0086775195609973189+003
43	1.9209388680196144939+003	44	2.00892161057193982+003	45	2.0988774925693817836+003
44	2.008935364059412812+003	45	2.09891980067794706812+003	46	2.1908776220858109904+003
45	2.09893539101262480089+003	46	2.19091811613263057592+003	47	2.2686774164683340886+003
46	2.19093515143652642314+003	47	2.2849165314893139217+003	48	2.3608778522513258035+003
47	2.284929461525338402+003	48	2.3809150458379463142+003	49	2.4888774763328986+003
48	2.350924404610596292+003	49	2.47891364410453942549+003	50	2.5788780499943508636+003
49	2.4789255415932191941+003	50	2.57891232789285773b4+003	51	2.6600781385878537275+003

PHOLATE EIGENVALUES $\lambda = 7.80$		$\lambda = 1$		$\lambda = 2$	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	7.0206590611598294949165+0.000	1	8.10175736085096891993+0.000	2	1.13364749791780602423+0.001
1	2.14860001373911078/7+0.001	2	2.6625157836394155658+0.01	3	2.6625157836394155658+0.01
2	3.4661142364891878942+0.001	3	3.620391163755324741+0.01	4	4.12364973174R37738+0.001
3	4.622849401+428+55108+0.01	4	4.9086938383822443023+0.01	5	5.5474818272877286659+0.001
4	5.6149158354464+52640+0.01	5	6.1259335665571087+52+0.01	6	6.98809840043575166810+0.001
5	6.5331813176000<73823+0.01	6	7.3851957942697676204+0.01	7	8.51094518885696417+0.001
6	7.5864453230274120194+0.01	7	8.786625746306676204+0.01	8	9.51076562822547155+0.002
7	8.8945201701538+935b44+0.01	8	1.0357452182968110658+0.01	9	1.200331285689053136+0.002
8	1.042357712+815+109251+0.02	9	1.21376826200205594+0.02	10	1.4016061149228705356+0.002
9	1.218471835b20b+329113+0.02	10	1.412178630823911112+92+0.02	11	1.622500961138895253+0.002
10	1.41572446n53+023145+0.02	11	1.6309289677613587108+0.02	12	1.869948003324693087+0.02
11	1.633761403-428b18847+0.02	12	1.869948003324693087+0.02	13	2.12338466002021919673+0.02
12	1.8722257712232829826+0.02	13	>1291502923942691508+0.02	14	2.4036110613594367616+0.02
13	2.13110A966n67+0.02	14	2.410156786n734+23066+0.02	15	2.7037654181423822261+0.02
14	2.410156786n734+23066+0.02	15	2.70798418R7090+0.02	16	3.0287352456060+0.002
15	2.7093633938211206731+0.02	16	3.0275481329317991427+0.02	17	3.3639510711095554641+0.002
16	3.026754522+82039017/0+0.02	17	3.3671835225748287+0.0+0.02	18	3.7240077529523350325+0.02
17	3.368745622/28+0.02	18	4.0268745622/28+0.02	19	4.504049966984817646+0.002
18	3.7274303928+081+30463+0.02	19	4.506661093949714525+0.02	20	4.504049966984817646+0.002
19	4.107465158734+239604+0.02	20	4.5063842691732120561+0.02	21	4.9241061193781206809+0.02
20	4.507151677153477759+0.02	21	4.926187887397721059+0.02	22	5.3641249825602094261+0.02
21	4.9268022311312+124602+0.02	22	5.3661891222+63+0.02	23	6.304151399283471840809+0.02
22	5.36664783+895+314833+0.02	23	5.366866947018884850190+0.02	24	6.3057347.566118061205+0.02
23	5.8264429461321+93121+0.02	24	5.366161093949714525+0.02	25	6.804160677333435948+0.02
24	6.3762616521706+0.02	25	6.80561727852639398+0.02	26	7.3241681255894750190+0.02
25	6.80610375477759+0.02	26	7.32551331033688208481+0.03	27	7.8641741424334610853+0.02
26	7.32596188468311205/2+0.02	27	7.86567223897381564+0.03	28	8.4224194679067247849+0.03
27	7.56513582545/8+9405/ub+0.02	28	7.86638513806233659+0.02	29	9.071418302778731597778+0.02
28	8.425612459+62238+0.02	29	7.8662552069328242+0.02	30	9.60418631236910284486+0.02
29	9.02622702492+202265+0.02	30	7.8651351891918463247+0.02	31	1.0224189020186695060+0.03
30	9.6056227407+15+22+122+0.02	31	1.0225131033688208481+0.03	32	1.0664191262637297756+0.03
31	1.02244555/166+1545043+0.03	32	1.086567223897381564+0.03	33	1.152419315159788468+0.03
32	1.046369844639634+0.03	33	1.15250297004794+0.03	34	1.22049770850534327388+0.03
33	1.05253193+75021954+0.03	34	1.22049770850534327388+0.03	35	1.2904930451351994768+0.03
34	1.220523191505+214534+0.03	35	1.2904930451351994768+0.03	36	1.362489453686400221+0.03
35	1.290580131705+435943+0.03	36	1.362489453686400221+0.03	37	1.436419797503431962+0.03
36	1.362512706+15+22+122+0.02	37	1.436422764348922160+0.03	38	1.51246244911930035621+0.03
37	1.436501418/+84+11443+0.03	38	1.51246244911930035621+0.03	39	1.594193819889688+0.03
38	1.512503508/31+3052/8+0.03	39	1.590479366192115186+0.03	40	1.67041999501378909+0.03
39	1.590491366/31+121105+0.03	40	1.6704765091787128+17+0.03	41	1.752473705251769167+0.03
40	1.6704927045890640+0.03	41	1.752473705251769167+0.03	42	1.836472764348922160+0.03
41	1.752416811522+2162+0.03	42	1.836472764348922160+0.03	43	1.922420108236144562+0.03
42	1.8364883435949121481+0.03	43	1.9224688517882752265+0.03	44	2.0104201350426537545+0.03
43	1.922482333354+819156+0.03	44	2.0104667815896227682+0.03	45	2.10420157421275517+0.03
44	2.010482330/51080452+0.03	45	2.10046475246478084294+0.03	46	2.19242017601825952138+0.03
45	2.1004927045890640+0.03	46	2.19246244911930035621+0.03	47	2.2864610708428059397+0.03
46	2.1924707817342997/26+0.03	47	2.2864610708428059397+0.03	48	2.38242020041972598+0.03
47	2.286474697+3740495+0.03	48	2.3824582524800104499+0.03	49	2.4804202142172805708+0.03
48	2.38242462146/+273887+0.03	49	2.4804582524800104499+0.03	50	2.580420225074449022+0.03
49	2.4804703624068+801951+0.03	50	2.58045634470747191056+0.03	51	2.682420229010927847+0.03

