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EVALUATION OF NEUTRON NUCLEAR DATA FOR ^{12}C

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Evaluation of Neutron Nuclear Data for ^{12}C

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Neutron nuclear data of ^{12}C have been evaluated for JENDL-3 in the energy range from 10^{-5} eV to 20 MeV. Evaluated quantities are the total, elastic and inelastic scattering, radiative capture, photon-production, (n,p), (n,d) and (n,α) reaction cross sections and the angular or energy distribution of neutrons and photons. The total cross section below the threshold energy of the inelastic scattering has been calculated on the basis of the R-matrix theory. Three discrete levels have been taken into account for the inelastic scattering.

Keywords: Evaluation, Neutron Nuclear Data, Carbon-12, Cross Section, JENDL-3, R-Matrix Theory, 10^{-5} eV ∿ 20 MeV Range

^{12}Cの中性子核データの評価

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JENDL-3のために^{12}Cの中性子核データを10^{-5} eVから20 MeVのエネルギーにわたって評価した。評価した量は全断面積，弾性散乱断面積，非弾性散乱断面積，放射性捕獲断面積，光子生成断面積，(n,p)反応断面積，(n,d)反応断面積，(n,α)反応断面積，中性子および光子の角度分布，エネルギー分布である。非弾性散乱のしきい値以下のエネルギーでは，全断面積はR-マトリックス理論により計算された。非弾性散乱では3つの離散準位を考慮した。

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1. Introduction

Neutron nuclear data of ^{12}C are important for transport calculations in fusion and fission reactors. Although these data are included in JENDL-1 and JENDL-2 (first and second versions of Japanese Evaluated Nuclear Data Library), the evaluated data are mainly based on ENDF/B-IV except for the total and elastic scattering cross sections below 2 MeV and the radiative capture cross section. The evaluation for ENDF/B-IV was made in 1973. Since then many measurements on ^{12}C have been performed. Thus, it was decided to re-evaluate the data of ^{12}C in order to raise the quality and reliability of the evaluated data.

The R-matrix theory is useful for analyses of neutron induced reactions on light nuclei such as Li, B, C and O. Recently, we developed a computer code based on the R-matrix theory. In the present work, this code has been used to calculate the total cross section and the elastic angular distribution.

This report describes the procedure and the results of the re-evaluation for each reaction. The present evaluated data are compiled in the ENDF/B format, and they are listed in Appendix.

2. Total Cross Section

The total cross section of ^{12}C has been measured by many groups. The measurements after 1970 are the following:

Meadows and Whalen[1]	(1970); 0.1 MeV ∿ 1.5 MeV,
Foster, Jr. and Glasgow[2]	(1971); 2.5 MeV ∿ 15 MeV,
Perey et al.[3]	(1972); 0.2 MeV ∿ 20 MeV,
Cabe and Cance[4]	(1973); 0.1 MeV ∿ 6 MeV,
Stooksberry and Anderson[5]	(1973); 0.4 MeV ∿ 2.4 MeV,
Fasoli et al.[6]	(1973); 2.1 MeV ∿ 4.7 MeV,
Mubarakmand et al.[7]	(1974); 1.7 MeV ∿ 14.7 MeV,
Heaton, II et al.[8]	(1975); 1 keV ∿ 15 MeV,
Nishimura et al.[9]	(1977); 20 keV ∿ 240 keV,
Smith et al.[10]	(1979); 0.1 MeV ∿ 4.5 MeV,
Lamaze et al.[11]	(1979); 3 MeV ∿ 40 MeV,
Auchampaugh et al.[12]	(1979); 1 MeV ∿ 14 MeV,
Cierjacks et al.[13]	(1980); 3 MeV ∿ 30 MeV.

In the keV region, Heaton, II et al.[8] measured the cross section with an experimental uncertainty of ∿1%, and their data are consistent with other data[1,4,5,9,10]. The data of Perey et al.[3] fluctuate considerably in the energy range from 180 keV to 500 keV. In the MeV region, Lamaze et al.[11], Auchampaugh et al.[12] and Cierjacks et al.[13] presented a huge amount of data with high resolution. In the present evaluation the energy range of the total cross section was divided into three regions, and different methods of evaluation were employed in each energy region.

2.1 Below 10 eV

In this region, the total cross section was obtained by summing up the radiative capture and elastic scattering cross sections described in the following sections.

2.2 Between 10 eV and 4.8 MeV

The cross section was calculated on the basis of the R-matrix theory[14,15] using the computer code RESCAL[16]. The R-matrix is given by

$$R^{J\pi}_{c',c} = R^{\infty J\pi}_{c}\delta_{c',c} + \sum_{\lambda}\gamma^{J\pi}_{\lambda c'}\gamma^{J\pi}_{\lambda c} / (E^{J\pi}_{\lambda} - E), \tag{1}$$

where c' and c are conventional channel indices, $\gamma^{J\pi}_{\lambda}$ the reduced width amplitude and $E^{J\pi}_{\lambda}$ the energy eigenvalue. Symbol $R^{\infty J\pi}_{c}$ represents a diagonal component of distant level contributions, and it consists of two terms, i.e.,

$$R^{\infty J\pi}_{c} = R^{\infty J\pi}_{c0} + R^{\infty J\pi}_{c1}\cdot E_n , \tag{2}$$

where both $R^{\infty J\pi}_{c0}$ and $R^{\infty J\pi}_{c1}$ are assumed to be real constants and E_n stands for the incident neutron energy. The collision matrix is written in terms of the R-matrix parameters as follows:

$$U^{J\pi}_{c',c} = \exp\{i(\omega_{c'} + \omega_{c})\}\cdot W^{J\pi}_{c',c} , \tag{3}$$

where

$$W^{J\pi}_{c',c} = \delta_{c',c} + 2i\sqrt{P_{c'}}(\Xi^{\infty J\pi}_{c}\delta_{c',c} + \sum_{\lambda\mu}\alpha^{J\pi}_{\lambda c'}\alpha^{J\pi}_{\mu c}A^{J\pi}_{\lambda\mu})\sqrt{P_{c}} . \tag{4}$$

Symbols used in eqs. (3) and (4) are,

$$\omega_c = \sigma_c - \phi_c \ , \tag{5}$$

$$\Xi_c^{\infty J\pi} = (1-R_c^{\infty J\pi} L_c^{oJ\pi})^{-1} R_c^{\infty J\pi} \ , \tag{6}$$

$$\alpha_{\lambda c}^{J\pi} = (1-R_c^{\infty J\pi} L_c^{oJ\pi})^{-1} \gamma_{\lambda c}^{J\pi} \ , \tag{7}$$

$$L_c^{oJ\pi} = S_c - B_c^{J\pi} + iP_c \ , \tag{8}$$

$$A_{ii}^{J\pi} = \varepsilon_i^{J\pi} \ , \tag{9}$$

and

$$A_{ik}^{J\pi} = -\xi_{ik}^{J\pi} \qquad (i \neq k) \ , \tag{10}$$

where

$$\varepsilon_\lambda^{J\pi} = E_\lambda^{J\pi} - E - \xi_{\lambda\lambda}^{J\pi} \ , \tag{11}$$

$$\xi_{\lambda\mu}^{J\pi} = \sum_c L_c^{oJ\pi} (1-R_c^{\infty J\pi} L_c^{oJ\pi})^{-1} \gamma_{\lambda c}^{J\pi} \gamma_{\mu c}^{J\pi} \ . \tag{12}$$

Physical meaning of some parameters used here is,

σ_c : Coulomb phase shift

ϕ_c : hard sphere phase shift

S_c : shift factor

P_c : penetration factor

$B_c^{J\pi}$: logarithmic derivative involved in the specification of the real boundary condition.

In RESCAL, $B_c^{J\pi}$ is determined by

$$B_c^{J\pi} = S_c (E^{J\pi} + Q_c) \ , \tag{13}$$

where Q_c is the Q-value and $E^{J\pi}$ is an arbitrary value to be given as an input.

The transition matrix $T^{J\pi}_{c',c}$ is related to the collision matrix $U^{J\pi}_{c',c}$ by

$$T^{J\pi}_{c',c} = \delta_{c',c} - U^{J\pi}_{c',c} \quad . \tag{14}$$

In the channel-spin coupling scheme, c represents a set of quantities $\{\alpha s \ell\}$, where s is the channel spin, ℓ is the orbital angular momentum and α defines a pair of nuclei. In this coupling, the total cross section is given by

$$\sigma_{tot} = \frac{\pi}{k^2_\alpha} \sum_J \frac{2(2J+1)}{(2I_1+1)(2I_2+1)} \sum_{s\ell} \text{Real Part } [T^{J\pi}_{\alpha s\ell,\alpha s\ell}] \ , \tag{15}$$

where I_1 and I_2 are spins of the projectile and target nucleus, respectively, and k_α the wave number for the incident channel.

Initial guess-values of the R-matrix parameters were taken from the analysis by Smith et al.[10]. By using the try-and-error method, the final values of parameters were obtained so as to give the best fit to the experimental data[1,4,5,8-10], and they are given in Table I. Figures 1-3 show the calculated results together with ENDF/B-IV and -V. The peak values of two sharp resonances around 2.1 MeV and 2.8 MeV are given as follows:

Present work	6.04489 barns at 2.077 MeV
	5.26695 barns at 2.815 MeV
ENDF/B-V	6.04350 barns at 2.077 MeV
	5.07100 barns at 2.815 MeV
ENDF/B-IV	6.02330 barns at 2.0778 MeV.

In ENDF/B-IV, there is no resonance around 2.1 MeV, because experimental data indicating its existence were not available in 1973 when the evaluation was done.

2.3 Above 4.8 MeV

The evaluated cross section was obtained from the measurements of Lamaze et al.[11], Auchampaugh et al.[12] and Cierjacks et al.[13] by using the spline function. Figures 4 and 5 show the present results.

3. Elastic Scattering

3.1 Below 10 eV

As for the thermal cross section, Koester et al.[17] obtained a value of 4.7456 b by using the Christiansen filter technique. The fourth edition of BNL-325[18] recommended a value of 4.746 b. We also adopted this recommended value in the energy range from 10^{-5} eV to 10 eV. The angular distribution was assumed to be isotropic in the center-of-mass system (CM), and this assumption was verified by the R-matrix calculation.

3.2 Between 10 eV and 4.8 MeV

The elastic scattering cross section was given as the difference between the total and radiative capture cross sections.

The angular distribution was obtained from the R-matrix calculations described in Sect. 2.2. It is given by the following form:

$$\frac{d\sigma_{\alpha'\alpha}}{d\Omega_{\alpha'}} = \frac{1}{4\pi} \sum_L B_L(\alpha',\alpha)\ P_L(\cos\theta_{\alpha'}) \ . \qquad (16)$$

The Legendre coefficient $B_L(\alpha',\alpha)$ is written in terms of the transition matrix as follows:

$$B_L(\alpha',\alpha) = \frac{\pi}{k_\alpha^2} \frac{1}{(2I_1+1)(2I_2+1)} \sum_{s's} (-1)^{s'-s}$$
$$\times \sum_{J_1J_2} \sum_{\ell_1\ell_2} \sum_{\ell_1'\ell_2'} Z(\ell_1J_1\ell_2J_2;sL)\ Z(\ell_1'J_1\ell_2'J_2;s'L)$$

$$\times \text{ Real Part } [T^{J_1\pi_1}_{\alpha's'\ell_1',\alpha s\ell_1} \; T^{J_2\pi_2}_{\alpha's'\ell_2',\alpha s\ell_2}{}^{*}], \qquad (17)$$

where the Z coefficient is defined as usual.

3.3 Above 4.8 MeV

The cross section was obtained by subtracting the reaction cross section from the total cross section.

The angular distribution was evaluated on the basis of the following experimental data:

Deconninck and Meulders[19]	(1970); 17 MeV	∿ 20 MeV,
Galati et al.[20]	(1972); 3 MeV	∿ 7 MeV,
Velkley et al.[21]	(1973); 7 MeV	∿ 9 MeV,
Haouat et al.[22]	(1975); 8 MeV	∿ 14.5 MeV,
Thumm et al.[23]	(1980); 15 MeV	∿ 18 MeV.

The elastic scattering cross sections and the R-matrix calculations of the angular distributions are shown in Figs. 6 - 10 by comparing with experimental data[10,19,21,22,24-29].

4. Inelastic Scattering

4.1 4.44 MeV Level

The first excited state of ^{12}C ($J^{\pi}=2^{+}$) decays into the ground state ($J^{\pi}=0^{+}$) by emitting γ-rays. The angular distribution of γ-rays is given by

$$\frac{d\sigma_{n,n'\gamma}}{d\Omega_{\gamma}} = \frac{\sigma_{n,n'\gamma}}{4\pi} [1 + 5a_2P_2(\cos\theta_{\gamma}) + 9a_4P_4(\cos\theta_{\gamma})] \; , \qquad (18)$$

where P_2 and P_4 are the second- and fourth-order Legendre polynomials,

respectively. Neglecting the fourth-order term, the cross section for the (n,n'γ) reaction is estimated from the measurement at 125° where P_2 is zero, i.e.,

$$\sigma_{n,n'\gamma} = 4\pi \left.\frac{d\sigma_{n,n'\gamma}}{d\Omega_\gamma}\right|_{\theta_\gamma=125°}. \tag{19}$$

Morgan et al.[30] measured these differential cross sections from 4.8 MeV to 19 MeV with a NaI(Tl) detector at two angles of 90° and 125°. Rogers et al.[31] also measured them at an angle of 125°. Both data are consistent with each other. We adopted the data of Morgan et al. here, since the angular distribution of γ-rays as well as the cross section could be extracted from them.

The angular distribution of neutrons was derived from the experimental data[19-23].

4.2 7.65 MeV Level

There are several experimental data[32-36] only around 14 MeV. Thus, the cross section was estimated so that the elastic scattering cross section given as the difference between the total and reaction cross sections might be consistent with experimental data.

The angular distribution was calculated with distorted-wave Born approximation (DWBA) using the computer code DWUCK4[37]. The optical-model potential parameters were taken from the analysis by Thumm and Lesiecki[38], and the parameters are listed in Table II.

4.3 9.64 MeV Level

In the case of the third level, there are several measurements[32, 33,35,36,39,40] around 14 MeV. Recently, Antolković et al.[41] measured the three α-correlation spectra from the $^{12}C(n,3\alpha)n$ reaction between 10

and 35 MeV by using the nuclear emulsion, and they deduced the excitation function for the inelastic scattering to the third excited state of ^{12}C with kinematical analysis. The evaluation was done on the basis of their data by smoothing them.

The angular distribution was calculated with DWBA, as described in the above subsection.

4.4 Continuous Levels

The inelastic scattering to the excited states of ^{12}C higher than 10.3 MeV and other reactions which lead to the final state of $3\alpha + n$ were considered as the inelastic scattering to the continuous levels. Antolković et al.[41] measured the $(n,3\alpha)n$ cross section in a kinematically complete experiment, and their data are consistent with the old works[42,43]. Owing to the experimental energy cut-off, however, the events due to the decay via the second excited state of ^{12}C (7.65 MeV) were unable to be detected. Therefore, we considered the contribution from the continuum as the difference between the measured $^{12}C(n,3\alpha)n$ cross section and the $^{12}C(n,n')^{12}C^*$ (9.64 MeV) cross section evaluated above.

The angular distribution was assumed to be isotropic in CM. As the energy distribution the evaporation spectrum was assumed. The value of nuclear temperature θ was determined on the basis of the OKTAVIAN data[44] at 14.7 MeV. For other energies the following expression was assumed:

$$\theta = (E_n/a)^{1/2} , \qquad (20)$$

where a is a constant.

Figures 11-16 show the evaluated cross sections. For the inelastic scattering to the first excited state, ENDF/B-V gives a fine structure around 14.8 MeV as shown in Fig. 11. This structure comes from some experimental data[32,33,45]. However, there is no such a structure from the excitation functions obtained by Morgan et al.[30] and Rogers et al.[31]. Thus, it has not been taken into account in the present work.

In Figs.15 and 16, are shown the angular distributions at 14 MeV by comparing with ENDF/B-V and experimental data[32,33,39,40,44,46]. The calculated angular distribution for the inelastic scattering to the second excited state (7.65 MeV) is in good agreement with the most recent data of Takahashi et al.[44], as shown in Fig. 15. On the other hand, it was found that the DWBA result did not reproduce satisfactorily the whole pattern of the data of Takahashi et al. in the case of the third excited state (9.64 MeV).

5. Radiative Capture Reaction

As the thermal cross section we adopted a value of 3.53 mb which was recommended in BNL-325[18]. The cross section was extrapolated as 1/v up to 100 keV, i.e.,

$$\sigma_{n,\gamma} = 5.61 \times 10^{-4} \, [E_n \, (\mathrm{eV})]^{-1/2} \, (\mathrm{barns}). \qquad (21)$$

Above 100 keV, the inverse reaction data of Cook[47] were added by using the detailed balance. The result is shown in Fig. 17 together with experimental data[48,49] and the evaluated data in ENDF/B-IV and -V. It is noted that the (n,γ) cross section in ENDF/B-IV is equal to zero above 4.0 keV.

6. The $^{12}C(n,p)^{12}B$ Reaction

Rimmer and Fisher[50] measured the excitation function in the energy range of 14.5 MeV to 22 MeV by the activation method. Bobyr et al.[51] also measured the cross section from 16 MeV to 18 MeV by the same method, but their data are twice as large as those of Rimmer and Fisher. Since the measured data of Rimmer and Fisher covered the whole energy range which was required, we adopted them as the (n,p) cross section for the present. The evaluated curve is shown in Fig. 18.

7. The $^{12}C(n,d)^{11}B$ Reaction

There are no available data on the (n,d) reaction but the inverse reaction data. Hence, the (n,d) cross section was calculated with DWBA by assuming the proton pickup mechanism. As the neutron potential, the same parameters described in Sect. 4.2 were employed. Concerning the deuteron potential we used the parameters of Fuchs et al.[52], and they are listed in Table III. The bound state wave-function for the p + ^{11}B system was calculated by the conventional separation-energy method, and the form factor parameters are given in Table IV. Normalization was taken so that the cross section at 17.5 MeV might give a value of 26 mb which was estimated from the inverse reaction data[53]. The calculated result is shown in Fig. 19.

8. The $^{12}C(n,\alpha)^{9}Be$ Reaction

The (n,α) reactions leading to the excited states of ^{9}Be contribute to the (n,n'3α) reaction. Thus, only the evaluation on the (n,α_0) reaction is needed here. Available experimental data are the following:

$^{12}C(n,\alpha_0)^9Be$

Chatterjee and Sen[54]	(1964); 14.5 MeV,
Huck et al.[55]	(1966); 16 and 17 MeV,
Brendle et al.[56]	(1968); 13.9 and 15.6 MeV,
Kitazawa and Yamamuro[57]	(1969); 14.1 MeV,
Kardonsky et al.[58]	(1971); 14.3 MeV,
Stevens[59]	(1976); 18 ∿ 22 MeV,

$^9Be(\alpha,n_0)^{12}C$

Retz-Schmidt et al.[60]	(1960); 7.6 ∿ 10.4 MeV*),
Verbinski et al.[61]	(1968); 11.3 ∿ 13.6 MeV*),
Obst et al.[62]	(1972); 9.2 ∿ 11 MeV*).

The evaluation was done on the basis of these data by using the spline-function fitting. The evaluated curve is displayed in Fig. 20.

9. Photon Production

9.1 The $^{12}C(n,n'\gamma)^{12}C^*$ Reaction

The differential cross section for the $(n,n'\gamma)$ reaction was measured by Morgan et al.[30]. The integrated cross section is the same as given in eq. (19). The second-order Legendre coefficient a_2 in eq. (18) can be obtained by neglecting the fourth-order term, i.e.,

$$a_2 = \frac{2}{5}\left[1 - \frac{d\sigma_{n,n'\gamma}}{d\Omega_\gamma}\Big|_{\theta_\gamma=90^\circ} \Big/ \frac{d\sigma_{n,n'\gamma}}{d\Omega_\gamma}\Big|_{\theta_\gamma=125^\circ}\right] . \qquad (22)$$

9.2 The $^{12}C(n,\gamma)^{13}C$ Reaction

Spilling et al.[63] measured the capture γ-ray spectrum for thermal

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*) These energies correspond to the incident neutron energies.

neutrons with a high-resolution Ge(Li) detector, and determined the intensities of the γ-rays. We deduced γ-ray multiplicities from their data. The result is the following:

Transition	Multiplicity
cap. → g.s.	0.68
cap. → 3.68 MeV	0.32
3.68 MeV → g.s.	0.32

The angular distribution of γ-rays was assumed to be isotropic.

10. Concluding Remarks

Evaluation of neutron nuclear data for ^{12}C has been performed in the energy range from 10^{-5} eV to 20 MeV.

The R-matrix theory was employed to analyze the total cross section below 4.8 MeV. Using the best-fit R-matrix parameters, the calculated angular distribution for the elastic scattering is in good agreement with experimental data. The experimental data on the inelastic scattering to the levels higher than 7.65 MeV are very scarce. Thus, new measurements are necessary for fusion neutronics calculations.

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Table I R-matrix parameters.

ℓ	J	$E_\lambda^{J\pi}$ (MeV)	$\gamma_{\lambda n}^{J\pi}$ ($MeV^{1/2}$)	$R_{n0}^{\infty J\pi}$	$R_{n1}^{\infty J\pi}$ (MeV^{-1})
0	1/2	-1.862	0.816	0.0245	0.0
1	1/2	3.876	0.230	0.09	0.05
1	3/2	-1.262	0.224	0.261	0.05
		4.56	0.055	0.261	0.05
2	3/2	2.70	0.38	0.250	0.0
		3.254	0.974	0.250	0.0
2	5/2	1.911	0.13	0.065	0.0
3	5/2	2.596	0.077	0.0	0.0

a = 4.61 fm.

Table II Neutron optical-model parameters.

E_n (MeV)	V_0 (MeV)	W_s (MeV)	V_{so} (MeV)	r_0 (fm)	r_s (fm)	r_{so} (fm)	a_0 (fm)	a_s (fm)
8.5	53.5	5.17	4.4	1.26	1.29	1.10	0.33	0.30
9.0	53.5	6.20	6.1	1.26	1.28	1.10	0.33	0.30
9.5	53.5	6.50	7.1	1.26	1.28	1.10	0.34	0.30
10.0	52.9	7.50	6.0	1.25	1.25	1.10	0.34	0.30
10.5	53.5	5.75	6.0	1.20	1.25	1.10	0.33	0.30
11.0	53.3	5.75	6.0	1.20	1.25	1.05	0.34	0.30
11.5	53.1	5.75	6.0	1.20	1.25	1.05	0.35	0.30
12.0	52.8	5.00	6.5	1.25	1.25	1.05	0.36	0.30
12.5	52.7	5.75	6.5	1.25	1.25	1.05	0.36	0.30
13.0	52.6	5.75	6.0	1.25	1.25	1.05	0.36	0.30
13.5	52.4	5.75	6.0	1.25	1.25	1.05	0.36	0.30
14.0	52.4	5.75	5.5	1.20	1.25	1.05	0.40	0.35
14.5	52.4	7.30	7.0	1.20	1.25	1.03	0.42	0.35
15.0	51.7	6.05	4.2	1.20	1.25	1.00	0.46	0.36
15.85	51.6	5.75	6.0	1.20	1.25	1.00	0.46	0.40
17.27	51.3	8.00	6.0	1.20	1.25	1.00	0.55	0.40
18.25	49.5	6.45	6.0	1.20	1.25	1.00	0.56	0.40
19.88	49.1	6.45	6.0	1.20	1.25	1.00	0.56	0.40

a_{so} = 0.38 fm.

Table III Deuteron optical-model parameters.

V_0 (MeV)	W_v (MeV)	V_{so} (MeV)	r_0 (fm)	r_v (fm)	r_{so} (fm)	r_c (fm)	a_0 (fm)	a_v (fm)	a_{so} (fm)
70.0	10.0	6.0	1.75	2.26	1.75	1.75	0.65	0.45	0.65

Table IV Form-factor parameters for the p + ^{11}B system.

r_0 (fm)	r_c (fm)	a_0 (fm)	λ (MeV)
1.3	1.3	0.5	25.0

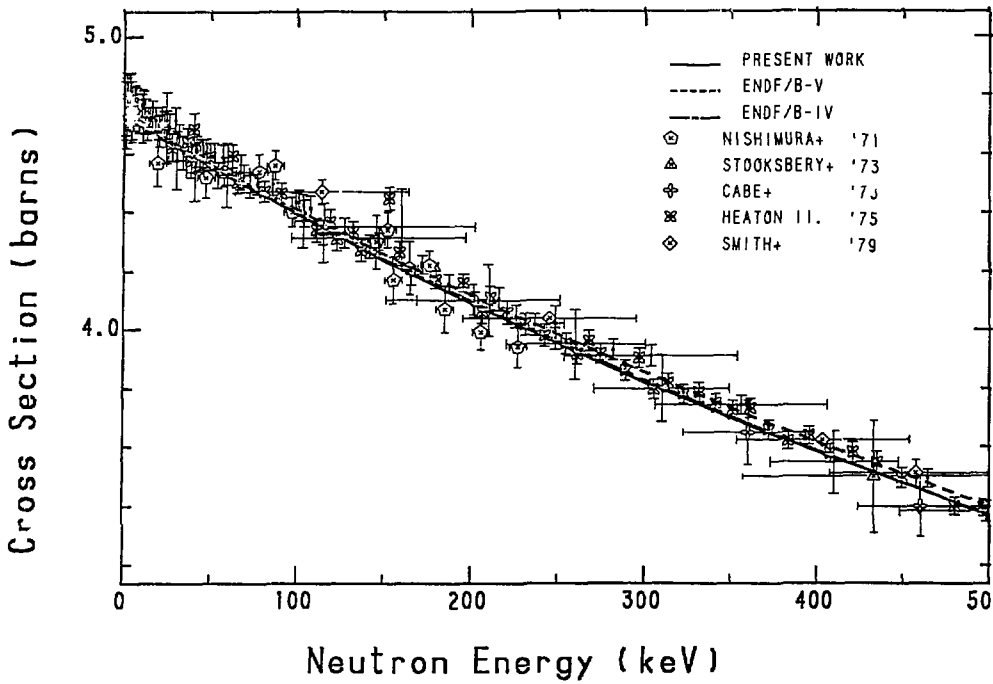

Fig. 1 Measured and evaluated total cross sections from 0 to 500 keV.

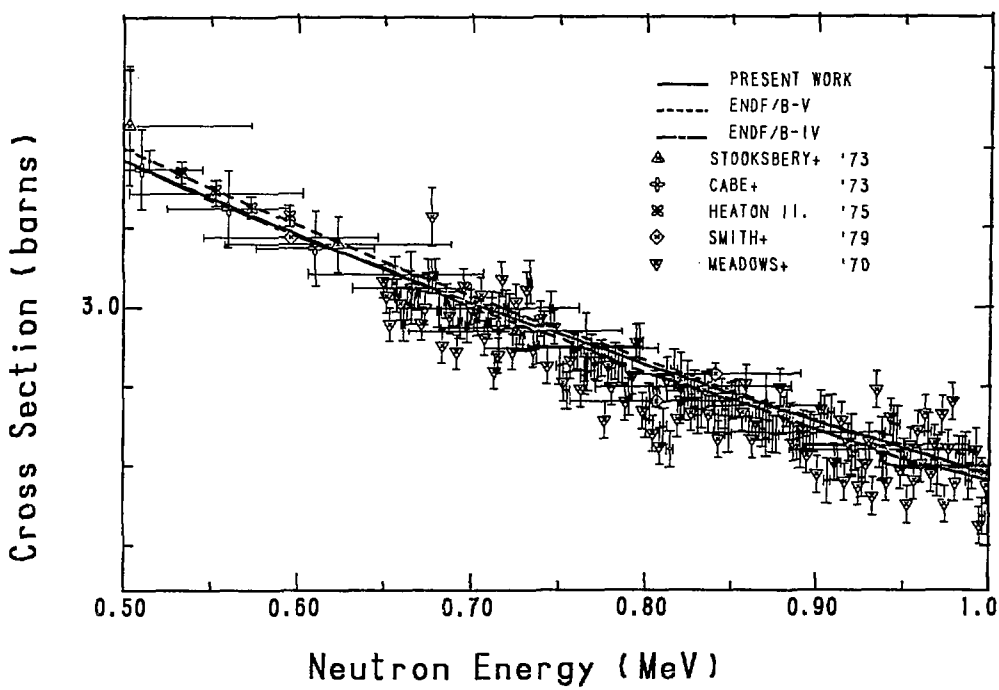

Fig. 2 Measured and evaluated total cross sections from 0.5 MeV to 1 MeV.

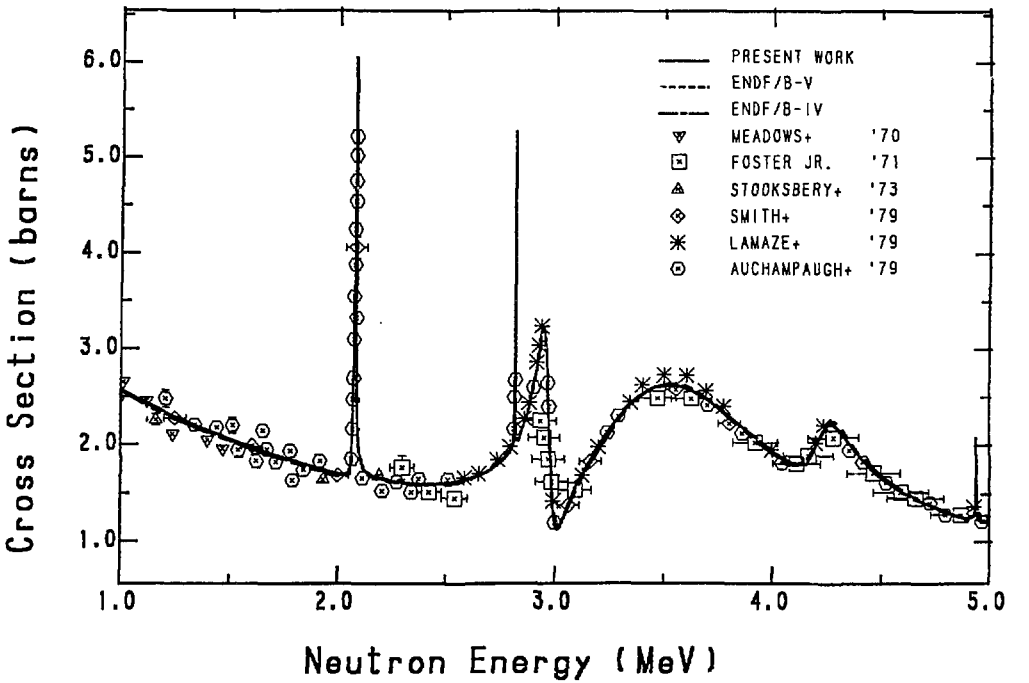

Fig. 3 Measured and evaluated total cross sections from 1 MeV to 5 MeV.

