

High-precision gigahertz-to-terahertz spectroscopy of aqueous salt solutions as a probe of the femtosecond-to-picosecond dynamics of liquid water

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Because it is sensitive to fluctuations occurring over femtoseconds to picoseconds, gigahertz-to-terahertz dielectric relaxation spectroscopy can provide a valuable window into water's most rapid intermolecular motions. In response, we have built a vector network analyzer dielectric spectrometer capable of measuring absorbance and index of refraction in this frequency regime with unprecedented precision. Using this to determine the complex dielectric response of water and aqueous salt solutions from 5.9 GHz to 1.12 THz (which we provide in the supplementary material), we have obtained strong new constraints on theories of water's collective dynamics. For example, while the salt-dependencies we observe for water's two slower relaxations (8 and 1 ps) are easily reconciled with suggestions that they arise due to rotations of fully and partially hydrogen bonded molecules, respectively, the salt-dependence of the fastest relaxation (180 fs) appears difficult to reconcile with its prior assignment to liberations of single hydrogen bonds. © 2015 AIP Publishing LLC. [<http://dx.doi.org/10.1063/1.4918708>]

INTRODUCTION

Water is undoubtedly the most widely studied chemical system, with thousands of experimental and theoretical characterizations reported to date.^{1–12} Detailed understanding of its collective molecular dynamics nevertheless remains an important outstanding problem in the physical and biological sciences.^{13–16} The experimental literature describing water's femto-to-picosecond dielectric relaxations, for example, is often contradictory, with estimates for the timescale of the more rapid of these motions tending to cluster around the mutually exclusive values of 100 fs and 1 ps (Table I). This poor agreement, in turn, renders it difficult to distinguish between competing theoretical models of water's dynamical behavior, limiting our understanding of key aspects of this important and ubiquitous molecule.^{5,13,14,17–22}

Because it can be used to monitor dipole fluctuations occurring over femtoseconds to picoseconds, gigahertz-to-terahertz dielectric relaxation spectroscopy could provide a valuable experimental window into the molecular-scale dynamics of water and aqueous solutions. Unlike infrared and Raman spectroscopies, for example, which are sensitive to the femtosecond-scale intramolecular dynamics (i.e., bond vibrations), gigahertz-to-terahertz regime is sensitive to its picosecond-scale intermolecular dynamics

(i.e., molecular motions involving hydrogen bond breaking). Unfortunately, however, daunting technical limitations, including the extremely strong absorbance of polar liquids and the often severe interference artifacts that occur at these wavelengths, have reduced the precision of prior spectroscopic studies (particularly at the upper end of this frequency range), limiting our ability to characterize any but the slowest and most strongly absorbing of water's dynamic modes. As recently as 2011, for example, Zaslavsky¹⁷ has stated that the “available experimental data in the wave number range of 1–100 cm⁻¹ [30 GHz–3 THz] are limited, [and] the accuracy of these data is insufficient for an accurate characterization of fast processes.”

In response to these observations, we have built a vector network analyzer-based dielectric spectrometer capable of measuring the absorbance and index of refraction of water and aqueous solutions over the frequency range 5.9 GHz–1.12 THz (0.27–51 mm or 0.2–37.4 cm⁻¹) with unprecedented precision, resolution, and dynamic range.⁹ This spectrometer, which is based on a vector network analyzer and frequency extension modules built by Virginia Diode, Inc., achieves sub-100 Hz spectral resolution and a detection dynamic range spanning more than 15 orders of magnitude. Integrating the spectrometer with an automated, variable path length cell, which allows for high-precision measurement of how transmitted intensity and phase change with changing path length, we achieve precision of better than 0.2% in the measurement of both the real and imaginary components $\epsilon'(\nu)$ and $\epsilon''(\nu)$ of the dielectric relaxation of water and aqueous solutions over the

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TABLE I. Relaxation times extracted from previous measurements of the dielectric function of water at 25 °C.

Technique	Frequency range (GHz)	Slowest process, τ_D (ps) ^a	Next faster process, τ_2 (ps) ^a	Fastest process, τ_3 (ps) ^a	References
Dielectric relaxation	68–75	8.17 ± 0.36			23
	1.1–57	8.27 ± 0.02			7 and 24–26
	Few data points up to 1000	8.24 ± 0.02	0.21		27
	0.95–89	8.32 ± 0.17	1.02 ± 0.05		28 and 29
	0.2–410	8.38 ± 0.17	1.10 ± 3.40		30 and 31
	0.2–410	8.32 ± 0.17	0.39 - 0.42		13 and 32–34
	0.2–89	8.38	0.3		35
	600–3000			0.053	36
Terahertz time-domain spectroscopy	370–1620	~8 ps	~0.25		21
	200–3500	8.3	0.25 ± 0.01		37
	60–1500	8.24 ± 0.40	0.18 ± 0.14		15 and 38
	100–2000	7.10 ± 0.48	0.20 ± 0.06		14, 39, and 40
	200–1800		0.336		41
Data collated from multiple experiments	Up to 25 000	8.58	0.95	0.082	18
	Up to 1000	8.26 ± 0.03	1.05 ± 0.52	0.135 ± 0.035	19
	Up to 7000	8.31	1.0	0.10	42
This work	5.9–1120	8.37 ± 0.25	1.05 ± 0.15	0.178 ± 0.050	

^aError bars given are reported confidence intervals as provided in the literature. When no values are reported, confidence intervals were lacking in the original literature.

frequency range most relevant to its molecular-scale motions. The precision, spectral resolution, and broad frequency range of these measurements⁹ render them a unique asset to test theoretical models of water's dynamics over femtosecond to picosecond time scales.

EXPERIMENTAL RESULTS

We have measured the absorbance and phase shift of water and aqueous salt solutions over the three order of magnitude range 5.9 GHz–1.12 THz as functions of path length, d , at 25.00 (±0.02) °C. In brief, our experimental setup^{9,15} consists of a variable-thickness, temperature controlled sample cell with which we can accurately measure *changes* in transmitted power as a function of *changes* in path length. Fitting this data to Beer's law, $I(d) = I_0 \exp(-\alpha_{\text{sol}}d)$, with I_0 corresponding to the incident intensity, provides a precise (standard error of the mean of replicate measurements typically <0.2%) measurement of the absorption coefficient of a sample, α_{sol} (Fig. 1), without the need for precise knowledge of the sample's absolute absorbance or absolute path length. In parallel, we also fit the observed phase shift as a linear function of path length to define n_{sol} , the refractive index of the sample (Fig. 1, inset). Both properties of these samples are strong functions of frequency, monotonically increasing and decreasing, respectively, with rising frequency over this entire spectral range.

Knowledge of the absorbance and refractive index of our sample allow us to compute its complex dielectric response⁹

$$\begin{aligned} \epsilon'_{\text{sol}}(\nu) &= n^2(\nu) - \kappa^2(\nu) = n^2(\nu) - (c\alpha(\nu)/4\pi\nu)^2, \\ \epsilon''_{\text{sol}}(\nu) &= 2n(\nu) \cdot \kappa(\nu), \end{aligned} \quad (1)$$

where ν is frequency, n is the refractive index of the solution, and κ is the extinction coefficient of the solution, which is

related to the absorption coefficient, α , by $\kappa = c\alpha/(4\pi\nu)$ with c being the speed of light. From this, we can calculate the complex dielectric function, ϵ^*_{sol} , of the solution, which in turn provides a complete description of the interaction of the solute with the incoming electromagnetic wave.

The complex dielectric function, $\epsilon^*(\nu) = \epsilon'(\nu) - i\epsilon''(\nu)$, of pure polar liquids can be modeled as a sum of n Debye relaxation terms,⁴³

$$\begin{aligned} \epsilon^* &= \epsilon_\infty + \frac{(\epsilon_s - \epsilon_1)}{1 + i2\pi\nu\tau_1} + \frac{(\epsilon_1 - \epsilon_2)}{1 + i2\pi\nu\tau_2} + \dots + \frac{(\epsilon_{n-1} - \epsilon_\infty)}{1 + i2\pi\nu\tau_n} \\ &= \epsilon_\infty + \sum_{j=1}^n \frac{\epsilon_{j-1} - \epsilon_j}{1 + i2\pi\nu\tau_j} = \epsilon_\infty + \sum_{j=1}^n \frac{\Delta\epsilon_j}{1 + i2\pi\nu\tau_j}, \end{aligned} \quad (2)$$

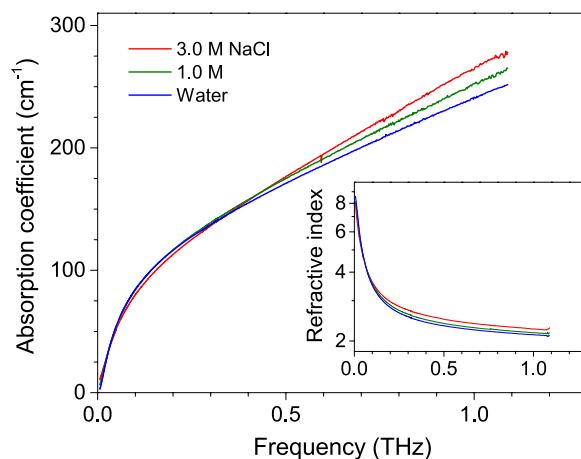


FIG. 1. The gigahertz-to-terahertz absorption of both pure liquid water and aqueous salt solutions increase monotonically with rising frequency. (Inset) The refractive indices of water and salt solutions, in contrast, decrease with increasing frequency. The data described here and in the following figures were collected at 25.0 °C.

where ε_{j-1} and ε_j are the values of the dielectric constant at the beginning and at the end of the j th dispersion region, respectively, τ_j is the relaxation time of the j th Debye process, and ν is the frequency of the incoming radiation. For consistency with the nomenclature in the prior literature, we use here τ_D to denote τ_1 (the first Debye process). $\Delta\varepsilon_j = \varepsilon_{j-1} - \varepsilon_j$ is the weighted contribution of each Debye process to the total relaxation. With $j = n$, $\varepsilon_{j=n} = \varepsilon_\infty$ captures the contributions to the dielectric function from modes at frequencies much greater than our experimental range (including previously reported modes at 5 and 15 THz; Ref. 42) and thus reflects contributions from molecular oscillation dynamics. With $j = 1$, $\varepsilon_{j=1} = \varepsilon_s$ is equivalent to ε_s , the static (or direct current) dielectric constant, which we have assigned a value of 78.38 for pure water at 25 °C (from previous studies).^{6,30,44} Given this, the real (or dispersive) $\varepsilon'(\nu)$ and imaginary (or lossy) $\varepsilon''(\nu)$ parts of the complex permittivity can be derived from Eq. (2),

$$\begin{aligned}\varepsilon'(\nu) &= \varepsilon_\infty + \sum_{j=1}^n \frac{\Delta\varepsilon_j}{1 + (2\pi\nu\tau_j)^2}, \\ \varepsilon''(\nu) &= \sum_{j=1}^n \frac{\Delta\varepsilon_j 2\pi\nu\tau_j}{1 + (2\pi\nu\tau_j)^2}.\end{aligned}\quad (3)$$

Using this approach, we have determined the real and imaginary parts of the complex permittivity of liquid water over the gigahertz to terahertz regime with unprecedented resolution and precision (Fig. 2). As a resource for the community of researchers investigating the intermolecular dynamics of water, we provide these novel data in the supplementary material.⁴⁵

We believe the high precision data we present here will prove an important tool to test models of the femto-to-picosecond dynamics of liquid water. For example, although previous single-experiment studies of these dynamics have almost invariably been interpreted in terms of the existence of two dielectric relaxations, the large discrepancy between the purported time constants of the more rapid of these two phases (Table I) led Ellison,¹⁸ Beneduci,¹⁹ and Vij *et al.*⁴² to independently conclude that the dynamics of water over this timescale are more accurately described as the sum of three Debye relaxations. To test this hypothesis, however, these prior authors combined data from multiple, disparate experimental approaches. The data set we have obtained, in contrast, is of sufficient quality to confirm this hypothesis with good statistical significance using a single, internally consistent data set. To see this, we fit the real and imaginary components of the complex permittivity we observed for pure water using a model containing either two or three Debye relaxation processes ($n = 2$ or 3 in Eqs. (2) and (3)). [Note: we performed the fit as a fit of $\log(\varepsilon^*)$ versus the logarithm of the dielectric response (i.e., we took the logarithm of both sides of Eq. (2)) in order to suppress the otherwise overwhelming contribution of the slowest relaxation to the global fit; the amplitude of term in Eq. (2) associated with the slowest relaxation is two orders of magnitude larger than those associated with the other, faster relaxations, and thus it is so heavily weighted in a linear fit that the precision with which we can determine the parameters associated with the (much smaller) faster relaxations is reduced. This said, fits to Eq. (2)

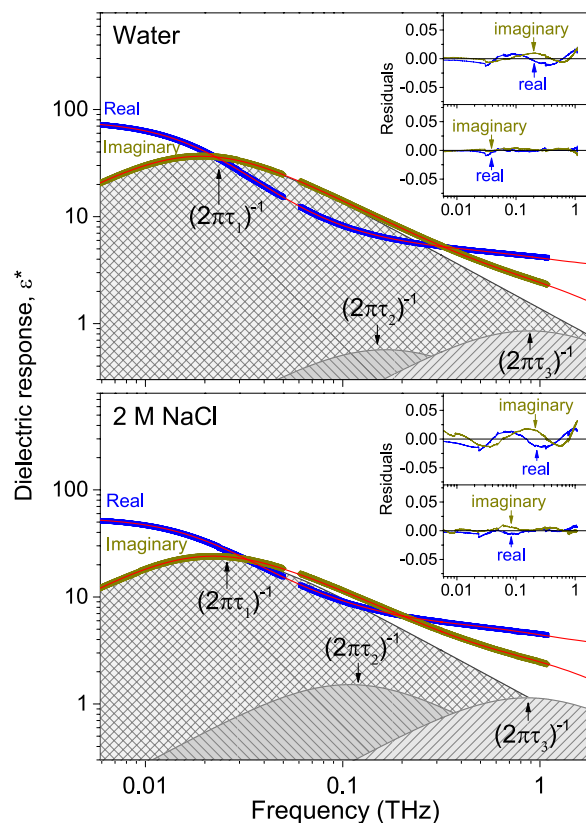


FIG. 2. Gigahertz-to-terahertz dielectric response of (top) water and (bottom) 2M NaCl in water provides insights into the liquid's dynamics over the femto-second to picosecond timescale. The red curves are fits of the real and the imaginary components of the complex dielectric response of the two samples to a three-Debye model. A comparison of the fit residuals for the two- and three-Debye models (upper and lower insets, respectively) suggests that the relaxational dynamics of water and aqueous salt solutions are best described as the sum of three Debye processes. This is evidenced by, for example, the significantly reduced magnitude and serial correlation coefficients of the residuals obtained when a third Debye process is added to the model (see text for more detailed statistical analysis).

(i.e., in its original, linear form) produce time constants and amplitudes within uncertainty of those seen for the logarithmic fit, albeit with larger confidence intervals (see Table S1⁴⁵.)

In our fits, the four parameters in the two-Debye model, ε_1 , ε_∞ , τ_D , and τ_2 , are varied simultaneously and the static permittivity, ε_s , is held fixed at the literature value.^{13,18,24,44} The best-fit values of ε_1 and ε_∞ are 5.48 ± 0.10 and 3.5 ± 0.3 , respectively; the latter appears to be somewhat higher than the value of 3.06 (no confidence intervals reported) previously derived⁴⁶ from independent observations of refractive index of pure water at 4.5 THz. The best-fit values of the two time constants are $\tau_D = 8.23 \pm 0.25$ ps and $\tau_2 = 410 \pm 150$ fs (Fig. 2, top; adjusted $R^2 = 0.99979$; reduced $\chi^2 = 3.65 \times 10^{-5}$). The former agrees closely with previously reported values (Table I). The time constant we obtain for the latter, more rapid process, however, differs significantly from previously reported values, which tend to cluster around either 1 ps or 100 fs (Table I).

More detailed inspection of our data suggests that the latter discrepancy occurs because, as suspected, the two-Debye model is insufficient to explain the relaxation dynamics of water.^{18,19,42} To show this, we fit our data to two more complex

models. The first is the three-Debye model suggested earlier by Vij *et al.*,⁴² Ellison,¹⁸ and Beneduci.¹⁹ The second is a two-Debye-plus-resonance model likewise promulgated by numerous previous authors.^{13,41,42}

The three-Debye model, in which we vary τ_D , τ_2 , τ_3 , ε_1 , ε_2 , and ε_∞ , achieves a significantly improved correlation coefficient relative to the two-Debye model (Fig. 2, top; adjusted $R^2 = 0.99997$; reduced $\chi^2 = 4.65 \times 10^{-6}$), significantly reduced fit residuals (root-mean-squared residuals: 0.002 versus 0.007 for the real components and 0.002 versus 0.005 for the imaginary components), and significantly reduced serial correlations of the residuals (R^2 of 0.954 versus 0.995 for the real and 0.945 versus 0.992 for the imaginary; see Fig. S2⁴⁵ for comparison of the residuals). The fit to the three-Debye model produces $\varepsilon_\infty = 3.2 \pm 0.3$, which is now within experimental uncertainty of the prior literature value⁴⁶ and ε_1 , ε_2 of 6.05 ± 0.10 and 4.91 ± 0.10 , respectively. Not surprisingly, this three Debye model recovers the same large amplitude, slower relaxation apparent in previous dielectric relaxation spectroscopy studies ($\tau_D = 8.37 \pm 0.25$ ps, relative amplitude $96.2\% \pm 0.3\%$). In addition, the three Debye model outputs relaxations with time constants that, at 1.05 ± 0.15 ps and 178 ± 50 fs (relative amplitudes of $1.5\% \pm 0.3\%$ and $2.3\% \pm 0.3\%$, respectively), correspond closely to *each* of the two faster processes so often reported in the prior literature (Table I).

In addition to the two- and three-Debye models we have, for completeness, also fitted our data using a model that includes a resonant process suggested by prior authors as an important component in the femto-to-picosecond dynamics of liquid water.^{13,41,42} Specifically, we have added a damped resonance term to Eq. (2)

$$\varepsilon^* = \varepsilon_\infty + \sum_{j=1}^n \frac{(\varepsilon_{j-1} - \varepsilon_j)}{1 + i2\pi\nu\tau_j} + \frac{A_{OSC}/(2\pi)^2}{\nu_{OSC}^2 - \nu^2 + i\nu(k_{OSC}/2\pi)}, \quad (4)$$

where $A_{OSC}/(2\pi)^2$, ν_{OSC} , and k_{OSC} are, respectively, the spectral amplitude of the damped resonance, its frequency, and its damping coefficient. We fit our data to a version of this model that includes two Debye relaxations (i.e., $n = 2$) and one damped resonance, varying the parameters ε_1 , ε_∞ , τ_D , τ_2 , ν_{OSC} , A_{OSC} , and k_{OSC} but, as for the two- and three-Debye models described above, fixing the static permittivity, $\varepsilon_s = \varepsilon_{j-1=0}$, to its literature value.^{6,18,30,44} Doing so, we obtain best-fit values of $\varepsilon_1 = 5.23 \pm 0.10$, $\varepsilon_\infty = 3.52 \pm 0.30$, $\tau_D = 8.36 \pm 0.25$ ps, $\tau_2 = 0.45 \pm 0.15$ ps, $\nu_{OSC} = 1.4 \pm 0.1$ THz, $A_{OSC}/(2\pi)^2 = 39.9 \pm 0.5$ THz,² and $k_{OSC} = 7.4 \pm 0.5$ THz. However, while this fit is reasonably good, the best-fit value of τ_2 differs rather significantly with estimates from the prior literature (Table I). Moreover, the fit statistics for the two-Debye-plus-damped-resonance model are poorer than those of the three Debye model (adjusted $R^2 = 0.99993$; reduced $\chi^2 = 1.3 \times 10^{-5}$ for the two-Debye-plus-resonance model versus $R^2 = 0.99997$ and reduced $\chi^2 = 4.65 \times 10^{-6}$ for the three-Debye model). And despite the fact that the two-Debye-plus-resonance model *contains one more free parameter* than the three-Debye model, both the fit residuals (root-mean-squared residuals: 0.002 versus 0.004 for both the real and imaginary components) and their serial correlations

(R^2 of 0.954 versus 0.980 for the real and 0.945 versus 0.985 for the imaginary) are improved for the three-Debye model (see Fig. S2⁴⁵ for comparisons of the residuals). Taken together, these observations suggest that the three Debye model provides a more accurate description of the femto-to-picosecond dynamics of liquid water.

Our ability to, for the first time, robustly and simultaneously quantify all three Debye processes in a single experimental data set stems from the improved signal-to-noise ratio of our spectrometer and the broad range of frequencies it spans. Specifically, the previously reported ~ 1 ps value is associated with frequency-domain spectroscopy conducted below 410 GHz. The lack of *high*-frequency coverage in these studies would render them relatively insensitive to low-amplitude relaxation process occurring at time scales faster than ~ 1 ps. The reported sub-picosecond time constants, in contrast, arise primarily from time-domain terahertz spectroscopic studies conducted over the range of 100 GHz–2 THz. And thus, the insufficient *low*-frequency coverage of these studies could render them insensitive to low amplitude processes that are slower than ~ 200 fs. The spectral range of our spectrometer, in contrast, spans all of the relevant time scales, thus largely alleviating these potentially important biases.

To provide further tests of theoretical models of the femto-to-picosecond dynamics of liquid water, we have also characterized the dielectric relaxation responses of aqueous sodium chloride (NaCl) solutions, collecting data at concentrations as high as 3M (corresponding to 18% w/v). For an electrolyte solution of conductivity σ , the dielectric properties of the solutions are in the form

$$\varepsilon^* = \varepsilon_\infty + \Delta\varepsilon_u + \Delta\varepsilon_{sw} + \sum_{j=1}^n \frac{(\varepsilon_{j-1} - \varepsilon_j)}{1 + i2\pi\nu\tau_j} + i \frac{\sigma}{2\pi\nu\varepsilon_0}, \quad (5)$$

where ε_0 is the permittivity of free space. The second and the third terms of Eq. (5), ε_u , and ε_{sw} , respectively, reflect the contributions of the tumbling of the ion (and its associated hydration shell) and the rotational relaxation of water molecules within the hydration shell. However, due to, respectively, the increased mass and strong Coulombic field of solvated ions, these terms do not contribute significantly to the relaxation dynamics of water over the frequency range under investigation^{7,21,44,47} and can be neglected in our analysis. The fourth term in this equation reflects the contributions of the solvent (water) to the dielectric response of the solution and the final term reflects Ohmic losses due to the conductivity of electrolyte solutions.

Our high-resolution spectra of aqueous salt solutions provide a vehicle to further explore the relative merits of the two-Debye, three-Debye, and two-Debye-plus-resonance models. Specifically, we first fit these data to Eq. (5) (with $n = 2$ or 3), varying the parameters ε_j , ε_∞ , τ_j , and ε_s but fixing the measured electrical conductivity, σ , using independently derived, salt-concentration-dependent values derived from measurements of bulk conductivity (see Fig. S1⁴⁵). Once again, we find that the three-Debye model provides a statistically significant improvement in the fits of both the real and the imaginary components relative to the two-Debye model. For example, for data collected at 2M (Fig. 2, bottom), both the reduced χ^2 and

adjusted R^2 are improved (1.32×10^{-5} versus 1.17×10^{-4} and 0.9999 versus 0.9991) for the three-Debye model, as are the fit residuals (root-mean-squared residuals: 0.004 versus 0.011 for the real components and 0.003 versus 0.011 for the imaginary components; serial correlation of the residuals: $R^2 = 0.976$ versus 0.997 for the real components and $R^2 = 0.946$ versus 0.996 for the imaginary components). And, as was true for our studies of pure water, the best fit value of ε_∞ for our salt solutions, 3.2 ± 0.3 , is also in good agreement with previous observations.⁴⁶ We then fit our salt solution data to a two-Debye-plus-resonance model (Eq. (S1)⁴⁵), but, as was true for the case with pure water, we once again do not find any significant improvement in the fit (Fig. S2⁴⁵ and Table S2⁴⁵). Furthermore, the best-fit resonance frequency ν_{OSC} shifts from 1.4 ± 0.1 THz for pure water to 1.1 ± 0.1 THz at 2M salt, increasing the difficulty of assigning this putative resonance to a plausible physical mechanism. It thus appears that, as it does for pure water, the three Debye model accurately captures the femto-to-picosecond relaxational dynamics of water even in the presence of very high concentrations of dissolved salt.

In contrast to prior studies of aqueous salt solutions,^{41,44,47,48} the time constants of the relaxations we observe are effectively *independent* of salt concentration over the entire concentration range we have explored (Fig. 3, top). Specifically, fitting our data to the three-Debye model (and fixing σ as above using independently obtained measurements of direct current conductivity), we obtain relaxation time constants within experimental uncertainty of the mean values of 8.05 ± 0.55 ps, 1.25 ± 0.35 ps, and 185 ± 50 fs across all salt concentrations. These values are likewise within uncertainty of the values obtained above for pure water. The amplitudes of the three phases, in contrast, vary strongly with increasing salt (Fig. 3, bottom). Specifically, while the amplitude of the slowest process decreases significantly (by 48% at 3M) with increasing salt concentrations, those of the two more rapid processes increase (by 260% and 53%, respectively, at 3M). The differential salt-dependence of these amplitudes would explain why, in contrast to our observations, prior authors^{44,47} found that the time constants of water's faster relaxation is also salt-dependent. Specifically, prior studies assumed that the relaxation of water is a two-Debye process. As the salt concentration rises and the relative amplitudes of the two more rapid phases shift, the weighted contributions of these two phases to the (assumed) single rapid process would also change, changing its best-fit time constant.

DISCUSSION

The theoretical literature regarding the dynamics of liquid water is voluminous; so much so that we cannot provide an exhaustive review of it much less an exhaustive discussion of how these theories fair in light of our new, high-resolution data set. Nevertheless, we discuss here in brief some highlights illustrating the ways in which our data set can shed light on water's most rapid intermolecular motions.

Previous reports argue that the 8 ps process that dominates the dielectric relaxation of water, and that has likewise been observed by nuclear magnetic resonance (NMR)^{49–51} and polarization-selective pump-probe experiments,^{52–54} arises

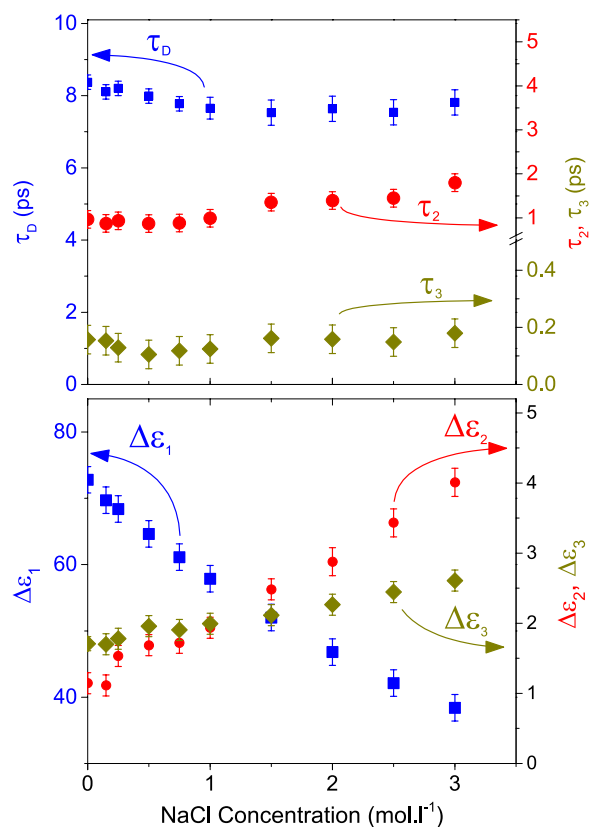


FIG. 3. The extent to which water's molecular-scale relaxations vary with increasing salt concentration provides insights into their mechanistic origins. (Top) The time constants of all three of water's femto-to-picosecond scale relaxations are effectively independent of salt concentration (the best-fit slopes are all within experimental uncertainty of zero). (Bottom) Their amplitudes, in contrast, vary significantly with changing salt concentration: while the amplitude of the slowest relaxation falls with rising salt concentrations, the amplitudes of the two faster components increase. The mechanistic implications of these effects are explored in the text.

due to cooperative reorientation of the water dipole. Specifically, molecular dynamics studies ascribe this process to a Debye relaxation involving the re-orientation of water molecules engaged in their full tetrahedral complement of hydrogen bonds.^{5,8,10,17,20,55–58} Examples include the model of Laage and Hynes,^{5,20} who describe the complete molecule reorientation via angular jumps and frame tumbling occurring at ~ 6 ps, and the model of Zasetky¹⁷ which consists of reorientations of fixed axis dipoles in the double well potential setup by the four neighboring waters such that from thermally activated escape from this potential well occurs with a time constant of ~ 5 ps. Because most of the molecules in liquid water participate in their full complement of hydrogen bonds,³⁰ and because the relevant motion entails a large-scale reorientation of the water dipole, such processes would be expected to contribute significantly to water's overall dielectric relaxation response. This is consistent with our data suggesting that this process contributes 96.2% of the total dielectric response of pure water at these frequencies.

The salt-independence of the time constant of the slowest relaxation and the strong salt-dependence of its amplitude are consistent with the above mechanistic assignment. Specifically, previous researchers have argued that sodium and

chloride ions do not affect the bulk structure of water,^{53,59} suggesting that they would not alter the rate of this large-scale conformational rearrangement. In contrast to its rate, however, the amplitude of the 8 ps relaxation changes quite appreciably as a function of salt concentration. Specifically, its absolute amplitude decreases by 48% as the salt concentration is raised from 0 to 3M. The concentration of water in these solutions, in contrast, falls by only 6% (from 55.5 to 52.1M) over this same range of salt concentrations. The discrepancy in these two numbers has previously been attributed^{7,47,58} to two mechanisms, both of which presumably contribute. First, water molecules in the tightly bound first hydration shell surrounding each ion likely do not participate in this slowest relaxation process due to the reduced orientational polarization of water in a strong Coulombic field of ions, an effect known as dielectric saturation. Second, the movement of ions in an electric field will reorient water molecules in opposition to the field due to kinetic depolarization, an effect that arises due to a coupling between the dielectric and hydrodynamic properties of liquids. Given the assumptions that any water molecules in the hydration shell do not participate in this slowest relaxational process, the reduced amplitude of this process at high salt provides a means of determining the number of water molecules per equivalent of electrolyte that is unable to contribute to the solvent relaxation process. The value we obtain, $\sim 4.8 \pm 0.5$ water molecules bound to each sodium ion (see methods in supplementary material,⁴⁵ and note that prior dielectric response studies have shown that the dynamics of water molecules in the hydration shell of chloride ion are virtually indistinguishable those of from bulk water^{35,60}), is in good agreement with estimates of the size of the solvation shell of this ion derived previously using continuum theory approaches.^{44,47}

The next more rapid relaxation process that we observe, which is also observed in polarization-selective pump-probe experiments,^{52,53} occurs at ~ 1 ps. Many molecular dynamics-based studies have suggested that this relaxation corresponds to the reorientation of “weakly bound” water molecules lacking at least three of their four potential hydrogen bonds.^{8,10,26,55–59} This interpretation, however, is not universally accepted: Zasetzky, for example, has suggested that it arises due to “intrawell relaxation” of water molecules residing in the potential double well setup by its four closest neighbors.¹⁷ Our data support the former, “weakly bound waters” assignment for this more rapid mode. For example, the 1.5% relative amplitude we observe for this intermediate time scale process is reasonably consistent with previous estimates that only 2%-4% of the molecules in room temperature water participate in one or fewer hydrogen bonds.⁴² Perhaps more compellingly, this mechanistic assignment is also supported by our observation that, while the rate of this process is independent of salt concentration, its absolute amplitude increases strongly with increasing salt. Specifically, its absolute amplitude increases by 260% as the salt concentration rises from 0 to 3M despite the fact that the concentration of water in the solution *falls* by 6% (or more if, as appears to be true for the relaxation underlying the slowest phase, the water molecules in the hydration shell do not participate in this relaxation). We believe this

occurs because, as has been suggested by molecular dynamics simulations,⁶¹ solute-driven disruption of water’s precisely hydrogen-bonded structure leads to an increase in the number of partially hydrogen bonded waters with increasing solute concentration. In contrast, our observations are difficult to reconcile with Zasetzky’s assignment of this mode to intrawell relaxation,¹⁷ as the number of water molecules residing in the appropriate potential double well (which requires four tetrahedrally arranged neighbors) would be expected to fall rather than to rise as the concentration of water falls with increasing salt.

The fastest of the three relaxations we observe, which exhibits a 180 fs time constant and 2.3% relative amplitude, is also observed via time-domain terahertz^{14,15,21,37,38,41} spectroscopy. Molecular dynamics and quantum mechanical computations suggest that this phase arises due to the rapid disruption and reformation of individual hydrogen bonds.^{5,8,10,55–58} That is, this process may reflect water molecules that liberate slightly from their most stable hydrogen bonding geometry, breaking a single hydrogen bond before relaxing back to the same position and reforming the bond. Consistent with this argument, the rate we observe for this process is independent of salt concentration, which would be expected for a process associated with the breaking and reforming of single hydrogen bonds. This widely cited mechanistic assignment is less easy to reconcile, however, with our observation that, like that of the intermediate relaxation, the absolute amplitude of this fastest relaxation increases (by 53% at 3M) with rising salt concentrations. Specifically, given that the concentration of water molecules, and thus the total number of hydrogen bonds per unit volume, decreases with increasing salt,⁶¹ our observations appear inconsistent with the assignment of the fastest relaxation process to the breaking and reforming of single hydrogen bonds, the number of which would likewise be expected to decrease.

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High-precision gigahertz-to-terahertz spectroscopy of aqueous salt solutions as a probe of the femtosecond-to-picosecond dynamics of liquid water

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Supporting Information:

1. Comparison of log-log and linear fits

Because the amplitude of the slowest relaxation phase is two orders of magnitude larger than those of the other, faster phases, it is over-weighted in simple, linear fits of our data, reducing the precision with which we can determine the properties of the (much smaller) faster phases. In this work we thus fit our data as a fit of $\log(\epsilon^*)$ versus the logarithm of the dielectric response (i.e., we took the logarithm of both sides of eq. 2) in order to suppress the otherwise overwhelming contribution of the slowest phase to the global fit. This said, fits to eq. 2 (i.e., in its original, linear form) produce time constants and amplitudes within experimental uncertainty of those seen for the logarithmic fit, albeit with larger confidence intervals (table SI1). [Note: we also performed the fit that included a still slower mode at ~ 200 ps, which is suggested to arise due to ion-pair or ion-cloud relaxation¹. Perhaps not surprisingly, given the vast difference in timescales (such a mode corresponds to a frequency of just 0.8 GHz) between this putative mode and the slowest mode we observe (8 ps), and given its rather small amplitude (at ~ 1.0 the reported amplitude of this mode is more than an order of magnitude lower than that of the 8-ps mode we observe), these fits do not differ significantly from fits to models lacking this putative mode.]

Table SI1: a comparison of log-log and linear fits to equation 2 for water.

Parameter	Two-Debye log-log fit	Two-Debye linear fit	Three-Debye log-log fit	Three-Debye linear fit
ϵ_1	5.48 ± 0.10	5.76 ± 0.50	6.05 ± 0.10	5.95 ± 0.20
ϵ_2			4.91 ± 0.10	4.60 ± 0.20
ϵ_∞	3.5 ± 0.3	3.7 ± 0.5	3.2 ± 0.3	2.7 ± 0.5
τ_D	8.23 ± 0.25 ps	8.36 ± 0.25	8.37 ± 0.25 ps	8.39 ± 0.25 ps
τ_2	410 ± 150 fs	420 ± 150 fs	1.05 ± 0.15 ps	0.90 ± 0.15 ps
τ_3			178 ± 50 fs	120 ± 70 fs

2. Measurement of conductivity (σ)

We have measured the electrical conductivity of NaCl solutions using a portable EC/TDS/NaCl/Temperature Meter (HI98360N) from Hanna instruments. The instrument allows us to measure conductivity over the range 0 to 50 S/m with high accuracy.

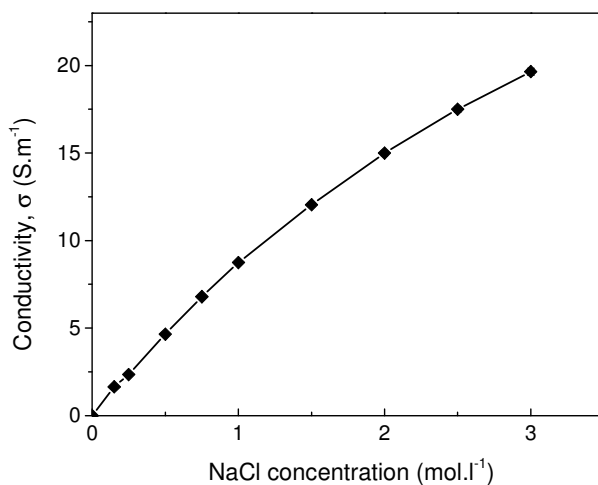


Figure S11: The conductivity of NaCl solutions increases monotonically with increasing salt concentration.

3. Fit residuals

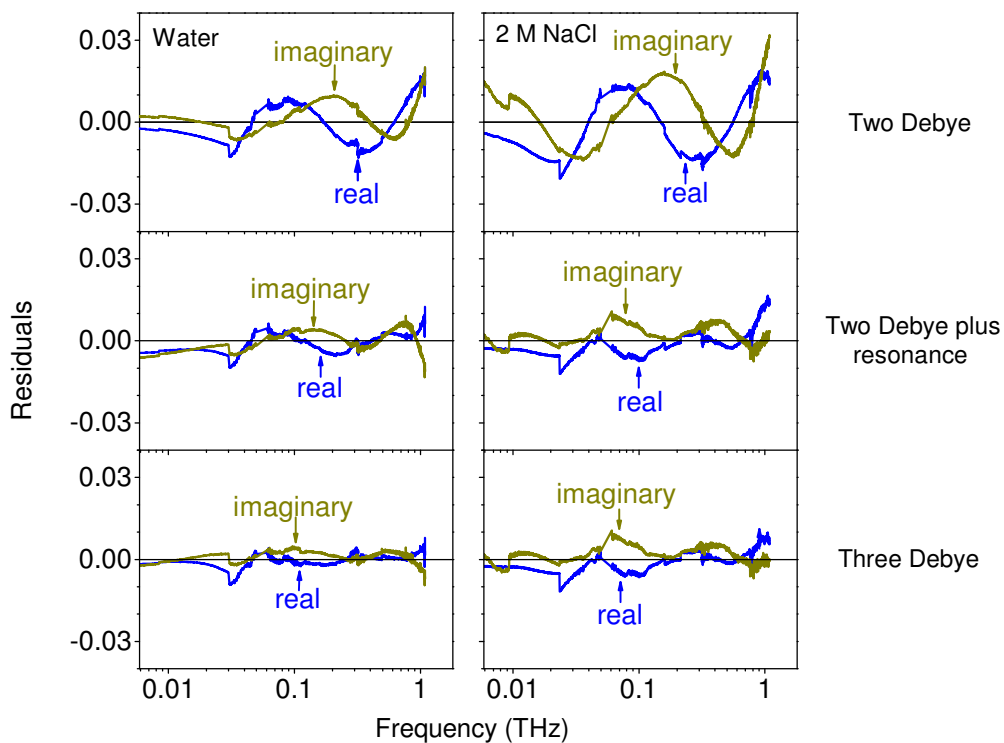


Figure S12: Shown are the residuals for fits of (**top row**) the two-Debye model, (**middle row**) the two-Debye-plus-resonance model, and (**bottom row**) the three-Debye model for (**left**

column) water and (**right column**) 2 M NaCl. Even when taking into account the two additional parameters (relative to the two-Debye model), the three-Debye model achieves a statistically significantly improved fit (see discussion in text). While improved over the two-Debye model, the fit of the two-Debye-plus-resonance model is nevertheless poorer than that of the three-Debye model even though the latter contains one more fitted parameter.

Table SI2: A comparison of fit statistics for two-Debye, two-Debye-plus-resonance, and three-Debye models for water and 2 M NaCl. The three-Debye model provides a statistically significant improvement in the fits of both the real and the imaginary components relative to other two models.

Water			
	Two-Debye model	Two-Debye-plus- resonance model	Three-Debye model
Number of floating parameters in model	5	7	7
Adjusted R^2	0.99979	0.99993	0.99997
Reduced χ^2	3.65×10^{-5}	1.30×10^{-5}	4.65×10^{-6}
Root-mean-squared residuals: real component	0.007	0.004	0.002
Root-mean-squared residuals: imaginary component	0.005	0.004	0.002
Serial correlation of residuals (R^2): real component	0.995	0.980	0.954
Serial correlation of residuals (R^2): imaginary component	0.992	0.985	0.945
2 M NaCl			
	Two-Debye model	Two-Debye-plus- resonance model	Three-Debye model
Adjusted R^2	0.99909	0.99788	0.99990
Reduced χ^2	1.17×10^{-4}	2.72×10^{-4}	1.32×10^{-5}
Root-mean-squared residuals: real part	0.011	0.014	0.004
Root-mean-squared residuals: imaginary component	0.011	0.019	0.003
Serial correlation of residuals (R^2): real component	0.997	0.998	0.976
Serial correlation of residuals (R^2): imaginary component	0.996	0.998	0.946

4. Two-Debye-plus-resonance model and salt solution data.

We also fitted our salt solution data to a two-Debye-plus-resonance model ($n = 2$):

$$\epsilon^* = \epsilon_\infty + \Delta\epsilon_u + \Delta\epsilon_{sw} + \sum_{j=1}^n \frac{(\epsilon_{j-1} - \epsilon_j)}{1 + i2\pi\nu\tau_j} + i \frac{\sigma}{2\pi\nu\epsilon_0} + \frac{A_{osc}/(2\pi)^2}{\nu_{osc}^2 - \nu^2 + i\nu(k_{osc}/2\pi)} \quad (\text{SI1})$$

For this fit we vary the parameters ϵ_1 , ϵ_∞ , τ_D , τ_2 , A_{osc} , ν_{osc} and k_{osc} but fix the electrical conductivity, σ , to our independently measured values (see Fig. SI1) and the static dielectric constant, ϵ_s , to previous literature values². For 2 M NaCl we obtain best-fit values of $\epsilon_1 = 6.76 \pm 0.20$, $\epsilon_\infty = 3.9 \pm 0.3$, $\tau_D = 7.29 \pm 0.55$ ps, $\tau_2 = 0.42 \pm 0.15$ ps, $A_{osc}/(2\pi)^2 = 6.14 \pm 0.50$ THz², $\nu_{osc} = 1.1 \pm 0.1$ THz, and $k_{osc} = 2.2 \pm 0.5$ THz. We find, however, that although the fit is reasonably good, the best-fit values of both τ_D and τ_2 differ rather significantly with estimates from the prior literature (Table 1). Moreover, the fit statistics for the two-Debye-plus-resonance model (adjusted $R^2 = 0.99788$ and $\chi^2 = 2.74 \times 10^{-4}$) are significantly poorer than those for the three-Debye model (adjusted $R^2 = 0.99990$ and $\chi^2 = 1.32 \times 10^{-5}$), as are its fit residuals (root-mean-squared residuals: 0.014 for the real component and 0.019 for the imaginary component; Fig. SI2 and table SI2) and their serial correlations (R^2 of 0.998 for both the real and imaginary components). It thus appears that, as it does for pure water, the three Debye model accurately captures the femtosecond to picosecond relaxational dynamics of water even in the presence of very high concentrations of salt.

5. The size of the hydration shell

The salt dependence of the amplitude of the slowest (8 ps) relaxation provides a means of determining the number of water molecules, $N(c)$, so tightly bound to ions that they do not contribute to this relaxation process. This analysis has been performed for a large number of ionic solutions by Buchner *et al.*² and Kaatze *et al.*³ using the relationship:

$$N(c_{el}) = \left(c_s - \frac{\Delta\epsilon_{sol} + \Delta_{kd}\epsilon(c)}{\Delta\epsilon_{pure}} c_{pure} \right) / c_{el} \quad (\text{SI2})$$

where c_s is the concentration of water in the solution, $c_{pure} = 55.56$ M is the molar concentration of pure water, $\Delta\epsilon_{sol} = \epsilon(c_{el}) - \epsilon_\infty(c_{el})$ is the dielectric strength of the solution at the NaCl concentration c_{el} , $\Delta\epsilon_{pure}$ is the dielectric strength of pure water, and $\Delta_{kd}\epsilon(c_{el})$ is the decrease of the relaxation strength of an ion due to the kinetic depolarization effect at the given NaCl concentration. This last term depends on the NaCl concentration via the relationship:

$$\Delta_{kd}\epsilon(c_{el}) = \frac{2}{3} \frac{\epsilon(0) - \epsilon_\infty(c_{el})}{\epsilon(0)} \frac{\tau_D(0)}{\epsilon_0} \sigma(c_{el}) \quad (\text{SI3})$$

where σ is the electrical conductivity of the solution (Fig. SI1). As noted in the text, the results we obtain suggest that 4.8 ± 0.5 water molecules are bound per equivalent of electrolyte, a value quite close to previous reports^{2,4}.

