Intervals of confidence on quantiles of Gaussian distributions

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Annex:

Tables of results of IC limits for P = 0,6 to 0,9995, α = 0,0005 to 0,9995 and n = 2 to 100000.

Updated version 02/2025 was issued to correct a mistake in § 4.2. The sentences that were modified are identified with a vertical straight line. Note that this mistake did not affect the Excel files formerly provided to compute IC as function of P *and* α*.*

Abstract:

In some situations, typically when declarations of conformity are to be declared, quantile values of a Gaussian distribution need to be estimated. If the calculation of an estimate of it is easy, the calculation of its related interval of confidence is not at all. The knowledge of such IC is needed particularly when levels of confidence about decisions of conformity are needed, whenever the specifications are min or max limits or characteristic values. This document provides technical backgrounds of calculations of them, table of IC limits computed by the Monte-Carlo method according to the desired quantile and level of confidence, an Excel file enabling to compute them, minimum numbers of values to get a given interval of confidence and empirical formulas to estimate them for the usual values of desired quantile and level of confidence.

1 Introduction

In some situations, typically when declarations of conformity are to be declared, quantile values of a Gaussian distribution need to be estimated. If the calculation of a estimate of it is easy, the calculation of its related interval of confidence is not at all.

This document provides:

- Examples where such IC are needed;
- Technical backgrounds of calculations of them;
- IC limits computed by the Monte-Carlo method, according to the desired quantile and level of confidence;
- Minimum numbers of values to get a given interval of confidence;
- Empirical formulas to estimate them for the usual values of desired quantile and level of confidence.

2 Symbols and abbreviations

The symbols used in this document are listed in Table 1.

Table 1. List of symbols used in this document.

Symbol	**Designation and comments**
k	Quantile of the reduced centred normal distribution
Lim(P,α)	Limit of intervals of confidence on *k*, as function of *P* and *α*
m	Estimate of *M*
M	Mean value of a normal distribution
n	Number of values of the population
P	Probability related to a *k* value
q	Estimate of *Q*
Q	Quantile of a normal distribution
s	Estimate of *S*
S	Standard deviation of a normal distribution
α	Lower or upper limit of an interval of confidence
δ	Absolute difference between true value and approximate values of *Lim(P,α)*
Δ	Absolute difference between *Lim(P,α)* and *k*

Abbreviations:

- IC: bilateral interval of confidence. For example, IC95% means the bilateral interval of confidence [2,5%;97,5%]

3 Examples where an interval of confidence on a quantile of a gaussian distribution is needed

In many situations, it is needed to know the value of a quantile of a Gaussian distribution. This is particularly the case when a declaration of conformity needs to be declared. In such cases, limits of acceptance are:

- Usually stated as a value that shall not be overcome in a given series of test results performed according to a pre-defined procedure;
- In some cases, as “characteristic values”, i.e. as “values that are not overcome by a given percentage of test results, assessed with a given level of confidence”, see for example EN 10080 [1], where yield strength and elongation at maximum force of the steel are specified as characteristic values;
- In some other cases, other procedures that can include limits on mean values or median values or a combination of several limits on several parameters computed from the test results.

In any cases, the decision of conformity may result in two types of wrong decisions:

- Accept a batch of products that does not fulfil the requirement;
- Reject a batch of products that fulfils the requirement.

A lot of methods have been developed concerning this issue, among which many are based on the assumption that test results are normally distributed and, directly or not, use estimations of the quantile of the population to declare the conformity of the product.

Reversely, when the decision procedure consists only in checking a series of test results that shall not overcome a predefined value, a level of confidence may be computed for both upper described risks of wrong decisions via the confidence we may get from the underlying estimations of parameters (mean and standard deviation) of the distribution.

On another hand, such estimations of a quantile are also used in proficiency tests using interlaboratory comparisons as described in ISO 13528 [2], where z-scores are computed from estimations of the mean value and standard deviation of test results of laboratories. However, in this case, the IC of interest would be on the parameter z rather than on the quantile. This will be the object of a further publication.

4 Technical backgrounds

4.1 Basics for computation of quantiles

The basic equation for computing a quantile is reminded in Equation (1):

$$Q = M + k.S \tag{1}$$

Where Q *is the quantile,*
M *is the true mean value,*

k *is the quantile of the reduced centred normal law,*
and S *is the standard deviation of the distribution.*

In practice, *M* and *S* are usually unknown. Only their estimations *m* and *s* respectively are known from a certain number of experimental values.

The distribution law of estimates of mean values is as described in Equation (2) (origin: ISO 2854 [3]).

$$m \approx N(M, \frac{S}{\sqrt{n}}) \tag{2}$$

where m *is the estimate of a mean value,*
M *is the mean value to be estimated*
S *is the standard deviation of the corresponding population,*
and n *is the number of values used for computing the mean value.*

When both *M* and *S* are unknown, the tables of Student can be used to take into account the uncertainty related to the estimations of M and S to compute an IC on the estimation of the mean value.

The distribution law of estimates of variances is as described in Equation (3) (origin: ISO 2854 [3]).

$$(n-1).\frac{s^2}{S^2} \approx \chi^2_{n-1} \tag{3}$$

where s *is the estimate of a standard deviation,*
S *is the standard deviation to be estimated,*
and n *is the number of values used for computing the standard deviation.*

The distribution law of estimates of standard deviations can then be deduced by algebraic transformation of Equation (3) as stated in Equation (4).

$$s = S.\sqrt{\frac{\chi^2_{n-1}(\alpha)}{n-1}} \tag{4}$$

where s *is the estimate of a standard deviation,*
S *is the standard deviation to be estimated,*
α *is the corresponding theoretical cumulated probability,*
and n *is the number of values used for computing the standard deviation.*

Following Equation (5), the estimation of the Q value is then obviously provided by equation (6):

$$q = m + k.s \tag{5}$$

Where q *is the estimate of the quantile,*
m *is the estimate of the mean value,*
k *is the quantile of the reduced centred normal law,*
and s *is the estimate of the standard deviation of the distribution.*

However, what is needed is the interval in which the true value of *Q* is, knowing the estimates *m* and *s*. Using a change of variable, it is always possible to reduce the distribution to a reduced centred normal one (i.e. *M* = 0 and *S* = 1). In that case, the true value of Q follows the distribution determined by Equation (6).

$$Q \approx (k-m)/s \tag{6}$$

The calculation of limits of IC for the estimation of Q is quite more complicated than for M and S. Robert E. Odeh and D.B. Owen in 1980 [4], Gerald J. Hahn and William Q. Meeker in 1991 [5], Jerald F. Lawless in 2002 [7] and S. Chakraborti and J. Li in 2007 [8] developed the necessary calculations for this, using the tables established by Gerald J. Hahn and William Q. Meeker in 1991 and available in [6].

The case $k = 0$ obviously corresponds to the estimation of M with M and S unknown, for which the tables of Student can be used to determine the corresponding IC.

4.2 Using the Monte-Carlo method for calculating IC

The Monte-Carlo methods are a large category of algorithms that use random numerical realisations of a given model. They are often used to solve mathematical or physical problems, difficult or impossible to solve by other methods. For a survey of the history and applications of the Monte-Carlo methods, see for example [9].

The calculations needed to solve several of the issues of this document are quite hard (see [4], [5], [7] and [8]), while Equation (6) can easily be used in the Monte-Carlo method to determine the q values. Moreover, this way of calculation does not request any hypothesis else than the distribution of values is Gaussian.

The procedure consists in generating series of n random values following a Gaussian reduced centred distribution (i.e. M=0, S=1) and compute the corresponding m and s estimates. We then get the distribution of q values and can compute its parameters and centiles. Another possible Monte-Carlo procedure consists in using both Equation (2) and Equation (5) to produce random values of m and s and compute corresponding values of q. This procedure requests a significantly lower volume of calculations when n is large.

To assure the validity of the conclusions, the random series need to be numerous enough, depending on many factors. A solution to control this is to divide these series into sub-groups. This enables us to compute the repeatability of the parameters that we are determining. This repeatability standard deviation is then used to determine an IC for each of the determinations, with an enlargement coefficient equal to 2.

Excel files (enclosing a macro) developed by CompaLab to compute IC as function of P and α are available at: https://www.compalab.org/medias/files/icgausspercentilesn.zip.

5 Results of computation of IC limits

5.1 Introduction

Due to the symmetry of the gaussian distribution law, we computed the IC values only for $P \geq 0,5$, corresponding to positive k values. When IC on q values are needed for negative k, the user just needs to reverse all signs.

Example: For P *= 0,8,* k *= 0,842, IC95% is [-0,23;1,84]. We can then conclude that for* P *= 0,2 (= 1 – 0,8),* k *= -0,842 and IC95% is [-1,84;0,23].*

In graphs, limits of IC are represented as differences between the IC limit and the central k value. Because of the large extent of limits of IC for low values of n, abscissas of graphs are in logarithmic scales. But using logarithmic scales does not allow to represent negative values. To overcome this problem, abscissas are divided into 2 zones above and below the central value. The above zone represents positive differences between limits and the central value (i.e., roughly, values of α above 0,5) and the bottom zone represents corresponding negative differences (i.e., roughly, values of α below 0,5). With respect to the accuracy with which the lower differences were computed, we chose the central line to all differences equal or lower than 0,001.

In graphs, IC are provided as bilateral.

Example: IC95% represents curves for α = 0,025 and α = 0,975.

5.2 Results of calculation

Results of calculation for P = 0,6 to 0,9995, α = 0,0005 to 0,9995 and n = 2 to 100000 are represented in Figure 1.a to g. Detailed numerical results are provided in annex.

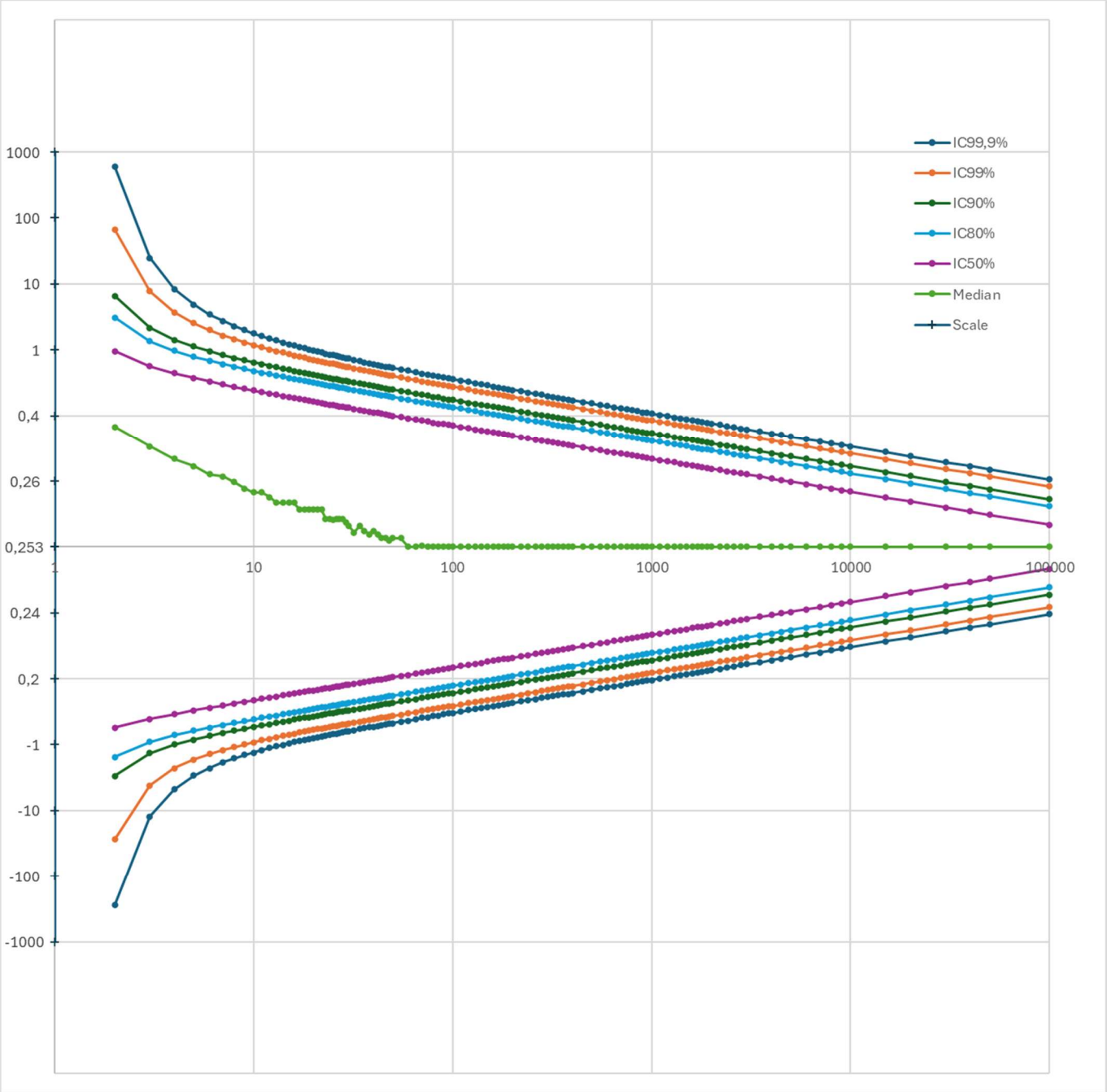

Figure 1.a: Limits of IC for P = 0,6 (k = 0,253).

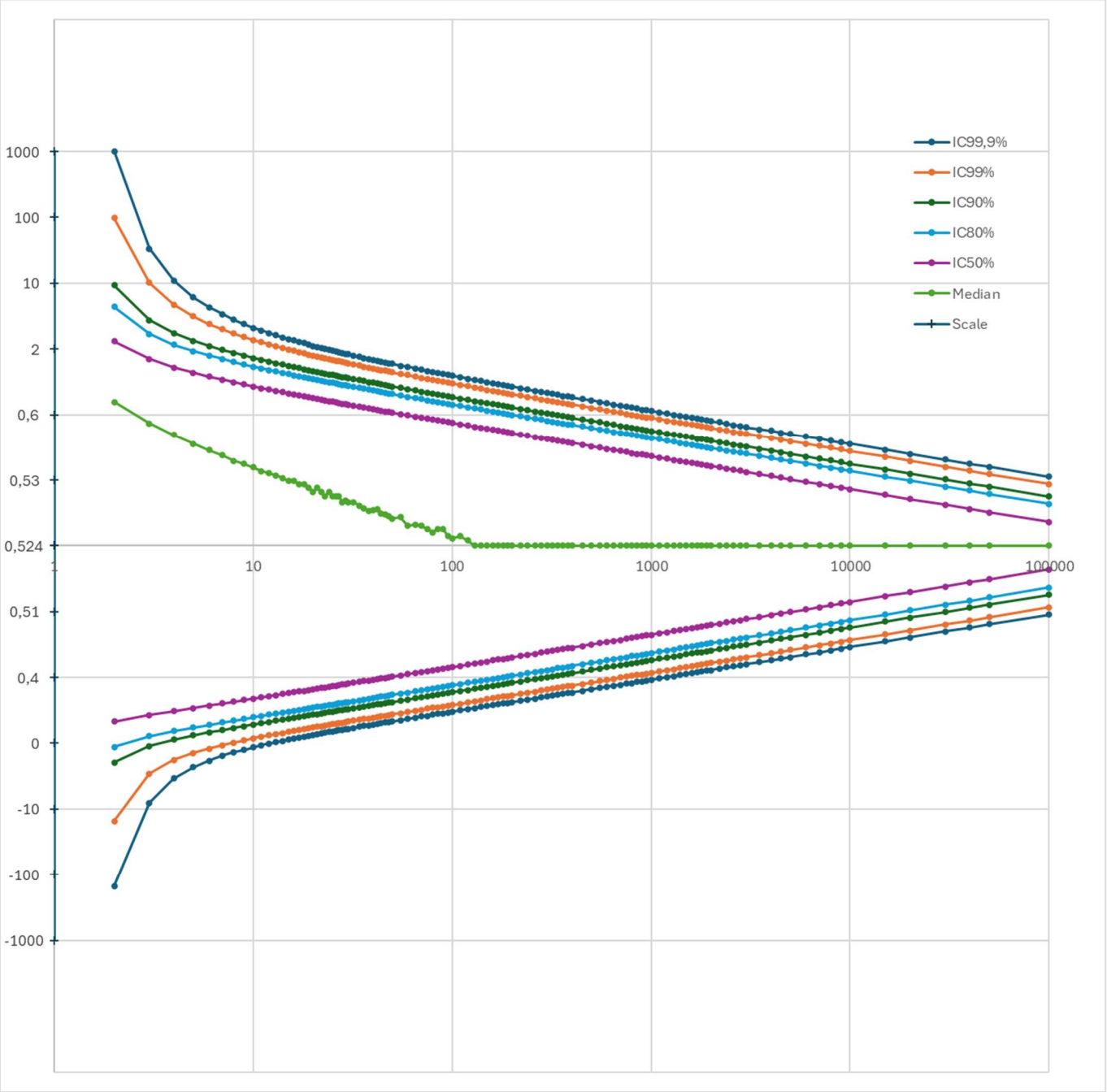

Figure 1.b: Limits of IC for $P = 0,7$ ($k = 0,524$).

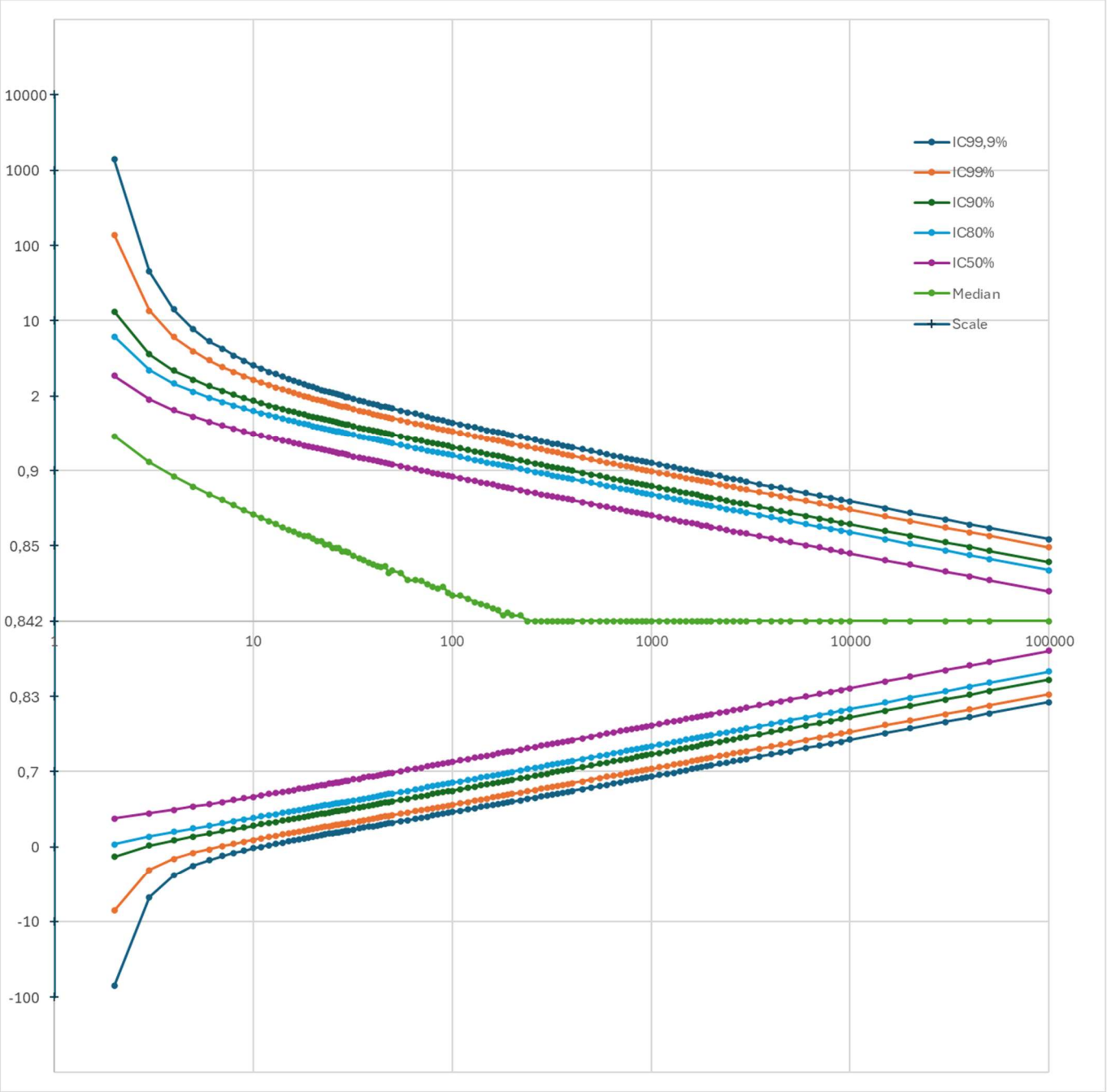

Figure 1.c: Limits of IC for $P = 0,8$ ($k = 0,842$).

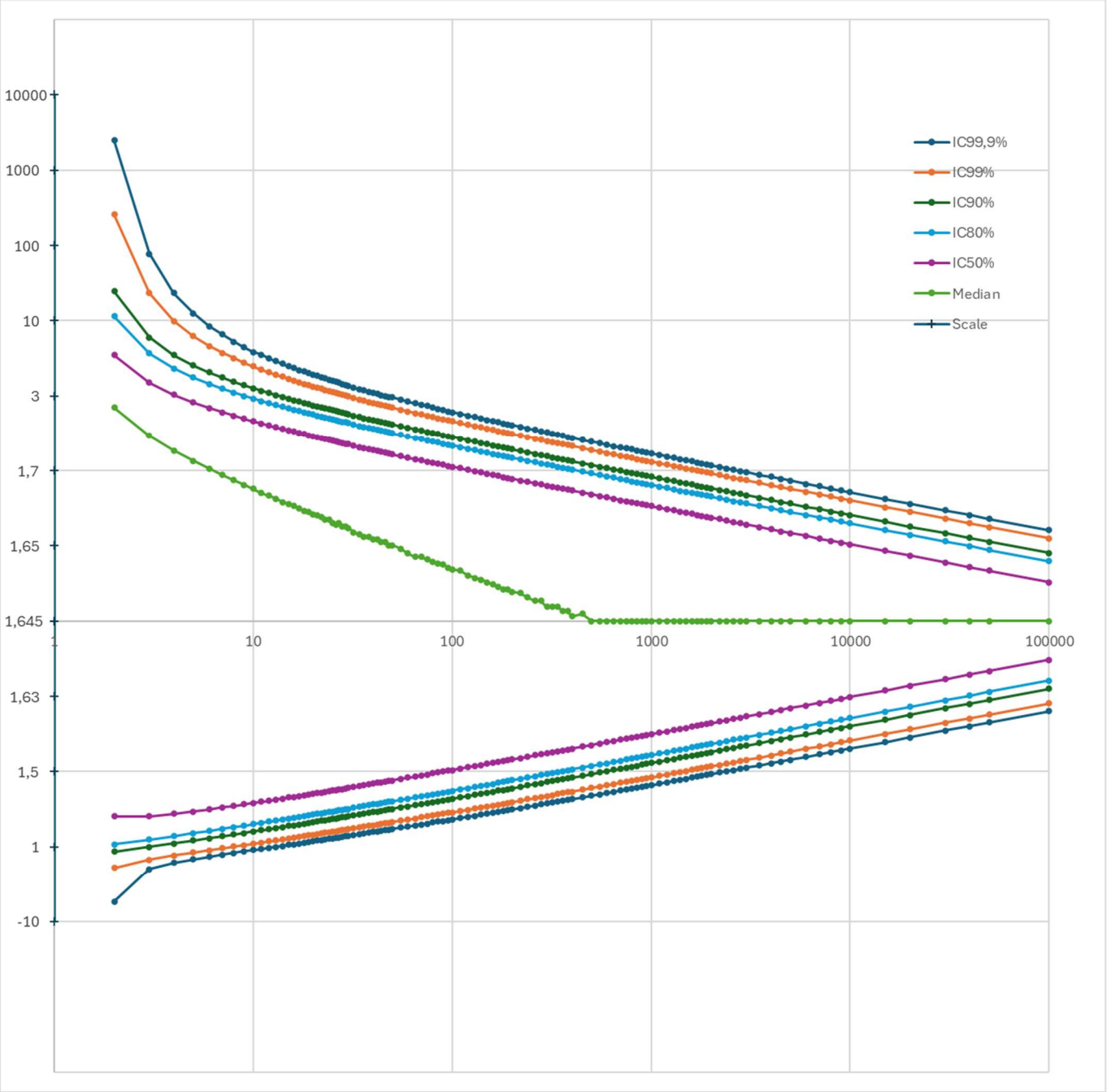

Figure 1.d: Limits of IC for P = 0,9 (k = 1,645).

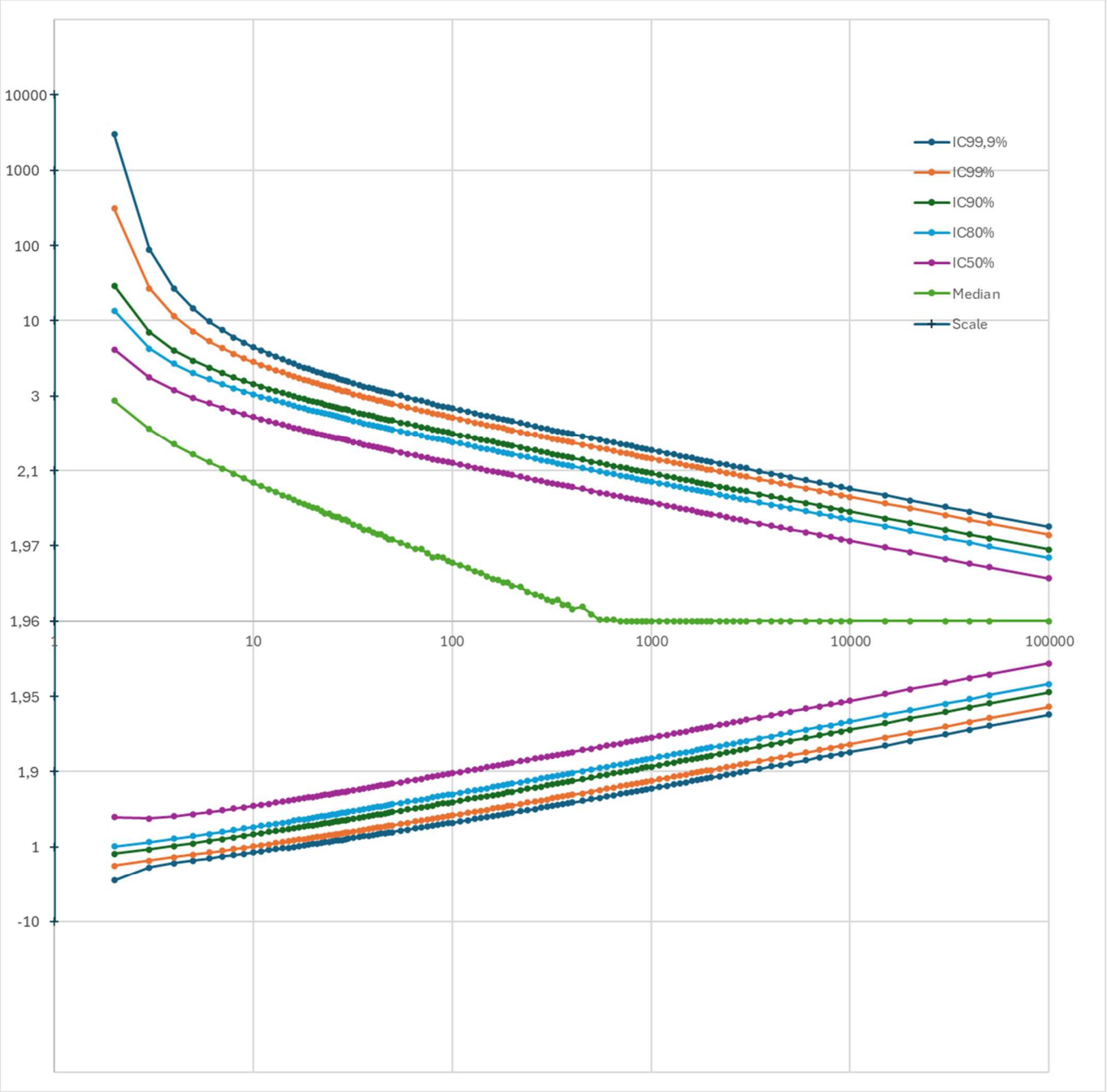

Figure 1.e: Limits of IC for P = 0,95 (k = 1,960).

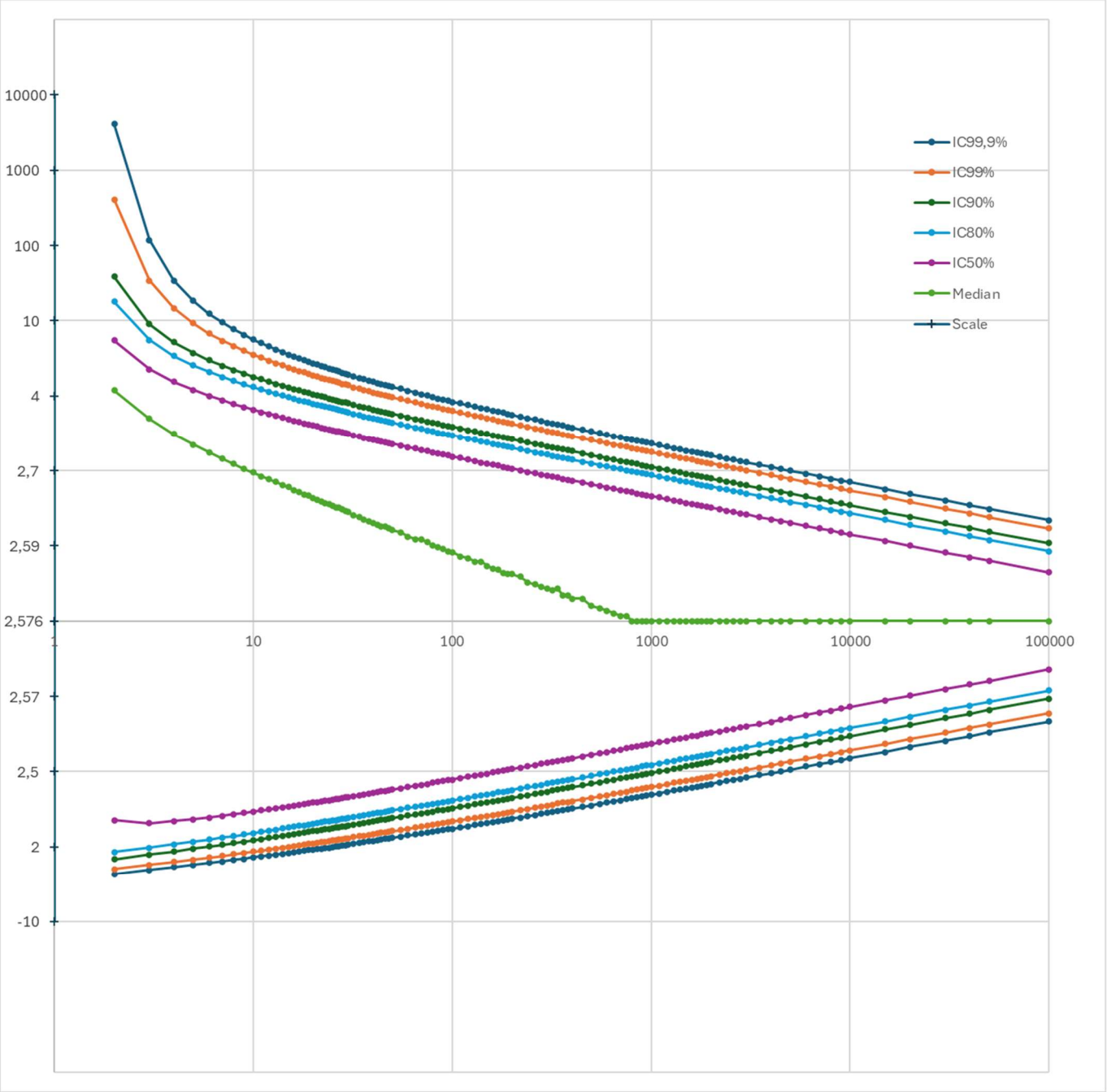

Figure 1.f: Limits of IC for P = 0,995 (k = 2,576).

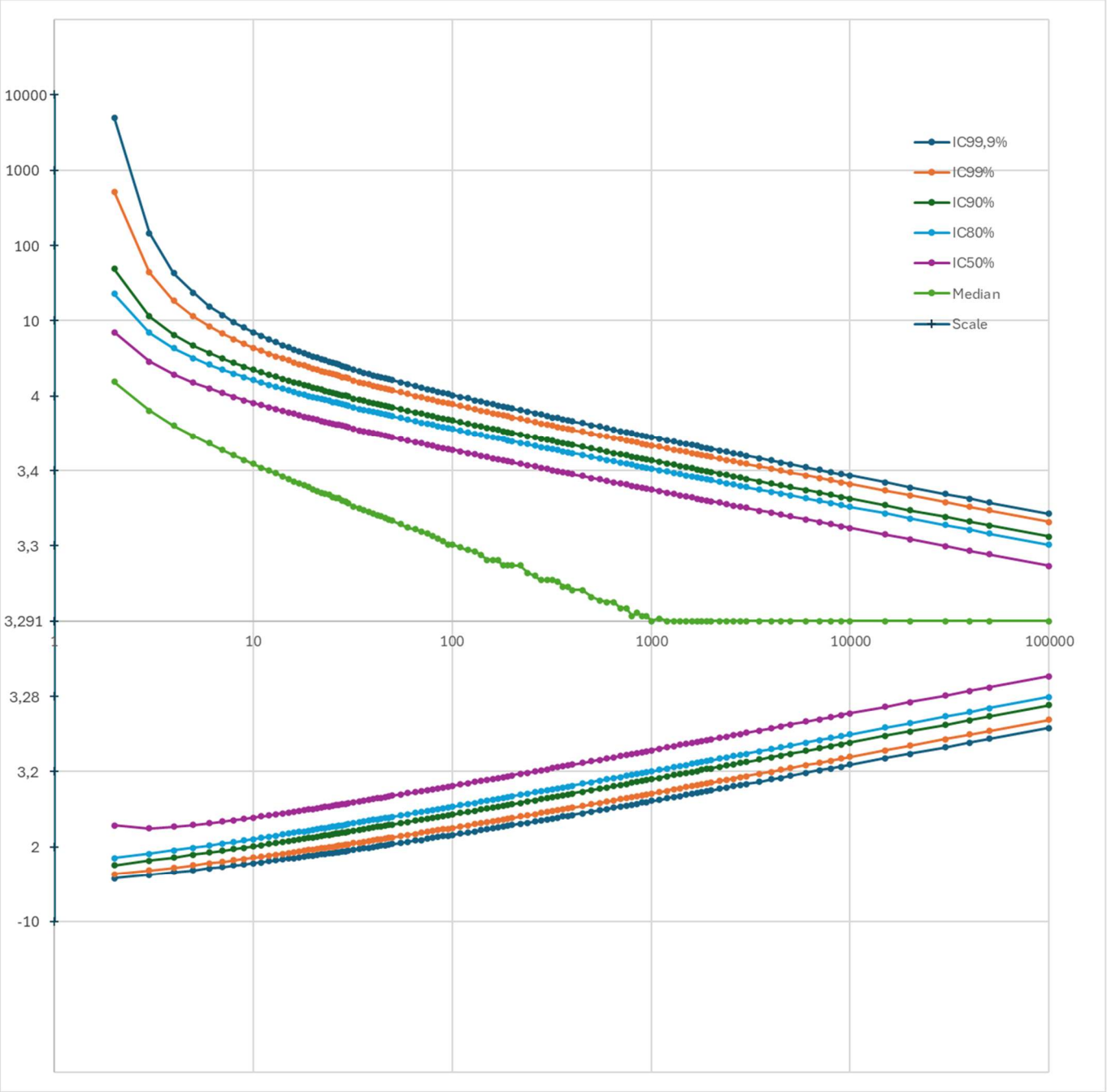

Figure 1.g: Limits of IC for P = 0,9995 (k = 3,291).

5.3 Comments on results

It can be seen from graphs that results align on straight lines on log-log representations, when n is large enough (typically more than 30 to more than 100, according to P values). A deviation (in most cases an upper deviation) appears for lower values of n.

From these results, we can compute the minimum number n of values that is requested to get a given IC, see § 6.

We then tried to determine empirical formulas to describe 1- these straight lines and 2- the deviations to them for low values of n., see § 6.

6 Minimum number of values that is requested to get a given IC

The minimum numbers *n* of values that is requested to get a given IC are provided in Table 2.

