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APPLICATIONS OF NON-PARAMETRIC STATISTICS AND ANALYSIS OF VARIANCE ON SAMPLE VARIANCES

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This report contains two natural distinct parts.

(i) Discussion of nonparametric methods that are available for NASA-type applications. An attempt will be made here to survey what can be used, to attempt recommendations as to when each would be applicable, and to compare the methods, when possible, with the usual normal-theory procedures that are available for the Gaussian analog. It is important here to point out the hypotheses that are being tested, the assumptions that are being made, and limitations of the nonparametric procedures.

(ii) Discussion and study of the appropriateness of doing analysis of variance on sample variances. This procedure is followed in several NASA simulation projects. On the surface this would appear to be a reasonably sound procedure. However, difficulties involved center around the normality problem and the basic homogeneous variance assumption that is made in usual analysis of variance problems. These difficulties will be discussed and guidelines will be given for using the method.

I. Nonparametrics

The nonparametrics survey will be broken down into two parts (a) the two sample problem, and (b) analysis of variance problems. Nonparametric statistics are used in cases where the data is clearly not Gaussian. For example, in the two sample problem, where one is testing for difference between two means, the t-test that is generally used would only apply where

these data are taken from two normal populations. The same would hold for any F-tests in analysis of variance problems. The test is only correct if each of the populations being compared is Gaussian. Thus for NASA simulation type experiments in which the basic response represents pilot opinions, ratings, etc., or other categorical type responses, nonparametric statistics should be considered as a procedure. Ideally, in multivariate problems where a mixture of responses are used, standard procedure should involve separate analyses, parametric (analysis of variance) and nonparametric (for categorical responses) should be used in the same experiment.

(a) Two Sample Problem

Most of the procedures discussed in I will be tests which are based on ranks of the data. The two sample problem involves data taken under two conditions, called groups. These two groups might represent two pilots, two G-seat conditions, two panel displays, etc. Suppose data is taken from two populations, the model being

$$x_i = \mu + \varepsilon_i \qquad i=1,2,\ldots,m$$

$$y_j = \mu + \Delta + \varepsilon_{m+j} \qquad j=1,2,\ldots,n$$

Here the ε_i are the usual unobservable random errors that are independent and came from the same population. Thus, we have the same model as is usually applied in univariate analysis comparing two categories. Of course, no distributional assumption is made on the ε_i. We wish to test

$$H_0: \ \Delta = 0$$

The Wilcoxon Rank Sum Test requires initially ordering the $N = m + n$ from lowest to highest. Then one of the samples, say the y_j are replaced by their ranks, and

$$W = \sum_{j=1}^{n} R_j$$

is computed, where R_j are the ranks. The test statistic is W and the upper and lower probability points for W are tabulated. Call $w(\alpha,m,n)$ the upper α^{th} per cent point of the distribution W. If the alternative hypothesis is written

$$H_1: \quad \Delta > 0$$

we reject H_0 in favor of H_1 on a one tailed, upper tailed basis. Thus we reject H_0 when $W \geq w(\alpha,m,n)$. Now, for a one-sided alternative in the other direction, i.e., for

$$H_1: \quad \Delta < 0$$

we reject H_0 when $W \leq [n(m+n+1)-w(\alpha,m,n)]$ and accept H_0 otherwise. Tables for the probability points of W are given in Table I. Two sided tests of location for two hypotheses now becomes obvious. One merely rejects H_0 if either

$$W \geq w(\alpha/2,m,n)$$

or

$$W \leq [n(m+n+1)-w(\alpha/2,m,n)]$$

and accept otherwise.

Normal Approximation of W

When the sample sizes for each category are larger (say greater than twenty) a normal approximation can be used very simply. This does not imply that we are assuming that the data is normal, merely that the rank sum W is asymptotically normal. In this case W is asymptotically normal with mean $n(m+n+1)/2$ and variance $mn(m+n+1)/12$ under the hypothesis of equal means. Thus the test procedure would be to compute a standardized W, say W*, where

$$W^* = \frac{W-[n(m+n+1)/2]}{[mn(m+n+1)/12]^{1/2}}$$

and reject or accept according to one or two-sided (depending on the alternative) probability points of the standard normal distribution. One advantage of this procedure is that it results in a simple way of computing the power so one can rather easily determine if the sample sizes are adequate.

Ties. Minor modifications are made in the procedure if ties occur. Average ranks are used to compute the statistic W in the usual test. For the large sample approximation the W is calculated using average ranks, and the quantity $[mn(m+n+1)/12]^{1/2}$ is replaced by

$$\frac{mn}{12}\left[m+n+1 - \frac{\sum_{j=1}^{g} t_j(t_j^2-1)}{(m+n)(m+n-1)}\right]$$

Here g is the number of tied groups, and t_j is the size of tied group j.

Two-Sample Dispersion Problem

A reasonable nonparametric test exists for testing differences between variances of two populations when the samples are independent. Again, the populations do not have to be Gaussian. The application would be in areas where an alternative to the F-test on variances is needed. Again, it is assumed that N = m + n independent observations are taken, m from the first population and n from the second. The hypothesis in question is

$$H_0: \quad \gamma^2 = 1$$

where $\gamma = \sigma_2/\sigma_1$ the ratio of the two scale parameter for the two populations σ_2 for the x's and σ_1 for the y's. Once again, a ranking of the data is accomplished. The ranking is as follows: Assign rank 1 to the smallest and largest observation (for the complete array). Assign rank 2 to the second smallest and second largest, and continue. If N is even, the array of ranks is 1, 2, 3, ..., N/2, N/2, ..., 3, 2, 1 and if N is odd the array is 1, 2, 3, ..., $(\frac{N-1}{2})$, $(\frac{N+1}{2})$, $(\frac{N-1}{2})$, ..., 3, 2, 1. Again if we denote the observations as x_i (i=1,2,...,m) for the first group and y_i (i=1,2,...,n) for the second group, and denote R_i as the ranks of say the x_i, call

$$W = \sum_{i=1}^{m} R_i ,$$

where again the test criterion depends on the rank sum statistic W. Call $\omega_2(\alpha,m,n)$ the upper α^{th} percentage point of the distribution. Then we reject H_0 of equal variances if

$$W \geq \omega_2(\alpha,m,n)$$

in the case of H_1: $\gamma^2 > 1$. For the alternative H_1: $\gamma^2 < 1$ we reject on small values of W. These lower tail percentage points are also tabulated and will be supplied. In addition, two sided tests can be conducted, with the hypothesis of equal variance accepted if

$$\omega_1(\alpha/2,m,n) < W < \omega_2(\alpha/2,m,n)$$

where $\omega_1(\alpha/2,m,n)$ is the $\alpha/2$ lower tailed percentage point. The above test is called the Ansari-Bradley test. Table II gives percentage points of the statistic W.

As in the case of the Wilcoxon test on location, there is a normal theory approximation to the test on variances. Again, this is helpful if the sample sizes are large and one is in need of getting an approximate power for the test. One merely computes

$$W^* = \frac{W-[m(m+n+2)/4]}{\{mn(m+n+1)[3+(m+n)^2]/[48(m+n)^2]\}^{1/2}} \quad \text{if } m+n \text{ is odd}$$

$$= \frac{W-\{m(m+n+1)^2/[4(m+n)]\}}{\{mn(m+n+1)[3+(m+n)^2]/[48(m+n)^2]\}^{1/2}} \quad \text{if } m+n \text{ is even}$$

and make appropriate tests on the N(0,1) distribution. An important restriction here is that the means are assumed to be equal for the two groups, though if they are not equal, one can replace observations x_i by $x_i - \bar{x}$ and y_i by $y_i - \bar{y}$.

Again, ties in the data do not present difficulties. In the exact test one merely uses average ranks. For the large sample approximation,

the above N(0,1) statistic is altered in the denominator, which is $\sqrt{\text{Var}(W)}$ under H_0. Var(W) becomes

$$\text{Var}(W) = \frac{\{mn[16\sum_{j=1}^{g} t_j r_j^2 - (m+n)(m+n+2)^2]\}}{16(m+n)(m+n-1)} \quad (m+n \text{ even})$$

$$= \frac{\{mn[16(m+n)\sum_{j=1}^{g} t_j r_j^2 - (m+n+1)^4]\}}{16(m+n)^2(m+n-1)} \quad (m+n \text{ odd})$$

Again, t_j is the size of the tied group j and r_j is the average rank of the observation in the tied group j.

(b) Analysis of Variance - One Factor Problem

It is of interest here to present nonparametric methods for comparing means from say k categories or treatments, e.g., k test panels. Data, again, is obviously non-Gaussian. Suppose the data is of the form

1	2	3	...	k
x_{11}	x_{21}	x_{31}	...	x_{k1}
x_{12}	x_{22}	x_{32}	...	x_{k2}
$\vdots$	$\vdots$	$\vdots$		$\vdots$
x_{1,n_1}	x_{2,n_2}	x_{3,n_3}		x_{k,n_k}

As in all one-factor problems, the basic model is

$$x_{ij} = \mu + \tau_i + \varepsilon_{ij} \qquad \begin{matrix} j=1,2,\ldots,n_i \\ i=1,2,\ldots,k \end{matrix}$$

$$\sum_{i=1}^{k} n_i = N$$

The ε_{ij} are independent from the same distribution. We again, test

$$H_0: \ \tau_1 = \tau_2 = \ldots = \tau_k \ .$$

The test statistic is quite simple and actually has structure that somewhat resembles the analysis of variance F statistic. The procedure is called the Kruskal-Wallis procedure and is based on the statistic

$$H = \frac{12}{N(N+1)} \sum_{j=1}^{k} n_j (R_{j\cdot} - R_{\cdot\cdot})^2$$

$$= \left(\frac{12}{N(N+1)} \sum_{j=1}^{k} R_j^2/n_j\right) - 3(N+1)$$

where we have ranked all N observations jointly from least to greatest and r_{ij} denotes the rank of x_{ij}, R_j the sum of the ranks received by treatment j, $R_{j\cdot} = R_j/n_j$, and $R_{\cdot\cdot}$ is the average rank which is $\frac{N+1}{2}$. There are two procedures, one based on a large sample approximation and is given by

$$\text{Reject } H_0 \text{ if } H \geq \chi^2_{k-1,\alpha}$$

where $\chi^2_{k-1,\alpha}$ is the upper α^{th} probability point of the χ^2 distribution with k-1 degrees of freedom. For small samples, tables exist for the exact distribution of H under H_0 and thus one can use the exact test. The percentage points are given in Table III. As one can see, the exact tables are somewhat limited and thus one often must resort to the χ^2 distribution.

For ties, the user merely computes H by using average ranks and then compute

$$H' = \frac{H}{1-\left(\sum_{j=1}^{g} T_j/[N^3-N]\right)}$$

Here g is the number of tied groups, t_j is the size of the j^{th} tied group, and $T_j = (t_j^3-t_j)$.

Multiple Comparisons

Though procedures for making paired or multiple comparisons following an analysis of variance in a nonparametric setting are rare, some do exist though they generally tend to be considerably more conservative than their parametric counterparts. Probably the most effective method of paired or multiple comparisons is based on the q-statistic or Tukey's procedure which was outlined and discussed in a previous report. Namely, if the Kruskal-Wallis test rejects the hypothesis of equality of treatments we can decide treatments u and v differ when

$$|R_{u\cdot}-R_{v\cdot}| \geq q(\alpha,k,\infty)\left[\frac{k(kn+1)}{12}\right]^{1/2}$$

(only for equal sample sizes n)

The quantity under the square root is the standard error of the rank r_{ij}. For unequal sample sizes an alternative procedure is to declare a significant difference when

$$|R_{u\cdot}-R_{v\cdot}| \geq Z_{\alpha/[k(k-1)]}\left[\frac{N(N+1)}{12}\right]^{1/2}\left(\frac{1}{n_u}+\frac{1}{n_v}\right)^{1/2}$$

(c) The Two-Factor Nonparametric Analysis of Variance

Suppose the model is a fairly simple one, namely there are nk observations with one observation taken from each of k treatments in n blocks, with the model being

$$x_{ij} = \mu + \tau_i + \beta_j + \epsilon_{ij}$$

and the errors are mutually independent and come from the same population. Once again, we wish to test the hypothesis

$$H_0: \ \tau_1 = \tau_2 = \cdots = \tau_k$$

The test, called the Friedman test is conducted as follows:

Within each block rank the k observations from lowest to highest. Let r_{ij} denote the rank of x_{ij} in the joint ranking $x_{1j}, x_{2j}, \cdots, x_{kj}$, and let $R_i = \sum_{j=1}^{n} R_i$, $R_{i\cdot} = \frac{R_i}{n}$ and of course $R_{\cdot\cdot} = \frac{k+1}{2}$. Thus R_i is the sum of the ranks received by treatment i· and $R_{i\cdot}$ is the average rank received by treatment i· . The test statistic is given by

$$S = \frac{12n}{k(k+1)} \sum_{i=1}^{k} (R_{i\cdot} - R_{\cdot\cdot})^2$$

$$= \left[\frac{12}{nk(k+1)} \sum_{i=1}^{k} R_i^2\right] - 3n(k+1) \ .$$

As usual there are two approaches. The statistic S can be compared to upper tail points of the χ^2_{k-1} distribution or the exact percentage points of the distribution S can also be used. The exact percentage points are given in Table IV for 5 treatments and less. Note here, of course, the

strong resemblence between S and the treatment mean square used in parametric analysis of variance and, of course, here one is looking for significant differences between average rank.

If ties exist in the data, average ranks are used and S is replaced by

$$S' = \frac{12 \sum_{j=1}^{k} (R_j - nR_{\cdot\cdot})^2}{nk(k+1) - [1/(k-1)] \sum_{i=1}^{n} \{ (\sum_{j=1}^{g_i} t_{i,j}^3) - k \}}$$

where g_i is the number of tied groups in block i, t_{ij} is the size of the j^{th} tied group in block i, and untied values within a block are counted as ties of size 1.

The test described here must be made in the case of a model with no interaction and one observation per combination of treatment and block. Paired or multiple comparisons can be made using q-statistics in the same fashion discussed previously. There is no exact nonparametric procedure for detecting interaction. In addition, there is no exact procedure for doing analysis of variance when more than two factors are involved. However, one procedure which appears to perform quite well under limited conditions when data is not normal and several factors are involved is the following:

(a) Suppose there are three factors, A, B, and C with factor A at a levels. Take each (B-C) combination and treat them as "blocks".

(b) In each "block", rank the a-treatments.

(c) Do an analysis of variance (F-test, etc.) on A using the resulting ranks.

(d) The same procedure can now be used to test factors B and C. It should however be emphasized that this "analysis of variance of ranks" does not detect interaction.

It is imperative that when nonparametric procedures are necessary the number of factors should be kept low, i.e., the experiment should be a simple one. The main reason for this recommendation is that interaction cannot be detected and the exact procedures (Kruskal-Wallis and Friedman tests) only cover through a two factor model.

Examples. The following pages show sample data and computer printout for the Wilcoxon test, Ansari-Bradley test, and Kruskal-Wallis test.

II. Analysis of Variance on Sample Variances

As was mentioned earlier, the second part of this phas involves a study of the appropriateness of doing analysis of variance on sample variances. Our approach to the problem is to determine how large the sample sizes for the sample variances must be in order that the method be a reasonable one. Sample variances follow a χ^2 distribution (apart from scale factor) and of course χ^2 variates are asymptotically normal. The obvious question is "How much information must be in each sample variance before the method results in only a negligible error?"

Let us begin by assuming that we have an analysis of variance problem with the basic unit being a sample variance s_i^2 and that the "sample size", i.e., the number of sample variances in each cell is say n. More importantly we must specify that m independent observations were used in creating the sample variances. Thus r=m-1 degrees of freedom are associated with each sample variance. Now, of course, to do analysis of variance on these

RANK-SUM EXAMPLE

IN THIS DATA SET THERE ARE 20 X-OBSERVATIONS AND 20 Y-OBSERVATIONS.

X-VALUES:

2.00000	3.00000	2.00000	4.00000	1.00000
4.00000	3.00000	2.00000	3.00000	5.00000
5.00000	4.00000	3.00000	2.00000	4.00000
1.00000	4.00000	3.00000	2.00000	3.00000

Y-VALUES:

4.00000	3.00000	2.00000	1.00000	1.00000
4.00000	2.00000	3.00000	2.00000	1.00000
4.00000	3.00000	3.00000	1.00000	4.00000
1.00000	2.00000	3.00000	2.00000	2.00000

THE WILCOXON RANK SUM STATISTIC A= 345.50000

AND THE LARGE SAMPLE APPROXIMATION A*= -1.84136.

Wilcoxon-Two Sample

significant at approx. .07 level

TEST DATA RUN FOR ANSARI-BRADLEY PROCEDURE.

IN THIS DATA SET THERE ARE 20 X-OBSERVATIONS AND 20 Y-OBSERVATIONS.

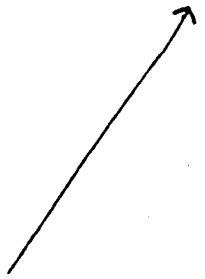
X-VALUES:

111.00000	107.00000	100.00000	99.00000	102.00000
106.00000	109.00000	104.00000	104.00000	99.00000
101.00000	96.00000	97.00000	102.00000	107.00000
113.00000	116.00000	113.00000	110.00000	98.00000

Y-VALUES:

107.00000	108.00000	106.00000	98.00000	105.00000
103.00000	110.00000	105.00000	104.00000	100.00000
96.00000	108.00000	103.00000	104.00000	114.00000
114.00000	113.00000	108.00000	106.00000	99.00000

THE ANSARI-BRADLEY STATISTIC IS: 165.50000
AND THE LARGE SAMPLE APPROXIMATION IS: -1.53026 .