PROBLATE EIGENVALUES H = 8.00		H = 1		H = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	7.221578930697648862564+000	1	8.3000596800985177596+000	2	1.15278197926689866016+001
1	2.209215419726+50308935+001	2	2.338069727147452012+001	3	2.71900450779921660+001
2	3.5706416737114910980686+001	3	3.74007406174424800244+001	4	4.21457799190978954535+001
3	4.77570985951911876254+001	4	5.0417023395922588587+001	5	5.6671766943338499857+001
4	5.801677004957724916626+001	5	6.28460371610516025071+001	6	7.12819872693858241983+001
5	6.7364750334659+00644282+001	6	7.556160576667648820194+001	7	8.662841352979732077972+001
6	7.78252232929109591925+001	7	8.9519107335258760761+001	8	1.03281509859864554+001
7	9.0691430428460172744+001	8	1.052933476354091769+002	9	1.21600993789326125236+002
8	1.06011693905270716036+002	9	1.23071811294313047897+002	10	1.417662108750974784+002
9	1.23577157716514901465+002	10	1.428903747419167287+002	11	1.638574661143168038396+002
10	1.4327579222951356246+002	11	1.6475001403691341+002	12	1.87910834949285384090+002
11	1.6505554080807043839942+002	12	1.8864326190627232257+002	13	2.1394349453396948993+002
12	1.88888787900452028062+002	13	2.14554657094296057783+002	14	2.4196420043274679476+002
13	2.14759153059649355735+002	14	2.4249287019737645167+002	15	2.7197769405953356144+002
14	2.426562215216823494910+002	15	2.72423954538802866500+002	16	3.03986667617300642436+002
15	2.72573050733168074054+002	16	3.043716166238770824+002	17	3.37996905766053861419+002
16	3.04504843972912691832+002	17	3.3833236301765799915+002	18	4.1199765698749922086+002
17	3.384481902050397521+002	18	3.7429961561344146608+002	19	4.52001737490619127263+002
18	3.7440060543773492029+002	19	4.12270779521688126932+002	20	4.94003091294229866751+002
19	4.12360245145180659061+002	20	4.522446611581620164+002	21	5.38004010033552122498+002
20	4.223257064309958522+002	21	4.9422669004560633002+002	22	5.84004619622316853817+002
21	4.942959219190560252+002	22	5.3820322463421495696+002	23	6.3200507984600026996+002
22	5.3M270053633983433946+002	23	5.84186722709263715334+002	24	6.820051868762296676435651+002
23	5.942274420836762085+002	24	6.3217791242036587475+002	25	7.3400535199003903889+002
24	6.32227561242553810985+002	25	6.8215087919817512684+002	26	7.8800538413224721979+002
25	6.82209986776231161511+002	26	7.34147114504812866092+002	27	8.44005357037520632113+002
26	7.34194377209474486712+002	27	7.88136676427465047877+002	28	9.02005287772205669853+002
27	7.8818044226680845105+002	28	8.441230877987133544+002	29	9.620051868762296676435651+002
28	9.44167947647644798646+002	29	9.02116873066261908+002	30	1.02400506960786254983+003
29	9.021567355876751207+002	30	9.62111242453829842278+002	31	1.0880049370179086468+003
30	9.6214659178088040932+002	31	1.024143246754012102+003	32	1.1540047959762629778+003
31	1.0241374122694384777+003	32	1.08809803168541425736+003	33	1.2220045226937042052+003
32	1.088129065667895667+003	33	1.1540042290566703957042052+003	34	1.2920045289425912124+003
33	1.088129051684776314+003	34	1.2220045226937042052+003	35	1.3640043556733656072+003
34	1.222114503650754916+003	35	1.292004522221654779983+003	36	1.43800421018667494846+003
35	1.2921081299743250265+003	36	1.3640779415391621385+003	37	1.5140040674877956223+003
36	1.754079050120619062+003	37	1.43800371404157121995+003	38	1.5920046563501039862048+003
37	1.36410227426444263+003	38	1.51400469463565010078923+003	39	1.6720037932276661398+003
38	1.438068829811085366+003	39	1.5920046460299919563+003	40	1.7540036625149997844+003
39	1.51409106811495808817+003	40	1.6720032227752409297+003	41	2.1940030783513691340+003
40	1.592087306476501930+003	41	1.754004022546381920674+003	42	2.2880029751915431416+003
41	1.672083039886260412352+003	42	1.83800743105810808923+003	43	1.92400341489611432854+003
42	1.754079050120619062+003	43	1.92405482605441272603+003	44	2.012003298103954045325+003
43	1.8380753977796454510+003	44	2.0120523972542387725+003	45	2.102003180594902199433+003
44	1.9240719661719793662+003	45	2.1020523972542387725+003	46	2.1940030783513691340+003
45	2.0120687639843+01182+003	46	2.1940799632309638129+003	47	2.28800287634301726658+003
46	2.1020655770536+01296+003	47	2.194066070894908804+003	48	2.38400441287878133910+003
47	2.1940662694449964612+003	48	2.3840441270878133910+003	49	2.48202260525317965+003
48	2.364057877404404653+003	49	2.4820470727677073547+003	50	2.582004070727677073547+003
49	2.48205560002500615600+003	50	2.60400260413211205227+003	51	2.60400260413211205227+003