Table 2. Minimum numbers n for which Δ *(absolute difference between* Lim(P,α) *and k) is lower than 0,1 – 0,05 – 0,02 – 0,01, as function of* P *and* α*.*

(For example, for P *= 0,6 and* α *= 0,05,* Δ *< 0,1 when* n *≥ 260,* Δ *< 0,05 when* n *≥ 1100,* Δ *< 0,02 when* n *≥ 6000,* Δ *< 0,01 when* n *≥ 20000).*

P	δ	α																								
		0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
0,6	0,1	1000	650	380	260	160	100	70	44	27	14	5	2	2	9	18	32	50	80	120	180	300	450	750	1200
	0,05	4000	2600	1500	1100	650	400	280	180	100	55	24	2	3	30	70	120	200	300	500	700	1200	1700	2800	5000
	0,02	20000	15000	9000	6000	4000	2600	1800	1100	650	360	150	34	5	180	400	750	1200	1900	2800	4500	8000	10000	20000	30000
	0,01	1E+05	50000	30000	20000	15000	10000	7000	4500	2800	1500	600	150	8	700	1600	3000	5000	8000	15000	20000	30000	40000	1E+05	1E+05
0,7	0,1	1100	700	400	280	170	110	75	46	27	13	3	2	6	11	22	36	60	90	140	200	340	500	800	1300
	0,05	4500	2800	1700	1200	700	450	300	190	110	60	23	2	13	36	75	140	220	340	550	800	1300	1800	3500	6000
	0,02	30000	15000	10000	7000	4500	3000	1900	1200	750	400	160	30	60	200	450	800	1400	2200	3500	5000	8000	15000	20000	40000
	0,01	1E+05	50000	40000	30000	15000	10000	8000	5000	3000	1600	700	150	220	800	1800	3500	6000	9000	15000	20000	40000	50000	1E+05	1E+05
0,8	0,1	1300	800	450	340	200	130	85	50	30	14	2	3	8	15	27	46	75	110	160	260	400	600	1000	1600
	0,05	5000	3000	2000	1400	850	550	360	220	130	65	24	3	19	46	95	170	280	450	650	950	1600	2200	4000	7000
	0,02	30000	20000	10000	9000	5000	3500	2200	1500	850	450	190	25	80	260	550	1000	1600	2600	4000	6000	10000	15000	30000	40000
	0,01	1E+05	50000	50000	30000	20000	10000	9000	6000	3500	1900	800	160	260	950	2200	4000	7000	10000	15000	30000	40000	1E+05	1E+05	1E+05
0,9	0,1	1800	1100	600	450	260	170	110	70	38	17	2	3	11	21	38	65	100	150	220	340	550	800	1300	2200
	0,05	7000	4500	2600	1800	1100	700	450	300	170	85	29	4	26	65	130	240	360	550	850	1300	2200	3000	6000	9000
	0,02	40000	20000	15000	10000	7000	4500	3000	2000	1200	600	240	5	110	340	750	1400	2200	3500	5000	8000	15000	20000	40000	50000
	0,01	1E+05	1E+05	50000	40000	20000	15000	10000	8000	4500	2600	1000	200	360	1300	3000	6000	9000	15000	20000	40000	50000	1E+05	1E+05	1E+05
0,95	0,1	2200	1400	800	550	340	220	140	90	50	22	3	4	14	27	48	80	130	190	280	450	700	1000	1700	2800
	0,05	9000	6000	3000	2400	1400	950	600	380	220	110	36	5	34	85	170	300	500	750	1100	1700	2800	4000	7000	15000
	0,02	50000	30000	20000	15000	9000	6000	4000	2400	1500	800	320	6	140	450	950	1700	2800	4500	7000	10000	20000	30000	40000	1E+05
	0,01	1E+05	1E+05	50000	50000	30000	20000	15000	10000	6000	3000	1300	260	500	1700	4000	7000	15000	20000	30000	40000	1E+05	1E+05	1E+05	1E+05
0,975	0,1	2800	1800	1000	700	400	280	180	110	60	28	3	4	16	32	60	100	160	240	360	550	900	1300	2200	3500
	0,05	10000	7000	4000	3000	1800	1100	750	450	280	140	44	6	42	110	220	360	600	900	1400	2000	3500	5000	9000	15000
	0,02	50000	40000	20000	15000	10000	7000	5000	3000	1900	1000	400	7	180	550	1200	2200	3500	6000	9000	15000	30000	30000	50000	1E+05
	0,01	1E+05	1E+05	1E+05	50000	40000	30000	20000	10000	7000	4000	1700	320	600	2200	4500	9000	15000	30000	40000	50000	1E+05	1E+05	1E+05	1E+05
0,995	0,1	4000	2600	1500	1000	650	400	260	170	95	42	3	5	22	46	85	150	240	340	550	800	1300	1800	3500	5000
	0,05	15000	10000	6000	4500	2600	1700	1100	700	400	200	70	7	60	150	300	550	850	1300	2000	3000	5000	7000	15000	20000
	0,02	1E+05	50000	40000	20000	15000	10000	7000	4500	2800	1500	600	50	260	800	1700	3500	6000	8000	15000	20000	30000	50000	1E+05	1E+05
	0,01	1E+05	1E+05	1E+05	1E+05	50000	40000	30000	15000	10000	6000	2600	500	850	3000	7000	15000	20000	40000	50000	1E+05	1E+05	1E+05	1E+05	1E+05

P	δ	α																							
		0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
0,9995	0,1	6000	4000	2200	1600	950	600	400	240	140	65	3	6	30	65	130	220	340	500	750	1200	1900	2600	4500	8000
	0,05	20000	15000	9000	6000	4000	2600	1700	1000	600	320	110	8	80	220	450	800	1300	1900	3000	4500	8000	15000	20000	30000
	0,02	1E+05	1E+05	50000	40000	20000	15000	10000	7000	4000	2200	900	120	360	1200	2600	5000	8000	15000	20000	30000	50000	1E+05	1E+05	1E+05
	0,01	1E+05	1E+05	1E+05	1E+05	1E+05	50000	40000	20000	15000	9000	3500	800	1300	4500	10000	20000	30000	50000	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05

7 Empirical formulas to approximate IC limits

7.1 Empirical formulas to approximate straight parts of the curves

The following equations (7) and (8) were found to approximate the straight parts of the curves:

When $\alpha < 0,5$:

$$LimEq7(P,\alpha) = k - n^{(0,04.P-0,52)}.\Phi^{-1}(\alpha).10^{(0,125.k-0,09)} \quad (7)$$

When $\alpha > 0,5$:

$$LimEq8(P,\alpha) = k + n^{(-0,04.P-0,48)}.10^{(0,155.k+0,13.lA^2+1,05.lA)} \quad (8)$$

where LimEq7(P,α) *and* LimEq8(P,α) *are the approximations of the limits of the IC as function of P and α,*

$\Phi^{-1}(p)$ *is the inverse Gaussian value for a probability* p

k *is the theoretical quantile (i.e.* $\Phi^{-1}(P)$*),*

$lA = \log\left(\Phi^{-1}(\alpha)\right)$*,*

and n *is the number of values used for computing* q.

In these equations, *Lim(P,α) – k* are in the form $a.n^b$ or, as *b* is very close to -0,5, to $a/\sqrt{n}$, as stated in [4],[5],[7] and [8]. However, the *b* coefficient is slightly influenced by *P*, i.e. by the balance between the term *m* and the term *k.s* in Equation (5).

The accuracy of the values of *Lim(P,α)* computed with Equations (7) and (8) are provided in Table 3.

Table 3. Lower limits for numbers n for which δ *(absolute difference between* Lim(P,α) *computed with Equations (7) and (8) and true values of* Lim(P,α)*) is lower than 0,1 – 0,05 – 0,02 – 0,01, as function of* P *and* α*.*

(For example, for P *= 0,6 and* α *= 0,05,* δ *< 0,1 when* n *≥ 9,* δ *< 0,05 when* n *≥ 18,* δ *< 0,02 when* n *≥ 80,* δ *< 0,01 when* n *≥ 340).*

P	δ	α																							
		0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
0,6	0,1	29	18	11	9	6	5	4	3	2	2	2	2	2	3	3	4	4	5	5	7	8	10	14	18
	0,05	65	40	25	18	12	8	6	4	3	2	2	2	3	3	4	5	5	6	7	9	11	13	17	22
	0,02	320	200	120	80	55	32	22	15	8	4	2	3	4	5	6	7	8	10	11	13	15	17	300	1000
	0,01	1400	800	450	340	200	140	85	55	34	14	2	4	5	6	8	9	11	13	14	16	17	380	1400	4500

P	δ	α																								
		0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
0,7	0,1	12	8	6	4	3	3	2	2	2	2	2	3	3	3	4	4	5	6	7	8	10	12	16	22
	0,05	17	11	8	6	4	3	2	2	2	2	3	4	4	5	5	6	7	8	9	11	13	16	20	26
	0,02	32	19	13	10	7	5	3	2	2	4	5	6	6	7	8	9	10	12	14	15	18	20	500	1300
	0,01	65	50	46	32	22	14	5	3	3	5	7	10	9	9	11	12	14	15	17	18	280	600	1900	6000
0,8	0,1	6	4	3	3	2	2	2	2	2	3	3	4	4	4	5	6	6	7	8	10	13	15	20	27
	0,05	23	5	3	3	2	3	3	3	4	4	5	5	6	6	7	8	9	10	12	14	17	20	26	32
	0,02	65	40	20	15	9	8	7	6	7	8	9	11	9	10	11	13	14	16	18	20	23	26	450	1300
	0,01	120	70	38	24	17	13	11	10	11	13	15	20	13	14	17	18	19	21	23	26	240	600	2000	6000
0,9	0,1	26	16	9	7	5	4	3	3	4	4	4	5	5	6	7	7	8	10	11	13	17	20	27	32
	0,05	60	34	19	13	9	7	6	6	6	6	7	8	8	9	10	11	13	14	17	20	24	28	34	42
	0,02	150	80	42	29	19	15	12	11	11	12	14	17	14	15	17	19	22	25	27	30	32	36	320	1100
	0,01	260	140	75	55	34	24	20	19	19	22	25	30	22	23	26	29	32	32	34	36	40	450	1700	5000
0,95	0,1	34	20	12	8	6	5	4	4	4	5	5	6	6	7	8	9	10	12	14	16	20	24	32	40
	0,05	70	42	22	16	10	8	7	7	7	7	8	10	10	11	12	14	16	18	21	24	29	32	42	55
	0,02	170	90	48	36	21	17	14	13	13	15	18	21	19	20	22	25	28	32	32	36	42	46	55	1100
	0,01	300	150	80	60	36	25	22	22	22	25	32	40	28	30	32	36	38	44	48	50	55	55	1400	5000
0,975	0,1	42	23	13	9	6	5	5	5	5	5	6	7	7	8	9	10	12	13	15	18	23	27	34	44
	0,05	75	44	24	17	11	9	8	8	8	9	10	11	11	13	14	16	18	20	23	28	32	36	46	60
	0,02	170	90	50	36	22	17	15	14	15	17	20	25	22	24	26	29	32	32	36	42	48	55	65	1300
	0,01	260	140	80	55	36	25	22	22	23	28	36	48	32	36	36	44	46	55	55	60	60	65	1700	6000
0,995	0,1	48	27	16	11	8	6	6	5	6	6	7	8	9	10	11	12	14	15	17	21	25	29	36	46
	0,05	90	55	26	19	13	10	9	9	9	10	12	15	14	15	17	19	20	23	26	29	32	36	48	240
	0,02	180	95	55	40	24	18	17	17	18	21	26	32	26	28	32	32	32	34	36	42	46	50	900	2800
	0,01	260	140	75	55	38	26	24	24	27	36	46	60	40	42	44	44	48	48	50	55	320	950	3500	10000
0,9995	0,1	70	40	21	15	10	8	7	7	7	8	9	10	10	11	11	12	14	15	17	19	23	26	32	40
	0,05	120	70	40	26	18	14	12	12	12	14	16	19	16	16	17	18	19	20	22	25	29	32	500	1300
	0,02	240	130	75	55	36	25	23	23	24	28	34	44	28	28	26	28	28	29	32	220	650	1200	3500	8000
	0,01	380	200	110	80	55	44	40	40	42	48	60	80	40	34	32	32	32	240	500	1000	2200	4000	15000	30000

It can be seen from Table 3 that Equations (7) and (8) are useful when $P \leq 0{,}975$ or $0{,}025 \leq \alpha \leq 0{,}975$. In other cases, n needs to be very high to get useful approximations of $Lim(P,\alpha)$ computed with Equations (7) and (8).

7.2 Empirical corrections to approximate parts of the curves that are not straight

The following equations (9) and (10) were found to approximate corrections for the parts of the curves that are not straight:

When $\alpha < 0,5$:

$$LimEq9(P,\alpha) = k - \left(LimEq7(P,\alpha)\right)^{\left(1-Max\left(0;C.n^{0,5}+D\right)\right)} \quad (9)$$

When $\alpha > 0,5$:

$$LimEq10(P,\alpha) = k + \left(LimEq8(P,\alpha)\right)^{\left(1+Max\left(0;E.n^{1,25}+F\right)\right)} \quad (10)$$

Where:

LimEq9(P,α) *and* LimEq10(P,α) *are the approximations of the limits of the IC as function of P and α,*

k *is the theoretical quantile (i.e.* $\Phi^{-1}(P)$*),*

LimEq7(P,α) *and* LimEq8(P,α) *are the limits computed with Equations (7) and (8) respectively,*

$$C = Min\left(0; (0{,}929.P - 0{,}9086).A^2 + (3{,}2.P^2 - 4{,}464.P - 1{,}194).A + (-0{,}689.P^2 + 1{,}357.P - 0{,}657)\right)$$

$$C = (-0{,}825.P^2 + 1{,}879.P - 1{,}05).A + (0{,}946.P^2 - 1{,}366.P + 0{,}408)$$

$$D = (-0{,}716.P + 1{,}011).A^2 + (-22{,}88.P^2 + 42{,}67.P - 19{,}6).A + (19{,}67.P^2 - 45{,}49.P + 26{,}46)$$

$$E = 0{,}0024.A.k$$

$A = \Phi^{-1}(\alpha)$ *is the inverse Gaussian value for a probability* α

and n *is the number of values used for computing* q.

In these formulas, the terms $Max(0; C.n^{0,5} + D)$ and $Max(0; E.n^{1,25} + F)$ are acting as correcting factors.

The accuracy of the values of *Lim(P,α)* computed with Equations (9) and (10) are provided in Table 4. Cells in green show results improved by Equations (9) and (10), cells in yellow show results equal to those from Equations (7) and (8) and cells in red show results deteriorated by Equations (9) and (10).

Table 4. Lower limits for numbers n for which δ *(absolute difference between* Lim(P,α) *computed with Equations (7) and (8) and true values of* Lim(P,α)*) is lower than 0,1 – 0,05 – 0,02 – 0,01, as function of* P *and* α*.*

(For example, for P *= 0,6 and* α *= 0,05,* δ *< 0,1 when n ≥ 7,* δ *< 0,05 when n ≥ 100000).*

P	δ	α																							
		0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
0,6	0,1	1E+05	1E+05	1E+05	7	5	4	3	3	2	2	2	2	10	11	11	11	11	10	10	10	10	10	12	15
	0,05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	4	3	3	2	2	2	19	19	19	18	18	18	17	16	15	15	16	20
	0,02	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	4	4	2	3	38	38	38	38	36	34	32	28	24	22	300	1000
	0,01	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	8	2	4	60	60	60	60	60	55	48	40	32	340	1400	4500
0,7	0,1	12	8	6	5	4	3	2	2	2	2	2	3	8	8	8	7	7	7	6	6	6	7	10	13
	0,05	1E+05	1E+05	9	7	5	3	3	2	2	2	3	4	14	14	13	13	12	12	11	11	10	11	13	17
	0,02	1E+05	1E+05	1E+05	1E+05	1E+05	5	3	2	2	4	5	6	28	27	26	25	24	22	21	19	18	17	500	1300
	0,01	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	4	3	5	5	7	10	46	44	42	40	38	34	30	26	22	600	1900	6000
0,8	0,1	6	4	4	3	2	2	2	2	2	3	3	4	5	4	4	3	3	3	3	3	3	4	4	7
	0,05	20	5	4	4	3	2	2	3	3	4	5	5	7	7	6	5	4	3	3	3	3	4	6	8
	0,02	32	5	5	5	4	3	2	6	7	8	9	11	14	12	12	11	9	5	3	3	6	6	450	1300
	0,01	38	17	7	7	5	3	7	10	11	13	15	20	21	20	19	18	17	15	3	3	240	600	2000	6000

P	*δ*	*α*																							
		0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
0,9	0,1	17	3	3	2	2	2	2	3	3	4	4	5	3	3	3	3	3	3	3	3	4	4	6	8
	0,05	30	11	3	3	2	2	3	4	5	6	7	8	3	3	3	3	3	3	3	4	6	7	8	10
	0,02	55	23	3	3	2	3	6	9	11	12	14	17	4	4	3	6	6	7	8	8	9	9	320	1100
	0,01	1E+05	34	12	4	3	7	16	19	19	22	25	30	4	4	8	9	10	11	11	12	11	450	1700	5000
0,95	0,1	4	3	2	2	2	2	2	3	4	5	5	6	3	3	3	3	3	4	4	4	5	5	6	8
	0,05	4	4	3	3	2	2	3	5	6	7	8	10	3	3	3	3	4	4	4	4	5	5	7	17
	0,02	38	4	4	4	2	3	6	13	13	15	18	21	4	4	6	6	6	4	4	5	5	7	20	1100
	0,01	60	16	5	6	2	5	22	22	22	25	32	40	10	12	12	11	10	10	9	5	6	16	1400	5000
0,975	0,1	6	5	3	2	2	2	3	3	4	5	6	7	3	3	3	3	4	4	4	5	5	6	9	15
	0,05	10	7	5	3	2	2	3	5	7	9	10	11	3	3	4	4	4	4	5	5	6	8	15	26
	0,02	26	22	15	12	2	3	6	12	15	17	20	25	4	6	6	4	4	5	5	6	10	17	30	1300
	0,01	32	55	32	28	12	4	10	22	23	28	36	48	13	13	13	12	10	5	6	7	22	28	1700	6000
0,995	0,1	3	2	2	2	2	2	3	4	5	6	7	8	3	3	3	3	4	4	4	4	5	5	6	10
	0,05	21	2	2	2	2	3	4	6	8	10	12	15	3	6	6	4	4	4	4	5	5	6	7	240
	0,02	180	19	2	2	3	5	8	17	18	21	26	32	13	13	13	13	12	12	12	5	6	7	900	2800
	0,01	260	140	8	3	4	7	24	24	27	36	46	60	24	23	22	19	18	16	15	5	320	950	3500	10000
0,9995	0,1	21	6	2	2	2	3	3	5	6	8	9	10	7	8	9	10	10	11	12	13	15	17	19	20
	0,05	120	20	2	2	3	4	5	8	12	14	16	19	13	14	15	16	17	18	19	21	24	25	500	1300
	0,02	240	130	75	6	5	7	23	23	24	28	34	44	27	29	34	36	38	40	42	220	650	1200	3500	8000
	0,01	380	200	110	80	55	44	40	40	42	48	60	80	55	55	55	50	50	240	500	1000	2200	4000	15000	30000

It can be seen from Table 4 that Equations (9) and (10) are useful when $P \geq 0{,}8$ or $0{,}005 \leq \alpha \leq 0{,}995$ (Equations (9) and (10) were optimized for these ranges because they are the most useful in practice). In other cases, they should not be used.

8 Conclusions

It was possible to build up an Excel file using the Monte-Carlo method and to determine empirical equations that enable to determine limits of confidence of quantiles when the population of values is distributed against a normal distribution law for values of *P* and *α* usually needed in practice. For other values of *P* and *α*, the number *n* of values needed to be of practical interest is often very high and should be avoided as far as possible.

9 References

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Annex:

Tables of results of IC limits for P = 0,6 to 0,9995, α = 0,0005 to 0,9995 and n = 2 to 100000

P = 0,6 corresponding to *k* = 0,253

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	-280	-27	-5,5	-2,72	-1,29	-0,78	-0,494	-0,301	-0,152	-0,024	0,092	0,205	0,320	0,444	0,582	0,743	0,942	1,20	1,58	2,18	3,34	6,8	13,5	67	600
3	-12	-3,9	-1,65	-1,09	-0,649	-0,426	-0,275	-0,157	-0,055	0,035	0,120	0,204	0,287	0,373	0,465	0,566	0,681	0,818	0,991	1,227	1,60	2,40	3,49	8,0	25
4	-4,5	-2,03	-1,06	-0,746	-0,463	-0,303	-0,186	-0,092	-0,010	0,065	0,137	0,206	0,275	0,346	0,421	0,501	0,590	0,693	0,818	0,981	1,220	1,67	2,21	3,97	8,6
5	-2,7	-1,42	-0,81	-0,582	-0,362	-0,230	-0,132	-0,050	0,021	0,086	0,149	0,209	0,270	0,332	0,396	0,465	0,540	0,626	0,728	0,857	1,040	1,37	1,73	2,78	5,1
6	-2,01	-1,14	-0,671	-0,485	-0,298	-0,183	-0,097	-0,024	0,041	0,100	0,157	0,212	0,266	0,322	0,380	0,442	0,509	0,584	0,672	0,783	0,936	1,201	1,479	2,24	3,7
7	-1,59	-0,95	-0,572	-0,412	-0,249	-0,147	-0,068	-0,002	0,057	0,112	0,164	0,214	0,265	0,315	0,368	0,424	0,484	0,552	0,631	0,729	0,862	1,087	1,316	1,90	3,0
8	-1,35	-0,83	-0,500	-0,361	-0,213	-0,118	-0,046	0,015	0,070	0,121	0,169	0,216	0,263	0,310	0,359	0,410	0,466	0,528	0,600	0,689	0,808	1,005	1,20	1,70	2,55
9	-1,18	-0,74	-0,447	-0,320	-0,184	-0,096	-0,028	0,029	0,081	0,128	0,173	0,217	0,261	0,305	0,351	0,399	0,451	0,509	0,576	0,656	0,765	0,943	1,119	1,55	2,24
10	-1,06	-0,663	-0,402	-0,285	-0,159	-0,077	-0,013	0,041	0,089	0,134	0,177	0,219	0,260	0,302	0,346	0,391	0,440	0,494	0,556	0,632	0,732	0,895	1,054	1,43	2,01
11	-0,95	-0,605	-0,367	-0,258	-0,139	-0,061	0,000	0,051	0,097	0,140	0,181	0,220	0,260	0,299	0,340	0,383	0,430	0,481	0,539	0,610	0,704	0,855	1,001	1,34	1,86
12	-0,87	-0,557	-0,335	-0,233	-0,121	-0,047	0,011	0,060	0,104	0,145	0,184	0,222	0,259	0,297	0,336	0,377	0,421	0,470	0,525	0,592	0,681	0,823	0,958	1,27	1,73
13	-0,80	-0,518	-0,310	-0,213	-0,106	-0,036	0,020	0,067	0,109	0,148	0,186	0,222	0,258	0,295	0,332	0,372	0,414	0,461	0,514	0,577	0,662	0,795	0,922	1,21	1,64
14	-0,75	-0,484	-0,287	-0,194	-0,092	-0,024	0,029	0,074	0,115	0,153	0,189	0,224	0,258	0,293	0,329	0,367	0,407	0,452	0,502	0,563	0,643	0,769	0,888	1,16	1,54
15	-0,70	-0,454	-0,267	-0,178	-0,079	-0,014	0,037	0,080	0,120	0,156	0,191	0,225	0,258	0,292	0,327	0,363	0,402	0,445	0,493	0,551	0,628	0,748	0,861	1,111	1,47
16	-0,66	-0,426	-0,248	-0,163	-0,069	-0,006	0,044	0,086	0,124	0,159	0,193	0,225	0,258	0,291	0,324	0,359	0,397	0,438	0,485	0,541	0,614	0,729	0,837	1,074	1,41
17	-0,63	-0,402	-0,232	-0,150	-0,059	0,002	0,050	0,091	0,128	0,162	0,194	0,226	0,257	0,289	0,321	0,356	0,392	0,431	0,477	0,531	0,602	0,711	0,814	1,038	1,35
18	-0,60	-0,382	-0,218	-0,138	-0,050	0,009	0,056	0,096	0,131	0,164	0,196	0,227	0,257	0,288	0,319	0,352	0,387	0,426	0,470	0,522	0,590	0,695	0,795	1,009	1,31
19	-0,56	-0,361	-0,204	-0,128	-0,042	0,016	0,061	0,099	0,134	0,167	0,198	0,227	0,257	0,287	0,317	0,349	0,384	0,421	0,464	0,514	0,580	0,682	0,777	0,982	1,27
20	-0,54	-0,344	-0,192	-0,117	-0,034	0,022	0,066	0,103	0,137	0,169	0,199	0,228	0,257	0,286	0,315	0,346	0,380	0,416	0,457	0,506	0,570	0,669	0,760	0,958	1,23
21	-0,52	-0,328	-0,180	-0,108	-0,027	0,027	0,070	0,107	0,140	0,171	0,200	0,228	0,257	0,285	0,314	0,345	0,377	0,412	0,452	0,500	0,562	0,658	0,746	0,935	1,20
22	-0,49	-0,312	-0,169	-0,099	-0,020	0,033	0,075	0,111	0,143	0,173	0,202	0,229	0,257	0,284	0,313	0,342	0,374	0,408	0,447	0,494	0,554	0,647	0,732	0,914	1,16
23	-0,48	-0,299	-0,160	-0,091	-0,014	0,0377	0,0786	0,1136	0,1450	0,1742	0,202	0,229	0,256	0,283	0,311	0,340	0,371	0,404	0,442	0,488	0,546	0,636	0,719	0,897	1,13
24	-0,46	-0,286	-0,151	-0,084	-0,008	0,042	0,082	0,116	0,147	0,176	0,203	0,230	0,256	0,283	0,310	0,338	0,368	0,401	0,438	0,482	0,540	0,627	0,708	0,877	1,10

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	-0,44	-0,274	-0,142	-0,077	-0,003	0,046	0,085	0,119	0,1494	0,177	0,2042	0,2301	0,2559	0,282	0,3084	0,3361	0,3655	0,3978	0,434	0,477	0,533	0,619	0,698	0,865	1,09
26	-0,43	-0,263	-0,135	-0,071	0,002	0,050	0,088	0,121	0,151	0,179	0,205	0,230	0,256	0,281	0,307	0,334	0,363	0,3945	0,430	0,472	0,527	0,610	0,687	0,848	1,06
27	-0,41	-0,253	-0,126	-0,064	0,007	0,054	0,092	0,124	0,153	0,180	0,206	0,231	0,256	0,281	0,306	0,333	0,361	0,392	0,427	0,468	0,521	0,604	0,677	0,835	1,04
28	-0,40	-0,243	-0,120	-0,058	0,0115	0,0580	0,0950	0,127	0,155	0,1816	0,2068	0,2313	0,256	0,280	0,3051	0,3311	0,359	0,389	0,423	0,464	0,516	0,596	0,669	0,821	1,02
29	-0,38	-0,233	-0,113	-0,053	0,015	0,061	0,098	0,129	0,1567	0,1828	0,2076	0,2318	0,2557	0,2797	0,3041	0,3298	0,3570	0,3868	0,420	0,460	0,511	0,589	0,660	0,809	1,00
30	-0,37	-0,224	-0,106	-0,047	0,019	0,0644	0,1001	0,1307	0,1582	0,1838	0,2082	0,2319	0,2554	0,2791	0,303	0,329	0,355	0,385	0,417	0,456	0,507	0,583	0,653	0,798	0,99
32	-0,35	-0,207	-0,094	-0,038	0,027	0,071	0,105	0,135	0,161	0,186	0,210	0,233	0,255	0,278	0,301	0,326	0,352	0,380	0,412	0,449	0,497	0,571	0,638	0,776	0,95
34	-0,32	-0,194	-0,084	-0,029	0,034	0,076	0,1093	0,1381	0,1639	0,1880	0,2110	0,2333	0,2554	0,2775	0,3001	0,3235	0,3486	0,376	0,407	0,443	0,490	0,560	0,624	0,758	0,93
36	-0,31	-0,180	-0,074	-0,021	0,0401	0,0811	0,1135	0,1414	0,167	0,1899	0,2121	0,2337	0,2551	0,2765	0,2984	0,3213	0,346	0,372	0,402	0,437	0,482	0,551	0,613	0,740	0,90
38	-0,291	-0,169	-0,065	-0,013	0,045	0,0853	0,117	0,1443	0,1687	0,1914	0,2131	0,2342	0,2549	0,2758	0,2972	0,3194	0,3431	0,3688	0,3978	0,432	0,476	0,542	0,602	0,725	0,88
40	-0,28	-0,157	-0,057	-0,007	0,051	0,090	0,121	0,1472	0,1709	0,1930	0,2143	0,2347	0,2551	0,2754	0,2963	0,3179	0,3408	0,3660	0,3943	0,4275	0,470	0,535	0,593	0,712	0,86
42	-0,27	-0,147	-0,050	-0,001	0,0557	0,0936	0,1237	0,1497	0,1730	0,1947	0,2153	0,2352	0,2549	0,2748	0,2951	0,3163	0,3387	0,363	0,390	0,423	0,464	0,527	0,584	0,699	0,84
44	-0,25	-0,138	-0,043	0,005	0,060	0,097	0,127	0,152	0,175	0,196	0,2159	0,2354	0,2547	0,2743	0,2941	0,3148	0,3366	0,3603	0,3873	0,4188	0,459	0,520	0,575	0,688	0,827
46	-0,240	-0,129	-0,036	0,011	0,065	0,101	0,1296	0,1542	0,1765	0,1971	0,2167	0,2358	0,2547	0,2737	0,2931	0,3133	0,335	0,358	0,3839	0,415	0,454	0,514	0,568	0,677	0,81
48	-0,230	-0,120	-0,030	0,016	0,0684	0,1038	0,132	0,1562	0,178	0,1982	0,2174	0,2360	0,2546	0,2731	0,2921	0,3117	0,3327	0,3554	0,3808	0,411	0,450	0,508	0,560	0,665	0,80
50	-0,220	-0,112	-0,024	0,021	0,072	0,107	0,1345	0,1582	0,1795	0,1994	0,2182	0,237	0,2547	0,2729	0,291	0,311	0,331	0,353	0,378	0,408	0,445	0,502	0,553	0,656	0,78
55	-0,193	-0,095	-0,011	0,032	0,0808	0,1137	0,1399	0,1626	0,1830	0,2018	0,2198	0,2374	0,2547	0,2721	0,2897	0,3081	0,3276	0,3488	0,3725	0,4005	0,4361	0,4902	0,538	0,636	0,756
60	-0,177	-0,081	0,000	0,0409	0,0877	0,1193	0,1445	0,1660	0,1857	0,2037	0,2210	0,2377	0,2542	0,2708	0,2878	0,3054	0,3240	0,3443	0,3670	0,3937	0,428	0,480	0,526	0,619	0,736
65	-0,158	-0,067	0,010	0,050	0,095	0,1248	0,1490	0,1697	0,1884	0,2058	0,2224	0,2384	0,2543	0,2703	0,2865	0,3034	0,3212	0,3406	0,3625	0,3880	0,4204	0,469	0,513	0,602	0,709
70	-0,139	-0,054	0,019	0,057	0,1001	0,1295	0,1528	0,1729	0,1909	0,2076	0,2235	0,2390	0,2544	0,2697	0,2854	0,3016	0,3188	0,3376	0,359	0,383	0,415	0,462	0,504	0,587	0,690
75	-0,129	-0,044	0,027	0,0636	0,1054	0,1335	0,1561	0,1755	0,1929	0,2091	0,2245	0,2395	0,2541	0,2689	0,2841	0,2998	0,3164	0,3345	0,3547	0,3785	0,4085	0,454	0,494	0,575	0,675
80	-0,115	-0,034	0,035	0,070	0,1099	0,1372	0,1590	0,1779	0,1947	0,2104	0,2252	0,2397	0,2541	0,2685	0,2830	0,2982	0,3144	0,3318	0,3513	0,3743	0,4034	0,447	0,486	0,565	0,661
85	-0,106	-0,026	0,041	0,0750	0,1145	0,1411	0,1622	0,1803	0,1967	0,2119	0,2263	0,2404	0,2543	0,2681	0,2823	0,2970	0,3126	0,3295	0,3484	0,3706	0,3990	0,442	0,479	0,555	0,645
90	-0,094	-0,018	0,047	0,080	0,1182	0,1439	0,1646	0,1824	0,1984	0,2132	0,2273	0,2409	0,2543	0,2679	0,2816	0,2960	0,3111	0,3275	0,3458	0,3674	0,3949	0,436	0,472	0,545	0,634

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
95	-0,084	-0,010	0,0522	0,0845	0,1216	0,1469	0,1669	0,1841	0,1995	0,2140	0,2276	0,2409	0,2540	0,2671	0,2805	0,2945	0,3092	0,3252	0,3432	0,3641	0,3907	0,4307	0,466	0,537	0,624
100	-0,075	-0,005	0,057	0,089	0,1251	0,1495	0,1690	0,1858	0,2008	0,2149	0,2283	0,2412	0,2540	0,2667	0,2798	0,2933	0,3077	0,3232	0,3407	0,3611	0,3871	0,426	0,460	0,529	0,610
110	-0,061	0,007	0,066	0,0964	0,1311	0,1545	0,1730	0,1890	0,2034	0,2168	0,2295	0,2419	0,2541	0,2663	0,2788	0,2917	0,3053	0,3202	0,3367	0,3562	0,3808	0,418	0,451	0,516	0,594
120	-0,045	0,018	0,0746	0,1030	0,1362	0,1586	0,1763	0,1917	0,2055	0,2183	0,2304	0,2421	0,2538	0,2656	0,2775	0,2898	0,3029	0,3171	0,3329	0,3515	0,3751	0,4106	0,4418	0,503	0,579
130	-0,035	0,028	0,081	0,1091	0,1408	0,1623	0,1794	0,1940	0,2073	0,2196	0,2313	0,2427	0,2539	0,2651	0,2766	0,2884	0,3010	0,3145	0,3298	0,3477	0,3704	0,4042	0,4340	0,493	0,564
140	-0,024	0,036	0,0877	0,1139	0,1445	0,1654	0,1819	0,1961	0,2088	0,2207	0,2320	0,2430	0,2538	0,2646	0,2757	0,2871	0,2992	0,3123	0,3269	0,3442	0,3660	0,3985	0,427	0,484	0,553
150	-0,016	0,044	0,093	0,1189	0,1484	0,1684	0,1843	0,1980	0,2104	0,2218	0,2327	0,2433	0,2537	0,2642	0,2749	0,2859	0,2976	0,3103	0,3245	0,3410	0,3620	0,3933	0,421	0,475	0,541
160	-0,006	0,050	0,098	0,1231	0,1518	0,1713	0,1867	0,1999	0,2119	0,2230	0,2335	0,2438	0,2539	0,2640	0,2742	0,2849	0,2961	0,3084	0,3221	0,3381	0,3583	0,3888	0,4153	0,468	0,532
170	0,001	0,056	0,1029	0,1268	0,1546	0,1736	0,1886	0,2015	0,2130	0,2238	0,2341	0,2440	0,2538	0,2636	0,2736	0,2840	0,2949	0,3068	0,3201	0,3356	0,3554	0,3849	0,411	0,462	0,521
180	0,008	0,061	0,1069	0,1304	0,1574	0,1757	0,1903	0,2028	0,2141	0,2246	0,2346	0,2442	0,2538	0,2633	0,2730	0,2831	0,2937	0,3053	0,3181	0,3331	0,3523	0,3808	0,406	0,456	0,514
190	0,015	0,066	0,1108	0,1335	0,1598	0,1777	0,1920	0,2042	0,2152	0,2254	0,2350	0,2444	0,2537	0,2630	0,2725	0,2823	0,2926	0,3038	0,3164	0,3310	0,3495	0,3774	0,401	0,450	0,506
200	0,020	0,071	0,1146	0,1367	0,1625	0,1797	0,1936	0,2054	0,2161	0,2260	0,2355	0,2446	0,2537	0,2627	0,2719	0,2815	0,2916	0,3025	0,3147	0,3290	0,3471	0,3740	0,3977	0,445	0,500
220	0,032	0,079	0,1210	0,1422	0,1666	0,1832	0,1964	0,2077	0,2179	0,2273	0,2363	0,2451	0,2538	0,2624	0,2712	0,2803	0,2899	0,3003	0,3118	0,3255	0,3427	0,3684	0,3908	0,436	0,490
240	0,042	0,087	0,1264	0,1467	0,1702	0,1861	0,1987	0,2095	0,2193	0,2283	0,2370	0,2453	0,2536	0,2618	0,2703	0,2789	0,2882	0,2981	0,3092	0,3223	0,3389	0,3635	0,3850	0,427	0,478
260	0,049	0,093	0,1312	0,1508	0,1734	0,1887	0,2008	0,2112	0,2206	0,2293	0,2376	0,2457	0,2536	0,2615	0,2696	0,2779	0,2867	0,2962	0,3069	0,3194	0,3352	0,3587	0,3792	0,420	0,469
280	0,057	0,100	0,1360	0,1547	0,1764	0,1910	0,2027	0,2128	0,2219	0,2303	0,2383	0,2461	0,2537	0,2613	0,2690	0,2771	0,2856	0,2947	0,3050	0,3170	0,3323	0,3550	0,3749	0,414	0,461
300	0,063	0,1042	0,1398	0,1579	0,1789	0,1930	0,2044	0,2141	0,2228	0,2309	0,2387	0,2461	0,2535	0,2609	0,2684	0,2762	0,2845	0,2933	0,3033	0,3150	0,3297	0,3515	0,3707	0,409	0,453
320	0,069	0,109	0,1432	0,1608	0,1811	0,1949	0,2059	0,2153	0,2238	0,2317	0,2391	0,2463	0,2535	0,2607	0,2680	0,2755	0,2835	0,2921	0,3017	0,3130	0,3272	0,3483	0,3668	0,403	0,446
340	0,075	0,113	0,1467	0,1636	0,1834	0,1968	0,2074	0,2165	0,2247	0,2323	0,2396	0,2466	0,2535	0,2605	0,2675	0,2749	0,2826	0,2910	0,3003	0,3112	0,3249	0,3455	0,3634	0,399	0,440
360	0,080	0,117	0,1496	0,1662	0,1854	0,1984	0,2087	0,2175	0,2255	0,2329	0,2400	0,2468	0,2535	0,2602	0,2671	0,2742	0,2817	0,2898	0,2989	0,3094	0,3228	0,3426	0,3598	0,394	0,435
380	0,084	0,121	0,1523	0,1685	0,1871	0,1998	0,2098	0,2185	0,2263	0,2335	0,2404	0,2470	0,2535	0,2601	0,2668	0,2737	0,2810	0,2889	0,2977	0,3080	0,3210	0,3404	0,3574	0,3908	0,430
400	0,088	0,124	0,1549	0,1706	0,1888	0,2011	0,2110	0,2194	0,2270	0,2340	0,2407	0,2472	0,2536	0,2600	0,2665	0,2732	0,2803	0,2879	0,2965	0,3065	0,3192	0,3381	0,3545	0,387	0,425
450	0,098	0,132	0,1606	0,1753	0,1925	0,2041	0,2134	0,2213	0,2285	0,2351	0,2414	0,2475	0,2535	0,2596	0,2657	0,2721	0,2787	0,2860	0,2941	0,3035	0,3154	0,3332	0,3486	0,3793	0,415
500	0,106	0,1377	0,1652	0,1793	0,1956	0,2066	0,2154	0,2230	0,2297	0,2360	0,2420	0,2478	0,2535	0,2592	0,2650	0,2710	0,2774	0,2842	0,2919	0,3009	0,3121	0,3289	0,3436	0,373	0,408