6. The gigahertz-to-terahertz absorption and refractive index of pure liquid water and aqueous salt solutions.

Frequency GHz	Water		NaCl 0.5 M		NaCl 0.75 M		NaCl 1.0 M		NaCl 1.5 M		NaCl 2.0 M		NaCl 3.0 M	
	a (cm-1)	n	a (cm-1)	n	a (cm-1)	n	a (cm-1)	n	a (cm-1)	n	a (cm-1)	n	a (cm-1)	n
5.902	2.960	8.580	4.783	8.268	5.572	8.196	6.349	8.180	7.723	8.093	8.890	8.040	10.691	8.029
5.916	2.973	8.579	4.794	8.266	5.582	8.195	6.359	8.178	7.732	8.091	8.901	8.038	10.698	8.031
5.929	2.986	8.578	4.804	8.265	5.595	8.193	6.370	8.176	7.743	8.089	8.911	8.035	10.711	8.028
5.943	2.999	8.576	4.817	8.264	5.607	8.193	6.383	8.175	7.752	8.087	8.921	8.034	10.728	8.022
5.957	3.012	8.575	4.826	8.263	5.617	8.192	6.393	8.173	7.762	8.085	8.931	8.029	10.747	8.021
5.970	3.025	8.574	4.839	8.263	5.630	8.191	6.405	8.172	7.776	8.083	8.944	8.027	10.755	8.020
5.984	3.038	8.573	4.852	8.260	5.641	8.190	6.417	8.170	7.783	8.080	8.953	8.025	10.773	8.018
5.998	3.052	8.572	4.862	8.259	5.652	8.188	6.426	8.168	7.799	8.078	8.963	8.023	10.782	8.014
6.012	3.065	8.570	4.875	8.259	5.664	8.189	6.437	8.167	7.808	8.076	8.973	8.020	10.800	8.008
6.026	3.078	8.569	4.888	8.258	5.675	8.185	6.450	8.165	7.819	8.074	8.984	8.017	10.804	8.002
6.039	3.092	8.568	4.899	8.257	5.687	8.185	6.463	8.163	7.829	8.073	8.996	8.014	10.825	8.005
6.053	3.105	8.567	4.909	8.256	5.698	8.184	6.473	8.162	7.841	8.070	9.008	8.013	10.836	7.999
6.067	3.119	8.565	4.923	8.255	5.711	8.182	6.485	8.160	7.852	8.068	9.021	8.008	10.845	7.994
6.081	3.132	8.564	4.933	8.253	5.724	8.182	6.496	8.159	7.862	8.066	9.027	8.007	10.851	7.991
6.095	3.146	8.563	4.946	8.253	5.735	8.180	6.508	8.158	7.875	8.064	9.043	8.004	10.865	7.987
6.109	3.159	8.562	4.959	8.252	5.748	8.180	6.520	8.156	7.886	8.062	9.051	8.001	10.882	7.992
6.124	3.172	8.560	4.972	8.250	5.760	8.178	6.533	8.154	7.898	8.060	9.061	7.999	10.902	7.986
6.138	3.187	8.559	4.985	8.249	5.772	8.177	6.544	8.153	7.907	8.058	9.074	7.997	10.909	7.975
6.152	3.201	8.558	4.997	8.248	5.785	8.177	6.556	8.151	7.921	8.056	9.086	7.994	10.916	7.971
6.166	3.215	8.556	5.009	8.247	5.797	8.174	6.568	8.150	7.932	8.054	9.098	7.991	10.923	7.967
6.180	3.229	8.555	5.022	8.247	5.810	8.174	6.579	8.148	7.942	8.052	9.109	7.989	10.939	7.966
6.194	3.243	8.554	5.035	8.245	5.822	8.172	6.592	8.147	7.956	8.050	9.120	7.986	10.958	7.961
6.209	3.257	8.552	5.049	8.244	5.836	8.170	6.605	8.145	7.968	8.047	9.133	7.984	10.964	7.960
6.223	3.271	8.551	5.061	8.242	5.849	8.170	6.617	8.142	7.979	8.046	9.142	7.981	10.974	7.958
6.237	3.285	8.550	5.074	8.241	5.861	8.167	6.629	8.141	7.988	8.043	9.155	7.979	10.991	7.954
6.252	3.299	8.549	5.087	8.241	5.875	8.167	6.642	8.140	8.003	8.041	9.167	7.976	11.003	7.949
6.266	3.313	8.547	5.099	8.239	5.886	8.165	6.654	8.138	8.014	8.039	9.179	7.973	11.013	7.949
6.281	3.328	8.546	5.115	8.238	5.900	8.164	6.666	8.136	8.023	8.037	9.189	7.971	11.032	7.944
6.295	3.342	8.545	5.128	8.236	5.914	8.163	6.680	8.134	8.038	8.035	9.203	7.968	11.040	7.942
6.310	3.357	8.543	5.140	8.235	5.926	8.161	6.690	8.133	8.046	8.033	9.216	7.965	11.053	7.940
6.324	3.371	8.542	5.153	8.234	5.939	8.160	6.703	8.131	8.062	8.030	9.225	7.963	11.068	7.935
6.339	3.386	8.540	5.166	8.233	5.953	8.158	6.717	8.130	8.073	8.028	9.240	7.961	11.079	7.931
6.353	3.401	8.539	5.179	8.231	5.965	8.157	6.728	8.127	8.083	8.027	9.250	7.958	11.093	7.929
6.368	3.415	8.538	5.191	8.230	5.978	8.155	6.741	8.126	8.097	8.024	9.263	7.955	11.109	7.926
6.383	3.430	8.536	5.207	8.229	5.993	8.154	6.753	8.124	8.107	8.023	9.274	7.953	11.112	7.921
6.397	3.445	8.535	5.219	8.228	6.005	8.152	6.765	8.122	8.118	8.019	9.287	7.950	11.128	7.918
6.412	3.459	8.534	5.232	8.226	6.017	8.151	6.776	8.120	8.133	8.018	9.298	7.948	11.145	7.916
6.427	3.474	8.532	5.244	8.226	6.031	8.150	6.790	8.119	8.143	8.017	9.310	7.944	11.151	7.913
6.442	3.490	8.531	5.259	8.223	6.042	8.148	6.803	8.117	8.155	8.015	9.321	7.943	11.166	7.906
6.457	3.505	8.529	5.271	8.223	6.055	8.147	6.814	8.115	8.168	8.011	9.332	7.939	11.180	7.907
6.471	3.520	8.528	5.285	8.222	6.070	8.146	6.825	8.113	8.180	8.009	9.345	7.937	11.195	7.904
6.486	3.535	8.526	5.299	8.220	6.084	8.144	6.840	8.113	8.190	8.007	9.358	7.934	11.206	7.896
6.501	3.550	8.525	5.314	8.219	6.095	8.142	6.852	8.110	8.206	8.005	9.371	7.931	11.210	7.895
6.516	3.566	8.524	5.328	8.218	6.108	8.141	6.865	8.109	8.219	8.004	9.383	7.929	11.231	7.895
6.531	3.581	8.522	5.342	8.217	6.121	8.139	6.878	8.107	8.232	8.002	9.395	7.927	11.242	7.891
6.546	3.596	8.521	5.354	8.215	6.135	8.138	6.889	8.106	8.243	7.999	9.405	7.924	11.260	7.889

6.561	3.612	8.519	5.370	8.214	6.150	8.136	6.904	8.104	8.255	7.997	9.417	7.921	11.281	7.889
6.577	3.627	8.518	5.383	8.213	6.163	8.135	6.918	8.103	8.271	7.996	9.431	7.920	11.295	7.885
6.592	3.642	8.517	5.397	8.212	6.176	8.134	6.930	8.100	8.283	7.993	9.444	7.917	11.313	7.879
6.607	3.658	8.515	5.412	8.211	6.189	8.132	6.944	8.099	8.294	7.990	9.455	7.914	11.308	7.878
6.622	3.675	8.514	5.426	8.209	6.203	8.131	6.956	8.098	8.309	7.989	9.469	7.912	11.332	7.872
6.637	3.690	8.512	5.441	8.208	6.216	8.129	6.971	8.096	8.320	7.988	9.483	7.910	11.350	7.869
6.653	3.706	8.511	5.455	8.207	6.231	8.128	6.984	8.094	8.333	7.985	9.495	7.907	11.357	7.868
6.668	3.722	8.509	5.470	8.205	6.243	8.126	6.998	8.092	8.347	7.983	9.508	7.905	11.371	7.867
6.683	3.738	8.508	5.485	8.204	6.259	8.126	7.012	8.091	8.360	7.981	9.521	7.902	11.381	7.861
6.699	3.754	8.506	5.500	8.203	6.274	8.123	7.025	8.089	8.370	7.979	9.533	7.899	11.404	7.860
6.714	3.770	8.505	5.515	8.201	6.289	8.123	7.040	8.087	8.384	7.976	9.547	7.897	11.419	7.855
6.730	3.787	8.503	5.530	8.200	6.301	8.120	7.053	8.085	8.398	7.975	9.560	7.894	11.435	7.853
6.745	3.803	8.502	5.546	8.198	6.316	8.119	7.067	8.084	8.412	7.972	9.573	7.892	11.449	7.854
6.761	3.819	8.500	5.557	8.197	6.330	8.119	7.079	8.082	8.422	7.971	9.586	7.889	11.459	7.850
6.776	3.836	8.498	5.573	8.196	6.345	8.116	7.093	8.079	8.438	7.968	9.598	7.886	11.483	7.845
6.792	3.852	8.497	5.588	8.194	6.360	8.115	7.107	8.078	8.452	7.966	9.610	7.883	11.492	7.843
6.808	3.868	8.496	5.603	8.192	6.372	8.113	7.122	8.076	8.464	7.965	9.624	7.881	11.496	7.839
6.823	3.885	8.494	5.616	8.192	6.386	8.112	7.134	8.075	8.478	7.962	9.636	7.878	11.524	7.837
6.839	3.902	8.492	5.633	8.189	6.403	8.110	7.149	8.073	8.493	7.959	9.649	7.875	11.536	7.833
6.855	3.919	8.491	5.645	8.188	6.414	8.109	7.164	8.071	8.505	7.957	9.664	7.873	11.554	7.830
6.871	3.936	8.489	5.662	8.187	6.430	8.108	7.176	8.069	8.519	7.956	9.676	7.871	11.569	7.825
6.887	3.952	8.488	5.677	8.185	6.445	8.106	7.190	8.067	8.533	7.953	9.690	7.869	11.577	7.824
6.902	3.969	8.486	5.690	8.184	6.458	8.105	7.203	8.066	8.545	7.952	9.703	7.866	11.599	7.823
6.918	3.986	8.485	5.708	8.183	6.472	8.103	7.217	8.064	8.559	7.950	9.714	7.863	11.601	7.818
6.934	4.003	8.483	5.723	8.181	6.489	8.103	7.233	8.063	8.573	7.948	9.729	7.861	11.616	7.813
6.950	4.019	8.481	5.738	8.179	6.502	8.100	7.245	8.061	8.586	7.945	9.742	7.858	11.640	7.809
6.966	4.037	8.480	5.752	8.179	6.519	8.098	7.262	8.059	8.595	7.919	9.755	7.855	11.636	7.810
6.982	4.054	8.478	5.766	8.177	6.530	8.097	7.276	8.058	8.610	7.918	9.770	7.854	11.669	7.809
6.998	4.072	8.477	5.782	8.176	6.546	8.095	7.290	8.055	8.624	7.916	9.783	7.852	11.684	7.800
7.015	4.089	8.475	5.797	8.175	6.560	8.094	7.305	8.054	8.639	7.914	9.796	7.848	11.688	7.797
7.031	4.106	8.473	5.812	8.174	6.575	8.093	7.319	8.052	8.653	7.912	9.810	7.846	11.714	7.794
7.047	4.124	8.472	5.829	8.172	6.591	8.091	7.333	8.050	8.664	7.910	9.821	7.844	11.728	7.796
7.063	4.142	8.470	5.846	8.170	6.606	8.090	7.348	8.049	8.679	7.909	9.837	7.841	11.740	7.791
7.079	4.159	8.469	5.862	8.169	6.623	8.090	7.364	8.047	8.693	7.906	9.852	7.839	11.770	7.788
7.096	4.177	8.467	5.878	8.168	6.637	8.087	7.378	8.045	8.708	7.904	9.866	7.836	11.772	7.784
7.112	4.194	8.465	5.894	8.167	6.655	8.087	7.393	8.044	8.724	7.902	9.880	7.833	11.796	7.781
7.129	4.212	8.464	5.910	8.165	6.668	8.084	7.410	8.041	8.737	7.900	9.893	7.832	11.794	7.780
7.145	4.230	8.462	5.925	8.164	6.684	8.084	7.424	8.040	8.752	7.898	9.907	7.829	11.829	7.778
7.161	4.247	8.460	5.943	8.163	6.701	8.082	7.440	8.038	8.768	7.896	9.923	7.827	11.832	7.774
7.178	4.266	8.459	5.959	8.161	6.717	8.081	7.455	8.036	8.781	7.894	9.935	7.824	11.853	7.770
7.194	4.285	8.457	5.976	8.160	6.733	8.079	7.471	8.035	8.795	7.891	9.951	7.822	11.876	7.768
7.211	4.303	8.455	5.994	8.159	6.749	8.078	7.486	8.033	8.810	7.890	9.966	7.819	11.880	7.763
7.228	4.321	8.453	6.007	8.157	6.765	8.076	7.501	8.031	8.823	7.887	9.977	7.817	11.890	7.762
7.244	4.339	8.452	6.027	8.155	6.779	8.075	7.516	8.029	8.840	7.886	9.992	7.814	11.922	7.759
7.261	4.358	8.450	6.042	8.154	6.797	8.074	7.533	8.026	8.855	7.884	10.008	7.812	11.943	7.755
7.278	4.376	8.448	6.056	8.152	6.812	8.071	7.546	8.026	8.868	7.882	10.019	7.809	11.966	7.752
7.295	4.395	8.447	6.074	8.151	6.827	8.070	7.561	8.023	8.883	7.880	10.033	7.807	11.968	7.747
7.311	4.413	8.445	6.092	8.149	6.844	8.068	7.577	8.021	8.898	7.877	10.049	7.803	11.987	7.747
7.328	4.432	8.443	6.109	8.147	6.859	8.066	7.594	8.020	8.910	7.876	10.062	7.802	12.003	7.742
7.345	4.451	8.442	6.127	8.147	6.876	8.065	7.609	8.018	8.927	7.873	10.080	7.799	12.020	7.738
7.362	4.470	8.440	6.144	8.144	6.892	8.064	7.626	8.016	8.940	7.871	10.092	7.797	12.039	7.734
7.379	4.489	8.438	6.161	8.143	6.907	8.062	7.638	8.015	8.956	7.869	10.107	7.794	12.056	7.738
7.396	4.507	8.436	6.175	8.142	6.926	8.062	7.657	8.013	8.971	7.869	10.124	7.792	12.074	7.728
7.413	4.527	8.435	6.193	8.140	6.939	8.059	7.670	8.011	8.986	7.865	10.136	7.791	12.087	7.724

7.430	4.545	8.433	6.210	8.139	6.956	8.058	7.688	8.008	9.002	7.865	10.153	7.788	12.110	7.722
7.447	4.565	8.431	6.225	8.138	6.973	8.057	7.703	8.007	9.018	7.862	10.166	7.786	12.118	7.718
7.464	4.585	8.429	6.242	8.136	6.988	8.054	7.717	8.005	9.031	7.861	10.178	7.782	12.145	7.716
7.482	4.603	8.427	6.263	8.135	7.005	8.053	7.736	8.003	9.049	7.858	10.198	7.780	12.157	7.712
7.499	4.623	8.426	6.279	8.134	7.025	8.052	7.751	8.002	9.062	7.856	10.212	7.778	12.181	7.710
7.516	4.644	8.424	6.294	8.132	7.038	8.050	7.768	8.000	9.079	7.854	10.225	7.776	12.186	7.706
7.534	4.663	8.422	6.316	8.131	7.057	8.050	7.784	7.998	9.096	7.853	10.242	7.774	12.212	7.703
7.551	4.682	8.420	6.333	8.130	7.073	8.048	7.802	7.996	9.112	7.851	10.256	7.771	12.228	7.698
7.568	4.702	8.418	6.350	8.128	7.090	8.045	7.819	7.995	9.127	7.850	10.273	7.769	12.251	7.699
7.586	4.722	8.416	6.367	8.126	7.107	8.045	7.833	7.992	9.143	7.848	10.289	7.767	12.260	7.691
7.603	4.742	8.414	6.386	8.125	7.125	8.044	7.850	7.990	9.158	7.845	10.303	7.764	12.287	7.690
7.621	4.761	8.413	6.405	8.124	7.142	8.042	7.870	7.988	9.175	7.844	10.320	7.761	12.298	7.687
7.638	4.782	8.411	6.424	8.122	7.160	8.040	7.884	7.986	9.193	7.841	10.336	7.760	12.303	7.684
7.656	4.802	8.409	6.441	8.120	7.178	8.039	7.901	7.985	9.209	7.839	10.350	7.757	12.339	7.680
7.674	4.822	8.407	6.460	8.119	7.196	8.037	7.918	7.983	9.227	7.838	10.368	7.755	12.361	7.674
7.691	4.842	8.405	6.477	8.117	7.214	8.035	7.937	7.982	9.243	7.836	10.382	7.752	12.373	7.674
7.709	4.862	8.403	6.496	8.115	7.233	8.034	7.954	7.980	9.260	7.833	10.399	7.750	12.397	7.669
7.727	4.882	8.401	6.512	8.115	7.248	8.032	7.969	7.978	9.275	7.831	10.414	7.747	12.405	7.665
7.745	4.904	8.400	6.532	8.112	7.266	8.030	7.987	7.976	9.292	7.829	10.431	7.746	12.425	7.662
7.762	4.924	8.398	6.549	8.111	7.285	8.028	8.006	7.974	9.309	7.827	10.446	7.742	12.445	7.657
7.780	4.945	8.396	6.568	8.110	7.304	8.027	8.022	7.973	9.325	7.825	10.463	7.740	12.457	7.657
7.798	4.966	8.394	6.590	8.107	7.323	8.025	8.042	7.972	9.343	7.823	10.480	7.737	12.480	7.650
7.816	4.986	8.392	6.606	8.106	7.339	8.024	8.059	7.968	9.361	7.821	10.497	7.734	12.501	7.649
7.834	5.007	8.390	6.626	8.106	7.357	8.021	8.075	7.967	9.377	7.819	10.511	7.731	12.509	7.644
7.852	5.028	8.388	6.645	8.103	7.377	8.020	8.092	7.966	9.392	7.817	10.531	7.730	12.538	7.642
7.870	5.049	8.386	6.660	8.102	7.393	8.019	8.113	7.964	9.409	7.815	10.546	7.728	12.548	7.638
7.889	5.070	8.384	6.682	8.100	7.411	8.017	8.130	7.961	9.428	7.813	10.561	7.725	12.557	7.637
7.907	5.091	8.382	6.702	8.099	7.433	8.016	8.147	7.960	9.445	7.811	10.580	7.723	12.581	7.635
7.925	5.112	8.380	6.717	8.097	7.448	8.013	8.162	7.958	9.460	7.810	10.597	7.720	12.603	7.627
7.943	5.134	8.378	6.740	8.097	7.470	8.013	8.186	7.957	9.480	7.807	10.615	7.717	12.608	7.624
7.962	5.156	8.376	6.760	8.094	7.488	8.011	8.206	7.953	9.497	7.805	10.627	7.715	12.646	7.622
7.980	5.178	8.374	6.779	8.091	7.509	8.008	8.221	7.952	9.514	7.804	10.645	7.713	12.644	7.620
7.998	5.199	8.372	6.800	8.092	7.527	8.008	8.238	7.949	9.533	7.802	10.663	7.710	12.656	7.616
8.017	5.221	8.370	6.820	8.090	7.547	8.006	8.258	7.948	9.548	7.799	10.678	7.708	12.676	7.612
8.035	5.243	8.368	6.837	8.087	7.565	8.003	8.277	7.945	9.566	7.797	10.698	7.704	12.698	7.608
8.054	5.265	8.366	6.860	8.086	7.584	8.004	8.295	7.944	9.584	7.796	10.713	7.702	12.725	7.608
8.072	5.286	8.364	6.878	8.085	7.605	8.001	8.311	7.942	9.603	7.793	10.728	7.700	12.734	7.603
8.091	5.308	8.362	6.898	8.083	7.623	7.998	8.332	7.940	9.620	7.791	10.747	7.697	12.755	7.599
8.110	5.330	8.360	6.919	8.081	7.642	7.997	8.352	7.938	9.637	7.789	10.761	7.696	12.781	7.597
8.128	5.352	8.358	6.938	8.078	7.664	7.996	8.370	7.936	9.657	7.787	10.782	7.692	12.794	7.593
8.147	5.375	8.356	6.959	8.078	7.678	7.995	8.387	7.934	9.672	7.784	10.798	7.690	12.800	7.591
8.166	5.397	8.354	6.984	8.076	7.700	7.993	8.408	7.933	9.691	7.783	10.813	7.688	12.837	7.584
8.185	5.419	8.352	7.000	8.074	7.721	7.991	8.427	7.931	9.710	7.780	10.827	7.685	12.854	7.582
8.204	5.441	8.350	7.019	8.071	7.739	7.988	8.448	7.928	9.726	7.778	10.848	7.682	12.887	7.579
8.222	5.463	8.348	7.043	8.071	7.761	7.987	8.464	7.926	9.746	7.777	10.867	7.680	12.895	7.576
8.241	5.487	8.346	7.063	8.070	7.779	7.986	8.482	7.925	9.763	7.774	10.883	7.678	12.916	7.571
8.260	5.510	8.344	7.084	8.068	7.802	7.984	8.504	7.922	9.785	7.773	10.901	7.676	12.940	7.567
8.279	5.532	8.342	7.104	8.066	7.820	7.982	8.521	7.921	9.802	7.770	10.921	7.673	12.936	7.565
8.299	5.554	8.339	7.125	8.064	7.840	7.980	8.543	7.918	9.820	7.767	10.938	7.671	12.967	7.560
8.318	5.578	8.337	7.146	8.062	7.861	7.978	8.565	7.916	9.840	7.765	10.956	7.668	12.987	7.556
8.337	5.602	8.335	7.168	8.060	7.884	7.977	8.582	7.914	9.857	7.764	10.975	7.666	13.015	7.553
8.356	5.624	8.333	7.192	8.059	7.902	7.975	8.600	7.912	9.875	7.761	10.993	7.662	13.023	7.549
8.375	5.648	8.331	7.213	8.057	7.923	7.973	8.622	7.910	9.894	7.759	11.012	7.659	13.042	7.543
8.395	5.672	8.330	7.234	8.055	7.943	7.972	8.643	7.907	9.915	7.757	11.028	7.658	13.059	7.542

8.414	5.698	8.331	7.254	8.053	7.964	7.969	8.663	7.905	9.932	7.755	11.044	7.655	13.079	7.539
8.433	5.722	8.329	7.274	8.051	7.985	7.967	8.679	7.903	9.952	7.753	11.065	7.652	13.094	7.535
8.453	5.746	8.327	7.296	8.049	8.008	7.965	8.701	7.902	9.971	7.750	11.084	7.649	13.133	7.532
8.472	5.770	8.325	7.319	8.048	8.026	7.963	8.721	7.899	9.989	7.748	11.099	7.648	13.140	7.529
8.492	5.793	8.323	7.342	8.046	8.045	7.962	8.741	7.897	10.008	7.746	11.122	7.645	13.172	7.527
8.511	5.818	8.320	7.361	8.045	8.066	7.959	8.761	7.895	10.026	7.745	11.137	7.643	13.174	7.521
8.531	5.842	8.318	7.381	8.042	8.088	7.957	8.781	7.893	10.045	7.743	11.154	7.640	13.188	7.517
8.551	5.866	8.316	7.406	8.041	8.111	7.957	8.799	7.890	10.067	7.740	11.174	7.638	13.223	7.514
8.570	5.890	8.314	7.429	8.038	8.129	7.954	8.819	7.888	10.082	7.737	11.190	7.636	13.221	7.510
8.590	5.914	8.312	7.448	8.037	8.151	7.951	8.843	7.887	10.102	7.736	11.208	7.633	13.264	7.508
8.610	5.938	8.309	7.469	8.036	8.173	7.951	8.862	7.882	10.123	7.734	11.229	7.631	13.281	7.506
8.630	5.963	8.307	7.491	8.034	8.196	7.948	8.881	7.881	10.144	7.731	11.246	7.629	13.310	7.501
8.650	5.987	8.305	7.516	8.032	8.214	7.947	8.905	7.879	10.159	7.729	11.265	7.627	13.321	7.496
8.670	6.012	8.303	7.536	8.030	8.236	7.945	8.925	7.879	10.181	7.728	11.284	7.623	13.339	7.494
8.690	6.036	8.300	7.559	8.027	8.258	7.943	8.942	7.876	10.203	7.726	11.304	7.622	13.335	7.490
8.710	6.062	8.298	7.583	8.027	8.281	7.942	8.962	7.874	10.221	7.724	11.323	7.619	13.365	7.488
8.730	6.087	8.296	7.607	8.023	8.305	7.940	8.989	7.873	10.243	7.721	11.344	7.616	13.393	7.485
8.750	6.113	8.293	7.629	8.022	8.325	7.939	9.004	7.869	10.263	7.719	11.361	7.614	13.408	7.480
8.770	6.138	8.291	7.655	8.022	8.352	7.937	9.030	7.869	10.288	7.718	11.384	7.613	13.430	7.473
8.790	6.163	8.289	7.681	8.019	8.371	7.934	9.050	7.865	10.308	7.716	11.407	7.609	13.444	7.474
8.810	6.188	8.286	7.706	8.016	8.397	7.931	9.076	7.864	10.330	7.712	11.432	7.605	13.462	7.469
8.831	6.213	8.284	7.722	8.014	8.420	7.929	9.096	7.862	10.348	7.711	11.447	7.603	13.472	7.469
8.851	6.238	8.282	7.750	8.013	8.445	7.927	9.122	7.859	10.372	7.708	11.469	7.601	13.506	7.462
8.872	6.264	8.279	7.772	8.012	8.464	7.926	9.140	7.858	10.394	7.705	11.487	7.599	13.530	7.459
8.892	6.289	8.277	7.796	8.008	8.487	7.922	9.163	7.855	10.415	7.703	11.504	7.596	13.529	7.457
8.913	6.314	8.275	7.823	8.007	8.511	7.922	9.190	7.853	10.435	7.701	11.528	7.593	13.559	7.454
8.933	6.340	8.273	7.844	8.006	8.532	7.919	9.208	7.849	10.454	7.698	11.548	7.590	13.568	7.449
8.954	6.366	8.270	7.867	8.002	8.554	7.918	9.230	7.849	10.473	7.696	11.565	7.588	13.594	7.447
8.974	6.392	8.268	7.891	8.002	8.579	7.917	9.254	7.848	10.497	7.694	11.583	7.585	13.632	7.445
8.995	6.419	8.265	7.913	7.999	8.597	7.914	9.274	7.843	10.516	7.692	11.603	7.583	13.645	7.440
9.016	6.445	8.263	7.936	7.998	8.621	7.913	9.297	7.843	10.539	7.690	11.625	7.580	13.664	7.437
9.037	6.471	8.260	7.960	7.996	8.646	7.910	9.318	7.839	10.560	7.687	11.644	7.577	13.694	7.435
9.057	6.497	8.258	7.987	7.996	8.667	7.908	9.339	7.837	10.580	7.687	11.662	7.575	13.703	7.430
9.078	6.523	8.256	8.007	7.991	8.688	7.907	9.360	7.836	10.602	7.683	11.683	7.573	13.751	7.426
9.099	6.550	8.253	8.032	7.990	8.713	7.905	9.382	7.834	10.620	7.682	11.705	7.571	13.760	7.422
9.120	6.576	8.251	8.051	7.988	8.736	7.902	9.401	7.831	10.642	7.680	11.724	7.568	13.792	7.420
9.141	6.603	8.248	8.082	7.987	8.761	7.901	9.427	7.828	10.664	7.677	11.743	7.566	13.797	7.416
9.162	6.630	8.246	8.106	7.984	8.784	7.899	9.449	7.827	10.687	7.675	11.768	7.564	13.821	7.410
9.183	6.657	8.243	8.131	7.981	8.810	7.897	9.469	7.824	10.707	7.672	11.786	7.561	13.853	7.406
9.205	6.684	8.241	8.156	7.980	8.835	7.896	9.489	7.823	10.732	7.671	11.807	7.560	13.876	7.404
9.226	6.711	8.238	8.186	7.978	8.860	7.894	9.517	7.822	10.756	7.670	11.833	7.559	13.898	7.398
9.247	6.739	8.236	8.208	7.977	8.888	7.891	9.542	7.819	10.779	7.668	11.854	7.555	13.899	7.397
9.268	6.767	8.234	8.242	7.974	8.918	7.890	9.573	7.815	10.807	7.667	11.882	7.553	13.936	7.392
9.290	6.793	8.231	8.269	7.971	8.944	7.886	9.600	7.814	10.832	7.664	11.906	7.550	13.946	7.387
9.311	6.821	8.229	8.300	7.971	8.971	7.885	9.625	7.812	10.857	7.661	11.932	7.547	13.979	7.384
9.333	6.848	8.226	8.321	7.968	8.996	7.882	9.653	7.810	10.883	7.658	11.957	7.544	14.005	7.377
9.354	6.876	8.223	8.368	7.954	9.003	7.887	9.677	7.807	10.918	7.662	12.003	7.546	13.954	7.364
9.376	6.904	8.221	8.395	7.951	9.034	7.885	9.743	7.796	10.946	7.659	12.024	7.544	13.969	7.359
9.397	6.931	8.218	8.409	7.950	9.065	7.882	9.762	7.795	10.966	7.657	12.036	7.541	13.996	7.357
9.419	6.959	8.216	8.439	7.947	9.085	7.880	9.782	7.793	10.987	7.656	12.072	7.538	14.004	7.353
9.441	6.987	8.213	8.468	7.945	9.108	7.877	9.812	7.790	11.004	7.653	12.087	7.535	14.030	7.350
9.462	7.015	8.211	8.496	7.943	9.144	7.876	9.845	7.788	11.035	7.651	12.102	7.533	14.048	7.348
9.484	7.044	8.208	8.520	7.939	9.172	7.872	9.852	7.785	11.070	7.647	12.133	7.530	14.075	7.345
9.506	7.073	8.205	8.541	7.938	9.178	7.872	9.887	7.784	11.084	7.646	12.146	7.529	14.089	7.341

9.528	7.101	8.203	8.573	7.935	9.204	7.869	9.904	7.781	11.115	7.644	12.179	7.525	14.120	7.337
9.550	7.129	8.200	8.587	7.933	9.244	7.868	9.935	7.779	11.123	7.640	12.206	7.524	14.135	7.334
9.572	7.159	8.198	8.617	7.930	9.270	7.865	9.951	7.777	11.151	7.637	12.211	7.520	14.166	7.331
9.594	7.187	8.195	8.645	7.929	9.300	7.863	9.994	7.775	11.168	7.636	12.254	7.518	14.191	7.328
9.616	7.216	8.192	8.672	7.926	9.326	7.860	10.008	7.771	11.200	7.634	12.269	7.516	14.213	7.325
9.638	7.244	8.190	8.701	7.923	9.342	7.857	10.033	7.770	11.220	7.632	12.282	7.513	14.230	7.323
9.661	7.273	8.187	8.735	7.922	9.363	7.856	10.063	7.767	11.256	7.629	12.315	7.510	14.242	7.319
9.683	7.303	8.185	8.763	7.918	9.386	7.853	10.089	7.764	11.280	7.627	12.338	7.507	14.272	7.316
9.705	7.332	8.182	8.785	7.916	9.423	7.851	10.110	7.763	11.303	7.624	12.359	7.506	14.296	7.313
9.727	7.361	8.179	8.818	7.914	9.456	7.848	10.135	7.760	11.324	7.621	12.379	7.502	14.312	7.310
9.750	7.391	8.177	8.841	7.911	9.466	7.846	10.161	7.758	11.339	7.620	12.409	7.499	14.339	7.306
9.772	7.420	8.174	8.871	7.909	9.498	7.843	10.187	7.756	11.368	7.617	12.427	7.499	14.355	7.303
9.795	7.450	8.171	8.892	7.906	9.531	7.841	10.220	7.753	11.396	7.613	12.446	7.494	14.371	7.300
9.817	7.481	8.168	8.909	7.904	9.557	7.839	10.249	7.751	11.407	7.611	12.483	7.492	14.407	7.297
9.840	7.510	8.166	8.939	7.902	9.579	7.836	10.271	7.749	11.439	7.608	12.491	7.490	14.420	7.293
9.863	7.539	8.163	8.973	7.898	9.599	7.834	10.283	7.747	11.464	7.607	12.513	7.487	14.436	7.290
9.886	7.569	8.160	8.997	7.896	9.631	7.831	10.310	7.744	11.494	7.604	12.544	7.486	14.455	7.287
9.908	7.600	8.158	9.017	7.894	9.658	7.830	10.344	7.742	11.505	7.602	12.567	7.482	14.480	7.285
9.931	7.630	8.155	9.046	7.891	9.695	7.828	10.367	7.739	11.539	7.600	12.597	7.479	14.503	7.282
9.954	7.661	8.152	9.080	7.889	9.719	7.826	10.406	7.736	11.571	7.598	12.614	7.478	14.526	7.279
9.977	7.690	8.149	9.112	7.887	9.747	7.823	10.433	7.734	11.581	7.595	12.637	7.474	14.552	7.276
10.000	7.721	8.147	9.137	7.884	9.772	7.820	10.451	7.731	11.608	7.592	12.666	7.473	14.569	7.273
10.023	7.752	8.144	9.164	7.882	9.798	7.818	10.468	7.730	11.649	7.589	12.687	7.469	14.608	7.269
10.046	7.782	8.141	9.188	7.879	9.833	7.814	10.501	7.727	11.674	7.588	12.705	7.467	14.628	7.267
10.069	7.813	8.138	9.229	7.878	9.850	7.812	10.528	7.725	11.695	7.584	12.740	7.463	14.646	7.264
10.093	7.845	8.135	9.260	7.875	9.890	7.811	10.554	7.723	11.720	7.582	12.760	7.462	14.660	7.259
10.116	7.876	8.133	9.274	7.872	9.902	7.807	10.589	7.719	11.731	7.578	12.784	7.459	14.695	7.256
10.139	7.907	8.130	9.304	7.869	9.939	7.806	10.611	7.716	11.775	7.577	12.802	7.455	14.712	7.253
10.162	7.937	8.127	9.334	7.867	9.959	7.804	10.635	7.714	11.798	7.574	12.840	7.454	14.732	7.250
10.186	7.969	8.124	9.366	7.863	9.985	7.800	10.660	7.711	11.818	7.572	12.863	7.451	14.768	7.246
10.209	8.002	8.121	9.404	7.862	10.015	7.798	10.686	7.710	11.852	7.569	12.884	7.448	14.777	7.244
10.233	8.033	8.118	9.427	7.859	10.054	7.795	10.713	7.706	11.865	7.566	12.902	7.445	14.806	7.242
10.257	8.064	8.116	9.449	7.857	10.084	7.793	10.756	7.705	11.889	7.563	12.928	7.443	14.822	7.237
10.280	8.097	8.113	9.487	7.854	10.103	7.791	10.770	7.702	11.914	7.561	12.949	7.441	14.856	7.235
10.304	8.128	8.110	9.511	7.852	10.142	7.788	10.814	7.700	11.948	7.559	12.981	7.437	14.867	7.231
10.328	8.161	8.107	9.550	7.848	10.166	7.785	10.824	7.698	11.981	7.556	12.998	7.435	14.896	7.229
10.351	8.193	8.104	9.565	7.846	10.183	7.782	10.869	7.695	11.999	7.554	13.036	7.433	14.927	7.225
10.375	8.225	8.101	9.606	7.844	10.213	7.780	10.892	7.692	12.020	7.551	13.060	7.430	14.949	7.221
10.399	8.257	8.098	9.638	7.840	10.248	7.777	10.910	7.689	12.047	7.548	13.089	7.427	14.978	7.219
10.423	8.289	8.095	9.658	7.839	10.273	7.776	10.937	7.686	12.073	7.546	13.101	7.424	14.988	7.216
10.447	8.321	8.092	9.683	7.836	10.315	7.772	10.979	7.685	12.103	7.544	13.136	7.422	15.019	7.212
10.471	8.356	8.089	9.719	7.833	10.336	7.770	11.001	7.681	12.124	7.540	13.170	7.420	15.039	7.210
10.495	8.388	8.086	9.747	7.830	10.375	7.767	11.031	7.679	12.150	7.538	13.187	7.417	15.066	7.206
10.520	8.421	8.083	9.789	7.828	10.399	7.765	11.067	7.677	12.181	7.535	13.211	7.413	15.094	7.204
10.544	8.455	8.080	9.820	7.826	10.436	7.763	11.088	7.673	12.204	7.533	13.242	7.411	15.113	7.199
10.568	8.488	8.077	9.852	7.823	10.466	7.760	11.112	7.671	12.243	7.530	13.271	7.408	15.136	7.196
10.593	8.521	8.074	9.870	7.819	10.494	7.757	11.140	7.669	12.260	7.527	13.287	7.406	15.168	7.193
10.617	8.555	8.071	9.900	7.816	10.526	7.754	11.175	7.666	12.288	7.525	13.318	7.404	15.184	7.191
10.641	8.588	8.068	9.932	7.814	10.551	7.753	11.214	7.664	12.323	7.523	13.340	7.401	15.196	7.189
10.666	8.621	8.065	9.974	7.811	10.573	7.750	11.237	7.661	12.358	7.520	13.367	7.397	15.250	7.183
10.691	8.656	8.062	10.004	7.809	10.605	7.748	11.273	7.659	12.369	7.517	13.385	7.395	15.265	7.181
10.715	8.689	8.059	10.029	7.806	10.632	7.745	11.289	7.656	12.413	7.515	13.415	7.393	15.292	7.178
10.740	8.723	8.056	10.050	7.802	10.666	7.741	11.328	7.653	12.426	7.512	13.440	7.389	15.317	7.175
10.765	8.756	8.053	10.100	7.800	10.691	7.740	11.360	7.651	12.460	7.509	13.477	7.386	15.335	7.171

10.789	8.790	8.050	10.112	7.798	10.727	7.736	11.389	7.647	12.494	7.506	13.503	7.385	15.356	7.168
10.814	8.825	8.047	10.150	7.795	10.758	7.735	11.417	7.644	12.523	7.505	13.524	7.382	15.388	7.164
10.839	8.859	8.044	10.192	7.793	10.787	7.730	11.433	7.643	12.549	7.501	13.560	7.378	15.408	7.162
10.864	8.893	8.040	10.224	7.790	10.823	7.727	11.466	7.639	12.565	7.500	13.589	7.375	15.433	7.159
10.889	8.928	8.037	10.245	7.787	10.847	7.725	11.510	7.637	12.604	7.496	13.616	7.373	15.451	7.155
10.914	8.963	8.034	10.276	7.783	10.879	7.722	11.538	7.634	12.637	7.494	13.639	7.371	15.480	7.152
10.940	8.997	8.031	10.322	7.781	10.915	7.720	11.571	7.632	12.652	7.490	13.663	7.367	15.506	7.149
10.965	9.032	8.028	10.337	7.778	10.954	7.717	11.594	7.628	12.693	7.488	13.694	7.365	15.532	7.147
10.990	9.067	8.025	10.379	7.776	10.989	7.714	11.622	7.627	12.706	7.486	13.717	7.362	15.565	7.143
11.015	9.102	8.022	10.420	7.773	11.018	7.712	11.647	7.623	12.746	7.483	13.753	7.359	15.585	7.140
11.041	9.137	8.018	10.439	7.769	11.051	7.710	11.682	7.620	12.778	7.481	13.781	7.357	15.605	7.136
11.066	9.173	8.015	10.471	7.767	11.080	7.707	11.713	7.618	12.803	7.478	13.791	7.354	15.637	7.133
11.092	9.208	8.012	10.501	7.764	11.113	7.703	11.757	7.615	12.841	7.474	13.826	7.351	15.657	7.129
11.117	9.244	8.009	10.550	7.761	11.144	7.700	11.776	7.613	12.864	7.472	13.856	7.349	15.694	7.127
11.143	9.279	8.006	10.576	7.758	11.170	7.698	11.819	7.609	12.880	7.469	13.892	7.344	15.716	7.123
11.169	9.315	8.003	10.616	7.755	11.195	7.696	11.843	7.607	12.915	7.467	13.922	7.343	15.742	7.119
11.194	9.351	8.000	10.635	7.752	11.238	7.692	11.866	7.603	12.951	7.462	13.939	7.339	15.766	7.116
11.220	9.387	7.996	10.665	7.749	11.278	7.689	11.905	7.602	12.972	7.461	13.975	7.338	15.788	7.113
11.246	9.423	7.993	10.706	7.746	11.303	7.687	11.930	7.598	13.010	7.459	14.008	7.334	15.809	7.111
11.272	9.459	7.990	10.742	7.744	11.328	7.683	11.973	7.595	13.029	7.454	14.027	7.331	15.849	7.107
11.298	9.496	7.986	10.765	7.740	11.359	7.682	11.997	7.592	13.067	7.452	14.056	7.328	15.861	7.103
11.324	9.533	7.983	10.812	7.738	11.392	7.679	12.037	7.590	13.104	7.450	14.088	7.325	15.895	7.102
11.350	9.570	7.979	10.845	7.735	11.424	7.675	12.062	7.586	13.120	7.446	14.104	7.323	15.929	7.098
11.376	9.607	7.976	10.864	7.732	11.475	7.673	12.104	7.583	13.148	7.444	14.140	7.320	15.940	7.095
11.403	9.644	7.973	10.908	7.729	11.491	7.669	12.127	7.581	13.180	7.441	14.160	7.316	15.981	7.092
11.429	9.680	7.970	10.952	7.726	11.523	7.667	12.154	7.578	13.221	7.438	14.206	7.315	16.008	7.087
11.455	9.717	7.967	10.975	7.723	11.557	7.665	12.195	7.577	13.241	7.435	14.221	7.312	16.028	7.085
11.482	9.755	7.963	11.002	7.721	11.592	7.661	12.225	7.573	13.283	7.433	14.256	7.308	16.044	7.081
11.508	9.792	7.960	11.040	7.718	11.631	7.659	12.259	7.571	13.308	7.429	14.290	7.306	16.073	7.078
11.535	9.828	7.957	11.081	7.715	11.672	7.655	12.286	7.567	13.345	7.426	14.325	7.302	16.105	7.075
11.561	9.866	7.953	11.109	7.712	11.692	7.653	12.326	7.563	13.372	7.424	14.347	7.300	16.139	7.072
11.588	9.904	7.950	11.150	7.709	11.729	7.649	12.361	7.561	13.405	7.422	14.365	7.298	16.157	7.068
11.614	9.941	7.947	11.182	7.705	11.776	7.645	12.380	7.557	13.429	7.419	14.408	7.294	16.186	7.066
11.641	9.978	7.943	11.219	7.702	11.797	7.643	12.415	7.555	13.466	7.416	14.438	7.291	16.226	7.062
11.668	10.017	7.940	11.250	7.698	11.841	7.641	12.448	7.552	13.492	7.412	14.470	7.287	16.253	7.059
11.695	10.055	7.936	11.287	7.697	11.881	7.638	12.499	7.550	13.518	7.409	14.501	7.285	16.278	7.055
11.722	10.093	7.933	11.333	7.693	11.911	7.635	12.532	7.548	13.549	7.407	14.531	7.281	16.308	7.053
11.749	10.132	7.929	11.354	7.690	11.943	7.631	12.552	7.544	13.598	7.404	14.555	7.279	16.317	7.050
11.776	10.170	7.926	11.386	7.686	11.984	7.628	12.588	7.540	13.613	7.402	14.580	7.276	16.358	7.047
11.803	10.209	7.922	11.440	7.684	12.018	7.626	12.621	7.538	13.654	7.398	14.619	7.274	16.375	7.043
11.830	10.247	7.919	11.466	7.680	12.044	7.622	12.652	7.535	13.691	7.395	14.636	7.271	16.407	7.039
11.858	10.286	7.916	11.497	7.677	12.074	7.619	12.700	7.531	13.726	7.391	14.682	7.267	16.428	7.037
11.885	10.324	7.912	11.530	7.675	12.107	7.617	12.721	7.529	13.756	7.390	14.703	7.265	16.465	7.033
11.912	10.363	7.909	11.569	7.671	12.150	7.612	12.755	7.526	13.775	7.385	14.742	7.261	16.494	7.030
11.940	10.401	7.905	11.610	7.668	12.181	7.610	12.802	7.522	13.810	7.383	14.766	7.259	16.525	7.026
11.967	10.441	7.902	11.647	7.666	12.224	7.607	12.828	7.519	13.836	7.381	14.795	7.256	16.555	7.024
11.995	10.481	7.898	11.694	7.661	12.259	7.604	12.868	7.516	13.884	7.378	14.819	7.253	16.581	7.021
12.023	10.522	7.894	11.715	7.659	12.304	7.601	12.892	7.514	13.902	7.374	14.857	7.249	16.598	7.016
12.050	10.560	7.891	11.761	7.655	12.323	7.599	12.933	7.510	13.951	7.372	14.899	7.246	16.636	7.013
12.078	10.600	7.888	11.797	7.653	12.375	7.595	12.964	7.508	13.973	7.369	14.920	7.244	16.654	7.011
12.106	10.640	7.884	11.837	7.649	12.393	7.592	13.008	7.505	14.004	7.365	14.955	7.241	16.697	7.007
12.134	10.680	7.881	11.866	7.646	12.440	7.588	13.029	7.502	14.043	7.362	14.977	7.239	16.714	7.004
12.162	10.720	7.877	11.900	7.644	12.476	7.585	13.070	7.499	14.081	7.359	15.013	7.234	16.740	7.001
12.190	10.761	7.873	11.940	7.641	12.512	7.583	13.101	7.495	14.103	7.357	15.041	7.231	16.772	6.998