Normal Approximation

not significant

KRUSKAL-WALLIS ONE-WAY [illegible] DATA

THIS KRUSKAL-WALLIS TEST HAS 5 TREATMENTS WITH THE FOLLOWING SIZES PER TREATMENT:
10 10 10 10 10

TREATMENT 1
9.00000 5.00000 7.00000 9.00000 7.00000 6.00000 4.00000 5.000
5.00000 10.00000

TREATMENT 2
6.00000 6.00000 5.00000 7.00000 6.00000 6.00000 7.000
10.00000 4.00000 5.00000

TREATMENT 3
1.00000 2.00000 7.00000 8.00000 3.00000 3.00000 5.000
3.00000 2.00000 7.00000

TREATMENT 4
2.00000 1.00000 5.00000 2.00000 4.00000 1.00000 5.000
3.00000 2.00000 4.00000

TREATMENT 5
6.00000 5.00000 7.00000 3.00000 2.00000 4.00000 1.000
4.00000 3.00000 8.00000

THE TREATMENT RANK SUMS ARE

574.0000

THE TREATMENT RANK SUMS ARE

356.5000

THE TREATMENT RANK SUMS ARE

203.5000

THE TREATMENT RANK SUMS ARE

134.5000

THE TREATMENT RANK SUMS ARE

206.5000

THE STATISTIC H (ADJUSTED FOR TIES) = 21.77004
AND THE TIES CORRECTION FACTOR = 20.94753
WITH 4 DEGREES OF FREEDOM.

Treatment Rank Means

	1	2	3	4	5
	37.4	35.65	20.35	13.45	20.65
37.4		1.75	17.05	23.95**	16.75
35.65			15.30	22.20**	15.00
20.35				6.90	.30
13.45					7.20
20.65					

.05 $q = 3.86$ from q statistic tables

.01 $q = 4.60$

$$q_{\alpha=.05}\sqrt{\frac{K(KN+1)}{12}} = 17.78$$

$$q_{\alpha=.01}\sqrt{\frac{K(KN+1)}{12}} = 21.22$$

s_j^2 one must assume that the s_j^2 are normal with common variance. If the individual data points are Gaussian prior to forming sample variances, then the s_j^2 are distributed as $\frac{\chi_r^2\sigma^2}{r}$, where σ^2 is the variance of the basic measurement. The homogeneous variance assumption on the s_j^2 certainly holds under the hypothesis being tested in the analysis of variance. In fact if we assume that m is the same value for each sample variance, then

$$\text{Var } s_j^2 = \frac{2\sigma^4}{r}$$

It is well known that the variate

$$\frac{\chi_r^2 - r}{\sqrt{2r}}$$

which is a standardized form of χ_r^2, approaches N(0,1) as r grows large. The basic issue then concerns how quickly the χ^2 variate approaches normality or more specifically, how does the nature of the distribution of s^2 (essentially chi-square) effect the performance of the analysis of variance.

Much work has been done on the robustness or sensitivity of analysis of variance to non-normal data. The bibliography listed in this document lists many pieces of work in this area. The general consensus of these works is that the analysis of variance is very insensitive to non-normality under a wide class of conditions. If the parent distribution is continuous and bell shaped, the performance of analysis of variance is very good, [5] [8]. "Bell-shaped" here means any distribution that is not L, U, or J-shaped and with a moderate or even an extreme amount of skewness. When the raw data in an analysis of variance follows a U-shaped distribution the analysis of variance is very poor. Clearly how well analysis of

variance performs, even for a bell shaped distribution, depends upon the amount of skew in the distribution and the amount of "peakedness" or kurtosis. As a result most robustness studies (either Monte Carlo or analytic) attempt to indicate how the significance level of the test compares with the "advertised" significance level, or that which appears to be dicated by the critical points from the F-distribution; the discrepancy between these two levels is then tabulated for various conditions on skewness and kurtosis. Many such studies have been conducted. In Ho [5] the author states "the distribution of the F-statistic in analysis of variance is practically unaffected by lack of symmetry but may be slightly affected if the underlying population is roughly symmetrical but very flat or very peaked. Since most non-normal distributions met in practice are non-normal because of skewness, departures from normality will likely have no appreciable effect on the validity of the F-test in analysis of variance." It remains then to investigate the χ^2 distribution and give a reasonable recommendation regarding what is the minimum value for degrees of freedom which would insure good performance of the analysis of variance. The skewness and kurtosis parameters that are ordinarily considered when comparing to normality are

$$\beta_1 = \mu_3^2/\mu_2^3 \qquad \text{(skewness coefficient)}$$

$$\beta_2 = \mu_4/\mu_2^2 \qquad \text{(kurtosis coefficient)}$$

where μ_j is the j^{th} central moment of the distribution. For the chi-square, $\mu_2 = 2r$, $\mu_3 = 8r$, and $\mu_4 = 48r + 12r$. As a result

$$\beta_1 = 8/r$$

$$\beta_2 = 3 + \frac{12}{r}$$

Clearly as r grows larger β_1 approaches zero, and β_2 approaches 3.0, both the Gaussian parameter values. For all practical purposes, if r were as large as 24, $\beta_1 = 0.33$ and $\beta_2 = 3.5$ and these values are themselves close enough to Gaussian to warrant safe use of analysis of variance. However, it is doubtful that it is necessary for r to be so large. Though it is difficult to get a "handle" on these two parameters, certainly any value of β_1 exceeded by 1.0 and β_2 in the vicinity of 4.0 should indicate "close enough" to symmetry to suggest safe use of analysis of variance. Thus if $r = 10$, $\beta_1 = 0.8$ and $\beta_2 = 4.2$ and since the distribution is bell shaped, this is well within the "safe" useage area indicated by Ho [5] and Norton [8] in their Monte Carlo work.

Conclusion

If one uses analysis of variance on sample variances, one can be assured of only minor errors if the sample variances are based on as many degrees of freedom as 10. If the sample variances are based on only 6-8 or fewer degrees of freedom, it might result in an error in the true significance level of the test and, as a result, a nonparametric approach should be considered as an alternative to ordinary analysis of variance.

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Table I *Upper tail probabilities for the null distribution of Wilcoxon's rank sum W statistic:* $m = 3(1)10, n = 1(1)m$. $m = 11(1)20, n = 1(1)4$

For given m and n, the table entry for the point x is $P_0\{W \geq x\}$. Under these conditions, if x is such that $P_0\{W \geq x\} = \alpha$, then $w(\alpha, m, n) = x$.

$n = 1$

x	$m = 3$	$m = 4$	$m = 5$	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$	$m = 11$
3	.500	.600							
4	.250	.400	.500	.571					
5		.200	.333	.429	.500	.556			
6			.167	.286	.375	.444	.500	.545	
7				.143	.250	.333	.400	.455	.500
8					.125	.222	.300	.364	.417
9						.111	.200	.273	.333
10							.100	.182	.250
11								.091	.167
12									.083

$n = 1$

x	$m = 12$	$m = 13$	$m = 14$	$m = 15$	$m = 16$	$m = 17$	$m = 18$	$m = 19$	$m = 20$
7	.538								
8	.462	.500	.533						
9	.385	.429	.467	.500	.529				
10	.308	.357	.400	.438	.471	.500	.526		
11	.231	.286	.333	.375	.412	.444	.474	.500	.524
12	.154	.214	.267	.312	.353	.389	.421	.450	.476
13	.077	.143	.200	.250	.294	.333	.368	.400	.429
14		.071	.133	.188	.235	.278	.316	.350	.381
15			.067	.125	.176	.222	.263	.300	.333
16				.062	.118	.167	.211	.250	.286
17					.059	.111	.158	.200	.238
18						.056	.105	.150	.190
19							.053	.100	.143
20								.050	.095
21									.048

Table I (continued)

$n = 2$

x	$m = 12$	$m = 13$	$m = 14$	$m = 15$	$m = 16$	$m = 17$	$m = 18$	$m = 19$	$m = 20$
33				.007	.026	.053	.084	.119	.156
34					.013	.035	.063	.095	.130
35					.007	.023	.047	.076	.108
36						.012	.032	.057	.087
37						.006	.021	.043	.069
38							.011	.029	.052
39							.005	.019	.039
40								.010	.026
41								.005	.017
42									.009
43									.004

$n = 3$

x	$m = 3$	$m = 4$	$m = 5$	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$	$m = 11$
11	.500								
12	.350	.571							
13	.200	.429							
14	.100	.314	.500						
15	.050	.200	.393	.548					
16		.114	.286	.452					
17		.057	.196	.357	.500				
18		.029	.125	.274	.417	.539			
19			.071	.190	.333	.461	.500		
20			.036	.131	.258	.388	.432	.531	
21			.018	.083	.192	.315	.364	.469	
22				.048	.133	.248	.300	.406	.500
23				.024	.092	.188	.241	.346	.442
24				.012	.058	.139	.186	.287	.385
25					.033	.097	.141	.234	.330
26					.017	.067	.105	.185	.277
27					.008	.042	.073	.143	.228
28						.024	.050	.108	.184
29						.012	.032	.080	.146
30						.006	.018	.056	.113
31							.009	.038	.085
32							.005	.024	.063
33								.014	.044
34								.007	.030
35								.003	.019
36									.011
37									.005
38									.003
39									

Table I (continued)

$n = 2$

x	$m = 3$	$m = 4$	$m = 5$	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$	$m = 11$
6	.600								
7	.400	.600							
8	.200	.400	.571						
9	.100	.267	.429	.571					
10		.133	.286	.429	.556				
11		.067	.190	.321	.444	.556			
12			.095	.214	.333	.444	.545		
13			.048	.143	.250	.356	.455	.545	
14				.071	.167	.267	.364	.455	.538
15				.036	.111	.200	.291	.379	.462
16					.056	.133	.218	.303	.385
17					.028	.089	.164	.242	.321
18						.044	.109	.182	.256
19						.022	.073	.136	.205
20							.036	.091	.154
21							.018	.061	.115
22								.030	.077
23								.015	.051
24									.026
25									.013

$n = 2$

x	$m = 12$	$m = 13$	$m = 14$	$m = 15$	$m = 16$	$m = 17$	$m = 18$	$m = 19$	$m = 20$
15	.538								
16	.462	.533							
17	.396	.467	.533						
18	.330	.400	.467	.529					
19	.275	.343	.408	.471	.529				
20	.220	.286	.350	.412	.471	.526			
21	.176	.238	.300	.360	.418	.474	.526		
22	.132	.190	.259	.309	.366	.421	.474	.524	
23	.099	.152	.208	.265	.320	.374	.426	.476	.524
24	.066	.114	.167	.221	.275	.327	.379	.429	.476
25	.044	.086	.133	.184	.235	.287	.337	.386	.433
26	.022	.057	.100	.147	.196	.246	.295	.343	.390
27	.011	.038	.075	.118	.163	.211	.258	.305	.351
28		.019	.050	.088	.131	.175	.221	.267	.312
29		.010	.033	.066	.105	.146	.189	.233	.277
30			.017	.044	.078	.117	.158	.200	.242
31			.008	.029	.059	.094	.132	.171	.212
32				.015	.039	.070	.105	.143	.182

Table I (continued)

$n = 3$

x	$m = 12$	$m = 13$	$m = 14$	$m = 15$	$m = 16$	$m = 17$	$m = 18$	$m = 19$	$m = 20$
24	.527								
25	.473								
26	.420	.500							
27	.367	.450	.524						
28	.316	.400	.476						
29	.268	.352	.429	.500					
30	.224	.305	.384	.456	.521				
31	.182	.261	.338	.412	.479				
32	.147	.220	.296	.369	.438	.500			
33	.116	.182	.254	.327	.396	.461	.519		
34	.090	.148	.216	.287	.356	.421	.481		
35	.068	.120	.181	.249	.317	.382	.444	.500	
36	.051	.095	.150	.213	.280	.345	.407	.464	.517
37	.035	.073	.122	.180	.244	.308	.370	.429	.483
38	.024	.055	.099	.151	.211	.273	.335	.394	.449
39	.015	.041	.078	.125	.180	.239	.300	.359	.415
40	.009	.029	.060	.102	.152	.208	.267	.325	.382
41	.004	.020	.046	.082	.127	.179	.235	.293	.349
42	.002	.012	.034	.065	.105	.153	.206	.262	.317
43		.007	.024	.050	.086	.129	.178	.232	.286
44		.004	.016	.038	.069	.108	.153	.204	.257
45		.002	.010	.028	.055	.089	.131	.178	.229
46			.006	.020	.042	.073	.111	.154	.202
47			.003	.013	.032	.059	.092	.132	.177
48			.001	.009	.024	.046	.077	.113	.155
49				.005	.017	.036	.062	.095	.134
50				.002	.011	.027	.050	.080	.115
51				.001	.007	.020	.040	.066	.098
52					.004	.014	.031	.054	.083
53					.002	.010	.023	.044	.069
54					.001	.006	.017	.034	.058
55						.004	.012	.027	.047
56						.002	.008	.020	.038
57						.001	.005	.015	.030
58							.003	.010	.023
59							.002	.007	.018
60							.001	.005	.013
61								.003	.009
62								.001	.006
63								.001	.004
64									.002
65									.001
66									.001

Table I *(continued)*

$n = 4$

x	$m = 4$	$m = 5$	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$	$m = 11$
18	.557							
19	.443							
20	.343	.548						
21	.243	.452						
22	.171	.365	.543					
23	.100	.278	.457					
24	.057	.206	.381	.536				
25	.029	.143	.305	.464				
26	.014	.095	.238	.394	.533			
27		.056	.176	.324	.467			
28		.032	.129	.264	.404	.530		
29		.016	.086	.206	.341	.470		
30		.008	.057	.158	.285	.413	.527	
31			.033	.115	.230	.355	.473	
32			.019	.082	.184	.302	.420	.525
33			.010	.055	.141	.252	.367	.475
34			.005	.036	.107	.207	.318	.426
35				.021	.077	.165	.270	.377
36				.012	.055	.130	.227	.330
37				.006	.036	.099	.187	.286
38				.003	.024	.074	.152	.245
39					.014	.053	.120	.206
40					.008	.038	.094	.171
41					.004	.025	.071	.140
42					.002	.017	.053	.113
43						.010	.038	.089
44						.006	.027	.069
45						.003	.018	.052
46						.001	.012	.039
47							.007	.028
48							.004	.020
49							.002	.013
50							.001	.009
51								.005
52								.003
53								.001
54								.001

Table I-- (continued)

$n = 4$

x	$m = 12$	$m = 13$	$m = 14$	$m = 15$	$m = 16$	$m = 17$	$m = 18$	$m = 19$	$m = 20$
34	.524								
35	.476								
36	.431	.522							
37	.385	.478							
38	.342	.435	.521						
39	.299	.392	.479						
40	.260	.352	.439	.519					
41	.223	.312	.399	.481					
42	.190	.274	.360	.443	.518				
43	.158	.239	.323	.405	.482				
44	.131	.206	.287	.368	.446	.517			
45	.106	.175	.253	.332	.410	.483			
46	.085	.148	.221	.298	.375	.449	.516		
47	.066	.123	.191	.265	.341	.415	.484		
48	.052	.101	.164	.235	.308	.381	.451	.516	
49	.039	.082	.139	.205	.277	.349	.419	.484	
50	.029	.065	.116	.179	.247	.318	.387	.453	.515
51	.021	.051	.096	.154	.219	.287	.356	.422	.485
52	.015	.039	.079	.131	.192	.258	.326	.392	.455
53	.010	.030	.063	.110	.168	.231	.297	.363	.426
54	.007	.022	.051	.092	.145	.205	.269	.334	.397
55	.004	.016	.040	.076	.124	.181	.242	.306	.368
56	.002	.011	.031	.062	.106	.158	.217	.279	.341
57	.001	.008	.023	.050	.089	.138	.193	.253	.314
58	.001	.005	.017	.040	.074	.119	.171	.228	.288
59		.003	.012	.031	.061	.101	.150	.205	.262
60		.002	.009	.024	.050	.086	.131	.183	.239
61		.001	.006	.018	.040	.072	.113	.162	.216
62		.000	.004	.014	.032	.060	.098	.143	.194
63			.002	.010	.025	.049	.083	.125	.174
64			.001	.007	.019	.040	.070	.109	.155
65			.001	.005	.015	.032	.059	.094	.137
66			.000	.003	.011	.026	.049	.081	.120
67				.002	.008	.020	.040	.069	.105
68				.001	.006	.016	.033	.058	.091
69				.001	.004	.012	.027	.049	.079
70				.000	.002	.009	.021	.041	.067
71					.001	.006	.017	.033	.057
72					.001	.005	.013	.027	.048
73					.000	.003	.010	.022	.041
74					.000	.002	.007	.018	.034
75						.001	.005	.014	.028
76						.001	.004	.011	.023
77						.000	.002	.008	.018

Table I (continued)

$n = 4$

x	$m = 12$	$m = 13$	$m = 14$	$m = 15$	$m = 16$	$m = 17$	$m = 18$	$m = 19$	$m = 20$
78						.000	.002	.006	.015
79							.001	.004	.011
80							.001	.003	.009
81							.000	.002	.007
82							.000	.001	.005
83								.001	.004
84								.000	.003
85								.000	.002
86								.000	.001
87									.001
88									.000
89									.000
90									.000

$n = 5$

x	$m = 5$	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$
28	.500					
29	.421					
30	.345	.535				
31	.274	.465				
32	.210	.396				
33	.155	.331	.500			
34	.111	.268	.438			
35	.075	.214	.378	.528		
36	.048	.165	.319	.472		
37	.028	.123	.265	.416		
38	.016	.089	.216	.362	.500	
39	.008	.063	.172	.311	.449	
40	.004	.041	134	.262	.399	.523
41		.026	.101	.218	.350	.477
42		.015	.074	.177	.303	.430
43		.009	.053	.142	.259	.384
44		.004	.037	.111	.219	.339
45		.002	.024	.085	.182	.297
46			.015	.064	.149	.257
47			.009	.047	.120	.220
48			.005	.033	.095	.185
49			.003	.023	.073	.155
50			.001	.015	.056	.127
51				.009	.041	.103
52				.005	.030	.082

Table I (continued)

$n = 5$

x	$m = 5$	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$
53				.003	.021	.065
54				.002	.014	.050
55				.001	.009	.038
56					.006	.028
57					.003	.020
58					.002	.014
59					.001	.010
60					.000	.006
61						.004
62						.002
63						.001
64						.001
65						.000