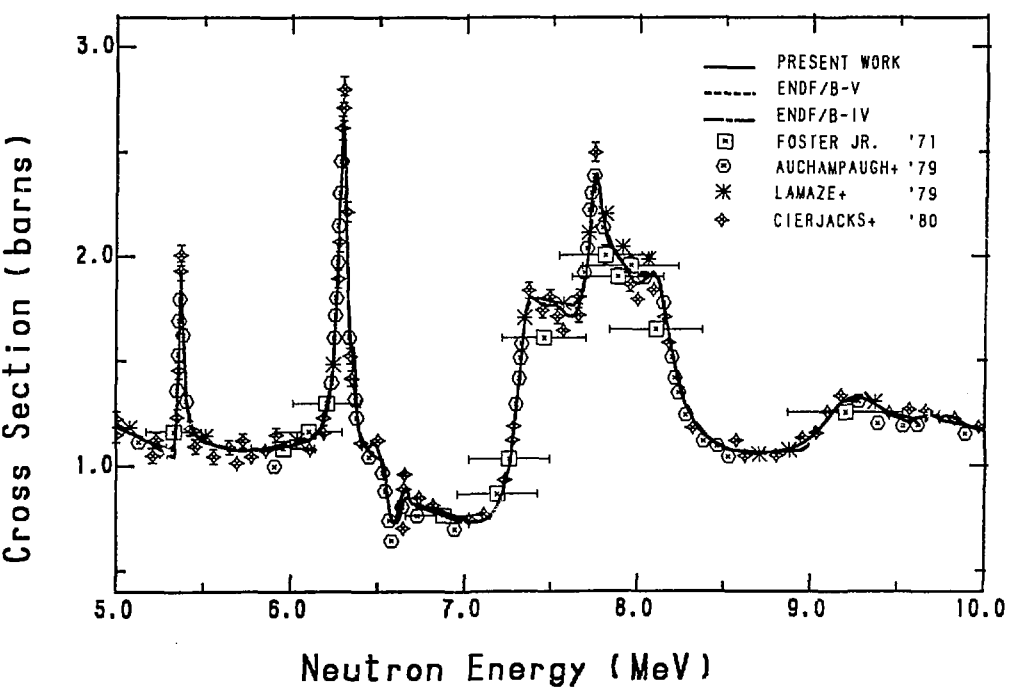

Fig. 4 Measured and evaluated total cross sections from 5 MeV to 10 MeV.

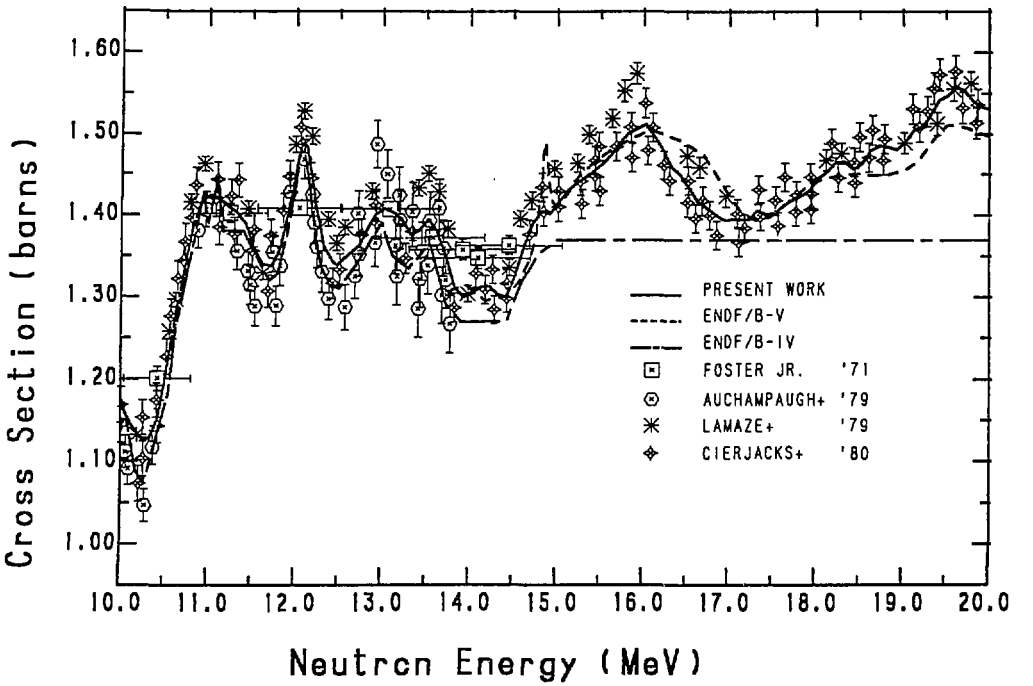

Fig. 5 Measured and evaluated total cross sections from 10 MeV to 20 MeV.

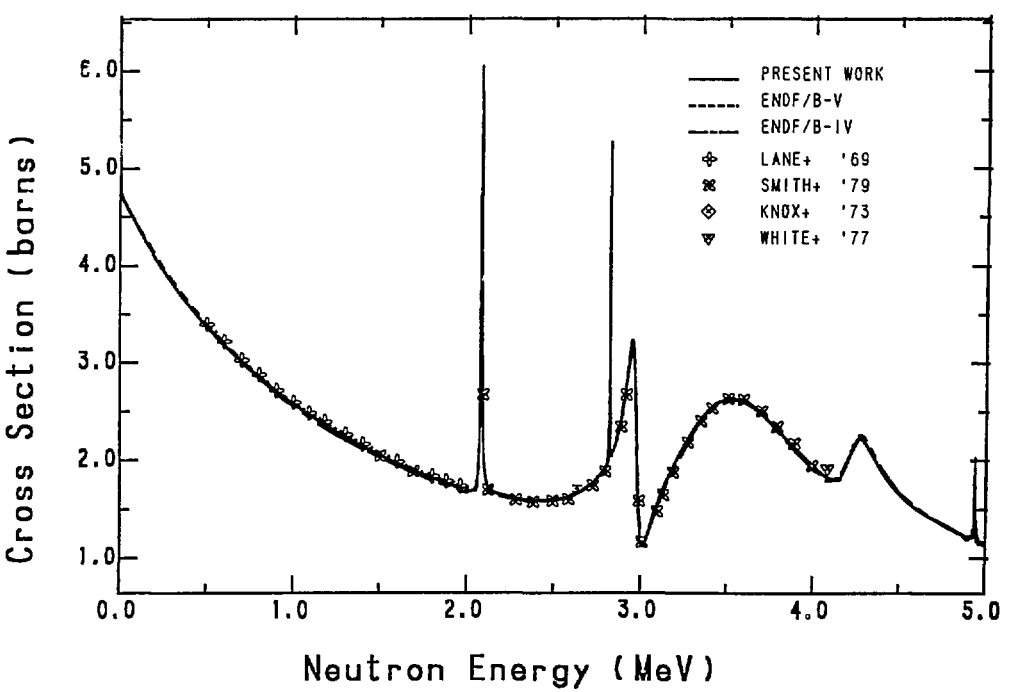

Fig. 6 Measured and evaluated elastic scattering cross sections from 0 to 5 MeV.

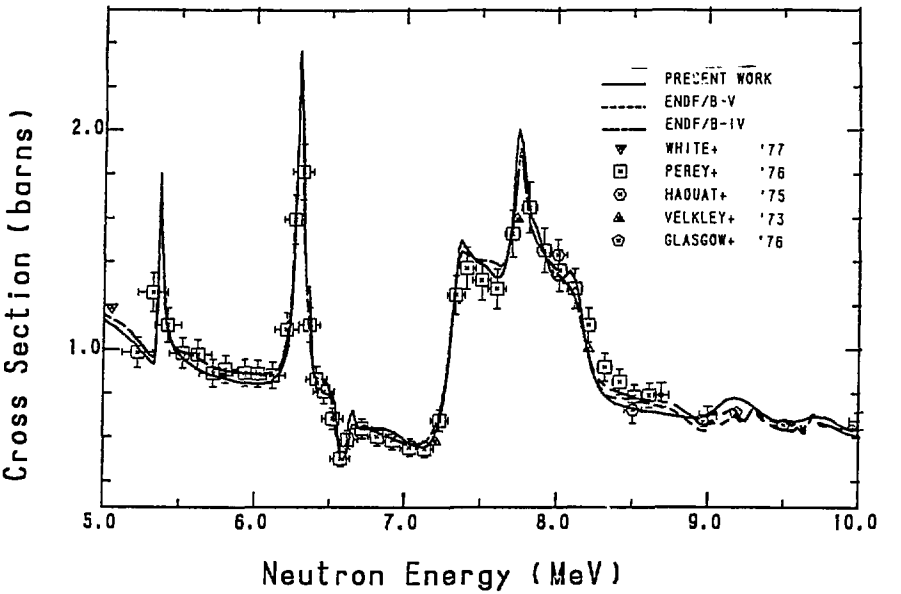

Fig. 7 Measured and evaluated elastic scattering cross sections from 5 MeV to 10 MeV.

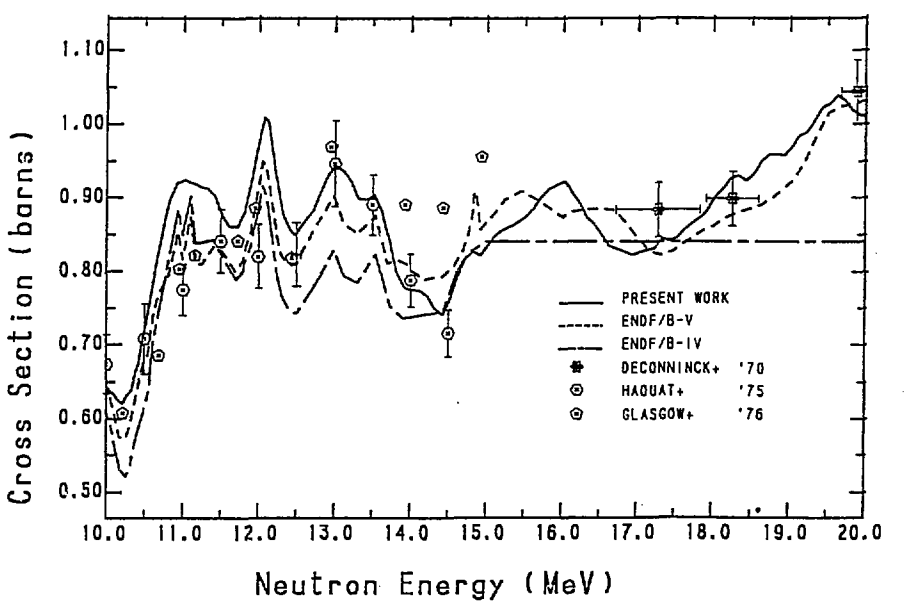

Fig. 8 Measured and evaluated elastic scattering cross sections from 10 MeV to 20 MeV.

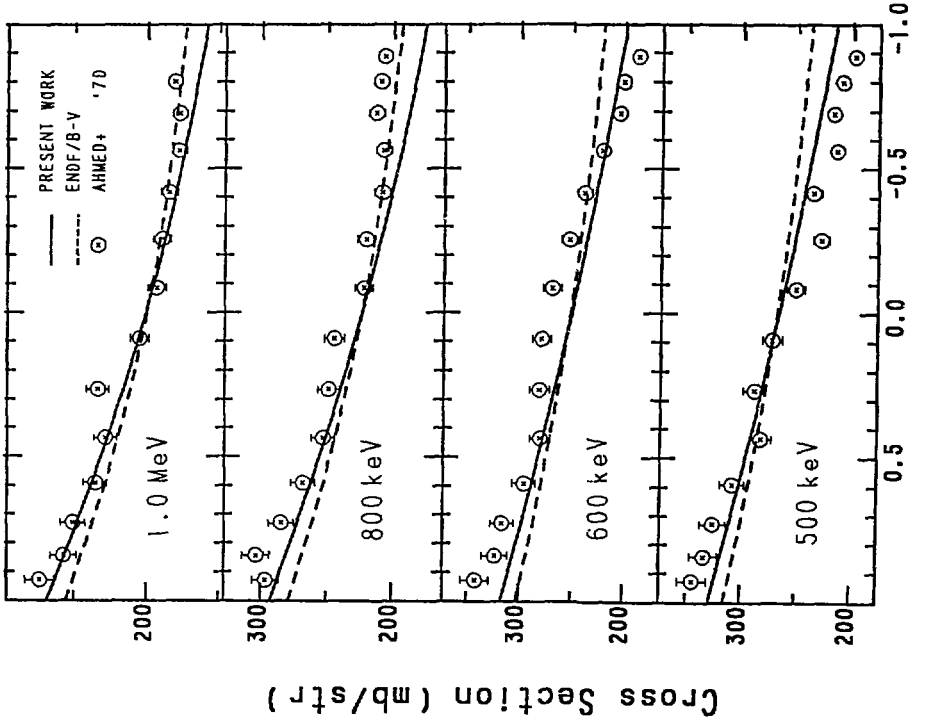

Fig. 9 Measured and evaluated elastic angular distributions from 0.5 MeV to 1 MeV.

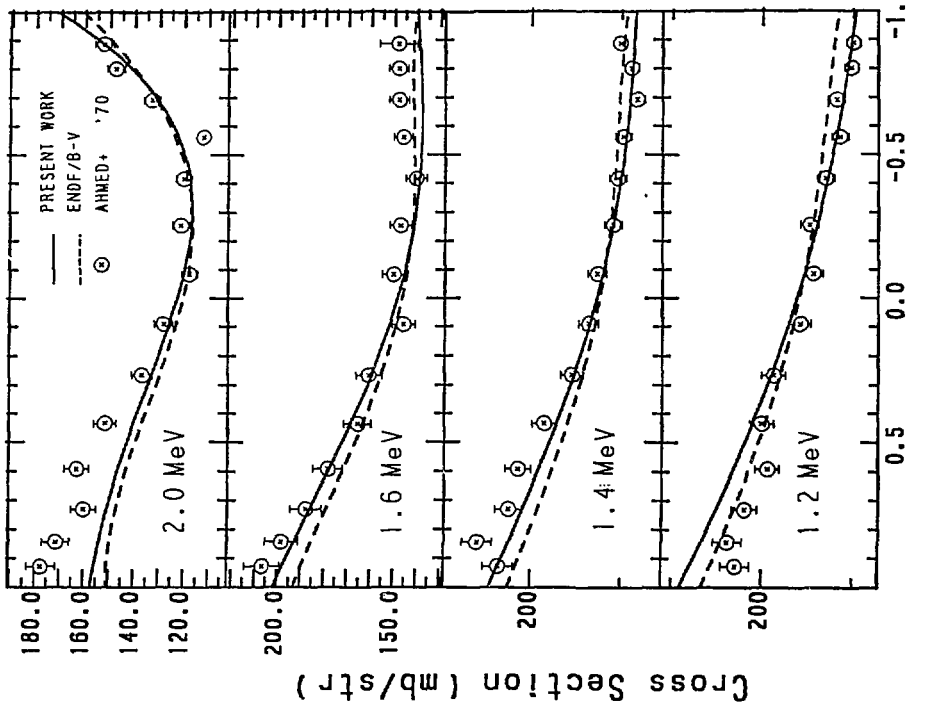

Fig. 10 Measured and evaluated elastic angular distributions from 1 MeV to 2 MeV.

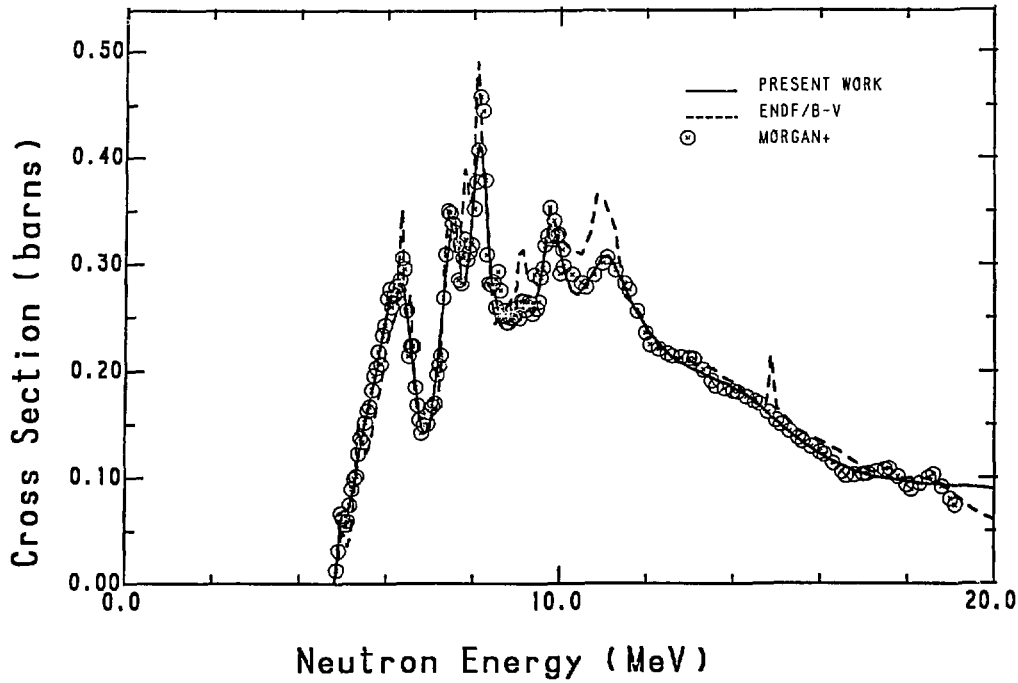

Fig. 11 Measured and evaluated (n,n_1) cross sections.

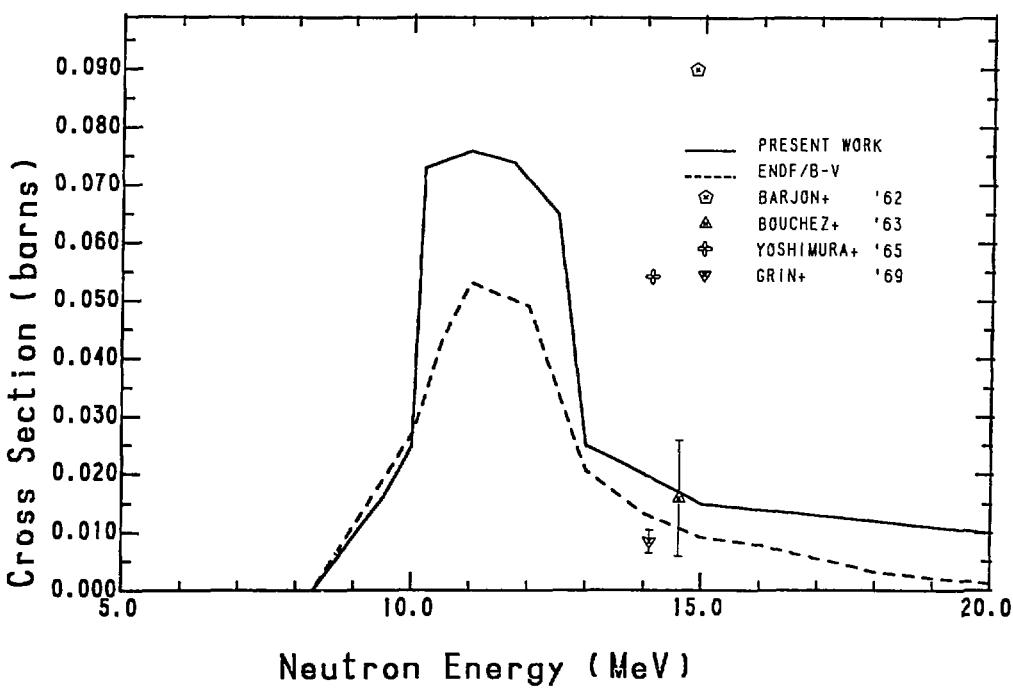

Fig. 12 Measured and evaluated (n,n_2) cross sections.

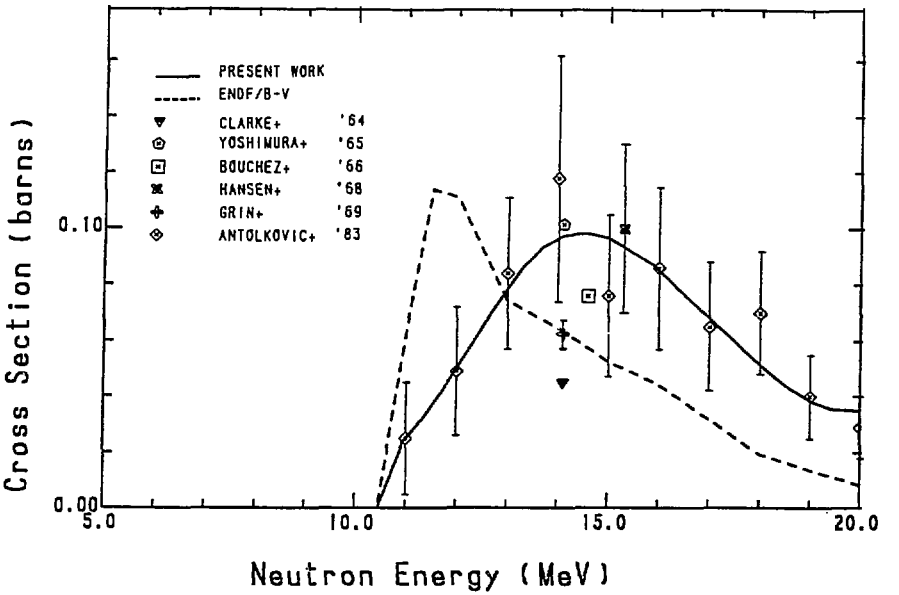

Fig. 13 Measured and evaluated (n,n_3) cross sections.

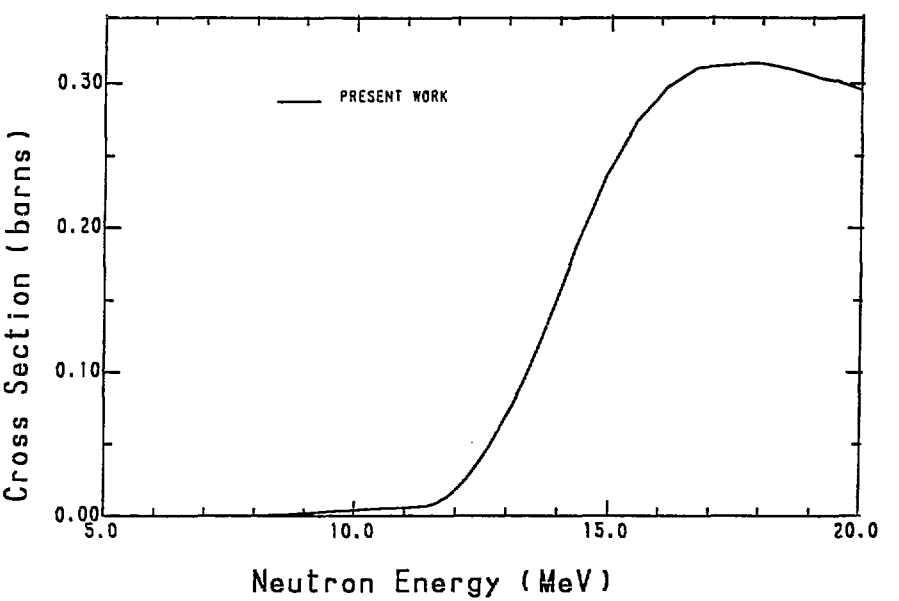

Fig. 14 Evaluated cross section for the inelastic scattering to the continuous levels.

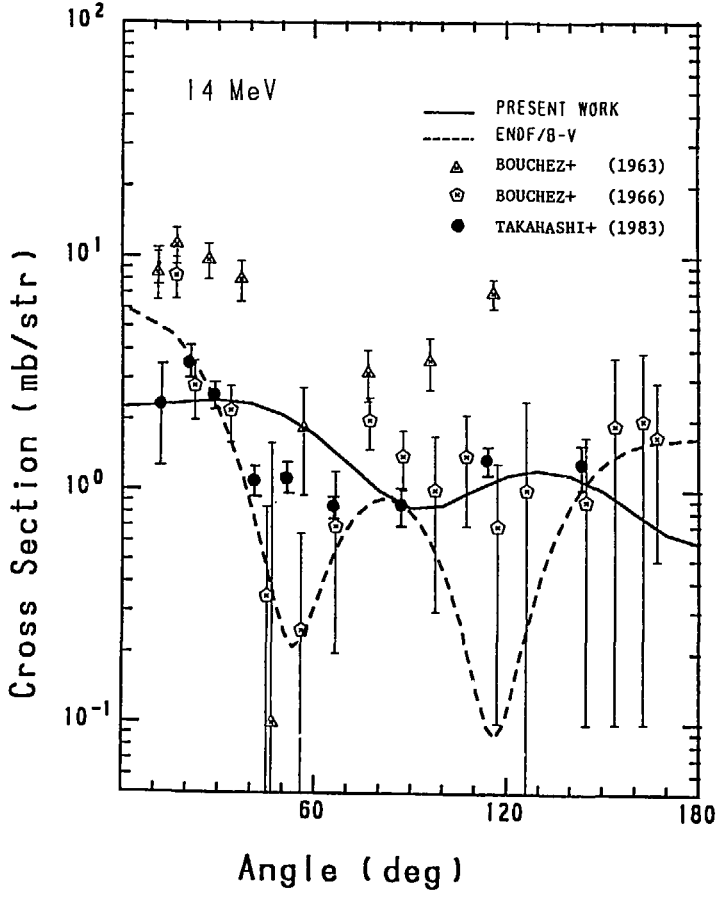

Fig. 15 Measured and evaluated angular distributions for the (n,n_2) reaction at 14 MeV.

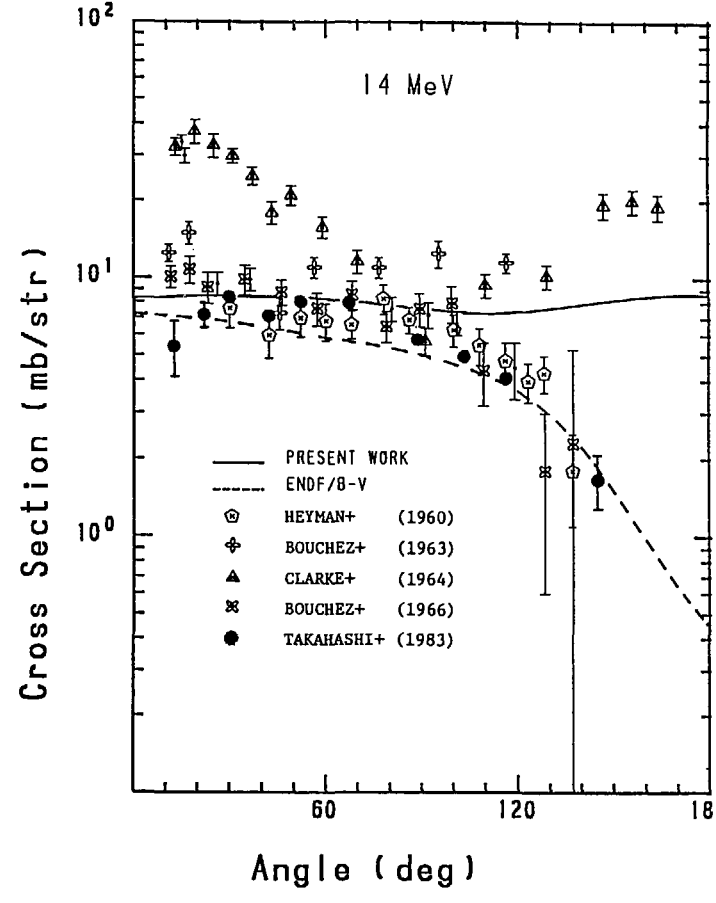

Fig. 16 Measured and evaluated angular distributions for the (n,n_3) reaction at 14 MeV.

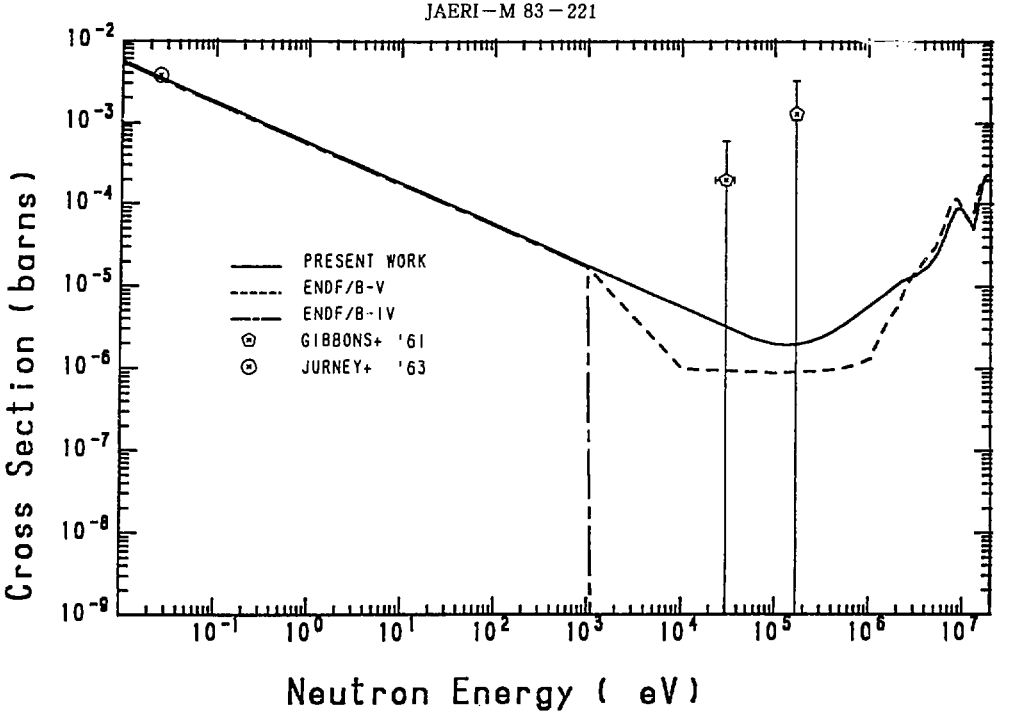

Fig. 17 Measured and evaluated capture cross sections.