PROLATE EIGENVALUES H = 10.00

H = 0		EIGENVALUE		L		EIGENVALUE		L		EIGENVALUE		H = 1		EIGENVALUE		L		EIGENVALUE		H = 2																																																																																		
9	0	1.02877667673914681798*001	1	1.34630843187435830224*001	2	1.2938178328490544409*001	3	1.15248465577210860345*001	4	5.15248465577210860345*001	5	6.41063891051295253002*001	6	7.972898552789566161*001	7	8.6507545068132547355*001	8	9.03598469132753093321*001	9	1.04621990706494295731*001	10	1.212097358956548105*002	11	1.25271446657879922906*002	12	1.399569442370384166*002	13	1.60273042269502631066*002	14	1.80239349799015740498*002	15	2.064205714283708166*002	16	2.3242442298186624009*002	17	2.6040478426528235618*002	18	2.90378877667037274788*002	19	3.223513819165979981*002	20	3.56324501589030237294*002	21	3.9229921511949918312*002	22	4.3027589889416076527*002	23	4.70254622758432508*002	24	5.122353884903969816*002	25	5.562178884184848385*002	26	6.0220213616282491626*002	27	6.501878502642751058*002	28	7.0017494330035637873*002	29	7.5012186731984874826*002	30	8.001261512794275168*002	31	8.501211933538028108787*003	32	9.00115789201370727*003	33	9.5010772189514739613*003	34	1.000999379616167538*003	35	1.200947113768031310*003	36	1.3820898277520402002*003	37	1.456085303991923989*003	38	1.5320811016111332442*003	39	1.6100772189514739613*003	40	1.69007358376075564900*003	41	1.7720702180999421700*003	42	1.85606704463305844213*003	43	1.9420640930512674257*003	44	2.0300613298508565334*003	45	2.1205630820698344215*003	46	2.306054023526847429*003	47	2.4020518732692201919*003	48	2.500049847894170271*003	49	2.60004793587010421047*003	50	2.70204613464818359981*003
1	1	2.8133463732826127614*001	2	2.93389180416144914701*001	3	3.4703157659261625166*001	4	4.0297730450774456050*001	5	4.630376238796550984*001	6	5.20943248821446050281*001	7	5.8092267238852530281*001	8	6.4013543072680950691*002	9	7.09421990706494295731*001	10	7.7504037471259794*002	11	8.4003665271704935*002	12	9.0547476159342954*002	13	9.701383693470612024*002	14	10.359228052680950692*002	15	11.02760822846995401*002	16	11.4872205037471259794*002	17	12.0309665271704935*002	18	12.60427476159342954*002	19	13.2013543072680950691*002	20	13.859228052680950692*002	21	14.501383693470612024*002	22	15.152484657879922906*002	23	15.8044131936194316869*002	24	16.45885451022485172592*002	25	17.122739057753499*002	26	17.77935554102195*002	27	18.4227717742195*002	28	19.07293021545573715*002	29	19.7293021545573715*002	30	20.379455173715*002	31	21.0286478310737974783*8*002	32	21.6258952792857913594*002	33	22.25638782689044940664*002	34	22.8923648371697556681*002	35	23.50454965522796926490*002	36	24.104221167592860196*002	37	24.70254622758432508*002	38	25.3026935286335159*002	39	25.902186731984874826*002	40	26.501878502642751058*002	41	27.104221167592860196*002	42	27.70254622758432508*002	43	28.3026935286335159*002	44	28.902186731984874826*002	45	29.501878502642751058*002	46	30.104221167592860196*002	47	30.70254622758432508*002	48	31.3026935286335159*002	49	31.902186731984874826*002	50	32.501878502642751058*002		
2	2	2.8133463732826127614*001	3	2.93389180416144914701*001	4	3.4703157659261625166*001	5	4.0297730450774456050*001	6	4.630376238796550984*001	7	5.20943248821446050281*001	8	5.8092267238852530281*001	9	6.4013543072680950691*002	10	7.09421990706494295731*001	11	7.7504037471259794*002	12	8.4003665271704935*002	13	9.0547476159342954*002	14	9.701383693470612024*002	15	10.359228052680950692*002	16	11.02760822846995401*002	17	11.4872205037471259794*002	18	12.0309665271704935*002	19	12.60427476159342954*002	20	13.2013543072680950691*002	21	13.859228052680950692*002	22	14.501383693470612024*002	23	15.152484657879922906*002	24	15.8044131936194316869*002	25	16.45885451022485172592*002	26	17.122739057753499*002	27	17.77935554102195*002	28	18.4227717742195*002	29	19.07293021545573715*002	30	19.7293021545573715*002	31	20.379455173715*002	32	21.0286478310737974783*8*002	33	21.6258952792857913594*002	34	22.25638782689044940664*002	35	22.8923648371697556681*002	36	23.50454965522796926490*002	37	24.104221167592860196*002	38	24.70254622758432508*002	39	25.3026935286335159*002	40	25.902186731984874826*002	41	26.501878502642751058*002	42	27.104221167592860196*002	43	27.70254622758432508*002	44	28.3026935286335159*002	45	28.902186731984874826*002	46	29.501878502642751058*002	47	30.104221167592860196*002	48	30.70254622758432508*002	49	31.3026935286335159*002	50	31.902186731984874826*002				