$n = 6$

x	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$
39	.531				
40	.469				
41	.409				
42	.350	.527			
43	.294	.473			
44	.242	.418			
45	.197	.365	.525		
46	.155	.314	.475		
47	.120	.267	.426		
48	.090	.223	.377	.523	
49	.066	.183	.331	.477	
50	.047	.147	.286	.432	
51	.032	.117	.245	.388	.521
52	.021	.090	.207	.344	.479
53	.013	.069	.172	.303	.437
54	.008	.051	.141	.264	.396
55	.004	.037	.114	.228	.356
56	.002	.026	.091	.194	.318
57	.001	.017	.071	.164	.281
58		.011	.054	.136	.246
59		.007	.041	.112	.214
60		.004	.030	.091	.184
61		.002	.021	.072	.157
62		.001	.015	.057	.132
63		.001	.010	.044	.110

Table I (continued)

$n = 6$

x	$m = 6$	$m = 7$	$m = 8$	$m = 9$	$m = 10$
64			.006	.033	.090
65			.004	.025	.074
66			.002	.018	.059
67			.001	.013	.047
68			.001	.009	.036
69			.000	.006	.028
70				.004	.021
71				.002	.016
72				.001	.011
73				.001	.008
74				.000	.005
75				.000	.004
76					.002
77					.001
78					.001
79					.000
80					.000
81					.000

$n = 7$

x	$m = 7$	$m = 8$	$m = 9$	$m = 10$
53	.500			
54	.451			
55	.402			
56	.355	.522		
57	.310	.478		
58	.267	.433		
59	.228	.389		
60	.191	.347	.500	
61	.159	.306	.459	
62	.130	.268	.419	
63	.104	.232	.379	.519
64	.082	.198	.340	.481
65	.064	.168	.303	.443
66	.049	.140	.268	.406
67	.036	.116	.235	.370
68	.027	.095	.204	.335
69	.019	.076	.176	.300
70	.013	.060	.150	.268
71	.009	.047	.126	.237
72	.006	.036	.105	.209

Table I (continued)

$n = 7$

x	$m = 7$	$m = 8$	$m = 9$	$m = 10$
73	.003	.027	.087	.187
74	.002	.020	.071	.157
75	.001	.014	.057	.132
76	.001	.010	.043	.113
77	.000	.007	.036	.097
78		.005	.027	.081
79		.003	.021	.067
80		.002	.016	.054
81		.001	.011	.044
82		.001	.008	.035
83		.000	.006	.028
84		.000	.004	.022
85			.003	.017
86			.002	.012
87			.001	.009
88			.001	.007
89			.000	.005
90			.000	.003
91			.000	.002
92				.002
93				.001
94				.001
95				.000
96				.000
97				.000
98				.000

$n = 8$

x	$m = 8$	$m = 9$	$m = 10$
68	.520		
69	.480		
70	.439		
71	.399		
72	.360	.526	
73	.323	.481	
74	.287	.444	
75	.253	.407	
76	.221	.371	.517
77	.191	.336	.483
78	.164	.303	.448
79	.139	.271	.414

$n = 8$

x	$m = 8$	$m = 9$	$m = 10$
80	.117	.240	.381
81	.097	.212	.348
82	.080	.185	.317
83	.065	.161	.286
84	.052	.138	.257
85	.041	.118	.230
86	.032	.100	.204
87	.025	.084	.180
88	.019	.069	.158
89	.014	.057	.137
90	.010	.046	.118
91	.007	.037	.102
92	.005	.030	.086
93	.003	.023	.073
94	.002	.018	.061
95	.001	.014	.051
96	.001	.010	.042
97	.001	.008	.034
98	.000	.006	.027
99	.000	.004	.022
100	.000	.003	.017
101		.002	.013
102		.001	.010
103		.001	.008
104		.000	.006
105		.000	.004
106		.000	.003
107		.000	.002
108		.000	.002
109			.001
110			.001
111			.000
112			.000
113			.000
114			.000
115			.000
116			.000

Table **I** *(continued)*

$n = 9$		
x	$m = 9$	$m = 10$
86	.500	
87	.466	
88	.432	
89	.398	
90	.365	.516
91	.333	.484
92	.302	.452
93	.273	.421
94	.245	.390
95	.218	.360
96	.193	.330
97	.170	.302
98	.149	.274
99	.129	.248
100	.111	.223
101	.095	.200
102	.081	.178
103	.068	.158
104	.057	.139
105	.047	.121
106	.039	.106
107	.031	.091
108	.025	.078
109	.020	.067
110	.016	.056
111	.012	.047
112	.009	.039
113	.007	.033
114	.005	.027
115	.004	.022
116	.003	.017
117	.002	.014
118	.001	.011
119	.001	.009
120	.001	.007
121	.000	.005

$n = 9$		
x	$m = 9$	$m = 10$
122	.000	.004
123	.000	.003
124	.000	.002
125	.000	.001
126	.000	.001
127		.001
128		.000
129		.000
130		.000
131		.000
132		.000
133		.000
134		.000
135		.000

$n = 10$	
	$m = 10$
105	.515
106	.485
107	.456
108	.427
109	.398
110	.370
111	.342
112	.315
113	.289
114	.264
115	.241
116	.218
117	.197
118	.176
119	.157
120	.140

$n = 10$	
x	$m = 10$
121	.124
122	.109
123	.095
124	.083
125	.072
126	.062
127	.053
128	.045
129	.038
130	.032
131	.026
132	.022
133	.018
134	.014
135	.012
136	.009
137	.007
138	.006
139	.004
140	.003
141	.003
142	.002
143	.001
144	.001
145	.001
146	.001
147	.000
148	.000
149	.000
150	.000
151	.000
152	.000
153	.000
154	.000
155	.000

Table II *Upper tail probabilities for the null distribution of the Ansari-Bradley* $\mathscr{W}$ *statistic:* $2 \leq m \leq n, (m+n) \leq 20$

For given m and n, the table entry for the point x is $P_0\{\mathscr{W} \geq x\}$. Under these conditions, if x is such that $P_0\{\mathscr{W} \geq x\} = \alpha$, then $\omega_2(\alpha, m, n) = x$. On the other hand, if x is such that $P_0\{\mathscr{W} \geq x\} = 1 - \alpha$, then $P_0\{\mathscr{W} \leq (x-1)\} = P_0\{\mathscr{W} < x\} = [1 - P_0\{\mathscr{W} \geq x\}] = |1 - (1-\alpha)| = \alpha$, and $\omega_1(\alpha, m, n) = (x-1)$.

$m = 2$

x	$n=2$	$n=3$	$n=4$	$n=5$	$n=6$	$n=7$	$n=8$	$n=9$	$n=10$
2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	.8333	.9000	.9333	.9524	.9643	.9722	.9778	.9818	.9848
4	.1667	.5000	.6667	.7619	.8214	.8611	.8889	.9091	.9242
5		.2000	.3333	.5238	.6429	.7222	.7778	.8182	.8485
6			.0667	.2381	.3571	.5000	.6000	.6727	.7273
7				.0952	.1786	.3056	.4000	.5091	.5909
8					.0357	.1389	.2222	.3273	.4091
9						.0556	.1111	.2000	.2727
10							.0222	.0909	.1515
11								.0364	.0758
12									.0152

$m = 2$

x	$n=11$	$n=12$	$n=13$	$n=14$	$n=15$	$n=16$	$n=17$	$n=18$
2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	.9872	.9890	.9905	.9917	.9926	.9935	.9942	.9947
4	.9359	.9451	.9524	.9583	.9632	.9673	.9708	.9737
5	.8718	.8901	.9048	.9167	.9265	.9346	.9415	.9474
6	.7692	.8022	.8286	.8500	.8676	.8824	.8947	.9053
7	.6538	.7033	.7429	.7750	.8015	.8235	.8421	.8579
8	.5000	.5714	.6286	.6750	.7132	.7451	.7719	.7947
9	.3590	.4286	.5048	.5667	.6176	.6601	.6959	.7263
10	.2308	.2967	.3714	.4333	.5000	.5556	.6023	.6421
11	.1410	.1978	.2667	.3250	.3897	.4444	.5029	.5526
12	.0641	.1099	.1714	.2250	.2868	.3399	.3977	.4474
13	.0256	.0549	.1048	.1500	.2059	.2549	.3099	.3579
14		.0110	.0476	.0833	.1324	.1765	.2281	.2737
15			.0190	.0417	.0809	.1176	.1637	.2053
16				.0083	.0368	.0654	.1053	.1421
17					.0147	.0327	.0643	.0947
18						.0065	.0292	.0526
19							.0117	.0263
20								.0053

Table II *(continued)*

$m = 3$

x	$n = 3$	$n = 4$	$n = 5$	$n = 6$	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$
4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	.9000	.9429	.9643	.9762	.9833	.9879	.9909	.9930	.9945
6	.7000	.8286	.8929	.9286	.9500	.9636	.9727	.9790	.9835
7	.3000	.5714	.7143	.8095	.8667	.9030	.9273	.9441	.9560
8	.1000	.3429	.5000	.6548	.7500	.8182	.8636	.8951	.9176
9		.1429	.2857	.4643	.5833	.6909	.7636	.8182	.8571
10		.0286	.1071	.2857	.4167	.5455	.6364	.7168	.7747
11			.0357	.1429	.2500	.3939	.5000	.5979	.6703
12				.0595	.1333	.2606	.3636	.4755	.5604
13				.0119	.0500	.1455	.2364	.3497	.4396
14					.0167	.0727	.1364	.2413	.3297
15						.0303	.0727	.1503	.2253
16						.0061	.0273	.0839	.1429
17							.0091	.0420	.0824
18								.0175	.0440
19								.0035	.0165
20									.0055

$m = 3$

x	$n = 12$	$n = 13$	$n = 14$	$n = 15$	$n = 16$	$n = 17$
4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	.9956	.9964	.9971	.9975	.9979	.9982
6	.9868	.9893	.9912	.9926	.9938	.9947
7	.9648	.9714	.9765	.9804	.9835	.9860
8	.9341	.9464	.9559	.9632	.9690	.9737
9	.8857	.9071	.9235	.9363	.9463	.9544
10	.8198	.8536	.8794	.8995	.9154	.9281
11	.7341	.7821	.8206	.8505	.8741	.8930
12	.6374	.6964	.7485	.7892	.8225	.8491
13	.5297	.6000	.6632	.7132	.7575	.7930
14	.4242	.5000	.5735	.6324	.6852	.7281
15	.3209	.4000	.4794	.5441	.6058	.6561
16	.2286	.3036	.3868	.4559	.5232	.5789
17	.1516	.2179	.2985	.3676	.4396	.5000
18	.0945	.1464	.2206	.2868	.3591	.4211
19	.0527	.0929	.1529	.2108	.2817	.3439
20	.0264	.0536	.1015	.1495	.2136	.2719
21	.0110	.0286	.0632	.1005	.1548	.2070
22	.0022	.0107	.0353	.0637	.1073	.1509
23		.0036	.0176	.0368	.0712	.1070
24			.0074	.0196	.0444	.0719

Table II (continued)

$m = 3$

x	$n = 12$	$n = 13$	$n = 14$	$n = 15$	$n = 16$	$n = 17$
25			.0015	.0074	.0248	.0456
26				.0025	.0124	.0263
27					.0052	.0140
28					.0010	.0053
29						.0018

$m = 4$

x	$n = 4$	$n = 5$	$n = 6$	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$
6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	.9857	.9921	.9952	.9970	.9980	.9986	.9990	.9993	.9995
8	.9286	.9603	.9762	.9848	.9899	.9930	.9950	.9963	.9973
9	.8000	.8889	.9333	.9576	.9717	.9804	.9860	.9897	.9923
10	.6286	.7778	.8571	.9091	.9394	.9580	.9700	.9780	.9835
11	.3714	.6032	.7333	.8242	.8788	.9161	.9401	.9560	.9670
12	.2000	.4286	.5810	.7152	.7980	.8573	.8961	.9238	.9429
13	.0714	.2619	.4190	.5818	.6889	.7762	.8342	.8769	.9066
14	.0143	.1349	.2567	.4424	.5677	.6783	.7542	.8154	.8582
15		.0476	.1429	.3030	.4323	.5650	.6593	.7385	.7951
16		.0159	.0667	.1939	.3111	.4503	.5554	.6520	.7225
17			.0238	.1061	.2020	.3357	.4446	.5546	.6374
18			.0048	.0515	.1212	.2378	.3407	.4564	.5473
19				.0182	.0606	.1538	.2458	.3590	.4527
20				.0061	.0283	.0923	.1658	.2711	.3626
21					.0101	.0490	.1039	.1934	.2775
22					.0020	.0238	.0599	.1319	.2049
23						.0084	.0300	.0821	.1418
24						.0028	.0140	.0484	.0934
25							.0050	.0256	.0571
26							.0010	.0125	.0330
27								.0044	.0165
28								.0015	.0077
29									.0027
30									.0005

Table II *(continued)*

$m = 4$

x	$n = 13$	$n = 14$	$n = 15$	$n = 16$
6	1.0000	1.0000	1.0000	1.0000
7	.9996	.9997	.9997	.9998
8	.9979	.9984	.9987	.9990
9	.9941	.9954	.9964	.9971
10	.9874	.9902	.9923	.9938
11	.9748	.9804	.9845	.9876
12	.9563	.9660	.9732	.9785
13	.9286	.9444	.9561	.9649
14	.8908	.9144	.9324	.9459
15	.8408	.8742	.9002	.9197
16	.7811	.8245	.8599	.8867
17	.7101	.7647	.8101	.8448
18	.6319	.6967	.7528	.7961
19	.5471	.6209	.6873	.7391
20	.4613	.5412	.6166	.6764
21	.3761	.4588	.5413	.6078
22	.2979	.3791	.4654	.5368
23	.2261	.3033	.3896	.4632
24	.1655	.2353	.3189	.3922
25	.1151	.1755	.2531	.3236
26	.0765	.1258	.1953	.2609
27	.0471	.0856	.1450	.2039
28	.0277	.0556	.1042	.1552
29	.0147	.0340	.0712	.1133
30	.0071	.0196	.0470	.0803
31	.0025	.0098	.0289	.0541
32	.0008	.0046	.0170	.0351
33		.0016	.0090	.0215
34		.0003	.0044	.0124
35			.0015	.0062
36			.0005	.0029
37				.0010
38				.0002

$m = 5$

x	$n = 5$	$n = 6$	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$
9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	.9921	.9957	.9975	.9984	.9990	.9993	.9995
11	.9762	.9870	.9924	.9953	.9970	.9980	.9986
12	.9286	.9610	.9773	.9860	.9910	.9940	.9959
13	.8492	.9156	.9495	.9689	.9800	.9867	.9908

Table II *(continued)*

$m = 5$

x	$n = 5$	$n = 6$	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$
14	.7302	.8420	.9015	.9386	.9600	.9734	.9817
15	.5873	.7446	.8333	.8936	.9291	.9524	.9670
16	.4127	.6147	.7374	.8275	.8821	.9197	.9437
17	.2698	.4805	.6237	.7451	.8212	.8761	.9116
18	.1508	.3463	.5000	.6457	.7423	.8182	.8681
19	.0714	.2294	.3763	.5385	.6523	.7483	.8132
20	.0238	.1342	.2626	.4266	.5514	.6663	.7468
21	.0079	.0693	.1667	.3209	.4486	.5771	.6708
22		.0303	.0985	.2269	.3477	.4832	.5870
23		.0108	.0505	.1507	.2577	.3916	.5000
24		.0022	.0227	.0917	.1788	.3044	.4130
25			.0076	.0513	.1179	.2268	.3292
26			.0025	.0249	.0709	.1608	.2532
27				.0109	.0400	.1086	.1868
28				.0039	.0200	.0686	.1319
29				.0008	.0090	.0406	.0884
30					.0030	.0220	.0563
31					.0010	.0107	.0330
32						.0047	.0183
33						.0017	.0092
34						.0003	.0041
35							.0014
36							.0005

$m = 5$

x	$n = 12$	$n = 13$	$n = 14$	$n = 15$
9	1.0000	1.0000	1.0000	1.0000
10	.9997	.9998	.9998	.9999
11	.9990	.9993	.9995	.9996
12	.9971	.9979	.9985	.9988
13	.9935	.9953	.9966	.9974
14	.9871	.9907	.9931	.9948
15	.9767	.9832	.9876	.9907
16	.9601	.9711	.9787	.9840
17	.9368	.9538	.9659	.9743
18	.9047	.9295	.9476	.9604
19	.8633	.8978	.9235	.9417
20	.8116	.8569	.8920	.9171
21	.7508	.8079	.8533	.8861
22	.6810	.7498	.8067	.8483
23	.6054	.6846	.7530	.8038

Table II *(continued)*

$m = 5$

x	$n = 12$	$n = 13$	$n = 14$	$n = 15$
24	.5254	.6130	.6923	.7523
25	.4449	.5383	.6267	.6950
26	.3662	.4617	.5572	.6329
27	.2928	.3870	.4864	.5673
28	.2262	.3154	.4157	.5000
29	.1690	.2502	.3478	.4327
30	.1214	.1921	.2840	.3671
31	.0835	.1431	.2262	.3050
32	.0546	.1022	.1751	.2477
33	.0339	.0705	.1318	.1962
34	.0197	.0462	.0960	.1517
35	.0107	.0289	.0675	.1139
36	.0052	.0168	.0455	.0829
37	.0023	.0093	.0294	.0583
38	.0008	.0047	.0181	.0396
39	.0002	.0021	.0105	.0257
40		.0007	.0057	.0160
41		.0002	.0028	.0093
42			.0012	.0052
43			.0004	.0026
44			.0001	.0012
45				.0004
46				.0001