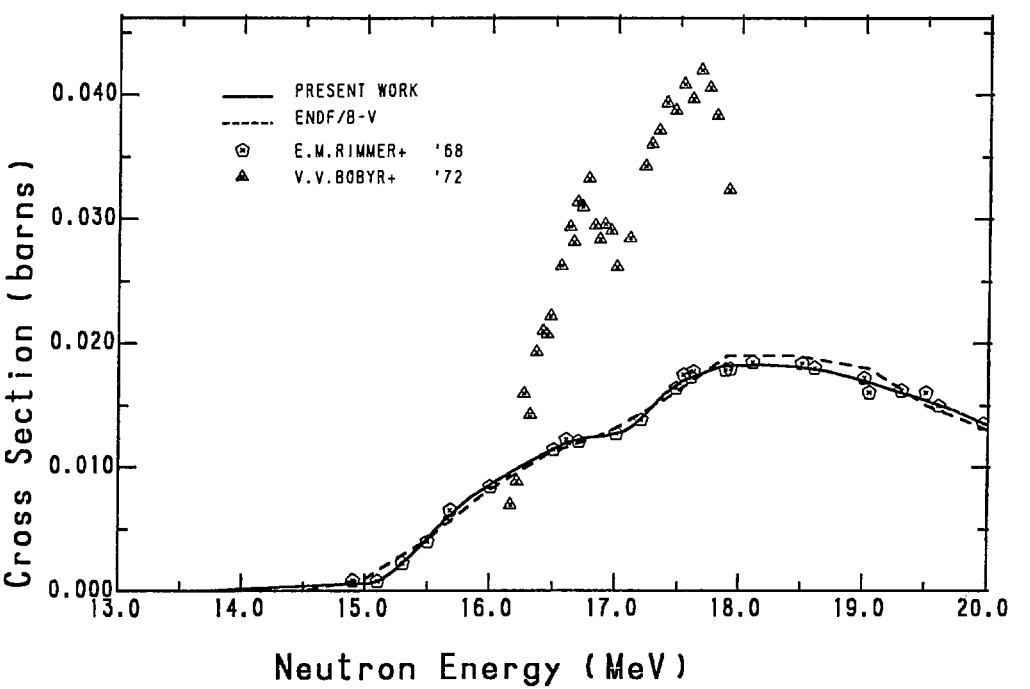

Fig. 18 Measured and evaluated (n,p) cross sections.

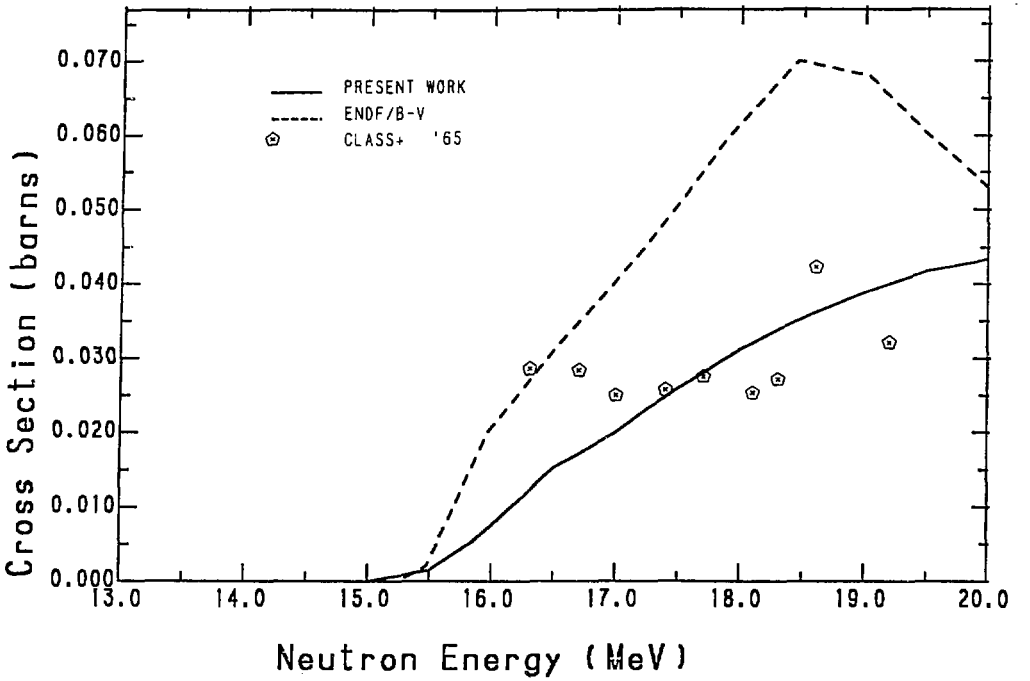

Fig. 19 Measured and evaluated (n,d) cross sections.

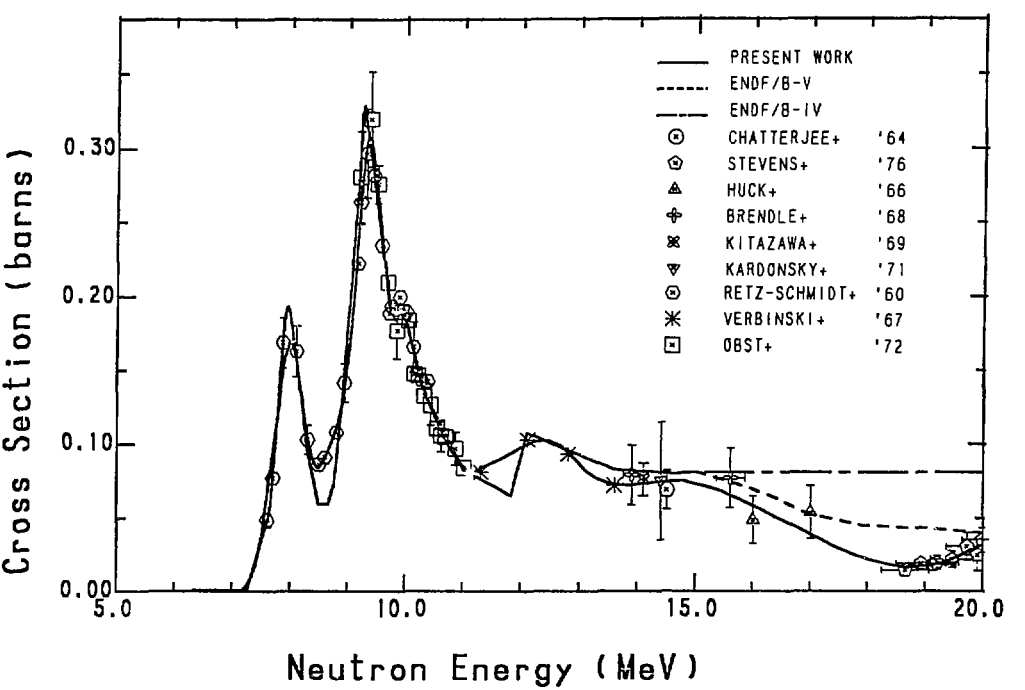

Fig. 20 Measured and evaluated (n,α) cross sections.

Appendix

List with ENDF/B format

```
........10........20........30........40........50........60......MAT MF MT   SEQ
6.01200+ 3 1.18969+ 1          0          0          0         25 612 1451    1
0.0    + 0 0.0    + 0          0          0          1          0 612 1451    2
                                                                   612 1451    3
                               1        451         28             612 1451    4
                               2        151          4             612 1451    5
                               3          1        191             612 1451    6
                               3          2        285             612 1451    7
                               3          3        132             612 1451    8
                               3          4         45             612 1451    9
                               3         51         30             612 1451   10
                               3         52          7             612 1451   11
                               3         53          9             612 1451   12
                               3         91         14             612 1451   13
                               3        102         23             612 1451   14
                               3        103         14             612 1451   15
                               3        104          9             612 1451   16
                               3        107         30             612 1451   17
                               3        251         97             612 1451   18
                               4          2        593             612 1451   19
                               4         51         62             612 1451   20
                               4         52        169             612 1451   21
                               4         53        133             612 1451   22
                               4         91         10             612 1451   23
                               5         91         11             612 1451   24
                              12         51          4             612 1451   25
                              12        102         13             612 1451   26
                              14         51         79             612 1451   27
                              14        102          1             612 1451   28
                                                                   612 1  0   29
                                                                   612 0  0   30
6.01200+ 3 1.18969+ 1          0          0          1          0 612 2151   31
6.01200+ 3 1.00000+ 0          0          0          1          0 612 2151   32
1.00000- 5 1.00000+ 5          0          0          0          0 612 2151   33
0.0    + 0 6.30000- 1          0          0          0          0 612 2151   34
                                                                   612 2  0   35
                                                                   612 0  0   36
6.01200+ 3 1.18969+ 1          0          0          0          0 612 3  1   37
0.0    + 0 0.0    + 0          0          0          2        562 612 3  1   38
         16          5        562          2          0          0 612 3  1   39
1.00000- 5 4.92356+ 0 1.00000- 4 4.80215+ 0 1.00000- 3 4.76376+ 0 612 3  1   40
1.00000- 2 4.75161+ 0 2.53000- 2 4.74953+ 0 1.00000- 1 4.74778+ 0 612 3  1   41
1.00000+ 0 4.74656+ 0 5.00000+ 0 4.74625+ 0 1.00000+ 1 4.74608+ 0 612 3  1   42
1.00000+ 2 4.74574+ 0 1.00000+ 3 4.74233+ 0 5.00000+ 3 4.72724+ 0 612 3  1   43
1.000[illegible]+ 4 4.70850+ 0 1.50000+ 4 4.68990+ 0 2.00000+ 4 4.67144+ 0 612 3  1   44
2.50000+ 4 4.65313+ 0 3.00000+ 4 4.63495+ 0 3.50000+ 4 4.61691+ 0 612 3  1   45
4.00000+ 4 4.59900+ 0 5.00000+ 4 4.56359+ 0 6.00000+ 4 4.52869+ 0 612 3  1   46
7.00000+ 4 4.49431+ 0 8.00000+ 4 4.46043+ 0 9.00000+ 4 4.42703+ 0 612 3  1   47
1.00000+ 5 4.39410+ 0 1.50000+ 5 4.23626+ 0 2.00000+ 5 4.08885+ 0 612 3  1   48
2.50000+ 5 3.95082+ 0 3.00000+ 5 3.82125+ 0 3.50000+ 5 3.69936+ 0 612 3  1   49
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```
........10........20........30........40........50........60......MAT MF MT   SEQ
 4.00000+ 5 3.58441+ 0 5.00000+ 5 3.37302+ 0 6.00000+ 5 3.18294+ 0 612 3  1    50
 7.00000+ 5 3.01089+ 0 8.00000+ 5 2.85427+ 0 9.00000+ 5 2.71095+ 0 612 3  1    51
 1.00000+ 6 2.57928+ 0 1.10000+ 6 2.45780+ 0 1.15000+ 6 2.40055+ 0 612 3  1    52
 1.20000+ 6 2.34545+ 0 1.25000+ 6 2.29239+ 0 1.30000+ 6 2.24128+ 0 612 3  1    53
 1.35000+ 6 2.19203+ 0 1.40000+ 6 2.14458+ 0 1.45000+ 6 2.09884+ 0 612 3  1    54
 1.50000+ 6 2.05477+ 0 1.55000+ 6 2.01232+ 0 1.60000+ 6 1.97144+ 0 612 3  1    55
 1.65000+ 6 1.93211+ 0 1.70000+ 6 1.89430+ 0 1.75000+ 6 1.85798+ 0 612 3  1    56
 1.80000+ 6 1.82313+ 0 1.85000+ 6 1.78972+ 0 1.90000+ 6 1.75770+ 0 612 3  1    57
 1.95000+ 6 1.72712+ 0 2.00000+ 6 1.69946+ 0 2.01000+ 6 1.69519+ 0 612 3  1    58
 2.02000+ 6 1.69231+ 0 2.03000+ 6 1.69238+ 0 2.04000+ 6 1.69965+ 0 612 3  1    59
 2.05000+ 6 1.72822+ 0 2.06000+ 6 1.84469+ 0 2.06100+ 6 1.87047+ 0 612 3  1    60
 2.06200+ 6 1.90153+ 0 2.06300+ 6 1.93926+ 0 2.06400+ 6 1.98553+ 0 612 3  1    61
 2.06500+ 6 2.04285+ 0 2.06600+ 6 2.11463+ 0 2.06700+ 6 2.20563+ 0 612 3  1    62
 2.06800+ 6 2.32242+ 0 2.06900+ 6 2.47426+ 0 2.07000+ 6 2.67405+ 0 612 3  1    63
 2.07100+ 6 2.93939+ 0 2.07200+ 6 3.29274+ 0 2.07300+ 6 3.75803+ 0 612 3  1    64
 2.07400+ 6 4.34709+ 0 2.07500+ 6 5.02595+ 0 2.07600+ 6 5.66576+ 0 612 3  1    65
 2.07700+ 6 6.04489+ 0 2.07800+ 6 5.99467+ 0 2.07900+ 6 5.56590+ 0 612 3  1    66
 2.08000+ 6 4.96484+ 0 2.08100+ 6 4.36972+ 0 2.08200+ 6 3.86196+ 0 612 3  1    67
 2.08300+ 6 3.45622+ 0 2.08400+ 6 3.13988+ 0 2.08500+ 6 2.89430+ 0 612 3  1    68
 2.08600+ 6 2.70256+ 0 2.08700+ 6 2.55133+ 0 2.08800+ 6 2.43061+ 0 612 3  1    69
 2.08900+ 6 2.33306+ 0 2.09000+ 6 2.25327+ 0 2.09100+ 6 2.18725+ 0 612 3  1    70
 2.09200+ 6 2.13205+ 0 2.09300+ 6 2.08544+ 0 2.09400+ 6 2.04571+ 0 612 3  1    71
 2.09500+ 6 2.01157+ 0 2.09600+ 6 1.98200+ 0 2.09700+ 6 1.95621+ 0 612 3  1    72
 2.09800+ 6 1.93356+ 0 2.09900+ 6 1.91356+ 0 2.10000+ 6 1.89578+ 0 612 3  1    73
 2.11000+ 6 1.78967+ 0 2.12000+ 6 1.74151+ 0 2.13000+ 6 1.71396+ 0 612 3  1    74
 2.14000+ 6 1.69572+ 0 2.15000+ 6 1.68241+ 0 2.16000+ 6 1.67198+ 0 612 3  1    75
 2.17000+ 6 1.66341+ 0 2.18000+ 6 1.65609+ 0 2.19000+ 6 1.64969+ 0 612 3  1    76
 2.20000+ 6 1.64398+ 0 2.25000+ 6 1.62193+ 0 2.30000+ 6 1.60684+ 0 612 3  1    77
 2.35000+ 6 1.59705+ 0 2.40000+ 6 1.59248+ 0 2.45000+ 6 1.59366+ 0 612 3  1    78
 2.50000+ 6 1.60157+ 0 2.55000+ 6 1.61765+ 0 2.60000+ 6 1.64401+ 0 612 3  1    79
 2.65000+ 6 1.68378+ 0 2.70000+ 6 1.74202+ 0 2.72000+ 6 1.77228+ 0 612 3  1    80
 2.74000+ 6 1.80770+ 0 2.76000+ 6 1.84944+ 0 2.78000+ 6 1.89913+ 0 612 3  1    81
 2.80000+ 6 1.95986+ 0 2.80100+ 6 1.96338+ 0 2.80200+ 6 1.96699+ 0 612 3  1    82
 2.80300+ 6 1.97071+ 0 2.80400+ 6 1.97458+ 0 2.80500+ 6 1.97864+ 0 612 3  1    83
 2.80600+ 6 1.98299+ 0 2.80700+ 6 1.98774+ 0 2.80800+ 6 1.99315+ 0 612 3  1    84
 2.80900+ 6 1.99968+ 0 2.81000+ 6 2.00830+ 0 2.81100+ 6 2.02136+ 0 612 3  1    85
 2.81200+ 6 2.04569+ 0 2.81300+ 6 2.10819+ 0 2.81400+ 6 2.39819+ 0 612 3  1    86
 2.81500+ 6 5.26695+ 0 2.81600+ 6 2.47052+ 0 2.81700+ 6 2.15130+ 0 612 3  1    87
 2.81800+ 6 2.08656+ 0 2.81900+ 6 2.06536+ 0 2.82000+ 6 2.05737+ 0 612 3  1    88
 2.82100+ 6 2.05476+ 0 2.82200+ 6 2.05477+ 0 2.82300+ 6 2.05622+ 0 612 3  1    89
 2.82400+ 6 2.05855+ 0 2.82500+ 6 2.06144+ 0 2.82600+ 6 2.06474+ 0 612 3  1    90
 2.82700+ 6 2.06832+ 0 2.82800+ 6 2.07213+ 0 2.82900+ 6 2.07612+ 0 612 3  1    91
 2.83000+ 6 2.08025+ 0 2.83200+ 6 2.08889+ 0 2.83400+ 6 2.09795+ 0 612 3  1    92
 2.83600+ 6 2.10737+ 0 2.83800+ 6 2.11711+ 0 2.84000+ 6 2.12717+ 0 612 3  1    93
 2.84500+ 6 2.15368+ 0 2.85000+ 6 2.18217+ 0 2.86000+ 6 2.24566+ 0 612 3  1    94
 2.87000+ 6 2.31929+ 0 2.88000+ 6 2.40533+ 0 2.89000+ 6 2.50663+ 0 612 3  1    95
 2.90000+ 6 2.62638+ 0 2.91000+ 6 2.76719+ 0 2.92000+ 6 2.92792+ 0 612 3  1    96
 2.93000+ 6 3.09463+ 0 2.93500+ 6 3.16731+ 0 2.94000+ 6 3.21854+ 0 612 3  1    97
 2.94500+ 6 3.23101+ 0 2.95000+ 6 3.18303+ 0 2.95500+ 6 3.05403+ 0 612 3  1    98
 2.96000+ 6 2.83544+ 0 2.96500+ 6 2.54211+ 0 2.97000+ 6 2.21307+ 0 612 3  1    99
 2.97500+ 6 1.89638+ 0 2.98000+ 6 1.62876+ 0 2.98500+ 6 1.42592+ 0 612 3  1   100
 2.99000+ 6 1.28600+ 0 2.99500+ 6 1.19821+ 0 2.99800+ 6 1.16518+ 0 612 3  1   101
 3.00000+ 6 1.14972+ 0 3.01000+ 6 1.12771+ 0 3.02000+ 6 1.15836+ 0 612 3  1   102
 3.03000+ 6 1.21057+ 0 3.04000+ 6 1.27005+ 0 3.05000+ 6 1.33055+ 0 612 3  1   103
 3.06000+ 6 1.38947+ 0 3.07000+ 6 1.44588+ 0 3.08000+ 6 1.49958+ 0 612 3  1   104
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........10........20........30........40........50........60......MAT MF MT  SEQ
 3.09000+ 6 1.55070+ 0 3.10000+ 6 1.59947+ 0 3.15000+ 6 1.81697+ 0 612 3  1  105
 3.20000+ 6 2.00596+ 0 3.25000+ 6 2.17526+ 0 3.30000+ 6 2.32454+ 0 612 3  1  106
 3.35000+ 6 2.44940+ 0 3.40000+ 6 2.54464+ 0 3.45000+ 6 2.60656+ 0 612 3  1  107
 3.50000+ 6 2.63406+ 0 3.55000+ 6 2.62913+ 0 3.60000+ 6 2.59615+ 0 612 3  1  108
 3.65000+ 6 2.54086+ 0 3.70000+ 6 2.46928+ 0 3.75000+ 6 2.38691+ 0 612 3  1  109
 3.80000+ 6 2.29827+ 0 3.85000+ 6 2.20684+ 0 3.90000+ 6 2.11512+ 0 612 3  1  110
 3.95000+ 6 2.02495+ 0 4.00000+ 6 1.93821+ 0 4.05000+ 6 1.85858+ 0 612 3  1  111
 4.10000+ 6 1.79789+ 0 4.15000+ 6 1.80072+ 0 4.20000+ 6 2.00161+ 0 612 3  1  112
 4.21350+ 6 2.07590+ 0 4.22640+ 6 2.12680+ 0 4.23930+ 6 2.17330+ 0 612 3  1  113
 4.25340+ 6 2.21020+ 0 4.26740+ 6 2.22420+ 0 4.28150+ 6 2.21540+ 0 612 3  1  114
 4.29550+ 6 2.18420+ 0 4.32370+ 6 2.09800+ 0 4.35180+ 6 2.01050+ 0 612 3  1  115
 4.37990+ 6 1.92480+ 0 4.40800+ 6 1.84400+ 0 4.44870+ 6 1.74510+ 0 612 3  1  116
 4.48940+ 6 1.66680+ 0 4.53000+ 6 1.60180+ 0 4.57070+ 6 1.54280+ 0 612 3  1  117
 4.60340+ 6 1.49980+ 0 4.63600+ 6 1.46310+ 0 4.66870+ 6 1.43060+ 0 612 3  1  118
 4.70140+ 6 1.39980+ 0 4.74440+ 6 1.35580+ 0 4.78730+ 6 1.31170+ 0 612 3  1  119
 4.83020+ 6 1.27930+ 0 4.83549+ 6 1.27677+ 0 4.86336+ 6 1.26962+ 0 612 3  1  120
 4.89122+ 6 1.22720+ 0 4.89882+ 6 1.22529+ 0 4.90643+ 6 1.24602+ 0 612 3  1  121
 4.92140+ 6 1.25880+ 0 4.92470+ 6 1.26270+ 0 4.92800+ 6 1.28210+ 0 612 3  1  122
 4.93130+ 6 1.33480+ 0 4.93260+ 6 1.35450+ 0 4.93390+ 6 1.41050+ 0 612 3  1  123
 4.93460+ 6 1.47850+ 0 4.93520+ 6 1.58750+ 0 4.93590+ 6 1.74780+ 0 612 3  1  124
 4.93660+ 6 1.97050+ 0 4.93700+ 6 2.07650+ 0 4.93740+ 6 2.06690+ 0 612 3  1  125
 4.93790+ 6 1.97270+ 0 4.93830+ 6 1.82430+ 0 4.93920+ 6 1.49000+ 0 612 3  1  126
 4.93970+ 6 1.36560+ 0 4.94010+ 6 1.31080+ 0 4.94280+ 6 1.26410+ 0 612 3  1  127
 4.94550+ 6 1.23780+ 0 4.94820+ 6 1.22830+ 0 4.95090+ 6 1.23200+ 0 612 3  1  128
 4.95510+ 6 1.23320+ 0 4.95940+ 6 1.21940+ 0 4.96360+ 6 1.20690+ 0 612 3  1  129
 4.96780+ 6 1.21200+ 0 4.97530+ 6 1.22130+ 0 4.98280+ 6 1.20160+ 0 612 3  1  130
 5.02500+ 6 1.17953+ 0 5.07500+ 6 1.16193+ 0 5.12500+ 6 1.13983+ 0 612 3  1  131
 5.17500+ 6 1.11779+ 0 5.20270+ 6 1.11170+ 0 5.21710+ 6 1.10010+ 0 612 3  1  132
 5.23140+ 6 1.08950+ 0 5.24570+ 6 1.08060+ 0 5.26000+ 6 1.07430+ 0 612 3  1  133
 5.27690+ 6 1.06660+ 0 5.29370+ 6 1.05730+ 0 5.31050+ 6 1.04920+ 0 612 3  1  134
 5.32740+ 6 1.04540+ 0 5.33310+ 6 1.06390+ 0 5.33880+ 6 1.11750+ 0 612 3  1  135
 5.34450+ 6 1.20320+ 0 5.35020+ 6 1.31820+ 0 5.35480+ 6 1.48420+ 0 612 3  1  136
 5.35930+ 6 1.70740+ 0 5.36390+ 6 1.88400+ 0 5.36620+ 6 1.92250+ 0 612 3  1  137
 5.36840+ 6 1.91040+ 0 5.37350+ 6 1.80350+ 0 5.37860+ 6 1.68130+ 0 612 3  1  138
 5.38360+ 6 1.56310+ 0 5.38870+ 6 1.46830+ 0 5.39920+ 6 1.34100+ 0 612 3  1  139
 5.40970+ 6 1.26530+ 0 5.42020+ 6 1.22310+ 0 5.43080+ 6 1.19680+ 0 612 3  1  140
 5.44740+ 6 1.16550+ 0 5.46400+ 6 1.14640+ 0 5.48050+ 6 1.13530+ 0 612 3  1  141
 5.49710+ 6 1.12810+ 0 5.52500+ 6 1.11349+ 0 5.57500+ 6 1.09744+ 0 612 3  1  142
 5.62500+ 6 1.08348+ 0 5.67500+ 6 1.07560+ 0 5.72500+ 6 1.07231+ 0 612 3  1  143
 5.77500+ 6 1.07579+ 0 5.82500+ 6 1.07645+ 0 5.87500+ 6 1.07694+ 0 612 3  1  144
 5.92500+ 6 1.08520+ 0 5.97500+ 6 1.09225+ 0 6.02500+ 6 1.10069+ 0 612 3  1  145
 6.07500+ 6 1.11349+ 0 6.11110+ 6 1.12120+ 0 6.13120+ 6 1.14670+ 0 612 3  1  146
 6.15130+ 6 1.15940+ 0 6.17140+ 6 1.17810+ 0 6.19150+ 6 1.22170+ 0 612 3  1  147
 6.20070+ 6 1.24470+ 0 6.20990+ 6 1.26560+ 0 6.21900+ 6 1.29740+ 0 612 3  1  148
 6.22820+ 6 1.35300+ 0 6.23620+ 6 1.42360+ 0 6.24410+ 6 1.51350+ 0 612 3  1  149
 6.25210+ 6 1.62750+ 0 6.26010+ 6 1.77060+ 0 6.26870+ 6 2.01080+ 0 612 3  1  150
 6.27730+ 6 2.31310+ 0 6.28580+ 6 2.56320+ 0 6.29010+ 6 2.63290+ 0 612 3  1  151
 6.29440+ 6 2.64680+ 0 6.29940+ 6 2.58750+ 0 6.30440+ 6 2.46710+ 0 612 3  1  152
 6.31450+ 6 2.12290+ 0 6.32450+ 6 1.77470+ 0 6.32960+ 6 1.64900+ 0 612 3  1  153
 6.33460+ 6 1.58250+ 0 6.33840+ 6 1.56050+ 0 6.34230+ 6 1.54470+ 0 612 3  1  154
 6.34610+ 6 1.54100+ 0 6.35000+ 6 1.55530+ 0 6.35510+ 6 1.56620+ 0 612 3  1  155
 6.36030+ 6 1.53830+ 0 6.37070+ 6 1.40990+ 0 6.38100+ 6 1.25790+ 0 612 3  1  156
 6.38620+ 6 1.20050+ 0 6.39130+ 6 1.17000+ 0 6.42330+ 6 1.10320+ 0 612 3  1  157
 6.45520+ 6 1.06270+ 0 6.48710+ 6 1.04140+ 0 6.51900+ 6 1.03220+ 0 612 3  1  158
 6.53500+ 6 9.85970- 1 6.55100+ 6 8.86900- 1 6.56690+ 6 7.85810- 1 612 3  1  159
```

.....10	20	30	40	50	60	MAT	MF	MT	SEQ
6.57490+ 6	7.50390- 1	6.58290+ 6	7.33540- 1	6.59680+ 6	7.28500- 1	612	3	1	160
6.61070+ 6	7.35500- 1	6.62460+ 6	7.59260- 1	6.63840+ 6	8.04480- 1	612	3	1	161
6.64850+ 6	8.36000- 1	6.65850+ 6	8.50250- 1	6.67860+ 6	8.44410- 1	612	3	1	162
6.69870+ 6	8.21890- 1	6.71880+ 6	8.17640- 1	6.73780+ 6	8.20980- 1	612	3	1	163
6.75670+ 6	8.09170- 1	6.77560+ 6	7.96170- 1	6.79450+ 6	7.95930- 1	612	3	1	164
6.87500+ 6	7.82897- 1	6.92500+ 6	7.70109- 1	6.97500+ 6	7.56564- 1	612	3	1	165
7.01840+ 6	7.32580- 1	7.05290+ 6	7.36620- 1	7.08730+ 6	7.37950- 1	612	3	1	166
7.12180+ 6	7.46060- 1	7.15630+ 6	7.70440- 1	7.18930+ 6	8.11130- 1	612	3	1	167
7.22230+ 6	8.81590- 1	7.25530+ 6	1.00700+ 0	7.27180+ 6	1.09820+ 0	612	3	1	168
7.28830+ 6	1.21250+ 0	7.30840+ 6	1.39310+ 0	7.32850+ 6	1.58870+ 0	612	3	1	169
7.34860+ 6	1.74410+ 0	7.36870+ 6	1.80410+ 0	7.40100+ 6	1.78880+ 0	612	3	1	170
7.43330+ 6	1.77000+ 0	7.46560+ 6	1.75810+ 0	7.49790+ 6	1.76350+ 0	612	3	1	171
7.52810+ 6	1.76150+ 0	7.55820+ 6	1.73700+ 0	7.58840+ 6	1.71160+ 0	612	3	1	172
7.61850+ 6	1.70720+ 0	7.63650+ 6	1.72280+ 0	7.65440+ 6	1.75750+ 0	612	3	1	173
7.67240+ 6	1.81640+ 0	7.69030+ 6	1.90480+ 0	7.70250+ 6	2.01980+ 0	612	3	1	174
7.71470+ 6	2.18040+ 0	7.72690+ 6	2.32370+ 0	7.73910+ 6	2.38690+ 0	612	3	1	175
7.76140+ 6	2.33500+ 0	7.78360+ 6	2.21600+ 0	7.80590+ 6	2.09610+ 0	612	3	1	176
7.82810+ 6	2.04180+ 0	7.86260+ 6	2.02140+ 0	7.89710+ 6	1.97270+ 0	612	3	1	177
7.93150+ 6	1.91660+ 0	7.96600+ 6	1.87380+ 0	7.99470+ 6	1.86490+ 0	612	3	1	178
8.02340+ 6	1.87830+ 0	8.05210+ 6	1.90190+ 0	8.08080+ 6	1.92330+ 0	612	3	1	179
8.11670+ 6	1.87540+ 0	8.15260+ 6	1.73330+ 0	8.18850+ 6	1.55980+ 0	612	3	1	180
8.22440+ 6	1.41770+ 0	8.27820+ 6	1.28610+ 0	8.33210+ 6	1.19930+ 0	612	3	1	181
8.38590+ 6	1.14530+ 0	8.43970+ 6	1.11190+ 0	8.49860+ 6	1.08720+ 0	612	3	1	182
8.55750+ 6	1.07090+ 0	8.67500+ 6	1.06314+ 0	8.72500+ 6	1.06173+ 0	612	3	1	183
8.77500+ 6	1.06350+ 0	8.82500+ 6	1.06909+ 0	8.87500+ 6	1.07683+ 0	612	3	1	184
8.92500+ 6	1.09149+ 0	8.97500+ 6	1.11581+ 0	9.02500+ 6	1.15132+ 0	612	3	1	185
9.07500+ 6	1.20471+ 0	9.12500+ 6	1.26211+ 0	9.17500+ 6	1.30114+ 0	612	3	1	186
9.22500+ 6	1.32239+ 0	9.27500+ 6	1.32528+ 0	9.32500+ 6	1.31075+ 0	612	3	1	187
9.37500+ 6	1.28656+ 0	9.42500+ 6	1.26056+ 0	9.47500+ 6	1.24418+ 0	612	3	1	188
9.52500+ 6	1.23584+ 0	9.57500+ 6	1.22737+ 0	9.62500+ 6	1.23101+ 0	612	3	1	189
9.67500+ 6	1.23994+ 0	9.72500+ 6	1.24034+ 0	9.77500+ 6	1.24017+ 0	612	3	1	190
9.82500+ 6	1.22945+ 0	9.87500+ 6	1.20610+ 0	9.92500+ 6	1.18381+ 0	612	3	1	191
9.97500+ 6	1.17215+ 0	1.00250+ 7	1.16338+ 0	1.01250+ 7	1.14280+ 0	612	3	1	192
1.02250+ 7	1.12827+ 0	1.03250+ 7	1.12654+ 0	1.04250+ 7	1.15320+ 0	612	3	1	193
1.05250+ 7	1.21342+ 0	1.06250+ 7	1.27667+ 0	1.07250+ 7	1.33328+ 0	612	3	1	194
1.08250+ 7	1.38655+ 0	1.09250+ 7	1.41772+ 0	1.10250+ 7	1.42380+ 0	612	3	1	195
1.11250+ 7	1.41908+ 0	1.12250+ 7	1.41075+ 0	1.13250+ 7	1.40366+ 0	612	3	1	196
1.14250+ 7	1.38910+ 0	1.15250+ 7	1.35763+ 0	1.16250+ 7	1.33973+ 0	612	3	1	197
1.17250+ 7	1.33816+ 0	1.18250+ 7	1.35959+ 0	1.19250+ 7	1.40895+ 0	612	3	1	198
1.20250+ 7	1.46733+ 0	1.20750+ 7	1.48810+ 0	1.21250+ 7	1.48332+ 0	612	3	1	199
1.22250+ 7	1.41480+ 0	1.23250+ 7	1.36230+ 0	1.24250+ 7	1.34322+ 0	612	3	1	200
1.24750+ 7	1.33921+ 0	1.25250+ 7	1.34335+ 0	1.26250+ 7	1.35354+ 0	612	3	1	201
1.27250+ 7	1.36185+ 0	1.28250+ 7	1.38268+ 0	1.29250+ 7	1.40073+ 0	612	3	1	202
1.30250+ 7	1.40791+ 0	1.31250+ 7	1.40350+ 0	1.32250+ 7	1.39481+ 0	612	3	1	203
1.33250+ 7	1.37645+ 0	1.34250+ 7	1.38159+ 0	1.35250+ 7	1.39481+ 0	612	3	1	204
1.36250+ 7	1.37932+ 0	1.37250+ 7	1.35004+ 0	1.38250+ 7	1.31061+ 0	612	3	1	205
1.39250+ 7	1.30005+ 0	1.39750+ 7	1.30156+ 0	1.40250+ 7	1.30490+ 0	612	3	1	206
1.41250+ 7	1.31194+ 0	1.42250+ 7	1.31272+ 0	1.43250+ 7	1.30303+ 0	612	3	1	207
1.44250+ 7	1.29940+ 0	1.45250+ 7	1.32766+ 0	1.46250+ 7	1.36316+ 0	612	3	1	208
1.47250+ 7	1.39050+ 0	1.48250+ 7	1.40450+ 0	1.49250+ 7	1.40187+ 0	612	3	1	209
1.50250+ 7	1.41632+ 0	1.51250+ 7	1.43058+ 0	1.52250+ 7	1.43931+ 0	612	3	1	210
1.53250+ 7	1.44593+ 0	1.54250+ 7	1.45441+ 0	1.55250+ 7	1.46347+ 0	612	3	1	211
1.56250+ 7	1.47410+ 0	1.57250+ 7	1.48950+ 0	1.58250+ 7	1.50078+ 0	612	3	1	212
1.59250+ 7	1.50659+ 0	1.60250+ 7	1.51219+ 0	1.61250+ 7	1.49685+ 0	612	3	1	213
1.62250+ 7	1.48013+ 0	1.63250+ 7	1.45887+ 0	1.64250+ 7	1.44897+ 0	612	3	1	214