12.218	10.801	7.870	11.982	7.638	12.540	7.579	13.142	7.493	14.131	7.353	15.075	7.228	16.807	6.994
12.246	10.841	7.866	12.027	7.634	12.589	7.575	13.177	7.489	14.167	7.351	15.119	7.226	16.831	6.991
12.274	10.881	7.862	12.050	7.630	12.627	7.574	13.207	7.486	14.212	7.347	15.147	7.223	16.860	6.988
12.303	10.921	7.859	12.096	7.628	12.665	7.570	13.244	7.483	14.234	7.344	15.178	7.220	16.887	6.984
12.331	10.964	7.855	12.123	7.623	12.700	7.566	13.282	7.480	14.285	7.342	15.209	7.216	16.916	6.981
12.359	11.004	7.852	12.167	7.621	12.737	7.563	13.322	7.476	14.313	7.338	15.243	7.212	16.954	6.977
12.388	11.046	7.848	12.200	7.618	12.770	7.561	13.352	7.474	14.350	7.335	15.273	7.210	16.983	6.974
12.417	11.089	7.844	12.235	7.614	12.801	7.557	13.401	7.470	14.373	7.332	15.302	7.208	17.003	6.971
12.445	11.129	7.841	12.291	7.610	12.850	7.554	13.431	7.468	14.404	7.329	15.330	7.203	17.047	6.967
12.474	11.170	7.837	12.326	7.607	12.882	7.551	13.460	7.464	14.437	7.327	15.376	7.202	17.072	6.963
12.503	11.210	7.833	12.368	7.605	12.927	7.548	13.511	7.461	14.479	7.323	15.398	7.198	17.093	6.961
12.531	11.252	7.830	12.402	7.601	12.956	7.544	13.547	7.458	14.509	7.321	15.429	7.195	17.132	6.958
12.560	11.294	7.826	12.446	7.598	12.991	7.541	13.567	7.454	14.539	7.316	15.465	7.191	17.154	6.954
12.589	11.336	7.822	12.469	7.595	13.034	7.537	13.605	7.453	14.581	7.313	15.496	7.189	17.180	6.951
12.618	11.378	7.819	12.524	7.592	13.077	7.535	13.657	7.448	14.620	7.311	15.541	7.186	17.227	6.947
12.647	11.420	7.815	12.562	7.588	13.102	7.532	13.690	7.446	14.645	7.308	15.558	7.182	17.247	6.944
12.677	11.463	7.811	12.598	7.584	13.151	7.529	13.722	7.441	14.680	7.304	15.594	7.179	17.286	6.941
12.706	11.506	7.807	12.628	7.581	13.183	7.525	13.761	7.440	14.724	7.302	15.634	7.177	17.310	6.937
12.735	11.548	7.804	12.664	7.578	13.233	7.521	13.797	7.436	14.764	7.299	15.668	7.174	17.345	6.935
12.764	11.590	7.800	12.714	7.574	13.272	7.518	13.845	7.433	14.784	7.295	15.700	7.170	17.374	6.931
12.794	11.632	7.796	12.760	7.571	13.307	7.515	13.868	7.429	14.835	7.291	15.742	7.167	17.408	6.928
12.823	11.675	7.793	12.786	7.568	13.342	7.512	13.907	7.426	14.861	7.290	15.765	7.165	17.429	6.924
12.853	11.718	7.789	12.827	7.564	13.373	7.507	13.959	7.423	14.902	7.285	15.809	7.161	17.462	6.921
12.883	11.761	7.785	12.878	7.561	13.412	7.504	13.989	7.419	14.930	7.283	15.827	7.159	17.502	6.917
12.912	11.804	7.781	12.908	7.558	13.454	7.501	14.033	7.416	14.962	7.279	15.868	7.155	17.533	6.915
12.942	11.847	7.777	12.957	7.554	13.497	7.497	14.056	7.412	15.014	7.276	15.906	7.152	17.547	6.911
12.972	11.891	7.774	12.993	7.550	13.544	7.495	14.109	7.409	15.039	7.273	15.941	7.149	17.592	6.908
13.002	11.935	7.770	13.036	7.548	13.572	7.491	14.141	7.405	15.075	7.270	15.981	7.144	17.618	6.905
13.032	11.979	7.766	13.072	7.543	13.622	7.487	14.176	7.403	15.114	7.267	16.007	7.142	17.654	6.900
13.062	12.022	7.762	13.112	7.541	13.649	7.484	14.223	7.399	15.141	7.264	16.044	7.138	17.682	6.898
13.092	12.066	7.758	13.150	7.536	13.697	7.480	14.257	7.396	15.189	7.259	16.081	7.136	17.713	6.894
13.122	12.110	7.754	13.190	7.533	13.743	7.478	14.295	7.392	15.232	7.257	16.114	7.132	17.744	6.890
13.152	12.154	7.750	13.236	7.529	13.774	7.475	14.325	7.390	15.266	7.254	16.139	7.129	17.771	6.887
13.183	12.198	7.746	13.273	7.526	13.823	7.471	14.372	7.385	15.303	7.250	16.185	7.125	17.796	6.885
13.213	12.243	7.742	13.312	7.522	13.850	7.468	14.416	7.383	15.327	7.248	16.225	7.123	17.835	6.880
13.243	12.288	7.738	13.353	7.519	13.890	7.463	14.457	7.379	15.375	7.243	16.256	7.120	17.876	6.878
13.274	12.334	7.734	13.406	7.516	13.939	7.459	14.483	7.376	15.402	7.241	16.285	7.117	17.897	6.873
13.305	12.378	7.730	13.438	7.512	13.981	7.457	14.528	7.373	15.441	7.238	16.329	7.113	17.928	6.871
13.335	12.422	7.727	13.481	7.508	14.016	7.453	14.565	7.369	15.488	7.234	16.367	7.109	17.961	6.866
13.366	12.466	7.723	13.534	7.504	14.055	7.450	14.617	7.366	15.512	7.231	16.394	7.106	17.996	6.863
13.397	12.511	7.719	13.560	7.501	14.096	7.446	14.653	7.363	15.548	7.229	16.434	7.103	18.033	6.861
13.428	12.556	7.715	13.614	7.499	14.138	7.443	14.699	7.360	15.596	7.224	16.471	7.099	18.066	6.857
13.459	12.602	7.711	13.652	7.494	14.195	7.440	14.728	7.355	15.638	7.222	16.508	7.097	18.091	6.853
13.490	12.649	7.707	13.692	7.491	14.230	7.435	14.771	7.353	15.676	7.219	16.530	7.094	18.128	6.850
13.521	12.694	7.703	13.746	7.487	14.261	7.432	14.804	7.350	15.698	7.215	16.577	7.090	18.153	6.847
13.552	12.740	7.699	13.779	7.483	14.321	7.428	14.848	7.346	15.755	7.212	16.616	7.086	18.192	6.843
13.583	12.786	7.695	13.829	7.480	14.352	7.425	14.890	7.343	15.788	7.208	16.637	7.083	18.217	6.840
13.614	12.832	7.691	13.868	7.476	14.393	7.422	14.924	7.339	15.820	7.205	16.677	7.080	18.264	6.837
13.646	12.879	7.686	13.909	7.472	14.447	7.417	14.972	7.336	15.862	7.200	16.728	7.076	18.290	6.832
13.677	12.926	7.682	13.946	7.470	14.479	7.414	15.006	7.332	15.889	7.198	16.759	7.073	18.315	6.830
13.709	12.972	7.679	13.993	7.466	14.518	7.411	15.052	7.329	15.927	7.195	16.797	7.070	18.355	6.827
13.740	13.018	7.674	14.033	7.461	14.559	7.407	15.105	7.324	15.983	7.191	16.829	7.067	18.394	6.823
13.772	13.065	7.670	14.088	7.459	14.613	7.404	15.142	7.321	16.015	7.188	16.861	7.064	18.431	6.820
13.804	13.112	7.666	14.130	7.454	14.645	7.400	15.180	7.318	16.062	7.184	16.902	7.060	18.451	6.816

13.836	13.159	7.662	14.177	7.450	14.684	7.396	15.221	7.313	16.091	7.181	16.944	7.056	18.490	6.813
13.868	13.208	7.658	14.207	7.447	14.742	7.392	15.253	7.310	16.137	7.177	16.978	7.053	18.530	6.809
13.900	13.254	7.654	14.265	7.444	14.774	7.390	15.301	7.307	16.171	7.174	17.012	7.051	18.548	6.806
13.932	13.300	7.650	14.310	7.439	14.825	7.386	15.345	7.304	16.202	7.170	17.052	7.047	18.595	6.803
13.964	13.347	7.646	14.347	7.436	14.866	7.381	15.378	7.300	16.253	7.168	17.099	7.043	18.615	6.798
13.996	13.394	7.642	14.387	7.432	14.900	7.379	15.434	7.297	16.298	7.163	17.133	7.040	18.662	6.796
14.028	13.441	7.638	14.444	7.428	14.959	7.374	15.471	7.292	16.333	7.160	17.174	7.036	18.695	6.791
14.060	13.489	7.633	14.476	7.424	14.996	7.371	15.508	7.290	16.368	7.157	17.202	7.033	18.731	6.788
14.093	13.538	7.629	14.524	7.420	15.031	7.367	15.559	7.286	16.416	7.154	17.249	7.030	18.766	6.786
14.125	13.586	7.625	14.578	7.417	15.084	7.363	15.591	7.282	16.445	7.150	17.283	7.027	18.784	6.782
14.158	13.633	7.621	14.621	7.414	15.127	7.360	15.651	7.278	16.494	7.146	17.316	7.023	18.832	6.778
14.191	13.682	7.617	14.652	7.410	15.176	7.356	15.675	7.274	16.519	7.144	17.357	7.019	18.858	6.775
14.223	13.732	7.612	14.697	7.406	15.217	7.352	15.735	7.272	16.570	7.140	17.386	7.017	18.887	6.771
14.256	13.780	7.608	14.759	7.403	15.255	7.348	15.770	7.268	16.616	7.136	17.439	7.013	18.931	6.768
14.289	13.829	7.604	14.789	7.398	15.295	7.344	15.809	7.264	16.659	7.134	17.475	7.009	18.963	6.764
14.322	13.877	7.600	14.843	7.394	15.344	7.341	15.867	7.260	16.684	7.130	17.508	7.006	19.010	6.760
14.355	13.925	7.595	14.888	7.390	15.390	7.336	15.904	7.257	16.724	7.125	17.546	7.003	19.034	6.757
14.388	13.975	7.591	14.938	7.387	15.429	7.333	15.949	7.254	16.773	7.122	17.594	6.999	19.071	6.754
14.421	14.024	7.587	14.981	7.384	15.474	7.329	15.978	7.250	16.809	7.118	17.626	6.997	19.107	6.750
14.454	14.073	7.583	15.022	7.380	15.521	7.326	16.026	7.246	16.859	7.114	17.667	6.993	19.150	6.747
14.488	14.123	7.578	15.074	7.375	15.582	7.322	16.081	7.242	16.897	7.111	17.714	6.988	19.174	6.743
14.521	14.173	7.574	15.116	7.371	15.612	7.318	16.128	7.238	16.945	7.108	17.746	6.985	19.211	6.739
14.555	14.222	7.570	15.173	7.368	15.672	7.314	16.166	7.235	16.972	7.104	17.776	6.982	19.246	6.736
14.588	14.271	7.565	15.219	7.364	15.700	7.310	16.204	7.231	17.025	7.100	17.821	6.979	19.282	6.732
14.622	14.323	7.561	15.256	7.360	15.755	7.306	16.253	7.228	17.053	7.098	17.858	6.974	19.316	6.729
14.655	14.371	7.557	15.312	7.356	15.804	7.303	16.290	7.224	17.109	7.095	17.898	6.971	19.358	6.725
14.689	14.422	7.552	15.343	7.352	15.851	7.299	16.340	7.220	17.141	7.091	17.946	6.967	19.395	6.721
14.723	14.473	7.548	15.397	7.349	15.901	7.295	16.377	7.216	17.194	7.086	17.983	6.965	19.428	6.718
14.757	14.523	7.544	15.450	7.345	15.930	7.291	16.431	7.213	17.225	7.084	18.020	6.961	19.469	6.715
14.791	14.574	7.539	15.493	7.340	15.987	7.286	16.482	7.208	17.271	7.080	18.065	6.957	19.491	6.711
14.825	14.625	7.535	15.547	7.337	16.041	7.283	16.509	7.205	17.321	7.077	18.098	6.954	19.524	6.707
14.859	14.674	7.531	15.595	7.333	16.072	7.279	16.569	7.201	17.360	7.072	18.139	6.950	19.565	6.704
14.894	14.725	7.526	15.636	7.329	16.131	7.276	16.602	7.198	17.408	7.070	18.185	6.946	19.609	6.700
14.928	14.778	7.522	15.689	7.324	16.175	7.272	16.652	7.194	17.434	7.065	18.231	6.943	19.647	6.698
14.962	14.829	7.517	15.730	7.320	16.219	7.268	16.693	7.189	17.491	7.062	18.260	6.940	19.672	6.694
14.997	14.880	7.513	15.783	7.317	16.271	7.264	16.746	7.186	17.522	7.058	18.308	6.936	19.722	6.690
15.031	14.931	7.509	15.823	7.313	16.309	7.260	16.789	7.182	17.564	7.055	18.342	6.932	19.754	6.686
15.066	14.982	7.504	15.883	7.310	16.358	7.256	16.828	7.178	17.604	7.052	18.391	6.930	19.792	6.683
15.101	15.035	7.500	15.920	7.305	16.415	7.252	16.889	7.174	17.664	7.047	18.432	6.926	19.820	6.680
15.136	15.087	7.495	15.974	7.300	16.454	7.247	16.924	7.170	17.697	7.044	18.466	6.922	19.861	6.676
15.171	15.138	7.491	16.018	7.296	16.499	7.244	16.965	7.167	17.735	7.039	18.509	6.919	19.893	6.673
15.205	15.191	7.486	16.075	7.292	16.559	7.240	17.017	7.163	17.787	7.036	18.560	6.915	19.928	6.668
15.241	15.244	7.481	16.119	7.289	16.592	7.235	17.076	7.159	17.832	7.033	18.596	6.912	19.978	6.664
15.276	15.295	7.477	16.161	7.285	16.650	7.233	17.120	7.156	17.878	7.029	18.634	6.907	20.016	6.661
15.311	15.347	7.473	16.226	7.280	16.688	7.227	17.160	7.152	17.909	7.025	18.671	6.905	20.051	6.658
15.346	15.401	7.468	16.260	7.277	16.740	7.223	17.209	7.147	17.952	7.021	18.716	6.902	20.087	6.655
15.382	15.453	7.464	16.320	7.272	16.793	7.220	17.256	7.145	18.004	7.017	18.769	6.898	20.124	6.652
15.417	15.506	7.459	16.372	7.269	16.847	7.216	17.292	7.141	18.048	7.015	18.801	6.893	20.152	6.647
15.453	15.558	7.455	16.409	7.263	16.877	7.211	17.345	7.136	18.090	7.010	18.850	6.890	20.205	6.643
15.488	15.613	7.450	16.459	7.260	16.927	7.208	17.397	7.132	18.134	7.006	18.890	6.886	20.235	6.640
15.524	15.666	7.445	16.509	7.255	16.992	7.204	17.436	7.128	18.186	7.003	18.932	6.883	20.264	6.637
15.560	15.719	7.441	16.565	7.251	17.038	7.199	17.499	7.124	18.233	7.000	18.974	6.880	20.307	6.632
15.596	15.772	7.436	16.626	7.247	17.082	7.195	17.536	7.120	18.269	6.995	19.021	6.875	20.351	6.630
15.631	15.826	7.431	16.673	7.243	17.120	7.190	17.588	7.117	18.317	6.993	19.066	6.872	20.391	6.626

15.668	15.881	7.427	16.709	7.240	17.180	7.187	17.641	7.112	18.367	6.988	19.108	6.868	20.431	6.621
15.704	15.934	7.422	16.767	7.235	17.238	7.183	17.683	7.108	18.404	6.984	19.136	6.865	20.458	6.619
15.740	15.987	7.418	16.818	7.231	17.284	7.178	17.720	7.105	18.455	6.981	19.193	6.861	20.500	6.615
15.776	16.042	7.413	16.879	7.227	17.332	7.176	17.780	7.101	18.489	6.977	19.236	6.857	20.540	6.611
15.812	16.096	7.408	16.917	7.223	17.379	7.171	17.833	7.097	18.548	6.973	19.279	6.854	20.573	6.608
15.849	16.152	7.404	16.964	7.219	17.436	7.166	17.883	7.092	18.580	6.969	19.325	6.849	20.625	6.605
15.885	16.206	7.399	17.030	7.214	17.480	7.163	17.920	7.088	18.642	6.966	19.371	6.846	20.657	6.600
15.922	16.261	7.394	17.077	7.211	17.527	7.159	17.963	7.085	18.675	6.962	19.413	6.841	20.687	6.596
15.959	16.316	7.390	17.134	7.206	17.571	7.155	18.022	7.082	18.723	6.957	19.449	6.838	20.726	6.594
15.996	16.370	7.385	17.184	7.201	17.627	7.149	18.060	7.077	18.769	6.955	19.502	6.834	20.770	6.589
16.032	16.424	7.381	17.228	7.197	17.679	7.146	18.110	7.072	18.824	6.951	19.535	6.832	20.813	6.586
16.069	16.479	7.376	17.278	7.192	17.734	7.141	18.164	7.068	18.868	6.946	19.577	6.827	20.845	6.582
16.106	16.534	7.371	17.330	7.190	17.781	7.138	18.213	7.064	18.922	6.942	19.632	6.824	20.884	6.579
16.144	16.589	7.366	17.383	7.186	17.825	7.134	18.268	7.060	18.965	6.938	19.665	6.819	20.934	6.575
16.181	16.644	7.362	17.433	7.181	17.884	7.128	18.314	7.056	19.009	6.935	19.721	6.816	20.969	6.571
16.218	16.701	7.357	17.494	7.176	17.942	7.125	18.363	7.052	19.045	6.930	19.761	6.811	21.013	6.567
16.255	16.755	7.352	17.535	7.172	17.985	7.121	18.420	7.049	19.092	6.927	19.801	6.809	21.045	6.563
16.293	16.812	7.348	17.592	7.169	18.030	7.116	18.472	7.044	19.138	6.923	19.839	6.805	21.079	6.560
16.331	16.868	7.343	17.643	7.163	18.094	7.112	18.510	7.040	19.201	6.919	19.898	6.800	21.127	6.556
16.368	16.923	7.338	17.696	7.159	18.135	7.107	18.571	7.036	19.235	6.915	19.929	6.797	21.170	6.552
16.406	16.979	7.334	17.750	7.155	18.186	7.103	18.624	7.032	19.292	6.911	19.992	6.793	21.210	6.549
16.444	17.034	7.329	17.797	7.151	18.249	7.098	18.666	7.027	19.327	6.907	20.018	6.789	21.257	6.545
16.482	17.092	7.324	17.858	7.146	18.298	7.096	18.709	7.024	19.381	6.903	20.078	6.786	21.285	6.541
16.520	17.151	7.319	17.917	7.142	18.337	7.091	18.763	7.020	19.424	6.900	20.124	6.782	21.328	6.538
16.558	17.207	7.314	17.973	7.137	18.402	7.087	18.825	7.016	19.474	6.895	20.174	6.777	21.378	6.534
16.596	17.263	7.309	18.024	7.133	18.456	7.081	18.868	7.011	19.528	6.892	20.210	6.774	21.407	6.530
16.634	17.320	7.304	18.080	7.128	18.510	7.078	18.918	7.008	19.582	6.889	20.249	6.770	21.456	6.527
16.672	17.377	7.299	18.135	7.124	18.549	7.073	18.960	7.003	19.628	6.884	20.292	6.767	21.490	6.524
16.711	17.434	7.295	18.185	7.119	18.599	7.070	19.025	6.999	19.662	6.881	20.343	6.762	21.535	6.520
16.749	17.492	7.290	18.238	7.117	18.664	7.064	19.075	6.994	19.722	6.876	20.388	6.760	21.567	6.516
16.788	17.550	7.285	18.289	7.112	18.706	7.061	19.127	6.991	19.773	6.872	20.433	6.756	21.624	6.512
16.827	17.608	7.280	18.350	7.108	18.758	7.055	19.179	6.986	19.808	6.869	20.493	6.751	21.660	6.508
16.866	17.667	7.275	18.399	7.103	18.817	7.051	19.218	6.982	19.859	6.863	20.529	6.748	21.703	6.505
16.904	17.724	7.270	18.461	7.098	18.874	7.047	19.288	6.979	19.912	6.859	20.578	6.744	21.746	6.502
16.943	17.783	7.266	18.509	7.095	18.916	7.042	19.324	6.974	19.953	6.856	20.618	6.741	21.770	6.498
16.982	17.841	7.261	18.559	7.090	18.969	7.038	19.391	6.970	20.005	6.852	20.668	6.737	21.823	6.493
17.022	17.898	7.256	18.617	7.084	19.038	7.033	19.426	6.965	20.060	6.847	20.728	6.732	21.872	6.490
17.061	17.957	7.251	18.674	7.081	19.088	7.029	19.487	6.960	20.114	6.843	20.768	6.728	21.913	6.485
17.100	18.018	7.246	18.726	7.076	19.136	7.026	19.546	6.957	20.161	6.841	20.809	6.725	21.953	6.483
17.140	18.075	7.241	18.777	7.071	19.187	7.022	19.586	6.952	20.208	6.836	20.863	6.721	21.996	6.479
17.179	18.134	7.236	18.836	7.067	19.242	7.016	19.635	6.948	20.261	6.832	20.910	6.716	22.027	6.476
17.219	18.192	7.231	18.893	7.063	19.299	7.012	19.692	6.945	20.305	6.827	20.946	6.712	22.072	6.471
17.258	18.252	7.226	18.948	7.057	19.354	7.008	19.748	6.941	20.355	6.824	21.005	6.709	22.113	6.467
17.298	18.311	7.222	19.002	7.055	19.412	7.003	19.803	6.935	20.399	6.820	21.041	6.704	22.147	6.463
17.338	18.367	7.217	19.052	7.049	19.462	7.000	19.852	6.932	20.463	6.816	21.094	6.701	22.205	6.460
17.378	18.429	7.212	19.115	7.044	19.508	6.994	19.917	6.927	20.517	6.812	21.142	6.698	22.233	6.455
17.418	18.491	7.207	19.178	7.040	19.576	6.990	19.954	6.923	20.552	6.807	21.190	6.694	22.274	6.453
17.458	18.549	7.201	19.231	7.036	19.622	6.985	20.015	6.919	20.617	6.804	21.233	6.689	22.316	6.449
17.498	18.610	7.197	19.278	7.031	19.679	6.982	20.059	6.915	20.653	6.800	21.285	6.686	22.365	6.446
17.539	18.669	7.191	19.342	7.027	19.746	6.975	20.113	6.909	20.711	6.796	21.339	6.682	22.411	6.442
17.579	18.730	7.187	19.408	7.022	19.790	6.972	20.184	6.906	20.764	6.791	21.391	6.677	22.461	6.438
17.620	18.789	7.182	19.452	7.018	19.850	6.966	20.226	6.901	20.814	6.788	21.430	6.672	22.488	6.434
17.660	18.850	7.176	19.517	7.014	19.900	6.964	20.293	6.897	20.853	6.784	21.473	6.669	22.543	6.430
17.701	18.911	7.172	19.579	7.008	19.953	6.958	20.340	6.893	20.915	6.780	21.533	6.665	22.589	6.425

17.742	18.970	7.166	19.629	7.005	20.020	6.955	20.389	6.888	20.961	6.774	21.576	6.662	22.616	6.422
17.783	19.031	7.161	19.683	6.998	20.061	6.950	20.438	6.885	21.020	6.771	21.621	6.656	22.660	6.419
17.824	19.092	7.156	19.747	6.995	20.129	6.945	20.501	6.880	21.070	6.766	21.680	6.653	22.721	6.416
17.865	19.153	7.151	19.808	6.991	20.186	6.941	20.550	6.874	21.116	6.763	21.726	6.650	22.763	6.410
17.906	19.215	7.146	19.869	6.986	20.230	6.936	20.610	6.871	21.179	6.758	21.782	6.645	22.807	6.408
17.947	19.275	7.141	19.911	6.981	20.292	6.932	20.665	6.868	21.218	6.755	21.833	6.642	22.849	6.403
17.989	19.337	7.136	19.966	6.976	20.349	6.926	20.721	6.862	21.270	6.750	21.881	6.637	22.888	6.399
18.030	19.398	7.131	20.042	6.972	20.401	6.922	20.780	6.858	21.318	6.745	21.931	6.632	22.934	6.396
18.072	19.460	7.125	20.100	6.966	20.465	6.917	20.827	6.853	21.373	6.741	21.980	6.629	22.967	6.391
18.113	19.518	7.121	20.146	6.962	20.513	6.912	20.882	6.849	21.430	6.738	22.027	6.626	23.020	6.388
18.155	19.582	7.115	20.216	6.958	20.575	6.908	20.943	6.845	21.483	6.733	22.078	6.622	23.070	6.383
18.197	19.644	7.111	20.268	6.953	20.627	6.903	20.988	6.841	21.544	6.729	22.120	6.617	23.104	6.381
18.239	19.706	7.105	20.330	6.948	20.684	6.899	21.055	6.835	21.595	6.725	22.178	6.613	23.155	6.377
18.281	19.768	7.100	20.376	6.943	20.745	6.894	21.102	6.832	21.634	6.721	22.214	6.610	23.205	6.373
18.323	19.829	7.095	20.443	6.939	20.796	6.889	21.168	6.826	21.693	6.716	22.269	6.604	23.233	6.368
18.365	19.893	7.089	20.510	6.935	20.868	6.886	21.224	6.822	21.750	6.712	22.321	6.601	23.281	6.366
18.408	19.953	7.084	20.567	6.930	20.914	6.881	21.281	6.817	21.790	6.709	22.377	6.597	23.325	6.360
18.450	20.018	7.079	20.624	6.926	20.979	6.877	21.336	6.813	21.857	6.705	22.422	6.593	23.372	6.357
18.493	20.081	7.074	20.689	6.920	21.027	6.871	21.391	6.808	21.910	6.700	22.480	6.589	23.412	6.353
18.535	20.144	7.069	20.738	6.915	21.097	6.867	21.438	6.804	21.966	6.695	22.517	6.584	23.460	6.350
18.578	20.208	7.063	20.793	6.911	21.148	6.861	21.507	6.801	22.015	6.691	22.569	6.580	23.506	6.347
18.621	20.270	7.059	20.853	6.906	21.199	6.858	21.565	6.797	22.075	6.687	22.629	6.577	23.546	6.342
18.664	20.334	7.053	20.921	6.901	21.269	6.852	21.619	6.792	22.124	6.682	22.681	6.573	23.601	6.338
18.707	20.398	7.048	20.977	6.896	21.319	6.848	21.675	6.787	22.167	6.678	22.725	6.569	23.649	6.334
18.750	20.462	7.043	21.049	6.892	21.386	6.843	21.721	6.782	22.234	6.675	22.785	6.564	23.700	6.330
18.793	20.524	7.038	21.099	6.888	21.435	6.839	21.791	6.777	22.274	6.669	22.827	6.561	23.729	6.327
18.836	20.587	7.032	21.161	6.882	21.493	6.834	21.847	6.773	22.341	6.665	22.887	6.557	23.774	6.323
18.880	20.652	7.028	21.218	6.877	21.549	6.828	21.903	6.768	22.393	6.661	22.926	6.552	23.837	6.318
18.923	20.713	7.022	21.285	6.873	21.615	6.825	21.947	6.765	22.440	6.657	22.995	6.547	23.870	6.314
18.967	20.778	7.017	21.350	6.869	21.670	6.820	22.008	6.760	22.503	6.653	23.034	6.544	23.913	6.312
19.011	20.843	7.011	21.405	6.864	21.742	6.814	22.078	6.755	22.556	6.648	23.097	6.539	23.968	6.308
19.055	20.907	7.006	21.470	6.858	21.798	6.809	22.131	6.750	22.609	6.644	23.147	6.535	24.003	6.304
19.099	20.971	7.001	21.529	6.855	21.857	6.806	22.193	6.746	22.656	6.640	23.194	6.530	24.056	6.299
19.143	21.037	6.996	21.594	6.848	21.903	6.800	22.251	6.742	22.727	6.635	23.242	6.526	24.103	6.296
19.187	21.102	6.991	21.647	6.844	21.976	6.796	22.309	6.737	22.768	6.631	23.300	6.523	24.157	6.293
19.231	21.167	6.985	21.710	6.839	22.029	6.792	22.367	6.732	22.829	6.627	23.358	6.519	24.201	6.288
19.275	21.233	6.980	21.767	6.835	22.090	6.786	22.414	6.727	22.884	6.622	23.411	6.514	24.251	6.283
19.320	21.296	6.974	21.837	6.831	22.156	6.781	22.479	6.723	22.945	6.618	23.462	6.510	24.289	6.281
19.364	21.359	6.969	21.904	6.826	22.215	6.777	22.535	6.718	23.003	6.614	23.510	6.507	24.334	6.276
19.409	21.423	6.964	21.952	6.821	22.277	6.772	22.598	6.715	23.048	6.610	23.571	6.502	24.388	6.273
19.454	21.490	6.958	22.011	6.815	22.321	6.767	22.658	6.710	23.112	6.604	23.611	6.498	24.433	6.268
19.498	21.555	6.953	22.080	6.810	22.399	6.761	22.723	6.705	23.167	6.600	23.668	6.494	24.475	6.265
19.543	21.621	6.947	22.145	6.805	22.451	6.758	22.773	6.701	23.217	6.596	23.721	6.490	24.519	6.260
19.588	21.687	6.942	22.200	6.801	22.519	6.753	22.835	6.697	23.280	6.591	23.783	6.485	24.571	6.257
19.634	21.753	6.937	22.279	6.795	22.568	6.748	22.889	6.692	23.338	6.587	23.838	6.482	24.618	6.252
19.679	21.820	6.932	22.339	6.791	22.631	6.743	22.960	6.686	23.383	6.583	23.877	6.477	24.676	6.249
19.724	21.886	6.926	22.392	6.786	22.693	6.739	23.004	6.682	23.436	6.578	23.938	6.472	24.722	6.245
19.770	21.953	6.921	22.461	6.781	22.752	6.732	23.077	6.677	23.502	6.574	23.984	6.469	24.758	6.241
19.815	22.019	6.916	22.514	6.775	22.812	6.728	23.137	6.673	23.555	6.570	24.041	6.465	24.813	6.237
19.861	22.085	6.910	22.590	6.770	22.885	6.724	23.187	6.668	23.609	6.565	24.097	6.460	24.859	6.233
19.907	22.152	6.905	22.653	6.767	22.930	6.718	23.254	6.664	23.678	6.562	24.156	6.455	24.908	6.230
19.953	22.220	6.900	22.719	6.762	22.991	6.714	23.309	6.658	23.735	6.556	24.202	6.451	24.953	6.226
19.999	22.286	6.894	22.781	6.756	23.056	6.710	23.366	6.654	23.780	6.552	24.267	6.447	25.004	6.222
20.045	22.352	6.889	22.830	6.752	23.128	6.704	23.426	6.650	23.835	6.548	24.318	6.442	25.060	6.218

20.091	22.418	6.883	22.910	6.746	23.194	6.699	23.491	6.644	23.890	6.544	24.370	6.438	25.101	6.213
20.137	22.488	6.877	22.959	6.741	23.254	6.695	23.544	6.640	23.963	6.540	24.433	6.434	25.144	6.210
20.184	22.555	6.872	23.021	6.736	23.300	6.688	23.621	6.634	24.005	6.535	24.479	6.429	25.202	6.206
20.230	22.622	6.867	23.101	6.732	23.381	6.685	23.669	6.630	24.073	6.530	24.538	6.426	25.240	6.202
20.277	22.688	6.861	23.151	6.726	23.428	6.680	23.741	6.626	24.138	6.525	24.591	6.422	25.300	6.198
20.324	22.755	6.856	23.233	6.721	23.498	6.675	23.804	6.622	24.177	6.520	24.644	6.417	25.346	6.194
20.370	22.824	6.850	23.293	6.718	23.561	6.669	23.854	6.616	24.235	6.516	24.692	6.414	25.387	6.191
20.417	22.892	6.845	23.354	6.712	23.611	6.665	23.909	6.611	24.307	6.511	24.758	6.408	25.430	6.187
20.464	22.960	6.839	23.410	6.707	23.676	6.661	23.977	6.607	24.369	6.507	24.800	6.404	25.484	6.182
20.512	23.029	6.834	23.486	6.703	23.747	6.655	24.041	6.602	24.423	6.504	24.868	6.400	25.531	6.178
20.559	23.097	6.829	23.539	6.698	23.810	6.651	24.099	6.597	24.478	6.499	24.927	6.396	25.588	6.175
20.606	23.165	6.823	23.617	6.691	23.868	6.646	24.171	6.593	24.540	6.494	24.978	6.392	25.644	6.170
20.654	23.234	6.818	23.669	6.687	23.931	6.641	24.227	6.589	24.589	6.489	25.026	6.386	25.686	6.167
20.701	23.303	6.812	23.743	6.681	23.992	6.635	24.282	6.583	24.656	6.486	25.081	6.383	25.739	6.163
20.749	23.373	6.807	23.800	6.677	24.057	6.630	24.339	6.579	24.706	6.481	25.142	6.378	25.793	6.158
20.797	23.441	6.801	23.865	6.671	24.133	6.626	24.402	6.574	24.769	6.476	25.200	6.375	25.838	6.154
20.845	23.508	6.796	23.937	6.666	24.196	6.621	24.467	6.569	24.832	6.471	25.262	6.370	25.881	6.150
20.893	23.577	6.790	24.003	6.662	24.242	6.616	24.535	6.565	24.893	6.468	25.308	6.366	25.925	6.146
20.941	23.651	6.785	24.075	6.657	24.315	6.610	24.590	6.560	24.956	6.463	25.370	6.361	25.983	6.143
20.989	23.718	6.779	24.135	6.652	24.382	6.605	24.654	6.555	25.003	6.457	25.425	6.356	26.039	6.139
21.038	23.786	6.774	24.194	6.647	24.449	6.601	24.727	6.549	25.073	6.454	25.474	6.352	26.085	6.135
21.086	23.856	6.768	24.278	6.642	24.498	6.595	24.794	6.544	25.117	6.450	25.532	6.348	26.138	6.131
21.135	23.927	6.763	24.329	6.637	24.571	6.590	24.845	6.540	25.178	6.444	25.596	6.344	26.193	6.127
21.184	23.993	6.757	24.395	6.632	24.632	6.585	24.920	6.536	25.236	6.440	25.661	6.340	26.243	6.122
21.232	24.067	6.751	24.474	6.626	24.700	6.581	24.974	6.530	25.316	6.436	25.718	6.336	26.292	6.119
21.281	24.135	6.745	24.540	6.621	24.766	6.575	25.045	6.526	25.369	6.431	25.767	6.330	26.345	6.116
21.330	24.203	6.740	24.599	6.616	24.834	6.570	25.103	6.520	25.427	6.426	25.818	6.327	26.392	6.110
21.380	24.274	6.735	24.667	6.612	24.883	6.565	25.155	6.517	25.483	6.422	25.874	6.322	26.443	6.107
21.429	24.346	6.729	24.740	6.607	24.958	6.560	25.232	6.512	25.551	6.417	25.948	6.317	26.487	6.103
21.478	24.414	6.723	24.814	6.601	25.012	6.556	25.287	6.507	25.599	6.413	26.001	6.313	26.548	6.099
21.528	24.487	6.718	24.871	6.596	25.086	6.551	25.351	6.501	25.666	6.408	26.056	6.309	26.595	6.094
21.577	24.555	6.712	24.936	6.591	25.154	6.545	25.428	6.498	25.721	6.403	26.120	6.304	26.634	6.091
21.627	24.624	6.707	24.999	6.585	25.215	6.541	25.476	6.492	25.781	6.400	26.177	6.299	26.693	6.086
21.677	24.695	6.701	25.081	6.580	25.291	6.535	25.552	6.488	25.845	6.394	26.223	6.295	26.753	6.083
21.727	24.765	6.696	25.139	6.576	25.355	6.529	25.613	6.482	25.910	6.390	26.290	6.292	26.805	6.079
21.777	24.835	6.690	25.217	6.570	25.420	6.525	25.668	6.477	25.967	6.384	26.344	6.287	26.842	6.074
21.827	24.911	6.685	25.287	6.564	25.476	6.520	25.745	6.474	26.036	6.380	26.409	6.283	26.909	6.071
21.878	24.979	6.679	25.346	6.560	25.538	6.516	25.813	6.468	26.088	6.376	26.451	6.277	26.952	6.068
21.928	25.054	6.674	25.414	6.555	25.606	6.511	25.878	6.463	26.152	6.370	26.524	6.274	27.007	6.063
21.979	25.126	6.668	25.482	6.549	25.668	6.505	25.929	6.458	26.220	6.367	26.580	6.268	27.052	6.058
22.029	25.194	6.662	25.546	6.544	25.749	6.499	26.003	6.453	26.276	6.362	26.627	6.265	27.098	6.055
22.080	25.263	6.657	25.623	6.540	25.812	6.495	26.064	6.449	26.334	6.357	26.694	6.260	27.159	6.050
22.131	25.337	6.651	25.686	6.534	25.868	6.489	26.130	6.444	26.401	6.352	26.755	6.255	27.208	6.047
22.182	25.407	6.645	25.759	6.528	25.934	6.484	26.201	6.439	26.467	6.347	26.808	6.251	27.258	6.043
22.233	25.481	6.640	25.833	6.523	25.998	6.480	26.267	6.434	26.535	6.343	26.877	6.247	27.320	6.039
22.284	25.552	6.634	25.889	6.518	26.068	6.474	26.318	6.430	26.584	6.339	26.924	6.243	27.372	6.034
22.336	25.624	6.628	25.962	6.514	26.145	6.470	26.398	6.424	26.648	6.335	26.999	6.238	27.417	6.031
22.387	25.696	6.622	26.026	6.508	26.197	6.463	26.448	6.419	26.705	6.329	27.042	6.234	27.472	6.026
22.439	25.767	6.617	26.102	6.504	26.274	6.459	26.516	6.415	26.782	6.324	27.108	6.230	27.525	6.023
22.491	25.838	6.611	26.175	6.497	26.342	6.454	26.585	6.410	26.829	6.321	27.172	6.225	27.587	6.019
22.542	25.910	6.605	26.246	6.493	26.402	6.449	26.651	6.404	26.902	6.316	27.225	6.220	27.624	6.015
22.594	25.980	6.600	26.305	6.488	26.466	6.443	26.727	6.400	26.970	6.311	27.291	6.215	27.683	6.010
22.646	26.049	6.594	26.388	6.483	26.533	6.438	26.791	6.394	27.021	6.307	27.342	6.211	27.741	6.006
22.699	26.124	6.588	26.458	6.477	26.617	6.433	26.844	6.390	27.086	6.302	27.408	6.208	27.798	6.002

22.751	26.197	6.582	26.527	6.471	26.680	6.428	26.909	6.385	27.156	6.297	27.462	6.203	27.853	5.998
22.803	26.269	6.577	26.585	6.467	26.742	6.423	26.982	6.379	27.216	6.291	27.523	6.197	27.902	5.995
22.856	26.345	6.571	26.654	6.462	26.816	6.418	27.047	6.375	27.278	6.287	27.595	6.193	27.951	5.989
22.909	26.416	6.565	26.727	6.457	26.870	6.413	27.125	6.370	27.336	6.283	27.643	6.189	28.003	5.987
22.961	26.489	6.560	26.814	6.450	26.941	6.408	27.183	6.366	27.415	6.277	27.708	6.184	28.052	5.982
23.014	26.564	6.554	26.876	6.446	27.007	6.403	27.242	6.361	27.473	6.273	27.777	6.180	28.118	5.978
23.067	26.640	6.548	26.950	6.440	27.078	6.398	27.322	6.355	27.535	6.269	27.838	6.176	28.171	5.974
23.121	26.714	6.542	27.022	6.434	27.141	6.391	27.382	6.350	27.600	6.264	27.887	6.172	28.227	5.971
23.174	26.786	6.537	27.093	6.430	27.217	6.387	27.456	6.346	27.668	6.258	27.947	6.167	28.268	5.965
23.227	26.858	6.531	27.151	6.425	27.282	6.381	27.527	6.341	27.717	6.255	28.003	6.161	28.326	5.962
23.281	26.932	6.525	27.229	6.419	27.354	6.376	27.595	6.335	27.779	6.250	28.074	6.158	28.376	5.958
23.335	27.005	6.520	27.309	6.415	27.423	6.371	27.658	6.330	27.845	6.245	28.138	6.152	28.433	5.953
23.388	27.085	6.514	27.380	6.409	27.488	6.365	27.721	6.325	27.908	6.241	28.191	6.149	28.495	5.950
23.442	27.157	6.508	27.445	6.403	27.560	6.361	27.791	6.320	27.975	6.236	28.257	6.145	28.554	5.946
23.496	27.233	6.502	27.521	6.398	27.619	6.356	27.852	6.316	28.048	6.230	28.316	6.139	28.611	5.942
23.550	27.307	6.496	27.594	6.393	27.699	6.350	27.917	6.310	28.105	6.226	28.576	6.108	28.651	5.937
23.605	27.381	6.491	27.653	6.388	27.760	6.346	27.986	6.306	28.178	6.222	28.631	6.103	28.710	5.933
23.659	27.455	6.485	27.740	6.382	27.830	6.340	28.066	6.300	28.246	6.216	28.687	6.099	28.776	5.930
23.714	27.529	6.480	27.797	6.377	27.910	6.334	28.130	6.296	28.306	6.212	28.745	6.096	28.828	5.926
23.768	27.604	6.473	27.882	6.373	27.983	6.329	28.205	6.290	28.361	6.207	28.807	6.091	28.871	5.922
23.823	27.679	6.468	27.946	6.366	28.043	6.324	28.269	6.285	28.443	6.202	28.864	6.087	28.925	5.918
23.878	27.754	6.462	28.014	6.361	28.116	6.319	28.338	6.280	28.489	6.197	28.915	6.084	28.995	5.912
23.933	27.828	6.456	28.085	6.356	28.183	6.315	28.394	6.275	28.561	6.192	28.996	6.077	29.041	5.908
23.988	27.903	6.451	28.173	6.350	28.253	6.309	28.480	6.270	28.622	6.188	29.043	6.075	29.100	5.905
24.044	27.981	6.445	28.237	6.346	28.329	6.304	28.540	6.265	28.691	6.183	29.117	6.069	29.150	5.901
24.099	28.055	6.439	28.312	6.340	28.397	6.299	28.617	6.260	28.765	6.178	29.170	6.066	29.216	5.897
24.155	28.134	6.433	28.385	6.334	28.469	6.293	28.674	6.255	28.831	6.174	29.249	6.061	29.263	5.892
24.210	28.213	6.428	28.464	6.330	28.523	6.287	28.753	6.250	28.893	6.169	29.300	6.056	29.318	5.889
24.266	28.285	6.422	28.525	6.324	28.592	6.282	28.820	6.245	28.963	6.163	29.355	6.054	29.373	5.884
24.322	28.359	6.416	28.602	6.319	28.674	6.278	28.892	6.241	29.023	6.160	29.422	6.049	29.443	5.881
24.378	28.437	6.410	28.667	6.313	28.747	6.272	28.954	6.235	29.094	6.154	29.488	6.044	29.484	5.876
24.434	28.512	6.404	28.742	6.308	28.805	6.267	29.033	6.231	29.166	6.150	29.569	6.040	29.555	5.872
24.491	28.587	6.398	28.817	6.303	28.884	6.262	29.088	6.225	29.219	6.146	29.625	6.036	29.601	5.869
24.547	28.662	6.392	28.896	6.298	28.962	6.256	29.170	6.221	29.285	6.140	29.680	6.032	29.656	5.864
24.604	28.740	6.387	28.972	6.293	29.029	6.252	29.227	6.216	29.352	6.135	29.747	6.030	29.707	5.861
24.660	28.816	6.381	29.044	6.287	29.103	6.247	29.300	6.211	29.423	6.130	29.826	6.026	29.775	5.856
24.717	28.894	6.375	29.122	6.281	29.156	6.241	29.366	6.205	29.491	6.125	29.884	6.019	29.824	5.851
24.774	28.971	6.369	29.194	6.277	29.239	6.235	29.436	6.200	29.558	6.122	29.939	6.016	29.883	5.848
24.831	29.047	6.364	29.257	6.272	29.306	6.231	29.518	6.196	29.621	6.117	30.006	6.012	29.942	5.843
24.889	29.125	6.358	29.343	6.266	29.374	6.224	29.589	6.191	29.681	6.111	30.069	6.008	30.009	5.839
24.946	29.203	6.352	29.422	6.260	29.441	6.220	29.659	6.186	29.754	6.106	30.130	6.002	30.054	5.836
25.003	29.278	6.346	29.492	6.254	29.523	6.214	29.727	6.180	29.816	6.101	30.190	5.999	30.115	5.832
25.061	29.357	6.340	29.564	6.249	29.594	6.209	29.793	6.175	29.899	6.096	30.258	5.995	30.173	5.826
25.119	29.435	6.334	29.641	6.244	29.670	6.204	29.874	6.169	29.962	6.092	30.321	5.989	30.235	5.823
25.177	29.511	6.329	29.707	6.239	29.740	6.199	29.935	6.164	30.025	6.087	30.384	5.986	30.279	5.819
25.235	29.592	6.323	29.778	6.233	29.812	6.194	30.012	6.160	30.304	6.065	30.455	5.981	30.352	5.814
25.293	29.669	6.317	29.870	6.229	29.874	6.188	30.071	6.155	30.373	6.060	30.519	5.976	30.404	5.810
25.351	29.741	6.311	29.936	6.222	29.954	6.183	30.141	6.150	30.443	6.057	30.578	5.973	30.456	5.807
25.410	29.818	6.305	30.018	6.218	30.023	6.178	30.214	6.145	30.518	6.052	30.647	5.968	30.520	5.803
25.468	29.901	6.299	30.086	6.213	30.084	6.172	30.301	6.139	30.588	6.046	30.710	5.964	30.584	5.799
25.527	29.980	6.293	30.160	6.207	30.160	6.167	30.366	6.134	30.639	6.042	30.774	5.960	30.641	5.795
25.586	30.057	6.288	30.232	6.202	30.231	6.161	30.433	6.129	30.721	6.037	30.841	5.954	30.684	5.790
25.645	30.136	6.282	30.304	6.195	30.307	6.156	30.513	6.125	30.793	6.032	30.903	5.951	30.759	5.786
25.704	30.213	6.276	30.385	6.190	30.389	6.152	30.569	6.119	30.861	6.028	30.970	5.947	30.805	5.782