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	0,113	0,1434	0,1694	0,1829	0,1983	0,2088	0,2172	0,2243	0,2308	0,2368	0,2425	0,2480	0,2535	0,2589	0,2645	0,2702	0,2763	0,2828	0,2901	0,2987	0,3095	0,3255	0,3395	0,367	0,398
600	0,119	0,1477	0,1727	0,1857	0,2006	0,2106	0,2187	0,2256	0,2318	0,2375	0,2430	0,2483	0,2534	0,2587	0,2640	0,2695	0,2753	0,2815	0,2886	0,2967	0,3070	0,3224	0,3359	0,362	0,393
650	0,123	0,1516	0,1760	0,1884	0,2027	0,2124	0,2201	0,2267	0,2327	0,2382	0,2434	0,2485	0,2535	0,2585	0,2636	0,2688	0,2744	0,2804	0,2871	0,2950	0,3049	0,3196	0,3324	0,3577	0,387
700	0,128	0,1557	0,1788	0,1907	0,2045	0,2138	0,2212	0,2276	0,2334	0,2387	0,2437	0,2486	0,2534	0,2583	0,2632	0,2683	0,2736	0,2794	0,2859	0,2934	0,3030	0,3171	0,3295	0,3536	0,382
750	0,133	0,1588	0,1813	0,1928	0,2061	0,2151	0,2223	0,2285	0,2341	0,2392	0,2441	0,2488	0,2535	0,2581	0,2629	0,2678	0,2730	0,2786	0,2848	0,2921	0,3014	0,3150	0,3269	0,3502	0,378
800	0,136	0,1616	0,1835	0,1947	0,2076	0,2164	0,2233	0,2293	0,2346	0,2396	0,2443	0,2489	0,2534	0,2579	0,2625	0,2673	0,2723	0,2777	0,2838	0,2908	0,2997	0,3130	0,3246	0,3471	0,374
850	0,140	0,1645	0,1855	0,1963	0,2089	0,2174	0,2242	0,2300	0,2352	0,2400	0,2446	0,2490	0,2534	0,2578	0,2623	0,2668	0,2717	0,2770	0,2828	0,2897	0,2984	0,3112	0,3224	0,3443	0,370
900	0,143	0,1670	0,1875	0,1981	0,2102	0,2185	0,2250	0,2307	0,2357	0,2404	0,2449	0,2492	0,2534	0,2577	0,2620	0,2665	0,2713	0,2763	0,2820	0,2887	0,2971	0,3096	0,3204	0,3417	0,366
950	0,146	0,1694	0,1892	0,1995	0,2114	0,2194	0,2258	0,2313	0,2362	0,2408	0,2451	0,2494	0,2535	0,2576	0,2618	0,2662	0,2708	0,2758	0,2813	0,2877	0,2959	0,3081	0,3186	0,3392	0,363
1000	0,149	0,1714	0,1909	0,2009	0,2125	0,2203	0,2265	0,2318	0,2366	0,2410	0,2453	0,2494	0,2534	0,2575	0,2616	0,2658	0,2703	0,2751	0,2805	0,2869	0,2948	0,3067	0,3169	0,3372	0,361
1100	0,154	0,1751	0,1938	0,2033	0,2144	0,2218	0,2277	0,2328	0,2374	0,2416	0,2456	0,2496	0,2534	0,2573	0,2612	0,2653	0,2696	0,2742	0,2793	0,2854	0,2929	0,3042	0,3140	0,3332	0,355
1200	0,158	0,1785	0,1963	0,2054	0,2159	0,2231	0,2287	0,2336	0,2380	0,2421	0,2459	0,2497	0,2534	0,2571	0,2608	0,2647	0,2688	0,2732	0,2782	0,2839	0,2912	0,3019	0,3113	0,3297	0,352
1300	0,161	0,1813	0,1985	0,2073	0,2174	0,2243	0,2298	0,2344	0,2387	0,2426	0,2463	0,2499	0,2534	0,2570	0,2605	0,2643	0,2682	0,2725	0,2772	0,2827	0,2897	0,3001	0,3091	0,3267	0,347
1400	0,165	0,1840	0,2005	0,2090	0,2187	0,2254	0,2306	0,2351	0,2392	0,2429	0,2465	0,2500	0,2534	0,2568	0,2603	0,2639	0,2677	0,2717	0,2763	0,2816	0,2883	0,2983	0,3071	0,3242	0,344
1500	0,168	0,1862	0,2022	0,2104	0,2199	0,2262	0,2313	0,2357	0,2396	0,2433	0,2468	0,2501	0,2534	0,2567	0,2600	0,2635	0,2672	0,2711	0,2755	0,2807	0,2872	0,2969	0,3053	0,3217	0,341
1600	0,171	0,1885	0,2039	0,2118	0,2210	0,2271	0,2320	0,2363	0,2401	0,2436	0,2470	0,2502	0,2534	0,2566	0,2599	0,2632	0,2668	0,2706	0,2749	0,2799	0,2861	0,2954	0,3035	0,3195	0,338
1700	0,173	0,1903	0,2053	0,2130	0,2219	0,2279	0,2327	0,2368	0,2404	0,2439	0,2471	0,2503	0,2534	0,2565	0,2596	0,2629	0,2663	0,2700	0,2742	0,2790	0,2850	0,2941	0,3019	0,3173	0,335
1800	0,175	0,1920	0,2066	0,2141	0,2228	0,2286	0,2332	0,2372	0,2408	0,2441	0,2473	0,2503	0,2534	0,2564	0,2594	0,2626	0,2659	0,2696	0,2736	0,2783	0,2842	0,2929	0,3005	0,3155	0,333
1900	0,177	0,1938	0,2080	0,2152	0,2236	0,2293	0,2338	0,2377	0,2412	0,2444	0,2475	0,2505	0,2534	0,2563	0,2593	0,2624	0,2656	0,2691	0,2731	0,2776	0,2834	0,2919	0,2993	0,3139	0,331
2000	0,179	0,1952	0,2091	0,2162	0,2244	0,2299	0,2343	0,2381	0,2415	0,2446	0,2476	0,2505	0,2534	0,2562	0,2591	0,2621	0,2653	0,2687	0,2725	0,2770	0,2826	0,2909	0,2982	0,3123	0,329
2200	0,1828	0,1980	0,2111	0,2179	0,2257	0,2310	0,2352	0,2388	0,2420	0,2451	0,2479	0,2507	0,2534	0,2561	0,2589	0,2618	0,2648	0,2681	0,2717	0,2760	0,2813	0,2892	0,2961	0,3095	0,326
2400	0,1858	0,2002	0,2128	0,2193	0,2268	0,2319	0,2359	0,2394	0,2425	0,2454	0,2481	0,2507	0,2534	0,2560	0,2586	0,2613	0,2642	0,2674	0,2709	0,2749	0,2801	0,2877	0,2943	0,3072	0,322
2600	0,188	0,2024	0,2145	0,2207	0,2279	0,2328	0,2366	0,2399	0,2429	0,2457	0,2483	0,2509	0,2534	0,2559	0,2584	0,2611	0,2638	0,2668	0,2702	0,2740	0,2789	0,2862	0,2926	0,3051	0,319
2800	0,191	0,2042	0,2159	0,2219	0,2289	0,2335	0,2373	0,2404	0,2433	0,2460	0,2485	0,2510	0,2534	0,2558	0,2582	0,2608	0,2635	0,2664	0,2696	0,2733	0,2781	0,2851	0,2912	0,3031	0,317

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	0,1928	0,2058	0,2171	0,2229	0,2297	0,2342	0,2378	0,2409	0,2437	0,2462	0,2487	0,2510	0,2534	0,2557	0,2581	0,2605	0,2631	0,2659	0,2690	0,2726	0,2772	0,2841	0,2899	0,3015	0,315
3500	0,197	0,2094	0,2198	0,2252	0,2314	0,2356	0,2389	0,2418	0,2444	0,2468	0,2490	0,2512	0,2534	0,2555	0,2577	0,2600	0,2624	0,2650	0,2679	0,2712	0,2754	0,2817	0,2872	0,2978	0,3101
4000	0,2009	0,2122	0,2220	0,2270	0,2328	0,2368	0,2399	0,2425	0,2449	0,2472	0,2493	0,2513	0,2534	0,2554	0,2574	0,2596	0,2618	0,2642	0,2669	0,2700	0,2740	0,2799	0,2849	0,2948	0,306
4500	0,2037	0,2145	0,2238	0,2285	0,2340	0,2377	0,2407	0,2432	0,2454	0,2476	0,2495	0,2515	0,2534	0,2553	0,2572	0,2592	0,2613	0,2636	0,2661	0,2690	0,2728	0,2783	0,2832	0,2925	0,3035
5000	0,2063	0,2164	0,2253	0,2298	0,2350	0,2385	0,2413	0,2437	0,2458	0,2478	0,2497	0,2516	0,2534	0,2552	0,2570	0,2589	0,2609	0,2630	0,2654	0,2683	0,2718	0,2771	0,2816	0,2904	0,3007
6000	0,2106	0,2196	0,2277	0,2318	0,2366	0,2398	0,2423	0,2445	0,2465	0,2483	0,2500	0,2517	0,2534	0,2550	0,2567	0,2584	0,2603	0,2622	0,2644	0,2670	0,2702	0,2750	0,2792	0,2872	0,2967
7000	0,2135	0,2222	0,2296	0,2334	0,2378	0,2408	0,2431	0,2452	0,2470	0,2487	0,2503	0,2518	0,2534	0,2549	0,2564	0,2580	0,2597	0,2615	0,2636	0,2660	0,2690	0,2734	0,2772	0,2847	0,2936
8000	0,2162	0,2241	0,2311	0,2347	0,2388	0,2416	0,2438	0,2457	0,2474	0,2490	0,2505	0,2519	0,2534	0,2548	0,2562	0,2577	0,2593	0,2610	0,2629	0,2651	0,2679	0,2721	0,2756	0,2827	0,2908
9000	0,2183	0,2258	0,2324	0,2358	0,2396	0,2426	0,2443	0,2461	0,2477	0,2492	0,2507	0,2520	0,2534	0,2547	0,2561	0,2575	0,259	0,2606	0,2624	0,2645	0,2671	0,2710	0,2744	0,2810	0,2888
10000	0,2202	0,2273	0,2335	0,2367	0,2404	0,2428	0,2448	0,2465	0,2480	0,2495	0,2508	0,2521	0,2534	0,2546	0,2559	0,2573	0,2587	0,2602	0,2619	0,2639	0,2664	0,2701	0,2733	0,2796	0,2870
15000	0,2262	0,2320	0,2371	0,2397	0,2427	0,2448	0,2464	0,2478	0,2490	0,2502	0,2513	0,2523	0,2534	0,2544	0,2555	0,2566	0,2577	0,2590	0,2604	0,2620	0,2640	0,2670	0,2697	0,2748	0,2808
20000	0,2298	0,2349	0,2393	0,2416	0,2442	0,2459	0,2473	0,2485	0,2496	0,2506	0,2515	0,2525	0,2534	0,2543	0,2552	0,2561	0,2571	0,2582	0,2594	0,2608	0,2626	0,2652	0,2675	0,2719	0,2770
30000	0,2341	0,2383	0,2419	0,2437	0,2458	0,2473	0,2484	0,2494	0,2503	0,2511	0,2519	0,2526	0,2533	0,2541	0,2548	0,2556	0,2564	0,2573	0,2583	0,2594	0,2609	0,2630	0,2649	0,2685	0,2727
40000	0,2366	0,2403	0,2434	0,2450	0,2468	0,2481	0,2491	0,2499	0,2507	0,2514	0,2521	0,2527	0,2534	0,2540	0,2546	0,2553	0,2560	0,2568	0,2576	0,2586	0,2599	0,2617	0,2633	0,2665	0,2701
50000	0,2384	0,2417	0,2445	0,2459	0,2475	0,2486	0,2495	0,2503	0,2510	0,2516	0,2522	0,2528	0,2534	0,2539	0,2545	0,2551	0,2557	0,2564	0,2572	0,2581	0,2592	0,2608	0,2623	0,2650	0,2683
100000	0,2428	0,2451	0,2471	0,2481	0,2492	0,2500	0,2506	0,2512	0,2517	0,2521	0,2525	0,2530	0,2534	0,2538	0,2542	0,2546	0,2550	0,2555	0,2561	0,2567	0,2575	0,2586	0,2597	0,2616	0,2639

P = 0,7 corresponding to *k* = 0,524

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	-150	-14,7	-2,96	-1,43	-0,61	-0,289	-0,091	0,059	0,187	0,306	0,425	0,547	0,68	0,829	1,002	1,211	1,48	1,84	2,36	3,21	4,87	9,8	19,6	98	1000
3	-7,6	-2,39	-0,96	-0,578	-0,259	-0,084	0,044	0,15	0,244	0,333	0,420	0,507	0,598	0,695	0,801	0,919	1,057	1,225	1,44	1,74	2,22	3,28	4,72	10,7	34
4	-2,9	-1,27	-0,592	-0,356	-0,130	0,007	0,111	0,199	0,279	0,353	0,426	0,498	0,573	0,650	0,733	0,825	0,928	1,048	1,199	1,398	1,69	2,27	2,96	5,2	11,4
5	-1,8	-0,87	-0,416	-0,236	-0,052	0,065	0,155	0,233	0,303	0,369	0,432	0,496	0,56	0,627	0,698	0,775	0,860	0,960	1,079	1,233	1,455	1,86	2,31	3,65	6,6
6	-1,31	-0,68	-0,314	-0,161	0,000	0,105	0,186	0,256	0,320	0,379	0,437	0,495	0,553	0,613	0,676	0,744	0,819	0,905	1,007	1,136	1,318	1,64	1,98	2,93	4,8
7	-1,02	-0,54	-0,237	-0,103	0,042	0,136	0,211	0,275	0,334	0,389	0,442	0,495	0,548	0,603	0,660	0,722	0,789	0,865	0,955	1,068	1,224	1,494	1,77	2,51	3,9
8	-0,84	-0,45	-0,180	-0,060	0,073	0,161	0,23	0,291	0,345	0,397	0,446	0,495	0,544	0,595	0,648	0,704	0,766	0,836	0,917	1,019	1,158	1,392	1,63	2,24	3,3
9	-0,73	-0,38	-0,137	-0,025	0,099	0,181	0,247	0,303	0,355	0,403	0,449	0,495	0,542	0,589	0,638	0,691	0,748	0,812	0,887	0,980	1,105	1,314	1,525	2,05	2,92
10	-0,63	-0,319	-0,100	0,005	0,121	0,199	0,261	0,314	0,362	0,408	0,452	0,496	0,540	0,584	0,631	0,681	0,734	0,794	0,864	0,950	1,065	1,255	1,444	1,90	2,62
11	-0,55	-0,273	-0,069	0,029	0,139	0,213	0,272	0,323	0,370	0,413	0,455	0,496	0,538	0,580	0,624	0,671	0,722	0,778	0,843	0,924	1,031	1,207	1,380	1,79	2,43
12	-0,49	-0,234	-0,042	0,051	0,156	0,227	0,283	0,332	0,376	0,418	0,458	0,497	0,537	0,577	0,619	0,663	0,711	0,765	0,827	0,902	1,003	1,168	1,328	1,70	2,27
13	-0,44	-0,201	-0,020	0,068	0,169	0,237	0,291	0,338	0,381	0,421	0,460	0,498	0,536	0,574	0,615	0,657	0,703	0,754	0,813	0,885	0,981	1,134	1,283	1,62	2,15
14	-0,4	-0,173	0,000	0,086	0,183	0,248	0,300	0,346	0,387	0,425	0,462	0,498	0,535	0,572	0,611	0,651	0,695	0,744	0,800	0,868	0,958	1,104	1,242	1,561	2,03
15	-0,36	-0,148	0,019	0,101	0,194	0,257	0,307	0,351	0,391	0,428	0,464	0,499	0,534	0,570	0,607	0,646	0,689	0,735	0,789	0,855	0,940	1,078	1,210	1,507	1,94
16	-0,33	-0,124	0,035	0,114	0,204	0,265	0,314	0,356	0,395	0,431	0,466	0,500	0,534	0,569	0,604	0,642	0,683	0,728	0,779	0,842	0,924	1,056	1,181	1,460	1,87
17	-0,29	-0,104	0,05	0,126	0,213	0,272	0,320	0,361	0,398	0,433	0,467	0,500	0,533	0,566	0,601	0,638	0,677	0,720	0,770	0,831	0,91	1,035	1,154	1,417	1,79
18	-0,27	-0,085	0,062	0,136	0,222	0,279	0,325	0,365	0,402	0,436	0,469	0,501	0,533	0,565	0,599	0,634	0,672	0,714	0,762	0,820	0,896	1,017	1,131	1,380	1,75
19	-0,24	-0,067	0,075	0,147	0,229	0,285	0,330	0,369	0,405	0,438	0,470	0,501	0,532	0,564	0,596	0,631	0,668	0,708	0,755	0,811	0,884	1,000	1,11	1,349	1,69
20	-0,23	-0,053	0,086	0,156	0,236	0,291	0,335	0,373	0,407	0,440	0,471	0,501	0,531	0,562	0,594	0,627	0,663	0,703	0,748	0,802	0,873	0,985	1,090	1,319	1,64
21	-0,2	-0,039	0,097	0,165	0,243	0,297	0,340	0,376	0,410	0,442	0,472	0,502	0,532	0,562	0,592	0,625	0,660	0,698	0,742	0,795	0,864	0,973	1,074	1,293	1,60
22	-0,184	-0,023	0,107	0,173	0,250	0,302	0,344	0,380	0,413	0,444	0,473	0,502	0,531	0,560	0,591	0,622	0,656	0,693	0,736	0,787	0,855	0,959	1,057	1,268	1,56
23	-0,165	-0,012	0,116	0,181	0,256	0,3067	0,347	0,3829	0,415	0,445	0,474	0,502	0,530	0,559	0,589	0,620	0,653	0,689	0,731	0,781	0,846	0,947	1,042	1,248	1,52
24	-0,15	-0,002	0,124	0,188	0,261	0,3110	0,351	0,386	0,417	0,447	0,475	0,503	0,531	0,559	0,587	0,618	0,650	0,685	0,726	0,775	0,838	0,937	1,028	1,224	1,49

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	-0,14	0,01	0,132	0,194	0,266	0,315	0,354	0,388	0,419	0,448	0,4757	0,503	0,53	0,557	0,586	0,615	0,647	0,682	0,721	0,769	0,831	0,927	1,017	1,21	1,47
26	-0,13	0,019	0,139	0,200	0,271	0,319	0,357	0,391	0,421	0,449	0,477	0,503	0,53	0,557	0,584	0,613	0,644	0,678	0,717	0,763	0,824	0,918	1,004	1,189	1,44
27	-0,11	0,029	0,147	0,207	0,276	0,323	0,361	0,393	0,423	0,451	0,4780	0,504	0,53	0,556	0,583	0,612	0,642	0,675	0,714	0,759	0,818	0,909	0,994	1,174	1,41
28	-0,099	0,039	0,153	0,212	0,280	0,326	0,363	0,396	0,425	0,4521	0,4780	0,504	0,529	0,555	0,582	0,61	0,639	0,672	0,709	0,754	0,811	0,901	0,983	1,158	1,39
29	-0,09	0,046	0,160	0,217	0,284	0,329	0,366	0,398	0,4264	0,4533	0,4791	0,5043	0,529	0,5546	0,581	0,608	0,637	0,6695	0,7059	0,749	0,806	0,894	0,974	1,145	1,37
30	-0,08	0,055	0,165	0,222	0,288	0,333	0,3687	0,3997	0,4278	0,454	0,4797	0,5044	0,529	0,554	0,580	0,607	0,635	0,667	0,703	0,745	0,801	0,886	0,965	1,131	1,35
32	-0,06	0,070	0,177	0,232	0,296	0,339	0,374	0,404	0,4310	0,456	0,4810	0,505	0,529	0,553	0,577	0,603	0,631	0,661	0,696	0,737	0,79	0,871	0,947	1,104	1,31
34	-0,037	0,083	0,187	0,240	0,302	0,344	0,378	0,407	0,4336	0,4584	0,4822	0,5054	0,5285	0,5518	0,576	0,6008	0,628	0,657	0,69	0,73	0,781	0,859	0,93	1,083	1,28
36	-0,022	0,095	0,196	0,248	0,308	0,349	0,3819	0,4103	0,4359	0,4599	0,4831	0,5057	0,5281	0,5508	0,574	0,5984	0,6242	0,653	0,685	0,723	0,772	0,849	0,918	1,063	1,25
38	-0,007	0,107	0,205	0,255	0,313	0,353	0,385	0,413	0,4383	0,4617	0,4840	0,506	0,5278	0,5499	0,573	0,5962	0,6215	0,6491	0,6804	0,7176	0,765	0,839	0,906	1,045	1,23
40	0,006	0,117	0,212	0,262	0,318	0,358	0,389	0,416	0,4404	0,4632	0,4852	0,5067	0,5279	0,5493	0,571	0,5944	0,619	0,646	0,6765	0,713	0,759	0,831	0,895	1,03	1,2
42	0,016	0,126	0,219	0,267	0,3234	0,3614	0,392	0,418	0,4425	0,4648	0,4862	0,5071	0,528	0,549	0,570	0,5925	0,6165	0,643	0,672	0,707	0,752	0,822	0,885	1,015	1,18
44	0,030	0,135	0,226	0,274	0,328	0,3650	0,395	0,421	0,4440	0,466	0,4868	0,5073	0,5275	0,5481	0,569	0,5909	0,6142	0,6397	0,669	0,703	0,747	0,815	0,875	1,003	1,16
46	0,040	0,143	0,233	0,279	0,332	0,3690	0,398	0,4231	0,446	0,4673	0,4877	0,5077	0,5274	0,5470	0,568	0,589	0,612	0,637	0,665	0,698	0,742	0,808	0,867	0,99	1,14
48	0,049	0,151	0,239	0,284	0,336	0,3716	0,400	0,425	0,4474	0,4682	0,4882	0,5077	0,5272	0,5470	0,567	0,5877	0,61	0,634	0,662	0,694	0,737	0,801	0,858	0,977	1,13
50	0,059	0,160	0,245	0,288	0,340	0,3750	0,403	0,427	0,4489	0,4694	0,4891	0,5082	0,527	0,5460	0,566	0,586	0,608	0,632	0,659	0,691	0,731	0,794	0,85	0,966	1,12
55	0,081	0,176	0,257	0,299	0,3482	0,3815	0,408	0,4314	0,4524	0,472	0,4906	0,5089	0,5271	0,5453	0,564	0,5835	0,6043	0,627	0,6526	0,6826	0,721	0,781	0,834	0,942	1,08
60	0,098	0,189	0,268	0,3081	0,3551	0,3871	0,413	0,4349	0,4549	0,4737	0,4916	0,5091	0,5264	0,5439	0,5619	0,5805	0,6004	0,622	0,6464	0,6754	0,7124	0,769	0,82	0,925	1,06
65	0,116	0,202	0,278	0,317	0,362	0,3930	0,417	0,439	0,4579	0,4758	0,493	0,5098	0,5265	0,5432	0,5605	0,5783	0,5974	0,6181	0,6414	0,669	0,704	0,758	0,806	0,905	1,028
70	0,132	0,215	0,287	0,324	0,3675	0,3972	0,421	0,4418	0,4602	0,4775	0,4941	0,5104	0,5264	0,5426	0,5591	0,5763	0,5947	0,6148	0,6372	0,664	0,698	0,749	0,795	0,889	1,01
75	0,143	0,225	0,294	0,3306	0,3727	0,4014	0,4243	0,4443	0,4623	0,4791	0,4951	0,5107	0,5262	0,5418	0,5577	0,5743	0,592	0,6113	0,633	0,6585	0,691	0,741	0,785	0,874	0,987
80	0,156	0,234	0,302	0,336	0,3771	0,4050	0,4273	0,4466	0,4641	0,4804	0,4959	0,5111	0,526	0,5411	0,5566	0,5727	0,5898	0,6084	0,6293	0,6541	0,686	0,733	0,776	0,864	0,971
85	0,166	0,242	0,308	0,342	0,3817	0,4088	0,4305	0,4492	0,4662	0,4818	0,4969	0,5116	0,5262	0,5407	0,5556	0,5712	0,5878	0,6059	0,6261	0,65	0,6806	0,727	0,768	0,852	0,953
90	0,176	0,249	0,314	0,347	0,3854	0,4118	0,433	0,4513	0,4678	0,4832	0,4978	0,5121	0,5262	0,5404	0,555	0,5701	0,5862	0,6037	0,6233	0,6464	0,6762	0,721	0,761	0,841	0,941

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
95	0,184	0,257	0,319	0,3513	0,389	0,4147	0,4353	0,453	0,469	0,4839	0,4982	0,5121	0,5258	0,5397	0,5538	0,5686	0,5842	0,6012	0,6203	0,6428	0,6717	0,715	0,754	0,832	0,93
100	0,193	0,262	0,324	0,356	0,3923	0,4174	0,4374	0,4546	0,4703	0,4849	0,4988	0,5123	0,5257	0,5391	0,5529	0,5672	0,5825	0,5991	0,6177	0,6396	0,668	0,71	0,747	0,823	0,913
110	0,207	0,274	0,333	0,3633	0,3984	0,4223	0,4414	0,458	0,4729	0,4868	0,5001	0,513	0,5258	0,5387	0,5518	0,5654	0,58	0,5957	0,6134	0,6342	0,6608	0,701	0,737	0,809	0,896
120	0,222	0,285	0,3412	0,37	0,4036	0,4265	0,4449	0,4607	0,475	0,4882	0,501	0,5133	0,5256	0,5379	0,5504	0,5634	0,5773	0,5924	0,6093	0,6292	0,6545	0,6931	0,7269	0,795	0,879
130	0,232	0,294	0,348	0,376	0,4084	0,4303	0,448	0,4631	0,4768	0,4896	0,5018	0,5137	0,5254	0,5373	0,5493	0,5619	0,5752	0,5897	0,606	0,6251	0,6493	0,6859	0,7182	0,784	0,862
140	0,243	0,302	0,354	0,381	0,4122	0,4335	0,4505	0,4652	0,4784	0,4907	0,5025	0,5141	0,5254	0,5368	0,5484	0,5605	0,5733	0,5872	0,6029	0,6212	0,6447	0,6796	0,7108	0,773	0,85
150	0,251	0,31	0,3599	0,3859	0,416	0,4366	0,453	0,4671	0,4799	0,4919	0,5033	0,5143	0,5253	0,5363	0,5476	0,5592	0,5716	0,585	0,6	0,6178	0,6403	0,6741	0,7039	0,763	0,836
160	0,26	0,317	0,365	0,3902	0,4195	0,4394	0,4553	0,4691	0,4815	0,4931	0,504	0,5148	0,5253	0,5359	0,5468	0,5581	0,57	0,583	0,5976	0,6147	0,6364	0,669	0,6979	0,756	0,825
170	0,268	0,322	0,37	0,394	0,4224	0,4418	0,4573	0,4707	0,4827	0,4939	0,5046	0,515	0,5253	0,5356	0,5461	0,557	0,5687	0,5812	0,5954	0,612	0,6332	0,665	0,693	0,748	0,814
180	0,276	0,328	0,3737	0,3974	0,4251	0,444	0,4591	0,4721	0,4838	0,4947	0,5051	0,5152	0,5252	0,5352	0,5454	0,556	0,5673	0,5796	0,5933	0,6094	0,6299	0,6605	0,6877	0,742	0,806
190	0,281	0,333	0,3777	0,4008	0,4278	0,4461	0,4608	0,4735	0,4849	0,4955	0,5056	0,5154	0,5251	0,5349	0,5448	0,5552	0,5662	0,5781	0,5914	0,607	0,6269	0,6567	0,683	0,735	0,798
200	0,286	0,338	0,3814	0,4041	0,4303	0,4482	0,4624	0,4747	0,4858	0,4962	0,5061	0,5156	0,5251	0,5346	0,5443	0,5543	0,565	0,5765	0,5896	0,6048	0,6242	0,6532	0,679	0,73	0,792
220	0,298	0,346	0,3879	0,4095	0,4346	0,4517	0,4653	0,477	0,4876	0,4975	0,5069	0,5161	0,5251	0,5342	0,5435	0,5531	0,5632	0,5742	0,5866	0,601	0,6195	0,6471	0,6713	0,72	0,779
240	0,309	0,353	0,3934	0,4141	0,4382	0,4546	0,4677	0,479	0,4891	0,4986	0,5076	0,5163	0,525	0,5337	0,5425	0,5516	0,5614	0,5719	0,5837	0,5976	0,6153	0,6417	0,6649	0,711	0,766
260	0,315	0,36	0,3984	0,4184	0,4416	0,4573	0,4699	0,4807	0,4905	0,4995	0,5082	0,5166	0,5249	0,5333	0,5417	0,5505	0,5598	0,5699	0,5813	0,5946	0,6114	0,6365	0,6587	0,703	0,755
280	0,323	0,366	0,4031	0,4223	0,4446	0,4598	0,4718	0,4823	0,4917	0,5005	0,5089	0,517	0,525	0,5329	0,5411	0,5496	0,5586	0,5683	0,5792	0,592	0,6083	0,6327	0,654	0,696	0,748
300	0,329	0,371	0,407	0,4255	0,4472	0,4618	0,4735	0,4836	0,4927	0,5011	0,5092	0,517	0,5248	0,5326	0,5405	0,5487	0,5574	0,5668	0,5773	0,5898	0,6054	0,6289	0,6496	0,69	0,739
320	0,336	0,376	0,4106	0,4285	0,4494	0,4637	0,4751	0,4849	0,4937	0,5019	0,5097	0,5173	0,5248	0,5323	0,54	0,548	0,5564	0,5655	0,5758	0,5877	0,6027	0,6255	0,6453	0,685	0,731
340	0,341	0,38	0,4141	0,4314	0,4518	0,4656	0,4766	0,4861	0,4946	0,5026	0,5101	0,5175	0,5248	0,5321	0,5395	0,5473	0,5554	0,5643	0,5741	0,5857	0,6004	0,6223	0,6416	0,68	0,725
360	0,346	0,384	0,4171	0,4341	0,4538	0,4672	0,478	0,4872	0,4955	0,5033	0,5106	0,5177	0,5248	0,5318	0,5391	0,5466	0,5544	0,563	0,5726	0,5838	0,598	0,6192	0,6378	0,675	0,718
380	0,351	0,388	0,4199	0,4364	0,4556	0,4687	0,4791	0,4882	0,4963	0,5038	0,511	0,5179	0,5248	0,5317	0,5387	0,546	0,5537	0,5621	0,5714	0,5823	0,5962	0,6169	0,6351	0,671	0,713
400	0,355	0,391	0,4224	0,4386	0,4574	0,4701	0,4802	0,4891	0,497	0,5043	0,5113	0,5181	0,5248	0,5315	0,5383	0,5455	0,5529	0,561	0,5701	0,5807	0,5943	0,6144	0,632	0,667	0,708
450	0,365	0,398	0,4282	0,4434	0,4611	0,4732	0,4828	0,491	0,4985	0,5055	0,5121	0,5185	0,5248	0,5311	0,5376	0,5443	0,5513	0,559	0,5675	0,5775	0,5901	0,6091	0,6256	0,658	0,698
500	0,373	0,4049	0,433	0,4475	0,4644	0,4758	0,4849	0,4928	0,4998	0,5064	0,5126	0,5187	0,5246	0,5306	0,5368	0,5431	0,5499	0,5571	0,5652	0,5747	0,5866	0,6045	0,6203	0,651	0,689

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	0,38	0,411	0,4372	0,4511	0,4671	0,478	0,4867	0,4942	0,5009	0,5072	0,5132	0,519	0,5247	0,5304	0,5362	0,5423	0,5487	0,5556	0,5633	0,5723	0,5838	0,6009	0,6158	0,645	0,68
600	0,386	0,4148	0,4406	0,454	0,4694	0,4799	0,4883	0,4955	0,5019	0,5079	0,5136	0,5192	0,5246	0,5301	0,5357	0,5415	0,5476	0,5542	0,5616	0,5702	0,5812	0,5976	0,6119	0,64	0,673
650	0,39	0,4191	0,444	0,4568	0,4717	0,4817	0,4897	0,4966	0,5028	0,5086	0,5141	0,5194	0,5247	0,5299	0,5353	0,5408	0,5467	0,5531	0,5601	0,5685	0,5789	0,5946	0,6084	0,6352	0,667
700	0,395	0,4234	0,4469	0,4592	0,4735	0,4832	0,4909	0,4975	0,5035	0,5091	0,5144	0,5196	0,5246	0,5297	0,5348	0,5402	0,5458	0,5519	0,5588	0,5668	0,5769	0,5919	0,6051	0,6311	0,661
750	0,4	0,4263	0,4494	0,4613	0,4752	0,4846	0,492	0,4985	0,5043	0,5097	0,5148	0,5197	0,5246	0,5295	0,5345	0,5397	0,5452	0,5511	0,5577	0,5654	0,5752	0,5897	0,6024	0,6273	0,657
800	0,403	0,4292	0,4517	0,4633	0,4768	0,4858	0,4931	0,4993	0,5049	0,5101	0,515	0,5198	0,5245	0,5293	0,5341	0,5391	0,5444	0,5501	0,5565	0,564	0,5735	0,5876	0,5998	0,6241	0,652
850	0,407	0,4321	0,4539	0,4651	0,4781	0,487	0,4939	0,5	0,5054	0,5105	0,5153	0,52	0,5246	0,5292	0,5338	0,5387	0,5438	0,5493	0,5556	0,5629	0,572	0,5856	0,5975	0,621	0,648
900	0,41	0,4346	0,4559	0,4668	0,4794	0,488	0,4948	0,5007	0,506	0,5109	0,5156	0,5201	0,5246	0,529	0,5336	0,5383	0,5433	0,5487	0,5547	0,5617	0,5706	0,5839	0,5955	0,6182	0,644
950	0,413	0,4373	0,4577	0,4683	0,4806	0,489	0,4957	0,5014	0,5065	0,5113	0,5159	0,5203	0,5246	0,5289	0,5334	0,538	0,5428	0,5481	0,5539	0,5607	0,5694	0,5823	0,5935	0,6156	0,641
1000	0,416	0,4393	0,4594	0,4698	0,4817	0,4899	0,4964	0,5019	0,5069	0,5116	0,516	0,5203	0,5246	0,5288	0,5331	0,5376	0,5423	0,5474	0,5531	0,5598	0,5683	0,5808	0,5917	0,6133	0,638
1100	0,421	0,443	0,4624	0,4723	0,4837	0,4915	0,4976	0,503	0,5077	0,5122	0,5164	0,5205	0,5245	0,5286	0,5327	0,537	0,5415	0,5464	0,5518	0,5582	0,5662	0,5782	0,5886	0,6092	0,633
1200	0,425	0,4464	0,465	0,4744	0,4853	0,4928	0,4987	0,5038	0,5084	0,5127	0,5167	0,5206	0,5245	0,5284	0,5323	0,5364	0,5407	0,5454	0,5506	0,5567	0,5643	0,5758	0,5857	0,6054	0,628
1300	0,429	0,4495	0,4673	0,4764	0,4869	0,4941	0,4998	0,5047	0,5091	0,5131	0,517	0,5208	0,5245	0,5282	0,532	0,536	0,5401	0,5445	0,5495	0,5554	0,5627	0,5738	0,5833	0,6021	0,624
1400	0,433	0,4522	0,4693	0,4781	0,4883	0,4952	0,5006	0,5054	0,5096	0,5135	0,5173	0,5209	0,5245	0,5281	0,5317	0,5355	0,5395	0,5438	0,5486	0,5543	0,5613	0,5719	0,5811	0,5995	0,621
1500	0,436	0,4544	0,4711	0,4796	0,4894	0,4961	0,5014	0,506	0,5101	0,5139	0,5175	0,521	0,5245	0,5279	0,5314	0,5351	0,539	0,5431	0,5478	0,5532	0,5601	0,5704	0,5793	0,5968	0,617
1600	0,439	0,4569	0,4728	0,481	0,4906	0,497	0,5021	0,5066	0,5105	0,5142	0,5178	0,5212	0,5245	0,5279	0,5313	0,5348	0,5386	0,5426	0,5471	0,5524	0,559	0,5688	0,5774	0,5943	0,614
1700	0,441	0,4587	0,4744	0,4823	0,4915	0,4978	0,5028	0,5071	0,5109	0,5145	0,5179	0,5212	0,5245	0,5277	0,531	0,5345	0,5381	0,542	0,5464	0,5514	0,5579	0,5674	0,5757	0,5921	0,611
1800	0,443	0,4606	0,4756	0,4834	0,4924	0,4985	0,5034	0,5076	0,5113	0,5148	0,5181	0,5213	0,5245	0,5276	0,5308	0,5342	0,5377	0,5415	0,5457	0,5507	0,5569	0,5662	0,5742	0,5901	0,609
1900	0,446	0,4624	0,4771	0,4846	0,4933	0,4993	0,504	0,5081	0,5117	0,5151	0,5183	0,5214	0,5245	0,5276	0,5307	0,5339	0,5374	0,5411	0,5452	0,55	0,5561	0,5651	0,5729	0,5885	0,606
2000	0,447	0,4639	0,4782	0,4856	0,4942	0,4999	0,5045	0,5085	0,512	0,5153	0,5184	0,5215	0,5245	0,5275	0,5305	0,5337	0,537	0,5406	0,5446	0,5493	0,5552	0,5641	0,5717	0,5868	0,604
2200	0,4512	0,4667	0,4803	0,4874	0,4955	0,501	0,5054	0,5092	0,5126	0,5157	0,5187	0,5216	0,5245	0,5274	0,5303	0,5333	0,5365	0,5399	0,5438	0,5482	0,5539	0,5622	0,5695	0,5838	0,601
2400	0,454	0,469	0,4821	0,4888	0,4967	0,502	0,5062	0,5098	0,513	0,5161	0,5189	0,5217	0,5244	0,5272	0,5299	0,5328	0,5359	0,5392	0,5429	0,5471	0,5526	0,5606	0,5676	0,5813	0,597
2600	0,457	0,4711	0,4838	0,4903	0,4978	0,5029	0,5069	0,5104	0,5135	0,5164	0,5191	0,5218	0,5245	0,5271	0,5298	0,5325	0,5354	0,5386	0,5421	0,5462	0,5514	0,5591	0,5659	0,5791	0,594
2800	0,459	0,4731	0,4853	0,4915	0,4988	0,5036	0,5076	0,5109	0,5139	0,5167	0,5193	0,5219	0,5244	0,527	0,5296	0,5322	0,535	0,5381	0,5415	0,5455	0,5505	0,5579	0,5643	0,577	0,592