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........10........20........30........40........50........60......MAT MF MT  SEQ
 1.65250+ 7 1.43289+ 0 1.66250+ 7 1.41673+ 0 1.67250+ 7 1.41041+ 0 612 3  1  215
 1.68250+ 7 1.40273+ 0 1.69250+ 7 1.39451+ 0 1.69750+ 7 1.39422+ 0 612 3  1  216
 1.70250+ 7 1.39509+ 0 1.71250+ 7 1.39487+ 0 1.72250+ 7 1.39470+ 0 612 3  1  217
 1.73250+ 7 1.40569+ 0 1.74250+ 7 1.40164+ 0 1.75250+ 7 1.40340+ 0 612 3  1  218
 1.76250+ 7 1.41226+ 0 1.77250+ 7 1.41815+ 0 1.78750+ 7 1.42662+ 0 612 3  1  219
 1.79250+ 7 1.43129+ 0 1.80250+ 7 1.44550+ 0 1.81250+ 7 1.45361+ 0 612 3  1  220
 1.82250+ 7 1.46525+ 0 1.83250+ 7 1.46659+ 0 1.84250+ 7 1.45669+ 0 612 3  1  221
 1.85250+ 7 1.46394+ 0 1.86250+ 7 1.47907+ 0 1.87250+ 7 1.48558+ 0 612 3  1  222
 1.88250+ 7 1.48387+ 0 1.89240+ 7 1.48064+ 0 1.90240+ 7 1.48996+ 0 612 3  1  223
 1.91240+ 7 1.50449+ 0 1.92240+ 7 1.50853+ 0 1.93240+ 7 1.52399+ 0 612 3  1  224
 1.94240+ 7 1.54152+ 0 1.95239+ 7 1.54701+ 0 1.96239+ 7 1.55744+ 0 612 3  1  225
 1.97240+ 7 1.55143+ 0 1.98240+ 7 1.53906+ 0 1.99240+ 7 1.53247+ 0 612 3  1  226
 2.00000+ 7 1.53055+ 0                                            612 3  1  227
                                                                  612 3  0  228
 6.01200+ 3 1.18969+ 1           0           0           0           0 612 3  2  229
 0.0    + 0 0.0    + 0           0           0           1         845 612 3  2  230
        845           2           0           0           0           0 612 3  2  231
 1.00000- 5 4.74600+ 0 1.00000- 4 4.74600+ 0 1.00000- 3 4.74600+ 0 612 3  2  232
 1.00000- 2 4.74599+ 0 2.53000- 2 4.74600+ 0 1.00000- 1 4.74600+ 0 612 3  2  233
 1.00000+ 0 4.74600+ 0 5.00000+ 0 4.74600+ 0 1.00000+ 1 4.74590+ 0 612 3  2  234
 1.00000+ 2 4.74568+ 0 1.00000+ 3 4.74231+ 0 5.00000+ 3 4.72723+ 0 612 3  2  235
 1.00000+ 4 4.70849+ 0 1.50000+ 4 4.68990+ 0 2.00000+ 4 4.67144+ 0 612 3  2  236
 2.50000+ 4 4.65313+ 0 2.80289+ 4 4.64211+ 0 3.00000+ 4 4.63495+ 0 612 3  2  237
 3.40386+ 4 4.62037+ 0 3.50000+ 4 4.61691+ 0 4.00000+ 4 4.59900+ 0 612 3  2  238
 5.00000+ 4 4.56359+ 0 6.00000+ 4 4.52869+ 0 7.00000+ 4 4.49431+ 0 612 3  2  239
 8.00000+ 4 4.46043+ 0 9.00000+ 4 4.42703+ 0 1.00000+ 5 4.39410+ 0 612 3  2  240
 1.33352+ 5 4.28881+ 0 1.50000+ 5 4.23626+ 0 1.77828+ 5 4.15421+ 0 612 3  2  241
 2.00000+ 5 4.08885+ 0 2.37137+ 5 3.98633+ 0 2.50000+ 5 3.95082+ 0 612 3  2  242
 3.00000+ 5 3.82125+ 0 3.16228+ 5 3.78169+ 0 3.50000+ 5 3.69936+ 0 612 3  2  243
 4.00000+ 5 3.58441+ 0 4.21696+ 5 3.53854+ 0 5.00000+ 5 3.37302+ 0 612 3  2  244
 5.62341+ 5 3.25452+ 0 6.00000+ 5 3.18294+ 0 7.00000+ 5 3.01089+ 0 612 3  2  245
 8.00000+ 5 2.85427+ 0 9.00000+ 5 2.71094+ 0 1.00000+ 6 2.57927+ 0 612 3  2  246
 1.10000+ 6 2.45779+ 0 1.14141+ 6 2.41038+ 0 1.15000+ 6 2.40[illegible]4+ 0 612 3  2  247
 1.20000+ 6 2.34544+ 0 1.25000+ 6 2.29238+ 0 1.30000+ 6 2.24127+ 0 612 3  2  248
 1.35000+ 6 2.19202+ 0 1.40000+ 6 2.14457+ 0 1.45000+ 6 2.09883+ 0 612 3  2  249
 1.50000+ 6 2.05476+ 0 1.55000+ 6 2.01231+ 0 1.60000+ 6 1.97143+ 0 612 3  2  250
 1.65000+ 6 1.93210+ 0 1.70000+ 6 1.89429+ 0 1.75000+ 6 1.85797+ 0 612 3  2  251
 1.80000+ 6 1.82312+ 0 1.85000+ 6 1.78971+ 0 1.90000+ 6 1.75769+ 0 612 3  2  252
 1.95000+ 6 1.72711+ 0 2.00000+ 6 1.69945+ 0 2.01000+ 6 1.69518+ 0 612 3  2  253
 2.02000+ 6 1.69230+ 0 2.03000+ 6 1.69237+ 0 2.04000+ 6 1.69964+ 0 612 3  2  254
 2.05000+ 6 1.72821+ 0 2.06000+ 6 1.84468+ 0 2.06100+ 6 1.87046+ 0 612 3  2  255
 2.06200+ 6 1.90152+ 0 2.06300+ 6 1.93925+ 0 2.06400+ 6 1.98552+ 0 612 3  2  256
 2.06500+ 6 2.04284+ 0 2.06600+ 6 2.11462+ 0 2.06700+ 6 2.20562+ 0 612 3  2  257
 2.06800+ 6 2.32241+ 0 2.06900+ 6 2.47425+ 0 2.07000+ 6 2.67404+ 0 612 3  2  258
 2.07100+ 6 2.93938+ 0 2.07200+ 6 3.29273+ 0 2.07300+ 6 3.75802+ 0 612 3  2  259
 2.07400+ 6 4.34708+ 0 2.07500+ 6 5.02594+ 0 2.07600+ 6 5.66575+ 0 612 3  2  260
 2.07700+ 6 6.04488+ 0 2.07800+ 6 5.99466+ 0 2.07900+ 6 5.56589+ 0 612 3  2  261
 2.08000+ 6 4.96483+ 0 2.08100+ 6 4.36971+ 0 2.08200+ 6 3.86195+ 0 612 3  2  262
 2.08300+ 6 3.45621+ 0 2.08400+ 6 3.13987+ 0 2.08500+ 6 2.89429+ 0 612 3  2  263
 2.08600+ 6 2.70255+ 0 2.08700+ 6 2.55132+ 0 2.08800+ 6 2.43060+ 0 612 3  2  264
 2.08900+ 6 2.33305+ 0 2.09000+ 6 2.25326+ 0 2.09100+ 6 2.18724+ 0 612 3  2  265
 2.09200+ 6 2.13204+ 0 2.09300+ 6 2.08543+ 0 2.09400+ 6 2.04570+ 0 612 3  2  266
 2.09500+ 6 2.01156+ 0 2.09600+ 6 1.98199+ 0 2.09700+ 6 1.95620+ 0 612 3  2  267
 2.09800+ 6 1.93355+ 0 2.09900+ 6 1.91355+ 0 2.10000+ 6 1.89577+ 0 612 3  2  268
 2.11000+ 6 1.78966+ 0 2.12000+ 6 1.74150+ 0 2.13000+ 6 1.71395+ 0 612 3  2  269
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.....10	20	30	40	50	60	MAT	MF	MT	SEQ
2.14000+ 6	1.69571+ 0	2.15000+ 6	1.68240+ 0	2.16000+ 6	1.67197+ 0	612	3	2	270
2.17000+ 6	1.66340+ 0	2.18000+ 6	1.65608+ 0	2.19000+ 6	1.64968+ 0	612	3	2	271
2.20000+ 6	1.64397+ 0	2.22474+ 6	1.63306+ 0	2.25000+ 6	1.62192+ 0	612	3	2	272
2.30000+ 6	1.60683+ 0	2.35000+ 6	1.59704+ 0	2.40000+ 6	1.59247+ 0	612	3	2	273
2.45000+ 6	1.59365+ 0	2.50000+ 6	1.60156+ 0	2.55000+ 6	1.61764+ 0	612	3	2	274
2.60000+ 6	1.64400+ 0	2.65000+ 6	1.68377+ 0	2.70000+ 6	1.74201+ 0	612	3	2	275
2.72000+ 6	1.77227+ 0	2.74000+ 6	1.80769+ 0	2.76000+ 6	1.84943+ 0	612	3	2	276
2.78000+ 6	1.89912+ 0	2.80000+ 6	1.95985+ 0	2.80100+ 6	1.96337+ 0	612	3	2	277
2.80200+ 6	1.96698+ 0	2.80300+ 6	1.97070+ 0	2.80400+ 6	1.97457+ 0	612	3	2	278
2.80500+ 6	1.97863+ 0	2.80600+ 6	1.98298+ 0	2.80700+ 6	1.98773+ 0	612	3	2	279
2.80800+ 6	1.99314+ 0	2.80900+ 6	1.99967+ 0	2.81000+ 6	2.00829+ 0	612	3	2	280
2.81100+ 6	2.02135+ 0	2.81200+ 6	2.04568+ 0	2.81300+ 6	2.10818+ 0	612	3	2	281
2.81400+ 6	2.39818+ 0	2.81500+ 6	5.26694+ 0	2.81600+ 6	2.47051+ 0	612	3	2	282
2.81700+ 6	2.15129+ 0	2.81800+ 6	2.08655+ 0	2.81900+ 6	2.06535+ 0	612	3	2	283
2.82000+ 6	2.05736+ 0	2.82100+ 6	2.05475+ 0	2.82200+ 6	2.05476+ 0	612	3	2	284
2.82300+ 6	2.05621+ 0	2.82400+ 6	2.05854+ 0	2.82500+ 6	2.06143+ 0	612	3	2	285
2.82600+ 6	2.06473+ 0	2.82700+ 6	2.06831+ 0	2.82800+ 6	2.07212+ 0	612	3	2	286
2.82900+ 6	2.07611+ 0	2.83000+ 6	2.08024+ 0	2.83200+ 6	2.08888+ 0	612	3	2	287
2.83400+ 6	2.09794+ 0	2.83600+ 6	2.10736+ 0	2.83800+ 6	2.11710+ 0	612	3	2	288
2.84000+ 6	2.12716+ 0	2.84500+ 6	2.15367+ 0	2.85000+ 6	2.18216+ 0	612	3	2	289
2.86000+ 6	2.24565+ 0	2.87000+ 6	2.31928+ 0	2.88000+ 6	2.40532+ 0	612	3	2	290
2.89000+ 6	2.50662+ 0	2.90000+ 6	2.62637+ 0	2.91000+ 6	2.76718+ 0	612	3	2	291
2.92000+ 6	2.92791+ 0	2.93000+ 6	3.09462+ 0	2.93500+ 6	3.16730+ 0	612	3	2	292
2.94000+ 6	3.21853+ 0	2.94500+ 6	3.23100+ 0	2.95000+ 6	3.18302+ 0	612	3	2	293
2.95500+ 6	3.05402+ 0	2.96000+ 6	2.83543+ 0	2.96500+ 6	2.54210+ 0	612	3	2	294
2.97000+ 6	2.21306+ 0	2.97500+ 6	1.89637+ 0	2.98000+ 6	1.62875+ 0	612	3	2	295
2.98500+ 6	1.42591+ 0	2.99000+ 6	1.28599+ 0	2.99500+ 6	1.19820+ 0	612	3	2	296
2.99800+ 6	1.16517+ 0	3.00000+ 6	1.14971+ 0	3.01000+ 6	1.12770+ 0	612	3	2	297
3.02000+ 6	1.15835+ 0	3.03000+ 6	1.21056+ 0	3.04000+ 6	1.27004+ 0	612	3	2	298
3.05000+ 6	1.33054+ 0	3.06000+ 6	1.38946+ 0	3.07000+ 6	1.44587+ 0	612	3	2	299
3.08000+ 6	1.49957+ 0	3.09000+ 6	1.55069+ 0	3.10000+ 6	1.59946+ 0	612	3	2	300
3.15000+ 6	1.81696+ 0	3.20000+ 6	2.00595+ 0	3.25000+ 6	2.17525+ 0	612	3	2	301
3.30000+ 6	2.32453+ 0	3.30808+ 6	2.34470+ 0	3.35000+ 6	2.44939+ 0	612	3	2	302
3.40000+ 6	2.54462+ 0	3.45000+ 6	2.60654+ 0	3.50000+ 6	2.63404+ 0	612	3	2	303
3.55000+ 6	2.62912+ 0	3.60000+ 6	2.59614+ 0	3.65000+ 6	2.54084+ 0	612	3	2	304
3.70000+ 6	2.46926+ 0	3.75000+ 6	2.38689+ 0	3.80000+ 6	2.29825+ 0	612	3	2	305
3.85000+ 6	2.20682+ 0	3.90000+ 6	2.11510+ 0	3.95000+ 6	2.02493+ 0	612	3	2	306
4.00000+ 6	1.93819+ 0	4.05000+ 6	1.85856+ 0	4.10000+ 6	1.79787+ 0	612	3	2	307
4.15000+ 6	1.80070+ 0	4.20000+ 6	2.00159+ 0	4.21350+ 6	2.07588+ 0	612	3	2	308
4.22640+ 6	2.12678+ 0	4.23930+ 6	2.17328+ 0	4.25340+ 6	2.21018+ 0	612	3	2	309
4.26740+ 6	2.22418+ 0	4.28150+ 6	2.21538+ 0	4.29550+ 6	2.18418+ 0	612	3	2	310
4.32370+ 6	2.09798+ 0	4.35180+ 6	2.01048+ 0	4.37990+ 6	1.92478+ 0	612	3	2	311
4.39141+ 6	1.89168+ 0	4.40800+ 6	1.84398+ 0	4.44870+ 6	1.74508+ 0	612	3	2	312
4.48940+ 6	1.66678+ 0	4.53000+ 6	1.60178+ 0	4.57070+ 6	1.54278+ 0	612	3	2	313
4.60340+ 6	1.49978+ 0	4.63600+ 6	1.46308+ 0	4.66870+ 6	1.43058+ 0	612	3	2	314
4.70140+ 6	1.39978+ 0	4.74440+ 6	1.35578+ 0	4.78730+ 6	1.31168+ 0	612	3	2	315
4.81200+ 6	1.29302+ 0	4.83020+ 6	1.27244+ 0	4.83549+ 6	1.26792+ 0	612	3	2	316
4.86336+ 6	1.25031+ 0	4.89122+ 6	1.19742+ 0	4.89882+ 6	1.19266+ 0	612	3	2	317
4.90643+ 6	1.21053+ 0	4.92140+ 6	1.21768+ 0	4.92470+ 6	1.22034+ 0	612	3	2	318
4.92800+ 6	1.23850+ 0	4.93130+ 6	1.28996+ 0	4.93260+ 6	1.30918+ 0	612	3	2	319
4.93390+ 6	1.36469+ 0	4.93460+ 6	1.43242+ 0	4.93520+ 6	1.54120+ 0	612	3	2	320
4.93590+ 6	1.70124+ 0	4.93660+ 6	1.92367+ 0	4.93700+ 6	2.02952+ 0	612	3	2	321
4.93740+ 6	2.01977+ 0	4.93790+ 6	1.92538+ 0	4.93830+ 6	1.77683+ 0	612	3	2	322
4.93920+ 6	1.44220+ 0	4.93970+ 6	1.31761+ 0	4.94010+ 6	1.26266+ 0	612	3	2	323
4.94280+ 6	1.21494+ 0	4.94550+ 6	1.18763+ 0	4.94820+ 6	1.17712+ 0	612	3	2	324