$m = 6$

x	$n = 6$	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$	$n = 13$	$n = 14$
12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13	.9989	.9994	.9997	.9998	.9999	.9999	.9999	1.0000	1.0000
14	.9946	.9971	.9983	.9990	.9994	.9996	.9997	.9998	.9999
15	.9848	.9918	.9953	.9972	.9983	.9989	.9992	.9995	.9996
16	.9632	.9802	.9887	.9932	.9958	.9973	.9982	.9987	.9991
17	.9264	.9592	.9760	.9856	.9910	.9942	.9961	.9973	.9981
18	.8658	.9242	.9547	.9724	.9825	.9887	.9925	.9948	.9964
19	.7846	.8735	.9217	.9518	.9692	.9799	.9865	.9907	.9935
20	.6807	.8048	.8751	.9215	.9487	.9663	.9772	.9843	.9890
21	.5649	.7203	.8139	.8803	.9202	.9469	.9636	.9749	.9823
22	.4351	.6189	.7366	.8260	.8812	.9199	.9445	.9613	.9725
23	.3193	.5122	.6474	.7600	.8322	.8849	.9190	.9431	.9591
24	.2154	.4038	.5501	.6829	.7717	.8407	.8860	.9191	.9413
25	.1342	.3030	.4499	.5984	.7025	.7877	.8451	.8887	.9184
26	.0736	.2133	.3526	.5085	.6246	.7259	.7962	.8514	.8896

Table II (continued)

$m = 6$

x	$n = 6$	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$	$n = 13$	$n = 14$
27	.0368	.1410	.2634	.4190	.5425	.6574	.7398	.8074	.8549
28	.0152	.0851	.1861	.3323	.4575	.5831	.6765	.7564	.8138
29	.0054	.0484	.1249	.2543	.3754	.5065	.6082	.6996	.7668
30	.0011	.0239	.0783	.1860	.2975	.4292	.5364	.6376	.7139
31		.0105	.0453	.1303	.2283	.3549	.4636	.5723	.6566
32		.0035	.0240	.0859	.1678	.2851	.3918	.5049	.5954
33		.0012	.0113	.0539	.1188	.2226	.3235	.4376	.5322
34			.0047	.0312	.0798	.1678	.2602	.3716	.4678
35			.0017	.0170	.0513	.1226	.2038	.3094	.4046
36			.0003	.0082	.0308	.0859	.1549	.2518	.3434
37				.0036	.0175	.0579	.1140	.2002	.2861
38				.0012	.0090	.0370	.0810	.1550	.2332
39				.0004	.0042	.0226	.0555	.1170	.1862
40					.0017	.0128	.0364	.0855	.1451
41					.0006	.0069	.0228	.0608	.1104
42					.0001	.0033	.0135	.0415	.0816
43						.0015	.0075	.0274	.0587
44						.0005	.0039	.0172	.0409
45						.0002	.0018	.0104	.0275
46							.0008	.0058	.0177
47							.0003	.0031	.0110
48							.0001	.0015	.0065
49								.0007	.0036
50								.0002	.0019
51								.0001	.0009
52									.0004
53									.0001
54									.0000

$m = 7$

x	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$	$n = 13$
16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
17	.9994	.9997	.9998	.9999	1.0000	1.0000	1.0000
18	.9983	.9991	.9995	.9997	.9998	.9999	.9999
19	.9948	.9972	.9984	.9991	.9994	.9996	.9998
20	.9878	.9935	.9963	.9978	.9987	.9992	.9995
21	.9744	.9862	.9921	.9954	.9972	.9982	.9988
22	.9534	.9744	.9851	.9912	.9946	.9966	.9978
23	.9196	.9549	.9734	.9841	.9901	.9937	.9959
24	.8730	.9270	.9559	.9734	.9833	.9893	.9930
25	.8106	.8878	.9306	.9574	.9729	.9826	.9885

Table II *(continued)*

$m = 7$

x	$n = 7$	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$	$n = 13$
26	.7348	.8375	.8965	.9354	.9583	.9730	.9820
27	.6463	.7748	.8523	.9059	.9381	.9595	.9727
28	.5507	.7021	.7981	.8685	.9118	.9415	.9602
29	.4493	.6194	.7336	.8221	.8782	.9181	.9435
30	.3537	.5324	.6608	.7676	.8374	.8889	.9223
31	.2652	.4435	.5820	.7052	.7887	.8532	.8958
32	.1894	.3577	.5000	.6368	.7333	.8111	.8637
33	.1270	.2777	.4180	.5637	.6714	.7626	.8258
34	.0804	.2075	.3392	.4888	.6050	.7085	.7822
35	.0466	.1478	.2664	.4139	.5353	.6494	.7332
36	.0256	.1005	.2019	.3421	.4647	.5869	.6795
37	.0122	.0648	.1477	.2753	.3950	.5220	.6219
38	.0052	.0393	.1035	.2154	.3286	.4568	.5616
39	.0017	.0221	.0694	.1633	.2667	.3925	.5000
40	.0006	.0115	.0441	.1199	.2113	.3311	.4384
41		.0053	.0266	.0847	.1626	.2735	.3781
42		.0022	.0149	.0576	.1218	.2213	.3205
43		.0008	.0079	.0375	.0882	.1749	.2668
44		.0002	.0037	.0233	.0619	.1350	.2178
45			.0016	.0136	.0417	.1014	.1742
46			.0005	.0075	.0271	.0742	.1363
47			.0002	.0038	.0167	.0526	.1042
48				.0017	.0099	.0361	.0777
49				.0007	.0054	.0239	.0565
50				.0003	.0028	.0152	.0398
51				.0001	.0013	.0092	.0273
52					.0006	.0053	.0180
53					.0002	.0029	.0115
54					.0001	.0015	.0070
55						.0007	.0041
56						.0003	.0022
57						.0001	.0012
58						.0000	.0005
59							.0002
60							.0001
61							.0000

Table II *(continued)*

$p = .8$

x	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$
20	1.0000	1.0000	1.0000	1.0000	1.0000
21	.9999	1.0000	1.0000	1.0000	1.0000
22	.9996	.9998	.9999	.9999	1.0000
23	.9989	.9994	.9997	.9998	.9999
24	.9974	.9986	.9992	.9996	.9997
25	.9941	.9969	.9983	.9990	.9994
26	.9885	.9938	.9965	.9980	.9988
27	.9789	.9886	.9935	.9962	.9977
28	.9643	.9804	.9887	.9934	.9960
29	.9428	.9680	.9813	.9889	.9932
30	.9133	.9504	.9704	.9823	.9890
31	.8737	.9262	.9551	.9728	.9830
32	.8246	.8947	.9344	.9598	.9745
33	.7650	.8549	.9075	.9423	.9629
34	.6970	.8069	.8738	.9199	.9477
35	.6212	.7508	.8328	.8918	.9281
36	.5413	.6877	.7847	.8578	.9038
37	.4587	.6184	.7296	.8174	.8742
38	.3788	.5457	.6686	.7710	.8392
39	.3030	.4714	.6031	.7189	.7986
40	.2350	.3983	.5347	.6621	.7528
41	.1754	.3281	.4653	.6015	.7022
42	.1263	.2636	.3969	.5386	.6476
43	.0867	.2055	.3314	.4746	.5898
44	.0572	.1557	.2704	.4113	.5302
45	.0357	.1139	.2153	.3500	.4698
46	.0211	.0807	.1672	.2925	.4102
47	.0115	.0548	.1262	.2394	.3524
48	.0059	.0358	.0925	.1919	.2978
49	.0026	.0221	.0656	.1503	.2472
50	.0011	.0131	.0449	.1150	.2014
51	.0004	.0072	.0296	.0856	.1608
52	.0001	.0037	.0187	.0621	.1258
53		.0017	.0113	.0437	.0962
54		.0007	.0065	.0298	.0719
55		.0002	.0035	.0196	.0523
56		.0001	.0017	.0124	.0371
57			.0008	.0075	.0255
58			.0003	.0043	.0170
59			.0001	.0023	.0110
60			.0000	.0012	.0068
61				.0006	.0040
62				.0002	.0023
63				.0001	.0012

Table II *(continued)*

$m = 8$

x	$n = 8$	$n = 9$	$n = 10$	$n = 11$	$n = 12$
64				.0000	.0006
65					.0003
66					.0001
67					.0000
68					.0000

$m = 9$

x	$n = 9$	$n = 10$	$n = 11$
25	1.0000	1.0000	1.0000
26	1.0000	1.0000	1.0000
27	.9999	.9999	1.0000
28	.9996	.9998	.9999
29	.9991	.9995	.9997
30	.9981	.9990	.9995
31	.9963	.9980	.9989
32	.9932	.9964	.9980
33	.9882	.9937	.9964
34	.9805	.9894	.9940
35	.9695	.9831	.9903
36	.9540	.9741	.9849
37	.9332	.9618	.9773
38	.9062	.9453	.9669
39	.8724	.9240	.9532
40	.8313	.8972	.9355
41	.7833	.8646	.9133
42	.7283	.8259	.8862
43	.6677	.7813	.8538
44	.6025	.7310	.8160
45	.5346	.6759	.7731
46	.4654	.6166	.7251
47	.3975	.5548	.6729
48	.3323	.4916	.6173
49	.2717	.4287	.5593

$m = 9$

x	$n = 9$	$n = 10$	$n = 11$
50	.2167	.3673	.5000
51	.1687	.3092	.4407
52	.1276	.2552	.3827
53	.0938	.2064	.3271
54	.0668	.1632	.2749
55	.0460	.1262	.2269
56	.0305	.0952	.1840
57	.0195	.0700	.1462
58	.0118	.0500	.1138
59	.0068	.0347	.0867
60	.0037	.0232	.0645
61	.0019	.0150	.0468
62	.0009	.0093	.0331
63	.0004	.0056	.0227
64	.0001	.0031	.0151
65	.0000	.0017	.0097
66		.0008	.0060
67		.0004	.0036
68		.0002	.0020
69		.0001	.0011
70		.0000	.0005
71			.0003
72			.0001
73			.0000
74			.0000

Table II *(continued)*

$m = 10$		$m = 10$		$m = 10$	
x	$n = 10$	x	$n = 10$	x	$n = 10$
30	1.0000	47	.8993	64	.1007
31	1.0000	48	.8694	65	.0761
32	1.0000	49	.8344	66	.0560
33	.9999	50	.7940	67	.0403
34	.9998	51	.7486	68	.0282
35	.9996	52	.6986	69	.0192
36	.9992	53	.6449	70	.0126
37	.9984	54	.5881	71	.0080
38	.9971	55	.5296	72	.0049
39	.9951	56	.4704	73	.0029
40	.9920	57	.4119	74	.0016
41	.9874	58	.3551	75	.0008
42	.9808	59	.3014	76	.0004
43	.9718	60	.2514	77	.0002
44	.9597	61	.2060	78	.0001
45	.9440	62	.1656	79	.0000
46	.9239	63	.1306	80	.0000

Computed by G. A. Mack on the Ohio State University IBM 370/165.

Table III

EXACT PROBABILITY LEVELS FOR THE KRUSKAL-WALLIS TEST

The upper 10% of the exact probability distribution of the Kruskal-Wallis test statistic is given for the following cases involving k samples.

$k = 3$, $n_i \leq 6$

$n_1 = n_2 = n_3 = 7$

$n_1 = n_2 = n_3 = 8$

$k = 4$, $n_i \leq 4$

$k = 5$, $n_i \leq 3$

h	P(H≥h)
2 2 2	
3.714	.20000
4.571	.06667
3 2 1	
4.286	.10000
3 2 2	
4.464	.10476
4.500	.06667
4.714	.04762
5.357	.02857
3 3 1	
4.571	.10000
5.143	.04286
3 3 2	
4.556	.10000
4.694	.09286
5.000	.07500
5.139	.06071
5.361	.03214
5.556	.02500
6.250	.01071
3 3 3	
4.622	.10000
5.067	.08571
5.422	.07143
5.600	.05000
5.689	.02857
5.956	.02500
6.489	.01071
7.200	.00357
4 2 1	
4.018	.11429
4.500	.07619
4.821	.05714
4 2 2	
4.459	.10000
4.500	.09048
5.125	.05238
5.333	.03333
5.500	.02381
6.000	.01429

h	P(H≥h)
4 3 1	
3.889	.12857
4.056	.09286
4.097	.08571
4.208	.07857
4.764	.07143
5.000	.05714
5.208	.05000
5.389	.03571
5.833	.02143
4 3 2	
4.444	.10159
4.511	.09841
4.544	.08571
4.611	.08254
4.711	.07937
4.811	.07619
4.878	.07302
4.900	.07143
4.978	.05873
5.078	.05714
5.144	.05397
5.378	.05238
5.400	.05079
5.444	.04603
5.500	.03968
5.611	.03175
5.800	.03016
6.000	.02381
6.111	.02063
6.144	.01429
6.300	.01111
6.444	.00794
7.000	.00476
4 3 3	
4.700	.10095
4.709	.09238
4.818	.08476
4.845	.08095
5.000	.07429
5.064	.07048
5.109	.06762
5.255	.06381
5.436	.06190
5.500	.05619
5.573	.05333
5.727	.05048
5.791	.04571
5.936	.03619
5.982	.03429
6.018	.02667
6.155	.02476
6.300	.02286

h	P(H≥h)
4 3 3	
6.564	.01714
6.664	.01381
6.709	.01286
6.745	.01000
7.000	.00619
7.318	.00429
7.436	.00238
8.018	.00143
4 4 1	
4.067	.10159
4.167	.08254
4.267	.06984
4.800	.06667
4.867	.05397
4.967	.04762
5.100	.04127
5.667	.03492
6.000	.02857
6.167	.02222
6.667	.00952
4 4 2	
4.445	.10286
4.555	.09778
4.582	.09397
4.591	.08000
4.773	.07492
4.855	.07111
4.991	.06476
5.127	.05714
5.236	.05206
5.455	.04571
5.509	.04444
5.536	.04190
5.645	.03937
5.727	.03429
5.945	.02794
6.082	.02540
6.327	.02413
6.409	.02159
6.545	.02032
6.600	.01651
6.627	.01587
6.873	.01079
7.036	.00571
7.282	.00444
7.855	.00190
4 4 3	
4.477	.10216
4.545	.09905
4.576	.09714

h	P(H≥h)
4 4 3	
4.598	.09333
4.712	.09022
4.750	.08745
4.894	.08364
5.053	.07810
5.144	.07290
5.182	.06840
5.212	.06563
5.295	.06320
5.303	.06078
5.326	.05801
5.386	.05385
5.500	.05177
5.576	.05074
5.598	.04866
5.667	.04693
5.803	.04485
5.932	.04312
5.962	.04139
6.000	.04000
6.045	.03861
6.053	.03481
6.144	.03203
6.167	.03065
6.182	.02961
6.348	.02719
6.386	.02615
6.394	.02476
6.409	.02338
6.417	.02165
6.545	.02061
6.659	.02009
6.712	.01905
6.727	.01835
6.962	.01662
7.000	.01593
7.053	.01420
7.076	.01143
7.136	.01074
7.144	.00970
7.212	.00900
7.477	.00623
7.598	.00416
7.636	.00381
7.682	.00312
7.848	.00294
8.227	.00156
8.326	.00121
8.909	.00052
4 4 4	
4.500	.10424
4.654	.09662
4.769	.09351
4.985	.08589

h	P(H≥h)
4 4 4	
4.962	.08000
5.115	.07411
5.346	.06268
5.538	.05749
5.654	.05455
5.692	.04866
5.808	.04416
6.000	.04035
6.038	.03654
6.269	.03273
6.500	.02996
6.577	.02632
6.615	.02424
6.731	.02147
6.962	.01939
7.038	.01766
7.269	.01593
7.385	.01455
7.423	.01316
7.538	.01074
7.654	.00762
7.731	.00658
8.000	.00485
8.115	.00312
8.346	.00242
8.654	.00139
8.769	.00121
9.269	.00052
9.846	.00017
5 2 1	
4.050	.11905
4.200	.09524
4.450	.07143
5.000	.04762
5.250	.03571
5 2 2	
4.293	.12169
4.373	.08995
4.573	.08466
4.800	.06349
4.893	.06085
5.040	.05556
5.160	.03439
5.693	.02910
6.000	.01852
6.133	.01323
6.533	.00794
5 3 1	
3.840	.12302
4.018	.09524

h	P(H≥h)
5 3 1	
4.284	.08333
4.338	.07937
4.551	.07540
4.711	.05556
4.871	.05159
4.960	.04762
5.404	.04365
5.440	.03571
5.760	.02778
6.044	.01984
6.400	.01190
5 3 2	
4.495	.10079
4.651	.09127
4.695	.08889
4.724	.08730
4.727	.08492
4.815	.07143
4.869	.06667
4.913	.06349
4.942	.06190
5.076	.05952
5.087	.05317
5.105	.05159
5.251	.04921
5.349	.04603
5.513	.04444
5.524	.04286
5.542	.04127
5.727	.03651
5.742	.03413
5.795	.03333
5.804	.03254
5.949	.02619
6.004	.02460
6.033	.02381
6.091	.02063
6.124	.01984
6.295	.01667
6.385	.01587
6.415	.01508
6.819	.01190
6.822	.01032
6.909	.00873
6.949	.00556
7.182	.00397
7.636	.00238
5 3 3	
4.412	.10909
4.533	.09697
4.679	.09351
4.776	.09004

h	P(H≥h)
5 3 3	
4.800	.08658
4.848	.08528
4.861	.08182
4.909	.07922
5.042	.07749
5.079	.06926
5.103	.06710
5.212	.06494
5.261	.06234
5.345	.05758
5.442	.05498
5.503	.05325
5.515	.05065
5.648	.04892
5.770	.04675
5.867	.04156
6.012	.03983
6.061	.03290
6.109	.03203
6.194	.02684
6.303	.02554
6.315	.02121
6.376	.02035
6.533	.01905
6.594	.01861
6.715	.01385
6.776	.01299
6.861	.01212
6.992	.01126
7.079	.00866
7.333	.00779
7.467	.00758
7.503	.00584
7.515	.00541
7.636	.00411
7.879	.00281
8.048	.00195
8.242	.00108
8.727	.00065
5 4 1	
3.960	.10159
3.987	.09841
4.205	.09524
4.222	.08730
4.287	.07143
4.549	.06667
4.636	.06349
4.724	.06032
4.833	.05873
4.860	.05556
4.985	.04444
5.078	.04127
5.160	.03810
5.515	.03651