PROLATE EIGENVALUES -4 * 40.00

M = 0

EIGENVALUE

3.924515864	-2312807492+001	1	4.0258151803713306413+001	2	4.32971138687762252725+001
1.182254667rd6902735228+002	2	1.19226555049219127597+002	3	1.22350552633274242287+002	
1.96175382.61604010392+002	4	1.9724472047833323828+002	5	2.0045255703575599085+002	
2.7507342242202/21812+002	6	2.7417462012734134660+002	7	2.774477919843085249328+002	
3.4849654146602304813+002	8	3.482519826745456301+002	9	3.53440104837336532551+002	
4.23619377157975918+002	10	4.2479404931869346686+002	11	4.283157277326687331+002	
4.97216812.52401197111+002	12	4.9843293513977072524+002	13	5.0206057081754210891+002	
5.6965809859122451381+002	14	5.70920756824411051925+002	15	5.740740236682640794+002	
6.4091212071469161450+002	15	6.42226624419123133886+002	16	6.4616827371542836884+002	
7.1094418017864292025+002	16	7.12316835025938964943+002	17	7.1643219144567721778+002	
7.79716653910035099139+002	17	7.8115442269329862326+002	18	7.8546566620994948630+002	
8.47165353.55280391885+002	18	8.48698619382149793802+002	19	8.53233242666067323525+002	
9.13104718713774641792+002	19	9.14904193532399107415+002	20	9.1969523799161307619+002	
9.78020771160462240+002	20	9.79720615462097158620+002	21	9.8486094198925747877+002	
1.04127273.8698765195+003	21	1.0430911214106624866+003	22	1.048529986848214305450+003	
1.102996531.5412247858+003	22	1.1049505050811444636+003	23	1.1108076857363538077+003	
1.1630921841231d121901+003	23	1.16522623597199662649+003	24	1.1715914504422910964+003	
1.2214799572591919662+003	24	1.22383192248714037805+003	25	1.2308250357595959996+003	
1.278034356r19064025762+003	25	1.280668318250208113996428+003	26	1.2884619890074202694+003	
1.33260426r6300099816+003	26	1.3356203880113996428+003	27	1.3444594721329329785+003	
1.584983554198492758+003	27	1.3865572978308979571+003	28	1.3988117482291915143829+003	
1.434897201792844706+003	28	1.43934752405052812266+003	29	1.45157446225131931412+003	
1.48118159474325862+003	29	1.4879952399888361288+003	30	1.492927795422664152988+003	
1.5252752422050/363308+003	30	1.53438899164074971961+003	31	1.553241912418770966+003	
1.2645561356582915911/3+003	31	1.5793335881700892897+003	32	1.60510/44889900704341+003	
1.00079280842220702262+003	32	1.623866887052542049933+003	33	1.65327169635203321855+003	
1.63/33.74-4935839485+003	33	1.67044826165053066508+003	34	1.70052115143325422510+003	
1.67443961-223958609/3+003	34	1.676935954043875346+003	35	1.750346622266638+003	
1.722008777-22182/0113+003	35	1.7671482447331522192+003	36	1.8121750357775923910+003	
1.77079391/15985801532+003	36	1.8201576665029399918+003	37	1.8893287352895537202+003	
1.822961111/-48950113763+003	37	1.8759258349654291794+003	38	1.92875/85695383316425+003	
1.9362702724848485+003	38	1.934361093402718028266+003	39	1.99052115143325422510+003	
1.9362702724848485+003	39	1.995370526403492337+003	40	2.0546116521635784076+003	
1.99/011419199863/42+003	40	2.05887366447058163390+003	41	2.1210215794534827901+003	
2.06050803.21653901162+003	41	2.1248027940339263045+003	42	2.1897118021336675860+003	
2.126073486.52850942+003	42	2.193102229069676886+003	43	2.266655H75601616003039+003	
2.19423989148511666262+003	43	2.2637255370351632916+003	44	2.335361953402718028266+003	
2.26475287r-2239504+003	44	2.3366333693504096266+003	45	2.4092317090187920914+003	
2.33756809182015/501+003	45	2.411793338460804573+003	46	2.4866222102338921117+003	
2.4126467925151732441+003	46	2.4891779923992313197+003	47	2.56658/57195921159733+003	
2.48996418-22382723966+003	47	2.56876054069676886+003	48	3.09037080629131611+003	
2.70948818-22352517483+003	48	2.6505230703957332940+003	49	3.184611351093621253+003	
2.65119R10+80174577483+003	49	2.7344670620962175441+003	50	3.281307598776118936+003	
2.73507597-42208207746+003	50	2.8051573913730865393+003	51	3.380079101283904084+003	
2.821103961246572026+003	51	2.907064525422886526+003		3.46092184733669427955+003	