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4.95090+ 6 1.17980+ 0 4.95510+ 6 1.17942+ 0 4.95940+ 6 1.16401+ 0 612 3  2  325
4.96360+ 6 1.14993+ 0 4.96456+ 6 1.15073+ 0 4.96780+ 6 1.15464+ 0 612 3  2  326
4.97530+ 6 1.16386+ 0 4.98280+ 6 1.14408+ 0 5.00000+ 6 1.13490+ 0 612 3  2  327
5.00583+ 6 1.13179+ 0 5.02500+ 6 1.12064+ 0 5.04711+ 6 1.11157+ 0 612 3  2  328
5.07500+ 6 1.09894+ 0 5.08838+ 6 1.09167+ 0 5.12500+ 6 1.07044+ 0 612 3  2  329
5.12966+ 6 1.06774+ 0 5.17500+ 6 1.03948+ 0 5.20270+ 6 1.02834+ 0 612 3  2  330
5.21221+ 6 1.01894+ 0 5.21710+ 6 1.01391+ 0 5.23140+ 6 1.00011+ 0 612 3  2  331
5.24570+ 6 9.88004- 1 5.26000+ 6 9.78504- 1 5.27690+ 6 9.67021- 1 612 3  2  332
5.29370+ 6 9.53961- 1 5.29476+ 6 9.53212- 1 5.31050+ 6 9.41810- 1 612 3  2  333
5.32740+ 6 9.33915- 1 5.33310+ 6 9.51035- 1 5.33880+ 6 1.00325+ 0 612 3  2  334
5.34450+ 6 1.08757+ 0 5.35020+ 6 1.20119+ 0 5.35480+ 6 1.36608+ 0 612 3  2  335
5.35930+ 6 1.58819+ 0 5.36390+ 6 1.76367+ 0 5.36620+ 6 1.80161+ 0 612 3  2  336
5.36840+ 6 1.78898+ 0 5.37350+ 6 1.68085+ 0 5.37860+ 6 1.55741+ 0 612 3  2  337
5.38360+ 6 1.43800+ 0 5.38870+ 6 1.34196+ 0 5.39920+ 6 1.21212+ 0 612 3  2  338
5.40970+ 6 1.13387+ 0 5.42020+ 6 1.08913+ 0 5.43080+ 6 1.06026+ 0 612 3  2  339
5.44740+ 6 1.02494+ 0 5.45986+ 6 1.00758+ 0 5.46400+ 6 1.00192+ 0 612 3  2  340
5.47474+ 6 9.92363- 1 5.48050+ 6 9.87237- 1 5.49710+ 6 9.76431- 1 612 3  2  341
5.52500+ 6 9.55759- 1 5.54241+ 6 9.46387- 1 5.57500+ 6 9.30336- 1 612 3  2  342
5.62496+ 6 9.07817- 1 5.62500+ 6 9.07799- 1 5.67500+ 6 8.91245- 1 612 3  2  343
5.72187+ 6 8.80029- 1 5.72500+ 6 8.79141- 1 5.77500+ 6 8.71712- 1 612 3  2  344
5.81878+ 6 8.62738- 1 5.82500+ 6 8.61411- 1 5.87500+ 6 8.50566- 1 612 3  2  345
5.92500+ 6 8.47493- 1 5.97500+ 6 8.43209- 1 6.00000+ 6 8.41762- 1 612 3  2  346
6.01259+ 6 8.41033- 1 6.02500+ 6 8.40936- 1 6.07500+ 6 8.44901- 1 612 3  2  347
6.10950+ 6 8.46172- 1 6.11110+ 6 8.46348- 1 6.13120+ 6 8.69750- 1 612 3  2  348
6.15130+ 6 8.80353- 1 6.17140+ 6 8.96955- 1 6.18075+ 6 9.16260- 1 612 3  2  349
6.19150+ 6 9.38450- 1 6.20070+ 6 9.60485- 1 6.20641+ 6 9.72856- 1 612 3  2  350
6.20990+ 6 9.80772- 1 6.21900+ 6 1.01254+ 0 6.22820+ 6 1.06811+ 0 612 3  2  351
6.23620+ 6 1.13868+ 0 6.24410+ 6 1.22855+ 0 6.25210+ 6 1.34252+ 0 612 3  2  352
6.26010+ 6 1.48560+ 0 6.26870+ 6 1.72577+ 0 6.27730+ 6 2.02804+ 0 612 3  2  353
6.28580+ 6 2.27811+ 0 6.29010+ 6 2.34779+ 0 6.29440+ 6 2.36168+ 0 612 3  2  354
6.29940+ 6 2.30236+ 0 6.30331+ 6 2.20819+ 0 6.30440+ 6 2.18209+ 0 612 3  2  355
6.31450+ 6 1.83917+ 0 6.32450+ 6 1.49224+ 0 6.32960+ 6 1.36719+ 0 612 3  2  356
6.33460+ 6 1.30133+ 0 6.33840+ 6 1.27981+ 0 6.34230+ 6 1.26451+ 0 612 3  2  357
6.34610+ 6 1.26130+ 0 6.35000+ 6 1.27609+ 0 6.35510+ 6 1.28764+ 0 612 3  2  358
6.36030+ 6 1.26040+ 0 6.37070+ 6 1.13333+ 0 6.38100+ 6 9.82640- 1 612 3  2  359
6.38620+ 6 9.25901- 1 6.39130+ 6 8.96051- 1 6.40022+ 6 8.78567- 1 612 3  2  360
6.42330+ 6 8.36779- 1 6.45520+ 6 8.05115- 1 6.48710+ 6 7.92650- 1 612 3  2  361
6.51507+ 6 7.92330- 1 6.51900+ 6 7.92583- 1 6.53500+ 6 7.51996- 1 612 3  2  362
6.55100+ 6 6.58569- 1 6.55808+ 6 6.16052- 1 6.56690+ 6 5.63086- 1 612 3  2  363
6.57490+ 6 5.30488- 1 6.58290+ 6 5.16459- 1 6.59680+ 6 5.16322- 1 612 3  2  364
6.61070+ 6 5.28224- 1 6.62460+ 6 5.56886- 1 6.62993+ 6 5.76231- 1 612 3  2  365
6.63840+ 6 6.06686- 1 6.64850+ 6 6.41425- 1 6.65850+ 6 6.58862- 1 612 3  2  366
6.67860+ 6 6.59429- 1 6.69870+ 6 6.43315- 1 6.71880+ 6 6.45472- 1 612 3  2  367
6.73780+ 6 6.54868- 1 6.74478+ 6 6.52731- 1 6.75670+ 6 6.47960- 1 612 3  2  368
6.77560+ 6 6.39206- 1 6.79450+ 6 6.43212- 1 6.80221+ 6 6.43696- 1 612 3  2  369
6.85963+ 6 6.41601- 1 6.87500+ 6 6.39449- 1 6.89911+ 6 6.33811- 1 612 3  2  370
6.92500+ 6 6.25590- 1 6.93859+ 6 6.21068- 1 6.97500+ 6 6.05001- 1 612 3  2  371
7.00000+ 6 5.86925- 1 7.01756+ 6 5.74229- 1 7.01840+ 6 5.73524- 1 612 3  2  372
7.05290+ 6 5.67660- 1 7.08730+ 6 5.59115- 1 7.09652+ 6 5.58636- 1 612 3  2  373
7.12180+ 6 5.55228- 1 7.15630+ 6 5.66849- 1 7.17548+ 6 5.83404- 1 612 3  2  374
7.18930+ 6 5.94553- 1 7.22230+ 6 6.50945- 1 7.25530+ 6 7.62286- 1 612 3  2  375
7.26547+ 6 8.14162- 1 7.27180+ 6 8.45539- 1 7.28830+ 6 9.50427- 1 612 3  2  376
7.30840+ 6 1.11956+ 0 7.32850+ 6 1.30370+ 0 7.33340+ 6 1.33878+ 0 612 3  2  377
7.34860+ 6 1.44820+ 0 7.36870+ 6 1.49749+ 0 7.40100+ 6 1.46498+ 0 612 3  2  378
7.43330+ 6 1.42897+ 0 7.44282+ 6 1.42039+ 0 7.46560+ 6 1.40001+ 0 612 3  2  379
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 7.52810+ 6 1.37840+ 0 7.55820+ 6 1.35164+ 0 7.56311+ 6 1.34714+ 0 612 3  2  381
 7.58840+ 6 1.32979+ 0 7.60671+ 6 1.32995+ 0 7.61850+ 6 1.33092+ 0 612 3  2  382
 7.61858+ 6 1.33101+ 0 7.63489+ 6 1.34696+ 0 7.63650+ 6 1.34867+ 0 612 3  2  383
 7.64141+ 6 1.35913+ 0 7.64234+ 6 1.36112+ 0 7.65440+ 6 1.38519+ 0 612 3  2  384
 7.66609+ 6 1.42411+ 0 7.67240+ 6 1.44441+ 0 7.68984+ 6 1.52959+ 0 612 3  2  385
 7.69030+ 6 1.53179+ 0 7.70250+ 6 1.64468+ 0 7.70667+ 6 1.69885+ 0 612 3  2  386
 7.71470+ 6 1.80231+ 0 7.72690+ 6 1.94219+ 0 7.73734+ 6 1.99334+ 0 612 3  2  387
 7.73910+ 6 2.00183+ 0 7.74257+ 6 1.99252+ 0 7.76140+ 6 1.93892+ 0 612 3  2  388
 7.77846+ 6 1.83862+ 0 7.78360+ 6 1.80709+ 0 7.78485+ 6 1.79940+ 0 612 3  2  389
 7.80590+ 6 1.67031+ 0 7.82810+ 6 1.59924+ 0 7.83235+ 6 1.59351+ 0 612 3  2  390
 7.83588+ 6 1.58917+ 0 7.86260+ 6 1.55003+ 0 7.87985+ 6 1.51061+ 0 612 3  2  391
 7.88700+ 6 1.49581+ 0 7.89331+ 6 1.48273+ 0 7.89710+ 6 1.47435+ 0 612 3  2  392
 7.92736+ 6 1.40085+ 0 7.93150+ 6 1.39171+ 0 7.95111+ 6 1.35607+ 0 612 3  2  393
 7.96600+ 6 1.33168+ 0 7.97486+ 6 1.32542+ 0 7.99470+ 6 1.31403+ 0 612 3  2  394
 8.00000+ 6 1.31511+ 0 8.00816+ 6 1.31677+ 0 8.02340+ 6 1.32106+ 0 612 3  2  395
 8.05210+ 6 1.33934+ 0 8.06559+ 6 1.34690+ 0 8.08080+ 6 1.35841+ 0 612 3  2  396
 8.11420+ 6 1.31419+ 0 8.11670+ 6 1.31091+ 0 8.12302+ 6 1.28604+ 0 612 3  2  397
 8.15260+ 6 1.17858+ 0 8.18044+ 6 1.05309+ 0 8.18850+ 6 1.02008+ 0 612 3  2  398
 8.22440+ 6 9.04417- 1 8.23787+ 6 8.81389- 1 8.25355+ 6 8.56613- 1 612 3  2  399
 8.27820+ 6 8.16499- 1 8.29700+ 6 8.01615- 1 8.32322+ 6 7.80508- 1 612 3  2  400
 8.33210+ 6 7.72817- 1 8.33478+ 6 7.72121- 1 8.38590+ 6 7.48657- 1 612 3  2  401
 8.39289+ 6 7.48125- 1 8.43168+ 6 7.41930- 1 8.43970+ 6 7.39346- 1 612 3  2  402
 8.46256+ 6 7.36582- 1 8.49739+ 6 7.29703- 1 8.49860+ 6 7.29393- 1 612 3  2  403
 8.52858+ 6 7.25992- 1 8.53224+ 6 7.25117- 1 8.55750+ 6 7.18497- 1 612 3  2  404
 8.62550+ 6 7.15002- 1 8.65258+ 6 7.11203- 1 8.67500+ 6 7.07643- 1 612 3  2  405
 8.72240+ 6 7.01909- 1 8.72474+ 6 7.01505- 1 8.72500+ 6 7.01460- 1 612 3  2  406
 8.77292+ 6 6.96216- 1 8.77500+ 6 6.95892- 1 8.81931+ 6 6.92359- 1 612 3  2  407
 8.82500+ 6 6.91880- 1 8.83309+ 6 6.91547- 1 8.87500+ 6 6.87783- 1 612 3  2  408
 8.89326+ 6 6.88670- 1 8.92500+ 6 6.88253- 1 8.95343+ 6 6.93371- 1 612 3  2  409
 8.97500+ 6 6.95640- 1 9.00000+ 6 7.03862- 1 9.01313+ 6 7.08181- 1 612 3  2  410
 9.01360+ 6 7.08359- 1 9.02500+ 6 7.11364- 1 9.05794+ 6 7.31824- 1 612 3  2  411
 9.07500+ 6 7.40589- 1 9.10228+ 6 7.56792- 1 9.12500+ 6 7.69309- 1 612 3  2  412
 9.17105+ 6 7.77758- 1 9.17500+ 6 7.78418- 1 9.19095+ 6 7.75407- 1 612 3  2  413
 9.22500+ 6 7.71534- 1 9.23528+ 6 7.66590- 1 9.27500+ 6 7.52594- 1 612 3  2  414
 9.27962+ 6 7.49356- 1 9.32396+ 6 7.26601- 1 9.32500+ 6 7.26324- 1 612 3  2  415
 9.32897+ 6 7.24499- 1 9.36830+ 6 7.02918- 1 9.37500+ 6 7.00596- 1 612 3  2  416
 9.42500+ 6 6.81455- 1 9.44430+ 6 6.77779- 1 9.47500+ 6 6.74701- 1 612 3  2  417
 9.48689+ 6 6.75420- 1 9.50000+ 6 6.74748- 1 9.52031+ 6 6.73612- 1 612 3  2  418
 9.52500+ 6 6.73575- 1 9.56586+ 6 6.73151- 1 9.57500+ 6 6.72155- 1 612 3  2  419
 9.59631+ 6 6.74993- 1 9.62500+ 6 6.78987- 1 9.64482+ 6 6.83842- 1 612 3  2  420
 9.67232+ 6 6.91273- 1 9.67500+ 6 6.91757- 1 9.70224+ 6 6.92021- 1 612 3  2  421
 9.70398+ 6 6.92288- 1 9.72500+ 6 6.92658- 1 9.73566+ 6 6.92722- 1 612 3  2  422
 9.75967+ 6 6.89524- 1 9.77500+ 6 6.90007- 1 9.79899+ 6 6.85700- 1 612 3  2  423
 9.80808+ 6 6.83366- 1 9.82500+ 6 6.79024- 1 9.86233+ 6 6.60012- 1 612 3  2  424
 9.87452+ 6 6.54452- 1 9.87500+ 6 6.54297- 1 9.92500+ 6 6.39232- 1 612 3  2  425
 9.92567+ 6 6.39173- 1 9.97500+ 6 6.40216- 1 9.98938+ 6 6.41351- 1 612 3  2  426
 1.00000+ 7 6.42516- 1 1.00250+ 7 6.39711- 1 1.00333+ 7 6.38527- 1 612 3  2  427
 1.01042+ 7 6.31882- 1 1.01250+ 7 6.28390- 1 1.01410+ 7 6.26671- 1 612 3  2  428
 1.02000+ 7 6.20507- 1 1.02250+ 7 6.23803- 1 1.02478+ 7 6.29726- 1 612 3  2  429
 1.02487+ 7 6.29877- 1 1.03250+ 7 6.39410- 1 1.03564+ 7 6.52246- 1 612 3  2  430
 1.03914+ 7 6.65386- 1 1.04250+ 7 6.75237- 1 1.04520+ 7 6.92213- 1 612 3  2  431
 1.05250+ 7 7.34569- 1 1.05654+ 7 7.59233- 1 1.06250+ 7 7.95327- 1 612 3  2  432
 1.06785+ 7 8.24172- 1 1.07250+ 7 8.48440- 1 1.07744+ 7 8.72570- 1 612 3  2  433
 1.08250+ 7 8.96140- 1 1.08914+ 7 9.12394- 1 1.09250+ 7 9.20619- 1 612 3  2  434
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 1.10000+ 7 9.23356- 1 1.10250+ 7 9.24800- 1 1.10879+ 7 9.21637- 1 612 3  2  436
 1.11092+ 7 9.20041- 1 1.11250+ 7 9.20035- 1 1.11382+ 7 9.19552- 1 612 3  2  437
 1.11924+ 7 9.17402- 1 1.12250+ 7 9.15363- 1 1.12528+ 7 9.13969- 1 612 3  2  438
 1.13250+ 7 9.12550- 1 1.13356+ 7 9.11550- 1 1.14146+ 7 9.03776- 1 612 3  2  439
 1.14250+ 7 9.02666- 1 1.15250+ 7 8.75065- 1 1.16168+ 7 8.62186- 1 612 3  2  440
 1.16227+ 7 8.61329- 1 1.16250+ 7 8.60970- 1 1.16835+ 7 8.61368- 1 612 3  2  441
 1.17250+ 7 8.60500- 1 1.17300+ 7 8.61545- 1 1.17304+ 7 8.61631- 1 612 3  2  442
 1.18250+ 7 8.82258- 1 1.18309+ 7 8.85192- 1 1.19250+ 7 9.31020- 1 612 3  2  443
 1.19747+ 7 9.59707- 1 1.20000+ 7 9.74310- 1 1.20250+ 7 9.88741- 1 612 3  2  444
 1.20391+ 7 9.94505- 1 1.20412+ 7 9.95343- 1 1.20750+ 7 1.00915+ 0 612 3  2  445
 1.21142+ 7 1.00512+ 0 1.21250+ 7 1.00378+ 0 1.22250+ 7 9.32429- 1 612 3  2  446
 1.22472+ 7 9.20145- 1 1.22533+ 7 9.16698- 1 1.23250+ 7 8.77080- 1 612 3  2  447
 1.24250+ 7 8.55244- 1 1.24655+ 7 8.50879- 1 1.24750+ 7 8.50022- 1 612 3  2  448
 1.25000+ 7 8.51840- 1 1.25200+ 7 8.54661- 1 1.25250+ 7 8.55367- 1 612 3  2  449
 1.25448+ 7 8.58537- 1 1.26250+ 7 8.70194- 1 1.26636+ 7 8.75078- 1 612 3  2  450
 1.26777+ 7 8.76689- 1 1.27250+ 7 8.83160- 1 1.28250+ 7 9.09359- 1 612 3  2  451
 1.28899+ 7 9.24557- 1 1.29250+ 7 9.32890- 1 1.29755+ 7 9.39389- 1 612 3  2  452
 1.30000+ 7 9.42314- 1 1.30250+ 7 9.43426- 1 1.30581+ 7 9.41060- 1 612 3  2  453
 1.30799+ 7 9.39501- 1 1.31250+ 7 9.35919- 1 1.31274+ 7 9.35625- 1 612 3  2  454
 1.32250+ 7 9.22044- 1 1.33097+ 7 9.02066- 1 1.33250+ 7 8.98458- 1 612 3  2  455
 1.33649+ 7 8.98423- 1 1.34250+ 7 8.97579- 1 1.34963+ 7 9.02337- 1 612 3  2  456
 1.35208+ 7 9.03886- 1 1.35250+ 7 9.04152- 1 1.36024+ 7 8.86825- 1 612 3  2  457
 1.36250+ 7 8.81552- 1 1.36450+ 7 8.74127- 1 1.37045+ 7 8.52011- 1 612 3  2  458
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 1.45479+ 7 7.71218- 1 1.45644+ 7 7.76284- 1 1.46250+ 7 7.94893- 1 612 3  2  465
 1.46983+ 7 8.11419- 1 1.47250+ 7 8.17563- 1 1.47900+ 7 8.23846- 1 612 3  2  466
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 1.67250+ 7 8.31139- 1 1.67448+ 7 8.30427- 1 1.67657+ 7 8.29722- 1 612 3  2  485
 1.68250+ 7 8.27333- 1 1.69052+ 7 8.23668- 1 1.69250+ 7 8.22728- 1 612 3  2  486
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 1.70657+ 7 8.27924- 1 1.71250+ 7 8.29464- 1 1.71459+ 7 8.30017- 1 612 3  2  488
 1.72250+ 7 8.31805- 1 1.72261+ 7 8.31951- 1 1.72700+ 7 8.37820- 1 612 3  2  489
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 1.75000+ 7 8.45346- 1 1.75250+ 7 8.46267- 1 1.75301+ 7 8.46815- 1 612 3  2   492
 1.76250+ 7 8.57400- 1 1.76830+ 7 8.62146- 1 1.76884+ 7 8.62571- 1 612 3  2   493
 1.77250+ 7 8.65454- 1 1.77994+ 7 8.71132- 1 1.78342+ 7 8.73813- 1 612 3  2   494
 1.78750+ 7 8.77089- 1 1.79038+ 7 8.80464- 1 1.79250+ 7 8.83107- 1 612 3  2   495
 1.80000+ 7 8.96107- 1 1.80044+ 7 8.96879- 1 1.80250+ 7 9.00414- 1 612 3  2   496
 1.81250+ 7 9.11460- 1 1.81371+ 7 9.13223- 1 1.81382+ 7 9.13383- 1 612 3  2   497
 1.82250+ 7 9.26131- 1 1.82500+ 7 9.27227- 1 1.83162+ 7 9.30133- 1 612 3  2   498
 1.83250+ 7 9.30494- 1 1.83259+ 7 9.30430- 1 1.84250+ 7 9.22990- 1 612 3  2   499
 1.84422+ 7 9.24648- 1 1.84747+ 7 9.27806- 1 1.84866+ 7 9.28964- 1 612 3  2   500
 1.85000+ 7 9.30229- 1 1.85250+ 7 9.32629- 1 1.85857+ 7 9.43233- 1 612 3  2   501
 1.86250+ 7 9.50103- 1 1.86473+ 7 9.52076- 1 1.86871+ 7 9.55484- 1 612 3  2   502
 1.87250+ 7 9.58778- 1 1.88080+ 7 9.59168- 1 1.88250+ 7 9.59194- 1 612 3  2   503
 1.89240+ 7 9.57809- 1 1.89320+ 7 9.58703- 1 1.89687+ 7 9.62828- 1 612 3  2   504
 1.90000+ 7 9.66238- 1 1.90240+ 7 9.68882- 1 1.90343+ 7 9.70552- 1 612 3  2   505
 1.90954+ 7 9.80466- 1 1.91240+ 7 9.84854- 1 1.91295+ 7 9.85121- 1 612 3  2   506
 1.91769+ 7 9.87248- 1 1.92240+ 7 9.89353- 1 1.92902+ 7 9.99872- 1 612 3  2   507
 1.93240+ 7 1.00511+ 0 1.94219+ 7 1.02231+ 0 1.94240+ 7 1.02268+ 0 612 3  2   508
 1.94509+ 7 1.02418+ 0 1.94830+ 7 1.02584+ 0 1.95000+ 7 1.02672+ 0 612 3  2   509
 1.95239+ 7 1.02802+ 0 1.95581+ 7 1.03157+ 0 1.96116+ 7 1.03712+ 0 612 3  2   510
 1.96239+ 7 1.03834+ 0 1.97132+ 7 1.03254+ 0 1.97240+ 7 1.03185+ 0 612 3  2   511
 1.97723+ 7 1.02570+ 0 1.98240+ 7 1.01928+ 0 1.98800+ 7 1.01556+ 0 612 3  2   512
 1.99240+ 7 1.01259+ 0 2.00000+ 7 1.01054+ 0                       612 3  2   513
                                                                   612 3  0   514
 6.01200+ 3 1.18969+ 1           0          99           0         0 612 3  3   515
 0.0    + 0 4.94639+ 6           0           0           1       386 612 3  3   516
        386           2           0           0           0         0 612 3  3   517
 1.00000- 5 1.77556- 1 1.28124- 5 1.56863- 1 1.56249- 5 1.42045- 1 612 3  3   518
 2.12498- 5 1.21803- 1 2.68747- 5 1.08309- 1 3.24998- 5 9.84906- 2 612 3  3   519
 4.37497- 5 8.48883- 2 5.49999- 5 7.57102- 2 6.62496- 5 6.89832- 2 612 3  3   520
 7.74997- 5 6.37801- 2 1.00000- 4 5.61481- 2 1.28124- 4 4.96044- 2 612 3  3   521
 1.56249- 4 4.49187- 2 2.12498- 4 3.85174- 2 2.68747- 4 3.42502- 2 612 3  3   522
 3.24998- 4 3.11455- 2 4.37497- 4 2.68440- 2 5.49999- 4 2.39417- 2 612 3  3   523
 6.62496- 4 2.18144- 2 7.74997- 4 2.01690- 2 1.00000- 3 1.77556- 2 612 3  3   524
 1.28124- 3 1.56863- 2 1.56249- 3 1.42045- 2 2.12499- 3 1.21803- 2 612 3  3   525
 2.68748- 3 1.08309- 2 3.24998- 3 9.84906- 3 4.37497- 3 8.48883- 3 612 3  3   526
 5.49999- 3 7.57102- 3 6.62497- 3 6.89832- 3 7.74997- 3 6.37801- 3 612 3  3   527
 1.00000- 2 5.61481- 3 1.38250- 2 4.77532- 3 1.76500- 2 4.22632- 3 612 3  3   528
 2.14750- 2 3.83150- 3 2.53000- 2 3.53000- 3 3.46374- 2 3.01691- 3 612 3  3   529
 4.39748- 2 2.67752- 3 5.33123- 2 2.43176- 3 6.26499- 2 2.24324- 3 612 3  3   530
 8.13247- 2 1.96890- 3 1.00000- 1 1.77556- 3 1.28125- 1 1.56862- 3 612 3  3   531
 1.56250- 1 1.42045- 3 2.12500- 1 1.21802- 3 2.68750- 1 1.08308- 3 612 3  3   532
 3.25000- 1 9.84904- 4 4.37500- 1 8.48880- 4 5.50000- 1 7.57101- 4 612 3  3   533
 6.62499- 1 6.89831- 4 7.75000- 1 6.37800- 4 1.00000+ 0 5.61481- 4 612 3  3   534
 1.28125+ 0 4.96042- 4 1.56250+ 0 4.49185- 4 2.12500+ 0 3.85173- 4 612 3  3   535
 2.68750+ 0 3.42500- 4 3.25000+ 0 3.11454- 4 4.37500+ 0 2.68439- 4 612 3  3   536
 5.50000+ 0 2.39417- 4 6.62500+ 0 2.18144- 4 7.75000+ 0 2.01690- 4 612 3  3   537
 1.00000+ 1 1.77556- 4 1.28125+ 1 1.56862- 4 1.56250+ 1 1.42045- 4 612 3  3   538
 2.12500+ 1 1.21802- 4 2.68750+ 1 1.08308- 4 3.25000+ 1 9.84903- 5 612 3  3   539
 4.37500+ 1 8.48880- 5 5.50000+ 1 7.57101- 5 6.62500+ 1 6.89830- 5 612 3  3   540
 7.75000+ 1 6.37800- 5 1.00000+ 2 5.61481- 5 1.28125+ 2 4.96042- 5 612 3  3   541
 1.56250+ 2 4.49185- 5 2.12[illegible]+ 2 3.85173- 5 2.68750+ 2 3.42500- 5 612 3  3   542
 3.25000+ 2 3.11454- 5 4         2 2.68439- 5 5.50000+ 2 2.39417- 5 612 3  3   543
 6.62500+ 2 2.18144- 5           2 2.01690- 5 1.00000+ 3 1.77556- 5 612 3  3   544
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2.68750+ 3	1.08308- 5	3.25000+ 3	9.84904- 6	4.37500+ 3	8.48880- 6	612	3	3	546
5.50000+ 3	7.57101- 6	6.62500+ 3	6.89831- 6	7.75000+ 3	6.37801- 6	612	3	3	547
1.00000+ 4	5.61481- 6	1.30048+ 4	4.92361- 6	1.60096+ 4	4.43757- 6	612	3	3	548
2.20193+ 4	3.78384- 6	2.80289+ 4	3.35376- 6	3.40386+ 4	3.04333- 6	612	3	3	549
4.60579+ 4	2.61627- 6	5.80773+ 4	2.32987- 6	7.62084+ 4	2.13288- 6	612	3	3	550
1.00000+ 5	2.00438- 6	1.33352+ 5	1.94843- 6	1.77828+ 5	1.98510- 6	612	3	3	551
2.37137+ 5	2.13036- 6	3.16228+ 5	2.40750- 6	4.21696+ 5	2.84934- 6	612	3	3	552
5.62341+ 5	3.50111- 6	1.00000+ 6	5.70267- 6	1.14141+ 6	6.43858- 6	612	3	3	553
2.00000+ 6	1.05688- 5	2.22474+ 6	1.16629- 5	3.00000+ 6	1.33971- 5	612	3	3	554
3.30808+ 6	1.40915- 5	4.00000+ 6	1.65982- 5	4.39141+ 6	1.80192- 5	612	3	3	555
4.81200+ 6	2.08322- 5	4.96456+ 6	5.73296- 2	5.00000+ 6	5.77050- 2	612	3	3	556
5.00583+ 6	5.77668- 2	5.04711+ 6	6.01797- 2	5.08838+ 6	6.43442- 2	612	3	3	557
5.12966+ 6	7.00353- 2	5.21221+ 6	8.50995- 2	5.29476+ 6	1.03576- 1	612	3	3	558
5.45986+ 6	1.43578- 1	5.47474+ 6	1.46811- 1	5.54241+ 6	1.61513- 1	612	3	3	559
5.62496+ 6	1.75673- 1	5.72187+ 6	1.92487- 1	5.81878+ 6	2.13629- 1	612	3	3	560
6.00000+ 6	2.54708- 1	6.01259+ 6	2.57561- 1	6.10950+ 6	2.74685- 1	612	3	3	561
6.18075+ 6	2.82121- 1	6.20641+ 6	2.84816- 1	6.30331+ 6	2.85154- 1	612	3	3	562
6.40022+ 6	2.72813- 1	6.51507+ 6	2.41003- 1	6.55808+ 6	2.25834- 1	612	3	3	563
6.62993+ 6	2.00494- 1	6.74478+ 6	1.63887- 1	6.80221+ 6	1.50986- 1	612	3	3	564
6.85963+ 6	1.43784- 1	6.89911+ 6	1.42920- 1	6.93859+ 6	1.45359- 1	612	3	3	565
7.00000+ 6	1.55823- 1	7.01756+ 6	1.58815- 1	7.09652+ 6	1.81482- 1	612	3	3	566
7.17548+ 6	2.10685- 1	7.26547+ 6	2.49050- 1	7.33340+ 6	2.87798- 1	612	3	3	567
7.44282+ 6	3.46103- 1	7.49132+ 6	3.71617- 1	7.52722+ 6	3.83035- 1	612	3	3	568
7.56311+ 6	3.85726- 1	7.60671+ 6	3.78970- 1	7.61858+ 6	3.76260- 1	612	3	3	569
7.63489+ 6	3.74443- 1	7.64141+ 6	3.73184- 1	7.64234+ 6	3.73005- 1	612	3	3	570
7.66609+ 6	3.71645- 1	7.68984+ 6	3.72933- 1	7.70667+ 6	3.75843- 1	612	3	3	571
7.73734+ 6	3.84438- 1	7.74257+ 6	3.86307- 1	7.77846+ 6	4.04928- 1	612	3	3	572
7.78485+ 6	4.09882- 1	7.83235+ 6	4.45775- 1	7.83588+ 6	4.48030- 1	612	3	3	573
7.87985+ 6	4.86435- 1	7.88700+ 6	4.91149- 1	7.89331+ 6	4.95322- 1	612	3	3	574
7.92736+ 6	5.22499- 1	7.95111+ 6	5.36202- 1	7.97486+ 6	5.45634- 1	612	3	3	575
8.00000+ 6	5.52265- 1	8.00816+ 6	5.54417- 1	8.06559+ 6	5.65056- 1	612	3	3	576
8.11420+ 6	5.64539- 1	8.12302+ 6	5.64346- 1	8.18044+ 6	5.45661- 1	612	3	3	577
8.23787+ 6	5.03362- 1	8.25355+ 6	4.89783- 1	8.29700+ 6	4.54209- 1	612	3	3	578
8.32322+ 6	4.33091- 1	8.33478+ 6	4.24489- 1	8.39289+ 6	3.92835- 1	612	3	3	579
8.43168+ 6	3.74948- 1	8.46256+ 6	3.65731- 1	8.49739+ 6	3.58005- 1	612	3	3	580
8.52858+ 6	3.52911- 1	8.53224+ 6	3.52773- 1	8.62550+ 6	3.51406- 1	612	3	3	581
8.65258+ 6	3.53417- 1	8.72240+ 6	3.59893- 1	8.72474+ 6	3.60232- 1	612	3	3	582
8.77292+ 6	3.67210- 1	8.81931+ 6	3.76095- 1	8.83309+ 6	3.78795- 1	612	3	3	583
8.89326+ 6	3.93513- 1	8.95343+ 6	4.11947- 1	9.00000+ 6	4.29703- 1	612	3	3	584
9.01313+ 6	4.34709- 1	9.01360+ 6	4.34865- 1	9.05794+ 6	4.54669- 1	612	3	3	585
9.10228+ 6	4.79235- 1	9.17105+ 6	5.20298- 1	9.19095+ 6	5.32510- 1	612	3	3	586
9.23528+ 6	5.56394- 1	9.27962+ 6	5.74582- 1	9.32396+ 6	5.84451- 1	612	3	3	587
9.32897+ 6	5.84331- 1	9.36830+ 6	5.86883- 1	9.44430+ 6	5.76458- 1	612	3	3	588
9.48689+ 6	5.66776- 1	9.50000+ 6	5.65261- 1	9.52031+ 6	5.63010- 1	612	3	3	589
9.56586+ 6	5.55767- 1	9.59631+ 6	5.53928- 1	9.64482+ 6	5.50708- 1	612	3	3	590
9.67232+ 6	5.48188- 1	9.70224+ 6	5.48136- 1	9.70398+ 6	5.47882- 1	612	3	3	591
9.73566+ 6	5.47581- 1	9.75967+ 6	5.50697- 1	9.79899+ 6	5.49326- 1	612	3	3	592
9.80808+ 6	5.49711- 1	9.86233+ 6	5.52005- 1	9.87452+ 6	5.51873- 1	612	3	3	593
9.92567+ 6	5.44481- 1	9.98938+ 6	5.28276- 1	1.00000+ 7	5.25248- 1	612	3	3	594
1.00333+ 7	5.23144- 1	1.01042+ 7	5.15198- 1	1.01410+ 7	5.13804- 1	612	3	3	595
1.02000+ 7	5.11394- 1	1.02478+ 7	4.98149- 1	1.02487+ 7	4.97983- 1	612	3	3	596
1.03564+ 7	4.82664- 1	1.03914+ 7	4.78855- 1	1.04520+ 7	4.77246- 1	612	3	3	597
1.05654+ 7	4.79739- 1	1.06785+ 7	4.82784- 1	1.07744+ 7	4.87025- 1	612	3	3	598
1.08914+ 7	4.94853- 1	1.09408+ 7	4.98158- 1	1.09656+ 7	4.99095- 1	612	3	3	599