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	0,4613	0,4748	0,4865	0,4926	0,4996	0,5044	0,5081	0,5114	0,5143	0,517	0,5195	0,522	0,5244	0,5269	0,5294	0,532	0,5347	0,5376	0,5409	0,5447	0,5496	0,5568	0,563	0,5752	0,589
3500	0,466	0,4785	0,4893	0,4949	0,5014	0,5058	0,5093	0,5123	0,515	0,5175	0,5199	0,5222	0,5245	0,5267	0,529	0,5314	0,5339	0,5366	0,5397	0,5432	0,5477	0,5543	0,5601	0,5713	0,5843
4000	0,4698	0,4814	0,4917	0,4969	0,5029	0,507	0,5103	0,5131	0,5156	0,5179	0,5202	0,5223	0,5244	0,5266	0,5287	0,5309	0,5333	0,5359	0,5387	0,542	0,5461	0,5524	0,5577	0,5682	0,581
4500	0,4726	0,4838	0,4935	0,4984	0,5042	0,508	0,5111	0,5138	0,5161	0,5183	0,5204	0,5224	0,5244	0,5264	0,5285	0,5306	0,5328	0,5352	0,5378	0,541	0,5449	0,5507	0,5558	0,5658	0,577
5000	0,475	0,4859	0,495	0,4998	0,5052	0,5089	0,5118	0,5143	0,5165	0,5186	0,5206	0,5225	0,5244	0,5263	0,5283	0,5302	0,5323	0,5346	0,5371	0,5401	0,5438	0,5494	0,5542	0,5635	0,5745
6000	0,4797	0,4892	0,4976	0,5019	0,5068	0,5102	0,5129	0,5152	0,5172	0,5191	0,5209	0,5227	0,5244	0,5262	0,5279	0,5298	0,5317	0,5337	0,5361	0,5388	0,5422	0,5472	0,5516	0,5602	0,5702
7000	0,4828	0,4918	0,4995	0,5035	0,5081	0,5112	0,5137	0,5158	0,5177	0,5195	0,5212	0,5228	0,5244	0,526	0,5277	0,5293	0,5311	0,533	0,5352	0,5377	0,5408	0,5455	0,5496	0,5575	0,5668
8000	0,4856	0,4939	0,5011	0,5049	0,5092	0,5121	0,5144	0,5164	0,5182	0,5198	0,5214	0,5229	0,5244	0,5259	0,5274	0,529	0,5307	0,5325	0,5345	0,5368	0,5397	0,5441	0,5479	0,5553	0,564
9000	0,4877	0,4956	0,5025	0,506	0,51	0,5128	0,515	0,5168	0,5185	0,5201	0,5216	0,523	0,5244	0,5258	0,5273	0,5288	0,5303	0,532	0,5339	0,5361	0,5389	0,543	0,5466	0,5536	0,5617
10000	0,4898	0,4972	0,5036	0,5069	0,5108	0,5134	0,5155	0,5172	0,5188	0,5203	0,5217	0,5231	0,5244	0,5257	0,5271	0,5285	0,53	0,5316	0,5334	0,5355	0,5381	0,542	0,5454	0,5521	0,5598
15000	0,496	0,5021	0,5074	0,5101	0,5133	0,5154	0,5171	0,5186	0,5199	0,5211	0,5222	0,5233	0,5244	0,5255	0,5266	0,5278	0,529	0,5303	0,5318	0,5335	0,5356	0,5388	0,5416	0,547	0,5532
20000	0,4997	0,5051	0,5097	0,512	0,5148	0,5166	0,5181	0,5193	0,5205	0,5215	0,5225	0,5235	0,5244	0,5254	0,5263	0,5273	0,5284	0,5295	0,5308	0,5323	0,5341	0,5369	0,5392	0,5439	0,5492
30000	0,5044	0,5086	0,5124	0,5143	0,5165	0,518	0,5192	0,5203	0,5212	0,522	0,5229	0,5236	0,5244	0,5252	0,526	0,5268	0,5276	0,5286	0,5296	0,5308	0,5323	0,5346	0,5365	0,5403	0,5448
40000	0,5069	0,5107	0,514	0,5156	0,5176	0,5189	0,5199	0,5208	0,5216	0,5224	0,5231	0,5237	0,5244	0,5251	0,5258	0,5265	0,5272	0,528	0,5289	0,5299	0,5313	0,5332	0,5349	0,5382	0,542
50000	0,5088	0,5122	0,5151	0,5166	0,5183	0,5195	0,5204	0,5212	0,5219	0,5226	0,5232	0,5238	0,5244	0,525	0,5256	0,5262	0,5269	0,5276	0,5284	0,5294	0,5305	0,5323	0,5338	0,5367	0,5401
100000	0,5133	0,5157	0,5178	0,5189	0,5201	0,5209	0,5216	0,5221	0,5226	0,5231	0,5236	0,524	0,5244	0,5248	0,5253	0,5257	0,5262	0,5267	0,5272	0,5279	0,5287	0,53	0,531	0,5331	0,5355

P = 0,8 corresponding to *k* = 0,842

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	-70	-6,3	-1,22	-0,52	-0,084	0,131	0,288	0,423	0,552	0,682	0,817	0,965	1,13	1,32	1,55	1,83	2,19	2,69	3,42	4,62	6,98	14	27,9	140	1400
3	-3,9	-1,2	-0,38	-0,125	0,112	0,261	0,379	0,482	0,578	0,672	0,767	0,866	0,971	1,085	1,212	1,357	1,528	1,74	2,02	2,4	3,04	4,42	6,4	14,4	46
4	-1,6	-0,61	-0,158	0,02	0,209	0,333	0,433	0,52	0,602	0,681	0,76	0,841	0,925	1,014	1,111	1,219	1,343	1,491	1,675	1,922	2,3	3,03	3,92	6,9	14,9
5	-0,96	-0,37	-0,035	0,111	0,273	0,382	0,471	0,549	0,622	0,692	0,761	0,83	0,903	0,978	1,06	1,15	1,251	1,369	1,513	1,702	1,98	2,48	3,05	4,76	8,6
6	-0,67	-0,24	0,042	0,172	0,318	0,418	0,499	0,57	0,636	0,7	0,763	0,825	0,89	0,958	1,03	1,108	1,196	1,297	1,418	1,574	1,795	2,193	2,62	3,82	6,2
7	-0,48	-0,14	0,103	0,221	0,355	0,447	0,522	0,588	0,649	0,708	0,765	0,823	0,882	0,943	1,008	1,079	1,156	1,245	1,352	1,487	1,675	2,004	2,35	3,27	5,1
8	-0,37	-0,072	0,15	0,258	0,383	0,47	0,54	0,602	0,66	0,714	0,768	0,821	0,876	0,932	0,992	1,056	1,127	1,208	1,304	1,423	1,59	1,874	2,17	2,92	4,3
9	-0,29	-0,02	0,187	0,289	0,407	0,489	0,556	0,614	0,668	0,719	0,77	0,82	0,871	0,924	0,979	1,038	1,104	1,178	1,266	1,375	1,524	1,777	2,032	2,68	3,8
10	-0,21	0,029	0,22	0,316	0,428	0,506	0,569	0,624	0,676	0,724	0,772	0,82	0,868	0,917	0,969	1,025	1,087	1,156	1,236	1,337	1,474	1,702	1,931	2,49	3,4
11	-0,16	0,066	0,247	0,339	0,446	0,52	0,581	0,634	0,683	0,729	0,774	0,819	0,865	0,912	0,961	1,014	1,071	1,136	1,211	1,305	1,432	1,643	1,85	2,35	3,16
12	-0,11	0,1	0,271	0,359	0,462	0,533	0,591	0,642	0,688	0,733	0,776	0,819	0,863	0,907	0,954	1,004	1,059	1,12	1,191	1,279	1,397	1,593	1,785	2,24	2,94
13	-0,08	0,126	0,291	0,375	0,474	0,543	0,599	0,648	0,694	0,736	0,778	0,819	0,861	0,904	0,949	0,996	1,049	1,107	1,174	1,258	1,369	1,552	1,73	2,14	2,79
14	-0,04	0,152	0,31	0,392	0,488	0,554	0,608	0,655	0,699	0,74	0,78	0,819	0,859	0,9	0,943	0,989	1,039	1,094	1,159	1,238	1,343	1,514	1,68	2,07	2,64
15	-0,01	0,174	0,327	0,406	0,499	0,563	0,615	0,661	0,703	0,743	0,781	0,820	0,858	0,898	0,939	0,983	1,031	1,084	1,146	1,221	1,321	1,482	1,64	2	2,53
16	0,02	0,195	0,342	0,418	0,509	0,571	0,622	0,666	0,707	0,745	0,783	0,820	0,857	0,896	0,935	0,978	1,024	1,075	1,133	1,205	1,301	1,456	1,605	1,94	2,44
17	0,05	0,213	0,356	0,431	0,518	0,578	0,628	0,671	0,71	0,748	0,784	0,820	0,856	0,893	0,931	0,972	1,017	1,066	1,123	1,192	1,283	1,431	1,572	1,888	2,34
18	0,06	0,23	0,368	0,44	0,526	0,585	0,633	0,675	0,714	0,75	0,785	0,820	0,855	0,892	0,929	0,968	1,011	1,058	1,113	1,18	1,267	1,408	1,544	1,84	2,29
19	0,09	0,245	0,38	0,45	0,533	0,591	0,638	0,679	0,717	0,752	0,787	0,821	0,855	0,889	0,926	0,964	1,005	1,051	1,105	1,169	1,254	1,389	1,517	1,804	2,22
20	0,1	0,258	0,391	0,46	0,541	0,597	0,643	0,683	0,719	0,754	0,787	0,820	0,854	0,888	0,923	0,96	1,000	1,045	1,096	1,158	1,24	1,371	1,494	1,768	2,16
21	0,123	0,271	0,401	0,468	0,548	0,603	0,647	0,686	0,722	0,756	0,789	0,821	0,853	0,886	0,921	0,957	0,996	1,039	1,089	1,149	1,229	1,355	1,474	1,74	2,11
22	0,141	0,285	0,411	0,476	0,554	0,608	0,651	0,69	0,725	0,7579	0,79	0,821	0,853	0,885	0,918	0,954	0,992	1,034	1,082	1,141	1,218	1,34	1,454	1,706	2,05
23	0,153	0,297	0,419	0,484	0,56	0,612	0,655	0,692	0,727	0,759	0,79	0,821	0,852	0,883	0,916	0,95	0,987	1,029	1,076	1,133	1,207	1,325	1,436	1,68	2,01
24	0,17	0,306	0,427	0,49	0,565	0,617	0,659	0,696	0,729	0,761	0,791	0,822	0,852	0,883	0,914	0,948	0,984	1,024	1,07	1,126	1,199	1,314	1,42	1,653	1,97

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	0,18	0,317	0,435	0,497	0,57	0,621	0,662	0,698	0,731	0,762	0,792	0,821	0,851	0,881	0,912	0,945	0,981	1,02	1,065	1,119	1,19	1,301	1,407	1,634	1,94
26	0,19	0,325	0,442	0,503	0,575	0,625	0,665	0,7	0,733	0,763	0,793	0,822	0,851	0,88	0,911	0,943	0,977	1,016	1,06	1,112	1,181	1,29	1,391	1,609	1,91
27	0,2	0,335	0,449	0,51	0,58	0,629	0,669	0,703	0,735	0,765	0,794	0,822	0,851	0,88	0,909	0,941	0,975	1,012	1,055	1,107	1,174	1,28	1,379	1,59	1,88
28	0,216	0,344	0,456	0,515	0,5842	0,633	0,672	0,706	0,737	0,766	0,794	0,822	0,85	0,878	0,908	0,939	0,972	1,009	1,051	1,101	1,167	1,27	1,366	1,572	1,85
29	0,23	0,351	0,462	0,52	0,588	0,636	0,674	0,708	0,7383	0,7673	0,795	0,822	0,85	0,878	0,9065	0,937	0,9695	1,0055	1,047	1,096	1,16	1,261	1,355	1,556	1,82
30	0,236	0,359	0,468	0,525	0,5921	0,6389	0,6766	0,71	0,74	0,768	0,796	0,823	0,8497	0,877	0,905	0,935	0,967	1,003	1,043	1,091	1,155	1,253	1,344	1,541	1,8
32	0,25	0,374	0,48	0,535	0,6	0,646	0,682	0,714	0,743	0,771	0,7969	0,823	0,849	0,875	0,902	0,931	0,961	0,995	1,034	1,08	1,141	1,234	1,321	1,505	1,75
34	0,27	0,387	0,489	0,543	0,607	0,651	0,6863	0,717	0,7457	0,7725	0,7981	0,8233	0,8484	0,8739	0,9002	0,928	0,958	0,99	1,028	1,072	1,13	1,22	1,303	1,48	1,72
36	0,286	0,398	0,499	0,551	0,6129	0,656	0,6903	0,7205	0,748	0,774	0,799	0,8233	0,848	0,8727	0,8984	0,925	0,954	0,986	1,022	1,065	1,121	1,208	1,288	1,456	1,68
38	0,297	0,41	0,507	0,558	0,619	0,66	0,694	0,724	0,7505	0,7758	0,8	0,8238	0,8476	0,8717	0,8967	0,9227	0,9508	0,9816	1,0164	1,058	1,113	1,197	1,274	1,436	1,65
40	0,311	0,42	0,515	0,565	0,624	0,665	0,698	0,726	0,753	0,777	0,8009	0,8242	0,8473	0,8708	0,8951	0,9207	0,9479	0,9778	1,012	1,052	1,105	1,187	1,261	1,417	1,62
42	0,322	0,429	0,522	0,5709	0,629	0,6687	0,701	0,729	0,755	0,779	0,802	0,825	0,847	0,87	0,894	0,918	0,945	0,974	1,007	1,047	1,098	1,177	1,249	1,401	1,6
44	0,33	0,438	0,529	0,577	0,633	0,672	0,704	0,731	0,7565	0,78	0,803	0,8247	0,8469	0,8694	0,8924	0,9164	0,942	0,971	1,003	1,041	1,091	1,168	1,239	1,386	1,57
46	0,343	0,445	0,535	0,582	0,638	0,676	0,707	0,734	0,7585	0,7814	0,8035	0,8252	0,847	0,869	0,891	0,915	0,94	0,967	0,999	1,037	1,085	1,16	1,228	1,371	1,56
48	0,353	0,453	0,541	0,588	0,642	0,679	0,7095	0,736	0,7599	0,782	0,804	0,825	0,846	0,868	0,89	0,913	0,937	0,964	0,995	1,032	1,079	1,152	1,218	1,356	1,54
50	0,364	0,461	0,547	0,592	0,646	0,682	0,712	0,7378	0,761	0,784	0,8048	0,826	0,8463	0,867	0,889	0,911	0,935	0,962	0,992	1,027	1,074	1,145	1,209	1,343	1,52
55	0,385	0,478	0,56	0,603	0,654	0,69	0,7179	0,743	0,765	0,7862	0,8064	0,8263	0,846	0,866	0,8865	0,9078	0,931	0,9561	0,9847	1,0183	1,062	1,129	1,19	1,316	1,477
60	0,4	0,491	0,571	0,612	0,6615	0,6951	0,7225	0,7462	0,7678	0,788	0,8073	0,8262	0,8451	0,8643	0,884	0,9045	0,9264	0,9506	0,9777	1,01	1,052	1,116	1,173	1,294	1,45
65	0,417	0,504	0,581	0,621	0,668	0,701	0,727	0,75	0,771	0,7901	0,8087	0,8269	0,8451	0,8635	0,8823	0,902	0,923	0,946	0,9719	1,003	1,042	1,103	1,158	1,27	1,42
70	0,432	0,516	0,59	0,629	0,6744	0,7058	0,731	0,7533	0,7731	0,7919	0,8099	0,827	0,845	0,863	0,8808	0,8997	0,92	0,9422	0,967	0,997	1,035	1,093	1,145	1,253	1,39
75	0,444	0,527	0,598	0,6355	0,6798	0,7101	0,7346	0,756	0,7753	0,7934	0,8107	0,8278	0,8447	0,8617	0,8792	0,897	0,917	0,9383	0,9623	0,9909	1,0272	1,083	1,133	1,236	1,367
80	0,457	0,536	0,605	0,6418	0,6844	0,7139	0,738	0,7584	0,7773	0,7948	0,8117	0,828	0,8445	0,861	0,8779	0,8956	0,9145	0,935	0,9584	0,9859	1,021	1,075	1,124	1,223	1,347
85	0,468	0,543	0,612	0,647	0,6891	0,7178	0,741	0,7611	0,7793	0,7964	0,8127	0,8286	0,8443	0,8603	0,8767	0,8938	0,9122	0,932	0,9545	0,9813	1,015	1,068	1,114	1,209	1,327
90	0,476	0,551	0,618	0,652	0,693	0,721	0,7436	0,7633	0,781	0,7977	0,8136	0,829	0,8445	0,8599	0,8759	0,8925	0,9102	0,9296	0,9514	0,9772	1,0104	1,061	1,106	1,198	1,313

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
95	0,486	0,559	0,6231	0,657	0,6968	0,724	0,7461	0,7651	0,7823	0,7986	0,814	0,8291	0,844	0,8591	0,8747	0,8908	0,9081	0,9269	0,9481	0,9732	1,0054	1,054	1,098	1,187	1,297
100	0,494	0,565	0,628	0,661	0,7003	0,7267	0,7482	0,7668	0,7837	0,7995	0,8146	0,8292	0,8438	0,8585	0,8736	0,8895	0,9063	0,9245	0,9451	0,9696	1,001	1,048	1,09	1,176	1,282
110	0,508	0,577	0,638	0,6697	0,7067	0,7321	0,7526	0,7703	0,7865	0,8015	0,8159	0,8299	0,8438	0,8579	0,8723	0,8873	0,9033	0,9208	0,9403	0,9635	0,993	1,038	1,078	1,161	1,26
120	0,522	0,588	0,646	0,6766	0,7122	0,7366	0,7562	0,7732	0,7885	0,803	0,8168	0,8302	0,8436	0,857	0,8708	0,8851	0,9003	0,917	0,9357	0,9578	0,9861	1,029	1,067	1,144	1,24
130	0,533	0,598	0,653	0,6828	0,7171	0,7406	0,7595	0,7758	0,7906	0,8044	0,8176	0,8306	0,8434	0,8563	0,8694	0,8832	0,8979	0,914	0,932	0,9532	0,9801	1,0211	1,058	1,131	1,222
140	0,545	0,606	0,66	0,6882	0,7213	0,744	0,7622	0,778	0,7923	0,8056	0,8184	0,8309	0,8433	0,8557	0,8684	0,8817	0,8958	0,9112	0,9285	0,9488	0,975	1,014	1,049	1,12	1,207
150	0,554	0,613	0,666	0,6931	0,7253	0,7471	0,7647	0,78	0,7938	0,8068	0,8192	0,8312	0,8432	0,8552	0,8675	0,8802	0,8938	0,9087	0,9253	0,9449	0,97	1,0079	1,041	1,109	1,191
160	0,562	0,62	0,671	0,698	0,7289	0,7501	0,7672	0,7821	0,7955	0,808	0,8199	0,8315	0,8431	0,8547	0,8666	0,879	0,8921	0,9064	0,9225	0,9415	0,9657	1,0023	1,0344	1,1	1,179
170	0,571	0,627	0,676	0,7018	0,7319	0,7527	0,7694	0,7838	0,7967	0,8089	0,8205	0,8318	0,843	0,8543	0,8658	0,8778	0,8906	0,9045	0,9201	0,9385	0,962	0,997	1,029	1,092	1,167
180	0,578	0,632	0,68	0,7054	0,7349	0,755	0,7713	0,7854	0,798	0,8098	0,821	0,832	0,8428	0,8538	0,865	0,8767	0,8891	0,9026	0,9178	0,9356	0,9582	0,9925	1,0228	1,084	1,158
190	0,584	0,638	0,684	0,709	0,7376	0,7574	0,7732	0,7868	0,7991	0,8106	0,8215	0,8322	0,8429	0,8535	0,8644	0,8758	0,8878	0,9009	0,9156	0,9329	0,9549	0,9882	1,017	1,077	1,147
200	0,59	0,642	0,688	0,7124	0,7403	0,7595	0,7748	0,7881	0,8001	0,8113	0,8221	0,8325	0,8428	0,8532	0,8637	0,8748	0,8865	0,8992	0,9135	0,9304	0,9519	0,984	1,013	1,07	1,14
220	0,601	0,651	0,6952	0,7181	0,7449	0,7632	0,7779	0,7905	0,802	0,8127	0,8229	0,8329	0,8428	0,8527	0,8628	0,8734	0,8845	0,8966	0,9103	0,9262	0,9467	0,9775	1,005	1,059	1,126
240	0,611	0,659	0,7009	0,723	0,7488	0,7664	0,7804	0,7926	0,8036	0,8138	0,8236	0,8332	0,8426	0,8521	0,8617	0,8718	0,8824	0,8940	0,9070	0,9224	0,942	0,9713	0,9972	1,049	1,111
260	0,619	0,665	0,7064	0,7275	0,7523	0,7692	0,7828	0,7944	0,805	0,8149	0,8242	0,8334	0,8425	0,8516	0,8609	0,8705	0,8807	0,8918	0,9044	0,919	0,9376	0,9657	0,99	1,04	1,099
280	0,627	0,672	0,7112	0,7317	0,7555	0,7718	0,7849	0,7962	0,8064	0,8159	0,825	0,8338	0,8425	0,8512	0,8602	0,8695	0,8793	0,89	0,9020	0,9161	0,9342	0,9613	0,985	1,033	1,09
300	0,633	0,677	0,7151	0,7351	0,7582	0,774	0,7866	0,7975	0,8073	0,8165	0,8254	0,8339	0,8423	0,8508	0,8595	0,8685	0,878	0,8883	0,9000	0,9136	0,931	0,9571	0,9799	1,026	1,081
320	0,64	0,682	0,7192	0,7384	0,7608	0,7761	0,7883	0,799	0,8085	0,8174	0,8259	0,8342	0,8423	0,8505	0,8589	0,8676	0,8769	0,8869	0,8982	0,9114	0,928	0,9532	0,9752	1,02	1,071
340	0,646	0,687	0,7228	0,7414	0,7633	0,7781	0,7899	0,8002	0,8095	0,8181	0,8264	0,8344	0,8423	0,8503	0,8584	0,8669	0,8759	0,8855	0,8964	0,9091	0,9253	0,9497	0,9711	1,014	1,066
360	0,651	0,691	0,726	0,7442	0,7653	0,7798	0,7914	0,8014	0,8104	0,8188	0,8268	0,8346	0,8423	0,85	0,8579	0,8661	0,8747	0,8841	0,8946	0,9071	0,9228	0,9462	0,9669	1,008	1,057
380	0,655	0,695	0,7291	0,7466	0,7673	0,7814	0,7927	0,8025	0,8112	0,8194	0,8272	0,8347	0,8423	0,8498	0,8575	0,8655	0,8739	0,8831	0,8933	0,9053	0,9207	0,9436	0,9638	1,004	1,051
400	0,661	0,698	0,7316	0,749	0,7691	0,7829	0,7939	0,8034	0,812	0,8199	0,8275	0,8349	0,8422	0,8495	0,857	0,8648	0,873	0,882	0,8919	0,9036	0,9185	0,9409	0,9605	0,999	1,046
450	0,67	0,706	0,7378	0,7541	0,7732	0,7862	0,7966	0,8056	0,8137	0,8212	0,8284	0,8354	0,8423	0,8492	0,8562	0,8635	0,8713	0,8796	0,8890	0,9000	0,9141	0,9349	0,9532	0,99	1,033
500	0,679	0,7131	0,7429	0,7586	0,7767	0,789	0,7989	0,8074	0,815	0,8222	0,8289	0,8355	0,842	0,8486	0,8553	0,8622	0,8696	0,8776	0,8865	0,8969	0,9101	0,9299	0,9474	0,982	1,024

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	0,686	0,719	0,7475	0,7624	0,7797	0,7914	0,8008	0,8089	0,8162	0,823	0,8295	0,8358	0,8421	0,8483	0,8547	0,8613	0,8683	0,8759	0,8844	0,8944	0,907	0,9259	0,9423	0,975	1,014
600	0,692	0,724	0,7512	0,7655	0,7821	0,7934	0,8024	0,8102	0,8173	0,8238	0,83	0,8361	0,842	0,848	0,8541	0,8604	0,8671	0,8744	0,8825	0,892	0,9041	0,9222	0,938	0,969	1,006
650	0,698	0,7281	0,7547	0,7685	0,7846	0,7954	0,804	0,8115	0,8182	0,8245	0,8305	0,8363	0,842	0,8478	0,8536	0,8597	0,8661	0,8731	0,881	0,8901	0,9016	0,9189	0,9341	0,964	0,999
700	0,703	0,7325	0,758	0,7711	0,7865	0,7969	0,8053	0,8125	0,819	0,8251	0,8309	0,8365	0,842	0,8475	0,8531	0,859	0,8652	0,8718	0,8794	0,8882	0,8993	0,9159	0,9305	0,9593	0,993
750	0,708	0,7357	0,7605	0,7733	0,7883	0,7984	0,8065	0,8135	0,8198	0,8257	0,8312	0,8366	0,842	0,8473	0,8528	0,8584	0,8644	0,8709	0,8781	0,8866	0,8974	0,9135	0,9274	0,9552	0,988
800	0,712	0,7388	0,763	0,7755	0,7900	0,7998	0,8076	0,8144	0,8205	0,8261	0,8315	0,8367	0,8419	0,8471	0,8523	0,8578	0,8636	0,8698	0,8769	0,8851	0,8955	0,9111	0,9246	0,9516	0,984
850	0,715	0,7420	0,7653	0,7774	0,7915	0,8010	0,8086	0,8151	0,8211	0,8266	0,8318	0,8369	0,8419	0,8469	0,852	0,8573	0,8629	0,869	0,8758	0,8838	0,8939	0,9089	0,9221	0,948	0,979
900	0,719	0,7445	0,7675	0,7792	0,7929	0,8021	0,8095	0,8159	0,8217	0,827	0,8321	0,837	0,8419	0,8468	0,8518	0,8569	0,8624	0,8683	0,8748	0,8826	0,8924	0,907	0,9198	0,9448	0,974
950	0,722	0,7475	0,7694	0,7808	0,7941	0,8032	0,8104	0,8166	0,8222	0,8274	0,8324	0,8372	0,8419	0,8467	0,8515	0,8565	0,8619	0,8676	0,874	0,8815	0,891	0,9052	0,9176	0,942	0,971
1000	0,725	0,7496	0,7712	0,7824	0,7954	0,8041	0,8112	0,8172	0,8226	0,8277	0,8325	0,8372	0,8418	0,8465	0,8512	0,8561	0,8613	0,8669	0,8731	0,8805	0,8897	0,9035	0,9157	0,9396	0,967
1100	0,73	0,7537	0,7744	0,7851	0,7974	0,8059	0,8126	0,8183	0,8235	0,8284	0,833	0,8375	0,8419	0,8463	0,8508	0,8555	0,8604	0,8657	0,8717	0,8787	0,8875	0,9007	0,9123	0,9349	0,962
1200	0,735	0,7575	0,7772	0,7874	0,7992	0,8073	0,8138	0,8193	0,8243	0,8289	0,8333	0,8376	0,8418	0,8461	0,8504	0,8548	0,8595	0,8646	0,8703	0,8770	0,8854	0,898	0,909	0,9308	0,956
1300	0,738	0,7607	0,7797	0,7895	0,801	0,8087	0,8149	0,8202	0,8249	0,8294	0,8336	0,8378	0,8418	0,8459	0,85	0,8543	0,8588	0,8637	0,8692	0,8756	0,8837	0,8958	0,9063	0,9271	0,952
1400	0,742	0,7635	0,7818	0,7914	0,8024	0,8099	0,8158	0,8209	0,8256	0,8299	0,8339	0,8379	0,8418	0,8457	0,8497	0,8538	0,8582	0,8629	0,8682	0,8743	0,8821	0,8937	0,9039	0,924	0,948
1500	0,746	0,7659	0,7838	0,793	0,8037	0,8109	0,8166	0,8216	0,826	0,8302	0,8341	0,838	0,8417	0,8455	0,8494	0,8534	0,8576	0,8622	0,8672	0,8732	0,8808	0,8921	0,9019	0,9213	0,944
1600	0,749	0,7685	0,7856	0,7946	0,8049	0,8119	0,8175	0,8223	0,8266	0,8306	0,8344	0,8382	0,8418	0,8455	0,8492	0,8531	0,8571	0,8616	0,8665	0,8723	0,8795	0,8904	0,8999	0,9185	0,941
1700	0,751	0,7705	0,7873	0,7959	0,8059	0,8127	0,8181	0,8228	0,827	0,8309	0,8346	0,8382	0,8417	0,8453	0,8489	0,8526	0,8566	0,8609	0,8657	0,8712	0,8783	0,8888	0,898	0,9161	0,937
1800	0,754	0,7724	0,7887	0,7972	0,8069	0,8135	0,8188	0,8233	0,8274	0,8312	0,8348	0,8383	0,8417	0,8452	0,8487	0,8524	0,8562	0,8603	0,865	0,8704	0,8773	0,8874	0,8963	0,9139	0,935
1900	0,756	0,7744	0,7902	0,7984	0,8079	0,8143	0,8194	0,8239	0,8278	0,8315	0,835	0,8384	0,8418	0,8451	0,8485	0,8521	0,8558	0,8599	0,8644	0,8696	0,8763	0,8862	0,8949	0,9119	0,932
2000	0,758	0,776	0,7914	0,7995	0,8087	0,815	0,82	0,8243	0,8282	0,8318	0,8352	0,8384	0,8417	0,845	0,8483	0,8518	0,8554	0,8593	0,8637	0,8689	0,8754	0,8851	0,8935	0,9102	0,929
2200	0,763	0,779	0,7938	0,8014	0,8102	0,8162	0,821	0,8251	0,8288	0,8322	0,8355	0,8386	0,8418	0,8449	0,8481	0,8513	0,8548	0,8586	0,8628	0,8677	0,8739	0,8831	0,8911	0,9068	0,926
2400	0,765	0,7816	0,7957	0,803	0,8115	0,8172	0,8218	0,8257	0,8293	0,8326	0,8357	0,8387	0,8417	0,8447	0,8477	0,8509	0,8542	0,8578	0,8618	0,8665	0,8725	0,8813	0,8890	0,9041	0,9215
2600	0,7685	0,7839	0,7975	0,8045	0,8127	0,8182	0,8226	0,8264	0,8298	0,8329	0,8359	0,8388	0,8417	0,8446	0,8475	0,8505	0,8537	0,8571	0,861	0,8655	0,8712	0,8797	0,887	0,9017	0,919
2800	0,771	0,786	0,7991	0,8059	0,8138	0,8191	0,8233	0,8269	0,8302	0,8332	0,8361	0,8389	0,8417	0,8445	0,8473	0,8502	0,8533	0,8566	0,8603	0,8647	0,8702	0,8783	0,8853	0,8993	0,916

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	0,7733	0,7878	0,8005	0,8071	0,8147	0,8198	0,8239	0,8275	0,8306	0,8335	0,8363	0,839	0,8417	0,8444	0,8471	0,8499	0,8529	0,8561	0,8597	0,8639	0,8692	0,8771	0,884	0,8975	0,913
3500	0,7782	0,7918	0,8035	0,8096	0,8166	0,8214	0,8252	0,8285	0,8314	0,8341	0,8367	0,8392	0,8417	0,8442	0,8467	0,8493	0,852	0,855	0,8583	0,8622	0,8671	0,8743	0,8807	0,8931	0,907
4000	0,7823	0,7949	0,806	0,8117	0,8183	0,8227	0,8263	0,8293	0,832	0,8346	0,837	0,8394	0,8417	0,844	0,8464	0,8488	0,8514	0,8541	0,8572	0,8609	0,8654	0,8722	0,8781	0,8897	0,903
4500	0,7854	0,7975	0,808	0,8134	0,8196	0,8238	0,8272	0,8300	0,8326	0,835	0,8373	0,8395	0,8417	0,8438	0,8461	0,8484	0,8508	0,8534	0,8563	0,8597	0,864	0,8704	0,876	0,887	0,900
5000	0,788	0,7997	0,8097	0,8148	0,8207	0,8247	0,8279	0,8306	0,8331	0,8354	0,8375	0,8396	0,8417	0,8437	0,8458	0,848	0,8503	0,8528	0,8556	0,8588	0,8629	0,869	0,8742	0,8844	0,8965
6000	0,7931	0,8034	0,8125	0,8171	0,8225	0,8262	0,8291	0,8316	0,8338	0,8359	0,8379	0,8398	0,8417	0,8436	0,8455	0,8475	0,8496	0,8518	0,8544	0,8573	0,8611	0,8666	0,8714	0,8809	0,892
7000	0,7965	0,8062	0,8146	0,8189	0,8239	0,8273	0,83	0,8323	0,8344	0,8363	0,8381	0,8399	0,8416	0,8434	0,8452	0,847	0,849	0,8511	0,8534	0,8561	0,8596	0,8647	0,8692	0,8779	0,888
8000	0,7994	0,8085	0,8163	0,8204	0,825	0,8282	0,8307	0,8329	0,8348	0,8366	0,8384	0,8400	0,8417	0,8433	0,845	0,8467	0,8485	0,8504	0,8526	0,8552	0,8584	0,8632	0,8673	0,8755	0,885
9000	0,8016	0,8103	0,8178	0,8216	0,826	0,829	0,8314	0,8334	0,8352	0,8369	0,8385	0,8401	0,8416	0,8432	0,8448	0,8464	0,8481	0,8499	0,852	0,8544	0,8574	0,8619	0,8658	0,8736	0,8824
10000	0,8040	0,8120	0,8190	0,8226	0,8268	0,8296	0,8319	0,8338	0,8356	0,8372	0,8387	0,8402	0,8416	0,8431	0,8446	0,8461	0,8477	0,8495	0,8515	0,8537	0,8566	0,8609	0,8646	0,8719	0,8805
15000	0,8107	0,8174	0,8231	0,8261	0,8295	0,8318	0,8337	0,8352	0,8367	0,838	0,8392	0,8404	0,8416	0,8428	0,8441	0,8453	0,8466	0,8481	0,8497	0,8515	0,8539	0,8574	0,8604	0,8663	0,8731
20000	0,8148	0,8206	0,8256	0,8282	0,8311	0,8331	0,8347	0,8361	0,8373	0,8385	0,8396	0,8406	0,8416	0,8427	0,8437	0,8448	0,846	0,8472	0,8486	0,8502	0,8522	0,8552	0,8578	0,863	0,8688
30000	0,8198	0,8244	0,8285	0,8306	0,833	0,8347	0,836	0,8371	0,8381	0,839	0,8399	0,8408	0,8416	0,8425	0,8433	0,8442	0,8452	0,8462	0,8473	0,8486	0,8503	0,8527	0,8549	0,859	0,864
40000	0,8226	0,8267	0,8303	0,8321	0,8342	0,8356	0,8367	0,8377	0,8386	0,8394	0,8402	0,8409	0,8416	0,8424	0,8431	0,8439	0,8447	0,8456	0,8465	0,8477	0,8491	0,8512	0,8531	0,8567	0,8608
50000	0,8247	0,8283	0,8315	0,8331	0,835	0,8362	0,8373	0,8381	0,8389	0,8396	0,8403	0,841	0,8416	0,8423	0,8429	0,8436	0,8444	0,8451	0,846	0,847	0,8483	0,8502	0,8519	0,8551	0,8588
100000	0,8296	0,8322	0,8344	0,8356	0,8369	0,8378	0,8385	0,8391	0,8397	0,8402	0,8407	0,8412	0,8416	0,8421	0,8426	0,843	0,8436	0,8441	0,8447	0,8455	0,8464	0,8477	0,8489	0,8511	0,8538