M = 1

EIGENVALUE

L	EIGENVALUE	M = 2	EIGENVALUE
1	4.0258151803713306413+001	2	4.32971138687762252725+001
2	1.182254667rd6902735228+002	3	1.22350552633274242287+002
3	1.96175382.61604010392+002	4	2.0045255703575599085+002
4	2.7507342242202/21812+002	5	2.774477919843085249328+002
5	3.4849654146602304813+002	6	3.53440104837336532551+002
6	4.23619377157975918+002	7	4.283157277326687331+002
7	4.97216812.52401197111+002	8	5.0206057081754210891+002
8	5.6965809859122451381+002	9	5.740740236682640794+002
9	6.4091212071469161450+002	10	6.4616827371542836884+002
10	7.1094418017864292025+002	11	7.1643219144567721778+002
11	7.79716653910035099139+002	12	7.8546566620994948630+002
12	8.47165353.55280391885+002	13	8.53233242666067323525+002
13	9.13104718713774641792+002	14	9.1969523799161307619+002
14	9.78020771160462240+002	15	9.8486094198925747877+002
15	1.04127273.8698765195+003	16	1.048529986848214305450+003
16	1.102996531.5412247858+003	17	1.1108076857363538077+003
17	1.1630921841231d121901+003	18	1.1715914504422910964+003
18	1.2214799572591919662+003	19	1.230825035759595996+003
19	1.278034356r19064025762+003	20	1.2884619890074202694+003
20	1.33260426r6300099816+003	21	1.3444594721329329785+003
21	1.434897201792844706+003	22	1.3988117482291915143829+003
22	1.48118159474325862+003	23	1.492927795422664152988+003
23	1.5252752422050/363308+003	24	1.553241912418770966+003
24	1.2645561356582915911/3+003	25	1.60510/44889900704341+003
25	1.00079280842220702262+003	26	1.65327169635203321855+003
26	1.63/33.74-4935839485+003	27	1.7044826165053066508+003
27	1.67443961-223958609/3+003	28	1.750346622266638+003
28	1.722008777-22182/0113+003	29	1.8121750357775923910+003
29	1.77079391/15985801532+003	30	1.8893287352895537202+003
30	1.822961111/-48950113763+003	31	1.92875/85695383316425+003
31	1.9362702724848485+003	32	1.99052115143325422510+003
32	1.9362702724848485+003	33	2.0546116521635784076+003
33	1.99/011419199863/42+003	34	2.1210215794534827901+003
34	2.06050803.21653901162+003	35	2.1897118021336675860+003
35	2.126073486.52850942+003	36	2.2666555H75601616003039+003
36	2.19423989148511666262+003	37	2.335361953402718028266+003
37	2.26475287r-2239504+003	38	2.4092317090187920914+003
38	2.33756809182015/501+003	39	2.4866222102338921117+003
39	2.4126467925151732441+003	40	2.56658/57195921159733+003
40	2.48996418-22382723966+003	41	2.609037080629131611+003
41	2.70948818-22352517483+003	42	2.6505230703957332940+003
42	2.65119R10+80174577483+003	43	2.7344670620962175441+003
43	2.73507597-42208207746+003	44	2.8051573913730865393+003
44	2.821103961246572026+003	45	2.907064525422886526+003
45	2.909267676-81333905201+003	46	2.999307080629131611+003
46	2.999555322.8152589/0075+003	47	3.09037080629131611+003
47	3.0914665627030149394+003	48	3.184611351093621253+003
48	3.091954616080488930+003	49	3.281307598776118936+003
49	3.1664565764516024852/+003	50	3.380079101283904084+003
50	3.265051516112412/42446/+003	51	3.46092184733669427955+003