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 1.12528+ 7 4.94810- 1 1.13356+ 7 4.90566- 1 1.14146+ 7 4.86837- 1 612 3  3  602
 1.16168+ 7 4.79012- 1 1.16227+ 7 4.78812- 1 1.16835+ 7 4.77443- 1 612 3  3  603
 1.17300+ 7 4.77686- 1 1.17304+ 7 4.77684- 1 1.18309+ 7 4.77309- 1 612 3  3  604
 1.19747+ 7 4.78257- 1 1.20000+ 7 4.78424- 1 1.20391+ 7 4.78682- 1 612 3  3  605
 1.20412+ 7 4.78715- 1 1.21142+ 7 4.79231- 1 1.22472+ 7 4.82999- 1 612 3  3  606
 1.22533+ 7 4.83244- 1 1.24655+ 7 4.89092- 1 1.25000+ 7 4.89439- 1 612 3  3  607
 1.25200+ 7 4.88275- 1 1.25448+ 7 4.86830- 1 1.26636+ 7 4.81670- 1 612 3  3  608
 1.26777+ 7 4.81230- 1 1.28899+ 7 4.69837- 1 1.29755+ 7 4.64967- 1 612 3  3  609
 1.30000+ 7 4.63800- 1 1.30581+ 7 4.65390- 1 1.30799+ 7 4.65987- 1 612 3  3  610
 1.31274+ 7 4.67665- 1 1.33097+ 7 4.77192- 1 1.33649+ 7 4.80077- 1 612 3  3  611
 1.34963+ 7 4.88678- 1 1.35208+ 7 4.90368- 1 1.36024+ 7 4.95995- 1 612 3  3  612
 1.36450+ 7 4.99337- 1 1.37045+ 7 5.04031- 1 1.38369+ 7 5.14478- 1 612 3  3  613
 1.38400+ 7 5.14711- 1 1.40000+ 7 5.27829- 1 1.40993+ 7 5.35969- 1 612 3  3  614
 1.41414+ 7 5.39421- 1 1.42676+ 7 5.49769- 1 1.43150+ 7 5.53130- 1 612 3  3  615
 1.43290+ 7 5.54076- 1 1.45479+ 7 5.64571- 1 1.45644+ 7 5.65362- 1 612 3  3  616
 1.46983+ 7 5.71781- 1 1.47900+ 7 5.75753- 1 1.48866+ 7 5.78835- 1 612 3  3  617
 1.49248+ 7 5.80054- 1 1.49965+ 7 5.80071- 1 1.50000+ 7 5.80072- 1 612 3  3  618
 1.50473+ 7 5.80410- 1 1.50721+ 7 5.80645- 1 1.50969+ 7 5.80902- 1 612 3  3  619
 1.51217+ 7 5.81178- 1 1.51465+ 7 5.81474- 1 1.51962+ 7 5.82118- 1 612 3  3  620
 1.52152+ 7 5.82388- 1 1.52247+ 7 5.82582- 1 1.52458+ 7 5.83013- 1 612 3  3  621
 1.53450+ 7 5.85184- 1 1.54329+ 7 5.87225- 1 1.54442+ 7 5.87408- 1 612 3  3  622
 1.55000+ 7 5.88338- 1 1.55206+ 7 5.88855- 1 1.56427+ 7 5.88733- 1 612 3  3  623
 1.57320+ 7 5.88549- 1 1.57419+ 7 5.88591- 1 1.58412+ 7 5.88842- 1 612 3  3  624
 1.58500+ 7 5.88852- 1 1.58938+ 7 5.89031- 1 1.60000+ 7 5.89467- 1 612 3  3  625
 1.60269+ 7 5.89603- 1 1.60758+ 7 5.89824- 1 1.61164+ 7 5.89887- 1 612 3  3  626
 1.62127+ 7 5.88060- 1 1.62489+ 7 5.87360- 1 1.63081+ 7 5.86597- 1 612 3  3  627
 1.63985+ 7 5.85431- 1 1.65000+ 7 5.84099- 1 1.65843+ 7 5.82515- 1 612 3  3  628
 1.67122+ 7 5.79794- 1 1.67448+ 7 5.78462- 1 1.67657+ 7 5.77562- 1 612 3  3  629
 1.69052+ 7 5.72470- 1 1.70000+ 7 5.69177- 1 1.70657+ 7 5.67076- 1 612 3  3  630
 1.71459+ 7 5.64817- 1 1.72261+ 7 5.62868- 1 1.72700+ 7 5.61823- 1 612 3  3  631
 1.72825+ 7 5.61515- 1 1.73615+ 7 5.60089- 1 1.73781+ 7 5.59839- 1 612 3  3  632
 1.73914+ 7 5.59596- 1 1.75000+ 7 5.57614- 1 1.75301+ 7 5.57036- 1 612 3  3  633
 1.76830+ 7 5.53530- 1 1.76884+ 7 5.53423- 1 1.77994+ 7 5.51218- 1 612 3  3  634
 1.78342+ 7 5.50501- 1 1.79038+ 7 5.48845- 1 1.80000+ 7 5.45839- 1 612 3  3  635
 1.80044+ 7 5.45692- 1 1.81371+ 7 5.41795- 1 1.81382+ 7 5.41763- 1 612 3  3  636
 1.82500+ 7 5.38357- 1 1.83162+ 7 5.36338- 1 1.83259+ 7 5.36071- 1 612 3  3  637
 1.84422+ 7 5.33288- 1 1.84747+ 7 5.32485- 1 1.84866+ 7 5.32191- 1 612 3  3  638
 1.85000+ 7 5.31896- 1 1.85857+ 7 5.29888- 1 1.86473+ 7 5.28444- 1 612 3  3  639
 1.86871+ 7 5.27629- 1 1.88080+ 7 5.24992- 1 1.89320+ 7 5.22682- 1 612 3  3  640
 1.89687+ 7 5.21978- 1 1.90000+ 7 5.21484- 1 1.90343+ 7 5.20904- 1 612 3  3  641
 1.90954+ 7 5.19869- 1 1.91295+ 7 5.19591- 1 1.91769+ 7 5.19378- 1 612 3  3  642
 1.92902+ 7 5.18893- 1 1.94219+ 7 5.18840- 1 1.94509+ 7 5.18814- 1 612 3  3  643
 1.94830+ 7 5.18918- 1 1.95000+ 7 5.18972- 1 1.95581+ 7 5.19007- 1 612 3  3  644
 1.96116+ 7 5.19037- 1 1.97132+ 7 5.19538- 1 1.97723+ 7 5.19755- 1 612 3  3  645
 1.98800+ 7 5.19805- 1 2.00000+ 7 5.20014- 1                       612 3  3  646
                                                                   612 3  0  647
 6.01200+ 3 1.18969+ 1           0          99           0          0 612 3  4  648
 0.0    + 0-4.43910+ 6           0           0           1        124 612 3  4  649
        124          2           0           0           0          0 612 3  4  650
 4.81200+ 6 0.0     + 0 4.96456+ 6 5.73077- 2 5.00583+ 6 5.77446- 2 612 3  4  651
 5.04711+ 6 6.01573- 2 5.08838+ 6 6.43215- 2 5.12966+ 6 7.00124- 2 612 3  4  652
 5.21221+ 6 8.50759- 2 5.29476+ 6 1.03552- 1 5.45986+ 6 1.43553- 1 612 3  4  653
 5.54241+ 6 1.61487- 1 5.62496+ 6 1.75646- 1 5.72187+ 6 1.92458- 1 612 3  4  654
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 6.20641+ 6 2.84762- 1 6.30331+ 6 2.85034- 1 6.40022+ 6 2.72627- 1 612 3  4  656
 6.51507+ 6 2.40739- 1 6.62993+ 6 2.00151- 1 6.74478+ 6 1.63465- 1 612 3  4  657
 6.80221+ 6 1.50524- 1 6.85963+ 6 1.43283- 1 6.89911+ 6 1.42391- 1 612 3  4  658
 6.93859+ 6 1.44803- 1 7.01756+ 6 1.58205- 1 7.09652+ 6 1.80817- 1 612 3  4  659
 7.17548+ 6 2.09966- 1 7.33340+ 6 2.77182- 1 7.49132+ 6 3.38467- 1 612 3  4  660
 7.52722+ 6 3.44931- 1 7.56311+ 6 3.42669- 1 7.63489+ 6 3.21643- 1 612 3  4  661
 7.70667+ 6 2.94754- 1 7.74257+ 6 2.85159- 1 7.77846+ 6 2.81360- 1 612 3  4  662
 7.83588+ 6 2.90010- 1 7.88700+ 6 3.09708- 1 7.89331+ 6 3.12152- 1 612 3  4  663
 8.00816+ 6 3.72349- 1 8.06559+ 6 3.97942- 1 8.12302+ 6 4.12286- 1 612 3  4  664
 8.18044+ 6 4.09200- 1 8.23787+ 6 3.82502- 1 8.29700+ 6 3.47359- 1 612 3  4  665
 8.33478+ 6 3.25407- 1 8.43168+ 6 2.88429- 1 8.52858+ 6 2.67210- 1 612 3  4  666
 8.62550+ 6 2.58176- 1 8.72240+ 6 2.57761- 1 8.81931+ 6 2.62395- 1 612 3  4  667
 9.01313+ 6 2.72522- 1 9.17105+ 6 2.72926- 1 9.32897+ 6 2.75950- 1 612 3  4  668
 9.48689+ 6 2.93003- 1 9.50000+ 6 2.95885- 1 9.56586+ 6 3.10668- 1 612 3  4  669
 9.64482+ 6 3.36181- 1 9.70224+ 6 3.53283- 1 9.75967+ 6 3.62114- 1 612 3  4  670
 9.87452+ 6 3.60868- 1 9.98938+ 6 3.44265- 1 1.00000+ 7 3.42403- 1 612 3  4  671
 1.01042+ 7 3.47262- 1 1.02000+ 7 3.58836- 1 1.02478+ 7 3.53318- 1 612 3  4  672
 1.03214+ 7 3.49923- 1 1.04520+ 7 3.53475- 1 1.06785+ 7 3.77749- 1 612 3  4  673
 1.09408+ 7 4.10398- 1 1.09656+ 7 4.12763- 1 1.10000+ 7 4.14104- 1 612 3  4  674
 1.11092+ 7 4.17655- 1 1.11382+ 7 4.16437- 1 1.12528+ 7 4.11987- 1 612 3  4  675
 1.13356+ 7 4.06247- 1 1.14146+ 7 4.01091- 1 1.16227+ 7 3.89277- 1 612 3  4  676
 1.16835+ 7 3.86516- 1 1.17300+ 7 3.85695- 1 1.17304+ 7 3.85684- 1 612 3  4  677
 1.18309+ 7 3.83010- 1 1.20391+ 7 3.79617- 1 1.21142+ 7 3.79092- 1 612 3  4  678
 1.22472+ 7 3.80989- 1 1.25000+ 7 3.87566- 1 1.25200+ 7 3.86720- 1 612 3  4  679
 1.25448+ 7 3.85671- 1 1.26636+ 7 3.82405- 1 1.29755+ 7 3.77640- 1 612 3  4  680
 1.30000+ 7 3.77493- 1 1.30799+ 7 3.83004- 1 1.33097+ 7 4.00679- 1 612 3  4  681
 1.34963+ 7 4.15033- 1 1.37045+ 7 4.31777- 1 1.38369+ 7 4.42425- 1 612 3  4  682
 1.40000+ 7 4.54939- 1 1.40993+ 7 4.62559- 1 1.42676+ 7 4.75472- 1 612 3  4  683
 1.43290+ 7 4.79502- 1 1.45479+ 7 4.89581- 1 1.46983+ 7 4.96505- 1 612 3  4  684
 1.49248+ 7 5.05885- 1 1.49965+ 7 5.06583- 1 1.50000+ 7 5.06618- 1 612 3  4  685
 1.52152+ 7 5.09574- 1 1.55206+ 7 5.15666- 1 1.57320+ 7 5.14368- 1 612 3  4  686
 1.58938+ 7 5.14400- 1 1.61164+ 7 5.14443- 1 1.62489+ 7 5.11754- 1 612 3  4  687
 1.67122+ 7 5.05334- 1 1.67657+ 7 5.03546- 1 1.72825+ 7 4.89664- 1 612 3  4  688
 1.76884+ 7 4.81472- 1 1.77994+ 7 4.79232- 1 1.79038+ 7 4.77048- 1 612 3  4  689
 1.81371+ 7 4.70428- 1 1.83162+ 7 4.65345- 1 1.85857+ 7 4.58497- 1 612 3  4  690
 1.90343+ 7 4.47097- 1 1.90954+ 7 4.45544- 1 1.94830+ 7 4.39101- 1 612 3  4  691
 2.00000+ 7 4.30508- 1                                             612 3  4  692
                                                                   612 3  0  693
 6.01200+ 3 1.18969+ 1           0           1           0           0 612 3 51  694
 0.0     + 0-4.43910+ 6           0           0           1          81 612 3 51  695
         81          2           0           0           0           0 612 3 51  696
 4.81200+ 6 0.0     + 0 4.96456+ 6 5.73077- 2 5.00583+ 6 5.77446- 2 612 3 51  697
 5.04711+ 6 6.01573- 2 5.08838+ 6 6.43215- 2 5.12966+ 6 7.00124- 2 612 3 51  698
 5.21221+ 6 8.50759- 2 5.29476+ 6 1.03552- 1 5.45986+ 6 1.43553- 1 612 3 51  699
 5.54241+ 6 1.61487- 1 5.62496+ 6 1.75646- 1 5.72187+ 6 1.92458- 1 612 3 51  700
 5.81878+ 6 2.13599- 1 6.01259+ 6 2.57528- 1 6.10950+ 6 2.74650- 1 612 3 51  701
 6.20641+ 6 2.84762- 1 6.30331+ 6 2.85034- 1 6.40022+ 6 2.72627- 1 612 3 51  702
 6.51507+ 6 2.40739- 1 6.62993+ 6 2.00151- 1 6.74478+ 6 1.63465- 1 612 3 51  703
 6.80221+ 6 1.50524- 1 6.85963+ 6 1.43283- 1 6.89911+ 6 1.42391- 1 612 3 51  704
 6.93859+ 6 1.44803- 1 7.01756+ 6 1.58205- 1 7.09652+ 6 1.80817- 1 612 3 51  705
 7.17548+ 6 2.09966- 1 7.33340+ 6 2.77182- 1 7.49132+ 6 3.38467- 1 612 3 51  706
 7.52722+ 6 3.44931- 1 7.56311+ 6 3.42669- 1 7.63489+ 6 3.21643- 1 612 3 51  707
 7.70667+ 6 2.94754- 1 7.74257+ 6 2.85159- 1 7.77846+ 6 2.81360- 1 612 3 51  708
 7.83588+ 6 2.90010- 1 7.89331+ 6 3.12140- 1 8.00816+ 6 3.72117- 1 612 3 51  709
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 8.23787+ 6 3.81831- 1 8.33478+ 6 3.24048- 1 8.43168+ 6 2.85595- 1 612 3 51   711
 8.52858+ 6 2.62902- 1 8.62550+ 6 2.52394- 1 8.72240+ 6 2.50505- 1 612 3 51   712
 8.81931+ 6 2.53664- 1 9.01313+ 6 2.60842- 1 9.17105+ 6 2.58844- 1 612 3 51   713
 9.32897+ 6 2.59465- 1 9.48689+ 6 2.74116- 1 9.56586+ 6 2.90270- 1 612 3 51   714
 9.64482+ 6 3.14210- 1 9.70224+ 6 3.30169- 1 9.75967+ 6 3.37856- 1 612 3 51   715
 9.87452+ 6 3.34323- 1 9.98938+ 6 3.15433- 1 1.01042+ 7 2.93011- 1 612 3 51   716
 1.02478+ 7 2.75621- 1 1.03914+ 7 2.71412- 1 1.06785+ 7 2.86618- 1 612 3 51   717
 1.09656+ 7 3.06791- 1 1.11092+ 7 3.08790- 1 1.12528+ 7 3.00092- 1 612 3 51   718
 1.16835+ 7 2.60873- 1 1.21142+ 7 2.33602- 1 1.25448+ 7 2.15491- 1 612 3 51   719
 1.29755+ 7 2.03752- 1 1.38369+ 7 1.88241- 1 1.42676+ 7 1.78893- 1 612 3 51   720
 1.46983+ 7 1.64767- 1 1.52152+ 7 1.45421- 1 1.57320+ 7 1.29287- 1 612 3 51   721
 1.62489+ 7 1.16424- 1 1.67657+ 7 1.06894- 1 1.72825+ 7 1.00755- 1 612 3 51   722
 1.77994+ 7 9.80678- 2 1.83162+ 7 9.50000- 2 2.00000+ 7 9.00000- 2 612 3 51   723
                                                                   612 3  0   724
 6.01200+ 3 1.18969+ 1           0           2           0           0 612 3 52   725
 0.0    + 0-7.65400+ 6           0           0           1          11 612 3 52   726
         11          2           0           0           0           0 612 3 52   727
 8.29700+ 6 0.0    + 0 9.50000+ 6 1.60000- 2 1.00000+ 7 2.50000- 2 612 3 52   728
 1.02000+ 7 7.30000- 2 1.10000+ 7 7.60000- 2 1.17300+ 7 7.40000- 2 612 3 52   729
 1.25000+ 7 6.50000- 2 1.30000+ 7 2.50000- 2 1.40000+ 7 2.00000- 2 612 3 52   730
 1.50000+ 7 1.50000- 2 2.00000+ 7 1.00000- 2                       612 3 52   731
                                                                   612 3  0   732
 6.01200+ 3 1.18969+ 1           0           3           0           0 612 3 53   733
 0.0    + 0-9.64100+ 6           0           0           1          18 612 3 53   734
         18          2           0           0           0           0 612 3 53   735
 1.04520+ 7 0.0    + 0 1.09408+ 7 2.37274- 2 1.11382+ 7 2.75605- 2 612 3 53   736
 1.13356+ 7 3.20148- 2 1.17304+ 7 4.23428- 2 1.25200+ 7 6.55739- 2 612 3 53   737
 1.33097+ 7 8.63269- 2 1.37045+ 7 9.35574- 2 1.40993+ 7 9.75083- 2 612 3 53   738
 1.45479+ 7 9.83396- 2 1.49965+ 7 9.65568- 2 1.58938+ 7 8.69740- 2 612 3 53   739
 1.76884+ 7 5.65129- 2 1.81371+ 7 4.92057- 2 1.85857+ 7 4.29340- 2 612 3 53   740
 1.90343+ 7 3.81542- 2 1.94830+ 7 3.53224- 2 2.00000+ 7 3.48948- 2 612 3 53   741
                                                                   612 3  0   742
 6.01200+ 3 1.18969+ 1           0          99           0           0 612 3 91   743
 0.0    + 0-7.27482+ 6           0           0           1          31 612 3 91   744
         31          2           0           0           0           0 612 3 91   745
 7.88700+ 6 0.0    + 0 1.13356+ 7 6.60000- 3 1.14146+ 7 6.78676- 3 612 3 91   746
 1.16227+ 7 9.04854- 3 1.17304+ 7 1.14429- 2 1.18309+ 7 1.33495- 2 612 3 91   747
 1.20391+ 7 1.94479- 2 1.22472+ 7 2.74783- 2 1.25200+ 7 4.12119- 2 612 3 91   748
 1.26636+ 7 4.88924- 2 1.30799+ 7 7.62432- 2 1.33097+ 7 9.31669- 2 612 3 91   749
 1.34963+ 7 1.08396- 1 1.37045+ 7 1.26117- 1 1.40993+ 7 1.63001- 1 612 3 91   750
 1.43290+ 7 1.86334- 1 1.45479+ 7 2.04281- 1 1.49248+ 7 2.37378- 1 612 3 91   751
 1.49965+ 7 2.41403- 1 1.55206+ 7 2.74340- 1 1.58938+ 7 2.88059- 1 612 3 91   752
 1.61164+ 7 2.97643- 1 1.67122+ 7 3.11083- 1 1.76884+ 7 3.14003- 1 612 3 91   753
 1.79038+ 7 3.14499- 1 1.81371+ 7 3.13296- 1 1.85857+ 7 3.09949- 1 612 3 91   754
 1.90343+ 7 3.05110- 1 1.90954+ 7 3.04185- 1 1.94830+ 7 3.01727- 1 612 3 91   755
 2.00000+ 7 2.95613- 1                                             612 3 91   756
                                                                   612 3  0   757
 6.01200+ 3 1.18969+ 1           0          99           0           0 612 3102   758
 0.0    + 0 4.94639+ 6           0           0           1          60 612 3102   759
         60          5           0           0           0           0 612 3102   760
 1.00000- 5 1.77556- 1 1.00000- 4 5.61481- 2 1.00000- 3 1.77556- 2 612 3102   761
 1.00000- 2 5.61481- 3 2.53000- 2 3.53000- 3 1.00000- 1 1.77556- 3 612 3102   762
 1.00000+ 0 5.61481- 4 1.00000+ 1 1.77556- 4 1.00000+ 2 5.61481- 5 612 3102   763
 1.00000+ 3 1.77556- 5 1.00000+ 4 5.61481- 6 5.80773+ 4 2.32987- 6 612 3102   764
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 1.77828+ 5 1.98510- 6 2.37137+ 5 2.13036- 6 3.16228+ 5 2.40750- 6 612 3102  766
 4.21696+ 5 2.84934- 6 5.62341+ 5 3.50111- 6 1.00000+ 6 5.70267- 6 612 3102  767
 1.14141+ 6 6.43858- 6 2.00000+ 6 1.05688- 5 2.22474+ 6 1.16629- 5 612 3102  768
 3.00000+ 6 1.33971- 5 3.30808+ 6 1.40915- 5 4.00000+ 6 1.65982- 5 612 3102  769
 4.39141+ 6 1.80192- 5 5.00000+ 6 2.21377- 5 5.47474+ 6 2.53523- 5 612 3102  770
 6.00000+ 6 3.34032- 5 6.55808+ 6 4.19587- 5 7.00000+ 6 5.17311- 5 612 3102  771
 7.64141+ 6 6.59162- 5 8.00000+ 6 7.34098- 5 8.72474+ 6 8.85561- 5 612 3102  772
 9.00000+ 6 8.81852- 5 9.80808+ 6 8.70973- 5 1.00000+ 7 8.47797- 5 612 3102  773
 1.08914+ 7 7.40154- 5 1.10000+ 7 7.27458- 5 1.19747+ 7 6.13505- 5 612 3102  774
 1.20000+ 7 6.10971- 5 1.30000+ 7 5.10812- 5 1.30581+ 7 5.04995- 5 612 3102  775
 1.35208+ 7 6.03051- 5 1.40000+ 7 7.04604- 5 1.41414+ 7 7.34572- 5 612 3102  776
 1.45644+ 7 9.10014- 5 1.50000+ 7 1.09069- 4 1.52247+ 7 1.18390- 4 612 3102  777
 1.60000+ 7 1.58156- 4 1.63081+ 7 1.73959- 4 1.70000+ 7 2.02002- 4 612 3102  778
 1.73914+ 7 2.17865- 4 1.80000+ 7 2.27252- 4 1.84747+ 7 2.34574- 4 612 3102  779
 1.90000+ 7 2.32031- 4 1.95581+ 7 2.29329- 4 2.00000+ 7 2.17352- 4 612 3102  780
                                                                   612 3  0  781
 6.01200+ 3 1.18969+ 1           0          99           0           0 612 3103  782
 0.0     + 0-1.25871+ 7           0           0           1          33 612 3103  783
         33           2           0           0           0           0 612 3103  784
 1.36450+ 7 0.0     + 0 1.50473+ 7 6.47784- 4 1.50721+ 7 7.17661- 4 612 3103  785
 1.50969+ 7 8.08816- 4 1.51217+ 7 9.20047- 4 1.51465+ 7 1.05017- 3 612 3103  786
 1.51962+ 7 1.36233- 3 1.52458+ 7 1.73582- 3 1.53450+ 7 2.62866- 3 612 3103  787
 1.54442+ 7 3.65300- 3 1.56427+ 7 5.79186- 3 1.57419+ 7 6.75453- 3 612 3103  788
 1.58412+ 7 7.54492- 3 1.60269+ 7 8.75758- 3 1.62127+ 7 9.87279- 3 612 3103  789
 1.63985+ 7 1.09194- 2 1.65843+ 7 1.19264- 2 1.67448+ 7 1.23966- 2 612 3103  790
 1.69052+ 7 1.25110- 2 1.70657+ 7 1.29083- 2 1.71459+ 7 1.34124- 2 612 3103  791
 1.72261+ 7 1.42268- 2 1.73781+ 7 1.58462- 2 1.75301+ 7 1.69834- 2 612 3103  792
 1.78342+ 7 1.81296- 2 1.81382+ 7 1.83031- 2 1.84422+ 7 1.81417- 2 612 3103  793
 1.86871+ 7 1.78253- 2 1.89320+ 7 1.71866- 2 1.91769+ 7 1.64113- 2 612 3103  794
 1.94219+ 7 1.56848- 2 1.97132+ 7 1.46808- 2 2.00000+ 7 1.33326- 2 612 3103  795
                                                                   612 3  0  796
 6.01200+ 3 1.18969+ 1           0          99           0           0 612 3104  797
 0.0     + 0-1.37323+ 7           0           0           1          16 612 3104  798
         16           2           0           0           0           0 612 3104  799
 1.48866+ 7 0.0     + 0 1.50000+ 7 6.09715- 8 1.55000+ 7 1.45108- 3 612 3104  800
 1.58500+ 7 5.41683- 3 1.60000+ 7 7.56658- 3 1.65000+ 7 1.52133- 2 612 3104  801
 1.70000+ 7 2.00227- 2 1.72700+ 7 2.33654- 2 1.75000+ 7 2.60000- 2 612 3104  802
 1.80000+ 7 3.12500- 2 1.82500+ 7 3.33449- 2 1.85000+ 7 3.54327- 2 612 3104  803
 1.90000+ 7 3.88940- 2 1.95000+ 7 4.17785- 2 1.98800+ 7 4.29680- 2 612 3104  804
 2.00000+ 7 4.34970- 2                                             612 3104  805
                                                                   612 3  0  806
 6.01200+ 3 1.18969+ 1           0           0           0           0 612 3107  807
 0.0     + 0-5.70151+ 6           0           0           1          81 612 3107  808
         81           2           0           0           0           0 612 3107  809
 6.18075+ 6 0.0     + 0 7.26547+ 6 7.23848- 4 7.44282+ 6 2.63969- 2 612 3107  810
 7.60671+ 6 4.90079- 2 7.61858+ 6 4.97746- 2 7.64234+ 6 5.40868- 2 612 3107  811
 7.66609+ 6 6.16234- 2 7.68984+ 6 7.18078- 2 7.73734+ 6 9.78130- 2 612 3107  812
 7.78485+ 6 1.27491- 1 7.83235+ 6 1.56227- 1 7.87985+ 6 1.79411- 1 612 3107  813
 7.92736+ 6 1.92428- 1 7.95111+ 6 1.93683- 1 7.97486+ 6 1.90666- 1 612 3107  814
 8.11420+ 6 1.54381- 1 8.25355+ 6 1.16521- 1 8.32322+ 6 1.00887- 1 612 3107  815
 8.39289+ 6 8.95222- 2 8.46256+ 6 8.39820- 2 8.49739+ 6 8.38815- 2 612 3107  816
 8.53224+ 6 8.58204- 2 8.65258+ 6 9.52695- 2 8.77292+ 6 1.06945- 1 612 3107  817
 8.83309+ 6 1.15592- 1 8.89326+ 6 1.27166- 1 8.95343+ 6 1.42456- 1 612 3107  818
 9.01360+ 6 1.62254- 1 9.05794+ 6 1.81944- 1 9.10228+ 6 2.06397- 1 612 3107  819
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........10........20........30........40........50........60......MAT MF MT   SEQ
 9.19095+ 6 2.59115- 1 9.23528+ 6 2.82150- 1 9.27962+ 6 2.99489- 1 612 3107  820
 9.32396+ 6 3.08509- 1 9.36830+ 6 3.06598- 1 9.44430+ 6 2.87966- 1 612 3107  821
 9.52031+ 6 2.62479- 1 9.59631+ 6 2.33334- 1 9.67232+ 6 2.03729- 1 612 3107  822
 9.70398+ 6 1.94244- 1 9.73566+ 6 1.89072- 1 9.79899+ 6 1.87552- 1 612 3107  823
 9.86233+ 6 1.90918- 1 9.92567+ 6 1.90921- 1 1.00333+ 7 1.79104- 1 612 3107  824
 1.01410+ 7 1.62013- 1 1.02487+ 7 1.44604- 1 1.03564+ 7 1.31834- 1 612 3107  825
 1.05654+ 7 1.14033- 1 1.07744+ 7 9.72632- 2 1.09834+ 7 8.52352- 2 612 3107  826
 1.10879+ 7 8.21595- 2 1.11924+ 7 8.16610- 2 1.16168+ 7 8.93349- 2 612 3107  827
 1.20412+ 7 9.90522- 2 1.22533+ 7 1.02038- 1 1.24655+ 7 1.02368- 1 612 3107  828
 1.26777+ 7 9.89861- 2 1.28899+ 7 9.08368- 2 1.31274+ 7 8.09565- 2 612 3107  829
 1.33649+ 7 7.50945- 2 1.36024+ 7 7.23675- 2 1.38400+ 7 7.18915- 2 612 3107  830
 1.43150+ 7 7.41572- 2 1.47900+ 7 7.48209- 2 1.54329+ 7 6.83880- 2 612 3107  831
 1.60758+ 7 5.74503- 2 1.73615+ 7 3.17201- 2 1.76830+ 7 2.62454- 2 612 3107  832
 1.80044+ 7 2.17576- 2 1.83259+ 7 1.85585- 2 1.84866+ 7 1.75366- 2 612 3107  833
 1.86473+ 7 1.69501- 2 1.88080+ 7 1.68366- 2 1.89687+ 7 1.72341- 2 612 3107  834
 1.91295+ 7 1.81801- 2 1.92902+ 7 1.97125- 2 1.94509+ 7 2.18689- 2 612 3107  835
 1.96116+ 7 2.46871- 2 1.97723+ 7 2.82048- 2 2.00000+ 7 3.24598- 2 612 3107  836
                                                                   612 3  0  837
 6.01200+ 3 1.18969+ 1           0           0           0           0 612 3251  838
 0.0    + 0 0.0    + 0           0           0           1         280 612 3251  839
        280           2           0           0           0           0 612 3251  840
 1.00000- 5 5.58026- 2 1.00000- 4 5.58026- 2 1.00000- 3 5.58026- 2 612 3251  841
 1.00000- 2 5.58026- 2 2.53000- 2 5.58026- 2 5.00000- 2 5.58026- 2 612 3251  842
 7.00000- 2 5.58026- 2 8.00000- 2 5.58026- 2 1.00000- 1 5.58026- 2 612 3251  843
 1.00000+ 0 5.58026- 2 5.00000+ 0 5.58026- 2 1.00000+ 1 5.58051- 2 612 3251  844
 1.00000+ 2 5.58256- 2 1.00000+ 3 5.60301- 2 5.00000+ 3 5.69339- 2 612 3251  845
 1.00000+ 4 5.80535- 2 1.50000+ 4 5.91598- 2 2.00000+ 4 6.02559- 2 612 3251  846
 2.50000+ 4 6.13399- 2 3.00000+ 4 6.24143- 2 3.50000+ 4 6.34755- 2 612 3251  847
 4.00000+ 4 6.45268- 2 5.00000+ 4 6.66003- 2 6.00000+ 4 6.86312- 2 612 3251  848
 7.00000+ 4 7.06197- 2 8.00000+ 4 7.25672- 2 9.00000+ 4 7.44747- 2 612 3251  849
 1.00000+ 5 7.63454- 2 1.50000+ 5 8.51336- 2 2.00000+ 5 9.30501- 2 612 3251  850
 2.50000+ 5 1.00192- 1 3.00000+ 5 1.06598- 1 3.50000+ 5 1.12355- 1 612 3251  851
 4.00000+ 5 1.17479- 1 5.00000+ 5 1.26097- 1 6.00000+ 5 1.32752- 1 612 3251  852
 7.00000+ 5 1.37677- 1 8.00000+ 5 1.41063- 1 9.00000+ 5 1.43049- 1 612 3251  853
 1.00000+ 6 1.43772- 1 1.10000+ 6 1.43277- 1 1.15000+ 6 1.42601- 1 612 3251  854
 1.20000+ 6 1.41645- 1 1.25000+ 6 1.40405- 1 1.30000+ 6 1.38888- 1 612 3251  855
 1.35000+ 6 1.37092- 1 1.40000+ 6 1.35015- 1 1.45000+ 6 1.32645- 1 612 3251  856
 1.50000+ 6 1.29979- 1 1.55000+ 6 1.27006- 1 1.60000+ 6 1.23713- 1 612 3251  857
 1.65000+ 6 1.20079- 1 1.70000+ 6 1.16075- 1 1.75000+ 6 1.11656- 1 612 3251  858
 1.80000+ 6 1.06752- 1 1.85000+ 6 1.01240- 1 1.90000+ 6 9.48626- 2 612 3251  859
 1.95000+ 6 8.69712- 2 2.00000+ 6 7.52450- 2 2.01000+ 6 7.17481- 2 612 3251  860
 2.02000+ 6 6.74173- 2 2.03000+ 6 6.17418- 2 2.04000+ 6 5.37065- 2 612 3251  861
 2.05000+ 6 4.10457- 2 2.06000+ 6 1.82859- 2 2.06100+ 6 1.50988- 2 612 3251  862
 2.06200+ 6 1.17153- 2 2.06300+ 6 8.14329- 3 2.06400+ 6 4.40113- 3 612 3251  863
 2.06500+ 6 5.31691- 4 2.06600+ 6-3.39360- 3 2.06700+ 6-7.25549- 3 612 3251  864
 2.06800+ 6-1.08697- 2 2.06900+ 6-1.39661- 2 2.07000+ 6-1.61639- 2 612 3251  865
 2.07100+ 6-1.69554- 2 2.07200+ 6-1.57260- 2 2.07300+ 6-1.18155- 2 612 3251  866
 2.07400+ 6-4.67090- 3 2.07500+ 6 5.94573- 3 2.07600+ 6 1.97381- 2 612 3251  867
 2.07700+ 6 3.58097- 2 2.07800+ 6 5.28120- 2 2.07900+ 6 6.93061- 2 612 3251  868
 2.08000+ 6 8.41241- 2 2.08100+ 6 9.65757- 2 2.08200+ 6 1.06452- 1 612 3251  869
 2.08300+ 6 1.13895- 1 2.08400+ 6 1.19231- 1 2.08500+ 6 1.22851- 1 612 3251  870
 2.08600+ 6 1.25128- 1 2.08700+ 6 1.26384- 1 2.08800+ 6 1.26883- 1 612 3251  871
 2.08900+ 6 1.26830- 1 2.09000+ 6 1.26381- 1 2.09100+ 6 1.25654- 1 612 3251  872
 2.09200+ 6 1.24735- 1 2.09300+ 6 1.23691- 1 2.09400+ 6 1.22566- 1 612 3251  873
 2.09500+ 6 1.21397- 1 2.09600+ 6 1.20209- 1 2.09700+ 6 1.19018- 1 612 3251  874
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........10........20........30........40........50........60......MAT MF MT  SEQ
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 2.11000+ 6 1.05901- 1 2.12000+ 6 9.89611- 2 2.13000+ 6 9.37308- 2 612 3251  876
 2.14000+ 6 8.95558- 2 2.15000+ 6 8.60562- 2 2.16000+ 6 8.30116- 2 612 3251  877
 2.17000+ 6 8.02813- 2 2.18000+ 6 7.77773- 2 2.19000+ 6 7.54394- 2 612 3251  878
 2.20000+ 6 7.32271- 2 2.25000+ 6 6.32151- 2 2.30000+ 6 5.39534- 2 612 3251  879
 2.35000+ 6 4.48829- 2 2.40000+ 6 3.58221- 2 2.45000+ 6 2.67168- 2 612 3251  880
 2.50000+ 6 1.76495- 2 2.55000+ 6 8.75673- 3 2.60000+ 6 2.62784- 4 612 3251  881
 2.65000+ 6-7.47495- 3 2.70000+ 6-1.38442- 2 2.72000+ 6-1.57561- 2 612 3251  882
 2.74000+ 6-1.70875- 2 2.76000+ 6-1.74950- 2 2.78000+ 6-1.60117- 2 612 3251  883
 2.80000+ 6-7.00322- 3 2.80100+ 6-5.81760- 3 2.80200+ 6-4.44354- 3 612 3251  884
 2.80300+ 6-2.83652- 3 2.80400+ 6-9.27536- 4 2.80500+ 6 1.36969- 3 612 3251  885
 2.80600+ 6 4.19019- 3 2.80700+ 6 7.73127- 3 2.80800+ 6 1.23093- 2 612 3251  886
 2.80900+ 6 1.84519- 2 2.81000+ 6 2.71134- 2 2.81100+ 6 4.02002- 2 612 3251  887
 2.81200+ 6 6.20914- 2 2.81300+ 6 1.05024- 1 2.81400+ 6 2.11216- 1 612 3251  888
 2.81500+ 6 2.12926- 1 2.81600+ 6-1.28258- 1 2.81700+ 6-1.10181- 1 612 3251  889
 2.81800+ 6-8.87485- 2 2.81900+ 6-7.48745- 2 2.82000+ 6-6.55867- 2 612 3251  890
 2.82100+ 6-5.89933- 2 2.82200+ 6-5.40869- 2 2.82300+ 6-5.02956- 2 612 3251  891
 2.82400+ 6-4.72750- 2 2.82500+ 6-4.48063- 2 2.82600+ 6-4.27484- 2 612 3251  892
 2.82700+ 6-4.10020- 2 2.82800+ 6-3.94968- 2 2.82900+ 6-3.81833- 2 612 3251  893
 2.83000+ 6-3.70234- 2 2.83200+ 6-3.50552- 2 2.83400+ 6-3.34337- 2 612 3251  894
 2.83600+ 6-3.20543- 2 2.83800+ 6-3.08511- 2 2.84000+ 6-2.97773- 2 612 3251  895
 2.84500+ 6-2.74612- 2 2.85000+ 6-2.54429- 2 2.86000+ 6-2.16551- 2 612 3251  896
 2.87000+ 6-1.76222- 2 2.88000+ 6-1.28747- 2 2.89000+ 6-6.97818- 3 612 3251  897
 2.90000+ 6 5.83731- 4 2.91000+ 6 1.05184- 2 2.92000+ 6 2.38264- 2 612 3251  898
 2.93000+ 6 4.19369- 2 2.93500+ 6 5.33711- 2 2.94000+ 6 6.67409- 2 612 3251  899
 2.94500+ 6 8.22825- 2 2.95000+ 6 1.00121- 1 2.95500+ 6 1.20124- 1 612 3251  900
 2.96000+ 6 1.41649- 1 2.96500+ 6 1.63245- 1 2.97000+ 6 1.82375- 1 612 3251  901
 2.97500+ 6 1.95607- 1 2.98000+ 6 1.99503- 1 2.98500+ 6 1.92161- 1 612 3251  902
 2.99000+ 6 1.74434- 1 2.99500+ 6 1.49604- 1 2.99800+ 6 1.33045- 1 612 3251  903
 3.00000+ 6 1.21834- 1 3.01000+ 6 6.99115- 2 3.02000+ 6 3.10465- 2 612 3251  904
 3.03000+ 6 4.83854- 3 3.04000+ 6-1.22968- 2 3.05000+ 6-2.34589- 2 612 3251  905
 3.06000+ 6-3.07383- 2 3.07000+ 6-3.54591- 2 3.08000+ 6-3.84508- 2 612 3251  906
 3.09000+ 6-4.02389- 2 3.10000+ 6-4.11660- 2 3.15000+ 6-3.87116- 2 612 3251  907
 3.20000+ 6-3.05878- 2 3.25000+ 6-1.97762- 2 3.30000+ 6-7.41534- 3 612 3251  908
 3.35000+ 6 5.78996- 3 3.40000+ 6 1.92715- 2 3.45000+ 6 3.25570- 2 612 3251  909
 3.50000+ 6 4.52388- 2 3.55000+ 6 5.69903- 2 3.60000+ 6 6.75487- 2 612 3251  910
 3.65000+ 6 7.67032- 2 3.70000+ 6 8.42689- 2 3.75000+ 6 9.00710- 2 612 3251  911
 3.80000+ 6 9.39135- 2 3.85000+ 6 9.55506- 2 3.90000+ 6 9.46694- 2 612 3251  912
 3.95000+ 6 9.09010- 2 4.00000+ 6 8.40136- 2 4.05000+ 6 7.48764- 2 612 3251  913
 4.10000+ 6 6.98575- 2 4.15000+ 6 9.96233- 2 4.20000+ 6 2.53244- 1 612 3251  914
 4.22000+ 6 3.51497- 1 4.24000+ 6 4.36739- 1 4.26000+ 6 4.86595- 1 612 3251  915
 4.28000+ 6 5.01514- 1 4.30000+ 6 4.94601- 1 4.32000+ 6 4.77893- 1 612 3251  916
 4.34000+ 6 4.58428- 1 4.36000+ 6 4.39500- 1 4.38000+ 6 4.22356- 1 612 3251  917
 4.40000+ 6 4.07323- 1 4.45000+ 6 3.78069- 1 4.50000+ 6 3.57846- 1 612 3251  918
 4.55000+ 6 3.43613- 1 4.60000+ 6 3.33360- 1 4.65000+ 6 3.25798- 1 612 3251  919
 4.70000+ 6 3.20113- 1 4.75000+ 6 3.15708- 1 4.80000+ 6 3.12086- 1 612 3251  920
 4.91000+ 6 3.10913- 1 4.93000+ 6 2.94892- 1 5.05000+ 6 2.88692- 1 612 3251  921
 5.15000+ 6 2.93723- 1 5.32400+ 6 2.76285- 1 5.34800+ 6 3.14964- 1 612 3251  922
 5.36100+ 6 4.21213- 1 5.37700+ 6 3.93776- 1 5.47000+ 6 2.77421- 1 612 3251  923