P = 0,9 corresponding to *k* = 1,282

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	-16	-1,5	-0,14	0,139	0,403	0,582	0,737	0,886	1,038	1,198	1,372	1,566	1,788	2,05	2,37	2,76	3,29	4	5,06	6,8	10,2	20,5	41	210	2000
3	-1,3	-0,26	0,161	0,336	0,536	0,678	0,8	0,913	1,022	1,133	1,247	1,368	1,499	1,643	1,806	1,994	2,22	2,5	2,87	3,4	4,26	6,15	8,8	19,8	63
4	-0,51	-0,01	0,297	0,444	0,618	0,741	0,847	0,944	1,037	1,128	1,221	1,317	1,419	1,529	1,65	1,786	1,944	2,134	2,374	2,7	3,19	4,16	5,36	9,4	20
5	-0,22	0,134	0,389	0,519	0,675	0,788	0,883	0,97	1,052	1,132	1,212	1,295	1,382	1,474	1,574	1,685	1,811	1,96	2,144	2,39	2,74	3,4	4,16	6,44	11,6
6	-0,07	0,225	0,455	0,575	0,719	0,823	0,91	0,989	1,064	1,137	1,21	1,284	1,361	1,442	1,53	1,626	1,734	1,86	2,013	2,211	2,494	3,01	3,57	5,14	8,3
7	0,04	0,296	0,507	0,62	0,755	0,852	0,933	1,006	1,076	1,143	1,209	1,277	1,347	1,42	1,498	1,584	1,68	1,79	1,923	2,093	2,332	2,75	3,21	4,41	6,7
8	0,12	0,351	0,55	0,655	0,783	0,875	0,951	1,021	1,086	1,148	1,21	1,273	1,337	1,404	1,476	1,554	1,64	1,74	1,859	2,008	2,218	2,58	2,96	3,94	5,7
9	0,18	0,397	0,584	0,685	0,807	0,894	0,967	1,032	1,094	1,153	1,211	1,269	1,329	1,392	1,458	1,53	1,61	1,7	1,808	1,944	2,131	2,452	2,78	3,61	5
10	0,23	0,436	0,616	0,711	0,828	0,912	0,981	1,043	1,101	1,157	1,212	1,267	1,324	1,383	1,445	1,512	1,586	1,671	1,77	1,894	2,065	2,353	2,64	3,36	4,55
11	0,28	0,469	0,642	0,735	0,846	0,927	0,993	1,053	1,108	1,162	1,214	1,266	1,319	1,375	1,433	1,497	1,566	1,645	1,737	1,853	2,01	2,275	2,54	3,18	4,24
12	0,31	0,5	0,665	0,755	0,863	0,94	1,004	1,061	1,114	1,165	1,215	1,265	1,316	1,369	1,424	1,484	1,55	1,624	1,711	1,818	1,965	2,21	2,45	3,03	3,95
13	0,34	0,525	0,685	0,771	0,876	0,951	1,013	1,068	1,119	1,168	1,217	1,265	1,314	1,364	1,417	1,474	1,537	1,607	1,69	1,791	1,929	2,156	2,381	2,9	3,75
14	0,37	0,549	0,704	0,788	0,89	0,962	1,022	1,075	1,124	1,171	1,218	1,264	1,31	1,359	1,41	1,464	1,523	1,59	1,669	1,765	1,896	2,109	2,317	2,81	3,54
15	0,4	0,57	0,721	0,803	0,901	0,972	1,03	1,081	1,129	1,174	1,219	1,263	1,308	1,355	1,404	1,456	1,513	1,578	1,652	1,744	1,867	2,068	2,264	2,72	3,39
16	0,43	0,589	0,736	0,816	0,912	0,98	1,036	1,086	1,133	1,177	1,22	1,263	1,307	1,352	1,399	1,449	1,504	1,565	1,637	1,725	1,842	2,033	2,22	2,64	3,28
17	0,45	0,607	0,75	0,828	0,922	0,988	1,043	1,092	1,137	1,18	1,221	1,263	1,305	1,348	1,394	1,442	1,495	1,555	1,623	1,707	1,819	2,001	2,177	2,58	3,15
18	0,466	0,622	0,763	0,838	0,93	0,995	1,048	1,096	1,14	1,182	1,223	1,263	1,304	1,346	1,39	1,437	1,488	1,545	1,611	1,692	1,799	1,974	2,142	2,52	3,08
19	0,49	0,637	0,775	0,849	0,938	1,002	1,054	1,1	1,143	1,184	1,223	1,263	1,303	1,344	1,386	1,432	1,481	1,536	1,6	1,677	1,782	1,948	2,107	2,47	3
20	0,51	0,65	0,786	0,858	0,946	1,008	1,059	1,104	1,146	1,185	1,224	1,262	1,301	1,341	1,383	1,427	1,475	1,528	1,589	1,665	1,765	1,925	2,078	2,42	2,92
21	0,52	0,663	0,796	0,867	0,953	1,014	1,064	1,108	1,149	1,188	1,225	1,263	1,3	1,339	1,38	1,422	1,469	1,521	1,581	1,653	1,751	1,906	2,054	2,38	2,85
22	0,53	0,677	0,806	0,876	0,96	1,019	1,068	1,111	1,151	1,189	1,226	1,263	1,3	1,337	1,377	1,418	1,464	1,514	1,572	1,642	1,736	1,886	2,027	2,34	2,78
23	0,548	0,689	0,815	0,884	0,967	1,025	1,073	1,115	1,154	1,191	1,227	1,262	1,299	1,335	1,373	1,414	1,458	1,507	1,564	1,633	1,724	1,868	2,005	2,31	2,73
24	0,56	0,698	0,823	0,891	0,972	1,029	1,076	1,118	1,156	1,193	1,228	1,262	1,298	1,334	1,372	1,411	1,454	1,502	1,558	1,624	1,713	1,853	1,985	2,27	2,68

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	0,574	0,708	0,832	0,898	0,977	1,034	1,08	1,121	1,158	1,194	1,228	1,262	1,297	1,332	1,369	1,408	1,45	1,496	1,55	1,615	1,701	1,839	1,968	2,25	2,64
26	0,58	0,717	0,839	0,905	0,983	1,038	1,083	1,123	1,16	1,195	1,229	1,262	1,296	1,331	1,367	1,405	1,445	1,491	1,544	1,607	1,691	1,824	1,949	2,219	2,6
27	0,59	0,727	0,846	0,911	0,988	1,043	1,087	1,127	1,163	1,197	1,23	1,263	1,296	1,33	1,365	1,402	1,443	1,487	1,539	1,601	1,682	1,812	1,932	2,2	2,56
28	0,609	0,736	0,853	0,917	0,993	1,046	1,09	1,129	1,164	1,198	1,23	1,263	1,295	1,328	1,363	1,399	1,439	1,482	1,533	1,593	1,673	1,799	1,916	2,173	2,52
29	0,62	0,743	0,86	0,922	0,997	1,05	1,093	1,131	1,166	1,199	1,231	1,263	1,295	1,327	1,361	1,397	1,436	1,479	1,528	1,587	1,665	1,788	1,902	2,15	2,49
30	0,628	0,751	0,866	0,927	1,001	1,053	1,096	1,133	1,168	1,2	1,232	1,263	1,294	1,326	1,36	1,395	1,433	1,475	1,523	1,581	1,657	1,778	1,89	2,131	2,45
32	0,647	0,768	0,879	0,939	1,011	1,061	1,102	1,138	1,172	1,2029	1,233	1,263	1,293	1,324	1,355	1,389	1,425	1,465	1,511	1,566	1,638	1,753	1,858	2,084	2,38
34	0,662	0,781	0,89	0,948	1,018	1,067	1,107	1,142	1,174	1,205	1,234	1,263	1,2926	1,322	1,353	1,385	1,42	1,459	1,503	1,557	1,626	1,735	1,835	2,055	2,34
36	0,679	0,793	0,9	0,956	1,0244	1,0721	1,111	1,145	1,177	1,206	1,235	1,263	1,292	1,321	1,35	1,382	1,416	1,453	1,496	1,548	1,615	1,72	1,817	2,023	2,3
38	0,688	0,805	0,908	0,964	1,031	1,078	1,116	1,149	1,179	1,208	1,2362	1,2638	1,2914	1,3195	1,3484	1,379	1,412	1,448	1,49	1,5397	1,605	1,707	1,8	1,999	2,26
40	0,704	0,816	0,917	0,971	1,037	1,082	1,1193	1,152	1,182	1,21	1,237	1,264	1,291	1,318	1,3465	1,3765	1,408	1,444	1,484	1,532	1,595	1,694	1,784	1,976	2,23
42	0,715	0,825	0,924	0,978	1,042	1,087	1,123	1,155	1,184	1,212	1,238	1,264	1,29	1,317	1,345	1,374	1,405	1,439	1,478	1,525	1,587	1,682	1,769	1,955	2,2
44	0,726	0,834	0,932	0,984	1,047	1,091	1,126	1,1573	1,186	1,213	1,239	1,264	1,29	1,316	1,343	1,371	1,402	1,435	1,473	1,519	1,579	1,671	1,757	1,937	2,17
46	0,736	0,842	0,938	0,99	1,051	1,094	1,129	1,16	1,188	1,214	1,24	1,265	1,29	1,315	1,341	1,369	1,399	1,431	1,469	1,513	1,571	1,661	1,744	1,919	2,14
48	0,746	0,849	0,945	0,996	1,056	1,098	1,132	1,162	1,189	1,215	1,24	1,265	1,289	1,314	1,34	1,367	1,396	1,428	1,464	1,508	1,564	1,652	1,732	1,9	2,12
50	0,758	0,859	0,951	1,001	1,06	1,101	1,135	1,164	1,191	1,216	1,241	1,265	1,289	1,313	1,338	1,365	1,393	1,424	1,46	1,502	1,557	1,643	1,721	1,885	2,1
55	0,778	0,876	0,965	1,013	1,07	1,109	1,141	1,1695	1,1953	1,2195	1,2428	1,2657	1,289	1,3119	1,336	1,3607	1,388	1,417	1,451	1,491	1,543	1,624	1,697	1,852	2,05
60	0,796	0,89	0,977	1,023	1,0776	1,115	1,146	1,174	1,1981	1,2214	1,2436	1,2655	1,2874	1,3097	1,3327	1,357	1,382	1,4107	1,443	1,481	1,531	1,607	1,677	1,823	2,01
65	0,811	0,904	0,988	1,032	1,085	1,122	1,152	1,178	1,201	1,224	1,245	1,2663	1,2873	1,3085	1,3304	1,3535	1,3781	1,405	1,436	1,472	1,519	1,592	1,658	1,794	1,97
70	0,826	0,917	0,998	1,041	1,0917	1,127	1,156	1,181	1,204	1,2256	1,246	1,267	1,287	1,307	1,329	1,351	1,375	1,401	1,43	1,465	1,511	1,58	1,643	1,773	1,94
75	0,84	0,928	1,006	1,048	1,0978	1,1322	1,1601	1,1844	1,2065	1,2272	1,2473	1,2669	1,2864	1,3063	1,327	1,348	1,3708	1,396	1,4242	1,458	1,501	1,568	1,628	1,753	1,91
80	0,854	0,938	1,015	1,055	1,103	1,136	1,1635	1,187	1,2086	1,2287	1,2482	1,2672	1,2862	1,3053	1,3251	1,3458	1,3679	1,3921	1,4195	1,452	1,494	1,558	1,616	1,736	1,89
85	0,865	0,946	1,022	1,061	1,108	1,141	1,167	1,19	1,2109	1,2304	1,2492	1,2676	1,2859	1,3045	1,3236	1,3436	1,365	1,388	1,415	1,4464	1,487	1,549	1,605	1,72	1,86
90	0,875	0,955	1,028	1,067	1,113	1,144	1,17	1,1923	1,2127	1,2318	1,2502	1,2682	1,2859	1,3039	1,3225	1,3418	1,3626	1,3852	1,4111	1,4415	1,4809	1,541	1,595	1,706	1,85

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
95	0,884	0,963	1,034	1,072	1,1168	1,1476	1,1726	1,1945	1,2142	1,233	1,2507	1,268	1,2855	1,303	1,3209	1,3399	1,3601	1,3822	1,4072	1,437	1,475	1,533	1,585	1,692	1,82
100	0,893	0,97	1,04	1,077	1,12	1,1506	1,175	1,1963	1,2156	1,2338	1,2512	1,2682	1,2852	1,3022	1,3199	1,3383	1,358	1,3795	1,404	1,432	1,469	1,525	1,576	1,679	1,81
110	0,908	0,983	1,05	1,086	1,1278	1,1567	1,1799	1,2002	1,2187	1,2361	1,2526	1,2689	1,2851	1,3014	1,3181	1,3357	1,3544	1,3749	1,3978	1,425	1,46	1,514	1,562	1,66	1,781
120	0,922	0,995	1,06	1,0938	1,1339	1,1615	1,1839	1,2035	1,2212	1,2378	1,2537	1,2692	1,2847	1,3003	1,3162	1,333	1,3508	1,3704	1,3925	1,4186	1,4519	1,503	1,548	1,641	1,756
130	0,936	1,006	1,068	1,1006	1,1393	1,166	1,1877	1,2065	1,2234	1,2394	1,2546	1,2696	1,2844	1,2994	1,3147	1,3309	1,3479	1,3666	1,3877	1,4128	1,4447	1,493	1,537	1,625	1,733
140	0,948	1,014	1,075	1,1067	1,1442	1,1701	1,1908	1,2089	1,2253	1,2407	1,2555	1,2699	1,2841	1,2986	1,3134	1,329	1,3455	1,3634	1,3838	1,4077	1,4384	1,485	1,526	1,611	1,717
150	0,958	1,023	1,0814	1,1123	1,1486	1,1735	1,1936	1,2111	1,2271	1,2419	1,2562	1,2702	1,284	1,2979	1,3122	1,3271	1,343	1,3603	1,3799	1,4031	1,4325	1,477	1,517	1,598	1,698
160	0,967	1,03	1,087	1,117	1,153	1,1769	1,1964	1,2135	1,2288	1,2432	1,257	1,2705	1,2839	1,2974	1,3112	1,3257	1,3411	1,3578	1,3766	1,3989	1,4275	1,471	1,509	1,588	1,683
170	0,975	1,037	1,093	1,122	1,1561	1,1798	1,1988	1,2154	1,2303	1,2442	1,2576	1,2708	1,2837	1,2968	1,3103	1,3242	1,3392	1,3554	1,3737	1,3954	1,4231	1,465	1,502	1,577	1,67
180	0,984	1,044	1,097	1,126	1,1595	1,1825	1,2011	1,2171	1,2316	1,2452	1,2582	1,2709	1,2835	1,2963	1,3093	1,3229	1,3374	1,3532	1,371	1,3919	1,4186	1,4591	1,495	1,568	1,657
190	0,99	1,05	1,1023	1,13	1,1627	1,1852	1,2032	1,2188	1,233	1,2463	1,2589	1,2713	1,2835	1,2959	1,3085	1,3218	1,3359	1,3512	1,3684	1,3887	1,4147	1,454	1,489	1,559	1,645
200	0,998	1,055	1,107	1,1339	1,1657	1,1874	1,205	1,2203	1,2341	1,2471	1,2594	1,2715	1,2834	1,2955	1,3078	1,3206	1,3343	1,3492	1,3659	1,3857	1,411	1,449	1,483	1,551	1,636
220	1,009	1,065	1,114	1,1403	1,1707	1,1916	1,2084	1,223	1,2362	1,2486	1,2604	1,2719	1,2834	1,2949	1,3066	1,3189	1,3319	1,3461	1,362	1,3809	1,4049	1,4411	1,474	1,538	1,619
240	1,02	1,074	1,1207	1,1457	1,1752	1,1952	1,2114	1,2253	1,2379	1,2498	1,2612	1,2722	1,2831	1,2941	1,3053	1,317	1,3294	1,343	1,3583	1,3763	1,3993	1,4338	1,465	1,526	1,602
260	1,029	1,081	1,1269	1,151	1,1791	1,1985	1,214	1,2275	1,2397	1,251	1,2618	1,2724	1,2829	1,2935	1,3043	1,3155	1,3275	1,3405	1,3551	1,3722	1,3941	1,4274	1,4564	1,515	1,588
280	1,038	1,088	1,1323	1,1556	1,1828	1,2014	1,2164	1,2294	1,2412	1,2522	1,2627	1,2728	1,2829	1,2931	1,3035	1,3143	1,3258	1,3383	1,3524	1,3688	1,39	1,422	1,45	1,506	1,575
300	1,045	1,093	1,1369	1,1594	1,1858	1,2039	1,2183	1,2308	1,2422	1,2529	1,2631	1,2729	1,2827	1,2926	1,3026	1,313	1,3242	1,3363	1,3499	1,3659	1,3862	1,417	1,4441	1,498	1,564
320	1,052	1,099	1,141	1,1633	1,1889	1,2063	1,2203	1,2326	1,2436	1,2539	1,2637	1,2732	1,2827	1,2922	1,3019	1,3121	1,3229	1,3346	1,3477	1,3632	1,3828	1,4123	1,4384	1,491	1,552
340	1,059	1,105	1,1454	1,1667	1,1916	1,2085	1,2222	1,234	1,2447	1,2547	1,2643	1,2735	1,2827	1,292	1,3014	1,3112	1,3217	1,333	1,3457	1,3606	1,3796	1,4082	1,434	1,484	1,545
360	1,065	1,109	1,149	1,1696	1,194	1,2106	1,2239	1,2353	1,2457	1,2554	1,2646	1,2736	1,2826	1,2915	1,3007	1,3102	1,3203	1,3313	1,3436	1,3581	1,3765	1,4042	1,429	1,477	1,536
380	1,069	1,114	1,1523	1,1725	1,1961	1,2124	1,2254	1,2365	1,2467	1,2561	1,2651	1,2739	1,2826	1,2913	1,3003	1,3096	1,3193	1,33	1,342	1,356	1,374	1,401	1,4247	1,472	1,529
400	1,075	1,117	1,1555	1,1752	1,1983	1,2141	1,2266	1,2375	1,2475	1,2566	1,2654	1,274	1,2824	1,291	1,2998	1,3087	1,3183	1,3287	1,3404	1,3541	1,3716	1,3978	1,4208	1,467	1,522
450	1,086	1,126	1,1624	1,1811	1,2029	1,2178	1,2298	1,2401	1,2495	1,2582	1,2665	1,2745	1,2825	1,2905	1,2988	1,3073	1,3163	1,326	1,3369	1,3499	1,3662	1,3907	1,4123	1,455	1,507
500	1,096	1,1343	1,1682	1,1861	1,2068	1,221	1,2323	1,2421	1,251	1,2592	1,2671	1,2747	1,2823	1,2898	1,2976	1,3057	1,3143	1,3236	1,3339	1,3461	1,3616	1,3849	1,4053	1,446	1,495

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	1,104	1,141	1,1734	1,1905	1,2102	1,2238	1,2346	1,2439	1,2524	1,2602	1,2677	1,275	1,2822	1,2895	1,2969	1,3046	1,3127	1,3216	1,3315	1,3432	1,3579	1,3801	1,3994	1,438	1,485
600	1,111	1,146	1,1776	1,1939	1,213	1,226	1,2364	1,2454	1,2535	1,2611	1,2683	1,2753	1,2822	1,2891	1,2962	1,3036	1,3113	1,3198	1,3293	1,3404	1,3545	1,3757	1,3943	1,431	1,475
650	1,117	1,1516	1,1816	1,1974	1,2158	1,2283	1,2383	1,2469	1,2546	1,2619	1,2688	1,2755	1,2821	1,2888	1,2956	1,3027	1,3102	1,3184	1,3275	1,3381	1,3516	1,3719	1,3898	1,425	1,466
700	1,123	1,1562	1,1855	1,2004	1,218	1,23	1,2397	1,248	1,2555	1,2626	1,2692	1,2757	1,2821	1,2885	1,295	1,3018	1,3091	1,3169	1,3256	1,3358	1,3489	1,3683	1,3854	1,4193	1,459
750	1,128	1,16	1,1882	1,203	1,2202	1,2318	1,2411	1,2492	1,2565	1,2632	1,2696	1,2759	1,2821	1,2883	1,2947	1,3012	1,3082	1,3157	1,3242	1,3341	1,3466	1,3654	1,3818	1,4147	1,454
800	1,133	1,1637	1,1912	1,2054	1,222	1,2333	1,2424	1,2502	1,2572	1,2637	1,2699	1,276	1,282	1,288	1,2941	1,3004	1,3072	1,3145	1,3227	1,3322	1,3444	1,3626	1,3786	1,41	1,448
850	1,137	1,1671	1,1938	1,2076	1,2238	1,2347	1,2435	1,2511	1,2579	1,2642	1,2703	1,2762	1,282	1,2878	1,2938	1,2999	1,3065	1,3135	1,3214	1,3307	1,3425	1,3601	1,3755	1,406	1,442
900	1,141	1,17	1,1963	1,2097	1,2254	1,2361	1,2445	1,2519	1,2586	1,2647	1,2706	1,2763	1,282	1,2877	1,2935	1,2994	1,3058	1,3127	1,3203	1,3294	1,3407	1,3578	1,3728	1,402	1,437
950	1,144	1,1733	1,1984	1,2115	1,2268	1,2372	1,2456	1,2527	1,2592	1,2652	1,2709	1,2765	1,282	1,2875	1,2932	1,299	1,3052	1,3119	1,3194	1,3281	1,3391	1,3558	1,3703	1,399	1,433
1000	1,148	1,1757	1,2005	1,2133	1,2282	1,2384	1,2464	1,2534	1,2597	1,2655	1,2711	1,2765	1,2819	1,2872	1,2928	1,2985	1,3045	1,311	1,3183	1,3268	1,3376	1,3538	1,368	1,3961	1,429
1100	1,153	1,1805	1,2041	1,2164	1,2306	1,2403	1,248	1,2547	1,2607	1,2663	1,2716	1,2768	1,2819	1,2871	1,2923	1,2977	1,3035	1,3097	1,3166	1,3247	1,335	1,3505	1,364	1,3904	1,423
1200	1,159	1,1846	1,2073	1,219	1,2327	1,242	1,2494	1,2558	1,2615	1,2669	1,272	1,277	1,2819	1,2868	1,2918	1,297	1,3025	1,3084	1,315	1,3228	1,3327	1,3474	1,3602	1,3859	1,416
1300	1,163	1,1884	1,2103	1,2215	1,2346	1,2436	1,2507	1,2568	1,2623	1,2675	1,2724	1,2771	1,2818	1,2866	1,2913	1,2963	1,3016	1,3073	1,3137	1,3212	1,3306	1,3447	1,3571	1,381	1,411
1400	1,168	1,1917	1,2127	1,2236	1,2364	1,2449	1,2518	1,2577	1,263	1,268	1,2727	1,2773	1,2818	1,2864	1,291	1,2958	1,3008	1,3063	1,3124	1,3197	1,3287	1,3423	1,3542	1,3778	1,406
1500	1,171	1,1944	1,2149	1,2255	1,2378	1,246	1,2527	1,2584	1,2636	1,2684	1,2729	1,2774	1,2818	1,2861	1,2906	1,2953	1,3001	1,3055	1,3114	1,3184	1,3272	1,3404	1,3519	1,3746	1,401
1600	1,175	1,1974	1,217	1,2272	1,2391	1,2472	1,2537	1,2592	1,2642	1,2689	1,2733	1,2776	1,2818	1,2861	1,2904	1,2949	1,2996	1,3048	1,3105	1,3172	1,3257	1,3384	1,3495	1,3712	1,397
1700	1,178	1,1997	1,2189	1,2288	1,2403	1,2481	1,2544	1,2598	1,2646	1,2691	1,2734	1,2776	1,2817	1,2859	1,2901	1,2944	1,299	1,304	1,3096	1,3161	1,3243	1,3365	1,3473	1,3683	1,393
1800	1,181	1,2018	1,2206	1,2303	1,2415	1,2491	1,2552	1,2604	1,2651	1,2695	1,2737	1,2778	1,2817	1,2858	1,2898	1,2941	1,2985	1,3033	1,3087	1,3151	1,323	1,335	1,3454	1,3659	1,391
1900	1,183	1,2041	1,2222	1,2317	1,2426	1,25	1,256	1,261	1,2656	1,2699	1,2739	1,2779	1,2817	1,2856	1,2896	1,2937	1,2981	1,3028	1,3081	1,3142	1,3219	1,3335	1,3436	1,3636	1,387
2000	1,185	1,2059	1,2237	1,2329	1,2435	1,2508	1,2565	1,2615	1,266	1,2701	1,2741	1,278	1,2817	1,2855	1,2894	1,2934	1,2976	1,3022	1,3073	1,3133	1,3209	1,3322	1,3421	1,3616	1,384
2200	1,19	1,2094	1,2263	1,2351	1,2453	1,2522	1,2577	1,2625	1,2668	1,2707	1,2745	1,2781	1,2818	1,2854	1,2891	1,2929	1,2969	1,3013	1,3062	1,3119	1,3191	1,3298	1,3392	1,3576	1,38
2400	1,194	1,2123	1,2286	1,237	1,2467	1,2533	1,2587	1,2632	1,2673	1,2711	1,2747	1,2782	1,2817	1,2852	1,2887	1,2924	1,2962	1,3004	1,3051	1,3105	1,3174	1,3277	1,3367	1,3544	1,375
2600	1,197	1,2149	1,2306	1,2387	1,2481	1,2545	1,2596	1,2639	1,2679	1,2715	1,275	1,2784	1,2817	1,285	1,2884	1,2919	1,2956	1,2996	1,3041	1,3093	1,316	1,3259	1,3345	1,3515	1,372
2800	1,2	1,2175	1,2325	1,2403	1,2493	1,2554	1,2603	1,2646	1,2684	1,2719	1,2752	1,2785	1,2817	1,2849	1,2882	1,2916	1,2951	1,299	1,3033	1,3084	1,3147	1,3242	1,3325	1,3488	1,368

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	1,2029	1,2195	1,2341	1,2416	1,2504	1,2564	1,2611	1,2652	1,2689	1,2722	1,2755	1,2786	1,2817	1,2848	1,2879	1,2912	1,2947	1,2984	1,3026	1,3074	1,3136	1,3228	1,3308	1,3466	1,365
3500	1,2083	1,2239	1,2376	1,2445	1,2527	1,2582	1,2626	1,2663	1,2697	1,2729	1,2759	1,2788	1,2817	1,2845	1,2874	1,2905	1,2937	1,2971	1,301	1,3055	1,3111	1,3196	1,327	1,3417	1,358
4000	1,213	1,2276	1,2404	1,2469	1,2546	1,2597	1,2638	1,2673	1,2705	1,2734	1,2762	1,2789	1,2816	1,2843	1,2871	1,2899	1,2929	1,2961	1,2997	1,3039	1,3092	1,3171	1,324	1,3376	1,353
4500	1,217	1,2306	1,2427	1,2489	1,2561	1,261	1,2648	1,2681	1,2711	1,2739	1,2765	1,2791	1,2816	1,2841	1,2867	1,2894	1,2922	1,2952	1,2986	1,3026	1,3076	1,315	1,3215	1,3344	1,349
5000	1,22	1,2332	1,2447	1,2506	1,2574	1,262	1,2657	1,2688	1,2717	1,2743	1,2768	1,2792	1,2816	1,284	1,2865	1,289	1,2917	1,2945	1,2978	1,3015	1,3063	1,3134	1,3195	1,3316	1,3454
6000	1,2255	1,2375	1,2478	1,2532	1,2595	1,2637	1,267	1,2699	1,2725	1,2749	1,2772	1,2794	1,2816	1,2838	1,2861	1,2884	1,2908	1,2934	1,2964	1,2998	1,3041	1,3106	1,3161	1,3272	1,34
7000	1,2297	1,2406	1,2503	1,2553	1,2611	1,265	1,2681	1,2708	1,2732	1,2754	1,2775	1,2796	1,2816	1,2836	1,2857	1,2878	1,2901	1,2925	1,2953	1,2984	1,3024	1,3084	1,3136	1,3237	1,3356
8000	1,2327	1,2432	1,2523	1,2569	1,2623	1,266	1,2689	1,2714	1,2737	1,2758	1,2778	1,2797	1,2816	1,2835	1,2854	1,2874	1,2895	1,2918	1,2944	1,2973	1,301	1,3066	1,3114	1,3209	1,332
9000	1,2354	1,2454	1,2539	1,2583	1,2635	1,2669	1,2697	1,272	1,2741	1,2761	1,278	1,2798	1,2816	1,2834	1,2852	1,2871	1,2891	1,2912	1,2936	1,2964	1,2999	1,3052	1,3097	1,3187	1,329
10000	1,2379	1,2473	1,2554	1,2596	1,2644	1,2677	1,2703	1,2725	1,2745	1,2764	1,2782	1,2799	1,2816	1,2833	1,285	1,2868	1,2887	1,2907	1,293	1,2956	1,299	1,3039	1,3082	1,3168	1,3267
15000	1,2457	1,2535	1,2601	1,2636	1,2675	1,2702	1,2723	1,2742	1,2758	1,2773	1,2788	1,2802	1,2816	1,283	1,2844	1,2858	1,2874	1,289	1,2909	1,2931	1,2958	1,2998	1,3033	1,3102	1,3183
20000	1,2505	1,2572	1,263	1,266	1,2694	1,2717	1,2736	1,2751	1,2766	1,2779	1,2792	1,2804	1,2816	1,2828	1,284	1,2853	1,2866	1,288	1,2896	1,2915	1,2939	1,2974	1,3004	1,3064	1,3132
30000	1,2563	1,2616	1,2664	1,2688	1,2716	1,2735	1,275	1,2763	1,2775	1,2786	1,2796	1,2806	1,2816	1,2826	1,2835	1,2846	1,2857	1,2868	1,2881	1,2897	1,2916	1,2944	1,2969	1,3018	1,3075
40000	1,2596	1,2643	1,2684	1,2705	1,2729	1,2746	1,2759	1,277	1,278	1,279	1,2799	1,2807	1,2816	1,2824	1,2833	1,2842	1,2851	1,2861	1,2873	1,2886	1,2902	1,2927	1,2948	1,2991	1,3039
50000	1,2619	1,2661	1,2698	1,2717	1,2739	1,2753	1,2765	1,2775	1,2784	1,2792	1,28	1,2808	1,2816	1,2823	1,2831	1,2839	1,2847	1,2856	1,2866	1,2878	1,2893	1,2915	1,2934	1,2972	1,3015
100000	1,2676	1,2706	1,2732	1,2746	1,2761	1,2771	1,278	1,2787	1,2793	1,2799	1,2805	1,281	1,2816	1,2821	1,2826	1,2832	1,2838	1,2844	1,2852	1,286	1,287	1,2886	1,29	1,2926	1,2956

P = 0,95 corresponding to *k* = 1,960

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	-3,8	-0,27	0,275	0,476	0,717	0,904	1,077	1,249	1,427	1,618	1,83	2,068	2,34	2,67	3,07	3,57	4,23	5,13	6,48	8,68	13,1	26,1	52	260	2500
3	-0,35	0,16	0,48	0,64	0,841	0,993	1,127	1,253	1,379	1,507	1,641	1,783	1,938	2,111	2,31	2,53	2,81	3,15	3,6	4,25	5,31	7,66	10,9	25	79
4	0,00	0,34	0,6	0,743	0,922	1,056	1,173	1,281	1,386	1,491	1,598	1,71	1,829	1,959	2,103	2,265	2,454	2,68	2,97	3,36	3,96	5,15	6,61	11,5	25
5	0,17	0,45	0,687	0,818	0,982	1,104	1,209	1,306	1,399	1,49	1,583	1,679	1,78	1,887	2,004	2,135	2,285	2,462	2,68	2,97	3,4	4,2	5,12	7,89	14,2
6	0,28	0,53	0,752	0,875	1,028	1,141	1,238	1,326	1,411	1,494	1,577	1,662	1,751	1,846	1,948	2,061	2,188	2,337	2,518	2,753	3,092	3,71	4,39	6,28	10,1
7	0,37	0,596	0,805	0,921	1,066	1,172	1,262	1,344	1,422	1,498	1,574	1,651	1,732	1,817	1,908	2,008	2,12	2,25	2,407	2,608	2,893	3,4	3,94	5,39	8,2
8	0,43	0,649	0,847	0,957	1,095	1,196	1,281	1,358	1,432	1,502	1,573	1,645	1,719	1,796	1,88	1,971	2,071	2,188	2,328	2,505	2,754	3,18	3,64	4,82	6,9
9	0,49	0,692	0,883	0,989	1,121	1,217	1,298	1,371	1,44	1,507	1,573	1,64	1,709	1,781	1,857	1,941	2,034	2,14	2,266	2,426	2,648	3,029	3,42	4,41	6,1
10	0,54	0,732	0,915	1,017	1,143	1,235	1,312	1,382	1,447	1,511	1,573	1,637	1,702	1,769	1,841	1,919	2,005	2,104	2,22	2,366	2,567	2,91	3,26	4,11	5,5
11	0,57	0,764	0,942	1,041	1,163	1,251	1,325	1,392	1,455	1,515	1,574	1,634	1,695	1,759	1,827	1,9	1,981	2,073	2,18	2,316	2,501	2,815	3,13	3,89	5,17
12	0,61	0,795	0,968	1,063	1,181	1,266	1,337	1,401	1,461	1,518	1,575	1,632	1,691	1,752	1,816	1,885	1,961	2,047	2,149	2,275	2,447	2,736	3,02	3,71	4,8
13	0,64	0,821	0,988	1,081	1,195	1,278	1,346	1,408	1,466	1,521	1,576	1,631	1,687	1,746	1,807	1,873	1,945	2,027	2,123	2,242	2,403	2,671	2,937	3,56	4,57
14	0,67	0,845	1,009	1,099	1,21	1,29	1,356	1,416	1,472	1,525	1,577	1,63	1,683	1,739	1,798	1,86	1,929	2,007	2,098	2,211	2,363	2,614	2,86	3,45	4,32
15	0,7	0,867	1,027	1,115	1,222	1,3	1,365	1,423	1,476	1,528	1,579	1,629	1,681	1,734	1,79	1,85	1,916	1,991	2,078	2,185	2,329	2,566	2,797	3,34	4,14
16	0,72	0,886	1,042	1,128	1,234	1,31	1,372	1,428	1,48	1,531	1,58	1,629	1,679	1,73	1,784	1,842	1,906	1,977	2,06	2,162	2,3	2,524	2,74	3,25	4
17	0,742	0,905	1,057	1,141	1,244	1,318	1,379	1,434	1,485	1,533	1,581	1,628	1,676	1,726	1,778	1,834	1,895	1,964	2,043	2,141	2,272	2,485	2,692	3,17	3,85
18	0,76	0,922	1,071	1,153	1,253	1,326	1,385	1,438	1,488	1,535	1,582	1,628	1,674	1,723	1,773	1,827	1,886	1,952	2,029	2,123	2,248	2,453	2,65	3,09	3,76
19	0,78	0,938	1,083	1,164	1,263	1,333	1,392	1,443	1,491	1,537	1,582	1,627	1,673	1,72	1,769	1,821	1,878	1,942	2,016	2,106	2,227	2,423	2,61	3,04	3,67
20	0,8	0,951	1,096	1,174	1,271	1,34	1,396	1,447	1,494	1,539	1,583	1,627	1,671	1,717	1,764	1,815	1,87	1,932	2,003	2,091	2,208	2,395	2,575	2,98	3,57
21	0,815	0,965	1,107	1,184	1,279	1,346	1,402	1,452	1,498	1,542	1,584	1,627	1,67	1,714	1,76	1,81	1,863	1,923	1,993	2,077	2,191	2,373	2,546	2,93	3,49
22	0,83	0,979	1,118	1,194	1,287	1,352	1,407	1,455	1,5	1,543	1,585	1,627	1,669	1,712	1,757	1,805	1,857	1,915	1,982	2,064	2,174	2,348	2,514	2,89	3,41
23	0,85	0,991	1,127	1,202	1,293	1,358	1,412	1,459	1,503	1,545	1,586	1,626	1,667	1,709	1,753	1,8	1,851	1,907	1,973	2,052	2,159	2,327	2,488	2,85	3,35
24	0,86	1,001	1,136	1,21	1,299	1,363	1,415	1,462	1,506	1,547	1,586	1,626	1,667	1,708	1,751	1,797	1,846	1,902	1,965	2,043	2,145	2,309	2,463	2,8	3,28