h	P(H≥h)
5 4 1	
5.558	.03492
5.596	.03333
5.733	.02698
5.776	.02540
5.858	.02381
5.864	.02222
5.967	.02063
6.431	.01905
6.578	.01587
6.818	.01270
6.840	.01111
6.955	.00794
7.364	.00476
5 4 2	
4.518	.10072
4.541	.09841
4.614	.09004
4.664	.08831
4.768	.07937
4.791	.07792
4.800	.07561
4.818	.07417
4.841	.07244
4.868	.07100
4.950	.06263
5.073	.06147
5.155	.05916
5.164	.05310
5.255	.05195
5.268	.05051
5.273	.04877
5.300	.04762
5.314	.04618
5.414	.04502
5.518	.04271
5.523	.04156
5.564	.03810
5.641	.03694
5.664	.03608
5.755	.03492
5.823	.03377
5.891	.03203
5.955	.03030
5.973	.02915
6.005	.02626
6.041	.02540
6.068	.02482
6.118	.02395
6.141	.02280
6.223	.02193
6.368	.02136
6.391	.02078
6.473	.02020
6.505	.01962

h	P(H≥h)
5 4 2	
6.541	.01732
6.550	.01674
6.564	.01616
6.655	.01558
6.723	.01501
6.905	.01385
6.914	.01328
7.000	.01299
7.018	.01212
7.064	.01183
7.118	.01010
7.205	.00895
7.255	.00866
7.291	.00750
7.450	.00722
7.500	.00693
7.568	.00606
7.573	.00491
7.773	.00375
7.814	.00260
8.018	.00202
8.114	.00144
8.591	.00087
5 4 3	
4.523	.10332
4.549	.09892
4.564	.09747
4.645	.09466
4.676	.09329
4.754	.09076
4.788	.08939
4.810	.08831
4.829	.08326
4.856	.08225
4.881	.08102
4.891	.07763
4.938	.07540
4.953	.07424
4.983	.07330
5.041	.07229
5.045	.07121
5.106	.07013
5.137	.06825
5.158	.06732
5.179	.06530
5.291	.06320
5.308	.06241
5.342	.06140
5.349	.06061
5.353	.05880
5.414	.05808
5.426	.05657
5.549	.05390
5.568	.05245

h	P(H≥h)
5 4 3	
5.619	.05115
5.631	.05036
5.656	.04863
5.660	.04791
5.677	.04719
5.718	.04574
5.722	.04502
5.753	.04430
5.779	.04300
5.804	.04113
5.814	.04033
5.862	.03961
5.876	.03889
5.964	.03831
6.026	.03773
6.029	.03716
6.060	.03658
6.087	.03550
6.164	.03492
6.173	.03369
6.231	.03312
6.265	.03167
6.272	.03009
6.337	.02951
6.368	.02900
6.369	.02864
6.395	.02597
6.410	.02496
6.491	.02453
6.522	.02367
6.542	.02330
6.579	.02078
6.635	.02035
6.676	.01991
6.703	.01912
6.779	.01969
6.785	.01789
6.799	.01631
6.829	.01595
6.891	.01537
7.004	.01508
7.010	.01472
7.096	.01443
7.106	.01356
7.188	.01299
7.195	.01241
7.256	.01212
7.260	.01183
7.272	.01162
7.291	.01133
7.318	.01111
7.395	.01089
7.445	.00974
7.465	.00952
7.477	.00931
7.523	.00743

h	P(H≥h)
5 4 3	
7.563	.00722
7.641	.00707
7.708	.00635
7.753	.00613
7.810	.00599
7.876	.00584
7.887	.00570
7.906	.00512
7.927	.00498
8.029	.00455
8.060	.00440
8.077	.00426
8.118	.00390
8.122	.00375
8.215	.00317
8.256	.00274
8.429	.00216
8.446	.00209
8.481	.00180
8.503	.00137
8.573	.00130
8.626	.00123
8.795	.00094
9.035	.00065
9.118	.00051
9.199	.00036
9.692	.00022
5 4 4	
4.619	.10003
4.668	.09817
4.685	.09608
4.701	.09417
4.711	.09244
4.727	.09053
4.747	.08880
4.760	.08782
4.813	.08587
4.830	.08392
4.833	.08232
4.896	.08076
4.975	.07739
5.014	.07575
5.024	.07428
5.027	.07264
5.090	.07108
5.173	.06935
5.196	.06793
5.225	.06633
5.344	.06496
5.360	.06349
5.370	.06225
5.387	.06101
5.410	.05985
5.440	.05861

h	P(H≥h)
5 4 4	
5.476	.05741
5.486	.05617
5.489	.05550
5.519	.05426
5.568	.05195
5.571	.05084
5.618	.05031
5.657	.04906
5.687	.04773
5.756	.04658
5.782	.04555
5.815	.04458
5.819	.04342
5.914	.04245
6.003	.04151
6.013	.04063
6.030	.03965
6.096	.03867
6.119	.03783
6.132	.03694
6.201	.03601
6.214	.03357
6.227	.03263
6.267	.03183
6.310	.03108
6.343	.02957
6.382	.02877
6.399	.02802
6.462	.02731
6.544	.02686
6.547	.02620
6.597	.02557
6.673	.02429
6.676	.02353
6.804	.02291
6.860	.02229
6.870	.02180
6.887	.02122
6.890	.02073
6.943	.02029
6.953	.01958
6.976	.01851
7.058	.01794
7.075	.01749
7.101	.01661
7.124	.01612
7.190	.01567
7.203	.01518
7.233	.01474
7.240	.01439
7.256	.01390
7.418	.01354
7.467	.01336
7.470	.01301
7.497	.01265
7.503	.01234

h	P(H≥h)
5 4 4	
7.586	.01194
7.596	.01163
7.714	.01128
7.744	.01074
7.760	.00946
7.767	.00924
7.797	.00888
7.810	.00861
7.833	.00835
7.942	.00737
7.981	.00684
8.047	.00604
8.113	.00582
8.130	.00559
8.140	.00537
8.156	.00515
8.189	.00497
8.403	.00426
8.440	.00408
8.456	.00400
8.525	.00346
8.558	.00333
8.571	.00315
8.575	.00297
8.604	.00284
8.703	.00253
8.733	.00222
8.782	.00209
8.868	.00164
8.997	.00142
9.053	.00133
9.099	.00124
9.129	.00102
9.168	.00093
9.396	.00067
9.527	.00053
9.590	.00051
9.613	.00047
9.758	.00029
10.118	.00020
10.187	.00011
10.681	.00007
5 5 1	
4.036	.10462
4.109	.08586
4.182	.08153
4.400	.07576
4.545	.07359
4.800	.05628
4.909	.05339
5.127	.04618
5.236	.03896
5.636	.03319
5.709	.03030

h	P(H≥h)
5 5 1	
5.782	.02742
6.000	.02165
6.145	.01876
6.509	.01804
6.545	.01515
6.582	.01371
6.727	.01227
6.836	.01082
7.309	.00938
7.527	.00794
7.745	.00505
8.182	.00216
5 5 2	
4.508	.10017
4.623	.09704
4.685	.09223
4.754	.08381
4.808	.08117
4.846	.07299
4.877	.06842
4.992	.06602
5.054	.06000
5.177	.05736
5.238	.05447
5.246	.05111
5.338	.04726
5.546	.04533
5.585	.04101
5.608	.03956
5.615	.03860
5.708	.03716
5.731	.03571
5.792	.03187
5.915	.03042
5.985	.02826
6.077	.02706
6.231	.02609
6.346	.02489
6.354	.02056
6.446	.01960
6.469	.01864
6.654	.01708
6.692	.01611
6.815	.01515
6.838	.01443
6.969	.01323
7.023	.01251
7.185	.01154
7.208	.01106
7.269	.01034
7.338	.00962
7.392	.00914
7.462	.00818
7.577	.00722

h	P(H≥h)
5 5 2	
7.762	.00673
7.923	.00625
8.008	.00601
8.077	.00553
8.131	.00481
8.169	.00337
8.292	.00313
8.377	.00216
8.562	.00204
8.685	.00108
8.938	.00084
9.423	.00036
5 5 3	
4.536	.10198
4.545	.09965
4.571	.09771
4.695	.09360
4.774	.09155
4.826	.08949
4.835	.08777
4.888	.08239
4.914	.07878
4.941	.07723
4.993	.07545
5.020	.07201
5.064	.07046
5.152	.06713
5.169	.06546
5.222	.06471
5.284	.06310
5.363	.06188
5.407	.05894
5.486	.05750
5.495	.05622
5.521	.05495
5.574	.05250
5.600	.05134
5.626	.05084
5.705	.04612
5.802	.04518
5.837	.04168
5.934	.03957
5.943	.03907
6.022	.03802
6.048	.03724
6.198	.03530
6.207	.03447
6.251	.03363
6.259	.03269
6.286	.03125
6.312	.03047
6.365	.02958
6.391	.02797
6.435	.02731

h	P(H≥h)
5 5 3	
6.488	.02542
6.549	.02436
6.593	.02381
6.655	.02220
6.734	.02159
6.752	.02092
6.866	.01901
6.892	.01845
6.945	.01795
6.963	.01684
6.998	.01546
7.051	.01490
7.121	.01440
7.209	.01385
7.226	.01246
7.288	.01185
7.305	.01152
7.314	.01107
7.437	.01063
7.543	.01018
7.578	.00968
7.622	.00930
7.736	.00913
7.763	.00785
7.780	.00758
7.859	.00730
7.895	.00697
7.912	.00669
8.026	.00597
8.079	.00574
8.105	.00552
8.237	.00530
8.264	.00513
8.316	.00491
8.334	.00469
8.545	.00419
8.571	.00411
8.580	.00394
8.651	.00327
8.659	.00261
8.791	.00250
8.809	.00183
8.949	.00167
9.002	.00155
9.055	.00111
9.284	.00100
9.336	.00067
9.398	.00056
9.521	.00050
9.635	.00047
9.916	.00025
10.057	.00019
10.549	.00008

h	P(H≥h)
5 5	4
4.520	.10093
4.523	.09935
4.531	.09785
4.591	.09617
4.611	.09473
4.660	.09311
4.706	.09172
4.806	.08894
4.843	.08825
4.851	.08558
4.866	.08419
4.886	.08293
4.911	.07894
4.943	.07765
4.980	.07637
5.023	.07512
5.071	.07383
5.126	.07267
5.163	.07020
5.171	.06911
5.186	.06785
5.206	.06673
5.231	.06552
5.263	.06446
5.323	.06327
5.400	.06122
5.446	.05905
5.460	.05807
5.483	.05715
5.491	.05621
5.526	.05576
5.571	.05486
5.583	.05205
5.620	.05102
5.643	.05016
5.666	.04931
5.711	.04845
5.780	.04761
5.803	.04721
5.811	.04642
5.871	.04473
5.903	.04322
5.963	.04241
5.983	.04173
5.986	.04094
6.031	.04022
6.086	.03951
6.100	.03797
6.123	.03729
6.146	.03661
6.166	.03527
6.211	.03458
6.223	.03388
6.283	.03355
6.303	.03291
6.351	.03229

h	P(H≥h)
5 5	4
6.406	.03053
6.440	.02988
6.451	.02926
6.486	.02865
6.531	.02809
6.543	.02754
6.603	.02697
6.623	.02644
6.626	.02593
6.671	.02543
6.760	.02490
6.763	.02443
6.771	.02398
6.786	.02300
6.806	.02210
6.831	.02165
6.900	.02122
6.943	.02040
7.000	.01910
7.046	.01889
7.080	.01847
7.106	.01806
7.171	.01770
7.183	.01733
7.220	.01690
7.243	.01676
7.266	.01578
7.311	.01543
7.320	.01516
7.426	.01484
7.446	.01424
7.471	.01394
7.491	.01364
7.503	.01302
7.563	.01269
7.586	.01238
7.631	.01161
7.640	.01134
7.686	.01102
7.720	.01074
7.766	.01047
7.791	.01021
7.823	.00978
7.860	.00965
7.903	.00941
7.906	.00919
8.006	.00897
8.043	.00865
8.051	.00849
8.066	.00819
8.086	.00798
8.131	.00776
8.143	.00757
8.223	.00687
8.226	.00670
8.271	.00654

h	P(H≥h)
5 5	4
8.280	.00621
8.340	.00578
8.363	.00564
8.371	.00548
8.386	.00532
8.431	.00518
8.463	.00502
8.523	.00480
8.543	.00467
8.546	.00440
8.683	.00427
8.691	.00418
8.726	.00381
8.751	.00368
8.771	.00357
8.966	.00344
8.980	.00330
9.000	.00322
9.011	.00293
9.026	.00284
9.071	.00249
9.103	.00232
9.163	.00197
9.231	.00189
9.286	.00160
9.323	.00141
9.411	.00135
9.503	.00109
9.506	.00103
9.606	.00098
9.643	.00095
9.651	.00071
9.686	.00063
9.926	.00059
9.986	.00043
10.051	.00040
10.063	.00036
10.100	.00032
10.260	.00029
10.511	.00019
10.520	.00017
10.566	.00014
10.646	.00013
11.023	.00007
11.083	.00006
11.571	.00002

h	P(H≥h)
5 5	5
4.500	.10150
4.560	.09952
4.580	.09582
4.740	.09211
4.820	.08863
4.860	.08530
4.880	.08373

h	P(H≥h)
5 5	5
4.940	.08067
5.040	.07461
5.120	.07179
5.180	.07039
5.360	.06495
5.420	.06259
5.460	.06015
5.540	.05539
5.580	.05312
5.660	.05092
5.780	.04878
5.820	.04775
5.840	.04580
6.000	.04398
6.020	.04312
6.080	.03963
6.140	.03800
6.180	.03640
6.260	.03480
6.320	.03326
6.480	.03182
6.500	.03118
6.540	.02981
6.620	.02846
6.660	.02718
6.720	.02593
6.740	.02475
6.860	.02356
6.980	.02141
7.020	.02038
7.220	.01935
7.260	.01799
7.280	.01759
7.340	.01598
7.440	.01521
7.460	.01450
7.580	.01371
7.620	.01304
7.740	.01233
7.760	.01168
7.940	.01109
7.980	.01054
8.000	.00946
8.060	.00918
8.180	.00813
8.240	.00766
8.340	.00725
8.420	.00682
8.540	.00639
8.640	.00568
8.660	.00553
8.720	.00523
8.780	.00496
8.820	.00466
8.880	.00423
8.960	.00396

h	P(H≥h)
5 5 5	
9.060	.00374
9.140	.00349
9.260	.00328
9.360	.00308
9.380	.00292
9.420	.00241
9.500	.00211
9.620	.00182
9.680	.00143
9.740	.00136
9.780	.00122
9.920	.00100
9.980	.00090
10.140	.00073
10.220	.00063
10.260	.00049
10.500	.00041
10.580	.00030
10.640	.00027
10.820	.00022
11.060	.00014
11.180	.00011
11.520	.00006
11.580	.00006
12.020	.00002
12.500	.00001
6 1 1	
4.083	.10714
6 2 1	
3.822	.12698
4.200	.09524
4.289	.08730
4.356	.07937
4.622	.06349
4.822	.04762
5.400	.03175
5.600	.02381
6 2 2	
4.436	.10794
4.545	.08889
4.655	.08571
4.982	.05397
5.018	.05079
5.345	.03810
5.527	.03651
5.745	.02063
6.182	.01746
6.545	.01111
6.655	.00794
6.982	.00476

h	P(H≥h)
6 3 1	
3.818	.11905
3.909	.09524
3.964	.09048
4.127	.08571
4.418	.08333
4.545	.06429
4.691	.06190
4.782	.05238
4.855	.05000
5.127	.04762
5.273	.03571
5.509	.03333
5.582	.03095
5.727	.02857
5.855	.02619
5.945	.02143
6.236	.01667
6.582	.01190
6.873	.00714
6 3 2	
4.545	.10087
4.682	.08528
4.742	.07922
4.803	.07662
4.848	.07489
4.909	.07186
5.015	.06061
5.045	.05887
5.076	.05628
5.136	.05498
5.167	.05368
5.227	.05195
5.348	.04632
5.379	.04502
5.394	.04372
5.500	.04069
5.576	.03983
5.636	.03896
5.682	.03420
5.742	.03247
5.879	.03117
5.894	.02987
6.000	.02900
6.061	.02554
6.136	.02294
6.227	.01948
6.242	.01861
6.409	.01602
6.545	.01558
6.561	.01342
6.682	.01255
6.712	.01169
6.727	.01126
6.970	.00909

h	P(H≥h)
6 3 2	
7.045	.00693
7.409	.00649
7.500	.00563
7.515	.00476
7.576	.00390
7.803	.00216
8.182	.00130
6 3 3	
4.538	.10335
4.590	.09773
4.628	.09491
4.731	.09037
4.795	.08193
4.949	.07695
5.038	.07478
5.141	.06981
5.154	.06786
5.244	.06331
5.346	.06115
5.359	.05768
5.410	.05422
5.449	.05271
5.551	.05119
5.615	.04968
5.654	.04665
5.756	.04394
5.769	.04221
5.821	.04026
5.859	.03896
5.974	.03766
6.064	.03636
6.179	.03398
6.231	.03312
6.269	.02879
6.385	.02532
6.436	.02229
6.577	.02143
6.590	.01645
6.679	.01558
6.782	.01472
6.846	.01429
6.885	.01212
7.051	.01061
7.192	.01017
7.410	.00779
7.462	.00714
7.603	.00649
7.615	.00606
7.872	.00433
8.013	.00390
8.115	.00379
8.231	.00292
8.321	.00271
8.423	.00206

h	P(H≥h)
6 3 3	
8.628	.00141
8.692	.00097
8.936	.00054
9.346	.00032
6 4 1	
3.864	.10996
4.038	.09437
4.106	.09177
4.197	.08831
4.273	.08571
4.341	.08139
4.356	.07879
4.402	.06667
4.538	.06320
4.583	.06061
4.818	.05887
4.841	.05714
4.924	.05541
4.947	.04675
5.023	.04416
5.091	.04242
5.152	.03983
5.197	.03810
5.318	.03636
5.455	.03463
5.568	.03377
5.652	.02857
5.674	.02684
5.697	.02597
5.856	.02424
5.924	.02251
6.038	.02165
6.114	.02078
6.174	.01991
6.288	.01905
6.402	.01558
6.523	.01472
6.538	.01385
6.606	.01299
6.697	.01212
7.000	.01126
7.083	.01039
7.106	.00866
7.424	.00693
7.500	.00519
7.614	.00433
7.955	.00260
6 4 2	
4.436	.10361
4.494	.09986
4.615	.09812
4.647	.09004