PRBLATE EIGENVALUES H = 60.00

N = 0		N = 1		N = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	5.92465077600481414096+001	1	6.02553565572130457435+001	2	6.32809950548803592333+001
1	1.7823585600564677438+002	2	1.7923999963907798187142192+002	3	1.82338263798187142192+002
2	2.962026720483205746+002	3	2.9724585310163965717+002	4	3.037956604344279416+002
3	4.1313242191753578611+002	4	4.1419935668927597258+002	5	4.173915701624707685+002
4	5.29026651805652549+002	5	5.3010463194775955559+002	6	5.3336035588630742269+002
5	6.4384354344771486078+002	6	6.44951889966990861372+002	7	6.48271379112678218+002
6	7.57591059349285915492+002	7	7.5872048693451323054+002	8	7.6210938351653997326+002
7	8.702415471611884232+002	8	8.7139580441211469388+002	9	8.748584298840924054+002
8	9.81780428776501816098+002	9	9.8296061976027090244+002	10	9.8650175996141114265+002
9	1.092188416206532074+003	10	1.0933968442767644753+003	11	1.097021752891356344+003
10	1.204416457530500273+003	11	1.2026253928867245640+003	12	1.206398852625511179+003
11	1.309535831517516305+003	12	1.3108060669646484966+003	13	1.3146166110126489437+003
12	1.4164366428048748537+003	13	1.417272498412916758+003	14	1.4216512920703212728+003
13	1.52211465925746014131+003	14	1.523456988499326573664+003	15	1.52748209417250725755+003
14	1.626551473965711105+003	15	1.62794038186591817130+003	16	1.632085817294729492+003
15	1.72997105286851853555+003	16	1.7311619359434842829+003	17	1.735438055142357306+003
16	1.8316205613731135221+003	17	1.83309408825471281497+003	18	1.837512481063655274+003
17	1.93216454319225014677+003	18	1.9337072956714502+003	19	1.938281259404016382741+003
18	2.031381348372799163+003	19	2.0329497525937803454+003	20	2.03714578800012680+003
19	2.1292616490179389770+003	20	2.1308471139149161706+003	21	2.135760598814594079+003
20	2.225582640105753053+003	21	2.2273021545171038187+003	22	2.2324475762208333070+003
21	2.3205014144557530108+003	22	2.3222643305032514342+003	23	2.3276704466388049272+003
22	2.4138510113187738013+003	23	2.415779326638919029+003	24	2.421478032178032+003
23	2.505745180232726504+003	24	2.5077084015194440683+003	25	2.5136438794724695902+003
24	2.595932001339860120+003	25	2.5980277227068563168+003	26	2.604392240242807764+003
25	2.684487494190282019473+003	26	2.686677389292189916+003	27	2.6933426876713120154+003
26	2.771201328920019473+003	27	2.7735903118141334+003	28	2.780711062312201747+003
27	2.8561267671780991220+003	28	2.85866908560382910133+003	29	2.8663492538355334685+003
28	2.9391565724167633098+003	29	2.941852927061192875+003	30	2.9501956615803927459+003
29	3.020016549285380023+003	30	3.02309789188962021887+003	31	3.0321865965139832785+003
30	3.098786033154982806+003	31	3.102191845583076265+003	32	3.112596063564709504+003
31	3.17516162834564635556+003	32	3.1790429324595256455+003	33	3.1903606710584778342+003
32	3.24901087248140963+003	33	3.2535004686281950902+003	34	3.26645869732411945+003
33	3.319906521235284054+003	34	3.325402058161100+003	35	3.330574539939160599+003
34	3.3867643717808745218+003	35	3.394670446021996865+003	36	3.4128266103886720818+003
35	3.45132812944363865+003	36	3.461088293865+003	37	3.483498374421564267+003
36	3.51016405272057955+003	37	3.52516227250160958540+003	38	3.55309561004972926+003
37	3.56396186767801525623+003	38	3.587720592231057258+003	39	3.62223452529826323239+003
38	3.61485262718851026+003	39	3.65016689166649116157+003	40	3.6929457415970084193+003
39	3.66738637855668547351+003	40	3.7140420616807563975+003	41	3.631442040708017369+003
40	3.7247320815886297025+003	41	3.7804944717240794248+003	42	3.83611081734150987182+003
41	3.78761156236312493156+003	42	3.850067421517504+003	43	3.9113893861304840768+003
42	3.8552585385368285508+003	43	3.922860336134839914+003	44	3.989171629044137462+003
43	3.9269571409494888992+003	44	3.9988607096638488840+003	45	4.06955083855106828824+003
44	4.0022124031720713984+003	45	4.077819513779466536+003	46	4.1525362008710908114+003
45	4.080711801383681026+003	46	4.1598176556161560684+003	47	4.2381073434561510453+003
46	4.162261255289161214+003	47	4.244556502410373897+003	48	4.262293531356588665+003
47	4.246213627600807261551+003	48	4.33200389070390396+003	49	4.41686243131173752434+003
48	4.333944142968645156+003	49	4.4220798335186809230+003	50	4.509665484033255785+003
49	4.4238214668248447258+003			51	4.605503537838370322912+003