 5.57000+ 6 3.19807- 1 5.78000+ 6 2.92499- 1 6.00000+ 6 2.61228- 1 612 3251  924
 6.25000+ 6 2.22647- 1 6.29000+ 6 2.02321- 1 6.33000+ 6 3.00656- 1 612 3251  925
 6.52000+ 6 4.07622- 1 6.56000+ 6 4.69201- 1 6.61000+ 6 3.48718- 1 612 3251  926
 6.94000+ 6 2.52297- 1 7.20000+ 6 4.06914- 1 7.35000+ 6 6.34487- 1 612 3251  927
 7.73000+ 6 2.08716- 1 8.00000+ 6 5.26851- 1 8.50000+ 6 4.93143- 1 612 3251  928
 9.00000+ 6 4.06009- 1 9.50000+ 6 4.95856- 1 1.00000+ 7 5.82895- 1 612 3251  929
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........10........20........30........40........50........60......MAT MF MT   SEQ
 1.05000+ 7 5.61766- 1 1.10000+ 7 6.30911- 1 1.15000+ 7 5.91066- 1 612 3251  930
 1.20000+ 7 5.44312- 1 1.25000+ 7 5.44104- 1 1.30000+ 7 6.10491- 1 612 3251  931
 1.35000+ 7 5.98669- 1 1.40000+ 7 6.31647- 1 1.45000+ 7 6.16042- 1 612 3251  932
 1.58500+ 7 6.63336- 1 1.72700+ 7 7.39651- 1 1.82500+ 7 7.41239- 1 612 3251  933
 2.00000+ 7 7.66989- 1                                             612 3251  934
                                                                   612 3  0  935
                                                                   612 0  0  936
 6.01200+ 3 1.18969+ 1           1           1           0           0 612 4  2  937
 0.0    + 0 1.18969+ 1           0           2          81           8 612 4  2  938
 1.00000+ 0 5.60370- 2 1.41442- 3 1.61735- 8 0.0    + 0 0.0    + 0 612 4  2  939
 0.0    + 0 0.0    + 0 0.0    + 0 0.0    + 0 9.95761- 1 1.00663- 1 612 4  2  940
 4.84253- 3 1.13137- 4-7.18336- 7 2.75660- 7 0.0    + 0 0.0    + 0 612 4  2  941
 0.0    + 0-5.56976- 2 9.88917- 1 1.43303- 1 1.00634- 2 4.11140- 4 612 4  2  942
 1.65776- 6-6.62063- 7 0.0    + 0 0.0    + 0 4.21146- 3-9.97597- 2 612 4  2  943
 9.78427- 1 1.84778- 1 1.70120- 2 9.64783- 4 2.21442- 5-7.94634- 7 612 4  2  944
 0.0    + 0-3.37070- 4 9.58393- 3-1.41513- 1 9.64495- 1 2.25166- 1 612 4  2  945
 2.56425- 2 1.84655- 3 7.23473- 5 0.0    + 0 2.75427- 5-8.95134- 4 612 4  2  946
 1.65416- 2-1.81820- 1 9.47210- 1 2.64368- 1 3.58937- 2 3.12422- 3 612 4  2  947
 0.0    + 0-2.27289- 6 8.20842- 5-1.77074- 3 2.50850- 2-2.20763- 1 612 4  2  948
 9.26669- 1 3.02232- 1 4.76936- 2 0.0    + 0 1.88592- 7-7.43055- 6 612 4  2  949
 1.80395- 4-3.03226- 3 3.51633- 2-2.58254- 1 9.02978- 1 3.38586- 1 612 4  2  950
 0.0    + 0-1.57008- 8 6.66232- 7-1.77961- 5 3.40149- 4-4.74197- 3 612 4  2  951
 4.67054- 2-2.94152- 1 8.76267- 1                                   612 4  2  952
 0.0    + 0 0.0    + 0           0           0           1         280 612 4  2  953
        280           2           0           0           0           0 612 4  2  954
 0.0    + 0 1.00000- 5           0           0           1           0 612 4  2  955
 0.0    + 0                                                           612 4  2  956
 0.0    + 0 1.00000- 4           0           0           1           0 612 4  2  957
 0.0    + 0                                                           612 4  2  958
 0.0    + 0 1.00000- 3           0           0           1           0 612 4  2  959
 0.0    + 0                                                           612 4  2  960
 0.0    + 0 1.00000- 2           0           0           1           0 612 4  2  961
 0.0    + 0                                                           612 4  2  962
 0.0    + 0 2.53000- 2           0           0           1           0 612 4  2  963
 0.0    + 0                                                           612 4  2  964
 0.0    + 0 5.00000- 2           0           0           1           0 612 4  2  965
 0.0    + 0                                                           612 4  2  966
 0.0    + 0 7.00000- 2           0           0           1           0 612 4  2  967
 0.0    + 0                                                           612 4  2  968
 0.0    + 0 8.00000- 2           0           0           1           0 612 4  2  969
 0.0    + 0                                                           612 4  2  970
 0.0    + 0 1.00000- 1           0           0           1           0 612 4  2  971
 0.0    + 0                                                           612 4  2  972
 0.0    + 0 1.00000+ 0           0           0           1           0 612 4  2  973
 0.0    + 0                                                           612 4  2  974
 0.0    + 0 5.00000+ 0           0           0           1           0 612 4  2  975
 0.0    + 0                                                           612 4  2  976
 0.0    + 0 1.00000+ 1           0           0           4           0 612 4  2  977
 2.28250- 6 1.62200-12 5.71990-19-8.60020-25                           612 4  2  978
 0.0    + 0 1.00000+ 2           0           0           4           0 612 4  2  979
 2.28230- 5 1.62190-10 5.71970-16-8.60070-21                           612 4  2  980
 0.0    + 0 1.00000+ 3           0           0           4           0 612 4  2  981
 2.28030- 4 1.62110- 8 5.71780-13-8.60580-17                           612 4  2  982
 0.0    + 0 5.00000+ 3           0           0           4           0 612 4  2  983
 1.13580- 3 4.04560- 7 7.21338-11-5.34460-14                           612 4  2  984
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........10........20........30........40........50........60......MAT MF MT  SEQ
 0.0     + 0 1.00000+ 4           0           0           4           0 612 4  2  985
2.26000- 3 1.61280- 6 8.35460-10-5.32470-13                             612 4  2  986
 0.0     + 0 1.50000+ 4           0           0           4           0 612 4  2  987
3.37120- 3 3.61330- 6 2.81410- 9-2.71270-12                             612 4  2  988
 0.0     + 0 2.00000+ 4           0           0           4           0 612 4  2  989
4.47200- 3 6.40640- 6 6.66460- 9-8.60480-12                             612 4  2  990
 0.0     + 0 2.50000+ 4           0           0           4           0 612 4  2  991
5.56080- 3 9.97740- 6 1.29990- 8-2.11090-11                             612 4  2  992
 0.0     + 0 3.00000+ 4           0           0           4           0 612 4  2  993
6.63980- 3 1.43320- 5 2.24410- 8-4.39250-11                             612 4  2  994
 0.0     + 0 3.50000+ 4           0           0           4           0 612 4  2  995
7.70560- 3 1.94200- 5 3.54940- 8-8.20660-11                             612 4  2  996
 0.0     + 0 4.00000+ 4           0           0           4           0 612 4  2  997
8.76180- 3 2.52970- 5 5.29340- 8-1.40490-10                             612 4  2  998
 0.0     + 0 5.00000+ 4           0           0           4           0 612 4  2  999
1.08450- 2 3.93350- 5 1.03190- 7-3.45360-10                             612 4  2 1000
 0.0     + 0 6.00000+ 4           0           0           4           0 612 4  2 1001
1.28850- 2 5.62790- 5 1.77380- 7-7.24370-10                             612 4  2 1002
 0.0     + 0 7.00000+ 4           0           0           4           0 612 4  2 1003
1.48830- 2 7.61980- 5 2.81150- 7-1.35120- 9                             612 4  2 1004
 0.0     + 0 8.00000+ 4           0           0           4           0 612 4  2 1005
1.68400- 2 9.87200- 5 4.16040- 7-2.34200- 9                             612 4  2 1006
 0.0     + 0 9.00000+ 4           0           0           4           0 612 4  2 1007
1.87570- 2 1.24280- 4 5.91230- 7-3.77630- 9                             612 4  2 1008
 0.0     + 0 1.00000+ 5           0           0           4           0 612 4  2 1009
2.06370- 2 1.52200- 4 8.03810- 7-5.84710- 9                             612 4  2 1010
 0.0     + 0 1.50000+ 5           0           0           4           0 612 4  2 1011
2.94720- 2 3.29340- 4 2.60070- 6-3.17500- 8                             612 4  2 1012
 0.0     + 0 2.00000+ 5           0           0           4           0 612 4  2 1013
3.74350- 2 5.65980- 4 5.97260- 6-1.05580- 7                             612 4  2 1014
 0.0     + 0 2.50000+ 5           0           0           4           0 612 4  2 1015
4.46230- 2 8.56500- 4 1.13170- 5-2.69900- 7                             612 4  2 1016
 0.0     + 0 3.00000+ 5           0           0           4           0 612 4  2 1017
5.10750- 2 1.19230- 3 1.88490- 5-5.86890- 7                             612 4  2 1018
 0.0     + 0 3.50000+ 5           0           0           4           0 612 4  2 1019
5.68770- 2 1.56990- 3 2.87850- 5-1.13860- 6                             612 4  2 1020
 0.0     + 0 4.00000+ 5           0           0           4           0 612 4  2 1021
6.20460- 2 1.98230- 3 4.11600- 5-2.02990- 6                             612 4  2 1022
 0.0     + 0 5.00000+ 5           0           0           4           0 612 4  2 1023
7.07510- 2 2.89970- 3 7.30960- 5-5.39430- 6                             612 4  2 1024
 0.0     + 0 6.00000+ 5           0           0           4           0 612 4  2 1025
7.74910- 2 3.91450- 3 1.12950- 4-1.21190- 5                             612 4  2 1026
 0.0     + 0 7.00000+ 5           0           0           4           0 612 4  2 1027
8.24980- 2 5.00420- 3 1.56890- 4-2.42260- 5                             612 4  2 1028
 0.0     + 0 8.00000+ 5           0           0           4           0 612 4  2 1029
8.59630- 2 6.15600- 3 1.98750- 4-4.44410- 5                             612 4  2 1030
 0.0     + 0 9.00000+ 5           0           0           4           0 612 4  2 1031
8.80250- 2 7.36430- 3 2.29520- 4-7.62950- 5                             612 4  2 1032
 0.0     + 0 1.00000+ 6           0           0           4           0 612 4  2 1033
8.88230- 2 8.64210- 3 2.37480- 4-1.24320- 4                             612 4  2 1034
 0.0     + 0 1.10000+ 6           0           0           4           0 612 4  2 1035
8.84030- 2 9.99950- 3 2.05910- 4-1.93930- 4                             612 4  2 1036
 0.0     + 0 1.15000+ 6           0           0           4           0 612 4  2 1037
8.77650- 2 1.07200- 2 1.69180- 4-2.38860- 4                             612 4  2 1038
 0.0     + 0 1.20000+ 6           0           0           4           0 612 4  2 1039
```

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........10........20........30........40........50........60......MAT MF MT  SEQ
 8.68490- 2 1.14770- 2 1.14410- 4-2.91740- 4                        612 4  2 1040
 0.0    + 0 1.25000+ 6          0          0          4          0 612 4  2 1041
 8.56490- 2 1.22730- 2 3.76360- 5-3.53470- 4                        612 4  2 1042
 0.0    + 0 1.30000+ 6          0          0          4          0 612 4  2 1043
 8.41740- 2 1.31190- 2-6.51860- 5-4.25040- 4                        612 4  2 1044
 0.0    + 0 1.35000+ 6          0          0          4          0 612 4  2 1045
 8.24230- 2 1.40250- 2-1.98970- 4-5.07410- 4                        612 4  2 1046
 0.0    + 0 1.40000+ 6          0          0          4          0 612 4  2 1047
 8.03940- 2 1.50010- 2-3.69530- 4-6.01460- 4                        612 4  2 1048
 0.0    + 0 1.45000+ 6          0          0          4          0 612 4  2 1049
 7.80750- 2 1.60570- 2-5.84360- 4-7.07740- 4                        612 4  2 1050
 0.0    + 0 1.50000+ 6          0          0          4          0 612 4  2 1051
 7.54650- 2 1.72100- 2-8.51600- 4-8.26660- 4                        612 4  2 1052
 0.0    + 0 1.55000+ 6          0          0          4          0 612 4  2 1053
 7.25540- 2 1.8476C- 2-1.18180- 3-9.57950- 4                        612 4  2 1054
 0.0    + 0 1.60000+ 6          0          0          4          0 612 4  2 1055
 6.93300- 2 1.98750- 2-1.58870- 3-1.10030- 3                        612 4  2 1056
 0.0    + 0 1.65000+ 6          0          0          4          0 612 4  2 1057
 6.57720- 2 2.14270- 2-2.09030- 3-1.25040- 3                        612 4  2 1058
 0.0    + 0 1.70000+ 6          0          0          4          0 612 4  2 1059
 6.18540- 2 2.31550- 2-2.71240- 3-1.40190- 3                        612 4  2 1060
 0.0    + 0 1.75000+ 6          0          0          4          0 612 4  2 1061
 5.75320- 2 2.50840- 2-3.49340- 3-1.54190- 3                        612 4  2 1062
 0.0    + 0 1.80000+ 6          0          0          4          0 612 4  2 1063
 5.27390- 2 2.72410- 2-4.49570- 3-1.64550- 3                        612 4  2 1064
 0.0    + 0 1.85000+ 6          0          0          4          0 612 4  2 1065
 4.73510- 2 2.96530- 2-5.83120- 3-1.66080- 3                        612 4  2 1066
 0.0    + 0 1.90000+ 6          0          0          4          0 612 4  2 1067
 4.11170- 2 3.23520- 2-7.73090- 3-1.46840- 3                        612 4  2 1068
 0.0    + 0 1.95000+ 6          0          0          4          0 612 4  2 1069
 3.33950- 2 3.54290- 2-1.07750- 2-7.39460- 4                        612 4  2 1070
 0.0    + 0 2.00000+ 6          0          0          4          0 612 4  2 1071
 2.19140- 2 3.95900- 2-1.69900- 2 1.81260- 3                        612 4  2 1072
 0.0    + 0 2.01000+ 6          0          0          4          0 612 4  2 1073
 1.84990- 2 4.09220- 2-1.91980- 2 2.95290- 3                        612 4  2 1074
 0.0    + 0 2.02000+ 6          0          0          4          0 612 4  2 1075
 1.42830- 2 4.27890- 2-2.20960- 2 4.59080- 3                        612 4  2 1076
 0.0    + 0 2.03000+ 6          0          0          4          0 612 4  2 1077
 8.78880- 3 4.57660- 2-2.60790- 2 7.07580- 3                        612 4  2 1078
 0.0    + 0 2.04000+ 6          0          0          4          0 612 4  2 1079
 1.08920- 3 5.13620- 2-3.18990- 2 1.11570- 2                        612 4  2 1080
 0.0    + 0 2.05000+ 6          0          0          4          0 612 4  2 1081
-1.08140- 2 6.43050- 2-4.10780- 2 1.87100- 2                        612 4  2 1082
 0.0    + 0 2.06000+ 6          0          0          4          0 612 4  2 1083
-3.13030- 2 1.04010- 1-4.63920- 2 3.54420- 2                        612 4  2 1084
 0.0    + 0 2.06100+ 6          0          0          4          0 612 4  2 1085
-3.40520- 2 1.11750- 1-5.83250- 2 3.81450- 2                        612 4  2 1086
 0.0    + 0 2.06200+ 6          0          0          4          0 612 4  2 1087
-3.69280- 2 1.20720- 1-6.02960- 2 4.11310- 2                        612 4  2 1088
 0.0    + 0 2.06300+ 6          0          0          4          0 612 4  2 1089
-3.99100- 2 1.31160- 1-6.22720- 2 4.44310- 2                        612 4  2 1090
 0.0    + 0 2.06400+ 6          0          0          4          0 612 4  2 1091
-4.29640- 2 1.43340- 1-6.42040- 2 4.80760- 2                        612 4  2 1092
 0.0    + 0 2.06500+ 6          0          0          4          0 612 4  2 1093
-4.60290- 2 1.57580- 1-6.60190- 2 5.20890- 2                        612 4  2 1094
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........10........20........30........40........50........60......MAT MF MT  SEQ
 0.0     + 0 2.06600+ 6           0           0           4           0 612 4  2 1095
-4.90140- 2 1.74230- 1-6.76100- 2 5.64850- 2                           612 4  2 1096
 0.0     + 0 2.06700+ 6           0           0           4           0 612 4  2 1097
-5.17780- 2 1.93670- 1-6.88250- 2 6.12590- 2                           612 4  2 1098
 0.0     + 0 2.06800+ 6           0           0           4           0 612 4  2 1099
-5.41160- 2 2.16270- 1-6.94550- 2 6.63700- 2                           612 4  2 1100
 0.0     + 0 2.06900+ 6           0           0           4           0 612 4  2 1101
-5.57400- 2 2.42330- 1-6.92200- 2 7.17200- 2                           612 4  2 1102
 0.0     + 0 2.07000+ 6           0           0           4           0 612 4  2 1103
-5.62620- 2 2.71970- 1-6.77590- 2 7.71270- 2                           612 4  2 1104
 0.0     + 0 2.07100+ 6           0           0           4           0 612 4  2 1105
-5.51890- 2 3.04940- 1-6.46380- 2 8.22900- 2                           612 4  2 1106
 0.0     + 0 2.07200+ 6           0           0           4           0 612 4  2 1107
-5.19520- 2 3.40400- 1-5.93920- 2 8.67670- 2                           612 4  2 1108
 0.0     + 0 2.07300+ 6           0           0           4           0 612 4  2 1109
-4.59860- 2 3.76700- 1-5.16120- 2 8.99700- 2                           612 4  2 1110
 0.0     + 0 2.07400+ 6           0           0           4           0 612 4  2 1111
-3.68860- 2 4.11250- 1-4.10900- 2 9.12310- 2                           612 4  2 1112
 0.0     + 0 2.07500+ 6           0           0           4           0 612 4  2 1113
-2.46070- 2 4.40680- 1-2.79950- 2 8.99350- 2                           612 4  2 1114
 0.0     + 0 2.07600+ 6           0           0           4           0 612 4  2 1115
-9.64430- 3 4.61540- 1-1.29930- 2 8.57260- 2                           612 4  2 1116
 0.0     + 0 2.07700+ 6           0           0           4           0 612 4  2 1117
 6.95170- 3 4.71180- 1 2.79470- 3 7.86870- 2                           612 4  2 1118
 0.0     + 0 2.07800+ 6           0           0           4           0 612 4  2 1119
 2.37790- 2 4.68700- 1 1.80360- 2 6.93880- 2                           612 4  2 1120
 0.0     + 0 2.07900+ 6           0           0           4           0 612 4  2 1121
 3.94590- 2 4.55170- 1 3.15440- 2 5.87370- 2                           612 4  2 1122
 0.0     + 0 2.08000+ 6           0           0           4           0 612 4  2 1123
 5.29740- 2 4.33170- 1 4.25530- 2 4.77180- 2                           612 4  2 1124
 0.0     + 0 2.08100+ 6           0           0           4           0 612 4  2 1125
 6.38210- 2 4.05870- 1 5.08040- 2 3.71520- 2                           612 4  2 1126
 0.0     + 0 2.08200+ 6           0           0           4           0 612 4  2 1127
 7.19650- 2 3.76220- 1 5.64480- 2 2.75780- 2                           612 4  2 1128
 0.0     + 0 2.08300+ 6           0           0           4           0 612 4  2 1129
 7.76760- 2 3.46460- 1 5.98730- 2 1.92520- 2                           612 4  2 1130
 0.0     + 0 2.08400+ 6           0           0           4           0 612 4  2 1131
 8.13670- 2 3.18080- 1 6.15460- 2 1.22220- 2                           612 4  2 1132
 0.0     + 0 2.08500+ 6           0           0           4           0 612 4  2 1133
 8.34730- 2 2.91900- 1 6.19150- 2 6.40470- 3                           612 4  2 1134
 0.0     + 0 2.08600+ 6           0           0           4           0 612 4  2 1135
 8.43870- 2 2.68250- 1 6.13570- 2 1.65620- 3                           612 4  2 1136
 0.0     + 0 2.08700+ 6           0           0           4           0 612 4  2 1137
 8.44330- 2 2.47190- 1 6.01700- 2-2.18530- 3                           612 4  2 1138
 0.0     + 0 2.08800+ 6           0           0           4           0 612 4  2 1139
 8.38660- 2 2.28570- 1 5.85790- 2-5.27520- 3                           612 4  2 1140
 0.0     + 0 2.08900+ 6           0           0           4           0 612 4  2 1141
 8.28770- 2 2.12190- 1 5.67430- 2-7.75140- 3                           612 4  2 1142
 0.0     + 0 2.09000+ 6           0           0           4           0 612 4  2 1143
 8.16080- 2 1.97800- 1 5.47770- 2-9.73100- 3                           612 4  2 1144
 0.0     + 0 2.09100+ 6           0           0           4           0 612 4  2 1145
 8.01630- 2 1.85150- 1 5.27600- 2-1.13100- 2                           612 4  2 1146
 0.0     + 0 2.09200+ 6           0           0           4           0 612 4  2 1147
 7.86150- 2 1.74030- 1 5.07450- 2-1.25680- 2                           612 4  2 1148
 0.0     + 0 2.09300+ 6           0           0           4           0 612 4  2 1149
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........10........20........30........40........50........60......MAT MF MT  SEQ
 7.70180- 2 1.64220- 1 4.87660- 2-1.35670- 2                        612 4  2 1150
 0.0    + 0 2.09400+ 6          0          0          4          0 612 4  2 1151
 7.54070- 2 1.55560- 1 4.68470- 2-1.43570- 2                        612 4  2 1152
 0.0    + 0 2.09500+ 6          0          0          4          0 612 4  2 1153
 7.38080- 2 1.47880- 1 4.50000- 2-1.49800- 2                        612 4  2 1154
 0.0    + 0 2.09600+ 6          0          0          4          0 612 4  2 1155
 7.22380- 2 1.41060- 1 4.32330- 2-1.54680- 2                        612 4  2 1156
 0.0    + 0 2.09700+ 6          0          0          4          0 612 4  2 1157
 7.07080- 2 1.34970- 1 4.15480- 2-1.58460- 2                        612 4  2 1158
 0.0    + 0 2.09800+ 6          0          0          4          0 612 4  2 1159
 6.92240- 2 1.29530- 1 3.99470- 2-1.61350- 2                        612 4  2 1160
 0.0    + 0 2.09900+ 6          0          0          4          0 612 4  2 1161
 6.77910- 2 1.24650- 1 3.84260- 2-1.63520- 2                        612 4  2 1162
 0.0    + 0 2.10000+ 6          0          0          4          0 612 4  2 1163
 6.64120- 2 1.20250- 1 3.69840- 2-1.65110- 2                        612 4  2 1164
 0.0    + 0 2.11000+ 6          0          0          4          0 612 4  2 1165
 5.52960- 2 9.33090- 2 2.60690- 2-1.65010- 2                        612 4  2 1166
 0.0    + 0 2.12000+ 6          0          0          4          0 612 4  2 1167
 4.77180- 2 8.14530- 2 1.93200- 2-1.56850- 2                        612 4  2 1168
 0.0    + 0 2.13000+ 6          0          0          4          0 612 4  2 1169
 4.21710- 2 7.54780- 2 1.47920- 2-1.49050- 2                        612 4  2 1170
 0.0    + 0 2.14000+ 6          0          0          4          0 612 4  2 1171
 3.78290- 2 7.22800- 2 1.15390- 2-1.42790- 2                        612 4  2 1172
 0.0    + 0 2.15000+ 6          0          0          4          0 612 4  2 1173
 3.42430- 2 7.05820- 2 9.07410- 3-1.37980- 2                        612 4  2 1174
 0.0    + 0 2.16000+ 6          0          0          4          0 612 4  2 1175
 3.11590- 2 6.97790- 2 7.12580- 3-1.34370- 2                        612 4  2 1176
 0.0    + 0 2.17000+ 6          0          0          4          0 612 4  2 1177
 2.84200- 2 6.95540- 2 5.53340- 3-1.31700- 2                        612 4  2 1178
 0.0    + 0 2.18000+ 6          0          0          4          0 612 4  2 1179
 2.59280- 2 6.97260- 2 4.19550- 3-1.29790- 2                        612 4  2 1180
 0.0    + 0 2.19000+ 6          0          0          4          0 612 4  2 1181
 2.36170- 2 7.01840- 2 3.04500- 3-1.28490- 2                        612 4  2 1182
 0.0    + 0 2.20000+ 6          0          0          4          0 612 4  2 1183
 2.14430- 2 7.08620- 2 2.03620- 3-1.27680- 2                        612 4  2 1184
 0.0    + 0 2.25000+ 6          0          0          4          0 612 4  2 1185
 1.17320- 2 7.63390- 2-1.75860- 3-1.28610- 2                        612 4  2 1186
 0.0    + 0 2.30000+ 6          0          0          4          0 612 4  2 1187
 2.89070- 3 8.40600- 2-4.54770- 3-1.34550- 2                        612 4  2 1188
 0.0    + 0 2.35000+ 6          0          0          4          0 612 4  2 1189
-5.66740- 3 9.34950- 2-6.94310- 3-1.43420- 2                        612 4  2 1190
 0.0    + 0 2.40000+ 6          0          0          4          0 612 4  2 1191
-1.41240- 2 1.04580- 1-9.17230- 3-1.54310- 2                        612 4  2 1192
 0.0    + 0 2.45000+ 6          0          0          4          0 612 4  2 1193
-2.25290- 2 1.17400- 1-1.13370- 2-1.66660- 2                        612 4  2 1194
 0.0    + 0 2.50000+ 6          0          0          4          0 612 4  2 1195
-3.07900- 2 1.32110- 1-1.34590- 2-1.80110- 2                        612 4  2 1196
 0.0    + 0 2.55000+ 6          0          0          4          0 612 4  2 1197
-3.87590- 2 1.48910- 1-1.55230- 2-1.94230- 2                        612 4  2 1198
 0.0    + 0 2.60000+ 6          0          0          4          0 612 4  2 1199
-4.61980- 2 1.68010- 1-1.74790- 2-2.08530- 2                        612 4  2 1200
 0.0    + 0 2.65000+ 6          0          0          4          0 612 4  2 1201
-5.27330- 2 1.89690- 1-1.92220- 2-2.22320- 2                        612 4  2 1202
 0.0    + 0 2.70000+ 6          0          0          4          0 612 4  2 1203
-5.77310- 2 2.14270- 1-2.05500- 2-2.34710- 2                        612 4  2 1204
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.........10........20........30........40........50........60......MAT MF MT  SEQ
 0.0     + 0 2.72000+ 6           0           0           4           0 612 4  2 1205
-5.90430- 2 2.25000- 1-2.08770- 2-2.39050- 2                           612 4  2 1206
 0.0     + 0 2.74000+ 6           0           0           4           0 612 4  2 1207
-5.97410- 2 2.36280- 1-2.10080- 2-2.42990- 2                           612 4  2 1208
 0.0     + 0 2.76000+ 6           0           0           4           0 612 4  2 1209
-5.94830- 2 2.48090- 1-2.08130- 2-2.46700- 2                           612 4  2 1210
 0.0     + 0 2.78000+ 6           0           0           4           0 612 4  2 1211
-5.73110- 2 2.60270- 1-1.99190- 2-2.51150- 2                           612 4  2 1212
 0.0     + 0 2.80000+ 6           0           0           4           0 612 4  2 1213
-4.76740- 2 2.71230- 1-1.60620- 2-2.63560- 2                           612 4  2 1214
 0.0     + 0 2.80100+ 6           0           0           4           0 612 4  2 1215
-4.64670- 2 2.71590- 1-1.55680- 2-2.65080- 2                           612 4  2 1216
 0.0     + 0 2.80200+ 6           0           0           4           0 612 4  2 1217
-4.50750- 2 2.71890- 1-1.49950- 2-2.66830- 2                           612 4  2 1218
 0.0     + 0 2.80300+ 6           0           0           4           0 612 4  2 1219
-4.34530- 2 2.72130- 1-1.43210- 2-2.68850- 2                           612 4  2 1220
 0.0     + 0 2.80400+ 6           0           0           4           0 612 4  2 1221
-4.15350- 2 2.72280- 1-1.35200- 2-2.71220- 2                           612 4  2 1222
 0.0     + 0 2.80500+ 6           0           0           4           0 612 4  2 1223
-3.92340- 2 2.72320- 1-1.25480- 2-2.74040- 2                           612 4  2 1224
 0.0     + 0 2.80600+ 6           0           0           4           0 612 4  2 1225
-3.64180- 2 2.72210- 1-1.13470- 2-2.77430- 2                           612 4  2 1226
 0.0     + 0 2.80700+ 6           0           0           4           0 612 4  2 1227
-3.28930- 2 2.71890- 1-9.82180- 3-2.81580- 2                           612 4  2 1228
 0.0     + 0 2.80800+ 6           0           0           4           0 612 4  2 1229