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	0,87	1,012	1,145	1,217	1,305	1,368	1,42	1,465	1,508	1,548	1,587	1,626	1,665	1,706	1,748	1,792	1,841	1,894	1,956	2,032	2,132	2,292	2,444	2,78	3,24
26	0,88	1,021	1,153	1,224	1,311	1,373	1,424	1,468	1,51	1,549	1,588	1,626	1,664	1,704	1,745	1,789	1,836	1,888	1,949	2,022	2,12	2,276	2,421	2,74	3,19
27	0,89	1,031	1,161	1,232	1,317	1,378	1,428	1,472	1,513	1,552	1,589	1,627	1,665	1,703	1,743	1,786	1,832	1,884	1,943	2,015	2,11	2,261	2,402	2,71	3,14
28	0,91	1,042	1,169	1,238	1,322	1,382	1,431	1,474	1,514	1,552	1,589	1,626	1,663	1,701	1,74	1,782	1,828	1,878	1,936	2,006	2,098	2,245	2,383	2,68	3,09
29	0,917	1,049	1,175	1,244	1,327	1,386	1,434	1,477	1,516	1,554	1,59	1,626	1,663	1,7	1,738	1,779	1,824	1,873	1,93	1,999	2,089	2,232	2,365	2,66	3,06
30	0,926	1,056	1,182	1,249	1,331	1,389	1,437	1,479	1,518	1,555	1,591	1,626	1,662	1,698	1,736	1,777	1,821	1,869	1,925	1,992	2,08	2,22	2,352	2,64	3,01
32	0,946	1,077	1,197	1,263	1,343	1,399	1,445	1,485	1,523	1,558	1,592	1,626	1,66	1,695	1,731	1,77	1,811	1,857	1,91	1,974	2,057	2,19	2,312	2,577	2,93
34	0,96	1,09	1,208	1,273	1,35	1,405	1,45	1,489	1,525	1,56	1,593	1,626	1,659	1,693	1,728	1,766	1,806	1,85	1,901	1,962	2,043	2,169	2,287	2,542	2,88
36	0,98	1,103	1,219	1,282	1,357	1,4105	1,454	1,493	1,528	1,561	1,594	1,626	1,658	1,691	1,725	1,761	1,8	1,843	1,892	1,952	2,029	2,151	2,265	2,506	2,83
38	0,994	1,116	1,229	1,291	1,364	1,416	1,459	1,497	1,531	1,564	1,595	1,627	1,658	1,69	1,7229	1,758	1,796	1,837	1,885	1,943	2,018	2,136	2,244	2,478	2,79
40	1,009	1,127	1,238	1,299	1,371	1,422	1,463	1,5	1,533	1,565	1,596	1,627	1,657	1,688	1,721	1,755	1,791	1,832	1,878	1,934	2,007	2,121	2,226	2,451	2,75
42	1,021	1,137	1,246	1,306	1,377	1,426	1,467	1,503	1,536	1,567	1,597	1,627	1,657	1,687	1,718	1,752	1,787	1,827	1,872	1,926	1,997	2,106	2,208	2,425	2,71
44	1,03	1,148	1,254	1,312	1,382	1,431	1,471	1,506	1,538	1,568	1,598	1,627	1,656	1,686	1,716	1,749	1,784	1,822	1,866	1,918	1,987	2,095	2,193	2,405	2,67
46	1,041	1,156	1,261	1,318	1,387	1,435	1,474	1,509	1,54	1,57	1,599	1,627	1,656	1,685	1,715	1,746	1,78	1,818	1,86	1,912	1,979	2,083	2,179	2,383	2,65
48	1,052	1,165	1,269	1,325	1,392	1,439	1,478	1,511	1,542	1,571	1,599	1,627	1,655	1,683	1,713	1,743	1,777	1,813	1,855	1,905	1,971	2,072	2,165	2,361	2,62
50	1,066	1,174	1,276	1,331	1,397	1,443	1,48	1,513	1,544	1,572	1,6	1,628	1,655	1,682	1,711	1,741	1,774	1,809	1,85	1,899	1,963	2,061	2,152	2,343	2,6
55	1,087	1,193	1,291	1,344	1,407	1,452	1,488	1,519	1,5484	1,5757	1,6022	1,628	1,654	1,681	1,708	1,737	1,767	1,801	1,84	1,886	1,946	2,039	2,124	2,304	2,54
60	1,107	1,209	1,304	1,355	1,416	1,458	1,493	1,524	1,5516	1,5777	1,603	1,6279	1,6528	1,6781	1,704	1,732	1,761	1,793	1,83	1,874	1,931	2,02	2,1	2,27	2,49
65	1,123	1,224	1,316	1,365	1,424	1,465	1,499	1,528	1,555	1,58	1,605	1,629	1,652	1,677	1,7016	1,728	1,756	1,787	1,822	1,864	1,918	2,002	2,078	2,237	2,44
70	1,139	1,238	1,326	1,374	1,432	1,471	1,5038	1,532	1,558	1,582	1,606	1,629	1,652	1,675	1,7	1,725	1,752	1,782	1,816	1,856	1,908	1,988	2,061	2,213	2,41
75	1,154	1,25	1,336	1,383	1,438	1,477	1,5083	1,5357	1,5607	1,5842	1,607	1,6292	1,6514	1,674	1,697	1,721	1,748	1,776	1,809	1,847	1,897	1,974	2,044	2,189	2,38
80	1,168	1,26	1,345	1,3904	1,444	1,482	1,512	1,539	1,563	1,586	1,6078	1,6294	1,651	1,6729	1,6954	1,719	1,7441	1,772	1,803	1,841	1,889	1,963	2,03	2,17	2,35
85	1,18	1,27	1,353	1,397	1,45	1,486	1,516	1,542	1,565	1,5876	1,6089	1,6298	1,6507	1,6718	1,6936	1,716	1,741	1,768	1,798	1,834	1,881	1,952	2,017	2,15	2,32
90	1,192	1,279	1,361	1,404	1,455	1,49	1,5194	1,5445	1,5675	1,5892	1,61	1,6303	1,6505	1,6711	1,6922	1,7143	1,738	1,7639	1,7934	1,8285	1,874	1,943	2,005	2,134	2,3

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
95	1,2	1,288	1,367	1,4093	1,4595	1,4941	1,5223	1,5469	1,5693	1,5903	1,6105	1,6302	1,65	1,6701	1,6905	1,7121	1,7352	1,76	1,789	1,8232	1,867	1,934	1,994	2,118	2,27
100	1,21	1,296	1,373	1,414	1,463	1,4974	1,5248	1,5489	1,5707	1,5913	1,611	1,6305	1,6497	1,6692	1,6893	1,7102	1,7327	1,757	1,785	1,818	1,86	1,925	1,983	2,103	2,25
110	1,228	1,31	1,385	1,4248	1,472	1,5042	1,5304	1,5533	1,5743	1,5938	1,6126	1,6311	1,6495	1,6681	1,6872	1,7072	1,7285	1,7517	1,7782	1,8096	1,85	1,911	1,967	2,081	2,22
120	1,243	1,323	1,395	1,4335	1,4786	1,5097	1,5349	1,5568	1,5769	1,5958	1,6138	1,6314	1,6489	1,6667	1,6849	1,704	1,7245	1,7468	1,7721	1,802	1,84	1,899	1,951	2,059	2,19
130	1,258	1,335	1,404	1,441	1,4845	1,5145	1,5389	1,5603	1,5795	1,5975	1,6148	1,6317	1,6486	1,6657	1,6833	1,7015	1,7211	1,7423	1,7665	1,795	1,8319	1,888	1,938	2,04	2,167
140	1,271	1,345	1,412	1,448	1,49	1,5192	1,5427	1,563	1,5816	1,5989	1,6157	1,6321	1,6484	1,6648	1,6817	1,6993	1,7182	1,7387	1,7619	1,789	1,824	1,878	1,926	2,024	2,146
150	1,282	1,354	1,42	1,454	1,4949	1,5229	1,5457	1,5656	1,5834	1,6004	1,6166	1,6324	1,6481	1,6639	1,6802	1,6972	1,7154	1,735	1,7574	1,784	1,818	1,869	1,915	2,009	2,125
160	1,293	1,362	1,426	1,459	1,499	1,5268	1,5489	1,5681	1,5855	1,6018	1,6174	1,6327	1,6479	1,6632	1,679	1,6955	1,7131	1,7323	1,7537	1,7792	1,8119	1,861	1,906	1,996	2,108
170	1,302	1,37	1,432	1,465	1,5034	1,53	1,5515	1,5702	1,5871	1,6029	1,6181	1,633	1,6477	1,6626	1,678	1,6939	1,7109	1,7294	1,7503	1,775	1,807	1,855	1,898	1,985	2,092
180	1,311	1,377	1,437	1,4693	1,5071	1,533	1,5539	1,5722	1,5886	1,604	1,6187	1,6331	1,6475	1,6619	1,6768	1,6923	1,7088	1,7269	1,7473	1,7711	1,8017	1,8482	1,89	1,974	2,076
190	1,318	1,384	1,443	1,4739	1,5107	1,536	1,5564	1,5741	1,5901	1,6052	1,6195	1,6336	1,6475	1,6615	1,6759	1,6911	1,7071	1,7246	1,7442	1,7674	1,7973	1,842	1,882	1,963	2,062
200	1,326	1,39	1,448	1,478	1,514	1,5386	1,5584	1,5757	1,5914	1,606	1,6201	1,6338	1,6473	1,661	1,6751	1,6897	1,7053	1,7223	1,7414	1,7641	1,793	1,837	1,876	1,954	2,051
220	1,339	1,401	1,456	1,485	1,5196	1,5433	1,5622	1,5788	1,5937	1,6078	1,6211	1,6342	1,6472	1,6603	1,6736	1,6877	1,7025	1,7186	1,7369	1,7585	1,7861	1,8275	1,865	1,94	2,032
240	1,351	1,411	1,463	1,4916	1,5247	1,5473	1,5656	1,5813	1,5957	1,609	1,622	1,6345	1,6469	1,6594	1,6721	1,6855	1,6997	1,7152	1,7326	1,7532	1,7794	1,819	1,854	1,926	2,012
260	1,361	1,418	1,47	1,4973	1,5291	1,5509	1,5686	1,5839	1,5975	1,6104	1,6228	1,6348	1,6467	1,6587	1,6709	1,6838	1,6974	1,7123	1,729	1,7486	1,7735	1,8116	1,845	1,913	1,997
280	1,371	1,427	1,4764	1,5024	1,5332	1,5543	1,5712	1,5859	1,5993	1,6117	1,6236	1,6352	1,6467	1,6583	1,6701	1,6824	1,6955	1,7098	1,7257	1,7446	1,7688	1,805	1,837	1,902	1,981
300	1,378	1,433	1,4816	1,507	1,5366	1,557	1,5734	1,5876	1,6005	1,6126	1,6241	1,6353	1,6464	1,6576	1,669	1,681	1,6936	1,7074	1,723	1,7412	1,7644	1,7997	1,831	1,893	1,969
320	1,387	1,439	1,487	1,5113	1,5402	1,5599	1,5758	1,5895	1,6021	1,6137	1,6248	1,6357	1,6464	1,6572	1,6683	1,6798	1,6922	1,7055	1,7205	1,7381	1,7605	1,7943	1,824	1,885	1,955
340	1,395	1,446	1,4911	1,515	1,5431	1,5623	1,5778	1,5911	1,6033	1,6146	1,6254	1,636	1,6464	1,6569	1,6677	1,6788	1,6907	1,7036	1,7181	1,7352	1,7568	1,7896	1,819	1,877	1,947
360	1,401	1,451	1,4951	1,5183	1,5458	1,5646	1,5796	1,5926	1,6044	1,6153	1,6258	1,636	1,6462	1,6564	1,6668	1,6777	1,6891	1,7017	1,7157	1,7322	1,7534	1,7851	1,813	1,869	1,937
380	1,406	1,456	1,4988	1,5216	1,5483	1,5666	1,5812	1,594	1,6054	1,6162	1,6264	1,6364	1,6462	1,6562	1,6663	1,6769	1,6881	1,7002	1,7138	1,7299	1,7505	1,7812	1,8084	1,863	1,928
400	1,412	1,46	1,5025	1,5246	1,5507	1,5684	1,5828	1,5951	1,6063	1,6168	1,6267	1,6364	1,646	1,6558	1,6657	1,6759	1,6868	1,6987	1,712	1,7277	1,7477	1,7777	1,804	1,857	1,92
450	1,424	1,47	1,5102	1,5312	1,5559	1,5727	1,5863	1,598	1,6086	1,6184	1,6279	1,637	1,6461	1,6552	1,6646	1,6742	1,6845	1,6957	1,7081	1,7228	1,7415	1,7696	1,7943	1,844	1,903
500	1,435	1,4787	1,5167	1,5368	1,5603	1,5762	1,5891	1,6002	1,6103	1,6197	1,6286	1,6372	1,6458	1,6544	1,6633	1,6725	1,6822	1,6928	1,7046	1,7185	1,7362	1,7629	1,7862	1,833	1,889

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	1,444	1,486	1,5225	1,5417	1,5641	1,5795	1,5917	1,6023	1,6119	1,6208	1,6293	1,6375	1,6458	1,654	1,6624	1,6712	1,6805	1,6906	1,7019	1,7152	1,732	1,7573	1,7795	1,824	1,878
600	1,452	1,492	1,5272	1,5457	1,5673	1,5819	1,5938	1,604	1,6131	1,6217	1,6299	1,6378	1,6457	1,6536	1,6616	1,67	1,6788	1,6885	1,6993	1,712	1,7281	1,7523	1,7736	1,816	1,865
650	1,459	1,498	1,5317	1,5495	1,5704	1,5845	1,5958	1,6056	1,6144	1,6226	1,6305	1,6381	1,6457	1,6533	1,661	1,669	1,6776	1,6869	1,6973	1,7094	1,7248	1,748	1,7684	1,809	1,856
700	1,465	1,503	1,536	1,553	1,5729	1,5865	1,5974	1,6069	1,6154	1,6234	1,6309	1,6383	1,6455	1,6528	1,6603	1,6681	1,6763	1,6851	1,6951	1,7068	1,7216	1,744	1,7634	1,802	1,848
750	1,471	1,5074	1,5392	1,5559	1,5753	1,5885	1,5991	1,6082	1,6164	1,6241	1,6315	1,6385	1,6456	1,6526	1,6599	1,6673	1,6753	1,6839	1,6934	1,7048	1,7191	1,7406	1,7593	1,797	1,841
800	1,477	1,512	1,5425	1,5586	1,5774	1,5902	1,6004	1,6093	1,6172	1,6247	1,6317	1,6386	1,6454	1,6522	1,6592	1,6664	1,6741	1,6824	1,6917	1,7026	1,7165	1,7373	1,7556	1,792	1,836
850	1,481	1,5154	1,5455	1,5611	1,5794	1,5918	1,6017	1,6103	1,6181	1,6253	1,6321	1,6388	1,6454	1,652	1,6588	1,6658	1,6733	1,6813	1,6903	1,7009	1,7143	1,7345	1,7521	1,787	1,829
900	1,486	1,5187	1,5483	1,5635	1,5812	1,5933	1,6029	1,6113	1,6188	1,6258	1,6325	1,639	1,6455	1,6519	1,6584	1,6653	1,6725	1,6803	1,6891	1,6993	1,7124	1,7318	1,7488	1,783	1,822
950	1,49	1,5224	1,5508	1,5655	1,5828	1,5946	1,6041	1,6122	1,6195	1,6263	1,6329	1,6392	1,6455	1,6517	1,6582	1,6648	1,6718	1,6794	1,6879	1,6979	1,7105	1,7294	1,7461	1,779	1,818
1000	1,493	1,5251	1,553	1,5675	1,5844	1,5959	1,605	1,613	1,6201	1,6267	1,633	1,6392	1,6453	1,6514	1,6577	1,6641	1,671	1,6784	1,6867	1,6964	1,7088	1,7273	1,7434	1,776	1,813
1100	1,5	1,53	1,5572	1,571	1,5871	1,5981	1,6069	1,6144	1,6212	1,6276	1,6336	1,6395	1,6454	1,6512	1,6571	1,6633	1,6699	1,6769	1,6849	1,6941	1,7058	1,7234	1,7388	1,769	1,806
1200	1,506	1,535	1,5607	1,574	1,5895	1,6	1,6084	1,6156	1,6222	1,6283	1,6341	1,6397	1,6453	1,6509	1,6566	1,6625	1,6687	1,6754	1,683	1,6919	1,7031	1,7199	1,7346	1,764	1,798
1300	1,511	1,5394	1,5641	1,5768	1,5917	1,6018	1,6099	1,6168	1,6231	1,6289	1,6345	1,6399	1,6452	1,6506	1,6561	1,6617	1,6677	1,6742	1,6814	1,69	1,7007	1,7169	1,731	1,759	1,792
1400	1,516	1,543	1,5668	1,5792	1,5936	1,6033	1,6111	1,6178	1,6239	1,6295	1,6349	1,6401	1,6452	1,6504	1,6556	1,6611	1,6669	1,6731	1,6801	1,6882	1,6986	1,7141	1,7277	1,755	1,787
1500	1,52	1,5462	1,5693	1,5813	1,5952	1,6046	1,6121	1,6186	1,6245	1,6299	1,6351	1,6402	1,6451	1,6501	1,6552	1,6605	1,666	1,6721	1,6789	1,6868	1,6968	1,7118	1,725	1,751	1,781
1600	1,524	1,5494	1,5717	1,5833	1,5968	1,6059	1,6133	1,6196	1,6252	1,6305	1,6355	1,6404	1,6452	1,6501	1,655	1,6601	1,6655	1,6713	1,6778	1,6855	1,6951	1,7096	1,7223	1,7471	1,777
1700	1,527	1,5521	1,5738	1,585	1,5981	1,6069	1,614	1,6202	1,6257	1,6308	1,6357	1,6404	1,6451	1,6498	1,6545	1,6595	1,6648	1,6704	1,6768	1,6842	1,6936	1,7075	1,7198	1,7438	1,772
1800	1,53	1,5545	1,5759	1,5867	1,5994	1,6081	1,6149	1,6209	1,6263	1,6312	1,636	1,6406	1,6451	1,6497	1,6543	1,6591	1,6642	1,6697	1,6758	1,683	1,6921	1,7057	1,7175	1,741	1,769
1900	1,533	1,557	1,5776	1,5883	1,6007	1,6091	1,6158	1,6216	1,6268	1,6316	1,6362	1,6407	1,6451	1,6495	1,654	1,6587	1,6637	1,6691	1,675	1,682	1,6908	1,704	1,7156	1,7385	1,765
2000	1,536	1,5591	1,5793	1,5896	1,6017	1,61	1,6165	1,6221	1,6272	1,6319	1,6364	1,6408	1,6451	1,6494	1,6538	1,6583	1,6632	1,6684	1,6742	1,681	1,6897	1,7025	1,7139	1,7362	1,762
2200	1,542	1,5631	1,5822	1,5922	1,6037	1,6116	1,6178	1,6232	1,6281	1,6326	1,6369	1,641	1,6451	1,6493	1,6534	1,6578	1,6624	1,6674	1,6729	1,6794	1,6877	1,6998	1,7105	1,7316	1,757
2400	1,546	1,5664	1,5848	1,5943	1,6053	1,6129	1,6189	1,624	1,6287	1,633	1,6371	1,6411	1,6451	1,649	1,653	1,6571	1,6616	1,6663	1,6716	1,6778	1,6857	1,6974	1,7077	1,7279	1,751
2600	1,549	1,5693	1,5871	1,5962	1,6069	1,6142	1,6199	1,6249	1,6293	1,6335	1,6374	1,6412	1,645	1,6488	1,6527	1,6567	1,6609	1,6654	1,6705	1,6765	1,684	1,6953	1,7051	1,7246	1,747
2800	1,552	1,5722	1,5892	1,5981	1,6083	1,6152	1,6208	1,6256	1,6299	1,6339	1,6377	1,6414	1,645	1,6487	1,6524	1,6563	1,6603	1,6647	1,6696	1,6754	1,6826	1,6934	1,7028	1,7215	1,743

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	1,556	1,5744	1,591	1,5996	1,6095	1,6162	1,6216	1,6263	1,6304	1,6343	1,638	1,6415	1,645	1,6486	1,6521	1,6559	1,6598	1,664	1,6688	1,6743	1,6814	1,6918	1,7009	1,719	1,74
3500	1,562	1,5795	1,5949	1,6029	1,6121	1,6183	1,6233	1,6276	1,6314	1,635	1,6384	1,6417	1,645	1,6483	1,6516	1,655	1,6586	1,6626	1,667	1,6721	1,6785	1,6882	1,6966	1,7134	1,732
4000	1,567	1,5836	1,5981	1,6056	1,6142	1,62	1,6247	1,6287	1,6323	1,6356	1,6388	1,6419	1,645	1,648	1,6511	1,6543	1,6578	1,6614	1,6655	1,6703	1,6764	1,6854	1,6932	1,7087	1,727
4500	1,571	1,587	1,6008	1,6078	1,616	1,6215	1,6258	1,6296	1,633	1,6362	1,6392	1,6421	1,6449	1,6478	1,6507	1,6538	1,657	1,6604	1,6643	1,6688	1,6745	1,683	1,6904	1,705	1,722
5000	1,575	1,59	1,603	1,6097	1,6174	1,6226	1,6268	1,6304	1,6337	1,6367	1,6395	1,6423	1,645	1,6477	1,6505	1,6533	1,6564	1,6596	1,6633	1,6676	1,673	1,6811	1,688	1,7018	1,718
6000	1,581	1,5948	1,6066	1,6127	1,6198	1,6245	1,6284	1,6316	1,6346	1,6373	1,6399	1,6425	1,645	1,6474	1,65	1,6526	1,6554	1,6584	1,6617	1,6656	1,6705	1,6778	1,6842	1,6968	1,711
7000	1,586	1,5984	1,6093	1,615	1,6216	1,626	1,6296	1,6326	1,6353	1,6379	1,6403	1,6426	1,6449	1,6472	1,6496	1,652	1,6546	1,6573	1,6604	1,6641	1,6686	1,6754	1,6813	1,6929	1,7064
8000	1,5895	1,6014	1,6117	1,6169	1,6231	1,6272	1,6305	1,6334	1,6359	1,6383	1,6406	1,6428	1,6449	1,6471	1,6493	1,6515	1,6539	1,6565	1,6594	1,6628	1,6671	1,6733	1,6788	1,6897	1,702
9000	1,5925	1,6038	1,6135	1,6185	1,6243	1,6282	1,6314	1,634	1,6365	1,6387	1,6408	1,6429	1,6449	1,6469	1,649	1,6512	1,6534	1,6559	1,6586	1,6618	1,6658	1,6717	1,6769	1,6871	1,6989
10000	1,5953	1,6059	1,6151	1,6199	1,6254	1,6291	1,6321	1,6346	1,6369	1,639	1,641	1,643	1,6449	1,6468	1,6488	1,6508	1,6529	1,6553	1,6578	1,6609	1,6647	1,6703	1,6752	1,6849	1,6963
15000	1,6041	1,613	1,6205	1,6244	1,6289	1,632	1,6344	1,6365	1,6383	1,6401	1,6417	1,6433	1,6449	1,6465	1,6481	1,6497	1,6515	1,6534	1,6555	1,6579	1,661	1,6657	1,6696	1,6774	1,6867
20000	1,6097	1,6172	1,6238	1,6271	1,6311	1,6337	1,6358	1,6376	1,6392	1,6407	1,6421	1,6435	1,6449	1,6463	1,6476	1,6491	1,6506	1,6522	1,654	1,6562	1,6589	1,6628	1,6663	1,6731	1,6809
30000	1,6161	1,6222	1,6276	1,6304	1,6336	1,6357	1,6374	1,6389	1,6402	1,6415	1,6426	1,6438	1,6449	1,646	1,6471	1,6483	1,6495	1,6509	1,6524	1,6541	1,6563	1,6595	1,6623	1,6679	1,6743
40000	1,6199	1,6252	1,6299	1,6323	1,6351	1,6369	1,6384	1,6397	1,6409	1,6419	1,6429	1,6439	1,6449	1,6458	1,6468	1,6478	1,6489	1,65	1,6513	1,6528	1,6547	1,6575	1,66	1,6648	1,6703
50000	1,6226	1,6273	1,6315	1,6336	1,6361	1,6378	1,6391	1,6402	1,6413	1,6422	1,6431	1,644	1,6449	1,6457	1,6466	1,6475	1,6485	1,6495	1,6506	1,652	1,6537	1,6562	1,6584	1,6626	1,6676
100000	1,629	1,6324	1,6354	1,6369	1,6387	1,6398	1,6408	1,6416	1,6423	1,643	1,6436	1,6443	1,6449	1,6455	1,6461	1,6467	1,6474	1,6481	1,649	1,6499	1,6511	1,6529	1,6544	1,6574	1,6609

P = 0,975 corresponding to *k* = 1,960

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	-0,9	0,16	0,523	0,711	0,962	1,165	1,358	1,553	1,757	1,978	2,22	2,5	2,82	3,21	3,68	4,27	5,05	6,12	7,72	10,3	15,6	31,2	62	310	3000
3	0,07	0,426	0,714	0,875	1,088	1,253	1,401	1,541	1,682	1,828	1,98	2,142	2,32	2,52	2,75	3,01	3,32	3,72	4,25	5	6,24	8,98	12,8	29	90
4	0,29	0,576	0,835	0,982	1,173	1,319	1,447	1,568	1,685	1,803	1,924	2,05	2,186	2,334	2,498	2,684	2,901	3,16	3,5	3,95	4,64	6,02	7,72	13,5	29
5	0,43	0,685	0,924	1,06	1,237	1,37	1,485	1,592	1,696	1,798	1,902	2,01	2,125	2,247	2,38	2,529	2,7	2,9	3,15	3,49	3,98	4,91	5,96	9,18	16,5
6	0,53	0,764	0,991	1,121	1,286	1,41	1,516	1,614	1,708	1,801	1,894	1,99	2,09	2,197	2,313	2,441	2,585	2,754	2,962	3,232	3,621	4,33	5,11	7,31	11,7
7	0,61	0,83	1,046	1,17	1,327	1,442	1,541	1,632	1,719	1,803	1,888	1,976	2,066	2,162	2,265	2,378	2,506	2,654	2,832	3,062	3,388	3,97	4,59	6,27	9,5
8	0,67	0,885	1,091	1,208	1,357	1,468	1,562	1,647	1,728	1,808	1,887	1,967	2,05	2,138	2,232	2,334	2,449	2,581	2,741	2,942	3,23	3,72	4,24	5,6	8
9	0,72	0,929	1,129	1,243	1,386	1,491	1,58	1,661	1,737	1,812	1,886	1,96	2,038	2,119	2,205	2,299	2,405	2,525	2,669	2,85	3,104	3,54	3,99	5,12	7,1
10	0,77	0,971	1,163	1,272	1,41	1,51	1,595	1,672	1,745	1,816	1,885	1,956	2,029	2,105	2,186	2,274	2,372	2,483	2,615	2,781	3,01	3,4	3,8	4,78	6,4
11	0,81	1,003	1,193	1,298	1,431	1,528	1,609	1,683	1,753	1,82	1,886	1,953	2,022	2,093	2,169	2,252	2,343	2,447	2,569	2,722	2,934	3,29	3,65	4,53	6
12	0,85	1,036	1,219	1,322	1,45	1,543	1,622	1,692	1,759	1,823	1,886	1,951	2,016	2,084	2,157	2,234	2,32	2,417	2,532	2,675	2,871	3,2	3,53	4,31	5,6
13	0,88	1,063	1,241	1,341	1,466	1,556	1,632	1,701	1,765	1,826	1,888	1,949	2,012	2,077	2,146	2,22	2,302	2,394	2,503	2,638	2,821	3,126	3,43	4,14	5,3
14	0,911	1,088	1,263	1,361	1,482	1,569	1,643	1,709	1,77	1,83	1,888	1,947	2,007	2,069	2,135	2,206	2,283	2,371	2,474	2,601	2,775	3,06	3,34	4,01	5,01
15	0,93	1,113	1,283	1,378	1,495	1,581	1,652	1,716	1,776	1,833	1,89	1,946	2,004	2,064	2,126	2,194	2,269	2,353	2,451	2,572	2,735	3,005	3,27	3,88	4,8
16	0,96	1,131	1,299	1,393	1,508	1,591	1,66	1,722	1,78	1,836	1,89	1,945	2,001	2,059	2,12	2,185	2,256	2,336	2,43	2,546	2,702	2,956	3,21	3,78	4,64
17	0,982	1,152	1,315	1,407	1,519	1,6	1,668	1,728	1,785	1,839	1,892	1,945	1,998	2,054	2,113	2,175	2,244	2,321	2,411	2,521	2,67	2,912	3,147	3,69	4,47
18	1,003	1,17	1,33	1,419	1,529	1,608	1,674	1,733	1,788	1,841	1,892	1,944	1,996	2,05	2,107	2,168	2,233	2,307	2,394	2,5	2,643	2,875	3,098	3,61	4,36
19	1,02	1,187	1,343	1,431	1,539	1,616	1,681	1,739	1,792	1,843	1,893	1,943	1,994	2,047	2,102	2,16	2,224	2,296	2,379	2,481	2,618	2,84	3,053	3,54	4,26
20	1,04	1,2	1,356	1,442	1,548	1,623	1,686	1,742	1,795	1,845	1,894	1,942	1,992	2,043	2,096	2,153	2,215	2,285	2,365	2,464	2,597	2,808	3,013	3,47	4,15
21	1,055	1,215	1,369	1,453	1,557	1,631	1,693	1,748	1,799	1,847	1,895	1,942	1,991	2,04	2,092	2,147	2,207	2,274	2,353	2,449	2,576	2,783	2,979	3,42	4,06
22	1,07	1,23	1,381	1,463	1,565	1,638	1,698	1,751	1,801	1,849	1,896	1,942	1,989	2,037	2,088	2,142	2,2	2,266	2,341	2,434	2,557	2,755	2,943	3,37	3,97
23	1,09	1,243	1,391	1,472	1,573	1,644	1,703	1,755	1,804	1,851	1,896	1,942	1,987	2,034	2,084	2,136	2,193	2,257	2,33	2,42	2,54	2,731	2,912	3,32	3,9
24	1,1	1,254	1,4	1,481	1,579	1,649	1,707	1,759	1,807	1,852	1,897	1,942	1,987	2,033	2,081	2,132	2,188	2,25	2,322	2,409	2,525	2,71	2,885	3,27	3,82

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	1,11	1,266	1,41	1,489	1,585	1,654	1,712	1,762	1,809	1,854	1,898	1,941	1,985	2,03	2,077	2,127	2,181	2,241	2,311	2,397	2,51	2,691	2,863	3,24	3,77
26	1,13	1,276	1,418	1,497	1,592	1,66	1,716	1,766	1,812	1,856	1,898	1,941	1,984	2,028	2,074	2,123	2,176	2,235	2,303	2,386	2,496	2,672	2,837	3,2	3,71
27	1,14	1,286	1,427	1,504	1,599	1,665	1,72	1,769	1,815	1,858	1,9	1,942	1,984	2,027	2,072	2,12	2,172	2,23	2,296	2,377	2,484	2,654	2,814	3,17	3,66
28	1,15	1,298	1,435	1,512	1,604	1,67	1,724	1,772	1,816	1,859	1,9	1,941	1,982	2,025	2,069	2,115	2,166	2,223	2,288	2,367	2,471	2,636	2,793	3,13	3,6
29	1,164	1,307	1,443	1,518	1,609	1,674	1,728	1,775	1,819	1,86	1,901	1,941	1,982	2,023	2,066	2,112	2,162	2,218	2,281	2,359	2,461	2,622	2,773	3,11	3,56
30	1,173	1,314	1,45	1,524	1,614	1,678	1,731	1,778	1,821	1,861	1,902	1,941	1,981	2,022	2,064	2,11	2,158	2,213	2,275	2,351	2,451	2,609	2,757	3,08	3,51
32	1,2	1,337	1,468	1,539	1,627	1,688	1,739	1,784	1,826	1,865	1,903	1,941	1,979	2,018	2,058	2,101	2,147	2,199	2,258	2,33	2,424	2,573	2,711	3,01	3,42
34	1,22	1,351	1,48	1,55	1,635	1,695	1,745	1,788	1,828	1,867	1,904	1,941	1,978	2,015	2,055	2,096	2,141	2,191	2,248	2,317	2,407	2,55	2,683	2,97	3,36
36	1,234	1,365	1,491	1,559	1,643	1,701	1,75	1,792	1,831	1,869	1,905	1,941	1,976	2,013	2,051	2,091	2,135	2,183	2,238	2,305	2,392	2,53	2,658	2,931	3,3
38	1,25	1,378	1,502	1,569	1,651	1,708	1,755	1,797	1,835	1,871	1,906	1,941	1,9761	2,012	2,048	2,088	2,13	2,177	2,23	2,295	2,379	2,512	2,635	2,899	3,25
40	1,263	1,391	1,512	1,578	1,658	1,713	1,76	1,8	1,837	1,873	1,907	1,941	1,975	2,01	2,046	2,084	2,125	2,17	2,222	2,285	2,367	2,495	2,614	2,867	3,21
42	1,276	1,402	1,521	1,586	1,664	1,719	1,764	1,804	1,84	1,874	1,908	1,941	1,974	2,008	2,043	2,081	2,121	2,165	2,215	2,276	2,355	2,479	2,594	2,838	3,16
44	1,29	1,413	1,53	1,593	1,67	1,724	1,768	1,807	1,842	1,876	1,909	1,941	1,974	2,007	2,041	2,077	2,116	2,159	2,208	2,268	2,345	2,466	2,577	2,82	3,12
46	1,298	1,422	1,537	1,6	1,675	1,728	1,772	1,81	1,845	1,878	1,91	1,942	1,973	2,006	2,039	2,074	2,112	2,154	2,202	2,26	2,335	2,452	2,56	2,791	3,09
48	1,31	1,432	1,545	1,607	1,681	1,733	1,775	1,813	1,847	1,879	1,91	1,941	1,972	2,004	2,037	2,071	2,108	2,149	2,196	2,252	2,326	2,44	2,545	2,766	3,06
50	1,32	1,441	1,553	1,613	1,686	1,737	1,778	1,815	1,848	1,88	1,911	1,942	1,972	2,003	2,035	2,069	2,105	2,145	2,191	2,246	2,317	2,428	2,53	2,745	3,03
55	1,347	1,462	1,569	1,627	1,698	1,746	1,786	1,821	1,853	1,884	1,913	1,942	1,971	2,001	2,031	2,063	2,098	2,136	2,179	2,231	2,298	2,403	2,498	2,701	2,97
60	1,367	1,479	1,583	1,64	1,707	1,754	1,792	1,826	1,8569	1,8861	1,914	1,942	1,97	1,998	2,027	2,058	2,091	2,127	2,168	2,217	2,281	2,381	2,472	2,663	2,91
65	1,386	1,496	1,596	1,651	1,716	1,762	1,799	1,831	1,861	1,889	1,916	1,943	1,969	1,9961	2,0241	2,053	2,085	2,12	2,159	2,206	2,267	2,361	2,447	2,626	2,86
70	1,404	1,511	1,608	1,661	1,724	1,768	1,804	1,835	1,864	1,891	1,917	1,943	1,969	1,995	2,022	2,05	2,08	2,114	2,151	2,197	2,255	2,345	2,427	2,598	2,82
75	1,42	1,524	1,619	1,67	1,731	1,774	1,809	1,8393	1,867	1,893	1,919	1,943	1,968	1,993	2,019	2,046	2,075	2,107	2,144	2,187	2,243	2,329	2,408	2,572	2,78
80	1,434	1,536	1,629	1,678	1,738	1,779	1,813	1,843	1,87	1,895	1,919	1,943	1,967	1,9919	2,017	2,043	2,071	2,102	2,138	2,179	2,234	2,317	2,393	2,549	2,75
85	1,448	1,547	1,638	1,686	1,744	1,785	1,817	1,846	1,872	1,897	1,92	1,9437	1,9671	1,9906	2,0149	2,04	2,068	2,097	2,131	2,172	2,224	2,304	2,377	2,527	2,71
90	1,461	1,556	1,645	1,693	1,75	1,789	1,821	1,849	1,874	1,8985	1,9216	1,9443	1,9669	1,9897	2,0132	2,038	2,064	2,0934	2,1263	2,1656	2,216	2,294	2,365	2,509	2,69