PROBLATE EIGENVALUES H = 80.00		H = 0	H = 1	H = 2
L	EIGENVALUE	EIGENVALUE	EIGENVALUE	FIGENVALUE
0	7.92476187374038107134+001	8.02539888013821575858+001	8.32730915088577620158+001	8.32730915088577620158+001
1	2.38238016470159461581+002	2.39257375560832401082+002	2.423154283954631829+002	2.423154283954631829+002
2	3.962131353878212261+002	3.97246674374407923816+002	4.0034523816737327187+002	4.0034523816737327187+002
3	5.5316500386287411281+002	5.54211911011344114563+002	5.575260380574906651+002	5.575260380574906651+002
4	7.09081227911529147104+002	7.10142779568452975289+002	7.1332733674235171153+002	7.1332733674235171153+002
5	8.6395188523876070322+002	8.65028621668074552901+002	8.6825809148191345556+002	8.6825809148191345556+002
6	1.01776573560458405474+003	1.01885840299112143746+003	1.021363608895720529+003	1.021363608895720529+003
7	1.1705141334138576+003	1.172071501360502144+003	1.174948455526291263+003	1.174948455526291263+003
8	1.322170766324906233+003	1.32330370772878067+003	1.368348133951483162+003	1.368348133951483162+003
9	1.47275010503060291423+003	1.47389508816510615276+003	1.4773293155254651654+003	1.4773293155254651654+003
10	1.62221131423583871489+003	1.623382117198551450+003	1.626873380384345AA+003	1.626873380384345AA+003
11	1.7705678512441833914+003	1.771571530100010139+003	1.77530261495997519487+003	1.77530261495997519487+003
12	1.9177848578554640565+003	1.91899551579432973+003	1.9226034441634694149+003	1.9226034441634694149+003
13	2.063850947558133553+003	2.0650818226789858525+003	2.068761745231344A1364+003	2.068761745231344A1364+003
14	2.20876343957138788533+003	2.210013355616280231607+003	2.21376281107197520092+003	2.21376281107197520092+003
15	2.3524911726173102619+003	2.3537685410502322472+003	2.3575913101912311364+003	2.3575913101912311364+003
16	2.4950308612837737942+003	2.4963109630790630603+003	2.50052124628109630603+003	2.50052124628109630603+003
17	2.636353052642238213+003	2.6376038285597968453+003	2.641665892995217663+003	2.641665892995217663+003
18	2.776452475764081813+003	2.7778089479525375038+003	2.7818777499071A1626+003	2.7818777499071A1626+003
19	2.9153004781710773742+003	2.91668765519116545826+003	2.92084575959396674595+003	2.92084575959396674595+003
20	3.05288032677299181+003	3.054308090644327471+003	3.058490322466566196+003	3.058490322466566196+003
21	3.18911530593856631+003	3.19062588905794430925+003	3.19498915051988271349+003	3.19498915051988271349+003
22	3.3241582776148388984+003	3.3256427946206279728+003	3.330171545037546283+003	3.330171545037546283+003
23	3.457793983065241597+003	3.4593278150592284560+003	3.4639219310900710265+003	3.4639219310900710265+003
24	3.590088746686107257+003	3.59165653038385395323+003	3.5963378740313127+003	3.5963378740313127+003
25	3.72098423184434669+003	3.7226029330364007948+003	3.72746306431739541682+003	3.72746306431739541682+003
26	3.8504690635867522691+003	3.85213955775102428253+003	3.85714A5349228369269+003	3.85714A5349228369269+003
27	3.9785126391552121963+003	3.98023702027902604+003	3.9854071864492310160+003	3.9854071864492310160+003
28	4.1050810722699707164+003	4.1068400011819064+003	4.12203019075096171+003	4.12203019075096171+003
29	4.230140525139075665+003	4.231986919192964746799+003	4.2375232390837875877+003	4.2375232390837875877+003
30	4.35365287321245699+003	4.35556497055518951161+003	4.3613152383110404349+003	4.3613152383110404349+003
31	4.47557475120214304+003	4.477535221636843140+003	4.483549202466508165+003	4.483549202466508165+003
32	4.5958794113938545713+003	4.597956335143032866+003	4.603483956404834960+003	4.603483956404834960+003
33	4.714491354185642391+003	4.7166725013493824221003	4.72318547051929637865+003	4.72318547051929637865+003
34	4.831395350559740761+003	4.836722473448524913+003	4.8405015742352560587+003	4.8405015742352560587+003
35	4.9465035799783402275+003	4.9490111106936258220+003	4.9568662910163373595+003	4.9568662910163373595+003
36	5.0597638630883102515+003	5.062289912790266889+003	5.06988R7042180606610+003	5.06988R7042180606610+003
37	5.171106414850032339+003	5.17379939935957979950+003	5.18185176221183798720+003	5.18185176221183798720+003
38	5.280452699580640139+003	5.28332821515401390+003	5.29113620474703147166+003	5.29113620474703147166+003
39	5.3871349350559740761+003	5.39080228578240166+003	5.400148302539547643+003	5.400148302539547643+003
40	5.49278398839312829+003	5.4961275788045866376+003	5.5060810416340974151+003	5.5060810416340974151+003
41	5.5955402879721297+003	5.599196955961892467+003	5.610041954R60879833+003	5.610041954R60879833+003
42	5.6998511611118006383+003	5.6998765186256074457+003	5.711824888R955465184+003	5.711824888R955465184+003
43	5.793528859323830025+003	5.798057935076412653+003	5.8113620474703147166+003	5.8113620474703147166+003
44	5.888352736625659633+003	5.893545162298366979+003	5.90860163949587n3481+003	5.90860163949587n3481+003
45	5.980058948449876232+003	5.9861676590082387761+003	6.00352921548270910271+003	6.00352921548270910271+003
46	6.06882078995197668232+003	6.07574213817582026532+003	6.08620534865656R078+003	6.08620534865656R078+003
47	6.1522129123084410229114168+003	6.1621436760229114168+003	6.18682335579011264027+003	6.18682335579011264027+003
48	6.2311670693046735123+003	6.2454531254697339461+003	6.25777433633289461+003	6.25777433633289461+003
49	6.304152180441748623+003	6.3262035780182949140+003	6.3637056821617938393+003	6.3637056821617938393+003