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 4 2		6 4 2		6 4 3		6 4 3	
4.673	.08413	8.051	.00375	5.654	.04809	7.247	.01222
4.744	.08268	8.186	.00361	5.670	.04649	7.319	.01202
4.878	.07547	8.205	.00346	5.725	.04599	7.324	.01179
4.904	.07446	8.308	.00289	5.753	.04532	7.368	.01159
4.955	.06753	8.365	.00245	5.756	.04472	7.396	.01136
4.974	.06638	8.494	.00188	5.786	.04422	7.418	.01109
5.032	.06407	8.538	.00159	5.797	.04309	7.467	.01006
5.051	.06205	8.667	.00101	5.885	.04259	7.500	.00966
5.109	.05974	8.827	.00072	5.901	.04049	7.538	.00929
5.128	.05830	9.231	.00043	5.918	.03993	7.544	.00912
5.135	.05325			5.956	.03903	7.560	.00892
5.186	.05108	6 4 3		5.962	.03859	7.599	.00874
5.263	.05022			5.989	.03756	7.632	.00859
5.340	.04906	4.599	.10220	6.011	.03696	7.681	.00846
5.417	.04805	4.604	.09997	6.099	.03643	7.687	.00826
5.436	.04430	4.615	.09890	6.110	.03493	7.714	.00809
5.494	.04170	4.643	.09584	6.132	.03447	7.747	.00793
5.590	.04084	4.654	.09494	6.154	.03360	7.775	.00709
5.596	.03997	4.670	.09391	6.181	.03317	7.819	.00669
5.667	.03911	4.681	.09184	6.187	.03150	7.846	.00650
5.769	.03636	4.687	.09088	6.242	.03104	7.868	.00609
5.801	.03146	4.725	.08988	6.253	.03057	7.940	.00596
5.827	.03088	4.742	.08881	6.275	.03007	8.011	.00566
5.974	.02929	4.747	.08781	6.313	.02964	8.027	.00519
6.000	.02785	4.758	.08678	6.330	.02927	8.033	.00496
6.032	.02597	4.819	.08575	6.401	.02887	8.132	.00483
6.109	.02511	4.830	.08485	6.429	.02854	8.170	.00473
6.186	.02453	4.846	.08388	6.440	.02751	8.176	.00460
6.282	.02280	4.857	.08075	6.456	.02704	8.187	.00446
6.288	.02165	4.868	.07969	6.462	.02597	8.203	.00413
6.494	.02049	4.901	.07869	6.500	.02534	8.242	.00403
6.519	.02006	4.918	.07782	6.538	.02498	8.258	.00356
6.571	.01962	4.962	.07689	6.544	.02351	8.275	.00346
6.590	.01833	5.033	.07443	6.604	.02281	8.346	.00333
6.647	.01775	5.038	.07353	6.615	.02244	8.385	.00326
6.667	.01732	5.044	.07263	6.632	.02211	8.390	.00316
6.692	.01530	5.082	.06986	6.676	.02181	8.418	.00306
6.724	.01385	5.110	.06830	6.714	.02018	8.538	.00293
6.750	.01342	5.170	.06657	6.725	.01995	8.571	.00266
6.878	.01299	5.225	.06573	6.753	.01928	8.615	.00260
6.974	.01227	5.253	.06424	6.797	.01891	8.654	.00250
7.032	.01169	5.275	.06354	6.813	.01865	8.687	.00216
7.205	.01140	5.286	.06284	6.868	.01805	8.819	.00210
7.212	.01082	5.313	.06194	6.885	.01718	8.901	.00203
7.340	.00967	5.346	.06121	6.896	.01692	8.918	.00183
7.385	.00938	5.357	.06054	6.940	.01642	8.967	.00176
7.417	.00880	5.385	.05927	6.956	.01618	9.000	.00170
7.436	.00823	5.390	.05784	6.973	.01585	9.038	.00153
7.513	.00707	5.396	.05651	7.027	.01505	9.154	.00127
7.571	.00678	5.401	.05574	7.033	.01479	9.170	.00100
7.590	.00649	5.462	.05508	7.060	.01452	9.176	.00097
7.647	.00563	5.489	.05431	7.104	.01429	9.297	.00083
7.724	.00548	5.538	.05245	7.115	.01409	9.330	.00080
7.821	.00519	5.571	.05108	7.143	.01322	9.346	.00067
7.846	.00447	5.604	.05042	7.154	.01295	9.357	.00047
7.904	.00390	5.610	.04862	7.187	.01242	9.615	.00043

h	P(H≥h)
6 4 3	
9.753	.00030
9.824	.00023
9.962	.00017
10.385	.00010
6 4 4	
4.524	.10312
4.595	.09847
4.614	.09549
4.667	.09240
4.714	.09082
4.724	.08808
4.824	.08650
4.829	.08515
4.881	.08448
4.895	.08060
4.957	.07911
4.981	.07780
4.995	.07656
5.095	.07532
5.124	.07304
5.129	.07173
5.167	.07047
5.181	.06809
5.224	.06676
5.257	.06558
5.281	.06431
5.295	.06313
5.357	.06199
5.395	.05993
5.400	.05788
5.429	.05736
5.514	.05510
5.581	.05411
5.600	.05306
5.624	.05254
5.657	.05151
5.667	.05052
5.681	.04881
5.781	.04793
5.795	.04713
5.814	.04633
5.857	.04464
5.867	.04304
5.895	.04207
5.967	.04131
6.024	.04059
6.081	.03771
6.095	.03703
6.114	.03623
6.124	.03543
6.157	.03477
6.195	.03400
6.200	.03334
6.329	.03267

h	P(H≥h)
6 4 4	
6.367	.03208
6.424	.03149
6.429	.03027
6.481	.02944
6.495	.02889
6.514	.02761
6.557	.02704
6.581	.02651
6.595	.02599
6.667	.02495
6.695	.02413
6.724	.02316
6.781	.02264
6.800	.02211
6.824	.02154
6.881	.02108
6.900	.01977
6.924	.01935
7.014	.01893
7.029	.01850
7.124	.01806
7.224	.01726
7.229	.01655
7.267	.01587
7.281	.01558
7.314	.01496
7.357	.01474
7.381	.01413
7.395	.01323
7.414	.01293
7.495	.01261
7.529	.01236
7.581	.01181
7.624	.01150
7.681	.01124
7.695	.01101
7.700	.01068
7.714	.01040
7.724	.01011
7.795	.00990
7.914	.00964
7.929	.00945
7.967	.00903
8.000	.00886
8.024	.00852
8.067	.00791
8.081	.00758
8.095	.00739
8.181	.00654
8.195	.00633
8.214	.00617
8.257	.00543
8.324	.00519
8.381	.00480
8.495	.00430
8.524	.00415

h	P(H≥h)
6 4 4	
8.557	.00388
8.595	.00375
8.767	.00325
8.781	.00314
8.824	.00299
8.857	.00285
8.881	.00251
8.900	.00240
8.957	.00230
8.981	.00221
8.995	.00213
9.095	.00202
9.167	.00192
9.257	.00160
9.324	.00156
9.395	.00150
9.414	.00143
9.467	.00137
9.524	.00129
9.600	.00110
9.629	.00103
9.681	.00089
9.714	.00084
9.795	.00070
9.857	.00067
9.895	.00057
9.929	.00053
10.024	.00042
10.057	.00038
10.314	.00029
10.381	.00022
10.424	.00014
10.629	.00012
10.881	.00009
11.000	.00005
11.429	.00003
6 5 1	
3.921	.10426
4.128	.09271
4.167	.09091
4.221	.08874
4.269	.08550
4.344	.08009
4.374	.06962
4.385	.06782
4.497	.06566
4.590	.06349
4.782	.06205
4.823	.05952
4.836	.05087
4.990	.04726
5.028	.04618
5.090	.04293
5.151	.04185

h	P(H≥h)
6 5 1	
5.336	.04040
5.359	.03932
5.400	.03427
5.459	.03247
5.562	.03066
5.574	.02958
5.728	.02886
5.767	.02778
5.769	.02706
5.862	.02633
5.951	.02453
6.074	.02092
6.138	.01984
6.344	.01804
6.382	.01732
6.485	.01659
6.567	.01587
6.600	.01515
6.628	.01263
6.690	.01190
6.805	.01154
6.874	.01082
6.997	.01010
7.182	.00974
7.246	.00938
7.297	.00902
7.305	.00866
7.421	.00722
7.451	.00685
7.490	.00649
7.574	.00613
7.592	.00577
7.667	.00541
8.067	.00505
8.077	.00433
8.167	.00397
8.331	.00325
8.436	.00253
8.515	.00180
8.885	.00108
6 5 2	
4.475	.10046
4.596	.09807
4.613	.09707
4.615	.09596
4.640	.09357
4.668	.09241
4.714	.08958
4.727	.08780
4.738	.08675
4.811	.07842
4.824	.07509
4.833	.07420
4.846	.07332

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 5 2		6 5 2		6 5 2		6 5 3	
4.890	.07237	6.987	.01371	9.738	.00028	5.808	.04574
4.903	.07132	6.989	.01349	10.154	.00017	5.829	.04529
4.932	.07032	7.042	.01321			5.830	.04350
4.956	.06494	7.068	.01260	6 5 3		5.869	.04315
5.044	.06416	7.119	.01210			5.874	.04198
5.075	.06327	7.132	.01182	4.497	.10022	5.884	.04117
5.090	.06205	7.185	.01104	4.535	.09932	5.950	.04070
5.101	.06022	7.218	.01071	4.550	.09838	5.960	.03996
5.154	.05744	7.299	.01016	4.564	.09757	5.981	.03922
5.229	.05556	7.376	.00982	4.589	.09665	6.021	.03840
5.233	.05467	7.382	.00955	4.640	.09502	6.029	.03803
5.240	.05384	7.404	.00932	4.655	.09259	6.067	.03766
5.273	.05234	7.462	.00916	4.695	.09006	6.074	.03724
5.286	.05150	7.481	.00894	4.762	.08921	6.088	.03657
5.319	.05056	7.640	.00821	4.802	.08838	6.097	.03546
5.338	.04729	7.646	.00744	4.808	.08766	6.135	.03439
5.440	.04662	7.673	.00727	4.817	.08695	6.150	.03401
5.486	.04595	7.701	.00705	4.840	.08540	6.164	.03363
5.497	.04529	7.738	.00688	4.855	.08402	6.189	.03326
5.530	.04446	7.760	.00672	4.869	.08333	6.227	.03293
5.585	.04135	7.804	.00655	4.884	.08031	6.240	.03261
5.615	.03924	7.833	.00638	4.893	.07878	6.255	.03122
5.618	.03857	7.870	.00599	4.924	.07814	6.257	.03085
5.624	.03757	7.910	.00583	4.954	.07747	6.288	.03028
5.662	.03691	7.956	.00566	5.008	.07547	6.362	.02997
5.767	.03513	7.958	.00544	5.021	.07479	6.364	.02964
5.813	.03452	8.068	.00527	5.069	.07406	6.402	.02895
5.881	.03397	8.167	.00516	5.084	.07277	6.408	.02863
5.899	.03269	8.187	.00505	5.097	.07139	6.417	.02792
5.932	.03030	8.196	.00488	5.114	.06944	6.448	.02766
5.958	.02980	8.200	.00455	5.122	.06816	6.469	.02741
6.033	.02925	8.240	.00444	5.173	.06748	6.590	.02654
6.057	.02853	8.273	.00427	5.189	.06680	6.600	.02626
6.099	.02753	8.299	.00405	5.190	.06499	6.621	.02561
6.110	.02697	8.332	.00394	5.267	.06436	6.667	.02452
6.130	.02636	8.354	.00383	5.274	.06370	6.669	.02425
6.189	.02570	8.404	.00372	5.297	.06256	6.684	.02369
6.196	.02481	8.503	.00361	5.335	.06083	6.697	.02298
6.218	.02442	8.530	.00350	5.341	.06025	6.707	.02224
6.262	.02392	8.571	.00339	5.402	.05962	6.714	.02199
6.275	.02214	8.615	.00316	5.417	.05907	6.722	.02172
6.327	.02176	8.662	.00283	5.448	.05678	6.760	.02151
6.354	.02137	8.727	.00272	5.457	.05516	6.789	.02101
6.415	.02092	8.747	.00266	5.493	.05467	6.829	.01904
6.525	.02054	8.800	.00233	5.495	.05412	6.874	.01879
6.538	.02009	8.947	.00205	5.524	.05364	6.897	.01835
6.585	.01970	8.967	.00200	5.541	.05313	6.935	.01786
6.613	.01837	9.000	.00178	5.554	.05265	6.941	.01727
6.646	.01798	9.011	.00161	5.600	.05001	6.981	.01678
6.657	.01765	9.046	.00155	5.602	.04956	6.989	.01657
6.673	.01732	9.185	.00122	5.617	.04903	7.002	.01639
6.690	.01587	9.189	.00100	5.630	.04857	7.017	.01615
6.771	.01537	9.275	.00094	5.640	.04808	7.124	.01558
6.811	.01499	9.415	.00072	5.648	.04706	7.154	.01481
6.824	.01465	9.453	.00050	5.722	.04658	7.217	.01418
6.954	.01432	9.670	.00039	5.762	.04614	7.230	.01381

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 5 3		6 5 3		6 5 4		6 5 4	
7.255	.01338	8.954	.00285	4.698	.09152	5.548	.05549
7.322	.01318	9.000	.00279	4.702	.09089	5.556	.05507
7.354	.01303	9.008	.00270	4.708	.08912	5.561	.05433
7.362	.01211	9.028	.00265	4.747	.08787	5.573	.05396
7.408	.01193	9.031	.00246	4.773	.08729	5.583	.05360
7.429	.01177	9.069	.00241	4.781	.08669	5.602	.05282
7.430	.01143	9.074	.00237	4.815	.08613	5.610	.05210
7.474	.01126	9.114	.00228	4.860	.08555	5.618	.05170
7.484	.01079	9.122	.00207	4.861	.08444	5.636	.05131
7.522	.01062	9.135	.00203	4.873	.08392	5.647	.05096
7.550	.01032	9.150	.00187	4.890	.08283	5.656	.05061
7.560	.01016	9.257	.00182	4.898	.08231	5.661	.04991
7.590	.00999	9.274	.00161	4.927	.08175	5.668	.04957
7.621	.00984	9.335	.00156	4.936	.08073	5.681	.04917
7.627	.00967	9.364	.00151	4.948	.08023	5.685	.04882
7.674	.00913	9.455	.00147	4.956	.07968	5.708	.04846
7.697	.00885	9.457	.00144	4.961	.07868	5.736	.04769
7.733	.00861	9.488	.00132	4.965	.07819	5.743	.04735
7.750	.00849	9.541	.00130	4.981	.07763	5.756	.04702
7.764	.00836	9.598	.00126	5.018	.07664	5.760	.04670
7.789	.00808	9.617	.00112	5.021	.07612	5.773	.04633
7.855	.00771	9.669	.00100	5.023	.07513	5.790	.04600
7.933	.00756	9.714	.00093	5.036	.07463	5.818	.04563
7.941	.00744	9.754	.00074	5.043	.07415	5.823	.04528
8.002	.00716	9.790	.00071	5.061	.07364	5.843	.04495
8.008	.00704	9.869	.00059	5.063	.07314	5.856	.04459
8.069	.00692	9.897	.00057	5.068	.07119	5.896	.04428
8.084	.00668	9.960	.00055	5.073	.07067	5.936	.04367
8.093	.00655	9.973	.00052	5.065	.07020	5.940	.04337
8.114	.00645	10.029	.00043	5.122	.06968	5.948	.04275
8.154	.00624	10.141	.00036	5.136	.06922	5.981	.04209
8.160	.00617	10.202	.00031	5.148	.06874	6.000	.04179
8.221	.00576	10.217	.00030	5.161	.06824	6.015	.04149
8.230	.00554	10.257	.00023	5.181	.06732	6.021	.04116
8.269	.00536	10.364	.00021	5.193	.06688	6.022	.04030
8.284	.00528	10.400	.00020	5.227	.06640	6.068	.04000
8.297	.00519	10.522	.00015	5.261	.06596	6.023	.03971
8.314	.00477	10.707	.00011	5.281	.06510	6.093	.03914
8.373	.00467	10.829	.00008	5.298	.06467	6.098	.03887
8.389	.00459	10.888	.00006	5.310	.06377	6.128	.03856
8.421	.00440	11.314	.00004	5.333	.06290	6.135	.03801
8.495	.00433			5.336	.06246	6.143	.03771
8.535	.00423	6 5 4		5.340	.06205	6.156	.03712
8.573	.00416			5.381	.06163	6.161	.03686
8.589	.00410	4.500	.10111	5.415	.06121	6.165	.03660
8.602	.00396	4.522	.09974	5.418	.06077	6.181	.03631
8.617	.00389	4.536	.09843	5.422	.06035	6.188	.03605
8.688	.00367	4.543	.09779	5.423	.05995	6.202	.03498
8.695	.00360	4.560	.09713	5.436	.05956	6.223	.03472
8.741	.00344	4.579	.09646	5.456	.05917	6.247	.03444
8.754	.00337	4.615	.09517	5.458	.05877	6.256	.03418
8.817	.00323	4.623	.09372	5.468	.05793	6.261	.03392
8.840	.00316	4.636	.09309	5.481	.05752	6.268	.03368
8.855	.00306	4.651	.09179	5.523	.05712	6.281	.03340
8.907	.00300	4.688	.09060	5.527	.05671	6.285	.03315
8.924	.00293	4.693	.08940	5.535	.05633	6.298	.03288