25.763	30.291	6.270	30.468	6.184	30.463	6.145	30.642	6.114	30.917	6.024	31.035	5.944	30.875	5.778
25.823	30.368	6.264	30.543	6.179	30.526	6.141	30.729	6.109	31.000	6.018	31.105	5.937	30.925	5.773
25.882	30.445	6.259	30.608	6.174	30.594	6.136	30.787	6.104	31.075	6.016	31.163	5.933	30.989	5.771
25.942	30.527	6.253	30.687	6.169	30.676	6.131	30.860	6.098	31.129	6.012	31.234	5.931	31.035	5.766
26.002	30.605	6.247	30.761	6.164	30.747	6.125	30.940	6.094	31.193	6.005	31.302	5.925	31.098	5.761
26.062	30.687	6.241	30.835	6.158	30.814	6.120	31.004	6.088	31.270	6.000	31.366	5.922	31.169	5.757
26.122	30.765	6.235	30.929	6.153	30.894	6.113	31.086	6.083	31.339	5.998	31.433	5.917	31.216	5.754
26.182	30.840	6.229	31.002	6.147	30.963	6.109	31.158	6.078	31.405	5.992	31.496	5.913	31.285	5.750
26.242	30.923	6.223	31.068	6.142	31.028	6.103	31.226	6.073	31.472	5.986	31.563	5.908	31.333	5.746
26.303	30.999	6.218	31.145	6.136	31.104	6.099	31.297	6.067	31.540	5.984	31.629	5.904	31.395	5.742
26.363	31.078	6.212	31.234	6.130	31.181	6.092	31.378	6.063	31.614	5.979	31.698	5.900	31.452	5.738
26.424	31.156	6.206	31.392	6.112	31.447	6.081	31.534	6.048	31.682	5.972	31.762	5.895	31.285	5.750
26.485	31.233	6.200	31.458	6.106	31.530	6.075	31.612	6.044	31.747	5.970	31.822	5.892	31.330	5.746
26.546	31.306	6.194	31.537	6.101	31.598	6.069	31.687	6.037	31.818	5.964	31.885	5.885	31.285	5.750
26.607	31.385	6.188	31.616	6.094	31.658	6.065	31.759	6.032	31.875	5.957	31.945	5.879	31.333	5.746
26.669	31.469	6.182	31.686	6.089	31.759	6.059	31.838	6.028	31.944	5.954	32.036	5.877	31.395	5.742
26.730	31.549	6.176	31.773	6.085	31.820	6.054	31.896	6.023	32.033	5.949	32.092	5.872	31.458	5.738
26.792	31.629	6.171	31.831	6.079	31.924	6.050	31.976	6.018	32.088	5.946	32.153	5.867	31.458	5.738
26.853	31.707	6.165	31.907	6.075	31.960	6.044	32.055	6.013	32.177	5.940	32.237	5.864	31.458	5.738
26.915	31.790	6.159	31.982	6.068	32.038	6.037	32.120	6.008	32.238	5.936	32.293	5.858	31.484	5.737
26.977	31.868	6.153	32.059	6.062	32.123	6.034	32.186	6.004	32.286	5.931	32.373	5.854	32.331	5.703
27.040	31.943	6.147	32.148	6.057	32.187	6.028	32.271	5.998	32.382	5.925	32.436	5.849	32.374	5.699
27.102	32.020	6.142	32.204	6.053	32.278	6.024	32.338	5.994	32.450	5.922	32.504	5.846	32.444	5.695
27.164	32.104	6.135	32.294	6.047	32.344	6.019	32.412	5.989	32.518	5.916	32.566	5.843	32.510	5.691
27.227	32.188	6.129	32.377	6.039	32.409	6.013	32.485	5.982	32.601	5.911	32.636	5.835	32.565	5.685
27.290	32.271	6.124	32.461	6.036	32.502	6.007	32.567	5.976	32.664	5.906	32.694	5.833	32.625	5.683
27.353	32.356	6.118	32.515	6.032	32.566	6.005	32.645	5.974	32.747	5.902	32.777	5.829	32.690	5.679
27.416	32.435	6.112	32.599	6.025	32.651	5.997	32.713	5.969	32.803	5.897	32.841	5.823	32.761	5.675
27.479	32.512	6.106	32.664	6.020	32.710	5.992	32.782	5.962	32.885	5.892	32.920	5.817	32.820	5.669
27.542	32.599	6.100	32.738	6.015	32.796	5.987	32.865	5.958	32.948	5.888	32.970	5.814	32.873	5.668
27.606	32.675	6.094	32.813	6.012	32.857	5.984	32.934	5.954	33.013	5.884	33.045	5.812	32.949	5.663
27.669	32.754	6.088	32.901	6.005	32.948	5.979	32.996	5.948	33.086	5.880	33.117	5.806	33.014	5.659
27.733	32.835	6.082	32.984	5.999	33.031	5.970	33.074	5.942	33.172	5.874	33.175	5.802	33.073	5.654
27.797	32.915	6.077	33.039	5.994	33.102	5.966	33.160	5.938	33.218	5.869	33.254	5.797	33.133	5.651
27.861	32.997	6.071	33.114	5.991	33.166	5.965	33.215	5.934	33.295	5.866	33.319	5.795	33.193	5.647
27.925	33.081	6.065	33.205	5.984	33.252	5.958	33.303	5.928	33.366	5.860	33.396	5.789	33.266	5.643
27.990	33.162	6.059	33.289	5.978	33.325	5.950	33.370	5.923	33.453	5.855	33.450	5.783	33.322	5.638
28.054	33.239	6.053	33.349	5.973	33.390	5.948	33.444	5.919	33.509	5.852	33.528	5.780	33.386	5.635
28.119	33.323	6.047	33.444	5.970	33.467	5.941	33.515	5.914	33.585	5.847	33.595	5.775	33.451	5.631
28.184	33.401	6.041	33.509	5.963	33.546	5.937	33.591	5.910	33.666	5.842	33.664	5.771	33.519	5.626
28.249	33.488	6.035	33.593	5.957	33.628	5.931	33.669	5.903	33.740	5.836	33.738	5.766	33.580	5.621
28.314	33.566	6.029	33.661	5.952	33.693	5.927	33.760	5.900	33.814	5.833	33.800	5.763	33.644	5.619
28.379	33.650	6.024	33.767	5.949	33.765	5.921	33.825	5.894	33.885	5.827	33.873	5.758	33.708	5.615
28.445	33.732	6.018	33.840	5.943	33.873	5.914	33.895	5.889	33.952	5.821	33.950	5.753	33.780	5.609
28.510	33.813	6.012	33.903	5.935	33.910	5.909	33.972	5.882	34.025	5.817	34.021	5.748	33.837	5.606
28.576	33.896	6.007	33.989	5.932	33.999	5.907	34.042	5.879	34.118	5.813	34.080	5.744	33.905	5.603
28.642	33.968	6.001	34.064	5.926	34.090	5.901	34.124	5.875	34.184	5.807	34.159	5.740	33.976	5.599
28.708	34.052	5.994	34.129	5.923	34.162	5.895	34.198	5.871	34.250	5.804	34.232	5.734	34.032	5.594
28.774	34.136	5.988	34.220	5.915	34.219	5.889	34.273	5.863	34.317	5.798	34.295	5.730	34.099	5.589
28.840	34.223	5.982	34.291	5.909	34.314	5.888	34.337	5.859	34.390	5.795	34.362	5.726	34.161	5.586
28.907	34.305	5.977	34.394	5.906	34.379	5.880	34.429	5.853	34.439	5.790	34.428	5.722	34.231	5.583
28.973	34.388	5.971	34.441	5.900	34.460	5.875	34.490	5.850	34.546	5.784	34.518	5.717	34.298	5.578
29.040	34.467	5.965	34.533	5.894	34.538	5.867	34.590	5.843	34.614	5.779	34.564	5.712	34.352	5.573
29.107	34.546	5.959	34.599	5.889	34.617	5.865	34.651	5.839	34.675	5.776	34.646	5.709	34.423	5.570

29.174	34.629	5.954	34.677	5.883	34.684	5.862	34.729	5.833	34.753	5.772	34.727	5.705	34.487	5.566
29.242	34.713	5.948	34.749	5.880	34.756	5.855	34.830	5.829	34.838	5.765	34.792	5.700	34.559	5.562
29.309	34.798	5.942	34.819	5.872	34.847	5.848	34.884	5.823	34.897	5.759	34.864	5.693	34.614	5.556
29.377	34.883	5.936	34.907	5.868	34.900	5.843	34.975	5.818	34.983	5.757	34.923	5.691	34.680	5.554
29.444	34.967	5.930	35.028	5.864	34.987	5.839	35.036	5.814	35.063	5.753	34.997	5.686	34.744	5.549
29.512	35.049	5.924	35.087	5.857	35.087	5.833	35.082	5.808	35.093	5.748	35.066	5.680	34.812	5.545
29.580	35.131	5.919	35.141	5.852	35.163	5.828	35.189	5.803	35.203	5.742	35.132	5.674	34.890	5.540
29.648	35.215	5.913	35.218	5.845	35.245	5.822	35.255	5.797	35.266	5.737	35.209	5.670	34.940	5.536
29.717	35.301	5.907	35.316	5.841	35.308	5.820	35.340	5.794	35.344	5.733	35.284	5.667	35.013	5.532
29.785	35.380	5.901	35.410	5.835	35.391	5.814	35.422	5.789	35.415	5.727	35.354	5.664	35.076	5.529
29.854	35.463	5.895	35.456	5.828	35.465	5.807	35.504	5.783	35.517	5.722	35.423	5.659	35.146	5.525
29.923	35.549	5.888	35.527	5.823	35.567	5.799	35.569	5.776	35.575	5.717	35.494	5.652	35.214	5.520
29.992	35.632	5.882	35.626	5.818	35.650	5.795	35.647	5.773	35.658	5.714	35.579	5.648	35.284	5.516
30.061	35.696	5.872	35.686	5.815	35.691	5.792	35.713	5.769	35.702	5.707	35.627	5.646	35.348	5.513
30.130	35.760	5.862	35.772	5.809	35.792	5.790	35.795	5.762	35.789	5.704	35.714	5.641	35.408	5.508
30.200	35.824	5.852	35.835	5.804	35.860	5.783	35.881	5.759	35.866	5.700	35.788	5.637	35.486	5.505
30.269	35.888	5.842	35.950	5.797	35.938	5.776	35.950	5.754	35.950	5.693	35.859	5.631	35.555	5.499
30.339	35.952	5.833	36.021	5.793	36.021	5.770	36.031	5.748	36.002	5.690	35.937	5.627	35.613	5.496
30.409	36.017	5.823	36.112	5.788	36.104	5.768	36.092	5.744	36.097	5.686	36.005	5.623	35.681	5.494
30.479	36.089	5.817	36.197	5.785	36.194	5.762	36.186	5.740	36.157	5.681	36.076	5.620	35.750	5.490
30.549	36.173	5.812	36.269	5.778	36.257	5.758	36.274	5.734	36.239	5.676	36.153	5.616	35.811	5.485
30.620	36.262	5.806	36.335	5.773	36.318	5.752	36.345	5.729	36.344	5.670	36.210	5.609	35.887	5.479
30.690	36.335	5.798	36.409	5.766	36.437	5.745	36.420	5.723	36.409	5.666	36.295	5.604	35.941	5.475
30.761	36.411	5.793	36.492	5.762	36.488	5.740	36.505	5.719	36.462	5.661	36.351	5.601	36.010	5.473
30.832	36.500	5.788	36.576	5.757	36.573	5.734	36.565	5.715	36.529	5.656	36.425	5.598	36.087	5.468
30.903	36.580	5.782	36.645	5.750	36.655	5.729	36.648	5.707	36.610	5.654	36.505	5.591	36.148	5.464
30.974	36.658	5.776	36.744	5.744	36.707	5.723	36.714	5.703	36.681	5.649	36.570	5.586	36.221	5.457
31.046	36.733	5.770	36.791	5.740	36.810	5.719	36.788	5.698	36.767	5.642	36.649	5.579	36.288	5.454
31.117	36.819	5.764	36.914	5.733	36.875	5.716	36.900	5.693	36.836	5.636	36.723	5.577	36.346	5.451
31.189	36.913	5.761	36.954	5.729	36.981	5.708	36.959	5.689	36.929	5.634	36.782	5.573	36.408	5.448
31.261	36.999	5.754	37.063	5.724	37.027	5.703	37.043	5.683	36.999	5.628	36.885	5.568	36.505	5.441
31.333	37.072	5.746	37.119	5.716	37.115	5.697	37.120	5.678	37.028	5.622	36.948	5.562	36.546	5.437
31.405	37.140	5.741	37.218	5.713	37.180	5.695	37.191	5.674	37.114	5.618	37.019	5.558	36.613	5.433
31.477	37.231	5.736	37.294	5.707	37.311	5.690	37.264	5.666	37.221	5.615	37.087	5.554	36.687	5.429
31.550	37.331	5.731	37.392	5.701	37.344	5.683	37.324	5.663	37.290	5.609	37.156	5.549	36.759	5.425
31.623	37.404	5.724	37.482	5.700	37.431	5.678	37.450	5.661	37.404	5.605	37.269	5.545	36.836	5.423
31.696	37.488	5.719	37.579	5.691	37.526	5.673	37.504	5.652	37.434	5.598	37.316	5.539	36.909	5.416
31.769	37.569	5.713	37.608	5.684	37.581	5.666	37.586	5.647	37.487	5.593	37.398	5.535	36.962	5.413
31.842	37.653	5.709	37.713	5.681	37.683	5.662	37.671	5.641	37.590	5.589	37.461	5.532	37.033	5.409
31.915	37.725	5.703	37.768	5.676	37.767	5.657	37.758	5.637	37.674	5.586	37.540	5.529	37.110	5.406
31.989	37.843	5.698	37.870	5.671	37.836	5.654	37.840	5.634	37.760	5.580	37.600	5.524	37.176	5.402
32.063	37.891	5.693	37.931	5.666	37.931	5.646	37.908	5.630	37.829	5.576	37.691	5.518	37.239	5.399
32.137	37.994	5.688	38.034	5.661	38.033	5.642	38.000	5.624	37.904	5.571	37.752	5.516	37.308	5.394
32.211	38.068	5.682	38.114	5.655	38.079	5.638	38.054	5.620	37.992	5.567	37.836	5.511	37.373	5.391
32.285	38.157	5.675	38.185	5.650	38.189	5.631	38.139	5.611	38.073	5.561	37.908	5.503	37.459	5.384
32.359	38.230	5.669	38.273	5.644	38.243	5.625	38.251	5.607	38.106	5.556	37.968	5.499	37.525	5.380
32.434	38.305	5.665	38.357	5.639	38.325	5.622	38.307	5.602	38.223	5.551	38.072	5.495	37.594	5.377
32.509	38.407	5.659	38.429	5.635	38.428	5.616	38.391	5.601	38.300	5.548	38.127	5.493	37.673	5.374
32.584	38.500	5.653	38.532	5.628	38.472	5.614	38.461	5.593	38.403	5.543	38.201	5.487	37.732	5.370
32.659	38.574	5.648	38.612	5.624	38.575	5.608	38.524	5.588	38.464	5.538	38.283	5.483	37.794	5.364
32.734	38.649	5.642	38.688	5.617	38.661	5.599	38.623	5.580	38.563	5.531	38.355	5.475	37.868	5.358
32.810	38.715	5.635	38.751	5.611	38.738	5.591	38.690	5.576	38.626	5.528	38.437	5.471	37.939	5.354
32.885	38.811	5.631	38.829	5.609	38.848	5.590	38.788	5.573	38.684	5.525	38.485	5.469	37.998	5.353
32.961	38.896	5.626	38.912	5.605	38.896	5.588	38.859	5.568	38.757	5.520	38.586	5.466	38.068	5.350

33.037	38.991	5.618	38.988	5.595	38.977	5.578	38.965	5.561	38.854	5.513	38.661	5.460	38.149	5.343
33.113	39.043	5.615	39.071	5.593	39.036	5.576	39.013	5.560	38.916	5.512	38.709	5.456	38.223	5.341
33.189	39.157	5.608	39.209	5.587	39.131	5.565	39.117	5.553	38.997	5.502	38.817	5.451	38.300	5.335
33.266	39.242	5.601	39.259	5.580	39.235	5.563	39.185	5.544	39.046	5.500	38.880	5.445	38.346	5.331
33.343	39.282	5.598	39.346	5.576	39.274	5.558	39.264	5.543	39.141	5.498	38.964	5.442	38.406	5.327
33.420	39.416	5.589	39.429	5.570	39.388	5.553	39.351	5.535	39.232	5.488	39.070	5.434	38.508	5.321
33.497	39.482	5.586	39.472	5.564	39.452	5.550	39.427	5.533	39.281	5.487	39.114	5.433	38.575	5.319
33.574	39.565	5.581	39.576	5.563	39.532	5.546	39.498	5.527	39.402	5.482	39.166	5.430	38.627	5.317
33.651	39.665	5.575	39.672	5.556	39.650	5.541	39.589	5.524	39.479	5.475	39.275	5.424	38.725	5.311
33.729	39.750	5.570	39.754	5.550	39.722	5.534	39.676	5.518	39.549	5.470	39.337	5.419	38.773	5.308
33.806	39.814	5.564	39.869	5.547	39.801	5.530	39.741	5.512	39.598	5.467	39.425	5.416	38.857	5.304
33.884	39.919	5.560	39.907	5.539	39.873	5.523	39.819	5.508	39.720	5.462	39.494	5.411	38.936	5.300
33.963	40.002	5.553	39.986	5.533	39.964	5.518	39.918	5.500	39.805	5.456	39.559	5.405	38.985	5.293
34.041	40.067	5.547	40.074	5.526	40.027	5.514	40.023	5.498	39.851	5.450	39.623	5.401	39.067	5.290
34.119	40.153	5.541	40.180	5.522	40.137	5.508	40.092	5.492	39.950	5.447	39.721	5.395	39.149	5.286
34.198	40.243	5.536	40.230	5.518	40.202	5.504	40.153	5.488	40.017	5.443	39.771	5.392	39.198	5.282
34.277	40.334	5.532	40.335	5.514	40.265	5.500	40.202	5.485	40.060	5.438	39.875	5.388	39.270	5.279
34.356	40.401	5.525	40.388	5.507	40.388	5.493	40.313	5.479	40.199	5.434	39.951	5.384	39.347	5.275
34.435	40.494	5.520	40.504	5.503	40.419	5.489	40.377	5.473	40.245	5.428	40.026	5.379	39.422	5.270
34.514	40.578	5.516	40.589	5.499	40.522	5.486	40.462	5.470	40.369	5.425	40.089	5.377	39.485	5.268
34.594	40.666	5.510	40.672	5.492	40.623	5.478	40.575	5.463	40.408	5.419	40.187	5.370	39.575	5.261
34.674	40.745	5.504	40.740	5.490	40.670	5.474	40.658	5.458	40.506	5.415	40.250	5.366	39.642	5.259
34.754	40.846	5.496	40.786	5.479	40.801	5.466	40.704	5.453	40.585	5.408	40.333	5.358	39.723	5.252
34.834	40.921	5.491	40.949	5.474	40.859	5.462	40.798	5.447	40.666	5.404	40.408	5.355	39.777	5.248
34.914	40.995	5.485	40.999	5.472	40.942	5.458	40.865	5.442	40.695	5.400	40.493	5.350	39.851	5.244
34.995	41.088	5.480	41.100	5.464	41.010	5.454	40.972	5.438	40.850	5.395	40.563	5.348	39.902	5.240
35.075	41.165	5.479	41.159	5.462	41.106	5.447	41.039	5.434	40.866	5.390	40.605	5.341	39.951	5.235
35.156	41.259	5.474	41.232	5.456	41.161	5.443	41.095	5.429	40.928	5.385	40.676	5.337	40.030	5.230
35.237	41.352	5.469	41.325	5.453	41.254	5.439	41.208	5.425	41.011	5.381	40.741	5.331	40.095	5.226
35.318	41.430	5.464	41.418	5.446	41.326	5.436	41.271	5.418	41.099	5.376	40.826	5.327	40.168	5.222
35.400	41.524	5.458	41.480	5.441	41.438	5.427	41.346	5.413	41.180	5.370	40.896	5.323	40.234	5.219
35.481	41.595	5.453	41.571	5.436	41.496	5.423	41.441	5.409	41.275	5.368	40.977	5.319	40.306	5.215
35.563	41.683	5.447	41.655	5.432	41.589	5.418	41.505	5.405	41.344	5.363	41.061	5.316	40.385	5.210
35.645	41.786	5.443	41.735	5.427	41.685	5.415	41.612	5.400	41.428	5.359	41.137	5.310	40.451	5.207
35.727	41.849	5.437	41.814	5.421	41.759	5.406	41.671	5.396	41.508	5.353	41.221	5.306	40.523	5.203
35.810	41.946	5.432	41.909	5.417	41.848	5.403	41.777	5.390	41.602	5.349	41.300	5.302	40.597	5.199
35.892	42.040	5.425	41.999	5.410	41.916	5.397	41.854	5.382	41.682	5.341	41.372	5.294	40.673	5.192
35.975	42.116	5.423	42.052	5.408	42.019	5.394	41.943	5.382	41.745	5.341	41.431	5.295	40.746	5.191
36.058	42.214	5.412	42.155	5.396	42.128	5.382	42.074	5.372	41.845	5.329	41.539	5.282	40.846	5.182
36.141	42.299	5.413	42.273	5.400	42.215	5.384	42.112	5.372	41.937	5.331	41.608	5.285	40.886	5.184
36.224	42.388	5.401	42.351	5.386	42.246	5.373	42.193	5.361	42.020	5.320	41.673	5.275	40.975	5.173
36.308	42.442	5.399	42.402	5.385	42.338	5.372	42.254	5.360	42.037	5.321	41.741	5.274	41.013	5.174
36.392	42.552	5.394	42.487	5.380	42.424	5.367	42.355	5.354	42.146	5.316	41.829	5.269	41.108	5.169
36.475	42.627	5.388	42.561	5.374	42.498	5.362	42.421	5.350	42.225	5.310	41.901	5.265	41.170	5.167
36.559	42.717	5.383	42.670	5.369	42.595	5.358	42.524	5.345	42.320	5.307	41.996	5.261	41.260	5.162
36.644	42.820	5.377	42.759	5.364	42.691	5.351	42.586	5.340	42.392	5.300	42.079	5.257	41.336	5.158
36.728	42.893	5.373	42.830	5.360	42.759	5.346	42.672	5.336	42.472	5.297	42.157	5.253	41.399	5.155
36.813	42.991	5.367	42.913	5.355	42.867	5.341	42.753	5.331	42.556	5.293	42.247	5.248	41.492	5.150
36.898	43.078	5.362	43.006	5.350	42.939	5.338	42.866	5.326	42.648	5.288	42.318	5.245	41.556	5.145
36.983	43.155	5.356	43.085	5.344	43.042	5.334	42.936	5.321	42.729	5.283	42.388	5.240	41.638	5.142
37.068	43.244	5.351	43.180	5.340	43.127	5.327	43.000	5.316	42.818	5.278	42.466	5.235	41.700	5.138
37.154	43.335	5.346	43.252	5.334	43.194	5.324	43.106	5.310	42.905	5.274	42.558	5.231	41.784	5.133
37.239	43.421	5.340	43.359	5.329	43.279	5.317	43.192	5.306	42.965	5.269	42.654	5.225	41.863	5.129
37.325	43.500	5.334	43.443	5.323	43.374	5.312	43.294	5.302	43.042	5.264	42.695	5.221	41.922	5.125

37.411	43.591	5.330	43.530	5.318	43.441	5.308	43.363	5.296	43.144	5.261	42.789	5.217	42.002	5.121
37.497	43.661	5.325	43.593	5.314	43.518	5.303	43.435	5.292	43.208	5.255	42.870	5.212	42.078	5.117
37.584	43.754	5.321	43.713	5.309	43.601	5.297	43.519	5.288	43.304	5.251	42.939	5.207	42.154	5.113
37.670	43.842	5.315	43.782	5.303	43.674	5.291	43.603	5.282	43.394	5.245	43.035	5.202	42.218	5.109
37.757	43.922	5.311	43.858	5.299	43.791	5.288	43.688	5.278	43.444	5.243	43.097	5.200	42.294	5.105
37.844	44.015	5.305	43.961	5.294	43.880	5.283	43.761	5.273	43.528	5.237	43.170	5.194	42.356	5.101
37.932	44.091	5.300	44.025	5.289	43.928	5.279	43.849	5.269	43.612	5.233	43.262	5.190	42.451	5.097
38.019	44.181	5.295	44.113	5.284	44.026	5.273	43.942	5.263	43.709	5.228	43.342	5.186	42.518	5.093
38.107	44.280	5.290	44.190	5.280	44.098	5.268	44.028	5.258	43.776	5.224	43.415	5.182	42.579	5.090
38.194	44.365	5.284	44.254	5.274	44.189	5.264	44.105	5.254	43.865	5.219	43.510	5.178	42.664	5.086
38.282	44.459	5.278	44.371	5.268	44.287	5.259	44.187	5.250	43.972	5.214	43.562	5.173	42.750	5.082
38.371	44.546	5.273	44.462	5.264	44.379	5.253	44.266	5.245	44.059	5.210	43.663	5.168	42.820	5.077
38.459	44.631	5.268	44.538	5.259	44.473	5.248	44.382	5.241	44.144	5.206	43.729	5.164	42.892	5.074
38.548	44.712	5.263	44.641	5.255	44.557	5.244	44.453	5.235	44.192	5.201	43.826	5.160	42.960	5.070
38.637	44.800	5.258	44.710	5.249	44.654	5.240	44.533	5.231	44.278	5.196	43.912	5.156	43.041	5.066
38.726	44.896	5.253	44.826	5.245	44.731	5.236	44.619	5.226	44.379	5.192	43.981	5.153	43.123	5.062
38.815	44.988	5.248	44.923	5.240	44.814	5.230	44.708	5.222	44.456	5.186	44.063	5.148	43.203	5.058
38.905	45.087	5.242	44.959	5.235	44.901	5.226	44.781	5.217	44.545	5.183	44.139	5.142	43.268	5.054
38.994	45.165	5.237	45.066	5.230	44.980	5.220	44.889	5.212	44.622	5.178	44.233	5.139	43.357	5.050
39.084	45.259	5.231	45.157	5.226	45.072	5.215	44.979	5.206	44.728	5.173	44.328	5.134	43.430	5.046
39.174	45.347	5.224	45.261	5.219	45.185	5.211	45.055	5.201	44.789	5.168	44.410	5.129	43.510	5.041
39.264	45.433	5.220	45.336	5.213	45.239	5.205	45.135	5.196	44.886	5.164	44.463	5.125	43.590	5.038
39.355	45.519	5.214	45.426	5.209	45.324	5.199	45.222	5.192	44.958	5.159	44.557	5.121	43.661	5.034
39.446	45.606	5.210	45.512	5.204	45.408	5.193	45.318	5.186	45.029	5.154	44.626	5.116	43.740	5.029
39.537	45.695	5.205	45.587	5.196	45.523	5.190	45.377	5.180	45.111	5.149	44.707	5.111	43.810	5.025
39.628	45.786	5.200	45.654	5.193	45.579	5.186	45.457	5.177	45.224	5.145	44.805	5.108	43.878	5.021
39.719	45.873	5.195	45.778	5.189	45.633	5.181	45.559	5.171	45.292	5.141	44.853	5.104	43.936	5.017
39.811	45.966	5.189	45.828	5.182	45.747	5.178	45.633	5.166	45.328	5.137	44.954	5.098	44.029	5.013
39.902	46.055	5.184	45.935	5.179	45.820	5.170	45.755	5.161	45.450	5.132	45.054	5.094	44.101	5.009
39.994	46.147	5.180	46.029	5.174	45.927	5.170	45.794	5.158	45.521	5.129	45.108	5.090	44.196	5.006
40.087	46.209	5.174	46.141	5.168	46.018	5.160	45.902	5.154	45.641	5.123	45.203	5.086	44.248	5.002
40.179	46.325	5.169	46.183	5.165	46.074	5.158	45.991	5.148	45.733	5.118	45.251	5.083	44.329	4.999
40.272	46.402	5.164	46.283	5.159	46.224	5.152	46.074	5.145	45.775	5.114	45.370	5.078	44.436	4.994
40.365	46.489	5.159	46.394	5.157	46.277	5.146	46.162	5.139	45.868	5.110	45.437	5.073	44.495	4.991
40.458	46.577	5.154	46.482	5.149	46.391	5.142	46.226	5.134	45.994	5.107	45.542	5.070	44.583	4.986
40.551	46.676	5.147	46.564	5.146	46.460	5.139	46.348	5.131	46.086	5.100	45.623	5.065	44.670	4.984
40.644	46.777	5.144	46.684	5.141	46.567	5.132	46.426	5.126	46.126	5.097	45.706	5.061	44.732	4.979
40.738	46.865	5.139	46.756	5.135	46.637	5.126	46.523	5.122	46.235	5.093	45.800	5.057	44.838	4.976
40.832	46.967	5.134	46.853	5.131	46.766	5.124	46.615	5.117	46.332	5.088	45.887	5.053	44.916	4.971
40.926	47.046	5.130	46.899	5.127	46.850	5.119	46.710	5.113	46.417	5.083	45.969	5.049	44.998	4.968
41.020	47.133	5.123	47.038	5.120	46.914	5.113	46.810	5.107	46.522	5.079	46.062	5.043	45.082	4.963
41.115	47.247	5.117	47.115	5.116	47.037	5.108	46.883	5.102	46.594	5.073	46.154	5.039	45.154	4.959
41.210	47.327	5.111	47.212	5.109	47.092	5.104	46.987	5.097	46.693	5.069	46.230	5.035	45.238	4.954
41.305	47.415	5.106	47.303	5.103	47.198	5.097	47.073	5.093	46.754	5.064	46.311	5.030	45.312	4.950
41.400	47.486	5.101	47.387	5.101	47.281	5.093	47.149	5.088	46.845	5.060	46.398	5.026	45.389	4.947
41.495	47.609	5.096	47.485	5.096	47.373	5.087	47.236	5.083	46.913	5.055	46.478	5.022	45.466	4.943
41.591	47.689	5.092	47.556	5.091	47.455	5.086	47.324	5.078	47.006	5.051	46.552	5.017	45.546	4.938
41.687	47.749	5.087	47.633	5.087	47.519	5.080	47.383	5.074	47.094	5.047	46.647	5.013	45.603	4.935
41.783	47.857	5.081	47.734	5.080	47.655	5.074	47.516	5.069	47.168	5.041	46.722	5.009	45.710	4.931
41.879	47.959	5.077	47.790	5.077	47.724	5.070	47.589	5.064	47.282	5.038	46.792	5.004	45.801	4.927
41.976	48.058	5.073	47.947	5.073	47.821	5.065	47.670	5.061	47.358	5.033	46.905	5.000	45.855	4.924
42.073	48.154	5.069	47.992	5.068	47.897	5.061	47.737	5.056	47.478	5.029	46.975	4.997	45.955	4.920
42.170	48.251	5.064	48.118	5.064	47.980	5.055	47.855	5.052	47.520	5.026	47.077	4.993	46.017	4.916
42.267	48.320	5.056	48.188	5.057	48.080	5.049	47.947	5.046	47.654	5.019	47.185	4.988	46.111	4.911

42.364	48.418	5.050	48.322	5.051	48.209	5.044	48.040	5.041	47.727	5.015	47.250	4.984	46.192	4.908
42.462	48.523	5.043	48.385	5.046	48.317	5.040	48.138	5.035	47.818	5.010	47.325	4.979	46.285	4.903
42.560	48.616	5.038	48.499	5.041	48.394	5.035	48.240	5.032	47.918	5.006	47.426	4.974	46.358	4.899
42.658	48.704	5.034	48.565	5.036	48.468	5.031	48.334	5.026	48.003	5.001	47.516	4.970	46.445	4.895
42.756	48.806	5.029	48.684	5.031	48.558	5.027	48.401	5.022	48.091	4.997	47.601	4.966	46.524	4.891
42.855	48.914	5.025	48.767	5.026	48.665	5.022	48.515	5.017	48.192	4.991	47.691	4.961	46.619	4.887
42.954	48.983	5.021	48.855	5.024	48.738	5.018	48.580	5.013	48.258	4.988	47.784	4.957	46.687	4.883
43.053	49.076	5.013	48.946	5.016	48.822	5.009	48.686	5.007	48.351	4.982	47.856	4.952	46.779	4.879
43.152	49.167	5.008	49.042	5.011	48.915	5.006	48.774	5.001	48.438	4.978	47.946	4.948	46.853	4.874
43.251	49.272	5.003	49.132	5.006	49.003	5.001	48.874	4.996	48.528	4.971	48.015	4.943	46.951	4.870
43.351	49.365	4.998	49.212	5.000	49.098	4.996	48.968	4.990	48.602	4.969	48.114	4.939	47.017	4.866
43.451	49.467	4.992	49.313	4.996	49.206	4.991	49.072	4.987	48.722	4.964	48.200	4.935	47.099	4.862
43.551	49.551	4.987	49.388	4.991	49.305	4.987	49.142	4.982	48.801	4.959	48.275	4.930	47.194	4.858
43.652	49.638	4.984	49.467	4.988	49.375	4.982	49.210	4.979	48.885	4.956	48.360	4.926	47.274	4.854
43.752	49.746	4.980	49.573	4.984	49.477	4.977	49.330	4.974	48.973	4.950	48.462	4.921	47.351	4.850
43.853	49.847	4.971	49.690	4.975	49.570	4.971	49.402	4.967	49.057	4.943	48.554	4.916	47.430	4.845
43.954	49.918	4.965	49.768	4.970	49.639	4.964	49.493	4.963	49.149	4.941	48.625	4.911	47.502	4.841
44.055	50.007	4.960	49.851	4.964	49.731	4.959	49.581	4.957	49.221	4.935	48.696	4.907	47.571	4.837
44.157	50.097	4.956	49.959	4.959	49.827	4.956	49.657	4.952	49.318	4.930	48.814	4.902	47.676	4.833
44.259	50.200	4.951	50.035	4.956	49.918	4.952	49.759	4.948	49.388	4.925	48.874	4.898	47.744	4.828
44.361	50.245	4.947	50.112	4.951	49.998	4.946	49.862	4.943	49.506	4.921	48.961	4.894	47.823	4.825
44.463	50.349	4.941	50.193	4.945	50.082	4.941	49.920	4.938	49.559	4.916	49.034	4.888	47.899	4.820
44.566	50.439	4.935	50.294	4.941	50.163	4.936	50.017	4.930	49.641	4.911	49.122	4.884	47.974	4.816
44.668	50.541	4.928	50.388	4.934	50.244	4.932	50.113	4.928	49.756	4.906	49.217	4.879	48.054	4.811
44.771	50.605	4.924	50.486	4.930	50.383	4.927	50.204	4.923	49.821	4.901	49.293	4.875	48.124	4.807
44.875	50.700	4.919	50.562	4.926	50.426	4.920	50.274	4.919	49.894	4.896	49.372	4.870	48.197	4.803
44.978	50.777	4.916	50.649	4.921	50.528	4.917	50.364	4.915	50.002	4.893	49.460	4.866	48.287	4.799
45.082	50.867	4.910	50.712	4.914	50.626	4.911	50.425	4.909	50.085	4.888	49.513	4.861	48.347	4.794
45.186	50.968	4.903	50.796	4.910	50.682	4.907	50.515	4.904	50.166	4.882	49.605	4.857	48.434	4.791
45.290	51.057	4.898	50.896	4.904	50.784	4.899	50.609	4.900	50.215	4.878	49.683	4.853	48.502	4.787
45.394	51.131	4.894	50.951	4.900	50.838	4.897	50.656	4.895	50.315	4.874	49.769	4.848	48.571	4.784
45.499	51.205	4.891	51.039	4.897	50.949	4.894	50.760	4.892	50.364	4.871	49.846	4.845	48.638	4.780
45.604	51.279	4.887	51.134	4.892	51.005	4.889	50.855	4.887	50.466	4.866	49.910	4.840	48.737	4.776
45.709	51.381	4.881	51.206	4.886	51.081	4.884	50.922	4.882	50.542	4.861	49.981	4.836	48.778	4.772
45.814	51.454	4.876	51.323	4.883	51.167	4.881	51.018	4.878	50.612	4.857	50.079	4.833	48.885	4.769
45.920	51.550	4.872	51.393	4.878	51.284	4.877	51.077	4.873	50.701	4.854	50.160	4.829	48.928	4.766
46.026	51.621	4.869	51.524	4.874	51.349	4.871	51.172	4.871	50.796	4.852	50.219	4.826	49.017	4.763
46.132	51.715	4.866	51.564	4.872	51.442	4.870	51.249	4.867	50.877	4.847	50.318	4.822	49.089	4.760
46.238	51.793	4.860	51.656	4.867	51.514	4.865	51.350	4.863	50.962	4.845	50.395	4.818	49.181	4.756
46.345	51.896	4.854	51.774	4.860	51.599	4.859	51.465	4.857	51.109	4.839	50.471	4.815	49.269	4.752
46.452	51.985	4.851	51.813	4.858	51.697	4.855	51.531	4.853	51.147	4.836	50.582	4.811	49.344	4.750
46.559	52.126	4.847	51.932	4.855	51.801	4.853	51.658	4.850	51.269	4.831	50.696	4.808	49.426	4.747
46.666	52.216	4.845	52.033	4.853	51.870	4.848	51.718	4.848	51.364	4.829	50.761	4.804	49.540	4.743
46.774	52.306	4.836	52.146	4.844	52.010	4.842	51.843	4.842	51.457	4.822	50.882	4.799	49.636	4.739
46.881	52.392	4.832	52.254	4.840	52.106	4.837	51.950	4.836	51.558	4.818	50.977	4.797	49.740	4.735
46.989	52.536	4.827	52.310	4.836	52.241	4.834	52.057	4.833	51.665	4.814	51.039	4.792	49.836	4.731
47.098	52.618	4.824	52.404	4.830	52.300	4.833	52.112	4.831	51.687	4.813	51.121	4.790	49.873	4.728
47.206	52.719	4.816	52.486	4.825	52.576	4.821	52.219	4.820	51.987	4.804	51.195	4.782	50.155	4.722
47.315	52.776	4.812	52.555	4.820	52.559	4.822	52.329	4.815	51.999	4.807	51.274	4.778	50.130	4.724
47.424	52.874	4.804	52.654	4.815	52.769	4.810	52.406	4.812	52.182	4.793	51.353	4.773	50.333	4.711
47.534	52.993	4.800	52.732	4.809	52.965	4.786	52.494	4.806	52.416	4.766	51.448	4.769	50.543	4.682
47.643	53.093	4.796	52.830	4.803	53.173	4.811	52.572	4.801	52.531	4.794	51.507	4.764	50.712	4.716
47.753	53.131	4.791	52.890	4.797	53.027	4.796	52.659	4.793	52.474	4.775	51.568	4.757	50.573	4.697
47.863	53.269	4.786	52.984	4.790	53.013	4.790	52.726	4.787	52.428	4.771	51.642	4.752	50.553	4.691