PROLATE EIGENVALUES M = 100.00

M = 0		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
9.924610110899632959503•001	1	1.00295377613414938377•002	1	1.03268402532558030876•002	1
2.98205666559176331377•002	2	2.99259364340911102921•002	2	3.0230199644980656075•002	2
4.9622122118887610172•002	3	4.972474028378866948•002	3	5.0032528876750767259•002	3
6.93102497233445907287•002	4	6.9421046695049256262•002	4	6.9733044105512754788•002	4
8.86161678562910487•002	5	8.016492605385016607•002	5	8.933094176073899344699•002	5
1.08401394093333018434•003	6	1.0857952780418103•003	6	1.08852396468030206203•003	6
1.27766732245394527•003	7	1.2789333594848103•003	7	1.2821556681778510964•003	7
1.470667262068262253•003	8	1.47171649394255282•003	8	1.475056904123628866•003	8
1.662949904903358412•003	9	1.6635253032084601873•003	9	1.66679510576202847851•003	9
1.853071162291021593•003	10	1.854128976076099596•003	10	1.8575144016196813316•003	10
2.042256063940084317395•003	11	2.043786760003039539•003	11	2.0471552287635201134•003	11
2.2311499706566608032•003	12	2.232281762832094491•003	12	2.2359048815600514•003	12
2.4185426712714738745•003	13	2.4196080032541653770•003	13	2.4231591133118655764•003	13
2.60462366829927446833•003	14	2.6059331707308000921•003	14	2.609502194542001024•003	14
2.789882188659594706489•003	15	2.7911673151775800071•003	15	2.794744689290005•003	15
2.970070188183005389•003	16	2.97520911435050812733•003	16	2.9788166675201666882•003	16
3.15688663243806356645•003	17	3.15910564887399149313•003	17	3.1617662066740101925•003	17
3.336609961291010197•003	18	3.3398471935368817269•003	18	3.34356130846930242979•003	18
3.519820617134214133•003	19	3.5204109983729495082•003	19	3.5246190120395788105•003	19
3.69853274197621291423•003	20	3.69966924844740018534•003	20	3.703639756436130125306•003	20
3.876708844054932104•003	21	3.8780034368145500429•003	21	3.8818975657613226520•003	21
4.0536737427014950325•003	22	4.05449928012330068305•003	22	4.058946738640286798•003	22
4.229160458078791407•003	23	4.230797161398160576•003	23	4.23478238674392685534•003	23
4.403919841824689349•003	24	4.405269351144070293•003	24	4.40938105997216855210•003	24
4.5777707298496679374•003	25	4.5785032330332615356•003	25	4.5802302130730485766•003	25
4.74915031161244676241•003	26	4.7505666967679107228•003	26	4.7546153494260262857•003	26
4.9194394055733566417•003	27	4.9212672293656392066•003	27	4.9256149209398337091•003	27
5.0802334908974372179•003	28	5.090703598144070293•003	28	5.098422938409845488•003	28
5.253097128510007532•003	29	5.25880415346561225966•003	29	5.2633116378355545217•003	29
5.4249651573510085•003	30	5.42597220550664571•003	30	5.43016863535551280•003	30
5.583990275720633•003	31	5.5990986686662804552•003	31	5.5956697996745590466•003	31
5.75337298333058831•003	32	5.75497138013035983•003	32	5.759794644719141370•003	32
5.919504670672575837•003	33	5.919592508038103984•003	33	5.92252242933495171061•003	33
6.0710044231307200935•003	34	6.07876239635058680•003	34	6.08384208525891593384•003	34
6.238057792104881227229•003	35	6.238057792104881227229•003	35	6.24371483242566007368•003	35
6.396747791904308994•003	36	6.396747791904308994•003	36	6.40221210591519240995•003	36
6.553359984716687149258•003	37	6.553359984716687149258•003	37	6.559037022174053676•003	37
6.706745662198874180•003	38	6.706745662198874180•003	38	6.714433034547559179•003	38
6.8682868801753325380•003	39	6.8682868801753325380•003	39	6.882868801753325380•003	39
7.0205494400214207520•003	40	7.0205494400214207520•003	40	7.11202072801870457519•003	40
7.320214263310611102246•003	41	7.320214263310611102246•003	41	7.320214263310611102246•003	41

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13. ABSTRACT The wave equation in prolate spheroidal coordinates was separated into radial and angle functions. The differential equation satisfied by the angle functions was written in the form of an eigenvalue problem, that is, as a linear operator operating on eigenfunctions to yield the same eigenfunctions multiplied by corresponding eigenvalues. The eigenvalues were numerically calculated by use of Galerkin's method. This method reduces to the evaluation of the characteristic roots of a large matrix. An 80 by 80 matrix is chosen and a detailed calculation on a high-speed computer leads to a tabulation. The table of prolate eigenvalues published here has the range $m = 0, 1, 2$; $\ell = m (1) m + 49$; $h = 0.1 (0.1) 0.9, 1.0 (0.2) 8.0, 10.0, 20.0 (20.0) 100.0$. The precision is 21 significant figures.		

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