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
95	1,471	1,566	1,652	1,699	1,7547	1,793	1,8242	1,8515	1,8765	1,8997	1,9222	1,9442	1,9662	1,9886	2,0115	2,0355	2,0613	2,089	2,122	2,1597	2,209	2,284	2,352	2,491	2,67
100	1,48	1,574	1,66	1,705	1,759	1,797	1,827	1,854	1,8779	1,9008	1,9228	1,9444	1,9659	1,9877	2,01	2,0335	2,059	2,086	2,117	2,154	2,201	2,273	2,339	2,474	2,64
110	1,5	1,59	1,673	1,7163	1,768	1,8042	1,8331	1,8587	1,8818	1,9036	1,9245	1,9451	1,9655	1,9863	2,0076	2,0299	2,054	2,08	2,109	2,144	2,19	2,258	2,321	2,449	2,604
120	1,516	1,605	1,684	1,726	1,776	1,8102	1,8381	1,8624	1,8848	1,9057	1,9258	1,9454	1,965	1,9847	2,0051	2,0264	2,0493	2,0742	2,1024	2,136	2,179	2,244	2,303	2,424	2,58
130	1,533	1,617	1,693	1,734	1,7821	1,8155	1,8426	1,8663	1,8876	1,9077	1,9269	1,946	1,9645	1,9836	2,0031	2,0236	2,0453	2,0692	2,0962	2,128	2,169	2,232	2,288	2,403	2,55
140	1,547	1,628	1,702	1,742	1,788	1,821	1,8467	1,8693	1,8899	1,9093	1,9279	1,9462	1,9643	1,9826	2,0015	2,0211	2,0421	2,0651	2,091	2,122	2,161	2,221	2,275	2,384	2,52
150	1,559	1,638	1,71	1,749	1,7937	1,8248	1,8501	1,872	1,892	1,9108	1,9288	1,9464	1,9639	1,9815	1,9998	2,0187	2,0389	2,061	2,086	2,116	2,153	2,211	2,263	2,368	2,5
160	1,571	1,647	1,717	1,754	1,799	1,829	1,8535	1,8749	1,8942	1,9123	1,9297	1,9467	1,9636	1,9808	1,9984	2,0168	2,0364	2,0579	2,0819	2,1104	2,147	2,202	2,252	2,354	2,48
170	1,582	1,656	1,724	1,76	1,8032	1,8325	1,8564	1,8772	1,8959	1,9135	1,9304	1,9469	1,9635	1,9801	1,9972	2,0149	2,0339	2,0546	2,078	2,106	2,141	2,195	2,243	2,34	2,462
180	1,591	1,663	1,73	1,765	1,8071	1,8358	1,8591	1,8794	1,8977	1,9148	1,9312	1,9472	1,9632	1,9792	1,9958	2,0132	2,0316	2,0518	2,0745	2,1013	2,1355	2,1875	2,234	2,329	2,443
190	1,599	1,671	1,736	1,7705	1,8112	1,8392	1,8618	1,8815	1,8994	1,9161	1,9321	1,9477	1,9632	1,9789	1,9949	2,0117	2,0296	2,0492	2,0711	2,0971	2,1304	2,181	2,226	2,317	2,428
200	1,607	1,677	1,741	1,775	1,815	1,8419	1,8641	1,8833	1,9007	1,917	1,9326	1,9479	1,9629	1,9782	1,9939	2,0102	2,0277	2,0467	2,068	2,0934	2,126	2,175	2,219	2,307	2,416
220	1,622	1,689	1,751	1,783	1,821	1,8472	1,8683	1,8867	1,9034	1,9189	1,9338	1,9484	1,9628	1,9774	1,9923	2,0079	2,0245	2,0425	2,0629	2,087	2,1179	2,164	2,2056	2,29	2,393
240	1,634	1,7	1,759	1,7899	1,8266	1,8517	1,8719	1,8895	1,9055	1,9204	1,9347	1,9486	1,9624	1,9763	1,9906	2,0055	2,0213	2,0386	2,0581	2,0811	2,1105	2,155	2,194	2,274	2,371
260	1,645	1,709	1,766	1,796	1,8315	1,8557	1,8753	1,8923	1,9075	1,9219	1,9356	1,9489	1,9622	1,9756	1,9893	2,0036	2,0187	2,0354	2,054	2,0759	2,1038	2,146	2,184	2,26	2,354
280	1,657	1,718	1,773	1,8019	1,8359	1,8594	1,8782	1,8945	1,9094	1,9233	1,9365	1,9493	1,9621	1,9751	1,9883	2,002	2,0166	2,0325	2,0505	2,0715	2,0986	2,139	2,175	2,248	2,338
300	1,665	1,725	1,779	1,8068	1,8398	1,8624	1,8806	1,8964	1,9107	1,9241	1,937	1,9495	1,9619	1,9744	1,9871	2,0004	2,0145	2,03	2,0473	2,0676	2,0936	2,133	2,168	2,238	2,322
320	1,675	1,732	1,784	1,812	1,8437	1,8656	1,8833	1,8986	1,9125	1,9254	1,9378	1,9499	1,9618	1,9739	1,9863	1,9991	2,0129	2,0278	2,0444	2,0641	2,0892	2,127	2,161	2,228	2,308
340	1,683	1,739	1,7893	1,8158	1,8469	1,8683	1,8854	1,9004	1,9139	1,9264	1,9385	1,9503	1,9619	1,9736	1,9856	1,998	2,0112	2,0257	2,0418	2,0609	2,0851	2,1217	2,154	2,22	2,298
360	1,689	1,744	1,794	1,8195	1,8499	1,8708	1,8875	1,902	1,915	1,9272	1,9389	1,9503	1,9616	1,973	1,9845	1,9966	2,0095	2,0235	2,0392	2,0577	2,0812	2,1166	2,148	2,211	2,287
380	1,695	1,75	1,7978	1,823	1,8526	1,873	1,8893	1,9034	1,9162	1,9281	1,9396	1,9506	1,9616	1,9727	1,984	1,9958	2,0083	2,0219	2,037	2,055	2,0779	2,1123	2,143	2,204	2,277
400	1,702	1,755	1,802	1,8264	1,8553	1,875	1,8909	1,9047	1,9171	1,9288	1,9399	1,9506	1,9614	1,9722	1,9833	1,9947	2,0068	2,0201	2,035	2,0525	2,0748	2,1084	2,138	2,197	2,268
450	1,715	1,765	1,8104	1,8337	1,8611	1,8798	1,8949	1,9079	1,9197	1,9307	1,9412	1,9514	1,9615	1,9716	1,982	1,9928	2,0043	2,0167	2,0307	2,0471	2,0679	2,0993	2,127	2,183	2,248
500	1,727	1,775	1,8177	1,8398	1,8659	1,8837	1,8981	1,9104	1,9216	1,932	1,9419	1,9516	1,9612	1,9707	1,9806	1,9908	2,0017	2,0136	2,0267	2,0423	2,062	2,0917	2,118	2,171	2,234

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	1,737	1,783	1,824	1,8454	1,8702	1,8873	1,9009	1,9127	1,9233	1,9333	1,9427	1,9519	1,961	1,9703	1,9797	1,9894	1,9998	2,011	2,0237	2,0385	2,0573	2,0856	2,11	2,16	2,22
600	1,746	1,79	1,8293	1,8498	1,8738	1,8901	1,9032	1,9145	1,9247	1,9342	1,9433	1,9522	1,961	1,9698	1,9787	1,988	1,9979	2,0087	2,0208	2,035	2,0529	2,08	2,104	2,151	2,207
650	1,754	1,797	1,8343	1,8539	1,8772	1,8929	1,9054	1,9163	1,9261	1,9353	1,944	1,9525	1,961	1,9694	1,978	1,987	1,9965	2,0069	2,0185	2,0321	2,0493	2,0751	2,098	2,143	2,196
700	1,761	1,803	1,839	1,8579	1,88	1,8951	1,9073	1,9177	1,9272	1,9361	1,9445	1,9527	1,9608	1,9689	1,9772	1,9859	1,995	2,005	2,0161	2,0291	2,0457	2,0706	2,0924	2,136	2,187
750	1,767	1,807	1,8426	1,8611	1,8826	1,8973	1,9091	1,9192	1,9284	1,9369	1,9451	1,953	1,9608	1,9687	1,9768	1,9851	1,9939	2,0035	2,0142	2,0269	2,0428	2,0668	2,0878	2,13	2,179
800	1,773	1,812	1,8461	1,8641	1,8849	1,8992	1,9106	1,9204	1,9293	1,9375	1,9454	1,9531	1,9607	1,9683	1,976	1,9841	1,9926	2,0019	2,0123	2,0245	2,0399	2,0632	2,0836	2,124	2,173
850	1,778	1,8161	1,8495	1,8668	1,8872	1,901	1,912	1,9216	1,9302	1,9382	1,9459	1,9533	1,9606	1,968	1,9756	1,9834	1,9917	2,0007	2,0107	2,0226	2,0375	2,0601	2,0797	2,118	2,166
900	1,783	1,82	1,8526	1,8694	1,8892	1,9026	1,9133	1,9226	1,931	1,9388	1,9463	1,9535	1,9607	1,9678	1,9751	1,9828	1,9908	1,9996	2,0093	2,0208	2,0353	2,057	2,0761	2,114	2,158
950	1,787	1,8237	1,8554	1,8718	1,891	1,9041	1,9146	1,9236	1,9318	1,9394	1,9466	1,9537	1,9607	1,9677	1,9749	1,9823	1,9901	1,9986	2,0081	2,0192	2,0333	2,0544	2,0729	2,11	2,153
1000	1,792	1,827	1,8578	1,8739	1,8927	1,9055	1,9157	1,9245	1,9324	1,9398	1,9469	1,9537	1,9605	1,9673	1,9743	1,9815	1,9891	1,9974	2,0067	2,0175	2,0313	2,052	2,07	2,106	2,148
1100	1,799	1,833	1,8624	1,8777	1,8957	1,9079	1,9177	1,9261	1,9337	1,9408	1,9476	1,9541	1,9606	1,9671	1,9737	1,9806	1,9879	1,9958	2,0046	2,0149	2,028	2,0476	2,0648	2,099	2,14
1200	1,806	1,838	1,8664	1,8812	1,8983	1,91	1,9194	1,9275	1,9348	1,9416	1,9481	1,9543	1,9605	1,9667	1,9731	1,9796	1,9866	1,9941	2,0025	2,0124	2,025	2,0437	2,0601	2,093	2,131
1300	1,811	1,8427	1,8702	1,8843	1,9008	1,9121	1,921	1,9288	1,9357	1,9422	1,9484	1,9544	1,9604	1,9664	1,9725	1,9788	1,9855	1,9927	2,0008	2,0103	2,0223	2,0403	2,0561	2,087	2,125
1400	1,817	1,8468	1,8731	1,8869	1,9029	1,9138	1,9224	1,9299	1,9366	1,9429	1,9489	1,9547	1,9604	1,9661	1,972	1,9781	1,9845	1,9915	1,9992	2,0083	2,0199	2,0373	2,0524	2,082	2,118
1500	1,821	1,8502	1,8759	1,8892	1,9047	1,9152	1,9236	1,9308	1,9373	1,9434	1,9492	1,9548	1,9603	1,9659	1,9715	1,9774	1,9836	1,9904	1,9979	2,0067	2,0179	2,0347	2,0494	2,078	2,112
1600	1,826	1,854	1,8786	1,8914	1,9064	1,9166	1,9248	1,9318	1,9381	1,944	1,9496	1,955	1,9604	1,9658	1,9713	1,977	1,983	1,9895	1,9968	2,0053	2,016	2,0322	2,0464	2,0742	2,107
1700	1,829	1,8568	1,881	1,8934	1,9079	1,9178	1,9257	1,9325	1,9386	1,9444	1,9498	1,9551	1,9603	1,9655	1,9708	1,9763	1,9822	1,9885	1,9956	2,0038	2,0143	2,03	2,0436	2,0704	2,102
1800	1,833	1,8595	1,8831	1,8953	1,9094	1,919	1,9267	1,9333	1,9393	1,9448	1,9501	1,9552	1,9603	1,9654	1,9705	1,9759	1,9815	1,9877	1,9945	2,0026	2,0127	2,0279	2,0411	2,0672	2,099
1900	1,836	1,8623	1,8852	1,8971	1,9108	1,9202	1,9277	1,9341	1,9399	1,9452	1,9504	1,9554	1,9603	1,9652	1,9702	1,9755	1,981	1,9869	1,9936	2,0014	2,0113	2,0259	2,0388	2,064	2,094
2000	1,839	1,8644	1,8869	1,8985	1,912	1,9211	1,9284	1,9346	1,9403	1,9456	1,9506	1,9555	1,9602	1,9651	1,97	1,975	1,9804	1,9862	1,9927	2,0003	2,0099	2,0243	2,037	2,0619	2,091
2200	1,845	1,869	1,8903	1,9014	1,9142	1,9229	1,9299	1,9359	1,9413	1,9463	1,9511	1,9557	1,9603	1,9649	1,9696	1,9744	1,9795	1,9851	1,9913	1,9985	2,0077	2,0213	2,0333	2,0568	2,085
2400	1,85	1,8727	1,8932	1,9038	1,916	1,9244	1,931	1,9368	1,942	1,9468	1,9514	1,9558	1,9602	1,9646	1,9691	1,9737	1,9786	1,9839	1,9898	1,9967	2,0056	2,0186	2,03	2,0525	2,079
2600	1,853	1,8759	1,8957	1,9059	1,9177	1,9258	1,9322	1,9377	1,9427	1,9473	1,9517	1,956	1,9602	1,9644	1,9687	1,9731	1,9778	1,9829	1,9886	1,9952	2,0037	2,0162	2,0272	2,049	2,074
2800	1,857	1,8791	1,8981	1,9079	1,9193	1,927	1,9331	1,9385	1,9433	1,9478	1,952	1,9561	1,9602	1,9643	1,9684	1,9727	1,9772	1,9821	1,9876	1,994	2,0021	2,0141	2,0246	2,0455	2,07

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	1,861	1,8816	1,9001	1,9096	1,9206	1,9281	1,9341	1,9393	1,9439	1,9482	1,9523	1,9563	1,9602	1,9641	1,9681	1,9722	1,9766	1,9813	1,9866	1,9928	2,0007	2,0124	2,0225	2,0427	2,067
3500	1,868	1,8872	1,9044	1,9132	1,9235	1,9304	1,936	1,9408	1,945	1,949	1,9528	1,9565	1,9601	1,9638	1,9674	1,9713	1,9753	1,9797	1,9846	1,9903	1,9975	2,0083	2,0177	2,0364	2,057
4000	1,874	1,8918	1,908	1,9163	1,9258	1,9323	1,9375	1,942	1,946	1,9497	1,9533	1,9567	1,9601	1,9635	1,967	1,9705	1,9743	1,9784	1,983	1,9884	1,9951	2,0051	2,0139	2,0312	2,051
4500	1,878	1,8956	1,9109	1,9187	1,9278	1,9339	1,9388	1,943	1,9468	1,9503	1,9536	1,9569	1,9601	1,9633	1,9665	1,9699	1,9735	1,9774	1,9817	1,9867	1,9931	2,0025	2,0107	2,0271	2,046
5000	1,882	1,899	1,9134	1,9208	1,9294	1,9353	1,9399	1,9439	1,9475	1,9509	1,954	1,9571	1,9601	1,9632	1,9662	1,9694	1,9728	1,9765	1,9806	1,9853	1,9914	2,0003	2,0081	2,0236	2,041
6000	1,889	1,9043	1,9174	1,9242	1,932	1,9373	1,9416	1,9453	1,9485	1,9516	1,9545	1,9573	1,9601	1,9629	1,9657	1,9686	1,9717	1,975	1,9788	1,9831	1,9886	1,9968	2,0039	2,0179	2,034
7000	1,895	1,9082	1,9204	1,9267	1,9341	1,939	1,9429	1,9463	1,9494	1,9522	1,9549	1,9575	1,96	1,9626	1,9652	1,9679	1,9708	1,9739	1,9773	1,9814	1,9865	1,994	2,0006	2,0136	2,029
8000	1,8984	1,9115	1,923	1,9289	1,9357	1,9403	1,944	1,9472	1,95	1,9527	1,9552	1,9576	1,96	1,9624	1,9649	1,9674	1,9701	1,973	1,9762	1,98	1,9847	1,9917	1,9978	2,01	2,024
9000	1,9017	1,9142	1,9251	1,9306	1,9371	1,9415	1,9449	1,9479	1,9506	1,9531	1,9555	1,9578	1,96	1,9623	1,9646	1,967	1,9695	1,9722	1,9752	1,9788	1,9833	1,9899	1,9957	2,0071	2,02
10000	1,9048	1,9166	1,9269	1,9322	1,9383	1,9424	1,9457	1,9485	1,9511	1,9534	1,9557	1,9579	1,96	1,9621	1,9643	1,9666	1,969	1,9716	1,9744	1,9778	1,982	1,9884	1,9938	2,0046	2,0172
15000	1,9145	1,9245	1,9329	1,9372	1,9422	1,9456	1,9483	1,9506	1,9527	1,9546	1,9565	1,9583	1,96	1,9618	1,9636	1,9654	1,9674	1,9695	1,9718	1,9745	1,978	1,9831	1,9876	1,9963	2,0066
20000	1,9208	1,9291	1,9365	1,9402	1,9446	1,9475	1,9499	1,9519	1,9537	1,9553	1,9569	1,9585	1,96	1,9615	1,9631	1,9647	1,9664	1,9682	1,9702	1,9726	1,9756	1,98	1,9839	1,9914	2,0002
30000	1,9279	1,9347	1,9408	1,9438	1,9474	1,9498	1,9517	1,9533	1,9548	1,9562	1,9575	1,9588	1,96	1,9612	1,9625	1,9638	1,9652	1,9667	1,9683	1,9703	1,9727	1,9763	1,9795	1,9856	1,9927
40000	1,9321	1,9381	1,9433	1,946	1,9491	1,9512	1,9528	1,9542	1,9555	1,9567	1,9578	1,9589	1,96	1,9611	1,9622	1,9633	1,9645	1,9658	1,9672	1,9689	1,971	1,9741	1,9768	1,9822	1,9883
50000	1,9351	1,9404	1,9451	1,9475	1,9502	1,9521	1,9536	1,9548	1,956	1,957	1,958	1,959	1,96	1,9609	1,9619	1,9629	1,964	1,9651	1,9664	1,9679	1,9698	1,9726	1,975	1,9798	1,9853
100000	1,9423	1,9461	1,9494	1,9511	1,9531	1,9544	1,9554	1,9563	1,9571	1,9579	1,9586	1,9593	1,96	1,9607	1,9613	1,9621	1,9628	1,9636	1,9645	1,9656	1,9669	1,9689	1,9706	1,9739	1,9779

P = 0,995 corresponding to *k* = 2,576

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	0,25	0,589	0,907	1,108	1,397	1,643	1,883	2,13	2,39	2,67	2,98	3,34	3,76	4,26	4,87	5,65	6,66	8,07	10,15	13,6	20,5	41	81	410	4100
3	0,53	0,819	1,115	1,296	1,544	1,74	1,919	2,092	2,267	2,448	2,637	2,841	3,07	3,32	3,6	3,94	4,34	4,85	5,53	6,5	8,09	11,6	16,6	37	120
4	0,7	0,97	1,252	1,419	1,643	1,816	1,971	2,118	2,261	2,406	2,556	2,714	2,883	3,067	3,274	3,51	3,78	4,11	4,53	5,11	5,99	7,75	9,9	17,2	37
5	0,83	1,09	1,354	1,51	1,716	1,875	2,014	2,144	2,27	2,396	2,524	2,657	2,799	2,951	3,118	3,3	3,52	3,77	4,09	4,51	5,13	6,31	7,66	11,8	21
6	0,93	1,178	1,43	1,58	1,774	1,921	2,049	2,168	2,282	2,396	2,51	2,629	2,752	2,885	3,028	3,188	3,368	3,581	3,841	4,179	4,67	5,57	6,56	9,34	15
7	1,01	1,25	1,494	1,637	1,821	1,959	2,078	2,188	2,293	2,397	2,501	2,608	2,72	2,838	2,966	3,106	3,265	3,449	3,673	3,959	4,37	5,1	5,89	8,01	12,1
8	1,08	1,31	1,544	1,681	1,857	1,989	2,102	2,205	2,304	2,401	2,498	2,596	2,698	2,806	2,922	3,049	3,191	3,357	3,555	3,81	4,16	4,79	5,44	7,16	10,3
9	1,13	1,36	1,589	1,721	1,891	2,016	2,123	2,221	2,314	2,405	2,495	2,586	2,681	2,781	2,888	3,005	3,134	3,284	3,463	3,689	4,007	4,55	5,12	6,55	9,1
10	1,19	1,409	1,629	1,756	1,918	2,039	2,141	2,234	2,322	2,408	2,494	2,58	2,67	2,763	2,863	2,971	3,092	3,23	3,394	3,601	3,887	4,37	4,87	6,11	8,2
11	1,23	1,446	1,662	1,787	1,944	2,059	2,158	2,247	2,331	2,413	2,493	2,575	2,659	2,747	2,841	2,943	3,055	3,184	3,336	3,526	3,791	4,24	4,69	5,79	7,6
12	1,27	1,482	1,693	1,814	1,966	2,078	2,172	2,257	2,338	2,416	2,493	2,572	2,652	2,736	2,825	2,92	3,026	3,147	3,289	3,467	3,711	4,12	4,53	5,52	7,1
13	1,3	1,512	1,719	1,837	1,985	2,093	2,184	2,267	2,345	2,42	2,494	2,569	2,646	2,726	2,811	2,902	3,003	3,117	3,252	3,419	3,646	4,028	4,41	5,3	6,7
14	1,34	1,542	1,744	1,86	2,004	2,108	2,197	2,276	2,351	2,423	2,495	2,566	2,64	2,715	2,797	2,884	2,979	3,087	3,215	3,372	3,588	3,945	4,29	5,14	6,4
15	1,37	1,569	1,767	1,879	2,02	2,122	2,208	2,285	2,357	2,427	2,496	2,565	2,636	2,709	2,786	2,869	2,96	3,064	3,185	3,335	3,539	3,874	4,2	4,97	6,1
16	1,39	1,59	1,787	1,897	2,034	2,134	2,217	2,292	2,362	2,43	2,496	2,563	2,631	2,702	2,777	2,857	2,945	3,043	3,16	3,303	3,497	3,813	4,12	4,85	5,9
17	1,42	1,615	1,805	1,914	2,048	2,145	2,226	2,299	2,367	2,433	2,498	2,562	2,628	2,696	2,768	2,845	2,929	3,024	3,135	3,272	3,456	3,758	4,05	4,72	5,71
18	1,44	1,636	1,822	1,928	2,059	2,154	2,234	2,305	2,372	2,435	2,498	2,561	2,624	2,691	2,76	2,835	2,916	3,007	3,114	3,245	3,422	3,711	3,989	4,63	5,58
19	1,47	1,655	1,838	1,942	2,071	2,164	2,242	2,311	2,376	2,438	2,499	2,56	2,622	2,686	2,753	2,826	2,904	2,992	3,095	3,221	3,39	3,667	3,93	4,54	5,44
20	1,49	1,671	1,854	1,955	2,081	2,172	2,248	2,316	2,379	2,44	2,499	2,559	2,619	2,681	2,747	2,816	2,892	2,978	3,078	3,2	3,364	3,627	3,88	4,46	5,31
21	1,5	1,688	1,868	1,968	2,092	2,181	2,256	2,322	2,384	2,443	2,5	2,558	2,617	2,678	2,741	2,808	2,882	2,966	3,062	3,181	3,338	3,594	3,84	4,39	5,19
22	1,52	1,706	1,882	1,98	2,102	2,189	2,261	2,326	2,387	2,445	2,501	2,558	2,615	2,674	2,736	2,802	2,874	2,954	3,047	3,162	3,314	3,56	3,793	4,32	5,07
23	1,542	1,721	1,894	1,991	2,111	2,196	2,268	2,331	2,39	2,447	2,502	2,557	2,613	2,67	2,731	2,795	2,865	2,943	3,034	3,145	3,293	3,53	3,756	4,27	4,98
24	1,55	1,733	1,905	2,001	2,118	2,203	2,272	2,335	2,393	2,448	2,503	2,557	2,612	2,668	2,727	2,79	2,858	2,935	3,023	3,131	3,274	3,503	3,721	4,21	4,89

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25	1,57	1,747	1,917	2,01	2,126	2,209	2,278	2,339	2,396	2,45	2,504	2,556	2,61	2,665	2,722	2,783	2,85	2,924	3,01	3,115	3,255	3,479	3,69	4,16	4,83
26	1,58	1,759	1,926	2,02	2,134	2,215	2,283	2,343	2,399	2,453	2,504	2,556	2,608	2,662	2,718	2,778	2,843	2,916	3	3,102	3,237	3,456	3,661	4,11	4,75
27	1,6	1,771	1,937	2,028	2,141	2,222	2,288	2,347	2,402	2,455	2,506	2,557	2,608	2,661	2,716	2,775	2,838	2,909	2,991	3,091	3,223	3,433	3,632	4,07	4,69
28	1,62	1,785	1,947	2,037	2,148	2,227	2,292	2,35	2,404	2,456	2,506	2,556	2,606	2,657	2,712	2,769	2,831	2,901	2,981	3,078	3,207	3,411	3,605	4,03	4,62
29	1,627	1,796	1,956	2,045	2,154	2,232	2,297	2,354	2,407	2,457	2,507	2,556	2,605	2,656	2,709	2,765	2,826	2,894	2,972	3,068	3,193	3,393	3,581	4	4,56
30	1,637	1,804	1,964	2,053	2,16	2,237	2,301	2,357	2,409	2,459	2,508	2,556	2,604	2,654	2,706	2,762	2,821	2,888	2,965	3,058	3,181	3,377	3,561	3,96	4,51
32	1,67	1,831	1,987	2,072	2,176	2,25	2,311	2,365	2,415	2,463	2,509	2,555	2,601	2,649	2,698	2,75	2,807	2,87	2,943	3,03	3,147	3,33	3,502	3,87	4,38
34	1,69	1,849	2	2,083	2,186	2,258	2,317	2,37	2,418	2,465	2,51	2,555	2,6	2,646	2,694	2,744	2,799	2,86	2,93	3,015	3,126	3,301	3,466	3,82	4,3
36	1,71	1,865	2,013	2,095	2,195	2,265	2,323	2,375	2,422	2,467	2,511	2,554	2,598	2,643	2,689	2,738	2,792	2,851	2,919	3	3,107	3,277	3,435	3,77	4,24
38	1,73	1,88	2,027	2,107	2,204	2,273	2,33	2,38	2,426	2,47	2,513	2,555	2,597	2,641	2,686	2,734	2,785	2,842	2,908	2,988	3,091	3,255	3,408	3,73	4,17
40	1,744	1,894	2,038	2,117	2,212	2,28	2,335	2,384	2,429	2,472	2,514	2,555	2,596	2,639	2,683	2,729	2,779	2,835	2,898	2,975	3,076	3,234	3,38	3,69	4,11
42	1,759	1,908	2,049	2,126	2,22	2,286	2,34	2,388	2,432	2,474	2,515	2,555	2,595	2,637	2,679	2,725	2,774	2,827	2,889	2,963	3,062	3,214	3,355	3,66	4,06
44	1,77	1,921	2,059	2,135	2,227	2,292	2,345	2,392	2,435	2,476	2,516	2,555	2,594	2,635	2,676	2,72	2,768	2,82	2,881	2,954	3,049	3,197	3,335	3,63	4,01
46	1,79	1,931	2,068	2,143	2,233	2,297	2,349	2,395	2,438	2,478	2,517	2,555	2,594	2,633	2,674	2,717	2,763	2,815	2,874	2,944	3,036	3,181	3,314	3,6	3,97
48	1,8	1,943	2,077	2,151	2,239	2,302	2,354	2,399	2,44	2,479	2,517	2,555	2,593	2,631	2,671	2,713	2,759	2,809	2,866	2,935	3,025	3,165	3,295	3,57	3,93
50	1,81	1,955	2,087	2,159	2,246	2,307	2,357	2,402	2,442	2,481	2,518	2,555	2,592	2,63	2,669	2,71	2,754	2,803	2,859	2,926	3,014	3,15	3,276	3,54	3,9
55	1,84	1,978	2,106	2,175	2,26	2,319	2,367	2,409	2,448	2,485	2,521	2,556	2,591	2,627	2,664	2,703	2,745	2,792	2,845	2,908	2,991	3,119	3,237	3,488	3,82
60	1,87	1,999	2,123	2,19	2,271	2,328	2,374	2,415	2,452	2,488	2,522	2,555	2,589	2,624	2,659	2,696	2,736	2,781	2,831	2,891	2,97	3,092	3,204	3,441	3,75
65	1,89	2,018	2,138	2,203	2,282	2,337	2,382	2,421	2,457	2,491	2,524	2,556	2,588	2,621	2,655	2,691	2,73	2,772	2,82	2,878	2,952	3,068	3,173	3,395	3,68
70	1,908	2,036	2,152	2,216	2,291	2,344	2,388	2,426	2,461	2,493	2,525	2,556	2,588	2,619	2,652	2,687	2,724	2,764	2,811	2,866	2,938	3,048	3,149	3,361	3,63
75	1,928	2,051	2,165	2,227	2,3	2,352	2,394	2,43	2,464	2,496	2,527	2,556	2,587	2,617	2,648	2,682	2,717	2,757	2,801	2,854	2,923	3,029	3,125	3,327	3,59
80	1,945	2,066	2,177	2,236	2,308	2,358	2,399	2,434	2,467	2,498	2,528	2,557	2,586	2,616	2,646	2,678	2,713	2,751	2,793	2,845	2,911	3,013	3,106	3,299	3,54
85	1,961	2,078	2,187	2,246	2,315	2,364	2,404	2,439	2,47	2,5	2,529	2,557	2,5854	2,614	2,644	2,675	2,708	2,744	2,786	2,835	2,899	2,998	3,086	3,272	3,5
90	1,975	2,09	2,197	2,254	2,322	2,37	2,408	2,442	2,473	2,502	2,5302	2,558	2,585	2,613	2,642	2,672	2,704	2,739	2,78	2,828	2,89	2,985	3,071	3,25	3,47

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95	1,988	2,101	2,205	2,261	2,328	2,374	2,412	2,445	2,475	2,5035	2,5307	2,5574	2,5842	2,612	2,6395	2,6688	2,7	2,735	2,774	2,821	2,88	2,973	3,056	3,228	3,44
100	2,001	2,112	2,214	2,268	2,333	2,378	2,415	2,448	2,477	2,505	2,532	2,558	2,584	2,61	2,638	2,666	2,697	2,73	2,768	2,813	2,871	2,96	3,04	3,206	3,41
110	2,02	2,131	2,229	2,282	2,344	2,388	2,4228	2,454	2,482	2,508	2,533	2,5585	2,583	2,6086	2,635	2,662	2,691	2,723	2,759	2,801	2,857	2,941	3,018	3,175	3,37
120	2,042	2,147	2,242	2,293	2,353	2,3949	2,4286	2,4582	2,4853	2,5107	2,5349	2,5588	2,5827	2,6068	2,6316	2,6575	2,6852	2,7158	2,75	2,791	2,843	2,924	2,996	3,145	3,33
130	2,063	2,162	2,254	2,303	2,361	2,401	2,434	2,463	2,489	2,513	2,536	2,559	2,582	2,605	2,629	2,6538	2,68	2,71	2,742	2,782	2,832	2,908	2,977	3,119	3,29
140	2,079	2,176	2,265	2,312	2,368	2,407	2,439	2,466	2,491	2,515	2,538	2,56	2,582	2,604	2,6269	2,651	2,677	2,704	2,736	2,773	2,822	2,895	2,961	3,096	3,27
150	2,093	2,188	2,275	2,32	2,375	2,413	2,443	2,4696	2,494	2,5166	2,5385	2,56	2,5812	2,6026	2,625	2,648	2,673	2,699	2,73	2,766	2,812	2,883	2,947	3,076	3,24
160	2,107	2,198	2,283	2,327	2,381	2,418	2,447	2,473	2,4965	2,5184	2,5394	2,5602	2,5808	2,6017	2,623	2,645	2,6694	2,6955	2,725	2,7598	2,8043	2,872	2,933	3,058	3,21
170	2,12	2,209	2,291	2,334	2,3862	2,422	2,451	2,4756	2,4984	2,5199	2,5405	2,5605	2,5806	2,601	2,622	2,643	2,666	2,692	2,72	2,754	2,797	2,863	2,922	3,041	3,19
180	2,13	2,218	2,298	2,341	2,3909	2,4256	2,4538	2,4783	2,5005	2,5213	2,5414	2,5609	2,5802	2,5997	2,6199	2,641	2,6635	2,688	2,7157	2,7485	2,79	2,854	2,911	3,027	3,17
190	2,141	2,227	2,305	2,347	2,3959	2,4298	2,4572	2,481	2,5026	2,523	2,5424	2,561	2,58	2,599	2,6188	2,639	2,661	2,6849	2,7117	2,7435	2,784	2,846	2,9	3,013	3,149
200	2,152	2,234	2,311	2,352	2,4	2,433	2,4598	2,4831	2,5043	2,524	2,543	2,5615	2,58	2,5984	2,6174	2,6374	2,6587	2,682	2,708	2,739	2,778	2,838	2,892	3,001	3,134
220	2,168	2,249	2,323	2,362	2,408	2,4394	2,4649	2,4871	2,5075	2,5263	2,5444	2,5621	2,5797	2,5973	2,6155	2,6345	2,6547	2,6767	2,7015	2,7311	2,769	2,825	2,876	2,98	3,1
240	2,182	2,261	2,333	2,37	2,4145	2,4447	2,4693	2,4906	2,51	2,528	2,5454	2,5623	2,5791	2,5961	2,6134	2,6316	2,6509	2,6719	2,6957	2,7237	2,7597	2,814	2,862	2,96	3,08
260	2,196	2,273	2,341	2,378	2,42	2,4497	2,4733	2,4939	2,5125	2,5299	2,5465	2,5627	2,5789	2,5952	2,6118	2,6293	2,6477	2,6679	2,6907	2,7174	2,752	2,804	2,85	2,943	3,057
280	2,21	2,283	2,349	2,384	2,4256	2,4541	2,4768	2,4966	2,5147	2,5314	2,5475	2,5633	2,5787	2,5944	2,6106	2,6273	2,6451	2,6645	2,686	2,712	2,745	2,795	2,839	2,928	3,038
300	2,22	2,291	2,356	2,39	2,4302	2,4576	2,4797	2,4988	2,5163	2,5326	2,5482	2,5634	2,5785	2,5936	2,6091	2,6253	2,6425	2,6613	2,6824	2,7072	2,739	2,7869	2,83	2,916	3,019
320	2,231	2,3	2,363	2,396	2,435	2,462	2,483	2,5016	2,5184	2,5341	2,5492	2,5639	2,5784	2,5931	2,6081	2,6238	2,6405	2,6586	2,6789	2,7029	2,7336	2,7797	2,821	2,904	3,001
340	2,241	2,309	2,369	2,401	2,4389	2,4648	2,4857	2,5038	2,5201	2,5354	2,55	2,5643	2,5785	2,5927	2,6072	2,6224	2,6385	2,6561	2,6758	2,699	2,7285	2,7732	2,813	2,893	2,991
360	2,25	2,316	2,374	2,4057	2,4425	2,4677	2,488	2,5056	2,5215	2,5363	2,5505	2,5643	2,578	2,5918	2,6059	2,6206	2,6362	2,6534	2,6726	2,6952	2,7238	2,767	2,805	2,882	2,976
380	2,256	2,322	2,3795	2,41	2,4458	2,4705	2,4902	2,5074	2,5229	2,5374	2,5512	2,5647	2,578	2,5915	2,6053	2,6196	2,6348	2,6514	2,67	2,6917	2,7197	2,762	2,799	2,874	2,962
400	2,264	2,327	2,384	2,4142	2,4491	2,4729	2,4922	2,5089	2,524	2,5381	2,5516	2,5648	2,5778	2,5909	2,6043	2,6183	2,633	2,6492	2,6674	2,6887	2,7159	2,757	2,793	2,865	2,952
450	2,28	2,341	2,3947	2,4229	2,4561	2,4788	2,497	2,5128	2,5271	2,5405	2,5532	2,5656	2,5778	2,5902	2,6028	2,6159	2,6299	2,645	2,6621	2,6821	2,7075	2,7459	2,78	2,848	2,929
500	2,294	2,352	2,4034	2,4302	2,4618	2,4834	2,5008	2,5158	2,5293	2,542	2,554	2,5658	2,5774	2,5892	2,6011	2,6135	2,6267	2,6411	2,6574	2,6763	2,7003	2,736	2,769	2,834	2,91

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550	2,306	2,362	2,411	2,4368	2,467	2,4878	2,5043	2,5185	2,5315	2,5435	2,555	2,5662	2,5773	2,5885	2,6	2,6119	2,6244	2,6382	2,6535	2,6716	2,6945	2,7289	2,759	2,82	2,894
600	2,317	2,37	2,418	2,442	2,4713	2,4911	2,507	2,5207	2,5331	2,5447	2,5558	2,5666	2,5772	2,5879	2,5988	2,6101	2,6222	2,6353	2,6499	2,6672	2,6892	2,7221	2,751	2,809	2,878
650	2,327	2,378	2,4235	2,4473	2,4754	2,4944	2,5096	2,5229	2,5348	2,5459	2,5566	2,5669	2,5771	2,5874	2,598	2,6089	2,6205	2,6331	2,6472	2,6638	2,6847	2,7163	2,7442	2,799	2,865
700	2,335	2,385	2,4291	2,4521	2,4789	2,4972	2,5119	2,5246	2,5362	2,5469	2,5572	2,5671	2,577	2,5868	2,5969	2,6075	2,6186	2,6307	2,6443	2,6601	2,6804	2,7107	2,7374	2,791	2,854
750	2,343	2,391	2,4335	2,4559	2,4821	2,4999	2,5141	2,5265	2,5376	2,5479	2,5578	2,5675	2,577	2,5866	2,5963	2,6065	2,6172	2,629	2,642	2,6573	2,6768	2,7062	2,7318	2,783	2,843
800	2,35	2,396	2,4378	2,4596	2,4848	2,5021	2,5159	2,5278	2,5386	2,5486	2,5582	2,5675	2,5768	2,586	2,5955	2,6052	2,6156	2,627	2,6396	2,6544	2,6733	2,7017	2,7266	2,776	2,835
850	2,356	2,4015	2,4419	2,4629	2,4875	2,5042	2,5177	2,5293	2,5398	2,5495	2,5588	2,5679	2,5767	2,5857	2,5949	2,6045	2,6145	2,6254	2,6377	2,6521	2,6703	2,6978	2,7218	2,769	2,827
900	2,362	2,406	2,4456	2,4661	2,49	2,5062	2,5192	2,5305	2,5407	2,5502	2,5593	2,5681	2,5768	2,5855	2,5944	2,6037	2,6135	2,6241	2,636	2,65	2,6676	2,6941	2,7174	2,764	2,818
950	2,368	2,411	2,4489	2,4688	2,4922	2,5081	2,5208	2,5318	2,5417	2,5509	2,5597	2,5683	2,5767	2,5853	2,594	2,603	2,6126	2,6228	2,6344	2,648	2,6652	2,691	2,714	2,759	2,812
1000	2,373	2,414	2,452	2,4714	2,4941	2,5097	2,5221	2,5328	2,5425	2,5514	2,56	2,5683	2,5766	2,5849	2,5933	2,6021	2,6114	2,6214	2,6327	2,646	2,6628	2,688	2,7101	2,754	2,806
1100	2,381	2,422	2,4575	2,4761	2,4979	2,5127	2,5245	2,5348	2,544	2,5526	2,5608	2,5688	2,5766	2,5846	2,5926	2,601	2,6098	2,6195	2,6302	2,6428	2,6587	2,6826	2,7036	2,745	2,795
1200	2,389	2,428	2,4623	2,4802	2,5011	2,5152	2,5266	2,5364	2,5453	2,5536	2,5614	2,569	2,5766	2,5842	2,5918	2,5998	2,6083	2,6174	2,6277	2,6397	2,6551	2,678	2,6979	2,738	2,785
1300	2,396	2,434	2,4669	2,484	2,5041	2,5177	2,5286	2,538	2,5464	2,5543	2,5619	2,5692	2,5764	2,5837	2,5911	2,5988	2,6069	2,6158	2,6256	2,6372	2,6518	2,6737	2,6929	2,731	2,777
1400	2,402	2,439	2,4705	2,4872	2,5066	2,5198	2,5303	2,5393	2,5475	2,5551	2,5624	2,5695	2,5764	2,5834	2,5905	2,598	2,6058	2,6142	2,6236	2,6348	2,6489	2,67	2,6885	2,725	2,769
1500	2,407	2,443	2,4738	2,49	2,5088	2,5215	2,5317	2,5404	2,5484	2,5558	2,5628	2,5696	2,5763	2,583	2,59	2,5971	2,6047	2,6129	2,6221	2,6328	2,6464	2,6669	2,6848	2,72	2,761
1600	2,413	2,447	2,4772	2,4927	2,5109	2,5232	2,5332	2,5417	2,5493	2,5565	2,5633	2,5699	2,5764	2,5829	2,5896	2,5966	2,6038	2,6117	2,6206	2,6311	2,6441	2,6638	2,6811	2,7151	2,756
1700	2,417	2,4506	2,48	2,495	2,5127	2,5247	2,5342	2,5425	2,55	2,5569	2,5635	2,5699	2,5762	2,5826	2,5891	2,5958	2,6029	2,6106	2,6192	2,6292	2,642	2,6611	2,6777	2,71	2,75
1800	2,421	2,454	2,4826	2,4974	2,5145	2,5262	2,5355	2,5435	2,5508	2,5575	2,5639	2,5701	2,5762	2,5824	2,5887	2,5952	2,6021	2,6096	2,6179	2,6277	2,6401	2,6585	2,6748	2,707	2,745
1900	2,426	2,4573	2,4851	2,4994	2,5162	2,5275	2,5366	2,5444	2,5514	2,5579	2,5642	2,5702	2,5763	2,5822	2,5884	2,5947	2,6014	2,6087	2,6168	2,6263	2,6383	2,6562	2,6719	2,703	2,74
2000	2,429	2,4601	2,4872	2,5013	2,5176	2,5286	2,5375	2,5451	2,552	2,5584	2,5645	2,5704	2,5762	2,5821	2,588	2,5942	2,6008	2,6078	2,6157	2,625	2,6367	2,6542	2,6696	2,7	2,736
2200	2,436	2,4654	2,4912	2,5047	2,5202	2,5309	2,5393	2,5466	2,5532	2,5593	2,5651	2,5707	2,5763	2,5819	2,5875	2,5934	2,5997	2,6064	2,6139	2,6227	2,6339	2,6506	2,6651	2,694	2,728
2400	2,442	2,47	2,4948	2,5076	2,5225	2,5326	2,5407	2,5477	2,554	2,5598	2,5654	2,5708	2,5762	2,5815	2,587	2,5925	2,5985	2,605	2,6122	2,6206	2,6313	2,6472	2,6611	2,6886	2,72
2600	2,447	2,4739	2,4978	2,5101	2,5246	2,5344	2,5421	2,5488	2,5549	2,5605	2,5658	2,571	2,5761	2,5812	2,5864	2,5919	2,5976	2,6038	2,6107	2,6188	2,629	2,6443	2,6577	2,6843	2,715
2800	2,451	2,4777	2,5008	2,5126	2,5264	2,5358	2,5433	2,5497	2,5556	2,561	2,5662	2,5712	2,5761	2,5811	2,5861	2,5913	2,5968	2,6028	2,6095	2,6172	2,6271	2,6417	2,6545	2,68	2,71