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 5 4		6 5 4		6 5 4		6 5 4	
6.322	.03260	7.236	.01749	8.061	.00891	8.898	.00369
6.333	.03212	7.256	.01734	8.063	.00883	8.902	.00358
6.336	.03163	7.260	.01720	8.081	.00867	8.910	.00354
6.361	.03139	7.261	.01706	8.083	.00861	8.956	.00337
6.375	.03115	7.268	.01693	8.085	.00843	9.000	.00333
6.396	.03061	7.273	.01677	8.098	.00833	9.015	.00324
6.427	.03015	7.290	.01663	8.122	.00815	9.021	.00320
6.468	.02991	7.293	.01634	8.148	.00798	9.023	.00315
6.473	.02965	7.327	.01621	8.156	.00790	9.043	.00310
6.503	.02941	7.333	.01608	8.160	.00782	9.061	.00307
6.521	.02896	7.335	.01579	8.218	.00774	9.073	.00302
6.547	.02852	7.336	.01564	8.223	.00766	9.081	.00298
6.556	.02807	7.348	.01550	8.227	.00759	9.148	.00291
6.615	.02785	7.361	.01535	8.236	.00751	9.156	.00281
6.618	.02761	7.381	.01509	8.243	.00743	9.188	.00278
6.622	.02718	7.418	.01495	8.250	.00735	9.202	.00275
6.623	.02697	7.423	.01481	8.268	.00716	9.210	.00271
6.643	.02677	7.436	.01455	8.273	.00696	9.218	.00267
6.656	.02654	7.447	.01442	8.281	.00689	9.247	.00263
6.661	.02634	7.458	.01429	8.302	.00683	9.261	.00259
6.668	.02614	7.468	.01402	8.323	.00663	9.268	.00256
6.681	.02592	7.473	.01389	8.333	.00644	9.293	.00252
6.693	.02572	7.498	.01364	8.340	.00638	9.322	.00249
6.723	.02551	7.521	.01352	8.381	.00630	9.336	.00246
6.735	.02532	7.522	.01318	8.415	.00624	9.375	.00242
6.736	.02511	7.556	.01296	8.422	.00598	9.393	.00237
6.750	.02473	7.561	.01286	8.456	.00591	9.396	.00233
6.756	.02412	7.581	.01266	8.490	.00584	9.418	.00220
6.765	.02373	7.593	.01254	8.498	.00578	9.423	.00217
6.793	.02353	7.628	.01242	8.521	.00572	9.427	.00209
6.818	.02334	7.636	.01221	8.527	.00559	9.436	.00206
6.833	.02316	7.668	.01213	8.535	.00553	9.443	.00205
6.840	.02279	7.688	.01187	8.536	.00545	9.458	.00199
6.847	.02261	7.693	.01165	8.543	.00541	9.461	.00189
6.856	.02242	7.736	.01154	8.561	.00525	9.493	.00186
6.861	.02223	7.740	.01146	8.618	.00520	9.498	.00184
6.885	.02206	7.747	.01126	8.636	.00514	9.521	.00181
6.896	.02148	7.748	.01118	8.640	.00503	9.523	.00179
6.898	.02113	7.756	.01106	8.643	.00497	9.536	.00173
6.948	.02096	7.761	.01086	8.647	.00492	9.547	.00169
6.956	.02076	7.815	.01076	8.661	.00487	9.548	.00169
6.961	.02042	7.818	.01064	8.681	.00482	9.556	.00164
6.973	.02026	7.823	.01052	8.685	.00471	9.563	.00163
6.993	.02009	7.856	.01042	8.693	.00466	9.656	.00150
7.018	.01993	7.861	.01033	8.698	.00461	9.673	.00148
7.021	.01975	7.881	.01022	8.708	.00454	9.690	.00145
7.027	.01942	7.896	.01015	8.722	.00427	9.698	.00142
7.036	.01925	7.936	.00998	8.736	.00421	9.708	.00140
7.043	.01910	7.948	.00989	8.760	.00416	9.735	.00137
7.056	.01894	7.961	.00979	8.761	.00412	9.748	.00128
7.068	.01877	7.965	.00962	8.781	.00406	9.781	.00123
7.098	.01858	8.002	.00943	8.827	.00395	9.818	.00121
7.123	.01842	8.010	.00925	8.856	.00392	9.833	.00119
7.125	.01826	8.018	.00917	8.868	.00388	9.843	.00116
7.147	.01792	8.036	.00908	8.873	.00377	9.856	.00114
7.222	.01777	8.040	.00899	8.881	.00373	9.873	.00112

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 5 4		6 5 5		6 5 5		6 5 5	
9.896	.00110	4.529	.10250	5.828	.04590	7.134	.01972
9.922	.00104	4.547	.09835	5.910	.04538	7.141	.01919
9.936	.00102	4.557	.09732	5.934	.04487	7.165	.01894
9.960	.00100	4.604	.09625	5.941	.04436	7.216	.01843
9.961	.00098	4.624	.09523	5.959	.04338	7.229	.01818
10.056	.00097	4.640	.09422	5.981	.04288	7.251	.01795
10.081	.00095	4.663	.09323	6.012	.04190	7.287	.01771
10.083	.00093	4.688	.09225	6.016	.04095	7.310	.01748
10.103	.00087	4.710	.09130	6.040	.04047	7.324	.01723
10.110	.00085	4.746	.09031	6.051	.04023	7.353	.01677
10.125	.00084	4.782	.08934	6.053	.03975	7.371	.01622
10.147	.00074	4.804	.08844	6.087	.03880	7.416	.01579
10.161	.00067	4.812	.08705	6.106	.03832	7.424	.01569
10.181	.00066	4.816	.08614	6.146	.03786	7.463	.01548
10.215	.00064	4.829	.08521	6.157	.03743	7.512	.01483
10.323	.00057	4.851	.08430	6.224	.03697	7.522	.01463
10.328	.00056	4.882	.08338	6.228	.03677	7.604	.01421
10.356	.00050	4.887	.08164	6.241	.03549	7.635	.01401
10.361	.00049	4.910	.08075	6.294	.03508	7.640	.01364
10.365	.00048	4.922	.07987	6.299	.03427	7.653	.01345
10.396	.00047	4.924	.07899	6.318	.03385	7.706	.01327
10.402	.00043	4.957	.07813	6.382	.03345	7.710	.01293
10.458	.00042	4.971	.07728	6.440	.03192	7.729	.01276
10.468	.00041	4.993	.07645	6.463	.03153	7.734	.01259
10.481	.00037	5.063	.07479	6.476	.03114	7.747	.01243
10.485	.00036	5.087	.07316	6.499	.03078	7.769	.01226
10.548	.00031	5.094	.07235	6.506	.03041	7.794	.01207
10.560	.00030	5.112	.07156	6.524	.02971	7.816	.01158
10.636	.00029	5.165	.07002	6.546	.02935	7.840	.01142
10.673	.00028	5.188	.06928	6.569	.02901	7.887	.01125
10.688	.00027	5.206	.06817	6.581	.02864	7.888	.01110
10.708	.00023	5.228	.06668	6.618	.02829	7.918	.01093
10.836	.00020	5.240	.06594	6.651	.02762	7.922	.01079
10.881	.00020	5.259	.06519	6.665	.02729	7.957	.01063
10.890	.00019	5.346	.06448	6.671	.02663	7.988	.01047
10.893	.00017	5.347	.06378	6.687	.02630	7.993	.01017
10.935	.00016	5.376	.06309	6.710	.02597	8.012	.01002
10.981	.00013	5.394	.06242	6.722	.02580	8.028	.00988
10.993	.00013	5.404	.06110	6.757	.02548	8.051	.00973
11.036	.00012	5.416	.05943	6.781	.02517	8.063	.00944
11.063	.00011	5.447	.05879	6.788	.02484	8.076	.00930
11.228	.00010	5.451	.05817	6.793	.02453	8.157	.00915
11.348	.00008	5.471	.05687	6.816	.02423	8.169	.00908
11.348	.00007	5.522	.05561	6.859	.02390	8.171	.00882
11.396	.00006	5.535	.05501	6.887	.02332	8.204	.00868
11.443	.00006	5.557	.05440	6.899	.02301	8.218	.00855
11.458	.00005	5.593	.05379	6.947	.02271	8.310	.00831
11.565	.00004	5.629	.05317	6.953	.02242	8.346	.00818
11.843	.00003	5.676	.05202	6.969	.02215	8.359	.00793
11.896	.00002	5.699	.05090	6.993	.02187	8.365	.00759
11.948	.00002	5.729	.04973	7.028	.02157	8.369	.00748
12.375	.00001	5.734	.04917	7.040	.02130	8.404	.00735
		5.757	.04860	7.071	.02102	8.416	.00724
		5.769	.04803	7.088	.02076	8.451	.00703
		5.804	.04751	7.099	.02025	8.482	.00691
		5.824	.04696	7.110	.01998	8.487	.00670

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 5 5		6 5 5		6 5 5		6 6 1	
8.500	.00659	9.912	.00163	12.393	.00002	8.516	.00283
8.553	.00649	9.934	.00156	12.435	.00002	8.923	.00250
8.576	.00638	9.965	.00150	12.440	.00002	9.000	.00216
8.581	.00633	9.969	.00137	12.534	.00001	9.077	.00183
8.593	.00624	9.993	.00133	12.876	.00001	9.308	.00117
8.594	.00614	10.006	.00129	12.922	.00000	9.692	.00050
8.616	.00604	10.053	.00126	13.346	.00000		
8.647	.00594	10.110	.00123			6 6 2	
8.699	.00566	10.169	.00113	6 6 1			
8.722	.00556	10.176	.00111			4.419	.10670
8.735	.00546	10.194	.00106	3.978	.10706	4.438	.09824
8.765	.00529	10.216	.00103	4.000	.09774	4.552	.09586
8.782	.00511	10.271	.00100	4.077	.09441	4.610	.09319
8.835	.00502	10.287	.00098	4.209	.08775	4.800	.08786
8.859	.00494	10.288	.00095	4.308	.08208	4.819	.08477
8.910	.00486	10.335	.00088	4.352	.07676	4.838	.08063
8.934	.00471	10.341	.00083	4.593	.06943	4.876	.07749
8.946	.00467	10.459	.00080	4.648	.06677	4.933	.06829
8.981	.00451	10.487	.00078	4.692	.06377	4.971	.06667
9.016	.00443	10.499	.00076	4.769	.05711	5.010	.06425
9.018	.00437	10.529	.00067	4.857	.05112	5.105	.06287
9.047	.00423	10.593	.00066	4.945	.04779	5.219	.05782
9.051	.00418	10.628	.00061	5.220	.04679	5.238	.05525
9.110	.00412	10.640	.00057	5.231	.04346	5.276	.05340
9.118	.00398	10.699	.00055	5.264	.03746	5.352	.05140
9.122	.00379	10.710	.00051	5.352	.03546	5.410	.04993
9.159	.00373	10.712	.00050	5.451	.03380	5.486	.04531
9.206	.00367	10.741	.00048	5.626	.03180	5.505	.04212
9.212	.00356	10.759	.00043	5.736	.03114	5.638	.04158
9.216	.00349	10.781	.00041	5.791	.02747	5.676	.03777
9.228	.00344	10.804	.00040	5.912	.02514	5.733	.03673
9.263	.00330	10.812	.00037	5.923	.02381	5.752	.03520
9.334	.00323	10.816	.00036	6.055	.02243	5.867	.03420
9.347	.00312	10.946	.00034	6.088	.02148	6.019	.03216
9.357	.00302	11.016	.00031	6.286	.01981	6.038	.03007
9.404	.00296	11.024	.00027	6.352	.01748	6.076	.02926
9.440	.00291	11.041	.00026	6.407	.01694	6.133	.02721
9.441	.00285	11.118	.00025	6.626	.01532	6.171	.02574
9.488	.00275	11.122	.00024	6.632	.01432	6.210	.02443
9.494	.00269	11.135	.00021	6.768	.01365	6.305	.02367
9.510	.00265	11.169	.00020	6.802	.01265	6.343	.02305
9.534	.00261	11.324	.00018	6.879	.01199	6.419	.02200
9.546	.00256	11.334	.00014	7.066	.01032	6.552	.02119
9.581	.00251	11.475	.00013	7.121	.00932	6.667	.01905
9.629	.00245	11.522	.00012	7.374	.00899	6.705	.01848
9.682	.00241	11.557	.00012	7.407	.00833	6.819	.01577
9.687	.00237	11.559	.00011	7.495	.00766	6.876	.01477
9.706	.00233	11.581	.00010	7.515	.00699	7.010	.01453
9.722	.00219	11.659	.00009	7.593	.00599	7.067	.01296
9.746	.00206	11.663	.00008	7.769	.00566	7.105	.01234
9.757	.00204	11.863	.00006	7.934	.00500	7.276	.01173
9.771	.00200	11.941	.00005	8.165	.00433	7.352	.01097
9.793	.00188	11.981	.00005	8.195	.00450	7.371	.01063
9.851	.00184	12.029	.00005	8.220	.00383	7.410	.01020
9.894	.00172	12.035	.00004	8.264	.00350	7.467	.00982
9.899	.00167	12.181	.00003	8.429	.00316	7.505	.00949

h	P(H≥h)
6 6 2	
7.543	.00916
7.619	.00830
7.638	.00764
7.752	.00725
7.886	.00697
8.019	.00668
8.038	.00635
8.076	.00592
8.152	.00540
8.210	.00488
8.305	.00459
8.400	.00411
8.533	.00404
8.610	.00343
8.819	.00328
8.838	.00314
8.876	.00256
8.933	.00252
9.010	.00238
9.086	.00224
9.105	.00209
9.219	.00200
9.352	.00176
9.505	.00167
9.600	.00157
9.638	.00138
9.676	.00109
9.752	.00095
9.867	.00067
9.943	.00062
10.076	.00043
10.210	.00040
10.305	.00021
10.552	.00017
10.971	.00007
6 6 3	
4.525	.10221
4.558	.09948
4.600	.09822
4.667	.09560
4.683	.09420
4.692	.09280
4.725	.09138
4.792	.08489
4.817	.08354
4.892	.08295
4.900	.08165
5.017	.07820
5.025	.07589
5.058	.07254
5.083	.07152
5.125	.07046
5.150	.06846
5.192	.06632

h	P(H≥h)
6 6 3	
5.292	.06419
5.333	.06329
5.350	.06280
5.358	.06085
5.392	.05993
5.400	.05894
5.433	.05662
5.483	.05570
5.558	.05395
5.567	.05237
5.600	.05160
5.625	.04999
5.692	.04836
5.725	.04760
5.733	.04613
5.750	.04546
5.817	.04386
5.833	.04306
5.892	.04238
5.933	.04100
6.017	.04031
6.025	.03998
6.058	.03885
6.100	.03835
6.125	.03715
6.150	.03545
6.192	.03356
6.225	.03291
6.267	.03130
6.350	.03070
6.358	.02961
6.400	.02873
6.483	.02820
6.525	.02765
6.558	.02576
6.667	.02529
6.683	.02509
6.725	.02462
6.733	.02388
6.750	.02349
6.767	.02230
6.792	.02139
6.817	.02098
6.858	.02046
6.892	.02009
6.900	.01966
6.958	.01839
7.000	.01811
7.017	.01741
7.025	.01695
7.058	.01622
7.167	.01587
7.192	.01547
7.225	.01518
7.267	.01493
7.292	.01459

h	P(H≥h)
6 6 3	
7.350	.01426
7.358	.01277
7.392	.01249
7.417	.01219
7.433	.01189
7.483	.01166
7.525	.01136
7.567	.01065
7.625	.01034
7.683	.01009
7.725	.00985
7.733	.00934
7.817	.00911
7.833	.00859
7.858	.00837
7.892	.00821
8.000	.00801
8.025	.00782
8.058	.00744
8.067	.00725
8.100	.00716
8.150	.00660
8.192	.00622
8.225	.00604
8.350	.00560
8.400	.00543
8.417	.00514
8.458	.00497
8.600	.00483
8.625	.00471
8.683	.00437
8.692	.00423
8.725	.00397
8.750	.00384
8.767	.00371
8.817	.00359
8.858	.00341
8.900	.00330
8.958	.00310
9.017	.00300
9.058	.00289
9.083	.00282
9.150	.00273
9.225	.00253
9.392	.00228
9.400	.00213
9.433	.00206
9.458	.00199
9.483	.00193
9.525	.00185
9.567	.00174
9.600	.00161
9.667	.00153
9.683	.00147
9.725	.00141
9.792	.00136

h	P(H≥h)
6 6 3	
9.858	.00130
9.933	.00125
10.017	.00121
10.025	.00117
10.100	.00110
10.125	.00106
10.150	.00098
10.192	.00079
10.225	.00076
10.350	.00062
10.392	.00049
10.417	.00046
10.500	.00045
10.525	.00040
10.558	.00030
10.733	.00029
10.750	.00027
10.858	.00019
11.017	.00017
11.025	.00015
11.125	.00010
11.267	.00009
11.350	.00008
11.567	.00004
11.725	.00003
12.150	.00001
6 6 4	
4.518	.10088
4.548	.09982
4.603	.09878
4.636	.09774
4.662	.09575
4.695	.09469
4.706	.09372
4.724	.09164
4.765	.08968
4.779	.08869
4.783	.08572
4.824	.08479
4.871	.08295
4.897	.08026
4.930	.07930
4.956	.07842
5.000	.07753
5.048	.07403
5.077	.07324
5.132	.07244
5.165	.07160
5.191	.07006
5.195	.06930
5.224	.06855
5.235	.06781
5.254	.06626
5.294	.06554