47.973	53.382	4.784	53.092	4.786	53.104	4.782	52.814	4.785	52.480	4.767	51.714	4.745	50.576	4.689
48.084	53.414	4.778	53.163	4.783	53.105	4.780	52.902	4.780	52.530	4.764	51.776	4.741	50.590	4.685
48.195	53.504	4.775	53.279	4.781	53.090	4.780	52.990	4.779	52.547	4.759	51.857	4.740	50.590	4.683
48.306	53.592	4.772	53.378	4.776	53.290	4.778	53.066	4.777	52.587	4.762	51.994	4.740	50.748	4.685
48.417	53.689	4.769	53.489	4.773	53.311	4.775	53.159	4.774	52.659	4.758	52.067	4.735	50.830	4.682
48.529	53.823	4.762	53.572	4.771	53.510	4.774	53.283	4.768	52.904	4.753	52.132	4.732	50.963	4.678
48.641	53.860	4.759	53.673	4.768	53.581	4.764	53.342	4.768	52.954	4.748	52.243	4.727	51.066	4.672
48.753	53.946	4.755	53.765	4.768	53.423	4.755	53.421	4.760	52.844	4.739	52.325	4.727	50.952	4.665
48.865	54.043	4.748	53.842	4.764	53.769	4.770	53.507	4.758	53.130	4.750	52.428	4.723	51.157	4.676
48.978	54.143	4.742	53.952	4.762	53.757	4.762	53.567	4.750	53.147	4.746	52.527	4.722	51.167	4.669
49.091	54.284	4.738	54.100	4.755	53.949	4.752	53.685	4.748	53.371	4.738	52.594	4.719	51.382	4.666
49.204	54.366	4.734	54.203	4.746	54.076	4.745	53.783	4.741	53.493	4.731	52.684	4.713	51.497	4.657
49.317	54.423	4.729	54.305	4.740	54.144	4.739	53.838	4.735	53.588	4.725	52.793	4.704	51.578	4.652
49.431	54.519	4.725	54.354	4.734	54.161	4.741	53.927	4.729	53.559	4.724	52.875	4.698	51.552	4.654
61.094	63.380	4.300	63.261	4.315	62.978	4.315	62.865	4.327	62.387	4.323	61.810	4.328	59.847	4.297
61.235	63.492	4.293	63.257	4.308	63.167	4.312	62.933	4.321	62.438	4.322	61.760	4.319	59.950	4.294
61.376	63.623	4.290	63.363	4.307	63.147	4.308	63.006	4.316	62.401	4.317	61.864	4.317	59.963	4.291
61.518	63.646	4.285	63.454	4.300	63.274	4.305	63.093	4.313	62.538	4.315	61.910	4.313	60.096	4.287
61.660	63.735	4.276	63.502	4.294	63.326	4.299	63.164	4.309	62.662	4.311	61.978	4.308	60.165	4.283
61.802	63.824	4.275	63.537	4.292	63.391	4.295	63.166	4.302	62.670	4.305	62.016	4.302	60.139	4.277
61.944	63.920	4.278	63.643	4.288	63.472	4.292	63.275	4.305	62.784	4.306	62.042	4.302	60.252	4.276
62.087	63.997	4.274	63.764	4.288	63.493	4.293	63.424	4.302	62.908	4.302	62.177	4.300	60.375	4.276
62.230	64.127	4.268	63.889	4.283	63.700	4.284	63.528	4.295	63.059	4.294	62.430	4.293	60.500	4.269
62.373	64.166	4.260	64.066	4.276	63.829	4.281	63.681	4.290	63.146	4.292	62.439	4.290	60.498	4.266
62.517	64.332	4.255	64.044	4.270	63.903	4.276	63.745	4.284	63.241	4.290	62.520	4.285	60.635	4.262
62.661	64.343	4.251	64.154	4.266	63.967	4.273	63.777	4.281	63.278	4.283	62.535	4.280	60.686	4.258
62.806	64.439	4.247	64.197	4.263	64.038	4.270	63.911	4.279	63.408	4.282	62.658	4.280	60.798	4.257
62.951	64.620	4.246	64.390	4.260	64.160	4.266	64.039	4.276	63.486	4.278	62.806	4.277	60.958	4.254
63.096	64.738	4.238	64.484	4.255	64.354	4.262	64.187	4.271	63.639	4.274	62.973	4.273	61.086	4.250
63.241	64.830	4.231	64.592	4.249	64.473	4.256	64.272	4.265	63.732	4.268	63.025	4.267	61.179	4.246
63.387	64.993	4.233	64.753	4.247	64.617	4.253	64.456	4.264	63.867	4.267	63.183	4.266	61.327	4.245
63.533	65.066	4.225	64.845	4.240	64.683	4.246	64.498	4.256	63.979	4.259	63.284	4.257	61.373	4.236
63.680	65.172	4.219	64.955	4.236	64.765	4.243	64.614	4.253	64.085	4.256	63.342	4.255	61.483	4.234
63.826	65.265	4.217	65.036	4.234	64.884	4.242	64.662	4.249	64.208	4.253	63.481	4.252	61.563	4.232
63.973	65.350	4.212	65.088	4.227	64.973	4.236	64.784	4.244	64.238	4.247	63.530	4.247	61.640	4.227
64.121	65.389	4.202	65.209	4.222	65.048	4.230	64.840	4.239	64.300	4.243	63.606	4.242	61.739	4.222
64.269	65.452	4.196	65.278	4.217	65.108	4.226	64.910	4.234	64.409	4.238	63.700	4.238	61.812	4.219
64.417	65.525	4.192	65.359	4.214	65.193	4.222	64.992	4.230	64.477	4.235	63.765	4.235	61.883	4.216
64.565	65.618	4.188	65.426	4.209	65.277	4.218	65.075	4.226	64.567	4.231	63.846	4.231	61.959	4.212
64.714	65.726	4.185	65.524	4.206	65.355	4.214	65.168	4.223	64.642	4.228	63.953	4.228	62.042	4.209
64.863	65.824	4.180	65.641	4.201	65.473	4.210	65.285	4.218	64.749	4.223	64.041	4.223	62.146	4.205
65.013	65.882	4.175	65.707	4.197	65.556	4.206	65.353	4.214	64.829	4.219	64.103	4.220	62.196	4.202
65.163	66.029	4.178	65.804	4.196	65.689	4.205	65.458	4.214	64.951	4.219	64.186	4.218	62.294	4.201
65.313	66.122	4.173	65.870	4.192	65.728	4.199	65.560	4.209	65.027	4.213	64.295	4.214	62.381	4.196
65.464	66.187	4.168	65.974	4.188	65.794	4.196	65.635	4.206	65.115	4.210	64.375	4.211	62.452	4.193
65.615	66.334	4.166	66.103	4.185	65.948	4.195	65.784	4.204	65.224	4.208	64.498	4.209	62.577	4.192
65.766	66.458	4.162	66.271	4.181	66.110	4.189	65.918	4.199	65.419	4.204	64.689	4.204	62.739	4.187
65.917	66.543	4.154	66.335	4.175	66.200	4.183	66.010	4.193	65.460	4.198	64.737	4.199	62.807	4.182
66.069	66.655	4.152	66.475	4.171	66.308	4.181	66.106	4.190	65.581	4.195	64.864	4.196	62.912	4.179
66.222	66.774	4.148	66.586	4.166	66.414	4.175	66.215	4.185	65.668	4.190	64.984	4.191	63.026	4.175
66.374	66.833	4.142	66.629	4.163	66.482	4.171	66.301	4.181	65.748	4.186	65.028	4.188	63.082	4.172
66.527	66.962	4.138	66.742	4.158	66.586	4.167	66.381	4.176	65.856	4.182	65.147	4.183	63.189	4.167
66.681	67.023	4.131	66.830	4.153	66.677	4.162	66.485	4.171	65.953	4.177	65.215	4.178	63.267	4.163
66.834	67.102	4.126	66.913	4.149	66.767	4.157	66.570	4.167	66.039	4.173	65.308	4.174	63.355	4.159

66.988	67.183	4.120	67.011	4.144	66.858	4.153	66.649	4.162	66.128	4.168	65.394	4.170	63.437	4.155
67.143	67.260	4.116	67.094	4.140	66.943	4.149	66.726	4.158	66.198	4.165	65.473	4.166	63.521	4.152
67.298	67.350	4.114	67.167	4.136	67.026	4.146	66.817	4.155	66.281	4.161	65.552	4.162	63.592	4.149
67.453	67.437	4.108	67.257	4.132	67.100	4.142	66.898	4.151	66.363	4.158	65.640	4.159	63.668	4.145
67.608	67.524	4.105	67.354	4.129	67.195	4.138	66.986	4.147	66.458	4.154	65.727	4.156	63.749	4.143
67.764	67.591	4.102	67.424	4.126	67.266	4.135	67.060	4.144	66.535	4.151	65.788	4.153	63.823	4.140
67.920	67.709	4.097	67.542	4.122	67.388	4.132	67.178	4.141	66.648	4.148	65.910	4.149	63.939	4.137
68.077	67.795	4.094	67.641	4.119	67.484	4.128	67.274	4.138	66.736	4.145	66.004	4.147	64.025	4.134
68.234	67.935	4.092	67.756	4.116	67.608	4.126	67.401	4.135	66.866	4.142	66.120	4.144	64.146	4.132
68.391	68.068	4.086	67.906	4.111	67.745	4.120	67.540	4.130	67.001	4.136	66.254	4.139	64.274	4.127
68.549	68.117	4.083	67.951	4.107	67.806	4.116	67.606	4.126	67.057	4.133	66.315	4.136	64.327	4.124
68.707	68.254	4.079	68.095	4.104	67.941	4.113	67.741	4.123	67.188	4.130	66.448	4.133	64.454	4.121
68.865	68.393	4.075	68.233	4.099	68.068	4.109	67.869	4.119	67.326	4.126	66.575	4.129	64.579	4.117
69.024	68.497	4.070	68.324	4.094	68.166	4.104	67.964	4.113	67.422	4.121	66.678	4.124	64.676	4.113
69.183	68.573	4.064	68.403	4.089	68.248	4.099	68.040	4.109	67.500	4.116	66.748	4.119	64.743	4.108
69.343	68.655	4.061	68.490	4.086	68.337	4.095	68.134	4.105	67.594	4.112	66.835	4.116	64.834	4.105
69.502	68.756	4.057	68.583	4.081	68.434	4.091	68.220	4.101	67.677	4.109	66.927	4.112	64.921	4.102
69.663	68.848	4.051	68.682	4.077	68.526	4.087	68.315	4.097	67.777	4.105	67.019	4.108	65.012	4.098
69.823	68.935	4.047	68.762	4.072	68.615	4.083	68.398	4.092	67.858	4.100	67.106	4.104	65.089	4.094
69.984	69.012	4.044	68.844	4.069	68.686	4.079	68.473	4.089	67.929	4.097	67.177	4.100	65.161	4.090
70.146	69.091	4.039	68.921	4.065	68.761	4.075	68.552	4.085	68.012	4.093	67.262	4.096	65.235	4.087
70.307	69.162	4.036	69.006	4.061	68.853	4.072	68.636	4.082	68.096	4.090	67.333	4.093	65.311	4.084
70.469	69.261	4.034	69.104	4.059	68.947	4.069	68.736	4.079	68.196	4.087	67.432	4.091	65.406	4.082
70.632	69.384	4.029	69.224	4.055	69.069	4.065	68.857	4.075	68.319	4.084	67.552	4.087	65.518	4.079
70.795	69.471	4.025	69.314	4.051	69.160	4.061	68.953	4.072	68.405	4.080	67.638	4.084	65.610	4.075
70.958	69.596	4.023	69.442	4.048	69.276	4.058	69.076	4.069	68.529	4.076	67.761	4.081	65.720	4.072
71.121	69.668	4.016	69.516	4.043	69.358	4.053	69.146	4.064	68.599	4.072	67.832	4.076	65.789	4.068
71.285	69.778	4.015	69.624	4.041	69.473	4.052	69.263	4.062	68.711	4.070	67.945	4.075	65.898	4.067
71.450	69.942	4.010	69.775	4.036	69.626	4.047	69.410	4.057	68.868	4.065	68.095	4.070	66.045	4.063
71.614	70.035	4.005	69.885	4.031	69.723	4.042	69.510	4.052	68.958	4.060	68.186	4.065	66.137	4.058
71.779	70.116	4.001	69.955	4.027	69.811	4.038	69.596	4.048	69.046	4.057	68.276	4.062	66.219	4.055
71.945	70.215	3.996	70.059	4.023	69.907	4.033	69.691	4.044	69.134	4.052	68.360	4.057	66.310	4.051
72.111	70.315	3.992	70.157	4.019	70.000	4.029	69.783	4.040	69.235	4.048	68.462	4.053	66.396	4.047
72.277	70.394	3.988	70.235	4.015	70.084	4.025	69.872	4.036	69.319	4.045	68.547	4.050	66.477	4.044
72.444	70.475	3.983	70.320	4.010	70.164	4.021	69.954	4.032	69.399	4.040	68.625	4.046	66.553	4.040
72.611	70.557	3.980	70.410	4.006	70.252	4.017	70.034	4.028	69.478	4.037	68.703	4.042	66.629	4.036
72.778	70.637	3.977	70.492	4.003	70.331	4.014	70.113	4.025	69.560	4.034	68.781	4.039	66.706	4.034
72.946	70.720	3.972	70.572	3.999	70.415	4.010	70.192	4.021	69.646	4.030	68.865	4.035	66.779	4.030
73.114	70.827	3.970	70.668	3.997	70.515	4.007	70.292	4.018	69.733	4.027	68.953	4.033	66.874	4.028
73.282	70.926	3.967	70.768	3.993	70.614	4.004	70.396	4.015	69.837	4.024	69.060	4.030	66.970	4.025
73.451	71.023	3.962	70.875	3.990	70.709	4.001	70.495	4.012	69.941	4.021	69.159	4.027	67.072	4.022
73.621	71.140	3.959	70.985	3.985	70.833	3.997	70.607	4.008	70.049	4.017	69.274	4.023	67.178	4.019
73.790	71.226	3.956	71.070	3.983	70.918	3.994	70.703	4.005	70.142	4.015	69.363	4.020	67.263	4.016
73.961	71.362	3.952	71.216	3.979	71.059	3.990	70.849	4.001	70.290	4.011	69.501	4.017	67.400	4.013
74.131	71.471	3.947	71.328	3.974	71.170	3.985	70.953	3.997	70.398	4.006	69.603	4.012	67.502	4.009
74.302	71.560	3.945	71.409	3.971	71.251	3.982	71.045	3.993	70.482	4.003	69.696	4.009	67.589	4.006
74.473	71.680	3.939	71.529	3.966	71.379	3.977	71.161	3.989	70.603	3.999	69.813	4.005	67.700	4.002
74.645	71.780	3.935	71.624	3.962	71.473	3.974	71.255	3.985	70.695	3.995	69.906	4.000	67.790	3.998
74.817	71.879	3.932	71.711	3.958	71.562	3.969	71.340	3.981	70.777	3.990	69.985	3.997	67.875	3.994
74.989	71.954	3.926	71.797	3.954	71.638	3.965	71.420	3.976	70.856	3.986	70.072	3.993	67.947	3.990
75.162	72.030	3.923	71.875	3.950	71.716	3.961	71.504	3.973	70.940	3.982	70.147	3.989	68.023	3.987
75.336	72.111	3.920	71.955	3.946	71.801	3.958	71.576	3.969	71.020	3.979	70.218	3.986	68.097	3.984
75.509	72.198	3.915	72.050	3.943	71.891	3.954	71.673	3.966	71.109	3.976	70.312	3.983	68.185	3.981
75.683	72.297	3.912	72.148	3.939	71.986	3.951	71.772	3.962	71.203	3.973	70.413	3.980	68.279	3.978

75.858	72.378	3.909	72.219	3.937	72.066	3.948	71.843	3.959	71.275	3.970	70.485	3.977	68.354	3.975
76.033	72.493	3.906	72.342	3.933	72.184	3.945	71.953	3.957	71.393	3.967	70.603	3.975	68.454	3.973
76.208	72.615	3.903	72.450	3.930	72.294	3.941	72.079	3.953	71.524	3.963	70.723	3.971	68.577	3.970
76.384	72.701	3.898	72.543	3.926	72.387	3.937	72.174	3.949	71.601	3.960	70.816	3.967	68.667	3.966
76.560	72.799	3.896	72.652	3.923	72.485	3.935	72.273	3.946	71.700	3.957	70.899	3.964	68.755	3.964
76.736	72.947	3.894	72.786	3.920	72.639	3.932	72.407	3.944	71.843	3.955	71.043	3.962	68.885	3.961
76.913	73.070	3.888	72.909	3.915	72.761	3.926	72.540	3.938	71.968	3.949	71.177	3.957	69.011	3.956
77.090	73.155	3.883	72.997	3.911	72.840	3.922	72.623	3.934	72.048	3.945	71.252	3.952	69.093	3.952
77.268	73.231	3.880	73.082	3.907	72.916	3.918	72.698	3.930	72.135	3.942	71.329	3.949	69.171	3.949
77.446	73.328	3.874	73.168	3.902	73.013	3.914	72.792	3.926	72.220	3.937	71.417	3.945	69.252	3.945
77.625	73.408	3.871	73.255	3.898	73.095	3.910	72.874	3.922	72.304	3.934	71.501	3.941	69.326	3.942
77.804	73.482	3.868	73.336	3.895	73.174	3.907	72.953	3.919	72.385	3.931	71.573	3.938	69.405	3.939
77.983	73.566	3.863	73.414	3.892	73.259	3.903	73.032	3.915	72.467	3.927	71.659	3.935	69.485	3.935
78.163	73.653	3.860	73.505	3.888	73.351	3.900	73.116	3.912	72.548	3.924	71.740	3.932	69.567	3.933
78.343	73.755	3.858	73.609	3.885	73.447	3.897	73.226	3.909	72.654	3.921	71.841	3.929	69.664	3.930
78.524	73.826	3.853	73.685	3.881	73.526	3.893	73.300	3.905	72.733	3.917	71.923	3.925	69.738	3.926
78.705	73.938	3.851	73.785	3.879	73.633	3.891	73.405	3.903	72.829	3.915	72.025	3.923	69.834	3.925
78.886	74.063	3.848	73.924	3.875	73.767	3.887	73.539	3.899	72.967	3.911	72.149	3.919	69.965	3.921
79.068	74.142	3.842	74.003	3.871	73.847	3.883	73.621	3.895	73.044	3.907	72.237	3.915	70.045	3.917
79.250	74.223	3.839	74.084	3.868	73.928	3.880	73.703	3.892	73.126	3.904	72.313	3.913	70.115	3.915
79.433	74.350	3.836	74.199	3.864	74.041	3.877	73.819	3.889	73.246	3.901	72.427	3.910	70.228	3.912
79.616	74.467	3.832	74.321	3.860	74.171	3.872	73.945	3.885	73.366	3.896	72.552	3.905	70.347	3.908
79.799	74.554	3.828	74.422	3.856	74.263	3.868	74.037	3.881	73.457	3.893	72.645	3.902	70.436	3.905
79.983	74.632	3.823	74.488	3.852	74.332	3.864	74.110	3.876	73.522	3.889	72.713	3.898	70.505	3.901
80.168	74.706	3.820	74.560	3.849	74.404	3.861	74.187	3.874	73.609	3.886	72.786	3.895	70.577	3.898
80.353	74.812	3.818	74.665	3.846	74.515	3.858	74.294	3.871	73.711	3.883	72.890	3.892	70.672	3.895
80.538	74.903	3.813	74.761	3.842	74.607	3.854	74.377	3.867	73.798	3.879	72.971	3.888	70.761	3.892
80.724	74.984	3.810	74.843	3.839	74.684	3.851	74.455	3.864	73.885	3.876	73.059	3.885	70.840	3.889
80.910	75.070	3.808	74.919	3.836	74.766	3.848	74.538	3.861	73.966	3.874	73.139	3.883	70.917	3.887
81.096	75.171	3.804	75.023	3.833	74.862	3.845	74.637	3.858	74.059	3.871	73.240	3.880	71.013	3.884
81.283	75.277	3.800	75.134	3.830	74.976	3.841	74.743	3.855	74.172	3.868	73.349	3.877	71.119	3.881
81.470	75.354	3.799	75.221	3.827	75.062	3.839	74.841	3.852	74.256	3.865	73.429	3.875	71.198	3.878
81.658	75.456	3.796	75.317	3.824	75.158	3.836	74.929	3.849	74.354	3.863	73.522	3.872	71.289	3.876
81.846	75.581	3.792	75.429	3.821	75.265	3.832	75.056	3.845	74.470	3.859	73.639	3.869	71.399	3.873
82.035	75.651	3.789	75.514	3.817	75.360	3.829	75.142	3.842	74.556	3.856	73.721	3.865	71.482	3.870
82.224	75.764	3.785	75.624	3.814	75.472	3.826	75.251	3.839	74.658	3.853	73.826	3.863	71.586	3.867
82.414	75.858	3.782	75.734	3.811	75.568	3.823	75.353	3.836	74.761	3.850	73.928	3.860	71.681	3.864
82.604	75.960	3.779	75.819	3.808	75.670	3.820	75.445	3.833	74.859	3.847	74.022	3.857	71.772	3.862
82.794	76.068	3.777	75.938	3.805	75.784	3.817	75.563	3.830	74.974	3.844	74.134	3.854	71.884	3.859
82.985	76.183	3.773	76.050	3.802	75.889	3.813	75.667	3.827	75.075	3.841	74.243	3.851	71.986	3.856
83.176	76.288	3.770	76.150	3.799	75.995	3.810	75.779	3.823	75.183	3.838	74.353	3.848	72.090	3.853
83.368	76.411	3.766	76.274	3.795	76.112	3.807	75.897	3.820	75.304	3.835	74.460	3.845	72.202	3.850
83.560	76.509	3.762	76.375	3.792	76.219	3.803	76.010	3.816	75.402	3.831	74.570	3.842	72.300	3.847
83.753	76.616	3.759	76.483	3.788	76.332	3.800	76.109	3.813	75.507	3.828	74.680	3.839	72.409	3.845
83.946	76.750	3.757	76.613	3.786	76.458	3.798	76.233	3.811	75.631	3.826	74.798	3.836	72.526	3.842
84.140	76.883	3.753	76.744	3.782	76.598	3.794	76.382	3.807	75.776	3.822	74.931	3.832	72.667	3.839
84.333	76.986	3.749	76.852	3.778	76.693	3.789	76.466	3.803	75.871	3.818	75.038	3.828	72.760	3.835
84.528	77.098	3.745	76.959	3.774	76.808	3.786	76.589	3.799	75.992	3.814	75.152	3.825	72.872	3.832
84.723	77.217	3.740	77.075	3.769	76.931	3.782	76.704	3.795	76.111	3.810	75.260	3.820	72.994	3.827
84.918	77.285	3.735	77.150	3.765	76.995	3.777	76.771	3.790	76.178	3.805	75.335	3.816	73.055	3.823
85.114	77.311	3.732	77.183	3.761	77.017	3.773	76.798	3.786	76.201	3.802	75.360	3.812	73.071	3.820
85.310	77.383	3.730	77.233	3.760	77.091	3.772	76.870	3.785	76.262	3.800	75.426	3.811	73.134	3.819
85.507	77.510	3.728	77.356	3.757	77.210	3.770	77.004	3.783	76.387	3.798	75.547	3.809	73.257	3.817
85.704	77.650	3.726	77.510	3.754	77.337	3.767	77.132	3.780	76.529	3.795	75.686	3.807	73.386	3.815

85.901	77.781	3.722	77.643	3.751	77.471	3.763	77.267	3.777	76.660	3.792	75.806	3.803	73.511	3.811
86.099	77.889	3.719	77.746	3.747	77.593	3.759	77.381	3.773	76.775	3.788	75.922	3.799	73.618	3.808
86.298	77.998	3.715	77.859	3.744	77.701	3.756	77.490	3.770	76.880	3.785	76.031	3.796	73.727	3.805
86.497	78.127	3.710	77.981	3.740	77.821	3.752	77.620	3.765	77.012	3.781	76.155	3.792	73.853	3.801
86.696	78.203	3.706	78.053	3.735	77.906	3.747	77.695	3.761	77.098	3.777	76.240	3.788	73.936	3.797
86.896	78.299	3.703	78.159	3.732	77.990	3.745	77.783	3.758	77.187	3.774	76.336	3.786	74.020	3.795
87.096	78.437	3.699	78.282	3.728	78.126	3.741	77.915	3.754	77.313	3.770	76.459	3.782	74.140	3.791
87.297	78.488	3.695	78.357	3.724	78.191	3.737	77.983	3.750	77.368	3.766	76.521	3.778	74.208	3.787
87.498	78.549	3.692	78.409	3.720	78.256	3.733	78.030	3.746	77.435	3.763	76.572	3.774	74.253	3.784
87.700	78.640	3.689	78.501	3.718	78.335	3.731	78.119	3.744	77.515	3.761	76.679	3.773	74.342	3.782
87.902	78.782	3.685	78.638	3.715	78.479	3.727	78.269	3.741	77.657	3.757	76.806	3.769	74.479	3.779
88.105	78.831	3.681	78.706	3.711	78.547	3.723	78.320	3.736	77.723	3.753	76.862	3.765	74.534	3.775
88.308	78.889	3.678	78.759	3.708	78.592	3.721	78.386	3.734	77.777	3.751	76.923	3.763	74.585	3.773
88.512	78.978	3.676	78.854	3.706	78.691	3.718	78.468	3.732	77.868	3.749	77.012	3.761	74.677	3.771
88.716	79.079	3.674	78.948	3.704	78.799	3.716	78.579	3.730	77.971	3.747	77.119	3.759	74.781	3.769
88.920	79.225	3.673	79.093	3.701	78.929	3.714	78.719	3.728	78.108	3.745	77.244	3.757	74.909	3.768
89.125	79.400	3.668	79.252	3.698	79.107	3.710	78.899	3.724	78.286	3.741	77.417	3.753	75.080	3.764
89.331	79.518	3.663	79.388	3.693	79.224	3.706	79.014	3.719	78.398	3.737	77.540	3.749	75.196	3.760
89.536	79.607	3.659	79.477	3.689	79.315	3.702	79.112	3.715	78.494	3.732	77.633	3.745	75.286	3.756
89.743	79.679	3.656	79.551	3.686	79.386	3.698	79.172	3.712	78.562	3.730	77.698	3.742	75.346	3.753
89.950	79.787	3.652	79.667	3.682	79.508	3.695	79.292	3.709	78.690	3.726	77.816	3.739	75.467	3.751
90.157	79.883	3.649	79.766	3.679	79.595	3.692	79.382	3.706	78.778	3.723	77.910	3.736	75.556	3.747
90.365	80.007	3.646	79.877	3.676	79.716	3.688	79.500	3.702	78.886	3.719	78.020	3.732	75.656	3.744
90.573	80.088	3.642	79.955	3.671	79.808	3.684	79.575	3.698	78.969	3.715	78.106	3.728	75.744	3.740
90.782	80.147	3.639	80.012	3.668	79.859	3.681	79.636	3.695	79.027	3.712	78.165	3.725	75.801	3.737
90.991	80.216	3.635	80.087	3.665	79.932	3.678	79.704	3.692	79.103	3.709	78.227	3.722	75.862	3.735
91.201	80.305	3.632	80.177	3.663	80.023	3.676	79.787	3.690	79.191	3.707	78.311	3.720	75.947	3.733
91.411	80.396	3.629	80.275	3.660	80.104	3.673	79.888	3.687	79.284	3.704	78.417	3.717	76.039	3.730
91.622	80.498	3.628	80.390	3.658	80.233	3.671	80.014	3.685	79.399	3.703	78.529	3.716	76.156	3.729
91.833	80.654	3.625	80.528	3.655	80.373	3.668	80.163	3.682	79.544	3.700	78.676	3.713	76.293	3.726
92.045	80.782	3.622	80.660	3.651	80.502	3.664	80.288	3.679	79.673	3.696	78.802	3.709	76.417	3.723
92.257	80.878	3.617	80.755	3.648	80.600	3.660	80.378	3.674	79.765	3.692	78.899	3.706	76.518	3.719
92.470	80.945	3.614	80.830	3.644	80.663	3.657	80.448	3.671	79.837	3.689	78.965	3.702	76.576	3.716
92.683	81.063	3.611	80.930	3.642	80.776	3.655	80.556	3.669	79.944	3.687	79.073	3.700	76.678	3.714
92.897	81.176	3.608	81.049	3.639	80.886	3.652	80.670	3.666	80.060	3.684	79.181	3.697	76.798	3.712
93.111	81.292	3.606	81.173	3.636	81.009	3.650	80.811	3.664	80.190	3.682	79.311	3.695	76.921	3.710
93.325	81.470	3.602	81.349	3.632	81.191	3.645	80.982	3.660	80.353	3.678	79.475	3.691	77.083	3.706
93.541	81.576	3.597	81.458	3.627	81.302	3.640	81.078	3.654	80.460	3.672	79.583	3.686	77.187	3.701
93.756	81.612	3.593	81.490	3.623	81.316	3.636	81.102	3.650	80.495	3.668	79.619	3.682	77.218	3.697
93.972	81.646	3.591	81.510	3.620	81.358	3.633	81.136	3.648	80.528	3.666	79.647	3.680	77.237	3.695
94.189	81.727	3.588	81.607	3.619	81.457	3.632	81.222	3.647	80.627	3.665	79.736	3.678	77.329	3.694
94.406	81.870	3.585	81.748	3.616	81.601	3.629	81.373	3.644	80.761	3.662	79.879	3.676	77.472	3.692
94.624	81.990	3.583	81.866	3.614	81.696	3.627	81.489	3.641	80.877	3.659	79.996	3.674	77.572	3.689
94.842	82.120	3.580	81.981	3.610	81.829	3.623	81.616	3.638	81.001	3.656	80.124	3.670	77.705	3.686
95.060	82.221	3.577	82.110	3.607	81.955	3.620	81.745	3.635	81.115	3.653	80.230	3.667	77.827	3.683
95.280	82.340	3.573	82.210	3.603	82.063	3.616	81.847	3.631	81.215	3.649	80.341	3.664	77.926	3.680
95.499	82.423	3.570	82.285	3.600	82.128	3.613	81.916	3.628	81.299	3.646	80.414	3.660	77.992	3.677
95.719	82.508	3.568	82.366	3.598	82.211	3.610	82.009	3.626	81.372	3.644	80.493	3.658	78.080	3.675
95.940	82.657	3.564	82.521	3.595	82.365	3.608	82.149	3.623	81.525	3.642	80.639	3.656	78.217	3.673
96.161	82.751	3.562	82.622	3.592	82.468	3.605	82.264	3.620	81.648	3.639	80.751	3.653	78.331	3.670
96.383	82.941	3.559	82.815	3.589	82.662	3.602	82.461	3.617	81.822	3.636	80.950	3.650	78.510	3.667
96.605	83.057	3.553	82.932	3.583	82.790	3.596	82.575	3.611	81.960	3.630	81.055	3.645	78.630	3.662
96.828	83.095	3.548	82.985	3.579	82.819	3.592	82.609	3.606	81.978	3.625	81.092	3.640	78.670	3.657
97.051	83.135	3.545	82.996	3.575	82.841	3.589	82.625	3.604	82.009	3.623	81.114	3.637	78.679	3.654

97.275	83.183	3.544	83.062	3.574	82.919	3.587	82.689	3.602	82.070	3.621	81.192	3.636	78.743	3.653
97.499	83.328	3.542	83.194	3.572	83.054	3.585	82.820	3.600	82.205	3.619	81.319	3.634	78.879	3.652
97.724	83.420	3.539	83.287	3.569	83.154	3.582	82.922	3.597	82.323	3.616	81.433	3.631	78.989	3.649
97.949	83.555	3.535	83.453	3.566	83.290	3.579	83.059	3.595	82.463	3.614	81.558	3.629	79.109	3.646
98.175	83.669	3.532	83.553	3.562	83.397	3.576	83.176	3.591	82.552	3.610	81.679	3.625	79.223	3.643
98.401	83.774	3.529	83.636	3.559	83.499	3.572	83.275	3.588	82.668	3.607	81.764	3.622	79.310	3.640
98.628	83.881	3.526	83.762	3.556	83.622	3.569	83.385	3.584	82.764	3.603	81.880	3.619	79.422	3.637
98.855	83.962	3.523	83.837	3.553	83.686	3.566	83.464	3.581	82.837	3.601	81.951	3.616	79.490	3.634
99.083	84.081	3.521	83.958	3.551	83.799	3.564	83.592	3.580	82.962	3.599	82.095	3.614	79.615	3.632
99.312	84.228	3.518	84.104	3.547	83.934	3.560	83.722	3.576	83.101	3.595	82.207	3.611	79.754	3.629
99.541	84.329	3.514	84.225	3.544	84.061	3.558	83.860	3.573	83.221	3.592	82.322	3.608	79.868	3.627
99.770	84.481	3.509	84.363	3.540	84.205	3.553	84.008	3.568	83.369	3.588	82.480	3.603	80.029	3.622
100.000	84.532	3.504	84.412	3.535	84.277	3.548	84.054	3.563	83.402	3.583	82.522	3.599	80.067	3.618
100.231	84.564	3.501	84.451	3.532	84.319	3.545	84.073	3.560	83.465	3.580	82.555	3.596	80.091	3.615
100.462	84.627	3.499	84.501	3.529	84.342	3.543	84.148	3.559	83.512	3.578	82.629	3.594	80.170	3.613
100.693	84.721	3.497	84.604	3.528	84.441	3.541	84.231	3.557	83.634	3.576	82.707	3.592	80.246	3.612
100.925	84.837	3.495	84.730	3.525	84.576	3.539	84.343	3.555	83.761	3.574	82.830	3.590	80.371	3.610
101.158	84.938	3.491	84.835	3.523	84.673	3.536	84.458	3.552	83.860	3.571	82.942	3.587	80.469	3.608
101.391	85.061	3.488	84.990	3.520	84.827	3.533	84.603	3.549	84.000	3.569	83.084	3.584	80.613	3.605
101.625	85.194	3.486	85.107	3.516	84.959	3.530	84.729	3.545	84.129	3.565	83.198	3.581	80.728	3.602
101.859	85.301	3.482	85.205	3.513	85.059	3.526	84.834	3.542	84.220	3.562	83.305	3.578	80.840	3.598
102.094	85.378	3.478	85.278	3.509	85.126	3.523	84.911	3.538	84.281	3.558	83.378	3.575	80.908	3.595
102.329	85.480	3.477	85.365	3.507	85.224	3.520	85.001	3.537	84.384	3.556	83.477	3.572	80.990	3.593
102.565	85.614	3.474	85.522	3.504	85.350	3.518	85.153	3.534	84.536	3.553	83.624	3.570	81.134	3.591
102.802	85.721	3.470	85.610	3.501	85.452	3.514	85.254	3.530	84.622	3.550	83.710	3.566	81.226	3.588
103.039	85.851	3.466	85.754	3.497	85.600	3.511	85.385	3.526	84.751	3.546	83.843	3.563	81.357	3.584
103.276	85.918	3.462	85.809	3.493	85.678	3.507	85.460	3.522	84.828	3.542	83.909	3.559	81.429	3.580
103.514	85.971	3.459	85.877	3.490	85.729	3.504	85.499	3.520	84.902	3.540	83.976	3.556	81.497	3.578
103.753	86.059	3.457	85.957	3.488	85.780	3.501	85.580	3.517	84.948	3.537	84.058	3.554	81.570	3.575
103.992	86.137	3.455	86.038	3.485	85.882	3.499	85.650	3.515	85.036	3.535	84.137	3.552	81.642	3.574
104.232	86.275	3.452	86.165	3.483	86.005	3.497	85.788	3.513	85.175	3.533	84.256	3.550	81.767	3.571
104.472	86.367	3.450	86.266	3.480	86.108	3.494	85.888	3.511	85.268	3.530	84.379	3.547	81.860	3.569
104.713	86.508	3.449	86.413	3.478	86.254	3.492	86.062	3.508	85.420	3.528	84.493	3.545	82.005	3.567
104.954	86.664	3.443	86.555	3.474	86.389	3.488	86.198	3.504	85.560	3.525	84.670	3.542	82.151	3.564
105.196	86.747	3.440	86.642	3.470	86.463	3.484	86.286	3.500	85.650	3.521	84.765	3.537	82.244	3.560
105.439	86.812	3.437	86.699	3.467	86.551	3.481	86.336	3.497	85.735	3.518	84.818	3.534	82.313	3.557
105.682	86.893	3.434	86.784	3.465	86.645	3.479	86.417	3.495	85.800	3.515	84.904	3.532	82.388	3.555
105.925	87.028	3.431	86.935	3.462	86.771	3.475	86.558	3.492	85.946	3.512	85.039	3.529	82.529	3.552
106.170	87.127	3.428	87.000	3.459	86.871	3.472	86.648	3.489	86.046	3.509	85.134	3.526	82.606	3.549
106.414	87.233	3.426	87.129	3.455	86.966	3.469	86.743	3.486	86.144	3.506	85.216	3.523	82.713	3.547
106.660	87.321	3.422	87.231	3.452	87.077	3.466	86.851	3.483	86.242	3.503	85.334	3.520	82.805	3.544
106.906	87.413	3.419	87.286	3.449	87.151	3.463	86.934	3.479	86.316	3.500	85.408	3.518	82.886	3.541
107.152	87.486	3.415	87.374	3.446	87.214	3.460	87.011	3.476	86.384	3.497	85.488	3.515	82.951	3.538
107.399	87.524	3.413	87.440	3.445	87.292	3.458	87.085	3.475	86.459	3.495	85.568	3.513	83.022	3.537
107.647	87.667	3.412	87.569	3.442	87.427	3.456	87.215	3.473	86.623	3.493	85.704	3.511	83.165	3.535
107.895	87.797	3.409	87.713	3.440	87.553	3.454	87.340	3.471	86.738	3.490	85.818	3.508	83.285	3.532
108.143	87.963	3.407	87.851	3.437	87.700	3.450	87.522	3.468	86.898	3.487	85.979	3.505	83.438	3.530
108.393	88.082	3.403	87.986	3.432	87.837	3.446	87.628	3.463	87.019	3.483	86.083	3.501	83.556	3.526
108.643	88.159	3.398	88.050	3.429	87.895	3.443	87.705	3.459	87.044	3.480	86.163	3.498	83.636	3.522
108.893	88.218	3.395	88.097	3.426	87.953	3.440	87.750	3.456	87.134	3.477	86.191	3.495	83.669	3.520
109.144	88.289	3.393	88.186	3.424	88.054	3.438	87.814	3.454	87.208	3.475	86.299	3.493	83.741	3.518
109.396	88.396	3.390	88.322	3.421	88.155	3.435	87.925	3.452	87.329	3.472	86.413	3.490	83.867	3.515
109.648	88.472	3.388	88.380	3.419	88.224	3.432	88.010	3.450	87.382	3.470	86.465	3.488	83.917	3.513
109.901	88.644	3.386	88.513	3.416	88.372	3.430	88.194	3.447	87.540	3.467	86.616	3.486	84.101	3.510

110.154	88.737	3.383	88.635	3.412	88.477	3.426	88.278	3.443	87.644	3.463	86.731	3.482	84.179	3.507
110.408	88.666	3.376	88.682	3.411	88.518	3.424	88.324	3.440	87.692	3.462	86.766	3.480	84.278	3.504
110.662	88.727	3.374	88.762	3.409	88.570	3.422	88.381	3.438	87.762	3.460	86.847	3.478	84.353	3.502
110.918	88.863	3.372	88.879	3.407	88.713	3.420	88.508	3.436	87.900	3.458	86.957	3.476	84.482	3.500
111.173	89.004	3.369	89.031	3.404	88.823	3.417	88.660	3.433	88.034	3.455	87.106	3.473	84.609	3.498
111.430	89.115	3.367	89.135	3.401	88.951	3.414	88.767	3.431	88.143	3.453	87.209	3.471	84.725	3.495
111.686	89.252	3.363	89.270	3.398	89.087	3.410	88.905	3.427	88.275	3.449	87.346	3.467	84.860	3.492
111.944	89.312	3.359	89.353	3.394	89.164	3.407	88.995	3.423	88.370	3.445	87.437	3.463	84.936	3.488
112.202	89.369	3.356	89.397	3.391	89.202	3.404	89.029	3.420	88.399	3.442	87.469	3.461	84.966	3.485
112.461	89.424	3.354	89.448	3.389	89.260	3.402	89.072	3.418	88.450	3.441	87.514	3.459	85.021	3.484
112.720	89.539	3.353	89.582	3.387	89.405	3.400	89.195	3.416	88.586	3.439	87.649	3.457	85.157	3.482
112.980	89.657	3.349	89.696	3.384	89.525	3.397	89.327	3.414	88.716	3.436	87.780	3.455	85.271	3.480
113.240	89.770	3.347	89.808	3.382	89.617	3.395	89.445	3.411	88.812	3.434	87.882	3.452	85.373	3.478
113.501	89.894	3.344	89.909	3.378	89.714	3.391	89.555	3.408	88.919	3.431	87.992	3.449	85.493	3.475
113.763	89.953	3.340	89.996	3.375	89.809	3.388	89.650	3.405	89.011	3.427	88.085	3.446	85.583	3.472
114.025	90.024	3.338	90.056	3.373	89.885	3.386	89.708	3.402	89.058	3.425	88.138	3.444	85.633	3.469
114.288	90.134	3.337	90.174	3.371	90.010	3.384	89.813	3.400	89.192	3.423	88.245	3.442	85.753	3.468
114.551	90.274	3.333	90.317	3.368	90.113	3.381	89.948	3.397	89.333	3.420	88.386	3.439	85.878	3.465
114.815	90.366	3.330	90.395	3.365	90.221	3.378	90.043	3.395	89.422	3.417	88.485	3.436	85.959	3.462
115.080	90.468	3.327	90.516	3.362	90.327	3.375	90.162	3.392	89.528	3.414	88.596	3.433	86.080	3.459
115.345	90.557	3.324	90.593	3.360	90.417	3.372	90.245	3.389	89.599	3.412	88.672	3.431	86.150	3.456
115.611	90.645	3.322	90.667	3.357	90.493	3.370	90.314	3.386	89.689	3.409	88.754	3.429	86.213	3.454
115.878	90.708	3.320	90.755	3.355	90.571	3.368	90.374	3.384	89.758	3.407	88.841	3.426	86.312	3.452
116.145	90.842	3.317	90.878	3.352	90.700	3.365	90.512	3.382	89.881	3.405	88.966	3.424	86.421	3.450
116.413	90.951	3.315	90.984	3.350	90.812	3.362	90.627	3.380	90.010	3.402	89.065	3.422	86.540	3.448
116.681	91.044	3.312	91.107	3.348	90.912	3.361	90.748	3.377	90.125	3.400	89.171	3.419	86.646	3.446
116.950	91.149	3.309	91.195	3.344	91.026	3.357	90.849	3.374	90.221	3.397	89.282	3.417	86.763	3.443
117.220	91.242	3.307	91.316	3.342	91.129	3.355	90.960	3.372	90.336	3.394	89.378	3.414	86.858	3.441
117.490	91.337	3.304	91.377	3.339	91.208	3.352	91.037	3.369	90.408	3.392	89.468	3.411	86.939	3.438
117.761	91.442	3.302	91.504	3.337	91.316	3.350	91.143	3.367	90.526	3.390	89.591	3.410	87.052	3.437
118.032	91.554	3.299	91.611	3.334	91.438	3.347	91.257	3.364	90.631	3.387	89.688	3.407	87.160	3.433
118.304	91.621	3.297	91.678	3.332	91.508	3.345	91.335	3.361	90.717	3.385	89.758	3.404	87.234	3.432
118.577	91.752	3.294	91.810	3.330	91.647	3.343	91.465	3.360	90.829	3.383	89.901	3.402	87.364	3.430
118.850	91.859	3.291	91.935	3.327	91.742	3.340	91.592	3.356	90.962	3.380	90.008	3.399	87.469	3.427
119.124	91.932	3.288	92.004	3.324	91.819	3.337	91.659	3.353	91.016	3.377	90.070	3.397	87.543	3.425
119.399	92.028	3.286	92.092	3.322	91.910	3.335	91.729	3.351	91.109	3.375	90.162	3.395	87.630	3.423
119.674	92.151	3.284	92.228	3.319	92.042	3.332	91.873	3.349	91.248	3.373	90.309	3.393	87.774	3.421
119.950	92.237	3.282	92.321	3.317	92.131	3.330	91.973	3.347	91.341	3.370	90.406	3.390	87.858	3.418
120.226	92.380	3.279	92.458	3.315	92.283	3.328	92.110	3.345	91.469	3.368	90.522	3.389	87.972	3.417
120.504	92.501	3.277	92.581	3.312	92.400	3.325	92.237	3.342	91.595	3.366	90.666	3.386	88.127	3.414
120.781	92.606	3.273	92.690	3.309	92.524	3.322	92.358	3.339	91.708	3.362	90.761	3.383	88.235	3.411
121.060	92.700	3.271	92.744	3.306	92.576	3.320	92.424	3.336	91.787	3.360	90.852	3.380	88.301	3.409
121.339	92.809	3.269	92.864	3.304	92.713	3.317	92.544	3.334	91.922	3.358	90.978	3.378	88.430	3.407
121.619	92.894	3.266	92.968	3.302	92.809	3.315	92.630	3.332	92.010	3.356	91.062	3.376	88.508	3.405
121.899	93.063	3.265	93.134	3.300	92.973	3.313	92.805	3.330	92.182	3.353	91.233	3.374	88.674	3.403
122.180	93.162	3.259	93.223	3.295	93.071	3.308	92.899	3.325	92.277	3.349	91.325	3.369	88.773	3.399
122.462	93.197	3.257	93.266	3.293	93.096	3.306	92.928	3.323	92.316	3.346	91.358	3.367	88.811	3.396
122.744	93.293	3.256	93.370	3.291	93.193	3.304	93.024	3.321	92.404	3.345	91.479	3.366	88.901	3.395
123.027	93.414	3.254	93.498	3.289	93.333	3.303	93.157	3.320	92.529	3.343	91.591	3.364	89.039	3.393
123.311	93.548	3.252	93.643	3.287	93.474	3.300	93.310	3.317	92.673	3.341	91.732	3.362	89.185	3.391
123.595	93.712	3.249	93.777	3.284	93.597	3.298	93.455	3.314	92.821	3.339	91.883	3.359	89.310	3.389
123.880	93.828	3.246	93.899	3.281	93.726	3.294	93.590	3.311	92.944	3.336	92.006	3.356	89.460	3.386
124.165	93.912	3.242	93.979	3.278	93.830	3.291	93.673	3.308	93.031	3.332	92.098	3.352	89.546	3.382
124.452	93.978	3.239	94.040	3.275	93.887	3.288	93.710	3.305	93.101	3.330	92.145	3.350	89.592	3.380