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	2,455	2,481	2,5032	2,5146	2,5281	2,5372	2,5444	2,5507	2,5563	2,5616	2,5665	2,5713	2,5761	2,5809	2,5857	2,5908	2,5961	2,6019	2,6083	2,6158	2,6254	2,6396	2,652	2,6765	2,705
3500	2,464	2,4874	2,5084	2,5191	2,5316	2,54	2,5467	2,5525	2,5577	2,5626	2,5672	2,5717	2,5761	2,5804	2,5849	2,5896	2,5945	2,5999	2,6058	2,6127	2,6215	2,6346	2,6461	2,6688	2,695
4000	2,471	2,493	2,5127	2,5228	2,5344	2,5423	2,5486	2,554	2,5589	2,5634	2,5677	2,5719	2,576	2,5802	2,5844	2,5887	2,5933	2,5983	2,6039	2,6104	2,6186	2,6309	2,6416	2,6625	2,687
4500	2,476	2,4978	2,5162	2,5257	2,5367	2,5442	2,5502	2,5552	2,5598	2,5641	2,5681	2,5721	2,576	2,5799	2,5838	2,5879	2,5923	2,597	2,6022	2,6084	2,6161	2,6276	2,6376	2,6575	2,681
5000	2,481	2,5018	2,5193	2,5283	2,5387	2,5458	2,5515	2,5563	2,5607	2,5648	2,5686	2,5724	2,576	2,5797	2,5835	2,5874	2,5915	2,5959	2,6009	2,6067	2,614	2,6249	2,6345	2,6532	2,675
6000	2,49	2,5083	2,5241	2,5324	2,5419	2,5484	2,5535	2,558	2,562	2,5657	2,5692	2,5726	2,576	2,5794	2,5828	2,5864	2,5901	2,5942	2,5987	2,604	2,6107	2,6206	2,6293	2,6463	2,666
7000	2,496	2,5131	2,5278	2,5355	2,5444	2,5504	2,5552	2,5593	2,563	2,5664	2,5696	2,5728	2,5759	2,5791	2,5822	2,5855	2,589	2,5928	2,597	2,6019	2,6081	2,6173	2,6253	2,641	2,659
8000	2,5012	2,517	2,5309	2,5381	2,5464	2,552	2,5564	2,5603	2,5638	2,567	2,57	2,573	2,5759	2,5789	2,5818	2,5849	2,5882	2,5917	2,5956	2,6002	2,6059	2,6145	2,6219	2,6367	2,653
9000	2,505	2,5202	2,5334	2,5402	2,548	2,5533	2,5576	2,5612	2,5645	2,5675	2,5704	2,5731	2,5759	2,5787	2,5815	2,5844	2,5874	2,5907	2,5944	2,5987	2,6042	2,6123	2,6193	2,6331	2,649
10000	2,509	2,5231	2,5356	2,5421	2,5495	2,5545	2,5585	2,5619	2,565	2,5679	2,5706	2,5733	2,5759	2,5785	2,5812	2,5839	2,5868	2,5899	2,5934	2,5975	2,6027	2,6104	2,617	2,6301	2,646
15000	2,5208	2,5327	2,543	2,5482	2,5543	2,5584	2,5617	2,5645	2,567	2,5694	2,5716	2,5738	2,5759	2,578	2,5802	2,5825	2,5848	2,5874	2,5902	2,5935	2,5978	2,604	2,6094	2,62	2,6325
20000	2,5284	2,5384	2,5473	2,5519	2,5571	2,5607	2,5635	2,566	2,5682	2,5702	2,5722	2,574	2,5759	2,5777	2,5796	2,5816	2,5836	2,5858	2,5883	2,5912	2,5948	2,6002	2,6049	2,6141	2,6247
30000	2,5368	2,5451	2,5525	2,5562	2,5606	2,5635	2,5658	2,5678	2,5696	2,5712	2,5728	2,5744	2,5759	2,5774	2,5789	2,5805	2,5822	2,584	2,586	2,5883	2,5913	2,5957	2,5995	2,6071	2,6157
40000	2,542	2,5493	2,5556	2,5588	2,5626	2,5651	2,5671	2,5689	2,5704	2,5719	2,5732	2,5745	2,5759	2,5772	2,5785	2,5799	2,5813	2,5829	2,5846	2,5867	2,5892	2,593	2,5963	2,6028	2,6103
50000	2,5457	2,5521	2,5578	2,5606	2,564	2,5663	2,5681	2,5696	2,571	2,5723	2,5735	2,5747	2,5758	2,577	2,5782	2,5794	2,5807	2,5821	2,5837	2,5855	2,5878	2,5912	2,5941	2,5999	2,6065
100000	2,5543	2,559	2,563	2,5651	2,5674	2,569	2,5703	2,5714	2,5724	2,5733	2,5742	2,575	2,5758	2,5767	2,5775	2,5784	2,5793	2,5803	2,5814	2,5827	2,5843	2,5867	2,5888	2,5928	2,5976

P = 0,9995 corresponding to *k* = 3,291

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
2	0,63	0,94	1,288	1,523	1,871	2,175	2,47	2,77	3,1	3,45	3,85	4,3	4,83	5,47	6,24	7,23	8,52	10,32	12,98	17,4	26,1	52,4	104	520	5000
3	0,9	1,21	1,54	1,753	2,048	2,287	2,506	2,719	2,935	3,16	3,39	3,65	3,93	4,24	4,6	5,02	5,53	6,17	7,02	8,24	10,26	14,7	21	47	150
4	1,09	1,38	1,703	1,9	2,168	2,378	2,567	2,746	2,922	3,1	3,287	3,48	3,69	3,92	4,177	4,47	4,81	5,23	5,75	6,47	7,58	9,79	12,5	21,8	46
5	1,22	1,52	1,825	2,009	2,256	2,448	2,617	2,775	2,929	3,084	3,242	3,407	3,58	3,769	3,98	4,21	4,47	4,79	5,18	5,71	6,49	7,97	9,66	14,8	27
6	1,34	1,62	1,915	2,093	2,326	2,503	2,658	2,803	2,943	3,082	3,222	3,368	3,522	3,685	3,861	4,058	4,282	4,55	4,871	5,29	5,9	7,02	8,26	11,7	18,8
7	1,43	1,704	1,991	2,161	2,381	2,548	2,692	2,827	2,955	3,082	3,209	3,341	3,478	3,623	3,781	3,955	4,152	4,38	4,657	5,01	5,53	6,44	7,42	10,06	15,2
8	1,51	1,77	2,05	2,213	2,425	2,584	2,721	2,847	2,967	3,086	3,203	3,324	3,45	3,583	3,725	3,882	4,058	4,262	4,508	4,82	5,27	6,04	6,86	9	12,8
9	1,57	1,832	2,104	2,26	2,465	2,616	2,746	2,865	2,978	3,089	3,199	3,312	3,428	3,551	3,682	3,826	3,986	4,171	4,392	4,672	5,07	5,74	6,45	8,24	11,4
10	1,63	1,89	2,15	2,302	2,498	2,643	2,767	2,88	2,988	3,093	3,197	3,303	3,413	3,527	3,65	3,783	3,932	4,103	4,305	4,561	4,92	5,52	6,14	7,69	10,3
11	1,68	1,934	2,191	2,34	2,528	2,668	2,787	2,895	2,997	3,097	3,196	3,296	3,399	3,507	3,623	3,748	3,887	4,045	4,233	4,468	4,797	5,35	5,91	7,28	9,6
12	1,73	1,976	2,227	2,371	2,555	2,689	2,804	2,908	3,006	3,101	3,196	3,292	3,39	3,493	3,602	3,719	3,849	3,998	4,174	4,393	4,696	5,2	5,71	6,94	8,9
13	1,77	2,012	2,258	2,399	2,578	2,708	2,819	2,919	3,013	3,105	3,195	3,287	3,382	3,48	3,584	3,696	3,82	3,961	4,127	4,334	4,616	5,087	5,56	6,67	8,5
14	1,81	2,048	2,287	2,427	2,6	2,726	2,833	2,93	3,021	3,109	3,196	3,284	3,374	3,467	3,566	3,673	3,791	3,923	4,08	4,275	4,541	4,98	5,42	6,46	8
15	1,85	2,08	2,315	2,45	2,619	2,743	2,847	2,94	3,028	3,113	3,197	3,282	3,368	3,458	3,553	3,655	3,767	3,894	4,043	4,229	4,48	4,89	5,3	6,26	7,7
16	1,87	2,105	2,339	2,471	2,637	2,757	2,858	2,949	3,034	3,117	3,198	3,279	3,362	3,449	3,54	3,639	3,747	3,869	4,011	4,188	4,427	4,82	5,2	6,1	7,4
17	1,91	2,133	2,361	2,49	2,653	2,77	2,868	2,958	3,04	3,12	3,199	3,278	3,358	3,442	3,53	3,625	3,728	3,845	3,981	4,149	4,377	4,749	5,111	5,95	7,2
18	1,93	2,159	2,381	2,508	2,666	2,781	2,877	2,964	3,045	3,123	3,199	3,276	3,354	3,435	3,52	3,611	3,711	3,823	3,955	4,116	4,334	4,691	5,04	5,83	7
19	1,96	2,181	2,4	2,525	2,681	2,793	2,887	2,971	3,05	3,126	3,2	3,275	3,351	3,429	3,512	3,6	3,697	3,805	3,931	4,087	4,294	4,636	4,96	5,72	6,83
20	1,99	2,201	2,419	2,541	2,693	2,803	2,895	2,977	3,054	3,128	3,201	3,273	3,347	3,423	3,503	3,589	3,682	3,787	3,909	4,06	4,262	4,587	4,9	5,61	6,66
21	2	2,221	2,436	2,556	2,706	2,814	2,904	2,984	3,059	3,131	3,202	3,272	3,344	3,418	3,496	3,579	3,67	3,771	3,891	4,036	4,23	4,545	4,85	5,53	6,52
22	2,03	2,242	2,453	2,57	2,718	2,823	2,911	2,99	3,063	3,134	3,202	3,271	3,341	3,414	3,489	3,57	3,659	3,757	3,872	4,013	4,2	4,503	4,79	5,45	6,37
23	2,05	2,26	2,467	2,583	2,728	2,832	2,918	2,995	3,067	3,136	3,204	3,271	3,339	3,409	3,483	3,561	3,647	3,743	3,855	3,991	4,174	4,466	4,74	5,38	6,26
24	2,06	2,275	2,481	2,596	2,737	2,839	2,924	3	3,071	3,138	3,204	3,271	3,338	3,406	3,478	3,555	3,639	3,733	3,841	3,974	4,151	4,432	4,7	5,3	6,16

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
25	2,08	2,291	2,494	2,607	2,747	2,846	2,93	3,005	3,074	3,14	3,205	3,27	3,335	3,402	3,472	3,547	3,629	3,72	3,825	3,955	4,126	4,404	4,67	5,25	6,07
26	2,1	2,305	2,505	2,618	2,756	2,855	2,936	3,01	3,078	3,143	3,206	3,269	3,333	3,398	3,467	3,54	3,62	3,71	3,813	3,938	4,105	4,374	4,627	5,19	5,97
27	2,12	2,319	2,518	2,628	2,765	2,862	2,943	3,014	3,081	3,145	3,208	3,27	3,333	3,397	3,464	3,536	3,615	3,701	3,802	3,924	4,086	4,346	4,591	5,14	5,89
28	2,13	2,337	2,53	2,639	2,773	2,868	2,948	3,018	3,084	3,146	3,208	3,269	3,33	3,393	3,459	3,529	3,606	3,691	3,789	3,909	4,067	4,319	4,558	5,08	5,81
29	2,15	2,348	2,541	2,649	2,781	2,875	2,953	3,023	3,087	3,148	3,209	3,268	3,329	3,391	3,455	3,524	3,599	3,682	3,779	3,896	4,05	4,296	4,528	5,04	5,75
30	2,16	2,359	2,55	2,657	2,788	2,881	2,958	3,026	3,09	3,15	3,209	3,268	3,327	3,388	3,452	3,52	3,593	3,675	3,769	3,884	4,035	4,276	4,504	5	5,68
32	2,2	2,393	2,579	2,681	2,807	2,896	2,97	3,036	3,097	3,155	3,211	3,267	3,324	3,381	3,442	3,506	3,575	3,653	3,742	3,849	3,992	4,217	4,428	4,89	5,51
34	2,22	2,414	2,595	2,695	2,819	2,906	2,978	3,042	3,101	3,157	3,212	3,267	3,322	3,378	3,436	3,498	3,565	3,64	3,726	3,83	3,966	4,182	4,384	4,82	5,42
36	2,25	2,432	2,61	2,709	2,829	2,915	2,985	3,048	3,105	3,16	3,213	3,267	3,32	3,374	3,431	3,491	3,556	3,628	3,711	3,811	3,943	4,151	4,346	4,76	5,33
38	2,26	2,45	2,627	2,723	2,84	2,924	2,993	3,054	3,11	3,164	3,215	3,267	3,319	3,372	3,427	3,485	3,549	3,618	3,698	3,796	3,923	4,124	4,312	4,71	5,26
40	2,29	2,467	2,64	2,736	2,851	2,932	2,999	3,059	3,114	3,166	3,216	3,267	3,317	3,369	3,422	3,479	3,54	3,608	3,686	3,78	3,904	4,098	4,278	4,66	5,17
42	2,31	2,485	2,653	2,746	2,86	2,94	3,005	3,063	3,117	3,168	3,218	3,267	3,316	3,366	3,418	3,474	3,534	3,6	3,675	3,766	3,887	4,073	4,248	4,62	5,12
44	2,32	2,499	2,665	2,757	2,869	2,947	3,011	3,068	3,12	3,17	3,219	3,266	3,315	3,364	3,415	3,469	3,526	3,591	3,665	3,754	3,871	4,053	4,222	4,59	5,06
46	2,34	2,511	2,676	2,766	2,875	2,953	3,016	3,072	3,124	3,173	3,22	3,267	3,314	3,362	3,412	3,464	3,521	3,584	3,656	3,743	3,855	4,032	4,196	4,55	5,01
48	2,36	2,526	2,688	2,776	2,883	2,959	3,022	3,076	3,127	3,174	3,221	3,266	3,313	3,359	3,408	3,46	3,515	3,577	3,647	3,731	3,841	4,013	4,173	4,51	4,96
50	2,37	2,539	2,698	2,785	2,891	2,965	3,026	3,08	3,129	3,176	3,222	3,266	3,312	3,358	3,405	3,455	3,51	3,57	3,638	3,72	3,828	3,996	4,15	4,48	4,91
55	2,4	2,567	2,722	2,806	2,907	2,979	3,037	3,089	3,136	3,181	3,225	3,267	3,31	3,354	3,399	3,447	3,499	3,555	3,62	3,698	3,799	3,957	4,102	4,41	4,82
60	2,43	2,594	2,742	2,824	2,921	2,99	3,046	3,096	3,141	3,184	3,226	3,267	3,308	3,35	3,393	3,439	3,488	3,542	3,604	3,677	3,773	3,924	4,061	4,352	4,73
65	2,463	2,615	2,76	2,839	2,934	3,001	3,055	3,103	3,147	3,188	3,228	3,267	3,307	3,347	3,388	3,432	3,479	3,531	3,59	3,66	3,752	3,893	4,023	4,295	4,65
70	2,48	2,636	2,777	2,854	2,945	3,01	3,063	3,109	3,151	3,191	3,23	3,268	3,306	3,344	3,384	3,427	3,472	3,522	3,578	3,646	3,734	3,869	3,993	4,25	4,58
75	2,51	2,656	2,793	2,867	2,957	3,019	3,07	3,115	3,156	3,194	3,231	3,268	3,305	3,342	3,38	3,421	3,464	3,512	3,567	3,632	3,716	3,846	3,964	4,212	4,53
80	2,53	2,674	2,807	2,879	2,965	3,026	3,076	3,119	3,159	3,197	3,233	3,268	3,304	3,34	3,377	3,417	3,458	3,505	3,557	3,62	3,701	3,826	3,94	4,178	4,48
85	2,547	2,687	2,819	2,89	2,975	3,034	3,082	3,124	3,163	3,199	3,234	3,268	3,303	3,338	3,374	3,412	3,453	3,497	3,548	3,608	3,687	3,807	3,916	4,143	4,43
90	2,564	2,702	2,831	2,9	2,982	3,04	3,087	3,128	3,166	3,201	3,236	3,269	3,302	3,336	3,372	3,408	3,448	3,491	3,54	3,599	3,675	3,791	3,897	4,117	4,39

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95	2,578	2,715	2,841	2,909	2,989	3,046	3,092	3,132	3,169	3,203	3,236	3,269	3,301	3,335	3,369	3,405	3,443	3,485	3,533	3,59	3,664	3,777	3,878	4,09	4,36
100	2,596	2,728	2,851	2,917	2,996	3,051	3,096	3,135	3,171	3,205	3,237	3,269	3,301	3,333	3,366	3,401	3,439	3,479	3,526	3,581	3,652	3,761	3,859	4,063	4,32
110	2,62	2,752	2,87	2,934	3,009	3,062	3,105	3,142	3,176	3,209	3,24	3,27	3,3	3,331	3,363	3,396	3,431	3,47	3,514	3,567	3,634	3,738	3,831	4,024	4,26
120	2,644	2,77	2,886	2,947	3,02	3,0708	3,112	3,1479	3,1808	3,2116	3,2414	3,2704	3,2993	3,329	3,359	3,3907	3,4246	3,462	3,504	3,554	3,618	3,716	3,805	3,988	4,22
130	2,668	2,788	2,9	2,959	3,03	3,079	3,118	3,153	3,185	3,214	3,243	3,271	3,299	3,327	3,356	3,386	3,419	3,454	3,495	3,542	3,604	3,697	3,782	3,956	4,17
140	2,688	2,805	2,913	2,97	3,039	3,086	3,124	3,158	3,188	3,217	3,244	3,271	3,298	3,325	3,353	3,383	3,414	3,448	3,487	3,532	3,591	3,682	3,762	3,928	4,14
150	2,704	2,82	2,925	2,98	3,047	3,092	3,129	3,162	3,191	3,219	3,245	3,272	3,297	3,324	3,351	3,379	3,409	3,442	3,479	3,523	3,58	3,666	3,744	3,902	4,1
160	2,723	2,832	2,935	2,989	3,054	3,098	3,134	3,166	3,194	3,221	3,247	3,272	3,297	3,323	3,349	3,376	3,405	3,437	3,473	3,515	3,57	3,653	3,728	3,88	4,07
170	2,739	2,845	2,945	2,997	3,06	3,103	3,138	3,169	3,197	3,2228	3,2478	3,272	3,297	3,321	3,347	3,373	3,401	3,432	3,467	3,508	3,561	3,642	3,714	3,86	4,04
180	2,748	2,856	2,953	3,005	3,066	3,108	3,142	3,1721	3,1992	3,2245	3,2489	3,2726	3,296	3,32	3,345	3,37	3,398	3,4277	3,462	3,502	3,553	3,631	3,7	3,842	4,02
190	2,762	2,867	2,962	3,012	3,072	3,1132	3,1464	3,1754	3,202	3,227	3,25	3,273	3,296	3,32	3,343	3,368	3,395	3,424	3,4567	3,495	3,545	3,621	3,688	3,825	3,99
200	2,775	2,876	2,969	3,019	3,077	3,117	3,15	3,178	3,2037	3,2277	3,2508	3,2735	3,296	3,3185	3,342	3,366	3,392	3,42	3,452	3,49	3,538	3,611	3,677	3,81	3,97
220	2,795	2,894	2,983	3,03	3,086	3,1247	3,156	3,183	3,2076	3,2305	3,2525	3,2741	3,296	3,3171	3,3392	3,3623	3,387	3,4139	3,4442	3,4802	3,526	3,596	3,658	3,785	3,94
240	2,813	2,909	2,995	3,041	3,095	3,1312	3,161	3,187	3,2105	3,2326	3,2537	3,2744	3,2949	3,3156	3,3367	3,3588	3,3824	3,408	3,4371	3,4714	3,515	3,581	3,641	3,76	3,91
260	2,828	2,922	3,006	3,05	3,102	3,137	3,1659	3,191	3,2136	3,2348	3,2551	3,2749	3,2945	3,3144	3,3348	3,3561	3,3786	3,4032	3,431	3,464	3,505	3,569	3,625	3,739	3,88
280	2,845	2,935	3,015	3,058	3,108	3,142	3,1702	3,1943	3,2163	3,2367	3,2562	3,275	3,294	3,313	3,333	3,3535	3,3753	3,399	3,426	3,457	3,497	3,558	3,612	3,721	3,86
300	2,857	2,945	3,024	3,065	3,114	3,147	3,174	3,197	3,2182	3,238	3,2571	3,2756	3,294	3,3124	3,3314	3,3511	3,372	3,395	3,4209	3,4511	3,49	3,549	3,601	3,706	3,83
320	2,871	2,956	3,032	3,072	3,119	3,152	3,1778	3,2005	3,2209	3,24	3,2582	3,2762	3,294	3,3119	3,3301	3,3493	3,3695	3,3916	3,4165	3,4458	3,483	3,54	3,59	3,691	3,81
340	2,883	2,966	3,039	3,078	3,124	3,1556	3,1809	3,2029	3,2228	3,2415	3,2593	3,2767	3,2939	3,3113	3,329	3,3475	3,3672	3,3886	3,4127	3,4411	3,4771	3,532	3,58	3,679	3,8
360	2,894	2,974	3,046	3,084	3,1285	3,159	3,1837	3,2051	3,2244	3,2426	3,2599	3,2767	3,2934	3,3102	3,3274	3,345	3,364	3,385	3,409	3,436	3,471	3,524	3,571	3,665	3,779
380	2,902	2,982	3,052	3,0889	3,1324	3,1625	3,1865	3,2074	3,2262	3,2439	3,2607	3,2771	3,2934	3,3098	3,3266	3,344	3,3627	3,3829	3,4055	3,432	3,466	3,518	3,563	3,654	3,762
400	2,912	2,989	3,058	3,094	3,1364	3,1654	3,1888	3,2092	3,2275	3,2447	3,2612	3,2772	3,2931	3,3091	3,3254	3,342	3,3605	3,3801	3,4023	3,4284	3,462	3,512	3,556	3,644	3,75
450	2,932	3,005	3,0703	3,1046	3,1449	3,1725	3,1947	3,2139	3,2313	3,2476	3,2631	3,2782	3,2931	3,3082	3,3236	3,3396	3,3566	3,3751	3,3958	3,4203	3,4514	3,498	3,54	3,623	3,723
500	2,948	3,019	3,081	3,1135	3,1518	3,1782	3,1993	3,2175	3,2339	3,2494	3,2641	3,2784	3,2926	3,3069	3,3215	3,3366	3,3527	3,3703	3,3901	3,4133	3,4425	3,487	3,526	3,605	3,698

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
550	2,963	3,03	3,0901	3,1214	3,1582	3,1833	3,2035	3,2209	3,2366	3,2512	3,2652	3,2789	3,2924	3,3061	3,3201	3,3346	3,35	3,3668	3,3855	3,4074	3,4353	3,477	3,515	3,589	3,68
600	2,976	3,04	3,098	3,128	3,1634	3,1875	3,2067	3,2235	3,2386	3,2528	3,2662	3,2793	3,2923	3,3053	3,3187	3,3325	3,3472	3,3631	3,381	3,4021	3,429	3,469	3,505	3,575	3,66
650	2,988	3,05	3,105	3,1343	3,1683	3,1915	3,21	3,2261	3,2406	3,2542	3,2672	3,2798	3,2923	3,3047	3,3176	3,3309	3,3451	3,3604	3,3777	3,3979	3,4236	3,462	3,496	3,564	3,644
700	2,998	3,059	3,1121	3,14	3,1725	3,1948	3,2128	3,2283	3,2423	3,2554	3,2679	3,28	3,292	3,304	3,3163	3,3292	3,3428	3,3575	3,3741	3,3935	3,4182	3,4551	3,488	3,553	3,63
750	3,007	3,065	3,117	3,1446	3,1764	3,1981	3,2154	3,2305	3,244	3,2566	3,2686	3,2804	3,292	3,3037	3,3156	3,328	3,3411	3,3554	3,3713	3,3901	3,4138	3,45	3,481	3,544	3,617
800	3,016	3,072	3,1226	3,1491	3,1797	3,2008	3,2176	3,2321	3,2453	3,2575	3,2692	3,2805	3,2917	3,303	3,3145	3,3265	3,3391	3,353	3,3683	3,3864	3,4095	3,4441	3,475	3,535	3,607
850	3,023	3,079	3,1275	3,1532	3,183	3,2034	3,2197	3,2339	3,2466	3,2586	3,2699	3,2809	3,2918	3,3027	3,3139	3,3255	3,3378	3,3511	3,3661	3,3836	3,4059	3,4394	3,469	3,527	3,597
900	3,031	3,084	3,132	3,157	3,1861	3,2057	3,2217	3,2354	3,2478	3,2594	3,2705	3,2812	3,2917	3,3024	3,3132	3,3246	3,3365	3,3495	3,3639	3,3811	3,4026	3,4349	3,4633	3,52	3,587
950	3,037	3,089	3,1361	3,1604	3,1888	3,2081	3,2235	3,2369	3,249	3,2602	3,271	3,2814	3,2917	3,3021	3,3127	3,3237	3,3354	3,3479	3,3621	3,3786	3,3996	3,4311	3,459	3,514	3,58
1000	3,044	3,094	3,1398	3,1634	3,1911	3,2099	3,2252	3,2381	3,2499	3,2609	3,2713	3,2815	3,2915	3,3016	3,3119	3,3226	3,3339	3,3462	3,36	3,3762	3,3967	3,4274	3,454	3,508	3,571
1100	3,053	3,103	3,1465	3,1691	3,1956	3,2137	3,2281	3,2406	3,2518	3,2623	3,2723	3,282	3,2916	3,3012	3,3111	3,3213	3,3321	3,3438	3,3568	3,3722	3,3916	3,4208	3,446	3,498	3,558
1200	3,063	3,11	3,1523	3,1742	3,1995	3,2168	3,2307	3,2426	3,2534	3,2635	3,273	3,2823	3,2915	3,3007	3,3101	3,3198	3,3301	3,3413	3,3539	3,3686	3,3873	3,4152	3,4395	3,488	3,545
1300	3,072	3,118	3,1579	3,1787	3,2031	3,2197	3,233	3,2444	3,2548	3,2644	3,2736	3,2826	3,2913	3,3002	3,3092	3,3186	3,3285	3,3393	3,3513	3,3654	3,3832	3,41	3,4335	3,48	3,535
1400	3,079	3,124	3,1625	3,1826	3,2063	3,2222	3,2351	3,2461	3,2561	3,2654	3,2743	3,2828	3,2913	3,2998	3,3085	3,3175	3,3271	3,3374	3,3489	3,3624	3,3796	3,4055	3,4279	3,473	3,526
1500	3,086	3,129	3,1664	3,186	3,2089	3,2244	3,2368	3,2475	3,2572	3,2661	3,2747	3,283	3,2912	3,2994	3,3078	3,3165	3,3258	3,3358	3,3469	3,36	3,3766	3,4016	3,4235	3,467	3,517
1600	3,093	3,134	3,1705	3,1894	3,2115	3,2265	3,2385	3,2489	3,2583	3,267	3,2753	3,2833	3,2913	3,2993	3,3074	3,3158	3,3247	3,3344	3,3452	3,3579	3,3739	3,3979	3,419	3,461	3,51
1700	3,098	3,138	3,1739	3,1922	3,2137	3,2282	3,2399	3,2499	3,259	3,2675	3,2756	3,2834	3,2911	3,2988	3,3067	3,3149	3,3236	3,3329	3,3434	3,3557	3,3713	3,3945	3,4148	3,455	3,503
1800	3,102	3,142	3,177	3,1951	3,2158	3,2301	3,2414	3,2512	3,26	3,2682	3,276	3,2836	3,2911	3,2986	3,3063	3,3142	3,3226	3,3317	3,3419	3,3538	3,3689	3,3915	3,4112	3,45	3,497
1900	3,109	3,146	3,18	3,1975	3,2179	3,2317	3,2428	3,2523	3,2608	3,2688	3,2764	3,2838	3,291	3,2984	3,3058	3,3136	3,3218	3,3306	3,3405	3,3521	3,3667	3,3886	3,4077	3,446	3,491
2000	3,112	3,15	3,1826	3,1996	3,2196	3,2331	3,2438	3,2531	3,2615	3,2693	3,2767	3,2839	3,291	3,2981	3,3054	3,313	3,321	3,3296	3,3392	3,3505	3,3648	3,3861	3,405	3,442	3,486
2200	3,12	3,156	3,1875	3,2039	3,2229	3,2358	3,2461	3,2549	3,263	3,2704	3,2775	3,2843	3,2911	3,2979	3,3048	3,312	3,3196	3,3278	3,337	3,3477	3,3614	3,3817	3,3995	3,435	3,476
2400	3,128	3,162	3,1919	3,2074	3,2256	3,2379	3,2478	3,2563	3,2639	3,2711	3,2779	3,2845	3,291	3,2975	3,3041	3,311	3,3182	3,3261	3,3349	3,3452	3,3583	3,3776	3,3945	3,428	3,467
2600	3,133	3,166	3,1955	3,2105	3,2281	3,24	3,2495	3,2577	3,265	3,2718	3,2783	3,2847	3,2909	3,2972	3,3035	3,3101	3,3171	3,3246	3,3331	3,343	3,3555	3,3741	3,3905	3,423	3,46
2800	3,139	3,171	3,1992	3,2136	3,2303	3,2418	3,2509	3,2587	3,2658	3,2725	3,2788	3,2849	3,2909	3,297	3,3031	3,3094	3,3162	3,3234	3,3315	3,341	3,353	3,3709	3,3865	3,418	3,454

n - α	0,0005	0,005	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,995	0,9995
3000	3,144	3,175	3,2021	3,216	3,2324	3,2435	3,2523	3,2599	3,2668	3,2732	3,2792	3,2851	3,2909	3,2967	3,3026	3,3088	3,3153	3,3223	3,3301	3,3393	3,351	3,3683	3,3834	3,4134	3,449
3500	3,154	3,183	3,2084	3,2215	3,2366	3,2469	3,2551	3,2621	3,2685	3,2744	3,28	3,2854	3,2908	3,2962	3,3016	3,3073	3,3133	3,3198	3,327	3,3355	3,3463	3,3623	3,3762	3,404	3,436
4000	3,163	3,1897	3,2136	3,2259	3,24	3,2497	3,2573	3,2639	3,2699	3,2754	3,2807	3,2858	3,2908	3,2959	3,301	3,3062	3,3119	3,318	3,3247	3,3327	3,3427	3,3576	3,3707	3,396	3,426
4500	3,169	3,196	3,2179	3,2295	3,2429	3,252	3,2592	3,2654	3,271	3,2762	3,2812	3,286	3,2907	3,2955	3,3003	3,3053	3,3106	3,3163	3,3227	3,3302	3,3396	3,3537	3,3659	3,3901	3,419
5000	3,176	3,2005	3,2217	3,2326	3,2453	3,254	3,2609	3,2668	3,2721	3,2771	3,2818	3,2863	3,2908	3,2953	3,2999	3,3046	3,3096	3,315	3,3211	3,3282	3,3371	3,3504	3,3621	3,3849	3,412
6000	3,186	3,2082	3,2276	3,2376	3,2492	3,2571	3,2634	3,2688	3,2736	3,2782	3,2825	3,2866	3,2907	3,2949	3,299	3,3034	3,3079	3,3129	3,3184	3,3249	3,333	3,3452	3,3557	3,3765	3,401
7000	3,194	3,214	3,232	3,2414	3,2522	3,2595	3,2653	3,2703	3,2749	3,279	3,283	3,2869	3,2907	3,2945	3,2983	3,3024	3,3066	3,3112	3,3163	3,3223	3,3298	3,3411	3,3509	3,37	3,392
8000	3,1997	3,2189	3,2358	3,2445	3,2546	3,2615	3,2669	3,2716	3,2758	3,2798	3,2835	3,2871	3,2907	3,2942	3,2978	3,3016	3,3056	3,3098	3,3146	3,3202	3,3273	3,3377	3,3467	3,3648	3,385
9000	3,204	3,2228	3,2389	3,2472	3,2567	3,2631	3,2683	3,2727	3,2767	3,2804	3,2839	3,2873	3,2906	3,294	3,2974	3,3009	3,3047	3,3087	3,3132	3,3184	3,3251	3,335	3,3435	3,3605	3,38
10000	3,209	3,2263	3,2415	3,2494	3,2584	3,2645	3,2694	3,2736	3,2774	3,2809	3,2842	3,2874	3,2906	3,2938	3,297	3,3004	3,3039	3,3077	3,312	3,317	3,3233	3,3327	3,3408	3,3567	3,376
15000	3,224	3,238	3,2505	3,2569	3,2643	3,2693	3,2733	3,2767	3,2798	3,2826	3,2854	3,288	3,2906	3,2932	3,2959	3,2986	3,3015	3,3046	3,3081	3,3121	3,3173	3,3249	3,3315	3,3445	3,36
20000	3,2326	3,2449	3,2557	3,2613	3,2678	3,2721	3,2756	3,2785	3,2812	3,2837	3,2861	3,2883	3,2906	3,2929	3,2951	3,2975	3,3	3,3027	3,3057	3,3092	3,3136	3,3202	3,326	3,3372	3,3502
30000	3,243	3,2531	3,2621	3,2666	3,2719	3,2755	3,2783	3,2807	3,2829	3,2849	3,2869	3,2887	3,2906	3,2924	3,2943	3,2962	3,2983	3,3005	3,3029	3,3058	3,3094	3,3147	3,3194	3,3286	3,3392
40000	3,2493	3,2582	3,2659	3,2698	3,2744	3,2775	3,2799	3,282	3,2839	3,2857	3,2874	3,289	3,2906	3,2922	3,2938	3,2954	3,2972	3,2991	3,3012	3,3037	3,3069	3,3115	3,3155	3,3234	3,3327
50000	3,2538	3,2616	3,2685	3,272	3,2761	3,2789	3,2811	3,2829	3,2846	3,2862	3,2877	3,2891	3,2905	3,292	3,2934	3,2949	3,2965	3,2982	3,3001	3,3023	3,3051	3,3092	3,3128	3,3199	3,3279
100000	3,2642	3,27	3,2749	3,2774	3,2803	3,2823	3,2838	3,2851	3,2863	3,2875	3,2885	3,2895	3,2905	3,2915	3,2926	3,2936	3,2947	3,2959	3,2973	3,2989	3,3008	3,3037	3,3063	3,3112	3,317