-2.83470- 2 2.71280- 1-7.82340- 3-2.86760- 2                           612 4  2 1230
 0.0     + 0 2.80900+ 6           0           0           4           0 612 4  2 1231
-2.22610- 2 2.70230- 1-5.09310- 3-2.93360- 2                           612 4  2 1232
 0.0     + 0 2.81000+ 6           0           0           4           0 612 4  2 1233
-1.36960- 2 2.68470- 1-1.14750- 3-3.01970- 2                           612 4  2 1234
 0.0     + 0 2.81100+ 6           0           0           4           0 612 4  2 1235
-7.73510- 4 2.65520- 1 5.02260- 3-3.13470- 2                           612 4  2 1236
 0.0     + 0 2.81200+ 6           0           0           4           0 612 4  2 1237
 2.08190- 2 2.60260- 1 1.58840- 2-3.28700- 2                           612 4  2 1238
 0.0     + 0 2.81300+ 6           0           0           4           0 612 4  2 1239
 6.31470- 2 2.49900- 1 3.90620- 2-3.44540- 2                           612 4  2 1240
 0.0     + 0 2.81400+ 6           0           0           4           0 612 4  2 1241
 1.67880- 1 2.27160- 1 1.07620- 1-2.99070- 2                           612 4  2 1242
 0.0     + 0 2.81500+ 6           0           0           4           0 612 4  2 1243
 1.71830- 1 2.66570- 1 2.19890- 1 5.36620- 2                           612 4  2 1244
 0.0     + 0 2.81600+ 6           0           0           4           0 612 4  2 1245
-1.65570- 1 3.37130- 1-1.77070- 2 2.64590- 2                           612 4  2 1246
 0.0     + 0 2.81700+ 6           0           0           4           0 612 4  2 1247
-1.48210- 1 3.21610- 1-4.08030- 2 1.05660- 3                           612 4  2 1248
 0.0     + 0 2.81800+ 6           0           0           4           0 612 4  2 1249
-1.27190- 1 3.12970- 1-4.01270- 2-7.93980- 3                           612 4  2 1250
 0.0     + 0 2.81900+ 6           0           0           4           0 612 4  2 1251
-1.13540- 1 3.08370- 1-3.76880- 2-1.22410- 2                           612 4  2 1252
 0.0     + 0 2.82000+ 6           0           0           4           0 612 4  2 1253
-1.04380- 1 3.05750- 1-3.55150- 2-1.47080- 2                           612 4  2 1254
 0.0     + 0 2.82100+ 6           0           0           4           0 612 4  2 1255
-9.78620- 2 3.04190- 1-3.37620- 2-1.62900- 2                           612 4  2 1256
 0.0     + 0 2.82200+ 6           0           0           4           0 612 4  2 1257
-9.29990- 2 3.03270- 1-3.23570- 2-1.73820- 2                           612 4  2 1258
 0.0     + 0 2.82300+ 6           0           0           4           0 612 4  2 1259
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........10........20........30........40........50........60......MAT MF MT  SEQ
-8.92290- 2 3.02770- 1-3.12160- 2-1.81770- 2                        612 4  2 1260
 0.0    + 0 2.82400+ 6          0          0          4          0 612 4  2 1261
-8.62160- 2 3.02550- 1-3.02730- 2-1.87770- 2                        612 4  2 1262
 0.0    + 0 2.82500+ 6          0          0          4          0 612 4  2 1263
-8.37450- 2 3.02520- 1-2.94810- 2-1.92440- 2                        612 4  2 1264
 0.0    + 0 2.82600+ 6          0          0          4          0 612 4  2 1265
-8.16770- 2 3.02650- 1-2.88060- 2-1.96140- 2                        612 4  2 1266
 0.0    + 0 2.82700+ 6          0          0          4          0 612 4  2 1267
-7.99140- 2 3.02890- 1-2.82230- 2-1.99140- 2                        612 4  2 1268
 0.0    + 0 2.82800+ 6          0          0          4          0 612 4  2 1269
-7.83880- 2 3.03210- 1-2.77120- 2-2.01590- 2                        612 4  2 1270
 0.0    + 0 2.82900+ 6          0          0          4          0 612 4  2 1271
-7.70500- 2 3.03610- 1-2.72590- 2-2.03620- 2                        612 4  2 1272
 0.0    + 0 2.83000+ 6          0          0          4          0 612 4  2 1273
-7.58630- 2 3.04060- 1-2.68550- 2-2.05310- 2                        612 4  2 1274
 0.0    + 0 2.83200+ 6          0          0          4          0 612 4  2 1275
-7.38330- 2 3.05100- 1-2.61570- 2-2.07910- 2                        612 4  2 1276
 0.0    + 0 2.83400+ 6          0          0          4          0 612 4  2 1277
-7.21420- 2 3.06270- 1-2.55710- 2-2.09740- 2                        612 4  2 1278
 0.0    + 0 2.83600+ 6          0          0          4          0 612 4  2 1279
-7.06880- 2 3.07550- 1-2.50640- 2-2.11010- 2                        612 4  2 1280
 0.0    + 0 2.83800+ 6          0          0          4          0 612 4  2 1281
-6.94060- 2 3.08900- 1-2.46160- 2-2.11870- 2                        612 4  2 1282
 0.0    + 0 2.84000+ 6          0          0          4          0 612 4  2 1283
-6.82500- 2 3.10320- 1-2.42110- 2-2.12390- 2                        612 4  2 1284
 0.0    + 0 2.84500+ 6          0          0          4          0 612 4  2 1285
-6.57180- 2 3.14070- 1-2.33220- 2-2.12610- 2                        612 4  2 1286
 0.0    + 0 2.85000+ 6          0          0          4          0 612 4  2 1287
-6.34690- 2 3.18060- 1-2.25330- 2-2.11670- 2                        612 4  2 1288
 0.0    + 0 2.86000+ 6          0          0          4          0 612 4  2 1289
-5.91890- 2 3.26580- 1-2.10340- 2-2.07230- 2                        612 4  2 1290
 0.0    + 0 2.87000+ 6          0          0          4          0 612 4  2 1291
-5.46300- 2 3.35670- 1-1.94340- 2-1.99790- 2                        612 4  2 1292
 0.0    + 0 2.88000+ 6          0          0          4          0 612 4  2 1293
-4.93260- 2 3.45270- 1-1.75580- 2-1.89170- 2                        612 4  2 1294
 0.0    + 0 2.89000+ 6          0          0          4          0 612 4  2 1295
-4.28470- 2 3.55270- 1-1.52410- 2-1.74730- 2                        612 4  2 1296
 0.0    + 0 2.90000+ 6          0          0          4          0 612 4  2 1297
-3.46840- 2 3.65500- 1-1.22760- 2-1.55340- 2                        612 4  2 1298
 0.0    + 0 2.91000+ 6          0          0          4          0 612 4  2 1299
-2.41520- 2 3.75590- 1-8.37850- 3-1.29260- 2                        612 4  2 1300
 0.0    + 0 2.92000+ 6          0          0          4          0 612 4  2 1301
-1.02940- 2 3.84740- 1-3.13570- 3-9.39290- 3                        612 4  2 1302
 0.0    + 0 2.93000+ 6          0          0          4          0 612 4  2 1303
 8.22570- 3 3.91270- 1 4.05510- 3-4.56050- 3                        612 4  2 1304
 0.0    + 0 2.93500+ 6          0          0          4          0 612 4  2 1305
 1.97580- 2 3.92590- 1 8.63320- 3-1.50520- 3                        612 4  2 1306
 0.0    + 0 2.94000+ 6          0          0          4          0 612 4  2 1307
 3.31080- 2 3.91740- 1 1.40260- 2 2.06740- 3                        612 4  2 1308
 0.0    + 0 2.94500+ 6          0          0          4          0 612 4  2 1309
 4.84590- 2 3.87750- 1 2.03520- 2 6.21840- 3                        612 4  2 1310
 0.0    + 0 2.95000+ 6          0          0          4          0 612 4  2 1311
 6.58640- 2 3.79330- 1 2.76930- 2 1.09780- 2                        612 4  2 1312
 0.0    + 0 2.95500+ 6          0          0          4          0 612 4  2 1313
 8.50970- 2 3.64830- 1 3.60400- 2 1.63070- 2                        612 4  2 1314
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 1.05410- 1 3.42400- 1 4.51880- 2 2.20250- 2                           612 4  2 1316
 0.0    + 0 2.96500+ 6           0           0           4           0 612 4  2 1317
 1.25250- 1 3.10400- 1 5.46030- 2 2.77370- 2                           612 4  2 1318
 0.0    + 0 2.97000+ 6           0           0           4           0 612 4  2 1319
 1.42040- 1 2.68290- 1 6.33040- 2 3.27570- 2                           612 4  2 1320
 0.0    + 0 2.97500+ 6           0           0           4           0 612 4  2 1321
 1.52430- 1 2.17790- 1 6.98930- 2 3.61640- 2                           612 4  2 1322
 0.0    + 0 2.98000+ 6           0           0           4           0 612 4  2 1323
 1.53240- 1 1.63680- 1 7.28910- 2 3.70420- 2                           612 4  2 1324
 0.0    + 0 2.98500+ 6           0           0           4           0 612 4  2 1325
 1.42970- 1 1.13090- 1 7.13760- 2 3.49010- 2                           612 4  2 1326
 0.0    + 0 2.99000+ 6           0           0           4           0 612 4  2 1327
 1.22880- 1 7.29620- 2 6.55070- 2 2.99930- 2                           612 4  2 1328
 0.0    + 0 2.99500+ 6           0           0           4           0 612 4  2 1329
 9.64980- 2 4.72400- 2 5.64840- 2 2.32160- 2                           612 4  2 1330
 0.0    + 0 2.99800+ 6           0           0           4           0 612 4  2 1331
 7.94140- 2 3.88760- 2 5.02390- 2 1.87250- 2                           612 4  2 1332
 0.0    + 0 3.00000+ 6           0           0           4           0 612 4  2 1333
 6.80070- 2 3.59670- 2 4.59410- 2 1.56930- 2                           612 4  2 1334
 0.0    + 0 3.01000+ 6           0           0           4           0 612 4  2 1335
 1.64890- 2 4.50390- 2 2.54890- 2 1.71990- 3                           612 4  2 1336
 0.0    + 0 3.02000+ 6           0           0           4           0 612 4  2 1337
-2.07770- 2 7.44020- 2 9.65280- 3-8.67650- 3                           612 4  2 1338
 0.0    + 0 3.03000+ 6           0           0           4           0 612 4  2 1339
-4.51330- 2 1.07750- 1-1.31430- 3-1.56530- 2                           612 4  2 1340
 0.0    + 0 3.04000+ 6           0           0           4           0 612 4  2 1341
-6.05350- 2 1.38760- 1-8.66310- 3-2.01930- 2                           612 4  2 1342
 0.0    + 0 3.05000+ 6           0           0           4           0 612 4  2 1343
-7.01780- 2 1.65840- 1-1.35710- 2-2.31350- 2                           612 4  2 1344
 0.0    + 0 3.06000+ 6           0           0           4           0 612 4  2 1345
-7.61510- 2 1.89080- 1-1.68610- 2-2.50420- 2                           612 4  2 1346
 0.0    + 0 3.07000+ 6           0           0           4           0 612 4  2 1347
-7.97470- 2 2.09030- 1-1.90680- 2-2.62670- 2                           612 4  2 1348
 0.0    + 0 3.08000+ 6           0           0           4           0 612 4  2 1349
-8.17640- 2 2.26290- 1-2.05320- 2-2.70320- 2                           612 4  2 1350
 0.0    + 0 3.09000+ 6           0           0           4           0 612 4  2 1351
-8.26990- 2 2.41360- 1-2.14730- 2-2.74760- 2                           612 4  2 1352
 0.0    + 0 3.10000+ 6           0           0           4           0 612 4  2 1353
-8.28720- 2 2.54650- 1-2.20330- 2-2.76900- 2                           612 4  2 1354
 0.0    + 0 3.15000+ 6           0           0           4           0 612 4  2 1355
-7.76360- 2 3.03430- 1-2.16610- 2-2.68450- 2                           612 4  2 1356
 0.0    + 0 3.20000+ 6           0           0           4           0 612 4  2 1357
-6.76960- 2 3.34950- 1-1.86860- 2-2.43990- 2                           612 4  2 1358
 0.0    + 0 3.25000+ 6           0           0           4           0 612 4  2 1359
-5.56300- 2 3.56490- 1-1.44200- 2-2.10950- 2                           612 4  2 1360
 0.0    + 0 3.30000+ 6           0           0           4           0 612 4  2 1361
-4.24160- 2 3.70940- 1-9.33420- 3-1.71960- 2                           612 4  2 1362
 0.0    + 0 3.35000+ 6           0           0           4           0 612 4  2 1363
-2.86820- 2 3.79790- 1-3.69700- 3-1.28600- 2                           612 4  2 1364
 0.0    + 0 3.40000+ 6           0           0           4           0 612 4  2 1365
-1.49370- 2 3.84020- 1 2.28960- 3-8.21410- 3                           612 4  2 1366
 0.0    + 0 3.45000+ 6           0           0           4           0 612 4  2 1367
-1.60720- 3 3.84410- 1 8.45890- 3-3.36860- 3                           612 4  2 1368
 0.0    + 0 3.50000+ 6           0           0           4           0 612 4  2 1369
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 2.24160- 2 3.76360- 1 2.07980- 2 6.54340- 3                      612 4  2 1372
 0.0    + 0 3.60000+ 6          0          0          4         0 612 4  2 1373
 3.25860- 2 3.69110- 1 2.67550- 2 1.14690- 2                      612 4  2 1374
 0.0    + 0 3.65000+ 6          0          0          4         0 612 4  2 1375
 4.12650- 2 3.60360- 1 3.24640- 2 1.63090- 2                      612 4  2 1376
 0.0    + 0 3.70000+ 6          0          0          4         0 612 4  2 1377
 4.82910- 2 3.50540- 1 3.78640- 2 2.10370- 2                      612 4  2 1378
 0.0    + 0 3.75000+ 6          0          0          4         0 612 4  2 1379
 5.35060- 2 3.39950- 1 4.29000- 2 2.56380- 2                      612 4  2 1380
 0.0    + 0 3.80000+ 6          0          0          4         0 612 4  2 1381
 5.67250- 2 3.28820- 1 4.75140- 2 3.01100- 2                      612 4  2 1382
 0.0    + 0 3.85000+ 6          0          0          4         0 612 4  2 1383
 5.77100- 2 3.17300- 1 5.16310- 2 3.44600- 2                      612 4  2 1384
 0.0    + 0 3.90000+ 6          0          0          4         0 612 4  2 1385
 5.61470- 2 3.05380- 1 5.51290- 2 3.87030- 2                      612 4  2 1386
 0.0    + 0 3.95000+ 6          0          0          4         0 612 4  2 1387
 5.16570- 2 2.92900- 1 5.77950- 2 4.28530- 2                      612 4  2 1388
 0.0    + 0 4.00000+ 6          0          0          4         0 612 4  2 1389
 4.39780- 2 2.79310- 1 5.92230- 2 4.69130- 2                      612 4  2 1390
 0.0    + 0 4.05000+ 6          0          0          4         0 612 4  2 1391
 3.39110- 2 2.63290- 1 5.85910- 2 5.08120- 2                      612 4  2 1392
 0.0    + 0 4.10000+ 6          0          0          4         0 612 4  2 1393
 2.76770- 2 2.41660- 1 5.42240- 2 5.41850- 2                      612 4  2 1394
 0.0    + 0 4.15000+ 6          0          0          4         0 612 4  2 1395
 5.56990- 2 2.07640- 1 4.36490- 2 5.55140- 2                      612 4  2 1396
 0.0    + 0 4.20000+ 6          0          0          4         0 612 4  2 1397
 2.07440- 1 1.61710- 1 3.25700- 2 5.10350- 2                      612 4  2 1398
 0.0    + 0 4.22000+ 6          0          0          4         0 612 4  2 1399
 3.05470- 1 1.50760- 1 3.50050- 2 4.78940- 2                      612 4  2 1400
 0.0    + 0 4.24000+ 6          0          0          4         0 612 4  2 1401
 3.90990- 1 1.50610- 1 4.34850- 2 4.56530- 2                      612 4  2 1402
 0.0    + 0 4.26000+ 6          0          0          4         0 612 4  2 1403
 4.41440- 1 1.59040- 1 5.52540- 2 4.51890- 2                      612 4  2 1404
 0.0    + 0 4.28000+ 6          0          0          4         0 612 4  2 1405
 4.57010- 1 1.70540- 1 6.68030- 2 4.62970- 2                      612 4  2 1406
 0.0    + 0 4.30000+ 6          0          0          4         0 612 4  2 1407
 4.50630- 1 1.81070- 1 7.63510- 2 4.82830- 2                      612 4  2 1408
 0.0    + 0 4.32000+ 6          0          0          4         0 612 4  2 1409
 4.34290- 1 1.89160- 1 8.36940- 2 5.05890- 2                      612 4  2 1410
 0.0    + 0 4.34000+ 6          0          0          4         0 612 4  2 1411
 4.15050- 1 1.94820- 1 8.92530- 2 5.29160- 2                      612 4  2 1412
 0.0    + 0 4.36000+ 6          0          0          4         0 612 4  2 1413
 3.96240- 1 1.98490- 1 9.35190- 2 5.51380- 2                      612 4  2 1414
 0.0    + 0 4.38000+ 6          0          0          4         0 612 4  2 1415
 3.79140- 1 2.00680- 1 9.68850- 2 5.72210- 2                      612 4  2 1416
 0.0    + 0 4.40000+ 6          0          0          4         0 612 4  2 1417
 3.64100- 1 2.01770- 1 9.96280- 2 5.91650- 2                      612 4  2 1418
 0.0    + 0 4.45000+ 6          0          0          4         0 612 4  2 1419
 3.34700- 1 2.01530- 1 1.04840- 1 6.35170- 2                      612 4  2 1420
 0.0    + 0 4.50000+ 6          0          0          4         0 612 4  2 1421
 3.14240- 1 1.98970- 1 1.08790- 1 6.73390- 2                      612 4  2 1422
 0.0    + 0 4.55000+ 6          0          0          4         0 612 4  2 1423
 2.99740- 1 1.95360- 1 1.12100- 1 7.08120- 2                      612 4  2 1424
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........10........20........30........40........50........60......MAT MF MT  SEQ
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 2.89210- 1 1.91260- 1 1.15010- 1 7.40490- 2                          612 4  2 1426
 0.0    + 0 4.65000+ 6           0           0           4           0 612 4  2 1427
 2.81370- 1 1.86950- 1 1.17610- 1 7.71200- 2                          612 4  2 1428
 0.0    + 0 4.70000+ 6           0           0           4           0 612 4  2 1429
 2.75410- 1 1.82510- 1 1.19870- 1 8.00750- 2                          612 4  2 1430
 0.0    + 0 4.75000+ 6           0           0           4           0 612 4  2 1431
 2.70730- 1 1.77940- 1 1.21650- 1 8.29500- 2                          612 4  2 1432
 0.0    + 0 4.80000+ 6           0           0           4           0 612 4  2 1433
 2.66820- 1 1.72990- 1 1.22540- 1 8.57760- 2                          612 4  2 1434
 0.0    + 0 4.91000+ 6           0           0           5           0 612 4  2 1435
 2.64145- 1 1.45102- 1 9.68546- 2 4.31081- 2-1.28736- 2               612 4  2 1436
 0.0    + 0 4.93000+ 6           0           0           4           0 612 4  2 1437
 2.47423- 1 1.39644- 1 1.11795- 1 4.30074- 2                          612 4  2 1438
 0.0    + 0 5.05000+ 6           0           0           5           0 612 4  2 1439
 2.40858- 1 1.28270- 1 9.25256- 2 2.98875- 2-1.54392- 2               612 4  2 1440
 0.0    + 0 5.15000+ 6           0           0           5           0 612 4  2 1441
 2.46143- 1 1.34769- 1 1.04721- 1 3.60005- 2-1.00793- 2               612 4  2 1442
 0.0    + 0 5.32400+ 6           0           0           6           0 612 4  2 1443
 2.27209- 1 9.76157- 2 3.32599- 2 5.20492- 2-1.27502- 2 1.40252- 2    612 4  2 1444
 0.0    + 0 5.34800+ 6           0           0           5           0 612 4  2 1445
 2.66357- 1 1.04530- 1 2.70450- 2 4.98129- 2-1.17200- 2               612 4  2 1446
 0.0    + 0 5.36100+ 6           0           0           5           0 612 4  2 1447
 3.76812- 1 1.78882- 1 8.55622- 2 3.66755- 2-7.25982- 3               612 4  2 1448
 0.0    + 0 5.37700+ 6           0           0           5           0 612 4  2 1449
 3.49757- 1 1.94161- 1 1.30996- 1 2.53447- 2-1.12807- 2               612 4  2 1450
 0.0    + 0 5.47000+ 6           0           0           5           0 612 4  2 1451
 2.30769- 1 1.55172- 1 1.38878- 1 2.63778- 2-1.94116- 2               612 4  2 1452
 0.0    + 0 5.57000+ 6           0           0           5           0 612 4  2 1453
 2.74333- 1 1.76099- 1 1.42857- 1 2.21721- 2-1.24014- 2               612 4  2 1454
 0.0    + 0 5.78000+ 6           0           0           5           0 612 4  2 1455
 2.47037- 1 1.76671- 1 1.43264- 1 2.24435- 2-1.66818- 2               612 4  2 1456
 0.0    + 0 6.00000+ 6           0           0           5           0 612 4  2 1457
 2.15184- 1 1.68627- 1 1.41133- 1 1.80995- 2-1.79624- 2               612 4  2 1458
 0.0    + 0 6.25000+ 6           0           0           6           0 612 4  2 1459
 1.77778- 1 1.98065- 1 2.42089- 1 4.56392- 2-8.69990- 3 2.68817- 2    612 4  2 1460
 0.0    + 0 6.29000+ 6           0           0           7           0 612 4  2 1461
 1.58547- 1 2.09487- 1 2.42308- 1 1.48789- 1 4.96503- 2 4.02367- 2    612 4  2 1462
 6.66667- 3                                                           612 4  2 1463
 0.0    + 0 6.33000+ 6           0           0           7           0 612 4  2 1464
 2.61106- 1 2.69304- 1 1.90026- 1 1.60887- 1 6.07363- 2 9.72287- 3    612 4  2 1465
-1.15219- 2                                                           612 4  2 1466
 0.0    + 0 6.52000+ 6           0           0           5           0 612 4  2 1467
 3.68782- 1 2.85077- 1 1.64666- 1 1.06537- 1 2.10510- 2               612 4  2 1468
 0.0    + 0 6.56000+ 6           0           0           5           0 612 4  2 1469
 4.31585- 1 3.05967- 1 2.06148- 1 1.31204- 1 3.17278- 2               612 4  2 1470
 0.0    + 0 6.61000+ 6           0           0           5           0 612 4  2 1471
 3.02454- 1 1.61520- 1 1.86630- 1 1.27474- 1 3.13107- 2               612 4  2 1472
 0.0    + 0 6.94000+ 6           0           0           5           0 612 4  2 1473
 2.00828- 1 7.12215- 2 1.16238- 1 3.84173- 2-1.24224- 2               612 4  2 1474
 0.0    + 0 7.20000+ 6           0           0           4           0 612 4  2 1475
 3.58477- 1 1.07759- 1 3.84852- 2 1.46073- 2                          612 4  2 1476
 0.0    + 0 7.35000+ 6           0           0           6           0 612 4  2 1477
 5.99104- 1 3.32782- 1 1.18186- 1 2.57383- 2 1.43838- 2 3.42057- 3    612 4  2 1478
 0.0    + 0 7.73000+ 6           0           0           6           0 612 4  2 1479
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 4.99912- 1 5.01157- 1 2.36655- 1 9.89440- 2 2.31138- 2-1.19708- 2 612 4  2 1482
 0.0    + 0 8.50000+ 6          0          0          6          0 612 4  2 1483
 4.58015- 1 3.57853- 1 2.97528- 1 1.05861- 1 3.82210- 3-1.41658- 3 612 4  2 1484
 0.0    + 0 9.00000+ 6          0          0          6          0 612 4  2 1485
 3.67812- 1 3.14697- 1 3.00722- 1 8.12696- 2 1.19053- 2 1.08348- 2 612 4  2 1486
 0.0    + 0 9.50000+ 6          0          0          6          0 612 4  2 1487
 4.61509- 1 3.77765- 1 3.15023- 1 1.38597- 1 4.44908- 2 4.51106- 3 612 4  2 1488
 0.0    + 0 1.00000+ 7          0          0          6          0 612 4  2 1489
 5.51703- 1 4.21924- 1 3.30750- 1 1.49246- 1 2.84557- 2 5.72191- 3 612 4  2 1490
 0.0    + 0 1.05000+ 7          0          0          7          0 612 4  2 1491
 5.30685- 1 4.27527- 1 3.28384- 1 1.32691- 1 3.91338- 2 3.45322- 2 612 4  2 1492
 8.86834- 3                                                       612 4  2 1493
 0.0    + 0 1.10000+ 7          0          0          7          0 612 4  2 1494
 6.01793- 1 4.58370- 1 3.23495- 1 1.31907- 1 3.64609- 2 1.01343- 2 612 4  2 1495
 7.23816- 4                                                       612 4  2 1496
 0.0    + 0 1.15000+ 7          0          0          7          0 612 4  2 1497
 5.61427- 1 4.43171- 1 3.12840- 1 1.41746- 1 3.25150- 2 2.19895- 2 612 4  2 1498
 2.88600- 4                                                       612 4  2 1499
 0.0    + 0 1.20000+ 7          0          0          7          0 612 4  2 1500
 5.10461- 1 3.72719- 1 2.88098- 1 1.17847- 1 2.56221- 2 9.52706- 3 612 4  2 1501
-2.91896- 3                                                       612 4  2 1502
 0.0    + 0 1.25000+ 7          0          0          7          0 612 4  2 1503
 5.12105- 1 4.03356- 1 3.19107- 1 1.60089- 1 4.59262- 2 1.57978- 2 612 4  2 1504
-4.07893- 3                                                       612 4  2 1505
 0.0    + 0 1.30000+ 7          0          0          7          0 612 4  2 1506
 5.81287- 1 4.56457- 1 3.48336- 1 1.82762- 1 7.11226- 2 2.77781- 2 612 4  2 1507
 5.18469- 3                                                       612 4  2 1508
 0.0    + 0 1.35000+ 7          0          0          7          0 612 4  2 1509
 5.68561- 1 4.38894- 1 3.36402- 1 1.83065- 1 5.45121- 2 2.36269- 2 612 4  2 1510
 6.30847- 3                                                       612 4  2 1511
 0.0    + 0 1.40000+ 7          0          0          7          0 612 4  2 1512
 6.02570- 1 4.53274- 1 3.35715- 1 1.89280- 1 5.85109- 2 2.96075- 2 612 4  2 1513
 5.74584- 3                                                       612 4  2 1514
 0.0    + 0 1.45000+ 7          0          0          7          0 612 4  2 1515
 5.87867- 1 4.67673- 1 3.17054- 1 2.05082- 1 7.85603- 2 3.55590- 2 612 4  2 1516
 7.83901- 3                                                       612 4  2 1517
 0.0    + 0 1.58500+ 7          0          0          7          0 612 4  2 1518
 6.34502- 1 4.55041- 1 3.14877- 1 1.92273- 1 7.63940- 2 2.72029- 2 612 4  2 1519
 5.13037- 3                                                       612 4  2 1520
 0.0    + 0 1.72700+ 7          0          0          8          0 612 4  2 1521
 7.14135- 1 5.11124- 1 3.62776- 1 2.43699- 1 1.21668- 1 4.84925- 2 612 4  2 1522
 1.23698- 2 3.10810- 3                                            612 4  2 1523
 0.0    + 0 1.82500+ 7          0          0          8          0 612 4  2 1524
 7.15693- 1 5.09633- 1 3.52729- 1 2.36256- 1 1.21562- 1 5.08524- 2 612 4  2 1525
 1.38579- 2 3.74000- 3                                            612 4  2 1526
 0.0    + 0 2.00000+ 7          0          0          8          0 612 4  2 1527
 7.42877- 1 5.34650- 1 3.71561- 1 2.52098- 1 1.36040- 1 5.85159- 2 612 4  2 1528
 1.74169- 2 5.10247- 3                                            612 4  2 1529
                                                                  612 4  0 1530
 6.01200+ 3 1.18969+ 1          0          1          0          0 612 4 51 1531
 0.0    + 0 1.18969+ 1          0          2          0          0 612 4 51 1532
 0.0    + 0 0.0    + 0          0          0          1         29 612 4 51 1533
         29          2          0          0          0          0 612 4 51 1534
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 0.0    + 0 4.81200+ 6          0          0          1          0 612 4 51 1535
 0.0    + 0                                                        612 4 51 1536
 0.0    + 0 5.78000+ 6          0          0          2          0 612 4 51 1537
-7.08479- 2 3.90244- 2                                             612 4 51 1538
 0.0    + 0 6.00000+ 6          0          0          2          0 612 4 51 1539
-1.20370- 1 5.12346- 2                                             612 4 51 1540
 0.0    + 0 6.25000+ 6          0          0          2          0 612 4 51 1541
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 5.91017- 3 8.29787- 2                                             612 4 51 1544
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                                                                  612 0  0 1909
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         2           2           0           0           0          0 61212 51 1925
4.81200+ 6 1.00000+ 0 2.00000+ 7 1.00000+ 0                        61212 51 1926
                                                                   61212  0 1927
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