124.738	94.057	3.238	94.150	3.273	93.976	3.287	93.798	3.304	93.173	3.328	92.251	3.348	89.690	3.378
125.026	94.173	3.235	94.273	3.270	94.101	3.284	93.944	3.301	93.310	3.325	92.375	3.346	89.809	3.376
125.314	94.274	3.233	94.357	3.268	94.176	3.282	94.027	3.299	93.393	3.323	92.459	3.344	89.897	3.374
125.603	94.365	3.231	94.473	3.266	94.304	3.280	94.146	3.296	93.504	3.321	92.574	3.342	90.003	3.372
125.893	94.499	3.228	94.603	3.264	94.430	3.277	94.268	3.294	93.646	3.319	92.684	3.339	90.133	3.370
126.183	94.578	3.225	94.686	3.261	94.519	3.275	94.359	3.291	93.727	3.316	92.783	3.337	90.218	3.368
126.474	94.715	3.223	94.818	3.259	94.645	3.272	94.484	3.289	93.866	3.314	92.925	3.335	90.359	3.366
126.765	94.828	3.220	94.919	3.256	94.768	3.269	94.614	3.286	93.978	3.311	93.035	3.332	90.477	3.363
127.057	94.942	3.218	95.054	3.254	94.874	3.267	94.731	3.284	94.114	3.309	93.169	3.330	90.601	3.361
127.350	95.065	3.214	95.145	3.250	95.000	3.264	94.827	3.281	94.209	3.305	93.266	3.326	90.693	3.357
127.644	95.123	3.211	95.226	3.247	95.063	3.261	94.895	3.278	94.290	3.302	93.347	3.324	90.777	3.355
127.938	95.202	3.210	95.286	3.246	95.119	3.259	94.956	3.276	94.364	3.301	93.403	3.322	90.828	3.353
128.233	95.312	3.208	95.415	3.244	95.246	3.257	95.105	3.274	94.487	3.298	93.542	3.320	90.946	3.352
128.529	95.414	3.205	95.516	3.241	95.363	3.255	95.201	3.272	94.597	3.297	93.629	3.318	91.071	3.349
128.825	95.524	3.203	95.652	3.239	95.492	3.253	95.336	3.270	94.721	3.295	93.770	3.316	91.189	3.348
129.122	95.672	3.201	95.792	3.236	95.646	3.250	95.460	3.267	94.836	3.292	93.911	3.313	91.316	3.345
129.420	95.743	3.198	95.880	3.233	95.696	3.247	95.564	3.264	94.920	3.289	93.991	3.310	91.418	3.342
129.718	95.857	3.195	95.968	3.231	95.822	3.245	95.643	3.262	95.008	3.287	94.078	3.308	91.509	3.340
130.017	95.965	3.193	96.091	3.229	95.923	3.242	95.786	3.260	95.156	3.285	94.189	3.306	91.639	3.338
130.317	96.086	3.191	96.213	3.227	96.052	3.240	95.883	3.257	95.277	3.282	94.318	3.304	91.753	3.336
130.617	96.211	3.187	96.330	3.223	96.190	3.237	96.022	3.254	95.406	3.279	94.462	3.301	91.890	3.333
130.918	96.294	3.184	96.388	3.220	96.245	3.234	96.078	3.251	95.490	3.276	94.540	3.298	91.956	3.330
131.220	96.349	3.183	96.474	3.218	96.328	3.232	96.164	3.249	95.566	3.274	94.599	3.296	92.030	3.328
131.523	96.451	3.181	96.576	3.217	96.442	3.230	96.266	3.248	95.664	3.272	94.724	3.294	92.130	3.327
131.826	96.554	3.178	96.686	3.214	96.516	3.228	96.385	3.246	95.768	3.270	94.839	3.292	92.243	3.325
132.130	96.719	3.176	96.838	3.212	96.658	3.226	96.522	3.243	95.893	3.268	94.974	3.290	92.391	3.323
132.434	96.836	3.173	96.982	3.209	96.795	3.223	96.660	3.240	96.066	3.265	95.101	3.287	92.496	3.320
132.739	96.914	3.170	97.021	3.206	96.879	3.220	96.736	3.237	96.115	3.262	95.180	3.284	92.582	3.317
133.045	97.000	3.168	97.124	3.204	96.949	3.218	96.804	3.235	96.204	3.261	95.255	3.282	92.657	3.315
133.352	97.126	3.166	97.256	3.202	97.126	3.216	96.950	3.233	96.334	3.258	95.429	3.280	92.821	3.313
133.660	97.239	3.164	97.385	3.199	97.208	3.213	97.062	3.231	96.458	3.256	95.495	3.278	92.918	3.311
133.968	97.364	3.161	97.501	3.197	97.334	3.211	97.194	3.228	96.596	3.253	95.648	3.275	93.064	3.309
134.277	97.459	3.158	97.571	3.194	97.413	3.208	97.268	3.225	96.668	3.250	95.705	3.272	93.124	3.305
134.586	97.513	3.156	97.643	3.192	97.472	3.206	97.342	3.223	96.747	3.248	95.804	3.271	93.196	3.304
134.896	97.661	3.154	97.780	3.190	97.623	3.204	97.484	3.221	96.892	3.247	95.962	3.269	93.356	3.302
135.207	97.778	3.152	97.919	3.188	97.785	3.201	97.623	3.219	97.004	3.244	96.056	3.266	93.473	3.300
135.519	97.874	3.149	98.014	3.185	97.848	3.199	97.703	3.216	97.091	3.242	96.152	3.264	93.565	3.298
135.831	97.957	3.147	98.096	3.183	97.963	3.196	97.815	3.214	97.212	3.239	96.263	3.261	93.655	3.295
136.145	98.075	3.145	98.208	3.181	98.060	3.194	97.906	3.212	97.303	3.237	96.367	3.259	93.777	3.293
136.458	98.199	3.143	98.332	3.178	98.211	3.192	98.040	3.209	97.424	3.235	96.483	3.257	93.907	3.291
136.773	98.315	3.140	98.484	3.176	98.316	3.189	98.188	3.207	97.569	3.232	96.642	3.255	94.029	3.289
137.088	98.422	3.137	98.567	3.173	98.418	3.187	98.269	3.204	97.671	3.229	96.715	3.252	94.118	3.286
137.404	98.488	3.135	98.648	3.171	98.539	3.184	98.361	3.202	97.762	3.227	96.813	3.249	94.218	3.284
137.721	98.595	3.132	98.745	3.168	98.608	3.182	98.487	3.199	97.884	3.225	96.939	3.247	94.350	3.282
138.038	98.686	3.130	98.878	3.166	98.712	3.180	98.571	3.197	97.954	3.222	97.022	3.245	94.428	3.280
138.357	98.787	3.128	98.969	3.163	98.809	3.178	98.641	3.195	98.066	3.220	97.118	3.243	94.511	3.278
138.676	98.919	3.126	99.067	3.162	98.904	3.176	98.775	3.193	98.160	3.218	97.223	3.241	94.610	3.276
138.995	99.040	3.124	99.195	3.160	99.023	3.173	98.894	3.191	98.328	3.216	97.366	3.239	94.757	3.274
139.316	99.171	3.121	99.323	3.157	99.192	3.171	99.038	3.188	98.455	3.214	97.472	3.236	94.896	3.272
139.637	99.265	3.118	99.416	3.154	99.283	3.168	99.157	3.185	98.535	3.211	97.600	3.233	94.973	3.269
139.959	99.378	3.116	99.497	3.152	99.382	3.166	99.209	3.183	98.636	3.209	97.659	3.232	95.105	3.267
140.281	99.449	3.114	99.605	3.150	99.492	3.164	99.330	3.181	98.744	3.207	97.785	3.230	95.188	3.265
140.605	99.590	3.112	99.759	3.148	99.610	3.162	99.458	3.179	98.871	3.205	97.909	3.227	95.303	3.263
140.929	99.717	3.109	99.864	3.145	99.707	3.159	99.587	3.176	99.003	3.202	98.067	3.225	95.460	3.260

141.254	99.764	3.106	99.896	3.142	99.802	3.157	99.632	3.174	99.043	3.200	98.096	3.222	95.496	3.258
141.579	99.841	3.105	100.015	3.141	99.883	3.155	99.733	3.172	99.138	3.198	98.207	3.221	95.593	3.257
141.906	99.979	3.103	100.148	3.139	100.000	3.153	99.883	3.170	99.268	3.196	98.320	3.219	95.765	3.255
142.233	100.126	3.101	100.279	3.136	100.143	3.150	99.993	3.168	99.417	3.194	98.477	3.217	95.858	3.253
142.561	100.204	3.097	100.390	3.133	100.267	3.148	100.131	3.165	99.513	3.191	98.583	3.214	95.976	3.250
142.889	100.318	3.095	100.479	3.131	100.310	3.145	100.192	3.163	99.613	3.188	98.663	3.211	96.031	3.248
143.219	100.400	3.093	100.557	3.129	100.413	3.144	100.284	3.161	99.694	3.187	98.753	3.210	96.136	3.246
143.549	100.543	3.091	100.748	3.127	100.561	3.141	100.450	3.159	99.867	3.185	98.906	3.208	96.298	3.244
143.880	100.640	3.088	100.807	3.125	100.692	3.139	100.554	3.156	99.960	3.182	99.003	3.205	96.400	3.242
144.212	100.736	3.086	100.927	3.122	100.750	3.136	100.621	3.154	100.051	3.180	99.125	3.203	96.497	3.239
144.544	100.860	3.084	101.009	3.120	100.861	3.134	100.728	3.151	100.141	3.177	99.213	3.200	96.596	3.237
144.877	100.946	3.082	101.119	3.118	100.969	3.132	100.838	3.150	100.263	3.175	99.308	3.199	96.683	3.235
145.211	101.046	3.079	101.233	3.116	101.085	3.129	100.954	3.147	100.348	3.173	99.439	3.196	96.832	3.233
145.546	101.143	3.077	101.309	3.114	101.181	3.128	101.063	3.146	100.484	3.171	99.539	3.195	96.918	3.232
145.881	101.277	3.075	101.473	3.111	101.318	3.126	101.201	3.143	100.646	3.169	99.693	3.192	97.063	3.230
146.218	101.384	3.072	101.576	3.109	101.443	3.123	101.327	3.140	100.716	3.167	99.795	3.190	97.191	3.227
146.555	101.462	3.070	101.683	3.107	101.521	3.120	101.377	3.138	100.776	3.164	99.839	3.188	97.235	3.225
146.893	101.557	3.068	101.759	3.104	101.642	3.119	101.507	3.136	100.922	3.162	99.997	3.186	97.357	3.223
147.231	101.681	3.066	101.885	3.102	101.737	3.116	101.616	3.134	101.024	3.160	100.072	3.184	97.470	3.221
147.571	101.781	3.064	102.005	3.100	101.841	3.114	101.706	3.132	101.133	3.158	100.198	3.181	97.601	3.219
147.911	101.908	3.062	102.140	3.098	101.964	3.112	101.843	3.130	101.272	3.156	100.291	3.179	97.738	3.217
148.252	101.962	3.059	102.180	3.095	102.030	3.110	101.923	3.127	101.311	3.153	100.400	3.177	97.766	3.214
148.594	102.089	3.058	102.309	3.094	102.146	3.108	102.044	3.126	101.448	3.152	100.542	3.175	97.898	3.213
148.936	102.197	3.055	102.437	3.091	102.305	3.106	102.188	3.123	101.602	3.149	100.672	3.173	98.025	3.211
149.279	102.335	3.053	102.552	3.089	102.406	3.103	102.294	3.121	101.691	3.147	100.766	3.171	98.135	3.208
149.624	102.407	3.051	102.606	3.087	102.468	3.101	102.352	3.118	101.780	3.145	100.869	3.168	98.197	3.207
149.969	102.527	3.049	102.706	3.084	102.585	3.099	102.466	3.116	101.895	3.143	100.947	3.166	98.328	3.205
150.314	102.628	3.046	102.857	3.082	102.707	3.097	102.596	3.115	102.002	3.141	101.074	3.164	98.444	3.202
150.661	102.733	3.045	102.930	3.081	102.818	3.095	102.698	3.113	102.118	3.139	101.160	3.163	98.572	3.201
151.008	102.848	3.042	103.088	3.079	102.941	3.093	102.833	3.111	102.282	3.137	101.305	3.161	98.718	3.199
151.356	102.967	3.040	103.180	3.076	103.066	3.090	102.963	3.108	102.357	3.134	101.462	3.158	98.814	3.196
151.705	103.050	3.037	103.281	3.074	103.130	3.088	103.019	3.106	102.429	3.132	101.470	3.156	98.859	3.194
152.055	103.203	3.036	103.402	3.072	103.268	3.086	103.157	3.104	102.574	3.130	101.632	3.154	99.004	3.193
152.405	103.288	3.033	103.487	3.070	103.358	3.084	103.265	3.102	102.700	3.128	101.773	3.152	99.117	3.191
152.757	103.365	3.031	103.611	3.068	103.458	3.082	103.359	3.100	102.809	3.126	101.846	3.150	99.224	3.189
153.109	103.513	3.029	103.740	3.066	103.618	3.080	103.500	3.098	102.936	3.124	101.999	3.148	99.392	3.187
153.462	103.592	3.027	103.820	3.063	103.671	3.078	103.581	3.095	103.031	3.122	102.067	3.146	99.476	3.185
153.816	103.707	3.025	103.954	3.061	103.798	3.076	103.706	3.094	103.116	3.120	102.206	3.144	99.568	3.183
154.170	103.795	3.023	104.061	3.059	103.910	3.074	103.802	3.092	103.261	3.118	102.290	3.142	99.683	3.181
154.525	103.928	3.021	104.173	3.057	104.061	3.071	103.951	3.089	103.376	3.116	102.445	3.140	99.813	3.179
154.882	104.003	3.018	104.244	3.054	104.145	3.069	104.041	3.087	103.460	3.113	102.531	3.137	99.949	3.176
155.239	104.101	3.017	104.353	3.053	104.206	3.067	104.102	3.085	103.540	3.112	102.585	3.136	99.983	3.175
155.597	104.238	3.015	104.478	3.051	104.360	3.066	104.254	3.083	103.686	3.110	102.750	3.134	100.115	3.173
155.955	104.333	3.013	104.613	3.049	104.451	3.063	104.367	3.081	103.800	3.108	102.875	3.132	100.246	3.172
156.315	104.526	3.010	104.752	3.047	104.608	3.061	104.529	3.079	103.980	3.106	103.022	3.130	100.398	3.169
156.675	104.535	3.008	104.807	3.044	104.668	3.058	104.582	3.076	103.977	3.103	103.054	3.128	100.492	3.167
157.036	104.659	3.007	104.923	3.043	104.783	3.057	104.696	3.076	104.131	3.102	103.189	3.126	100.583	3.166
157.398	104.822	3.004	105.062	3.041	104.965	3.055	104.847	3.073	104.290	3.100	103.356	3.124	100.745	3.164
157.761	104.910	3.002	105.170	3.038	105.073	3.052	104.961	3.071	104.375	3.097	103.473	3.122	100.859	3.161
158.125	105.019	3.000	105.252	3.036	105.155	3.050	105.054	3.068	104.501	3.095	103.572	3.120	100.957	3.159
158.489	105.104	2.998	105.360	3.034	105.234	3.048	105.144	3.066	104.563	3.093	103.657	3.118	101.063	3.157
158.855	105.222	2.996	105.469	3.032	105.368	3.047	105.268	3.065	104.711	3.092	103.818	3.116	101.183	3.156
159.221	105.398	2.994	105.643	3.030	105.513	3.045	105.441	3.063	104.864	3.090	103.950	3.114	101.328	3.154
159.588	105.530	2.991	105.787	3.027	105.644	3.042	105.555	3.060	105.020	3.086	104.075	3.111	101.479	3.151

159.956	105.585	2.989	105.850	3.025	105.732	3.040	105.638	3.058	105.068	3.084	104.154	3.109	101.538	3.149
160.325	105.683	2.987	105.771	3.019	105.703	3.034	105.659	3.054	105.007	3.077	104.258	3.102	101.571	3.145
160.694	105.791	2.985	105.883	3.017	105.817	3.033	105.779	3.052	105.106	3.075	104.378	3.100	101.701	3.144
161.065	105.896	2.983	105.996	3.016	105.936	3.031	105.896	3.050	105.241	3.074	104.504	3.099	101.827	3.142
161.436	106.026	2.980	106.117	3.013	106.071	3.029	106.026	3.048	105.358	3.072	104.647	3.096	101.960	3.139
161.808	106.127	2.978	106.230	3.011	106.170	3.026	106.112	3.046	105.462	3.069	104.742	3.093	102.068	3.137
162.181	106.211	2.976	106.336	3.009	106.250	3.024	106.207	3.044	105.574	3.067	104.825	3.092	102.138	3.136
162.555	106.354	2.975	106.468	3.008	106.382	3.023	106.356	3.043	105.715	3.067	104.971	3.091	102.286	3.135
162.930	106.472	2.972	106.588	3.005	106.508	3.021	106.477	3.040	105.841	3.064	105.085	3.088	102.384	3.132
163.305	106.560	2.970	106.659	3.002	106.595	3.018	106.558	3.037	105.927	3.061	105.180	3.086	102.487	3.129
163.682	106.639	2.968	106.749	3.001	106.688	3.016	106.654	3.036	105.996	3.059	105.287	3.084	102.592	3.129
164.059	106.754	2.967	106.866	2.999	106.792	3.015	106.775	3.034	106.116	3.058	105.395	3.083	102.726	3.127
164.437	106.905	2.965	107.007	2.998	106.946	3.013	106.919	3.032	106.271	3.056	105.544	3.081	102.870	3.124
164.816	107.046	2.962	107.136	2.995	107.087	3.010	107.064	3.029	106.430	3.053	105.694	3.078	102.998	3.121
165.196	107.093	2.959	107.210	2.992	107.142	3.007	107.118	3.027	106.468	3.050	105.720	3.075	103.035	3.119
165.577	107.189	2.957	107.321	2.990	107.253	3.006	107.237	3.025	106.590	3.049	105.842	3.074	103.155	3.118
165.959	107.291	2.956	107.439	2.989	107.376	3.004	107.344	3.024	106.721	3.048	105.963	3.073	103.288	3.116
166.341	107.401	2.954	107.548	2.987	107.490	3.002	107.444	3.022	106.826	3.045	106.066	3.071	103.400	3.115
166.725	107.513	2.952	107.645	2.985	107.599	3.000	107.561	3.020	106.924	3.043	106.195	3.069	103.522	3.114
167.109	107.637	2.951	107.755	2.984	107.717	2.999	107.676	3.018	107.050	3.042	106.319	3.067	103.643	3.112
167.494	107.752	2.949	107.886	2.982	107.849	2.997	107.802	3.016	107.176	3.040	106.438	3.065	103.779	3.109
167.880	107.892	2.946	108.044	2.979	107.985	2.994	107.926	3.014	107.324	3.038	106.557	3.062	103.906	3.107
168.267	108.007	2.943	108.140	2.976	108.085	2.992	108.043	3.011	107.431	3.035	106.673	3.060	104.010	3.105
168.655	108.062	2.941	108.215	2.974	108.155	2.990	108.124	3.009	107.491	3.033	106.757	3.058	104.087	3.103
169.044	108.157	2.940	108.299	2.973	108.252	2.988	108.231	3.008	107.568	3.032	106.852	3.057	104.206	3.101
169.434	108.278	2.938	108.415	2.971	108.379	2.987	108.366	3.006	107.714	3.030	106.979	3.054	104.314	3.099
169.824	108.416	2.936	108.559	2.969	108.520	2.984	108.497	3.004	107.881	3.027	107.115	3.053	104.465	3.097
170.216	108.541	2.933	108.675	2.967	108.637	2.982	108.608	3.001	107.988	3.025	107.253	3.050	104.606	3.096
170.608	108.608	2.932	108.733	2.965	108.718	2.980	108.682	3.000	108.056	3.024	107.336	3.049	104.666	3.094
171.002	108.759	2.930	108.925	2.963	108.877	2.979	108.842	2.998	108.223	3.022	107.500	3.047	104.834	3.092
171.396	108.876	2.928	109.039	2.961	108.996	2.976	108.951	2.996	108.342	3.019	107.601	3.045	104.927	3.090
171.791	108.959	2.926	109.118	2.959	109.067	2.974	109.027	2.994	108.435	3.018	107.691	3.043	105.015	3.089
172.187	109.039	2.924	109.182	2.957	109.158	2.973	109.120	2.992	108.507	3.016	107.789	3.041	105.111	3.086
172.584	109.156	2.922	109.306	2.955	109.284	2.971	109.254	2.990	108.646	3.014	107.899	3.039	105.235	3.084
172.982	109.284	2.920	109.433	2.953	109.396	2.968	109.389	2.988	108.762	3.012	108.019	3.037	105.356	3.083
173.380	109.390	2.919	109.546	2.952	109.517	2.967	109.494	2.986	108.882	3.011	108.153	3.036	105.494	3.081
173.780	109.493	2.916	109.655	2.949	109.650	2.965	109.598	2.984	109.002	3.008	108.278	3.033	105.601	3.079
174.181	109.599	2.914	109.763	2.948	109.744	2.963	109.704	2.982	109.114	3.006	108.381	3.031	105.698	3.077
174.582	109.720	2.913	109.898	2.946	109.866	2.961	109.836	2.980	109.256	3.004	108.500	3.030	105.835	3.076
174.985	109.849	2.911	110.017	2.943	109.989	2.959	109.957	2.978	109.373	3.003	108.613	3.028	105.972	3.074
175.388	109.923	2.908	110.090	2.941	110.062	2.957	110.039	2.976	109.430	3.000	108.710	3.026	106.053	3.071
175.792	110.008	2.907	110.178	2.940	110.150	2.955	110.126	2.975	109.532	2.999	108.810	3.024	106.143	3.070
176.198	110.136	2.905	110.324	2.938	110.286	2.954	110.280	2.973	109.663	2.998	108.954	3.023	106.286	3.069
176.604	110.274	2.903	110.457	2.936	110.425	2.952	110.415	2.971	109.815	2.996	109.082	3.021	106.424	3.067
177.011	110.378	2.901	110.557	2.934	110.534	2.949	110.504	2.969	109.905	2.993	109.177	3.019	106.528	3.064
177.419	110.469	2.899	110.653	2.932	110.620	2.948	110.610	2.967	110.007	2.991	109.291	3.017	106.638	3.063
177.828	110.608	2.897	110.822	2.930	110.764	2.946	110.758	2.965	110.148	2.989	109.426	3.015	106.778	3.061
178.238	110.706	2.895	110.904	2.928	110.871	2.944	110.853	2.963	110.248	2.988	109.532	3.013	106.856	3.059
178.649	110.779	2.893	110.975	2.926	110.946	2.942	110.936	2.961	110.344	2.985	109.621	3.011	106.965	3.057
179.061	110.892	2.892	111.080	2.925	111.064	2.940	111.054	2.959	110.454	2.983	109.737	3.009	107.091	3.055
179.473	111.019	2.890	111.218	2.923	111.203	2.938	111.190	2.958	110.593	2.982	109.865	3.007	107.204	3.054
179.887	111.142	2.888	111.351	2.921	111.334	2.936	111.304	2.956	110.724	2.981	109.969	3.006	107.325	3.052
180.302	111.259	2.886	111.455	2.919	111.441	2.935	111.419	2.954	110.847	2.978	110.119	3.004	107.455	3.050
180.717	111.367	2.884	111.557	2.917	111.546	2.932	111.526	2.952	110.937	2.976	110.214	3.002	107.561	3.048

181.134	111.459	2.882	111.654	2.915	111.650	2.930	111.633	2.950	111.043	2.974	110.312	3.000	107.671	3.046
181.552	111.557	2.880	111.763	2.913	111.750	2.929	111.739	2.948	111.151	2.972	110.401	2.998	107.782	3.046
181.970	111.684	2.879	111.887	2.911	111.868	2.927	111.878	2.947	111.262	2.971	110.574	2.997	107.929	3.044
182.390	111.776	2.877	111.976	2.910	111.986	2.925	111.966	2.945	111.375	2.969	110.666	2.995	108.022	3.041
182.810	111.890	2.875	112.097	2.908	112.089	2.923	112.071	2.943	111.495	2.967	110.772	2.993	108.126	3.039
183.231	112.022	2.873	112.232	2.906	112.219	2.921	112.214	2.941	111.619	2.965	110.914	2.991	108.268	3.038
183.654	112.142	2.870	112.349	2.904	112.347	2.919	112.340	2.939	111.758	2.962	111.044	2.989	108.384	3.036
184.077	112.212	2.869	112.418	2.902	112.431	2.917	112.415	2.937	111.852	2.961	111.110	2.987	108.472	3.034
184.502	112.317	2.867	112.529	2.901	112.522	2.916	112.540	2.936	111.957	2.960	111.232	2.986	108.604	3.032
184.927	112.447	2.865	112.672	2.899	112.668	2.914	112.683	2.933	112.113	2.958	111.371	2.983	108.720	3.030
185.353	112.558	2.863	112.768	2.896	112.765	2.912	112.778	2.931	112.196	2.956	111.479	2.982	108.842	3.029
185.780	112.662	2.861	112.889	2.894	112.875	2.910	112.882	2.929	112.304	2.954	111.593	2.980	108.967	3.027
186.209	112.752	2.860	112.979	2.893	112.967	2.909	112.976	2.928	112.383	2.953	111.682	2.979	109.049	3.026
186.638	112.894	2.858	113.120	2.892	113.118	2.907	113.127	2.926	112.539	2.951	111.840	2.977	109.210	3.024
187.068	113.014	2.856	113.231	2.889	113.236	2.905	113.244	2.924	112.670	2.948	111.964	2.974	109.319	3.021
187.500	113.093	2.854	113.314	2.887	113.319	2.903	113.329	2.922	112.744	2.946	112.049	2.972	109.416	3.020
187.932	113.200	2.853	113.425	2.886	113.452	2.902	113.456	2.921	112.857	2.945	112.161	2.971	109.539	3.019
188.365	113.330	2.851	113.572	2.884	113.579	2.900	113.592	2.919	113.007	2.943	112.300	2.969	109.663	3.017
188.799	113.441	2.849	113.690	2.882	113.685	2.898	113.701	2.917	113.129	2.941	112.419	2.967	109.794	3.015
189.234	113.545	2.847	113.793	2.880	113.788	2.896	113.813	2.915	113.223	2.939	112.517	2.965	109.897	3.013
189.671	113.632	2.846	113.886	2.879	113.871	2.895	113.902	2.914	113.310	2.938	112.604	2.964	109.995	3.012
190.108	113.797	2.844	114.036	2.877	114.025	2.893	114.048	2.912	113.471	2.936	112.775	2.963	110.177	3.010
190.546	113.900	2.842	114.144	2.875	114.138	2.890	114.144	2.910	113.595	2.934	112.882	2.960	110.288	3.008
190.985	113.975	2.840	114.238	2.873	114.223	2.889	114.252	2.908	113.675	2.932	112.966	2.959	110.375	3.007
191.426	114.104	2.839	114.360	2.872	114.362	2.888	114.404	2.907	113.811	2.932	113.127	2.958	110.513	3.005
191.867	114.257	2.837	114.509	2.870	114.517	2.886	114.510	2.905	113.963	2.929	113.265	2.956	110.646	3.003
192.309	114.385	2.835	114.667	2.868	114.649	2.883	114.655	2.903	114.128	2.927	113.405	2.953	110.796	3.001
192.753	114.433	2.832	114.729	2.866	114.675	2.881	114.758	2.901	114.199	2.925	113.502	2.952	110.873	3.000
193.197	114.552	2.832	114.822	2.865	114.816	2.880	114.856	2.900	114.315	2.924	113.603	2.950	111.010	2.998
193.642	114.682	2.830	114.984	2.863	114.940	2.878	114.968	2.898	114.454	2.922	113.743	2.948	111.156	2.996
194.089	114.782	2.828	115.019	2.861	115.072	2.876	115.085	2.895	114.522	2.920	113.885	2.946	111.284	2.995
194.536	114.894	2.826	115.169	2.860	115.169	2.875	115.211	2.894	114.615	2.918	114.008	2.945	111.329	2.993
194.985	115.025	2.825	115.306	2.858	115.338	2.874	115.361	2.893	114.779	2.917	114.115	2.944	111.485	2.992
195.434	115.157	2.823	115.430	2.856	115.499	2.872	115.471	2.891	114.940	2.915	114.216	2.942	111.651	2.990
195.885	115.268	2.820	115.544	2.854	115.563	2.869	115.577	2.888	115.057	2.912	114.342	2.939	111.771	2.988
196.336	115.339	2.819	115.650	2.853	115.636	2.868	115.652	2.887	115.097	2.911	114.444	2.938	111.852	2.987
196.789	115.494	2.818	115.790	2.851	115.823	2.867	115.804	2.886	115.233	2.910	114.596	2.937	111.966	2.985
197.242	115.613	2.816	115.908	2.849	115.975	2.864	115.926	2.884	115.407	2.908	114.727	2.934	112.105	2.983
197.697	115.704	2.814	116.017	2.847	115.953	2.862	116.050	2.882	115.522	2.906	114.849	2.933	112.247	2.981
198.153	115.810	2.813	116.127	2.846	116.112	2.861	116.181	2.880	115.632	2.905	114.955	2.932	112.382	2.980
198.610	115.956	2.811	116.268	2.844	116.273	2.859	116.315	2.879	115.774	2.903	115.092	2.930	112.512	2.978
199.067	116.084	2.809	116.364	2.842	116.393	2.857	116.433	2.877	115.924	2.901	115.231	2.927	112.636	2.976
199.526	116.140	2.807	116.432	2.840	116.468	2.855	116.477	2.874	115.952	2.899	115.333	2.926	112.727	2.974
199.986	116.245	2.806	116.552	2.839	116.600	2.854	116.641	2.873	116.043	2.898	115.399	2.925	112.824	2.974
200.447	116.415	2.804	116.739	2.838	116.772	2.853	116.800	2.872	116.266	2.897	115.576	2.924	113.004	2.972
200.909	116.531	2.802	116.868	2.835	116.907	2.851	116.921	2.870	116.387	2.895	115.719	2.921	113.120	2.970
201.372	116.644	2.800	116.945	2.833	117.015	2.849	117.019	2.868	116.461	2.892	115.788	2.919	113.248	2.968
201.837	116.775	2.798	117.081	2.832	117.122	2.847	117.153	2.866	116.624	2.891	115.906	2.917	113.405	2.966
202.302	116.891	2.796	117.186	2.830	117.229	2.845	117.296	2.864	116.756	2.889	116.110	2.916	113.533	2.965
202.768	116.962	2.795	117.265	2.828	117.301	2.843	117.374	2.863	116.822	2.887	116.197	2.914	113.589	2.963
203.236	117.042	2.794	117.398	2.827	117.394	2.842	117.480	2.862	116.981	2.886	116.293	2.913	113.740	2.962
203.704	117.225	2.792	117.573	2.826	117.625	2.841	117.623	2.860	117.144	2.884	116.462	2.911	113.918	2.960
204.174	117.384	2.790	117.713	2.823	117.757	2.838	117.772	2.858	117.275	2.883	116.588	2.909	114.049	2.958
204.645	117.423	2.788	117.811	2.822	117.776	2.836	117.826	2.856	117.336	2.880	116.643	2.907	114.071	2.956

205.116	117.552	2.786	117.926	2.820	117.904	2.835	117.965	2.854	117.466	2.879	116.794	2.906	114.233	2.955
205.589	117.688	2.785	118.027	2.818	118.023	2.833	118.089	2.852	117.607	2.877	116.941	2.904	114.396	2.953
206.063	117.788	2.783	118.140	2.817	118.165	2.831	118.196	2.851	117.684	2.875	117.058	2.902	114.500	2.952
206.538	117.899	2.781	118.198	2.815	118.270	2.830	118.293	2.850	117.742	2.874	117.172	2.901	114.564	2.950
207.014	118.053	2.780	118.384	2.813	118.443	2.828	118.446	2.848	117.946	2.873	117.335	2.899	114.753	2.949
207.491	118.143	2.778	118.510	2.811	118.580	2.826	118.580	2.846	118.084	2.870	117.458	2.897	114.945	2.946
207.970	118.241	2.776	118.580	2.809	118.666	2.824	118.676	2.844	118.132	2.868	117.519	2.895	114.960	2.945
208.449	118.396	2.775	118.658	2.808	118.767	2.823	118.783	2.842	118.279	2.868	117.620	2.894	115.104	2.944
208.930	118.509	2.773	118.774	2.806	118.933	2.822	118.916	2.841	118.398	2.866	117.766	2.892	115.207	2.942
209.411	118.614	2.771	118.975	2.805	119.061	2.820	119.041	2.839	118.557	2.863	117.941	2.891	115.374	2.940
209.894	118.693	2.769	119.079	2.803	119.079	2.818	119.152	2.837	118.616	2.862	118.021	2.889	115.470	2.939
210.378	118.833	2.768	119.189	2.802	119.241	2.817	119.261	2.836	118.818	2.861	118.168	2.888	115.596	2.937
210.863	118.965	2.766	119.311	2.800	119.343	2.815	119.355	2.834	118.949	2.858	118.256	2.886	115.739	2.935
211.349	119.061	2.764	119.370	2.798	119.434	2.813	119.443	2.832	119.045	2.856	118.394	2.884	115.834	2.934
211.836	119.193	2.763	119.468	2.797	119.592	2.812	119.567	2.831	119.146	2.856	118.519	2.883	115.961	2.932
212.324	119.307	2.761	119.676	2.795	119.746	2.810	119.764	2.829	119.283	2.854	118.696	2.881	116.069	2.931
212.814	119.400	2.759	119.806	2.793	119.787	2.808	119.868	2.827	119.404	2.852	118.755	2.879	116.235	2.929
213.305	119.484	2.758	119.845	2.791	119.874	2.806	119.983	2.826	119.531	2.850	118.803	2.878	116.309	2.928
213.796	119.627	2.757	119.982	2.790	120.040	2.805	120.119	2.825	119.634	2.850	118.981	2.877	116.468	2.926
214.289	119.783	2.755	120.173	2.789	120.232	2.804	120.250	2.823	119.777	2.848	119.144	2.875	116.616	2.925
214.783	119.809	2.754	120.376	2.789	120.411	2.806	120.400	2.822	119.993	2.852	119.195	2.878	116.658	2.928
215.278	119.913	2.753	120.509	2.788	120.497	2.804	120.538	2.820	120.120	2.850	119.327	2.877	116.802	2.927
215.774	120.068	2.751	120.611	2.786	120.641	2.803	120.658	2.819	120.246	2.849	119.391	2.876	116.925	2.925
216.272	120.232	2.750	120.799	2.785	120.837	2.802	120.811	2.817	120.434	2.848	119.560	2.874	117.077	2.923
216.770	120.260	2.748	120.818	2.783	120.888	2.800	120.865	2.816	120.463	2.846	119.609	2.873	117.180	2.922
217.270	120.380	2.746	120.990	2.781	121.033	2.798	121.008	2.814	120.628	2.844	119.815	2.870	117.319	2.920
217.771	120.544	2.744	121.111	2.780	121.119	2.796	121.170	2.812	120.792	2.842	119.986	2.869	117.478	2.918
218.273	120.600	2.743	121.188	2.778	121.209	2.795	121.220	2.811	120.838	2.841	120.020	2.868	117.506	2.917
218.776	120.755	2.741	121.318	2.777	121.385	2.794	121.372	2.809	120.965	2.840	120.159	2.866	117.673	2.916
219.281	120.878	2.740	121.440	2.775	121.434	2.792	121.477	2.807	121.103	2.838	120.262	2.864	117.849	2.914
219.786	120.987	2.738	121.581	2.773	121.633	2.790	121.649	2.806	121.257	2.836	120.435	2.863	117.951	2.913
220.293	121.085	2.737	121.673	2.772	121.748	2.789	121.741	2.805	121.359	2.835	120.565	2.861	118.071	2.911
220.801	121.196	2.735	121.802	2.771	121.855	2.787	121.859	2.803	121.502	2.833	120.658	2.860	118.186	2.910
221.310	121.345	2.733	121.913	2.769	121.991	2.785	122.007	2.801	121.611	2.832	120.800	2.859	118.369	2.908
221.820	121.426	2.732	122.065	2.767	122.103	2.784	122.122	2.800	121.731	2.830	120.922	2.857	118.449	2.907
222.331	121.592	2.730	122.179	2.765	122.246	2.782	122.242	2.798	121.874	2.828	121.053	2.855	118.605	2.905
222.844	121.678	2.729	122.267	2.764	122.325	2.781	122.361	2.797	121.962	2.827	121.174	2.854	118.713	2.904
223.357	121.783	2.727	122.377	2.762	122.388	2.779	122.450	2.795	122.090	2.825	121.255	2.852	118.805	2.902
223.872	121.894	2.726	122.476	2.761	122.550	2.778	122.583	2.794	122.182	2.824	121.395	2.851	118.904	2.900
224.388	122.008	2.724	122.602	2.759	122.665	2.776	122.688	2.792	122.342	2.822	121.549	2.849	119.097	2.899
224.906	122.150	2.722	122.772	2.758	122.866	2.775	122.882	2.791	122.499	2.821	121.722	2.848	119.223	2.898
225.424	122.271	2.721	122.876	2.756	122.941	2.773	122.993	2.789	122.605	2.819	121.817	2.847	119.407	2.896
225.944	122.372	2.719	122.995	2.755	123.079	2.771	123.082	2.787	122.718	2.817	121.937	2.845	119.481	2.894
226.464	122.484	2.718	123.101	2.753	123.193	2.770	123.214	2.786	122.868	2.816	122.044	2.843	119.637	2.893
226.987	122.585	2.716	123.216	2.752	123.321	2.769	123.313	2.784	122.969	2.815	122.162	2.842	119.731	2.892
227.510	122.726	2.715	123.353	2.750	123.442	2.767	123.462	2.783	123.113	2.813	122.336	2.840	119.889	2.890
228.034	122.841	2.713	123.479	2.749	123.581	2.765	123.601	2.781	123.221	2.811	122.421	2.838	119.994	2.889
228.560	122.983	2.711	123.608	2.747	123.671	2.763	123.724	2.779	123.361	2.809	122.607	2.836	120.150	2.886
229.087	123.096	2.710	123.730	2.746	123.786	2.762	123.814	2.778	123.496	2.808	122.689	2.835	120.282	2.886
229.615	123.143	2.709	123.811	2.744	123.874	2.760	123.945	2.776	123.593	2.807	122.769	2.834	120.407	2.884
230.144	123.323	2.707	123.951	2.743	124.023	2.759	124.101	2.775	123.743	2.805	122.959	2.832	120.525	2.883
230.675	123.401	2.706	124.123	2.741	124.171	2.758	124.207	2.773	123.858	2.804	123.115	2.831	120.673	2.881
231.207	123.560	2.704	124.211	2.739	124.268	2.756	124.334	2.772	123.989	2.802	123.208	2.829	120.772	2.879
231.740	123.672	2.702	124.311	2.738	124.402	2.755	124.435	2.770	124.106	2.801	123.352	2.828	120.916	2.878

232.274	123.789	2.701	124.440	2.737	124.557	2.753	124.570	2.769	124.234	2.799	123.474	2.826	121.035	2.877
232.809	123.899	2.699	124.578	2.735	124.634	2.751	124.731	2.767	124.347	2.797	123.556	2.825	121.191	2.875
233.346	124.034	2.698	124.667	2.734	124.791	2.750	124.822	2.766	124.500	2.796	123.732	2.824	121.295	2.874
233.884	124.117	2.697	124.800	2.732	124.841	2.749	124.946	2.764	124.627	2.795	123.848	2.822	121.464	2.872
234.423	124.261	2.695	124.921	2.730	125.002	2.747	125.055	2.762	124.751	2.793	123.986	2.820	121.559	2.870
234.963	124.356	2.694	125.020	2.729	125.106	2.746	125.167	2.762	124.845	2.792	124.077	2.819	121.687	2.869
235.505	124.483	2.692	125.174	2.727	125.263	2.744	125.296	2.760	125.000	2.790	124.251	2.817	121.832	2.868
236.048	124.628	2.690	125.314	2.726	125.409	2.742	125.450	2.758	125.142	2.788	124.392	2.815	121.976	2.866
236.592	124.709	2.689	125.394	2.724	125.466	2.741	125.526	2.757	125.249	2.787	124.477	2.814	122.107	2.865
237.137	124.839	2.687	125.516	2.723	125.621	2.740	125.661	2.755	125.372	2.785	124.641	2.813	122.226	2.863
237.684	124.978	2.686	125.665	2.721	125.766	2.738	125.791	2.753	125.502	2.784	124.740	2.811	122.335	2.862
238.232	125.018	2.685	125.732	2.720	125.837	2.737	125.902	2.752	125.562	2.783	124.824	2.810	122.467	2.861
238.781	125.188	2.683	125.883	2.719	125.994	2.735	126.064	2.751	125.735	2.781	124.986	2.809	122.595	2.859
239.332	125.302	2.681	126.018	2.717	126.189	2.733	126.152	2.749	125.874	2.779	125.137	2.807	122.748	2.857
239.883	125.375	2.680	126.058	2.716	126.183	2.732	126.217	2.748	125.950	2.778	125.144	2.806	122.825	2.856
240.436	125.526	2.678	126.228	2.714	126.347	2.731	126.390	2.746	126.094	2.777	125.348	2.804	122.987	2.855
240.991	125.664	2.677	126.387	2.713	126.519	2.729	126.583	2.745	126.259	2.775	125.542	2.802	123.120	2.853
241.546	125.775	2.676	126.461	2.711	126.572	2.728	126.636	2.743	126.357	2.774	125.623	2.801	123.263	2.852
242.103	125.858	2.674	126.586	2.710	126.684	2.726	126.775	2.742	126.429	2.772	125.721	2.799	123.369	2.850
242.661	126.007	2.672	126.736	2.708	126.865	2.724	126.915	2.740	126.625	2.770	125.885	2.797	123.544	2.849
243.220	126.119	2.671	126.822	2.707	126.910	2.723	127.016	2.739	126.724	2.769	125.989	2.797	123.648	2.847
243.781	126.205	2.670	126.943	2.706	127.059	2.722	127.158	2.738	126.881	2.768	126.106	2.796	123.767	2.846
244.343	126.388	2.669	127.133	2.704	127.213	2.720	127.297	2.736	127.046	2.766	126.312	2.794	123.976	2.845
244.906	126.466	2.667	127.222	2.703	127.362	2.719	127.395	2.735	127.132	2.765	126.392	2.793	124.053	2.844
245.471	126.579	2.665	127.335	2.701	127.484	2.717	127.529	2.733	127.289	2.763	126.518	2.791	124.178	2.842
246.037	126.674	2.664	127.443	2.700	127.556	2.716	127.650	2.732	127.356	2.762	126.633	2.790	124.266	2.841
246.604	126.829	2.662	127.554	2.698	127.686	2.714	127.771	2.730	127.483	2.760	126.791	2.788	124.462	2.839
247.172	126.954	2.661	127.694	2.697	127.844	2.713	127.923	2.729	127.636	2.759	126.921	2.787	124.589	2.838
247.742	127.034	2.660	127.801	2.695	127.902	2.711	128.025	2.727	127.733	2.757	127.039	2.785	124.709	2.836
248.313	127.130	2.658	127.908	2.693	128.053	2.709	128.118	2.725	127.862	2.756	127.145	2.783	124.829	2.834
248.886	127.239	2.657	128.045	2.693	128.175	2.709	128.256	2.725	127.992	2.755	127.250	2.783	124.988	2.834
249.460	127.395	2.656	128.152	2.691	128.302	2.708	128.389	2.723	128.150	2.754	127.430	2.781	125.113	2.832
250.035	127.564	2.654	128.343	2.689	128.455	2.706	128.550	2.721	128.297	2.752	127.590	2.779	125.278	2.831
250.611	127.690	2.653	128.440	2.688	128.592	2.704	128.703	2.720	128.427	2.750	127.710	2.778	125.405	2.829
251.189	127.769	2.651	128.550	2.686	128.696	2.703	128.741	2.718	128.534	2.749	127.820	2.776	125.513	2.827
251.768	127.882	2.650	128.659	2.685	128.778	2.701	128.881	2.717	128.623	2.747	127.936	2.775	125.650	2.826
252.348	127.996	2.649	128.734	2.684	128.879	2.700	128.983	2.716	128.762	2.746	128.017	2.774	125.775	2.825
252.930	128.123	2.647	128.923	2.683	129.072	2.699	129.199	2.715	128.909	2.745	128.221	2.772	125.947	2.824
253.513	128.250	2.646	129.024	2.681	129.183	2.698	129.279	2.713	129.027	2.744	128.283	2.771	126.068	2.823
254.097	128.373	2.644	129.179	2.679	129.341	2.696	129.439	2.712	129.217	2.742	128.499	2.769	126.221	2.821
254.683	128.553	2.643	129.319	2.678	129.446	2.694	129.565	2.710	129.330	2.741	128.637	2.768	126.307	2.820
255.270	128.677	2.641	129.417	2.677	129.559	2.693	129.663	2.709	129.429	2.739	128.703	2.767	126.467	2.818
255.859	128.703	2.640	129.505	2.675	129.598	2.691	129.748	2.707	129.506	2.737	128.842	2.765	126.573	2.816
256.448	128.891	2.639	129.635	2.674	129.775	2.690	129.887	2.706	129.654	2.736	128.973	2.764	126.702	2.816
257.040	128.868	2.637	129.686	2.673	129.814	2.689	129.985	2.705	129.749	2.735	129.039	2.763	126.762	2.815
257.632	129.044	2.636	129.876	2.671	130.041	2.688	130.131	2.704	129.916	2.734	129.226	2.762	126.985	2.813
258.226	129.212	2.635	130.026	2.670	130.164	2.687	130.290	2.702	130.073	2.733	129.395	2.760	127.135	2.812
258.821	129.314	2.633	130.136	2.668	130.275	2.684	130.438	2.701	130.180	2.731	129.483	2.759	127.279	2.810
259.418	129.443	2.632	130.291	2.667	130.468	2.684	130.547	2.699	130.337	2.730	129.670	2.757	127.420	2.809
260.016	129.620	2.630	130.388	2.665	130.537	2.682	130.693	2.697	130.427	2.728	129.754	2.755	127.488	2.807
260.615	129.649	2.629	130.476	2.664	130.662	2.680	130.753	2.696	130.557	2.727	129.852	2.754	127.624	2.806
261.216	129.774	2.628	130.563	2.663	130.708	2.679	130.849	2.695	130.619	2.725	130.010	2.753	127.719	2.805
261.818	129.904	2.626	130.766	2.662	130.883	2.678	131.046	2.694	130.836	2.724	130.170	2.752	127.923	2.804
262.422	129.949	2.625	130.686	2.660	130.852	2.676	131.054	2.692	130.856	2.723	130.173	2.750	127.936	2.802

263.027	130.195	2.624	130.996	2.659	131.172	2.675	131.313	2.691	131.146	2.721	130.446	2.749	128.245	2.801
263.633	130.279	2.622	131.120	2.657	131.294	2.674	131.398	2.689	131.183	2.720	130.543	2.747	128.338	2.799
264.241	130.458	2.620	131.307	2.655	131.448	2.672	131.592	2.688	131.363	2.718	130.719	2.745	128.485	2.797
264.850	130.445	2.619	131.294	2.654	131.390	2.670	131.594	2.686	131.410	2.716	130.753	2.744	128.526	2.796
265.461	130.616	2.618	131.432	2.653	131.600	2.669	131.716	2.685	131.543	2.715	130.871	2.743	128.673	2.795
266.073	130.573	2.617	131.389	2.653	131.564	2.669	131.739	2.684	131.524	2.715	130.873	2.743	128.686	2.794
266.686	130.866	2.616	131.677	2.651	131.882	2.667	132.030	2.683	131.838	2.714	131.199	2.741	129.008	2.793
267.301	130.910	2.615	131.745	2.650	131.901	2.666	132.049	2.682	131.881	2.712	131.230	2.740	129.041	2.792
267.917	131.033	2.613	131.909	2.648	132.076	2.664	132.256	2.680	132.084	2.711	131.429	2.738	129.273	2.790
268.534	131.149	2.613	131.977	2.648	132.142	2.664	132.364	2.680	132.160	2.710	131.475	2.738	129.312	2.790
269.154	131.295	2.610	132.115	2.645	132.351	2.662	132.491	2.677	132.315	2.708	131.673	2.736	129.457	2.788
269.774	131.459	2.610	132.323	2.645	132.479	2.661	132.647	2.677	132.481	2.708	131.863	2.735	129.641	2.787
270.396	131.592	2.607	132.450	2.642	132.640	2.659	132.808	2.674	132.606	2.705	131.963	2.733	129.796	2.785
271.019	131.550	2.607	132.463	2.643	132.661	2.659	132.846	2.675	132.645	2.705	132.006	2.733	129.876	2.785
271.644	131.744	2.606	132.653	2.641	132.792	2.657	132.971	2.673	132.794	2.704	132.171	2.731	130.077	2.783
272.270	131.969	2.605	132.818	2.641	133.065	2.657	133.187	2.673	132.996	2.703	132.358	2.731	130.258	2.783
272.898	132.047	2.603	132.927	2.638	133.148	2.654	133.342	2.670	133.160	2.701	132.519	2.728	130.383	2.780
273.527	132.196	2.602	133.125	2.637	133.323	2.653	133.497	2.669	133.340	2.700	132.694	2.727	130.563	2.779
274.157	132.266	2.600	133.152	2.634	133.369	2.651	133.503	2.667	133.349	2.697	132.735	2.725	130.613	2.777
274.789	132.397	2.600	133.325	2.634	133.502	2.651	133.705	2.667	133.519	2.697	132.952	2.725	130.772	2.777
275.423	132.479	2.598	133.374	2.632	133.593	2.649	133.760	2.664	133.613	2.695	133.006	2.723	130.847	2.775
276.058	132.627	2.597	133.549	2.631	133.766	2.648	133.941	2.663	133.790	2.694	133.134	2.722	131.053	2.774
276.694	132.563	2.595	133.504	2.630	133.719	2.646	133.894	2.662	133.772	2.693	133.185	2.720	130.986	2.773
277.332	132.933	2.595	133.805	2.629	134.063	2.645	134.260	2.661	134.066	2.692	133.488	2.719	131.346	2.772
277.971	132.875	2.593	133.755	2.628	133.953	2.644	134.180	2.660	134.058	2.691	133.379	2.718	131.311	2.770
278.612	133.151	2.592	134.109	2.627	134.328	2.643	134.508	2.659	134.376	2.690	133.707	2.717	131.674	2.769
279.254	133.104	2.591	134.025	2.625	134.246	2.641	134.417	2.657	134.301	2.688	133.647	2.715	131.652	2.767
279.898	133.318	2.589	134.280	2.623	134.515	2.640	134.707	2.655	134.542	2.686	133.948	2.714	131.886	2.766
280.543	133.251	2.590	134.005	2.624	134.259	2.641	134.540	2.657	134.373	2.688	133.801	2.715	131.668	2.767
281.190	133.565	2.588	134.530	2.622	134.754	2.638	134.938	2.654	134.815	2.685	134.178	2.712	132.152	2.764
281.838	133.627	2.589	134.551	2.623	134.876	2.640	135.055	2.655	134.948	2.686	134.342	2.713	132.284	2.765
282.488	133.920	2.585	134.863	2.619	135.081	2.636	135.294	2.651	135.164	2.682	134.617	2.710	132.477	2.762
283.139	134.052	2.585	134.970	2.619	135.221	2.636	135.426	2.651	135.329	2.682	134.685	2.710	132.649	2.761
283.792	134.049	2.583	134.999	2.617	135.200	2.633	135.458	2.649	135.317	2.680	134.747	2.707	132.686	2.760
284.446	134.325	2.582	135.321	2.617	135.562	2.633	135.776	2.649	135.703	2.679	135.032	2.707	133.014	2.759
285.102	134.262	2.579	135.290	2.614	135.465	2.630	135.715	2.646	135.642	2.677	135.022	2.704	132.995	2.757
285.759	134.612	2.580	135.554	2.614	135.839	2.631	136.021	2.646	135.917	2.677	135.359	2.704	133.286	2.757
286.418	134.398	2.577	135.379	2.611	135.645	2.627	135.846	2.643	135.755	2.674	135.180	2.702	133.114	2.754
287.078	134.868	2.578	135.821	2.613	136.047	2.629	136.309	2.644	136.209	2.675	135.647	2.703	133.566	2.755
287.740	134.711	2.576	135.764	2.610	136.009	2.627	136.237	2.643	136.142	2.673	135.590	2.701	133.531	2.753
288.403	135.156	2.575	136.132	2.609	136.486	2.626	136.598	2.641	136.549	2.672	135.918	2.699	134.017	2.751
289.068	135.049	2.575	136.009	2.608	136.234	2.625	136.475	2.641	136.400	2.671	135.839	2.699	133.870	2.751
289.734	135.394	2.572	136.412	2.606	136.707	2.623	136.895	2.638	136.773	2.669	136.174	2.696	134.192	2.749
290.402	135.282	2.573	136.137	2.606	136.494	2.623	136.606	2.639	136.598	2.670	136.068	2.697	133.937	2.749
291.072	135.550	2.570	136.600	2.604	136.885	2.620	137.105	2.636	137.022	2.667	136.478	2.694	134.470	2.746
291.743	135.794	2.571	136.779	2.605	137.046	2.621	137.274	2.637	137.211	2.668	136.667	2.695	134.667	2.747
292.415	135.957	2.568	136.910	2.602	137.198	2.618	137.467	2.634	137.395	2.665	136.760	2.692	134.858	2.744
293.089	136.052	2.567	137.096	2.601	137.360	2.617	137.601	2.633	137.537	2.664	137.046	2.691	135.029	2.744
293.765	136.088	2.564	137.111	2.598	137.299	2.614	137.578	2.630	137.524	2.661	137.039	2.688	135.060	2.740
294.442	136.322	2.564	137.353	2.598	137.666	2.614	137.877	2.630	137.859	2.661	137.275	2.688	135.252	2.741
295.121	136.250	2.562	137.297	2.595	137.594	2.612	137.844	2.627	137.778	2.658	137.199	2.685	135.288	2.738
295.801	136.598	2.562	137.566	2.596	137.888	2.612	138.111	2.628	138.131	2.658	137.479	2.686	135.560	2.738
296.483	136.443	2.560	137.388	2.593	137.714	2.609	137.914	2.625	137.839	2.656	137.376	2.684	135.378	2.736
297.167	136.753	2.560	137.721	2.594	138.072	2.610	138.277	2.626	138.239	2.657	137.737	2.684	135.764	2.736

297.852	136.826	2.560	137.741	2.594	138.103	2.610	138.325	2.626	138.327	2.657	137.715	2.684	135.851	2.736
298.538	137.158	2.557	138.189	2.590	138.425	2.607	138.716	2.622	138.620	2.653	138.162	2.681	136.262	2.733
299.227	137.204	2.557	138.164	2.591	138.508	2.607	138.773	2.622	138.724	2.653	138.112	2.680	136.294	2.733
299.916	137.304	2.553	138.292	2.587	138.614	2.603	138.903	2.619	138.875	2.650	138.380	2.677	136.281	2.730
300.608	137.445	2.555	138.504	2.589	138.814	2.605	139.055	2.621	139.045	2.652	138.591	2.679	136.600	2.731
301.301	137.557	2.551	138.654	2.585	138.884	2.601	139.163	2.617	139.122	2.647	138.623	2.675	136.608	2.728
301.995	137.672	2.552	138.690	2.585	138.969	2.602	139.232	2.617	139.253	2.648	138.711	2.675	136.732	2.728
302.691	137.585	2.551	138.641	2.584	138.901	2.600	139.219	2.616	139.177	2.647	138.685	2.674	136.709	2.727
303.389	138.048	2.550	139.068	2.584	139.442	2.600	139.666	2.616	139.600	2.647	139.139	2.674	137.218	2.726
304.089	138.091	2.550	139.138	2.584	139.532	2.599	139.813	2.615	139.774	2.646	139.391	2.673	137.370	2.725
304.790	138.187	2.546	139.380	2.580	139.638	2.596	139.949	2.612	139.909	2.642	139.403	2.670	137.464	2.722
305.492	138.286	2.549	139.232	2.583	139.592	2.599	139.936	2.615	139.960	2.646	139.347	2.672	137.476	2.725
306.196	138.552	2.545	139.700	2.579	140.081	2.595	140.213	2.610	140.282	2.641	139.749	2.669	137.848	2.721
306.902	138.822	2.544	139.930	2.578	140.281	2.594	140.562	2.609	140.570	2.640	140.080	2.667	138.150	2.720
307.610	138.775	2.542	139.866	2.575	140.162	2.591	140.405	2.607	140.383	2.638	139.920	2.665	138.068	2.717
308.319	138.858	2.541	140.081	2.575	140.387	2.591	140.670	2.607	140.709	2.637	140.150	2.664	138.185	2.717
309.030	138.764	2.543	139.833	2.575	140.271	2.592	140.475	2.608	140.509	2.639	140.172	2.665	138.186	2.718
309.742	139.375	2.538	140.536	2.572	140.876	2.588	141.143	2.604	141.177	2.635	140.719	2.662	138.737	2.715
310.456	139.236	2.539	140.225	2.572	140.623	2.588	140.925	2.604	140.992	2.635	140.408	2.662	138.710	2.714
311.172	139.555	2.536	140.705	2.570	140.955	2.586	141.236	2.602	141.321	2.633	140.848	2.660	138.941	2.712
311.889	139.824	2.536	140.822	2.571	141.110	2.587	141.482	2.602	141.545	2.633	141.024	2.660	139.187	2.712
312.608	139.751	2.534	140.953	2.568	141.287	2.584	141.541	2.600	141.515	2.630	141.206	2.657	139.328	2.710
313.329	139.983	2.532	141.203	2.566	141.574	2.582	141.817	2.597	141.806	2.628	141.399	2.655	139.631	2.707
314.051	139.704	2.533	140.816	2.565	141.208	2.581	141.448	2.597	141.561	2.628	141.075	2.655	139.251	2.708
314.775	140.268	2.531	141.433	2.565	141.849	2.580	142.067	2.596	142.201	2.627	141.662	2.654	139.733	2.706
315.501	140.266	2.531	141.403	2.564	141.755	2.580	141.953	2.596	142.142	2.626	141.568	2.653	139.806	2.706
316.228	140.557	2.528	141.759	2.561	142.133	2.577	142.316	2.593	142.322	2.623	141.921	2.650	140.107	2.703
316.957	140.514	2.528	141.655	2.561	141.954	2.577	142.328	2.593	142.373	2.624	141.967	2.651	140.088	2.702
317.687	140.668	2.527	141.829	2.560	142.261	2.576	142.535	2.592	142.511	2.623	142.192	2.650	140.243	2.703
318.420	140.973	2.524	142.149	2.557	142.575	2.573	142.786	2.588	142.899	2.619	142.446	2.646	140.630	2.699
319.154	140.790	2.524	142.010	2.556	142.277	2.572	142.674	2.588	142.750	2.619	142.423	2.645	140.426	2.698
319.890	140.999	2.515	142.109	2.549	142.405	2.563	142.731	2.580	142.799	2.612	142.303	2.637	140.489	2.693
320.627	140.898	2.509	142.355	2.542	142.469	2.561	142.836	2.573	142.705	2.608	142.876	2.632	140.699	2.689
321.366	141.328	2.512	142.118	2.543	142.626	2.559	142.929	2.574	143.176	2.608	143.073	2.634	140.787	2.691
322.107	141.373	2.510	142.220	2.543	142.689	2.559	143.059	2.573	143.319	2.606	142.739	2.631	140.865	2.689
322.849	141.523	2.509	142.491	2.542	142.885	2.559	143.222	2.574	143.322	2.605	143.115	2.630	141.342	2.686
323.594	141.682	2.509	142.522	2.540	142.955	2.557	143.348	2.573	143.305	2.603	143.244	2.630	141.365	2.685
324.340	141.814	2.506	142.722	2.539	143.178	2.556	143.460	2.571	143.576	2.602	143.463	2.628	141.427	2.681
325.087	141.904	2.508	143.093	2.541	143.529	2.557	143.828	2.573	143.898	2.605	143.687	2.632	141.538	2.684
325.837	141.966	2.505	142.972	2.538	143.430	2.555	143.797	2.571	143.771	2.602	143.533	2.629	141.499	2.680
326.588	142.252	2.506	143.342	2.539	143.749	2.555	144.047	2.571	144.191	2.602	143.886	2.631	141.936	2.682
327.341	142.084	2.504	143.274	2.536	143.568	2.552	143.849	2.568	144.014	2.599	143.703	2.627	141.695	2.679
328.095	142.683	2.503	143.592	2.535	143.955	2.552	144.293	2.568	144.384	2.599	144.153	2.627	142.336	2.678
328.852	142.526	2.501	143.617	2.533	143.921	2.549	144.190	2.565	144.515	2.597	144.187	2.624	142.300	2.678
329.610	142.795	2.500	143.497	2.533	144.302	2.549	144.464	2.565	144.590	2.596	144.367	2.623	142.727	2.675
330.370	142.630	2.500	143.740	2.533	144.288	2.548	144.617	2.565	144.799	2.597	144.640	2.623	142.633	2.677
331.131	142.663	2.498	143.744	2.531	144.204	2.548	144.535	2.563	144.547	2.593	144.114	2.620	142.428	2.673
331.895	143.273	2.499	144.305	2.531	144.776	2.547	145.055	2.563	145.256	2.594	144.735	2.622	143.289	2.674
332.660	143.176	2.498	144.128	2.530	144.607	2.546	144.858	2.562	145.024	2.594	144.689	2.622	142.822	2.675
333.426	143.567	2.495	144.500	2.528	144.962	2.545	145.251	2.560	145.494	2.591	145.447	2.619	143.450	2.671
334.195	143.384	2.494	144.595	2.527	145.109	2.543	145.349	2.558	145.509	2.591	145.294	2.616	143.301	2.671
334.965	143.481	2.491	144.724	2.524	144.938	2.541	145.377	2.557	145.484	2.587	145.233	2.615	143.409	2.666
335.738	143.890	2.493	144.858	2.525	145.416	2.541	145.702	2.556	145.832	2.587	145.646	2.614	143.960	2.669
336.512	143.863	2.494	144.881	2.526	145.209	2.542	145.599	2.558	145.790	2.591	145.737	2.617	143.711	2.672

337.287	144.228	2.490	145.275	2.523	145.801	2.539	146.113	2.555	146.375	2.586	146.142	2.614	144.408	2.666
338.065	144.364	2.491	145.516	2.523	145.871	2.539	146.285	2.555	146.485	2.586	146.222	2.615	144.495	2.666
338.844	144.438	2.488	145.649	2.521	146.081	2.537	146.339	2.553	146.553	2.584	146.289	2.613	144.501	2.663
339.625	144.631	2.488	145.631	2.520	146.184	2.536	146.481	2.553	146.714	2.583	146.651	2.613	144.741	2.663
340.408	144.347	2.487	145.712	2.519	146.081	2.536	146.378	2.552	146.487	2.583	146.203	2.612	144.347	2.662
341.193	144.913	2.485	145.938	2.517	146.479	2.534	146.866	2.550	147.058	2.580	146.737	2.609	145.162	2.660
341.979	145.047	2.486	146.149	2.518	146.607	2.534	146.977	2.551	147.271	2.582	147.053	2.610	145.244	2.661
342.768	145.116	2.483	146.422	2.515	146.767	2.531	147.075	2.547	147.244	2.578	147.051	2.606	145.403	2.658
343.558	145.466	2.483	146.597	2.515	146.983	2.531	147.404	2.547	147.600	2.578	147.307	2.606	145.605	2.658
344.350	145.397	2.481	146.659	2.513	147.117	2.529	147.438	2.545	147.686	2.576	147.381	2.602	145.530	2.657
345.144	145.755	2.479	146.758	2.512	147.382	2.528	147.595	2.544	147.851	2.575	147.670	2.602	145.961	2.654
345.939	145.742	2.478	146.834	2.510	147.421	2.526	147.728	2.542	148.084	2.574	147.816	2.602	146.124	2.654
346.737	145.825	2.476	146.971	2.508	147.471	2.525	147.754	2.541	148.001	2.572	147.952	2.600	146.147	2.652
347.536	145.997	2.477	147.215	2.509	147.735	2.525	148.107	2.541	148.328	2.572	148.166	2.600	146.444	2.653
348.337	145.962	2.478	147.235	2.510	147.702	2.526	148.069	2.542	148.236	2.574	148.023	2.602	146.294	2.655
349.140	146.334	2.474	147.559	2.507	148.054	2.523	148.443	2.539	148.683	2.570	148.504	2.599	146.803	2.649
349.945	146.455	2.474	147.712	2.506	148.091	2.523	148.534	2.539	148.793	2.570	148.689	2.598	146.963	2.649
350.752	146.576	2.472	147.773	2.504	148.270	2.521	148.700	2.537	148.897	2.568	148.687	2.596	147.004	2.647
351.560	146.872	2.471	147.976	2.503	148.489	2.519	148.777	2.536	149.022	2.566	148.599	2.594	147.400	2.646
352.371	146.869	2.470	148.059	2.502	148.572	2.519	148.881	2.535	149.177	2.566	149.040	2.593	147.199	2.646
353.183	146.962	2.468	148.142	2.500	148.694	2.516	149.017	2.532	149.232	2.563	148.896	2.590	147.327	2.643
353.997	147.165	2.469	148.354	2.501	148.943	2.517	149.284	2.533	149.553	2.564	149.482	2.591	147.720	2.645
354.813	146.900	2.466	148.435	2.498	148.669	2.514	149.159	2.529	149.229	2.561	149.035	2.588	147.399	2.642
355.631	147.572	2.466	148.793	2.498	149.183	2.515	149.551	2.531	149.888	2.562	149.702	2.590	148.167	2.641
356.451	147.543	2.465	148.607	2.497	149.295	2.514	149.656	2.530	149.955	2.561	149.925	2.590	148.117	2.640
357.273	147.683	2.463	149.031	2.495	149.398	2.511	149.842	2.528	150.090	2.558	149.815	2.587	148.332	2.638
358.096	147.959	2.462	149.046	2.494	149.650	2.511	149.920	2.527	150.251	2.558	150.137	2.586	148.690	2.638
358.922	147.899	2.463	149.148	2.495	149.616	2.512	150.102	2.528	150.478	2.560	150.270	2.589	148.594	2.639
359.749	148.258	2.460	149.501	2.492	149.935	2.509	150.348	2.525	150.630	2.555	150.551	2.584	149.037	2.635
360.579	148.342	2.460	149.584	2.492	150.108	2.508	150.529	2.524	150.878	2.555	150.727	2.584	149.212	2.635
361.410	148.407	2.458	149.548	2.490	150.083	2.505	150.507	2.522	150.721	2.553	150.526	2.582	149.014	2.634
362.243	148.644	2.457	149.751	2.490	150.436	2.506	150.802	2.522	151.104	2.553	150.999	2.581	149.572	2.632
363.078	148.683	2.457	149.866	2.488	150.552	2.505	150.942	2.521	151.328	2.552	151.226	2.580	149.698	2.632
363.915	148.635	2.455	150.110	2.487	150.489	2.503	150.863	2.519	151.152	2.550	151.099	2.578	149.324	2.629
364.754	149.115	2.455	150.256	2.487	150.840	2.503	151.172	2.519	151.590	2.549	151.585	2.578	149.971	2.629
365.595	149.215	2.455	150.400	2.486	150.857	2.503	151.365	2.519	151.809	2.550	151.672	2.579	150.169	2.629
366.438	149.359	2.452	150.565	2.484	151.228	2.500	151.619	2.516	151.944	2.547	151.854	2.575	150.220	2.627
367.282	149.491	2.451	150.704	2.483	151.256	2.500	151.711	2.516	152.102	2.546	152.022	2.574	150.577	2.626
368.129	149.653	2.451	150.788	2.483	151.367	2.499	151.766	2.515	152.287	2.546	152.041	2.574	150.551	2.626
368.978	149.749	2.449	150.954	2.481	151.645	2.497	151.962	2.514	152.349	2.544	152.287	2.572	150.688	2.623
369.828	149.951	2.449	151.252	2.480	151.914	2.496	152.247	2.513	152.782	2.544	152.781	2.572	151.055	2.624
370.681	149.915	2.449	151.060	2.481	151.756	2.497	152.132	2.513	152.528	2.545	152.508	2.573	150.915	2.625
371.535	150.276	2.447	151.582	2.478	152.144	2.495	152.655	2.511	152.924	2.541	152.797	2.570	151.276	2.621
372.392	150.426	2.446	151.681	2.478	152.346	2.494	152.775	2.510	153.175	2.541	153.050	2.569	151.496	2.620
373.250	150.475	2.444	151.760	2.476	152.413	2.492	152.822	2.508	153.200	2.539	153.145	2.567	151.625	2.620
374.111	150.778	2.443	151.973	2.475	152.605	2.492	152.998	2.508	153.342	2.538	153.239	2.567	151.814	2.617
374.973	150.846	2.443	152.240	2.474	152.715	2.491	153.210	2.507	153.641	2.537	153.570	2.565	152.039	2.617
375.837	150.723	2.441	152.195	2.473	152.538	2.489	153.122	2.505	153.406	2.537	153.281	2.565	151.890	2.617
376.704	151.212	2.441	152.413	2.472	153.092	2.488	153.592	2.504	154.001	2.535	153.910	2.564	152.610	2.615
377.572	151.365	2.440	152.616	2.471	153.232	2.488	153.695	2.504	154.228	2.535	154.208	2.563	152.813	2.614
378.443	151.389	2.438	152.693	2.470	153.387	2.486	153.724	2.502	154.149	2.533	154.147	2.561	152.702	2.613
379.315	151.656	2.437	152.991	2.469	153.544	2.486	154.009	2.502	154.334	2.532	154.303	2.560	152.953	2.611
380.189	151.699	2.437	152.996	2.468	153.596	2.484	154.109	2.500	154.591	2.532	154.672	2.560	153.212	2.611
381.066	151.746	2.435	153.116	2.466	153.801	2.482	154.149	2.499	154.679	2.530	154.381	2.558	153.180	2.610

381.944	152.092	2.434	153.339	2.465	154.031	2.482	154.479	2.498	154.926	2.529	154.831	2.558	153.497	2.608
382.825	152.163	2.434	153.439	2.465	154.174	2.482	154.644	2.498	155.137	2.529	155.112	2.557	153.770	2.608
383.707	152.253	2.432	153.698	2.463	154.368	2.479	154.762	2.495	155.243	2.527	155.219	2.555	153.922	2.607
384.592	152.505	2.431	153.824	2.463	154.503	2.479	154.958	2.495	155.380	2.526	155.411	2.554	153.995	2.605
385.478	152.570	2.431	154.058	2.462	154.689	2.478	155.222	2.494	155.632	2.525	155.659	2.553	154.279	2.604
386.367	152.685	2.429	154.032	2.459	154.742	2.476	155.193	2.492	155.718	2.523	155.653	2.551	154.273	2.603
387.258	152.970	2.428	154.362	2.460	154.916	2.476	155.443	2.492	155.911	2.523	155.916	2.551	154.539	2.602
388.150	153.033	2.428	154.632	2.459	155.163	2.475	155.597	2.491	156.064	2.522	156.138	2.551	154.762	2.602
389.045	153.178	2.426	154.570	2.458	155.213	2.473	155.701	2.489	156.182	2.521	156.240	2.549	154.910	2.601
389.942	153.423	2.425	155.006	2.456	155.472	2.473	155.965	2.489	156.357	2.520	156.388	2.548	154.965	2.599
390.841	153.528	2.425	154.962	2.455	155.574	2.472	156.105	2.488	156.694	2.519	156.696	2.547	155.291	2.598
391.742	153.478	2.423	154.889	2.454	155.505	2.470	156.092	2.486	156.520	2.517	156.591	2.545	155.246	2.597
392.645	153.875	2.422	155.285	2.453	155.952	2.469	156.386	2.485	156.870	2.517	156.927	2.545	155.630	2.596
393.550	153.970	2.422	155.414	2.452	156.001	2.469	156.508	2.485	157.163	2.516	157.138	2.544	155.826	2.596
394.457	153.812	2.421	155.331	2.452	155.807	2.468	156.349	2.485	157.063	2.515	156.971	2.543	155.923	2.595
395.367	154.313	2.419	155.828	2.450	156.410	2.467	156.921	2.483	157.426	2.514	157.493	2.541	156.154	2.593
396.278	154.470	2.419	155.917	2.449	156.543	2.466	157.114	2.482	157.593	2.512	157.691	2.541	156.293	2.592
397.192	154.398	2.418	155.951	2.449	156.554	2.465	157.085	2.481	157.742	2.512	157.779	2.541	156.432	2.591
398.107	154.717	2.416	156.182	2.447	156.839	2.463	157.332	2.479	157.865	2.510	157.912	2.537	156.624	2.589
399.025	154.922	2.416	156.424	2.447	156.951	2.463	157.530	2.479	158.135	2.510	158.209	2.537	156.989	2.590
399.945	154.981	2.415	156.368	2.446	157.020	2.463	157.611	2.479	158.300	2.509	158.348	2.537	157.076	2.589
400.867	155.046	2.413	156.665	2.444	157.334	2.461	157.827	2.477	158.369	2.507	158.461	2.535	157.285	2.587
401.791	155.391	2.412	156.833	2.443	157.493	2.460	158.070	2.476	158.619	2.507	158.722	2.534	157.400	2.586
402.717	155.442	2.412	156.819	2.443	157.695	2.459	158.262	2.474	158.852	2.505	158.794	2.532	157.633	2.585
403.645	155.353	2.410	156.880	2.440	157.595	2.457	158.075	2.472	158.678	2.504	158.678	2.532	157.507	2.583
404.576	155.772	2.410	157.290	2.441	158.034	2.457	158.528	2.473	158.997	2.504	159.187	2.531	157.985	2.583
405.509	155.973	2.410	157.461	2.441	158.159	2.457	158.719	2.473	159.261	2.503	159.339	2.531	158.232	2.582
406.443	155.957	2.409	157.292	2.440	158.196	2.457	158.656	2.473	159.394	2.504	159.563	2.532	158.349	2.582
407.380	156.205	2.406	157.808	2.437	158.361	2.454	159.034	2.470	159.628	2.500	159.822	2.528	158.399	2.580
408.319	156.445	2.406	158.228	2.437	158.700	2.453	159.346	2.469	159.820	2.500	159.966	2.528	158.782	2.579
409.261	156.441	2.406	157.896	2.436	158.717	2.453	159.216	2.468	159.944	2.500	159.970	2.528	158.916	2.578
410.204	156.493	2.403	158.107	2.434	158.759	2.450	159.235	2.466	159.836	2.497	160.020	2.525	158.782	2.577
411.150	156.889	2.403	158.535	2.434	159.141	2.450	159.710	2.466	160.291	2.497	160.568	2.525	159.287	2.576
412.098	156.993	2.403	158.673	2.434	159.399	2.450	159.861	2.466	160.510	2.496	160.500	2.524	159.564	2.575
413.048	156.989	2.402	158.520	2.433	159.437	2.449	159.934	2.465	160.742	2.496	160.698	2.523	159.601	2.575
414.000	157.306	2.400	158.871	2.430	159.586	2.446	160.141	2.463	160.738	2.494	160.812	2.522	159.866	2.573
414.954	157.565	2.400	159.303	2.430	159.853	2.447	160.420	2.463	160.950	2.493	161.140	2.521	159.996	2.572
415.911	157.656	2.400	158.996	2.430	159.896	2.447	160.539	2.462	161.266	2.493	161.354	2.520	160.213	2.572
416.869	157.583	2.397	159.105	2.428	159.836	2.444	160.523	2.460	161.107	2.492	161.298	2.520	160.279	2.570
417.830	157.981	2.396	159.517	2.427	160.286	2.443	160.886	2.459	161.562	2.490	161.732	2.518	160.654	2.569
418.794	158.201	2.396	159.746	2.427	160.499	2.443	161.019	2.459	161.794	2.489	161.984	2.517	160.756	2.568
419.759	158.138	2.396	159.871	2.426	160.521	2.443	161.206	2.459	161.921	2.489	162.054	2.516	161.022	2.568
420.727	158.232	2.393	159.877	2.423	160.659	2.440	161.163	2.456	161.860	2.487	161.939	2.514	161.115	2.566
421.697	158.622	2.393	160.328	2.424	160.959	2.440	161.525	2.456	162.207	2.487	162.433	2.514	161.280	2.565
422.669	158.764	2.393	160.561	2.424	161.241	2.440	161.842	2.455	162.567	2.486	162.698	2.513	161.580	2.564
423.643	158.747	2.392	160.393	2.422	161.186	2.439	161.806	2.455	162.661	2.486	162.882	2.513	161.863	2.564
424.620	159.069	2.390	160.548	2.420	161.403	2.436	162.040	2.453	162.772	2.483	162.909	2.511	162.025	2.562
425.598	159.292	2.389	160.897	2.420	161.627	2.436	162.265	2.453	162.957	2.483	163.161	2.511	162.021	2.561
426.580	159.401	2.389	161.022	2.420	161.688	2.436	162.378	2.452	163.252	2.482	163.351	2.509	162.443	2.561
427.563	159.350	2.389	160.926	2.419	161.747	2.436	162.380	2.451	163.274	2.482	163.566	2.510	162.326	2.561
428.549	159.709	2.386	161.236	2.417	162.125	2.433	162.774	2.449	163.456	2.480	163.643	2.507	162.873	2.558
429.536	159.935	2.386	161.592	2.416	162.327	2.433	163.018	2.448	163.747	2.479	163.977	2.507	162.987	2.558
430.527	159.993	2.385	161.681	2.415	162.526	2.432	163.167	2.447	163.906	2.478	164.151	2.506	163.216	2.557
431.519	159.949	2.384	161.426	2.415	162.378	2.431	163.065	2.447	163.997	2.478	164.067	2.505	163.219	2.556

432.514	160.248	2.383	161.913	2.413	162.850	2.429	163.400	2.445	164.160	2.476	164.497	2.504	163.354	2.555
433.511	160.649	2.382	162.383	2.413	163.159	2.429	163.766	2.445	164.458	2.475	164.826	2.503	163.840	2.553
434.510	160.774	2.382	162.448	2.412	163.163	2.429	163.885	2.444	164.642	2.474	164.839	2.503	164.012	2.553
435.512	160.735	2.381	162.293	2.411	163.266	2.427	163.907	2.443	164.750	2.474	165.035	2.502	164.032	2.552
436.516	160.898	2.379	162.721	2.409	163.451	2.425	164.010	2.441	164.904	2.472	165.157	2.499	164.260	2.551
437.522	161.262	2.378	163.063	2.408	163.705	2.424	164.371	2.440	165.128	2.472	165.428	2.500	164.345	2.550
438.531	161.220	2.378	163.165	2.408	163.924	2.424	164.567	2.440	165.403	2.471	165.714	2.499	164.684	2.549
439.542	161.402	2.378	163.188	2.408	164.091	2.425	164.674	2.441	165.633	2.470	165.862	2.498	164.980	2.549
440.555	161.557	2.376	163.265	2.406	164.179	2.422	164.819	2.438	165.633	2.469	165.903	2.496	165.087	2.547
441.570	161.910	2.375	163.654	2.405	164.394	2.421	165.122	2.437	165.849	2.468	166.072	2.495	165.310	2.546
442.588	162.046	2.374	163.712	2.404	164.609	2.421	165.349	2.436	166.087	2.467	166.436	2.494	165.517	2.545
443.609	162.093	2.374	163.866	2.404	164.729	2.420	165.452	2.436	166.417	2.466	166.720	2.493	165.842	2.545
444.631	162.219	2.372	163.653	2.402	164.709	2.419	165.338	2.434	166.365	2.465	166.534	2.493	165.826	2.543
445.656	162.492	2.371	164.358	2.401	165.169	2.418	165.781	2.433	166.628	2.464	167.055	2.492	166.117	2.542
446.684	162.751	2.370	164.461	2.400	165.376	2.417	166.043	2.432	166.903	2.463	167.185	2.490	166.272	2.541
447.713	162.748	2.370	164.389	2.399	165.397	2.416	166.104	2.431	167.024	2.462	167.296	2.489	166.604	2.540
448.745	162.773	2.369	164.359	2.399	165.427	2.415	166.095	2.431	167.171	2.462	167.508	2.490	166.642	2.540
449.780	163.137	2.367	164.673	2.396	165.552	2.413	166.432	2.428	167.386	2.460	167.595	2.487	167.034	2.538
450.817	163.429	2.367	165.321	2.396	166.056	2.413	166.659	2.429	167.510	2.459	167.937	2.487	167.036	2.537
451.856	163.534	2.366	165.370	2.396	166.352	2.412	166.990	2.428	167.854	2.458	168.057	2.485	167.373	2.536
452.898	163.525	2.365	165.363	2.395	166.275	2.411	167.047	2.427	168.010	2.457	168.325	2.485	167.687	2.535
453.942	163.644	2.363	165.393	2.393	166.265	2.409	167.029	2.425	167.997	2.456	168.522	2.484	167.603	2.535
454.988	163.931	2.363	165.738	2.392	166.631	2.408	167.294	2.424	168.296	2.455	168.808	2.482	167.901	2.534
456.037	164.221	2.363	166.009	2.392	166.855	2.408	167.602	2.424	168.527	2.455	168.982	2.482	168.080	2.532
457.088	164.311	2.362	166.034	2.391	167.061	2.408	167.886	2.424	168.788	2.454	169.058	2.481	168.327	2.532
458.142	164.388	2.361	166.097	2.391	167.094	2.407	167.861	2.422	168.948	2.453	169.180	2.481	168.438	2.531
459.198	164.516	2.360	166.307	2.389	167.319	2.406	168.053	2.422	168.986	2.452	169.451	2.479	168.537	2.530
460.257	164.838	2.359	166.590	2.388	167.605	2.404	168.339	2.420	169.302	2.451	169.562	2.478	168.863	2.529
461.318	164.974	2.358	166.904	2.388	167.885	2.404	168.571	2.419	169.477	2.450	169.937	2.477	169.125	2.528
462.381	165.265	2.358	167.094	2.387	167.998	2.403	168.716	2.419	169.855	2.449	170.048	2.476	169.470	2.527
463.447	165.239	2.357	167.008	2.386	168.098	2.403	168.820	2.418	169.945	2.448	170.284	2.475	169.636	2.527
464.515	165.404	2.355	167.284	2.385	168.303	2.401	168.906	2.416	170.009	2.447	170.420	2.475	169.610	2.525
465.586	165.606	2.354	167.419	2.384	168.434	2.400	169.118	2.415	170.236	2.446	170.549	2.474	169.945	2.524
466.659	165.906	2.354	167.689	2.383	168.623	2.399	169.382	2.415	170.464	2.445	170.905	2.473	170.108	2.523
467.735	166.018	2.353	168.024	2.382	168.798	2.399	169.629	2.414	170.730	2.444	171.096	2.471	170.347	2.523
468.813	166.043	2.353	168.140	2.382	169.047	2.398	169.828	2.413	170.886	2.444	171.358	2.472	170.626	2.522
469.894	166.310	2.351	168.083	2.380	169.075	2.397	169.920	2.411	170.996	2.443	171.422	2.470	170.835	2.520
470.977	166.528	2.350	168.333	2.379	169.246	2.395	170.180	2.410	171.152	2.441	171.691	2.468	170.958	2.520
472.063	166.705	2.349	168.742	2.378	169.570	2.394	170.256	2.410	171.439	2.440	171.903	2.467	171.282	2.519
473.151	166.929	2.349	168.873	2.378	169.868	2.394	170.596	2.409	171.684	2.440	172.071	2.467	171.502	2.518
474.242	166.957	2.348	169.022	2.378	169.953	2.393	170.780	2.409	171.824	2.439	172.183	2.466	171.620	2.517
475.335	167.097	2.347	168.834	2.376	169.982	2.392	170.830	2.408	171.881	2.438	172.433	2.465	171.786	2.516
476.431	167.326	2.346	169.104	2.375	170.301	2.391	171.040	2.407	172.164	2.437	172.630	2.465	172.033	2.515
477.529	167.648	2.345	169.571	2.374	170.484	2.390	171.306	2.405	172.317	2.436	172.712	2.463	172.214	2.514
478.630	167.680	2.344	169.782	2.373	170.624	2.389	171.492	2.404	172.602	2.435	173.193	2.463	172.395	2.513
479.733	167.757	2.343	169.759	2.372	170.893	2.388	171.851	2.402	172.787	2.434	173.216	2.460	172.710	2.512
480.839	167.946	2.343	169.831	2.372	171.118	2.388	171.881	2.403	173.084	2.433	173.382	2.459	172.737	2.511
481.948	168.090	2.341	170.169	2.371	171.194	2.387	171.984	2.402	173.178	2.432	173.738	2.459	173.084	2.510
483.059	168.336	2.341	170.354	2.370	171.365	2.386	172.036	2.401	173.279	2.432	173.757	2.459	173.268	2.509
484.172	168.495	2.340	170.379	2.369	171.735	2.385	172.360	2.399	173.487	2.431	173.981	2.458	173.552	2.505
485.289	168.797	2.339	170.628	2.368	171.874	2.384	172.600	2.399	173.754	2.430	174.315	2.457	173.810	2.510
486.407	168.801	2.339	171.035	2.367	172.098	2.383	172.751	2.398	173.857	2.429	174.470	2.455	173.989	2.505
487.529	169.053	2.338	170.966	2.367	172.260	2.382	172.996	2.398	174.188	2.428	174.682	2.455	174.247	2.509
488.652	169.197	2.337	171.197	2.366	172.256	2.381	172.975	2.397	174.312	2.427	174.931	2.454	174.222	2.507

489.779	169.418	2.336	171.520	2.365	172.414	2.380	173.175	2.396	174.484	2.426	174.967	2.453	174.451	2.499
490.908	169.629	2.335	171.538	2.364	172.765	2.379	173.454	2.395	174.751	2.425	175.183	2.451	174.873	2.501
492.040	169.764	2.334	172.036	2.363	172.772	2.378	173.757	2.394	174.801	2.423	175.210	2.449	174.992	2.500
493.174	170.256	2.338	172.122	2.363	173.215	2.375	173.766	2.392	174.980	2.420	175.765	2.450	175.349	2.494
494.311	170.365	2.335	171.993	2.362	173.141	2.375	174.198	2.390	175.168	2.419	175.574	2.449	175.254	2.493
495.450	170.273	2.335	172.417	2.361	173.316	2.374	174.129	2.389	175.515	2.418	176.123	2.447	175.747	2.492
496.592	170.422	2.334	173.059	2.360	173.501	2.372	174.339	2.388	175.845	2.417	176.322	2.447	175.644	2.491
497.737	170.649	2.334	173.171	2.359	173.635	2.371	174.680	2.388	175.851	2.417	176.631	2.447	176.040	2.490
498.885	170.948	2.333	172.898	2.359	173.916	2.371	174.687	2.387	176.177	2.416	176.746	2.446	176.228	2.489
500.035	171.006	2.333	173.269	2.359	174.168	2.370	175.110	2.387	176.174	2.416	176.921	2.445	176.597	2.489
501.187	171.073	2.331	173.302	2.358	174.318	2.369	175.268	2.386	176.475	2.415	177.227	2.443	176.912	2.487
502.343	171.540	2.330	173.577	2.355	174.564	2.367	175.187	2.384	176.401	2.413	177.144	2.441	176.940	2.486
503.501	171.550	2.329	173.695	2.355	174.756	2.367	175.606	2.383	176.951	2.412	177.699	2.441	177.220	2.485
504.661	171.577	2.328	173.942	2.354	174.822	2.366	175.783	2.382	177.208	2.411	177.714	2.440	177.382	2.485
505.825	172.060	2.327	173.886	2.353	174.863	2.365	175.987	2.382	177.186	2.410	177.943	2.439	177.364	2.484
506.991	172.288	2.326	174.433	2.353	175.604	2.364	176.111	2.381	177.550	2.410	178.067	2.440	177.960	2.483
508.159	172.403	2.326	174.594	2.352	175.313	2.364	176.245	2.380	177.600	2.409	178.253	2.438	178.088	2.482
509.331	172.395	2.325	174.710	2.351	175.590	2.363	176.644	2.379	177.618	2.408	178.314	2.437	178.141	2.482
510.505	172.608	2.325	174.848	2.350	176.060	2.362	176.592	2.379	177.888	2.407	178.668	2.436	178.498	2.481
511.682	172.787	2.323	175.471	2.349	176.278	2.361	177.156	2.377	178.210	2.406	179.020	2.435	178.749	2.480
512.861	173.049	2.323	175.076	2.347	176.294	2.361	177.195	2.376	178.735	2.404	179.134	2.434	179.013	2.479
514.044	173.000	2.322	175.233	2.347	176.227	2.359	177.505	2.375	178.706	2.404	179.290	2.433	178.917	2.478
515.229	173.326	2.321	175.942	2.346	176.728	2.359	177.810	2.375	178.708	2.403	179.873	2.433	179.388	2.476
516.416	173.650	2.320	175.765	2.345	176.964	2.357	177.874	2.374	179.238	2.402	180.107	2.432	179.591	2.476
517.607	173.708	2.320	176.052	2.345	177.280	2.357	177.942	2.373	179.347	2.401	180.020	2.431	179.904	2.475
518.800	174.048	2.319	175.782	2.344	176.978	2.356	178.008	2.373	179.285	2.400	180.074	2.430	180.074	2.475
519.996	174.005	2.318	176.184	2.343	177.216	2.355	178.199	2.372	179.453	2.400	180.323	2.428	180.288	2.473
521.195	174.172	2.317	176.416	2.342	177.493	2.355	178.414	2.371	179.847	2.399	180.664	2.428	180.330	2.473
522.396	174.284	2.316	176.764	2.342	177.846	2.354	178.586	2.370	180.174	2.397	180.620	2.427	180.582	2.472
523.600	174.381	2.316	176.934	2.341	177.861	2.353	178.914	2.369	180.061	2.397	181.062	2.427	180.964	2.471
524.808	175.026	2.315	176.987	2.340	178.138	2.352	179.219	2.368	180.542	2.397	181.189	2.426	181.112	2.470
526.017	175.178	2.314	177.570	2.339	178.379	2.351	179.254	2.367	180.615	2.396	181.223	2.425	181.168	2.469
527.230	175.278	2.313	177.638	2.339	178.841	2.350	179.564	2.367	180.758	2.395	181.572	2.424	181.571	2.468
528.445	175.346	2.312	177.902	2.338	178.677	2.350	179.578	2.367	181.234	2.395	181.929	2.423	181.846	2.468
529.663	175.607	2.312	178.054	2.337	178.875	2.349	179.908	2.365	181.262	2.393	181.922	2.423	181.993	2.466
530.884	175.618	2.311	177.826	2.336	178.915	2.348	179.917	2.365	181.658	2.392	182.143	2.421	182.455	2.466
532.108	176.060	2.309	178.275	2.335	179.144	2.346	180.149	2.364	181.472	2.391	182.381	2.420	182.389	2.464
533.335	176.125	2.309	178.389	2.334	179.356	2.346	180.218	2.363	181.849	2.390	182.596	2.419	182.855	2.464
534.564	176.219	2.308	178.751	2.334	179.774	2.346	180.723	2.361	182.111	2.390	182.833	2.418	183.222	2.463
535.797	176.555	2.307	178.837	2.333	179.813	2.345	180.565	2.360	182.415	2.388	182.947	2.418	182.965	2.463
537.032	176.523	2.306	179.330	2.331	179.966	2.344	181.178	2.359	182.645	2.387	183.220	2.416	183.392	2.462
538.270	176.956	2.305	179.478	2.331	180.278	2.343	181.637	2.359	182.734	2.387	183.495	2.415	183.375	2.461
539.511	177.189	2.304	179.416	2.329	180.526	2.341	181.354	2.358	183.049	2.386	183.549	2.414	183.719	2.459
540.754	177.229	2.304	179.727	2.329	180.413	2.341	181.673	2.357	183.260	2.386	183.918	2.414	184.145	2.458
542.001	177.342	2.303	179.742	2.329	180.732	2.340	182.078	2.357	183.442	2.385	184.013	2.413	184.295	2.458
543.250	177.675	2.303	180.148	2.328	181.210	2.339	182.108	2.357	183.553	2.384	184.385	2.413	184.489	2.457
544.503	177.842	2.302	180.099	2.327	181.244	2.339	182.213	2.356	183.821	2.382	184.497	2.411	184.670	2.456
545.758	178.004	2.301	180.472	2.327	181.423	2.338	182.570	2.354	184.097	2.382	184.697	2.411	185.158	2.455
547.016	177.955	2.300	180.518	2.325	181.648	2.337	182.602	2.354	184.200	2.381	184.945	2.409	185.149	2.455
548.277	178.296	2.300	180.615	2.325	181.597	2.336	182.853	2.352	184.158	2.380	185.192	2.409	185.561	2.454
549.541	178.653	2.299	180.829	2.323	182.151	2.335	183.315	2.352	184.850	2.379	185.540	2.408	185.566	2.453
550.808	178.812	2.298	181.067	2.323	182.135	2.335	183.000	2.351	184.661	2.379	185.468	2.406	185.871	2.452
552.077	178.878	2.297	181.571	2.322	182.604	2.334	183.670	2.349	184.769	2.377	185.922	2.406	186.033	2.451
553.350	178.911	2.296	181.761	2.321	182.753	2.333	183.451	2.348	185.323	2.377	185.968	2.406	186.515	2.450

554.626	179.372	2.296	181.942	2.321	182.979	2.332	183.691	2.348	185.316	2.377	186.342	2.404	186.366	2.450
555.904	179.635	2.294	182.150	2.319	182.703	2.331	184.064	2.347	185.454	2.375	186.399	2.403	186.451	2.449
557.186	179.507	2.294	181.904	2.319	183.003	2.330	184.451	2.345	186.045	2.374	186.492	2.402	187.215	2.447
558.470	179.840	2.293	181.738	2.318	183.347	2.330	184.199	2.346	186.215	2.373	186.871	2.402	187.368	2.446
559.758	179.833	2.293	182.331	2.317	183.752	2.329	184.904	2.345	186.254	2.372	187.255	2.401	187.351	2.446
561.048	180.212	2.293	183.055	2.317	183.670	2.328	185.241	2.344	186.746	2.373	187.683	2.401	187.961	2.446
562.341	180.502	2.292	182.850	2.316	183.742	2.328	185.326	2.344	186.736	2.372	187.742	2.400	187.910	2.445
563.638	180.673	2.291	182.902	2.315	184.391	2.327	185.397	2.343	187.011	2.371	187.781	2.399	188.432	2.443
564.937	180.742	2.290	183.226	2.315	184.428	2.326	185.475	2.342	187.050	2.370	187.720	2.399	188.400	2.443
566.239	181.057	2.289	183.538	2.314	184.787	2.326	186.048	2.342	187.124	2.369	188.325	2.397	188.716	2.442
567.545	181.195	2.288	183.941	2.313	184.686	2.325	186.082	2.341	187.593	2.368	188.599	2.398	188.921	2.442
568.853	181.159	2.287	183.754	2.313	184.864	2.324	186.373	2.341	187.720	2.368	188.805	2.396	189.215	2.440
570.164	181.413	2.287	183.946	2.311	185.074	2.323	186.565	2.340	187.917	2.367	188.677	2.396	189.431	2.440
571.479	181.755	2.285	184.170	2.311	185.429	2.322	186.557	2.339	188.279	2.366	189.289	2.394	189.786	2.439
572.796	181.916	2.285	184.876	2.310	185.536	2.322	186.874	2.338	187.999	2.365	189.546	2.393	189.863	2.438
574.117	182.334	2.284	184.955	2.309	186.127	2.321	187.092	2.337	188.513	2.364	189.898	2.393	190.236	2.437
575.440	182.348	2.284	184.992	2.308	186.075	2.319	187.353	2.337	189.032	2.363	189.827	2.392	190.544	2.436
576.767	182.351	2.283	185.018	2.308	186.243	2.319	187.483	2.336	188.948	2.362	190.254	2.391	190.727	2.436
578.096	182.756	2.282	185.368	2.308	186.782	2.318	187.728	2.335	189.287	2.362	190.110	2.391	190.955	2.435
579.429	183.047	2.282	185.626	2.306	186.453	2.318	187.957	2.333	189.490	2.361	190.321	2.389	191.197	2.434
580.764	183.291	2.280	185.350	2.305	186.806	2.317	188.009	2.333	190.019	2.360	190.900	2.389	191.368	2.433
582.103	183.303	2.280	186.187	2.305	187.059	2.316	187.979	2.332	190.063	2.359	191.339	2.388	191.661	2.432
583.445	183.472	2.279	186.353	2.304	187.296	2.315	188.558	2.331	190.059	2.358	191.540	2.387	191.896	2.431
584.790	183.646	2.279	186.533	2.303	187.940	2.315	188.689	2.331	189.981	2.358	191.632	2.386	192.134	2.430
586.138	183.703	2.277	186.627	2.302	187.947	2.313	188.898	2.330	190.762	2.357	191.947	2.386	192.545	2.430
587.489	184.154	2.277	186.571	2.302	188.075	2.313	189.144	2.329	191.229	2.356	192.168	2.384	192.592	2.429
588.844	184.200	2.276	186.936	2.301	188.427	2.311	189.315	2.329	191.234	2.355	192.010	2.383	192.877	2.428
590.201	184.535	2.275	187.455	2.300	188.543	2.311	189.603	2.328	191.418	2.354	192.317	2.383	193.332	2.427
591.562	184.570	2.274	187.556	2.299	188.745	2.310	189.869	2.327	191.283	2.354	192.414	2.382	193.459	2.426
592.925	184.756	2.274	187.697	2.298	188.621	2.309	189.716	2.326	192.053	2.353	192.889	2.381	193.710	2.425
594.292	184.903	2.273	187.850	2.298	189.464	2.309	191.034	2.325	192.023	2.352	193.208	2.380	188.261	2.425
595.662	185.240	2.273	187.875	2.297	189.188	2.308	190.417	2.325	192.142	2.352	193.514	2.380	194.018	2.424
597.035	185.429	2.272	188.104	2.297	189.255	2.307	190.558	2.324	192.523	2.351	193.331	2.380	194.291	2.423
598.412	185.733	2.271	188.223	2.296	189.954	2.306	190.894	2.323	192.608	2.350	193.588	2.378	194.576	2.422
599.791	185.927	2.271	188.489	2.296	189.890	2.306	191.144	2.323	192.986	2.350	193.953	2.378	194.864	2.422
601.174	186.046	2.270	188.816	2.294	190.447	2.305	191.241	2.322	192.781	2.348	194.572	2.377	195.111	2.421
602.560	186.446	2.269	188.890	2.294	190.351	2.304	191.736	2.321	193.261	2.348	194.172	2.376	195.556	2.420
603.949	186.249	2.268	189.487	2.293	190.233	2.303	191.861	2.320	193.781	2.347	194.900	2.376	195.761	2.420
605.341	186.814	2.267	189.377	2.292	190.782	2.303	192.163	2.319	193.925	2.347	195.170	2.375	195.745	2.418
606.736	186.820	2.267	189.543	2.291	191.217	2.302	192.231	2.319	194.307	2.346	195.164	2.374	196.335	2.418
608.135	187.187	2.266	189.866	2.290	191.385	2.301	192.492	2.317	194.323	2.345	195.944	2.373	196.431	2.417
609.537	187.263	2.265	190.044	2.290	191.761	2.300	193.149	2.316	194.543	2.344	196.050	2.372	196.600	2.415
610.942	187.512	2.265	190.248	2.289	191.652	2.300	193.115	2.316	195.149	2.343	195.977	2.371	196.799	2.415
612.350	187.483	2.264	190.464	2.287	191.736	2.299	193.148	2.315	195.116	2.342	196.204	2.370	197.228	2.414
613.762	187.747	2.263	190.669	2.286	191.807	2.299	193.165	2.314	195.239	2.340	196.016	2.369	197.487	2.414
615.177	188.225	2.262	190.859	2.286	191.844	2.297	193.461	2.314	195.422	2.340	196.943	2.369	197.561	2.413
616.595	188.212	2.262	191.103	2.285	192.273	2.297	193.297	2.313	195.575	2.340	196.742	2.368	197.769	2.412
618.016	188.514	2.260	191.116	2.286	192.484	2.296	193.737	2.313	195.696	2.339	197.224	2.368	198.287	2.412
619.441	188.644	2.260	191.153	2.285	192.844	2.296	194.106	2.312	196.120	2.339	197.244	2.367	198.516	2.411
620.869	188.989	2.259	191.446	2.285	193.040	2.295	194.605	2.311	196.202	2.338	197.765	2.366	198.757	2.410
622.300	189.138	2.259	192.210	2.285	193.880	2.294	194.910	2.311	196.272	2.338	197.688	2.366	198.855	2.409
623.735	189.318	2.259	192.397	2.283	193.882	2.293	195.128	2.310	196.710	2.337	198.300	2.365	199.302	2.407
625.173	189.635	2.258	192.740	2.282	194.012	2.292	195.381	2.308	197.072	2.335	198.710	2.363	199.596	2.406
626.614	189.724	2.257	192.613	2.281	194.039	2.291	195.360	2.308	197.868	2.335	198.973	2.363	199.542	2.406

628.058	190.037	2.256	193.009	2.280	194.106	2.290	195.362	2.307	197.919	2.334	198.699	2.361	200.136	2.405
629.506	189.949	2.255	193.213	2.280	194.246	2.290	196.015	2.306	197.844	2.333	199.280	2.361	200.383	2.404
630.957	190.556	2.254	193.430	2.278	194.645	2.289	196.263	2.306	198.118	2.332	199.506	2.360	200.525	2.404
632.412	190.724	2.254	193.713	2.278	194.729	2.288	196.345	2.305	198.408	2.332	199.848	2.359	201.028	2.403
633.870	190.948	2.253	193.304	2.277	194.900	2.288	196.794	2.304	198.597	2.331	200.022	2.358	201.129	2.402
635.331	191.270	2.252	194.174	2.276	195.302	2.287	196.870	2.303	198.792	2.330	200.228	2.358	201.167	2.401
636.796	191.281	2.252	194.017	2.276	195.530	2.287	197.264	2.303	198.807	2.329	200.549	2.358	201.729	2.401
638.264	191.161	2.250	194.404	2.275	195.897	2.285	197.614	2.302	199.594	2.329	200.629	2.357	201.902	2.400
639.735	191.609	2.250	194.316	2.276	196.103	2.285	197.376	2.302	199.387	2.328	201.081	2.356	202.487	2.400
641.210	191.868	2.250	194.621	2.275	196.462	2.284	197.870	2.301	199.864	2.328	201.447	2.355	202.693	2.398
642.688	192.078	2.249	195.323	2.273	196.561	2.283	197.843	2.300	200.139	2.326	201.832	2.354	202.682	2.397
644.169	192.296	2.248	195.395	2.272	196.904	2.283	197.945	2.299	200.202	2.326	202.074	2.353	203.086	2.396
645.654	192.534	2.248	195.368	2.271	196.566	2.282	198.534	2.298	200.677	2.325	201.909	2.353	203.286	2.396
647.143	192.776	2.247	195.761	2.271	197.627	2.281	198.712	2.298	200.749	2.324	202.430	2.352	203.394	2.395
648.634	192.736	2.246	195.543	2.270	197.471	2.280	198.997	2.297	201.110	2.324	202.706	2.351	203.692	2.395
650.130	193.307	2.245	195.980	2.269	197.545	2.280	199.054	2.296	200.840	2.322	202.727	2.350	204.254	2.394
651.628	193.515	2.245	196.372	2.268	198.080	2.279	199.275	2.296	201.312	2.321	203.029	2.350	204.605	2.393
653.131	193.529	2.244	196.931	2.269	197.756	2.279	199.641	2.295	201.710	2.321	202.897	2.349	204.923	2.392
654.636	193.845	2.244	197.290	2.268	198.516	2.277	199.742	2.294	202.161	2.321	203.644	2.348	205.036	2.391
656.145	194.234	2.243	197.220	2.267	198.374	2.277	200.022	2.293	202.545	2.319	203.599	2.347	205.086	2.390
657.658	194.260	2.242	197.486	2.266	198.445	2.276	200.436	2.293	202.902	2.320	203.723	2.347	205.474	2.389
659.174	194.372	2.241	197.565	2.265	198.889	2.275	200.485	2.293	202.421	2.318	204.321	2.346	205.585	2.389
660.693	194.472	2.240	198.006	2.265	199.423	2.275	201.208	2.291	203.378	2.317	204.865	2.346	205.900	2.388
662.217	194.736	2.240	198.163	2.264	199.619	2.274	201.294	2.290	203.366	2.316	204.733	2.344	206.118	2.387
663.743	195.206	2.239	198.532	2.263	199.570	2.273	201.195	2.289	203.584	2.315	205.120	2.343	206.578	2.386
665.273	195.158	2.238	198.537	2.262	199.883	2.272	201.906	2.289	203.668	2.315	205.303	2.342	206.790	2.386
666.807	195.556	2.237	198.666	2.262	200.055	2.272	201.829	2.288	203.964	2.314	205.704	2.342	207.101	2.385
668.344	195.788	2.238	199.172	2.262	200.447	2.271	202.341	2.288	204.055	2.314	206.044	2.342	207.542	2.383
669.885	195.882	2.236	199.150	2.261	201.056	2.270	202.697	2.287	204.618	2.313	206.591	2.341	207.598	2.383
671.429	196.191	2.236	199.238	2.260	200.873	2.269	202.515	2.286	204.693	2.313	206.516	2.339	207.737	2.383
672.977	196.550	2.235	200.199	2.259	201.254	2.269	203.096	2.284	205.119	2.312	206.783	2.339	208.341	2.382
674.528	196.863	2.234	199.546	2.258	201.437	2.269	202.824	2.283	205.398	2.310	206.716	2.338	208.745	2.381
676.083	196.823	2.233	199.995	2.258	201.822	2.268	203.272	2.284	205.596	2.310	206.684	2.339	209.135	2.381
677.642	197.160	2.233	200.554	2.258	201.980	2.267	203.360	2.284	206.362	2.310	207.278	2.337	209.349	2.379
679.204	197.436	2.232	200.695	2.257	202.186	2.265	203.751	2.283	206.318	2.309	207.968	2.336	208.974	2.377
680.769	197.552	2.232	200.811	2.256	202.338	2.265	204.127	2.282	206.273	2.308	208.111	2.336	209.590	2.378
682.339	198.046	2.232	201.388	2.255	203.060	2.265	204.457	2.280	206.780	2.307	208.696	2.334	210.082	2.377
683.912	198.280	2.230	201.355	2.253	202.950	2.263	204.281	2.279	206.441	2.305	208.828	2.333	209.834	2.376
685.488	197.939	2.229	200.790	2.253	202.885	2.263	205.342	2.279	207.237	2.305	208.974	2.333	210.390	2.376
687.068	198.255	2.229	201.791	2.254	203.340	2.262	205.276	2.279	207.292	2.305	208.914	2.333	211.025	2.375
688.652	198.841	2.228	202.360	2.252	203.353	2.261	205.385	2.278	207.556	2.304	209.445	2.331	210.833	2.374
690.240	198.926	2.228	202.688	2.251	203.940	2.261	205.722	2.278	208.242	2.303	209.786	2.331	211.515	2.373
691.831	199.226	2.227	202.688	2.250	203.929	2.261	205.960	2.276	208.272	2.302	209.965	2.329	211.499	2.372
693.426	199.312	2.226	203.007	2.250	204.442	2.260	205.980	2.276	208.425	2.301	209.775	2.329	212.056	2.372
695.024	199.397	2.226	202.916	2.250	204.403	2.259	206.387	2.276	208.573	2.302	210.419	2.329	211.909	2.371
696.627	199.797	2.225	203.276	2.249	204.889	2.257	206.571	2.274	209.102	2.300	210.906	2.328	212.530	2.370
698.232	199.926	2.225	203.416	2.248	204.807	2.257	206.322	2.274	209.312	2.299	211.156	2.327	212.713	2.370
699.842	200.201	2.223	203.687	2.247	205.322	2.257	206.697	2.272	209.868	2.298	210.975	2.326	213.322	2.369
701.455	200.559	2.223	204.105	2.246	205.573	2.256	207.093	2.273	209.750	2.298	211.361	2.325	213.546	2.368
703.072	200.821	2.222	204.001	2.246	205.390	2.255	207.368	2.272	209.949	2.298	211.938	2.325	213.906	2.367
704.693	200.890	2.222	204.053	2.245	206.018	2.254	207.704	2.271	209.624	2.297	212.272	2.324	214.049	2.366
706.318	201.528	2.220	204.788	2.242	206.969	2.253	208.232	2.270	211.066	2.296	212.410	2.323	213.675	2.366
707.946	201.517	2.220	205.017	2.243	206.227	2.253	208.148	2.269	210.892	2.295	212.793	2.322	214.810	2.366
709.578	201.697	2.219	205.445	2.243	206.701	2.252	208.754	2.268	211.183	2.294	212.423	2.321	214.747	2.364

711.214	201.669	2.218	205.662	2.243	207.368	2.252	208.728	2.268	211.365	2.294	212.656	2.321	215.365	2.364
712.853	202.258	2.218	205.802	2.242	207.081	2.250	209.719	2.266	211.915	2.294	213.951	2.320	215.607	2.362
714.496	202.248	2.217	206.005	2.241	207.375	2.250	209.446	2.265	211.302	2.292	213.618	2.319	216.031	2.363
716.143	202.649	2.218	205.826	2.240	207.587	2.250	209.776	2.265	211.534	2.290	214.080	2.318	216.173	2.362
717.794	202.605	2.216	206.483	2.239	208.086	2.248	209.727	2.265	212.539	2.290	214.180	2.318	216.372	2.361
719.449	203.273	2.216	206.715	2.240	208.032	2.248	210.336	2.265	212.896	2.290	214.849	2.317	216.794	2.360
721.108	203.596	2.214	206.619	2.238	208.646	2.246	210.399	2.263	212.989	2.288	214.920	2.315	216.751	2.358
722.770	203.139	2.214	206.939	2.238	208.707	2.247	210.568	2.263	212.658	2.288	215.090	2.316	216.535	2.359
724.436	203.930	2.213	207.266	2.236	208.805	2.246	211.265	2.262	213.299	2.287	215.413	2.314	217.711	2.358
726.106	204.117	2.213	207.519	2.237	209.232	2.245	211.231	2.261	213.145	2.287	215.469	2.315	217.974	2.358
727.780	204.552	2.212	208.079	2.235	209.227	2.245	211.707	2.261	214.453	2.286	216.348	2.313	217.785	2.356
729.458	204.098	2.212	208.058	2.235	208.833	2.245	211.235	2.260	214.409	2.284	216.205	2.312	218.377	2.356
731.139	204.784	2.211	208.618	2.233	209.962	2.242	211.997	2.258	214.370	2.284	216.863	2.312	218.783	2.355
732.825	204.955	2.210	209.326	2.234	210.252	2.241	212.101	2.259	214.394	2.284	216.962	2.311	219.266	2.355
734.514	205.017	2.210	208.899	2.231	210.143	2.240	212.830	2.257	214.880	2.282	217.344	2.309	219.496	2.353
736.207	205.221	2.208	209.062	2.232	210.414	2.241	211.936	2.257	215.780	2.283	217.219	2.310	218.902	2.354
737.904	205.707	2.208	209.274	2.230	211.016	2.239	212.976	2.257	215.344	2.281	217.521	2.307	219.732	2.353
739.605	205.475	2.207	209.646	2.232	212.147	2.239	212.599	2.256	215.602	2.281	217.716	2.308	220.923	2.353
741.310	206.496	2.207	209.822	2.230	211.433	2.238	213.937	2.255	215.949	2.280	217.598	2.306	220.454	2.350
743.019	206.225	2.207	211.245	2.231	212.060	2.239	213.842	2.255	215.914	2.282	218.378	2.306	220.830	2.350
744.732	206.267	2.205	209.830	2.227	212.008	2.238	214.174	2.254	216.297	2.278	218.723	2.305	221.489	2.351
746.449	206.414	2.205	211.200	2.227	213.207	2.236	214.648	2.253	217.081	2.278	218.519	2.304	221.559	2.348
748.170	206.835	2.204	210.924	2.227	213.035	2.236	213.558	2.253	217.273	2.277	219.259	2.303	222.278	2.348
749.894	206.975	2.204	210.110	2.226	212.919	2.236	215.467	2.251	217.425	2.277	218.850	2.305	221.476	2.348
751.623	207.301	2.203	211.366	2.227	213.168	2.237	215.842	2.252	217.676	2.278	220.304	2.304	222.211	2.350
753.356	207.553	2.203	212.410	2.227	213.892	2.239	215.551	2.251	217.174	2.274	220.334	2.301	222.915	2.346
755.092	207.813	2.203	211.811	2.228	213.253	2.234	215.530	2.250	217.966	2.275	220.979	2.301	222.437	2.348
756.833	208.704	2.200	212.460	2.222	213.860	2.233	215.765	2.248	218.925	2.274	220.614	2.301	222.570	2.345
758.578	208.703	2.202	212.803	2.224	215.056	2.234	216.716	2.251	218.588	2.273	221.217	2.300	223.896	2.344
760.326	209.154	2.199	213.060	2.249	213.666	2.247	216.714	2.265	216.732	2.260	220.871	2.281	221.389	2.330
762.079	209.072	2.201	213.023	2.234	213.889	2.238	216.803	2.251	217.861	2.260	221.431	2.291	222.080	2.339
763.836	208.947	2.201	213.327	2.232	213.151	2.235	216.808	2.253	218.087	2.260	221.102	2.288	223.423	2.343
765.597	210.864	2.199	213.574	2.239	215.373	2.246	216.832	2.258	219.794	2.259	222.500	2.288	224.031	2.336
767.362	209.861	2.197	215.335	2.229	216.782	2.234	217.985	2.249	218.858	2.263	222.461	2.287	225.036	2.340
769.130	209.913	2.196	214.695	2.228	215.480	2.236	217.227	2.251	218.476	2.263	222.325	2.291	224.329	2.341
770.904	210.526	2.198	214.729	2.234	215.628	2.239	217.581	2.252	221.117	2.259	223.046	2.286	224.495	2.337
772.681	210.838	2.195	216.497	2.228	217.021	2.235	219.405	2.248	220.426	2.256	223.052	2.284	225.109	2.338
774.462	210.318	2.195	215.167	2.226	215.947	2.232	218.211	2.249	220.480	2.263	223.236	2.288	225.971	2.339
776.247	211.218	2.197	214.201	2.229	215.957	2.236	219.001	2.252	220.524	2.261	223.620	2.287	225.438	2.335
778.037	211.856	2.192	216.490	2.232	217.238	2.235	220.032	2.248	219.151	2.250	223.390	2.279	225.683	2.330
779.830	211.514	2.194	215.627	2.224	216.765	2.230	218.614	2.245	221.071	2.256	224.221	2.288	227.186	2.334
781.628	211.286	2.195	216.044	2.225	216.434	2.231	219.494	2.245	223.207	2.257	224.630	2.282	227.310	2.331
783.430	211.926	2.193	217.372	2.234	219.024	2.235	221.017	2.248	220.032	2.247	225.488	2.275	225.673	2.329
785.236	212.266	2.191	216.357	2.223	216.455	2.231	219.897	2.244	221.228	2.258	225.368	2.287	227.446	2.335
787.046	212.664	2.193	216.698	2.226	218.015	2.230	218.796	2.246	221.447	2.258	225.668	2.283	227.546	2.327
788.860	212.469	2.189	218.055	2.225	218.968	2.232	219.914	2.242	221.720	2.248	225.752	2.274	227.234	2.328
790.679	212.518	2.189	218.422	2.221	218.638	2.226	220.704	2.240	222.212	2.253	226.266	2.280	228.220	2.332
792.501	213.851	2.189	217.430	2.222	218.528	2.230	220.828	2.245	223.396	2.253	226.615	2.281	228.600	2.329
794.328	213.556	2.189	218.952	2.223	219.155	2.227	221.518	2.241	222.904	2.250	226.875	2.278	228.658	2.328
796.159	213.381	2.187	218.295	2.220	220.077	2.223	221.393	2.238	223.647	2.251	226.902	2.279	229.769	2.330
797.995	214.049	2.188	218.213	2.221	220.189	2.231	221.693	2.239	224.006	2.253	226.858	2.277	229.417	2.327
799.834	214.052	2.185	219.059	2.218	219.699	2.224	222.812	2.239	224.104	2.251	226.483	2.282	229.800	2.328
801.678	214.287	2.187	219.307	2.214	220.417	2.220	221.571	2.237	223.656	2.252	227.780	2.278	230.982	2.327
803.526	214.542	2.184	219.496	2.220	219.977	2.225	222.515	2.238	225.592	2.246	228.690	2.275	230.263	2.324

805.378	215.260	2.185	220.292	2.215	222.187	2.223	223.557	2.236	224.424	2.248	228.273	2.275	231.263	2.327
807.235	214.895	2.183	220.268	2.214	220.338	2.222	222.987	2.236	225.317	2.247	229.016	2.274	231.537	2.323
809.096	216.009	2.184	220.750	2.220	221.484	2.224	224.224	2.235	224.867	2.245	227.574	2.271	231.564	2.321
810.961	215.914	2.184	220.906	2.215	221.800	2.218	223.658	2.233	226.269	2.246	228.448	2.273	232.227	2.322
812.831	215.867	2.182	221.257	2.214	221.106	2.223	224.050	2.237	225.903	2.246	230.065	2.272	232.966	2.321
814.704	216.279	2.182	222.191	2.213	223.516	2.216	224.241	2.231	226.901	2.248	228.925	2.274	232.770	2.322
816.582	216.416	2.182	221.775	2.209	223.708	2.217	224.361	2.231	227.077	2.248	230.259	2.274	233.715	2.322
818.465	216.764	2.180	221.381	2.212	222.966	2.218	225.422	2.232	227.007	2.244	231.325	2.274	234.177	2.320
820.352	217.096	2.179	221.836	2.209	223.414	2.216	225.678	2.231	228.047	2.244	230.873	2.272	234.779	2.320
822.243	217.955	2.180	221.807	2.208	222.602	2.217	225.210	2.231	228.128	2.245	230.827	2.273	235.095	2.318
824.138	217.927	2.180	222.650	2.207	224.151	2.214	226.092	2.227	227.513	2.244	231.718	2.274	234.971	2.321
826.038	217.718	2.178	223.402	2.206	223.864	2.215	225.837	2.227	228.296	2.244	231.570	2.272	235.927	2.320
827.942	217.873	2.176	223.461	2.210	223.755	2.219	226.796	2.230	229.128	2.241	231.722	2.266	235.260	2.317
829.851	218.048	2.177	224.392	2.209	224.253	2.214	226.748	2.225	229.882	2.242	231.680	2.270	235.687	2.318
831.764	218.959	2.176	223.118	2.206	224.873	2.216	226.767	2.227	229.318	2.241	233.063	2.265	236.552	2.316
833.681	218.304	2.175	224.456	2.205	225.292	2.211	227.059	2.224	228.999	2.240	233.976	2.268	236.467	2.316
835.603	219.318	2.176	224.353	2.201	225.972	2.209	226.828	2.223	229.492	2.240	233.426	2.269	236.968	2.315
837.529	219.162	2.172	225.740	2.204	226.800	2.212	228.738	2.224	229.546	2.241	233.166	2.266	237.207	2.315
839.460	219.453	2.174	225.354	2.202	226.683	2.209	227.587	2.223	229.664	2.239	233.855	2.265	237.429	2.314
841.395	220.870	2.171	224.809	2.205	226.336	2.213	228.703	2.225	230.686	2.236	234.415	2.264	237.830	2.310
843.335	219.903	2.172	225.308	2.202	226.926	2.210	228.681	2.223	230.831	2.238	233.922	2.265	238.625	2.312
845.279	220.521	2.173	224.236	2.201	225.711	2.212	228.396	2.224	232.290	2.236	235.801	2.263	238.767	2.309
847.227	220.422	2.172	226.979	2.200	227.254	2.205	228.914	2.220	231.795	2.237	234.652	2.263	238.717	2.310
849.181	220.860	2.172	225.552	2.198	227.597	2.207	229.431	2.219	232.927	2.237	236.037	2.264	239.435	2.311
851.138	220.954	2.170	226.554	2.202	227.945	2.206	230.726	2.220	232.246	2.231	235.474	2.259	239.562	2.308
853.100	220.593	2.172	227.315	2.199	228.065	2.204	230.331	2.216	231.880	2.234	236.417	2.261	239.944	2.308
855.067	221.723	2.168	227.016	2.202	229.148	2.209	230.664	2.221	232.502	2.231	237.052	2.257	240.096	2.306
857.038	221.876	2.168	227.717	2.200	229.007	2.204	230.474	2.217	233.829	2.233	235.614	2.259	240.524	2.308
859.014	222.163	2.168	227.129	2.200	228.117	2.210	231.202	2.222	233.745	2.228	237.142	2.255	240.851	2.304
860.994	222.403	2.167	227.654	2.198	229.388	2.206	232.146	2.218	234.193	2.231	237.846	2.257	241.139	2.305
862.979	223.142	2.167	226.746	2.196	228.884	2.204	230.857	2.218	233.225	2.231	238.364	2.259	242.414	2.304
864.968	223.918	2.167	228.081	2.194	228.553	2.203	232.277	2.215	233.731	2.229	237.695	2.256	242.581	2.305
866.962	223.680	2.166	227.741	2.192	230.098	2.204	231.404	2.217	235.917	2.230	239.290	2.257	242.326	2.302
868.960	223.211	2.166	228.956	2.193	229.544	2.201	232.135	2.214	235.176	2.229	239.719	2.256	242.904	2.304
870.964	223.656	2.165	228.850	2.191	229.891	2.200	231.838	2.213	235.727	2.230	239.594	2.256	243.877	2.303
872.971	224.275	2.165	229.960	2.194	231.013	2.199	232.499	2.214	235.564	2.225	238.997	2.253	243.407	2.301
874.984	224.274	2.164	229.721	2.190	231.237	2.200	232.883	2.211	236.099	2.225	240.089	2.253	244.826	2.301
877.001	224.680	2.163	230.350	2.192	231.297	2.198	233.944	2.211	235.938	2.226	240.773	2.252	243.225	2.300
879.023	224.752	2.163	230.225	2.189	232.150	2.197	233.950	2.209	237.087	2.226	240.372	2.251	244.573	2.300
881.049	225.015	2.162	231.202	2.191	232.265	2.198	234.241	2.211	236.279	2.224	239.845	2.247	244.492	2.299
883.080	225.555	2.161	231.209	2.189	231.965	2.194	234.450	2.208	236.820	2.226	240.570	2.249	245.646	2.299
885.116	226.024	2.160	231.719	2.189	231.886	2.197	234.510	2.209	237.275	2.223	241.904	2.247	245.544	2.297
887.156	225.937	2.160	232.038	2.187	233.864	2.194	234.312	2.207	238.150	2.222	241.785	2.251	246.037	2.296
889.201	226.691	2.158	231.842	2.187	232.793	2.194	235.754	2.208	236.949	2.221	241.728	2.247	246.378	2.296
891.251	226.096	2.159	231.786	2.186	233.975	2.193	235.525	2.206	238.491	2.222	242.207	2.248	246.517	2.295
893.306	226.810	2.157	232.811	2.186	234.268	2.192	236.078	2.206	238.201	2.221	242.575	2.249	246.749	2.296
895.365	227.220	2.156	233.399	2.183	234.428	2.191	235.775	2.203	239.133	2.222	242.465	2.250	247.521	2.295
897.429	227.329	2.156	232.815	2.186	234.442	2.193	236.187	2.205	239.622	2.219	242.758	2.247	247.801	2.294
899.498	227.754	2.155	233.586	2.183	234.663	2.191	236.716	2.203	238.893	2.221	242.814	2.248	248.433	2.293
901.571	228.337	2.155	233.182	2.183	234.755	2.191	237.518	2.203	240.002	2.218	244.731	2.242	248.898	2.292
903.650	227.989	2.155	232.761	2.183	235.400	2.191	236.784	2.203	240.418	2.220	244.161	2.245	249.179	2.290
905.733	228.654	2.152	233.961	2.182	234.799	2.189	238.072	2.202	240.840	2.217	244.071	2.246	249.237	2.292
907.821	228.712	2.153	234.563	2.181	236.202	2.189	238.371	2.200	240.934	2.216	245.253	2.243	249.968	2.290
909.913	229.012	2.153	235.602	2.182	237.061	2.189	238.182	2.200	240.750	2.217	245.104	2.242	250.435	2.291

912.011	229.445	2.152	234.225	2.181	236.787	2.189	238.581	2.201	241.962	2.214	244.958	2.239	251.012	2.288
914.113	229.187	2.152	236.613	2.180	237.165	2.187	239.154	2.199	242.389	2.212	246.194	2.237	251.009	2.287
916.221	229.843	2.151	234.738	2.179	237.102	2.187	239.897	2.199	242.257	2.212	245.695	2.240	251.587	2.286
918.333	229.937	2.150	236.146	2.176	237.757	2.185	239.877	2.198	243.195	2.213	246.938	2.241	251.857	2.288
920.450	230.345	2.150	235.990	2.179	237.577	2.186	240.016	2.199	242.807	2.214	247.149	2.241	251.679	2.285
922.571	230.274	2.149	236.413	2.176	238.526	2.184	240.716	2.197	243.367	2.212	247.322	2.238	252.163	2.286
924.698	230.967	2.148	237.078	2.178	238.658	2.186	241.084	2.197	243.960	2.212	247.604	2.239	252.921	2.285
926.830	231.027	2.147	237.072	2.176	238.673	2.184	240.959	2.196	244.161	2.210	248.566	2.237	253.235	2.284
928.966	231.332	2.147	237.988	2.176	239.881	2.182	242.817	2.194	243.945	2.210	248.209	2.238	253.566	2.284
931.108	231.798	2.148	237.119	2.175	239.664	2.181	241.508	2.195	244.421	2.208	248.131	2.234	253.706	2.282
933.254	232.072	2.146	238.142	2.174	239.973	2.181	241.432	2.193	246.155	2.209	249.620	2.234	254.546	2.282
935.406	232.691	2.145	237.113	2.176	239.623	2.184	242.057	2.195	245.302	2.206	249.581	2.231	254.136	2.279
937.562	232.826	2.144	238.286	2.173	241.158	2.181	242.525	2.193	246.337	2.207	249.345	2.234	254.996	2.280
939.723	232.833	2.144	238.946	2.175	240.615	2.180	243.173	2.193	245.153	2.206	249.124	2.234	255.003	2.280
941.890	233.112	2.144	239.757	2.171	241.166	2.178	243.240	2.189	245.937	2.206	250.738	2.233	255.947	2.280
944.061	233.577	2.142	239.821	2.170	241.351	2.177	243.949	2.190	246.500	2.205	249.916	2.233	256.323	2.278
946.237	233.638	2.143	240.108	2.171	241.735	2.178	243.547	2.190	246.607	2.205	250.655	2.231	256.398	2.277
948.419	233.891	2.141	240.206	2.170	242.264	2.177	244.585	2.190	247.747	2.203	251.223	2.230	256.993	2.276
950.605	234.181	2.141	240.699	2.170	242.586	2.177	244.678	2.189	247.168	2.204	251.488	2.229	257.075	2.276
952.796	234.839	2.140	240.998	2.169	242.737	2.175	245.441	2.187	248.021	2.203	252.895	2.228	257.614	2.276
954.993	234.507	2.141	241.467	2.168	242.589	2.173	245.075	2.187	248.994	2.201	252.810	2.228	257.767	2.273
957.194	235.259	2.140	241.223	2.166	242.214	2.175	245.674	2.188	248.630	2.202	252.813	2.227	257.679	2.273
959.401	235.317	2.139	240.792	2.168	243.974	2.175	246.257	2.187	248.855	2.198	253.704	2.224	258.049	2.272
961.612	235.445	2.138	242.309	2.166	243.463	2.172	246.687	2.186	248.630	2.199	254.357	2.224	258.461	2.272
963.829	236.374	2.138	242.506	2.166	243.833	2.171	246.408	2.185	249.215	2.198	254.033	2.224	259.589	2.270
966.051	236.539	2.137	242.071	2.164	243.686	2.172	246.900	2.184	249.820	2.198	254.738	2.224	260.167	2.270
968.278	236.210	2.136	242.798	2.164	244.790	2.171	246.924	2.183	249.648	2.198	255.802	2.224	260.378	2.270
970.510	236.757	2.136	244.412	2.165	244.145	2.171	247.417	2.184	250.147	2.196	256.035	2.220	260.619	2.268
972.747	237.379	2.136	243.230	2.163	243.228	2.169	247.105	2.181	250.780	2.197	255.270	2.218	261.237	2.268
974.990	237.327	2.135	243.988	2.163	245.230	2.168	247.431	2.181	251.865	2.194	255.124	2.217	261.366	2.267
977.237	237.121	2.134	245.014	2.164	246.175	2.168	247.823	2.182	251.413	2.196	256.347	2.219	261.705	2.267
979.490	238.240	2.135	244.285	2.161	246.239	2.166	249.121	2.180	251.285	2.194	255.946	2.219	261.858	2.265
981.748	238.065	2.133	244.387	2.160	246.046	2.168	248.293	2.181	252.193	2.192	257.033	2.218	262.321	2.264
984.011	238.821	2.132	245.153	2.162	247.139	2.169	249.925	2.181	252.496	2.187	257.260	2.217	262.487	2.264
986.280	238.361	2.133	245.375	2.158	247.600	2.165	249.826	2.176	252.979	2.186	256.787	2.213	263.030	2.258
988.553	238.812	2.133	246.114	2.161	248.048	2.165	250.663	2.177	252.487	2.184	257.344	2.211	262.682	2.255
990.832	239.911	2.132	245.478	2.160	246.485	2.167	251.272	2.177	253.127	2.184	257.480	2.208	262.758	2.258
993.116	240.325	2.135	246.004	2.159	248.710	2.160	250.627	2.172	252.167	2.184	257.631	2.210	264.070	2.255
995.405	240.710	2.131	246.324	2.158	249.153	2.164	251.749	2.172	254.221	2.186	257.900	2.209	263.692	2.257
997.700	239.783	2.129	246.697	2.161	249.450	2.167	252.349	2.176	254.641	2.183	258.819	2.207	263.591	2.259
1000.000	241.463	2.131	247.094	2.156	249.167	2.161	252.682	2.175	254.756	2.185	259.823	2.207	264.121	2.256
1002.305	240.796	2.127	246.972	2.158	249.576	2.161	252.368	2.174	254.292	2.185	260.932	2.208	265.758	2.257
1004.616	240.754	2.129	248.541	2.157	250.725	2.161	253.557	2.172	255.591	2.180	260.001	2.206	266.415	2.254
1006.932	242.094	2.129	248.396	2.154	250.445	2.162	253.051	2.173	255.644	2.181	259.783	2.208	266.432	2.254
1009.253	241.333	2.129	248.392	2.155	249.565	2.159	252.311	2.171	254.367	2.180	260.445	2.206	266.208	2.252
1011.579	242.132	2.128	249.335	2.152	250.811	2.155	252.278	2.169	256.462	2.184	261.262	2.207	266.476	2.253
1013.911	242.429	2.125	247.968	2.154	251.534	2.160	253.517	2.172	257.741	2.180	260.429	2.205	267.457	2.253
1016.249	242.605	2.125	249.990	2.150	251.724	2.155	253.879	2.169	257.016	2.180	262.514	2.207	268.785	2.252
1018.591	243.342	2.124	249.443	2.151	251.809	2.155	255.138	2.167	258.028	2.181	262.022	2.205	267.939	2.249
1020.939	242.921	2.123	250.028	2.153	252.207	2.156	255.696	2.168	256.973	2.178	261.402	2.203	268.715	2.250
1023.293	243.845	2.123	249.661	2.148	251.051	2.157	254.569	2.171	258.313	2.177	262.820	2.200	268.729	2.251
1025.652	243.949	2.124	248.943	2.150	251.787	2.153	255.295	2.168	259.069	2.176	262.725	2.202	269.606	2.251
1028.016	244.244	2.122	252.023	2.147	253.349	2.150	256.240	2.163	258.500	2.179	264.483	2.203	270.269	2.249
1030.386	244.890	2.120	251.906	2.152	252.795	2.157	256.288	2.169	259.051	2.176	264.259	2.201	270.610	2.250

1032.761	245.216	2.123	251.428	2.145	253.355	2.155	255.950	2.164	261.318	2.178	263.506	2.199	270.053	2.247
1035.142	245.425	2.122	251.900	2.148	253.906	2.153	256.470	2.165	259.979	2.176	264.537	2.201	270.948	2.246
1037.528	245.834	2.120	251.892	2.146	253.905	2.148	256.561	2.160	258.894	2.176	264.175	2.201	272.039	2.244
1039.920	245.992	2.117	252.773	2.149	254.185	2.153	258.602	2.165	261.474	2.172	264.973	2.199	271.539	2.246
1042.317	246.203	2.119	251.818	2.142	255.087	2.153	256.943	2.164	261.485	2.174	265.040	2.199	271.956	2.242
1044.720	246.531	2.119	253.728	2.143	254.533	2.151	256.815	2.164	261.336	2.172	266.234	2.198	272.676	2.243
1047.129	246.849	2.118	254.249	2.142	255.985	2.145	259.446	2.159	261.104	2.175	266.669	2.196	272.374	2.242
1049.542	247.146	2.115	253.739	2.147	255.285	2.149	259.351	2.163	261.306	2.173	266.668	2.198	273.115	2.243
1051.962	247.691	2.117	252.527	2.145	255.244	2.150	257.759	2.162	262.790	2.169	266.097	2.195	273.465	2.243
1054.387	247.872	2.116	252.316	2.143	253.714	2.151	258.011	2.163	260.814	2.166	266.191	2.193	273.281	2.238
1056.818	247.929	2.118	255.074	2.137	256.083	2.140	258.229	2.154	261.864	2.171	267.321	2.190	275.627	2.237
1059.254	248.123	2.114	256.001	2.140	256.711	2.145	261.085	2.157	262.401	2.166	267.049	2.188	273.771	2.238
1061.696	248.685	2.112	254.175	2.142	257.082	2.151	260.827	2.159	263.498	2.165	268.331	2.190	274.330	2.236
1064.143	248.941	2.113	256.197	2.142	255.507	2.146	261.611	2.160	264.054	2.169	268.806	2.184	273.161	2.240
1066.596	249.108	2.112	257.477	2.138	252.739	2.144	261.085	2.168	264.849	2.162	269.472	2.186	273.820	2.242
1069.055	249.341	2.115	258.133	2.135	260.064	2.136	260.192	2.149	265.178	2.164	269.691	2.184	275.652	2.243
1071.519	249.478	2.111	258.316	2.142	257.642	2.141	262.200	2.151	264.177	2.165	269.709	2.184	276.762	2.236
1073.989	249.525	2.106	257.665	2.142	260.620	2.142	261.429	2.156	264.696	2.159	270.712	2.180	276.848	2.242
1076.465	250.203	2.106	257.835	2.143	259.267	2.146	261.676	2.163	265.565	2.156	270.788	2.184	275.953	2.244
1078.947	250.072	2.094	259.365	2.142	254.942	2.162	263.087	2.182	267.629	2.157	271.247	2.180	273.608	2.254
1081.434	250.986	2.108	259.637	2.142	259.116	2.136	263.328	2.150	267.948	2.159	271.909	2.179	275.176	2.258
1083.927	250.938	2.105	259.715	2.126	260.361	2.141	263.025	2.143	267.335	2.162	272.038	2.177	278.842	2.255
1086.426	251.338	2.102	260.070	2.144	263.451	2.142	265.204	2.153	267.067	2.166	272.667	2.177	276.261	2.258
1088.930	254.006	2.110	260.620	2.142	--	2.145	265.565	--	--	2.165	--	2.186	275.953	2.243
1091.440	254.190	2.109	259.267	2.142	--	2.151	267.629	--	--	2.169	--	2.184	273.608	2.242
1093.956	254.390	2.109	258.942	2.138	--	2.146	267.948	--	--	2.162	--	2.184	275.176	2.243
1096.478	254.638	2.109	259.116	2.143	--	2.144	267.335	--	--	2.164	--	2.180	278.842	2.243
1099.006	254.925	2.108	262.361	2.142	--	2.136	265.565	--	--	2.166	--	2.186	276.261	2.238
1101.539	255.235	2.108	262.451	2.143	--	2.145	267.629	--	--	2.171	--	2.184	--	2.243
1104.079	255.542	2.107	260.620	2.142	--	2.151	265.178	--	--	2.166	--	2.184	--	2.242
1106.624	255.830	2.106	262.267	2.142	--	2.146	264.177	--	--	2.165	--	2.186	--	2.243
1109.175	256.077	2.105	261.942	2.126	--	2.144	264.696	--	--	2.169	--	2.184	--	2.243
1111.732	256.260	2.104	263.451	2.143	--	2.136	265.565	--	--	2.166	--	2.184	--	2.238
1114.295	256.360	2.102	262.620	2.143	--	2.141	268.629	--	--	2.171	--	2.180	--	2.237
1116.863	256.383	2.101	263.567	2.142	--	2.142	269.565	--	--	2.166	--	2.184	--	2.243
1119.438	256.347	2.099	262.620	2.142	--	2.142	270.112	--	--	2.165	--	2.180	--	2.242

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