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 6 4		6 6 4		6 6 4		6 6 4	
5.309	.06406	6.824	.02396	8.529	.00652	10.250	.00108
5.313	.06372	6.842	.02328	8.577	.00605	10.283	.00102
5.342	.06163	6.882	.02298	8.588	.00595	10.342	.00100
5.368	.06096	6.901	.02233	8.603	.00576	10.426	.00094
5.401	.05951	6.930	.02203	8.607	.00554	10.430	.00092
5.426	.05819	6.989	.02090	8.636	.00546	10.460	.00090
5.485	.05750	7.015	.02060	8.665	.00537	10.471	.00086
5.489	.05680	7.074	.02031	8.706	.00527	10.489	.00083
5.544	.05618	7.107	.01974	8.721	.00506	10.588	.00081
5.577	.05491	7.118	.01949	8.754	.00497	10.607	.00074
5.607	.05367	7.132	.01924	8.765	.00487	10.647	.00067
5.695	.05188	7.165	.01870	8.783	.00467	10.662	.00062
5.706	.05130	7.176	.01844	8.838	.00459	10.695	.00055
5.721	.05009	7.250	.01797	8.842	.00449	10.721	.00053
5.724	.04950	7.254	.01747	8.897	.00418	10.754	.00052
5.754	.04894	7.313	.01724	8.901	.00410	10.779	.00045
5.765	.04785	7.342	.01676	8.960	.00401	10.871	.00044
5.783	.04728	7.353	.01654	9.000	.00394	10.882	.00042
5.838	.04673	7.371	.01561	9.015	.00377	10.901	.00035
5.871	.04617	7.426	.01518	9.074	.00369	10.956	.00033
5.882	.04565	7.460	.01475	9.107	.00361	10.989	.00030
5.897	.04396	7.485	.01455	9.165	.00356	11.048	.00029
5.930	.04340	7.518	.01435	9.191	.00349	11.136	.00024
5.941	.04290	7.529	.01396	9.195	.00331	11.191	.00023
5.956	.04185	7.548	.01372	9.224	.00325	11.250	.00022
5.960	.04129	7.577	.01353	9.235	.00318	11.254	.00017
5.989	.04080	7.607	.01333	9.250	.00305	11.313	.00016
6.015	.04030	7.647	.01314	9.283	.00290	11.353	.00016
6.018	.03977	7.662	.01240	9.313	.00278	11.368	.00015
6.118	.03928	7.779	.01219	9.368	.00265	11.489	.00014
6.136	.03829	7.783	.01211	9.401	.00259	11.518	.00011
6.191	.03786	7.813	.01179	9.412	.00255	11.529	.00010
6.195	.03738	7.838	.01117	9.426	.00242	11.588	.00010
6.224	.03650	7.871	.01083	9.489	.00236	11.765	.00009
6.235	.03609	7.956	.01071	9.529	.00231	11.779	.00006
6.250	.03521	7.960	.01054	9.548	.00225	11.783	.00006
6.283	.03388	7.989	.01027	9.577	.00220	11.882	.00005
6.312	.03347	8.000	.00998	9.603	.00211	11.960	.00005
6.368	.03269	8.015	.00964	9.647	.00206	12.077	.00004
6.371	.03228	8.059	.00934	9.662	.00195	12.235	.00003
6.401	.03189	8.074	.00904	9.695	.00190	12.283	.00002
6.412	.03149	8.077	.00887	9.721	.00185	12.368	.00002
6.485	.03068	8.107	.00862	9.724	.00180	12.426	.00002
6.489	.03050	8.136	.00849	9.812	.00177	12.721	.00001
6.518	.02978	8.165	.00835	9.842	.00173	12.812	.00001
6.544	.02942	8.191	.00821	9.897	.00169	13.235	.00000
6.548	.02866	8.224	.00807	9.901	.00165		
6.577	.02795	8.254	.00797	9.930	.00161	6 6 5	
6.603	.02761	8.309	.00772	9.941	.00154		
6.636	.02723	8.342	.00747	10.000	.00144	4.541	.10077
6.647	.02690	8.368	.00734	10.018	.00134	4.542	.09987
6.665	.02618	8.401	.00721	10.074	.00127	4.548	.09900
6.721	.02585	8.430	.00700	10.077	.00124	4.562	.09813
6.779	.02555	8.471	.00690	10.107	.00121	4.563	.09726
6.783	.02521	8.485	.00676	10.132	.00118	4.574	.09641
6.812	.02458	8.489	.00663	10.176	.00112	4.626	.09556

EXACT PROBABILITY LEVELS FOR THE KRUSKAL-WALLIS TEST

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6 6 5		6 6 5		6 6 5		6 6 5	
4.635	.09472	5.641	.05182	6.654	.02754	7.587	.01443
4.652	.09387	5.705	.05133	6.685	.02725	7.607	.01426
4.654	.09304	5.740	.05086	6.718	.02696	7.626	.01411
4.659	.09222	5.752	.05039	6.727	.02669	7.629	.01394
4.719	.09139	5.765	.04993	6.759	.02615	7.648	.01378
4.727	.09099	5.771	.04970	6.770	.02589	7.680	.01363
4.740	.09020	5.786	.04924	6.822	.02562	7.685	.01348
4.746	.08939	5.809	.04878	6.829	.02538	7.707	.01331
4.752	.08861	5.818	.04790	6.838	.02514	7.720	.01302
4.763	.08783	5.830	.04746	6.848	.02489	7.763	.01287
4.771	.08707	5.835	.04702	6.871	.02465	7.791	.01272
4.882	.08628	5.844	.04659	6.876	.02441	7.835	.01258
4.889	.08554	5.848	.04615	6.895	.02417	7.838	.01243
4.897	.08481	5.871	.04571	6.897	.02393	7.858	.01229
4.903	.08407	5.881	.04528	6.915	.02370	7.889	.01215
4.907	.08192	5.907	.04445	6.942	.02357	7.920	.01202
4.915	.08118	5.940	.04404	6.946	.02311	7.927	.01176
4.929	.08046	5.942	.04363	6.948	.02286	7.929	.01163
4.940	.07976	5.956	.04321	6.959	.02263	7.940	.01149
4.946	.07905	5.959	.04281	6.974	.02217	7.942	.01136
4.956	.07765	6.018	.04200	7.007	.02172	7.946	.01123
4.982	.07695	6.026	.04160	7.026	.02149	7.962	.01110
5.018	.07558	6.038	.04119	7.038	.02127	7.982	.01098
5.054	.07423	6.054	.04042	7.041	.02106	7.993	.01072
5.060	.07354	6.059	.03964	7.058	.02083	8.014	.01060
5.071	.07288	6.080	.03925	7.080	.02061	8.026	.01047
5.085	.07222	6.142	.03887	7.093	.02040	8.041	.01035
5.119	.07155	6.162	.03814	7.105	.02017	8.073	.01023
5.165	.07027	6.165	.03776	7.152	.01996	8.103	.01011
5.182	.06965	6.191	.03740	7.162	.01975	8.119	.01001
5.191	.06902	6.214	.03704	7.209	.01955	8.124	.00990
5.229	.06840	6.273	.03668	7.214	.01935	8.129	.00966
5.248	.06810	6.315	.03634	7.230	.01916	8.152	.00956
5.254	.06689	6.319	.03600	7.237	.01896	8.170	.00944
5.273	.06629	6.320	.03566	7.260	.01876	8.182	.00939
5.281	.06568	6.327	.03533	7.282	.01855	8.214	.00918
5.295	.06508	6.340	.03483	7.315	.01836	8.222	.00907
5.346	.06450	6.341	.03449	7.319	.01818	8.241	.00895
5.348	.06392	6.352	.03415	7.340	.01781	8.260	.00885
5.374	.06334	6.371	.03349	7.365	.01763	8.282	.00865
5.378	.06277	6.393	.03315	7.371	.01743	8.319	.00854
5.391	.06191	6.400	.03250	7.378	.01724	8.348	.00834
5.407	.06136	6.413	.03234	7.386	.01706	8.365	.00813
5.430	.06025	6.430	.03169	7.387	.01687	8.386	.00804
5.437	.05914	6.437	.03139	7.407	.01668	8.391	.00794
5.452	.05859	6.452	.03107	7.438	.01649	8.459	.00784
5.482	.05752	6.476	.03076	7.459	.01630	8.485	.00774
5.495	.05696	6.503	.03045	7.471	.01612	8.495	.00765
5.503	.05644	6.505	.03014	7.497	.01594	8.505	.00748
5.505	.05590	6.518	.02984	7.511	.01560	8.511	.00738
5.515	.05538	6.541	.02954	7.518	.01552	8.515	.00730
5.524	.05486	6.587	.02924	7.524	.01534	8.542	.00720
5.587	.05432	6.609	.02895	7.529	.01518	8.563	.00711
5.593	.05381	6.613	.02867	7.563	.01510	8.570	.00702
5.629	.05281	6.622	.02839	7.570	.01475	8.600	.00685
5.635	.05231	6.629	.02810	7.574	.01459	8.609	.00677

h	P(H≥h)
6 6 5	
8.626	.00659
8.641	.00651
8.652	.00642
8.673	.00635
8.680	.00627
8.705	.00619
8.711	.00611
8.724	.00607
8.746	.00591
8.763	.00583
8.778	.00576
8.818	.00569
8.829	.00561
8.835	.00547
8.837	.00540
8.881	.00537
8.903	.00522
8.920	.00515
8.962	.00508
8.982	.00502
8.987	.00495
9.014	.00488
9.018	.00482
9.038	.00475
9.044	.00470
9.093	.00458
9.097	.00446
9.118	.00440
9.129	.00434
9.156	.00429
9.163	.00423
9.171	.00416
9.182	.00411
9.191	.00406
9.237	.00395
9.254	.00389
9.280	.00384
9.281	.00373
9.327	.00368
9.341	.00363
9.348	.00358
9.352	.00354
9.365	.00349
9.374	.00344
9.393	.00335
9.400	.00330
9.426	.00326
9.437	.00322
9.458	.00317
9.505	.00313
9.529	.00305
9.541	.00302
9.548	.00298
9.574	.00290
9.609	.00286
9.613	.00283

h	P(H≥h)
6 6 5	
9.673	.00279
9.693	.00275
9.707	.00271
9.719	.00262
9.720	.00258
9.724	.00255
9.740	.00247
9.746	.00244
9.759	.00240
9.770	.00236
9.829	.00229
9.844	.00222
9.871	.00219
9.881	.00215
9.897	.00212
9.927	.00206
9.929	.00202
9.948	.00199
9.986	.00196
10.000	.00193
10.013	.00191
10.018	.00187
10.052	.00184
10.054	.00180
10.073	.00177
10.080	.00174
10.085	.00169
10.097	.00166
10.118	.00163
10.142	.00160
10.163	.00157
10.178	.00155
10.209	.00152
10.241	.00145
10.248	.00143
10.289	.00142
10.293	.00140
10.327	.00135
10.346	.00132
10.348	.00130
10.352	.00128
10.374	.00125
10.378	.00123
10.393	.00121
10.426	.00119
10.430	.00117
10.437	.00113
10.452	.00111
10.471	.00109
10.482	.00106
10.503	.00104
10.515	.00102
10.524	.00100
10.593	.00097
10.607	.00095
10.629	.00093

h	P(H≥h)
6 6 5	
10.635	.00089
10.641	.00088
10.648	.00084
10.718	.00082
10.771	.00080
10.786	.00079
10.837	.00076
10.848	.00074
10.858	.00071
10.895	.00069
10.920	.00068
10.942	.00067
10.948	.00065
10.959	.00064
10.993	.00063
11.000	.00062
11.014	.00060
11.038	.00055
11.058	.00054
11.059	.00050
11.073	.00048
11.119	.00048
11.129	.00046
11.142	.00042
11.162	.00041
11.171	.00040
11.230	.00039
11.241	.00035
11.273	.00034
11.289	.00034
11.307	.00033
11.359	.00031
11.371	.00028
11.387	.00027
11.393	.00026
11.418	.00025
11.476	.00024
11.518	.00023
11.582	.00020
11.629	.00020
11.652	.00019
11.654	.00018
11.659	.00017
11.705	.00017
11.727	.00015
11.746	.00014
11.765	.00013
11.809	.00013
11.882	.00013
11.915	.00012
11.920	.00011
11.942	.00010
12.058	.00009
12.093	.00009
12.103	.00008
12.165	.00008

h	P(H≥h)
6 6 5	
12.171	.00007
12.209	.00006
12.230	.00006
12.260	.00005
12.438	.00005
12.485	.00004
12.489	.00004
12.562	.00003
12.574	.00003
12.607	.00003
12.740	.00003
12.903	.00002
12.941	.00002
12.946	.00002
12.982	.00001
13.071	.00001
13.346	.00001
13.348	.00001
13.386	.00001
13.430	.00001
13.778	.00000
13.818	.00000
14.235	.00000

h	P(H≥h)
6 6 6	
4.538	.10056
4.643	.09874
4.667	.09669
4.678	.09262
4.713	.09160
4.784	.08764
4.819	.08573
4.877	.08381
4.924	.08199
4.994	.08019
5.053	.07676
5.064	.07589
5.099	.07420
5.135	.07251
5.158	.07092
5.193	.06852
5.240	.06693
5.298	.06536
5.345	.06391
5.415	.06246
5.474	.06107
5.485	.05968
5.509	.05704
5.556	.05575
5.626	.05448
5.661	.05200
5.696	.05138
5.719	.05021
5.801	.04905
5.836	.04789

h	P(H≥h)
6 6 6	
5.930	.04679
5.942	.04523
5.977	.04417
6.000	.04214
6.035	.04112
6.117	.04011
6.140	.03916
6.187	.03824
6.222	.03779
6.327	.03596
6.351	.03513
6.398	.03430
6.421	.03350
6.468	.03272
6.503	.03117
6.538	.03039
6.632	.02891
6.678	.02821
6.737	.02752
6.749	.02717
6.772	.02652
6.877	.02588
6.889	.02493
6.924	.02372
6.982	.02311
7.029	.02253
7.053	.02196
7.064	.02141
7.099	.02085
7.170	.02030
7.240	01979
7.298	.01929
7.310	.01880
7.345	.01856
7.380	.01807
7.404	.01763
7.450	.01720
7.520	.01590
7.614	.01549
7.626	.01471
7.684	.01430
7.731	.01391
7.825	.01355
7.871	.01320
7.895	.01287
7.906	.01269
7.942	.01217
8.000	.01151
8.035	.01117
8.047	.01087
8.082	.01055
8.187	.01024
8.222	.00994
8.292	.00940
8.316	.00913
8.433	.00886

h	P(H≥h)
6 6 6	
8.456	.00839
8.468	.00817
8.503	.00792
8.526	.00770
8.561	.00758
8.573	.00735
8.643	.00714
8.667	.00692
8.784	.00652
8.842	.00634
8.854	.00613
8.924	.00595
8.982	.00560
8.994	.00552
9.029	.00535
9.064	.00519
9.088	.00502
9.170	.00471
9.205	.00448
9.275	.00434
9.310	.00407
9.404	.00392
9.485	.00379
9.509	.00368
9.556	.00356
9.579	.00334
9.626	.00312
9.696	.00302
9.719	.00293
9.731	.00283
9.789	.00272
9.836	.00263
9.871	.00259
9.906	.00249
9.930	.00241
9.977	.00232
10.047	.00224
10.140	.00217
10.152	.00213
10.187	.00198
10.211	.00184
10.246	.00177
10.257	.00170
10.327	.00164
10.398	.00157
10.433	.00146
10.526	.00140
10.561	.00137
10.608	.00127
10.667	.00122
10.713	.00117
10.749	.00112
10.772	.00108
10.819	.00104
10.842	.00101
10.889	.00097

h	P(H≥h)
6 6 6	
10.959	.00085
10.982	.00082
11.088	.00079
11.099	.00075
11.240	.00069
11.275	.00065
11.310	.00062
11.368	.00059
11.380	.00057
11.404	.00051
11.415	.00049
11.474	.00045
11.556	.00041
11.591	.00036
11.614	.00034
11.661	.00032
11.684	.00029
11.789	.00027
11.801	.00024
11.825	.00023
11.942	.00021
11.977	.00019
12.012	.00018
12.035	.00017
12.117	.00015
12.292	.00012
12.316	.00011
12.363	.00010
12.433	.00009
12.538	.00008
12.573	.00006
12.737	.00006
12.772	.00005
12.784	.00005
12.877	.00004
13.053	.00003
13.135	.00003
13.205	.00002
13.345	.00002
13.520	.00001
13.556	.00001
13.661	.00001
13.930	.00001
14.000	.00000
14.327	.00000
14.363	.00000
14.749	.00000
15.158	.00000
7 7 7	
4.549	.10069
4.594	.09933
4.631	.09800
4.638	.09670
4.660	.09604

h	P(H≥h)
7 7 7	
4.683	.09476
4.698	.09349
4.727	.09223
4.772	.08850
4.831	.08728
4.839	.08492
4.876	.08375
4.905	.08260
4.965	.08146
4.994	.08036
5.010	.07928
5.017	.07874
5.039	.07715
5.076	.07503
5.098	.07399
5.106	.07297
5.128	.07195
5.195	.07094
5.217	.06997
5.262	.06803
5.276	.06709
5.351	.06616
5.365	.06435
5.373	.06346
5.395	.06257
5.410	.06169
5.432	.06125
5.440	.06039
5.484	.05953
5.499	.05869
5.573	.05702
5.610	.05622
5.618	.05544
5.662	.05466
5.699	.05312
5.707	.05275
5.729	.05201
5.751	.05128
5.766	.05055
5.819	.04911
5.840	.04806
5.885	.04736
5.907	.04601
5.967	.04534
6.019	.04470
6.033	.04406
6.063	.04343
6.078	.04220
6.108	.04098
6.152	.04038
6.167	.03979
6.174	.03921
6.212	.03863
6.241	.03806
6.263	.03778
6.286	.03723

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
6.301	.03669	7.978	.01290	9.647	.00392	11.421	.00090
6.330	.03614	8.037	.01270	9.670	.00385	11.451	.00088
6.375	.03561	8.045	.01240	9.707	.00378	11.488	.00085
6.434	.03509	8.067	.01220	9.774	.00371	11.495	.00083
6.442	.03484	8.082	.01201	9.803	.00364	11.518	.00082
6.454	.03384	8.104	.01191	9.818	.00358	11.584	.00080
6.479	.03286	8.111	.01153	9.826	.00348	11.629	.00076
6.501	.03236	8.156	.01134	9.848	.00342	11.644	.00074
6.509	.03188	8.171	.01097	9.885	.00335	11.673	.00072
6.553	.03140	8.223	.01078	9.892	.00329	11.688	.00071
6.597	.03093	8.282	.01061	9.937	.00317	11.718	.00069
6.620	.03001	8.289	.01043	9.974	.00305	11.777	.00068
6.679	.02956	8.304	.01026	10.004	.00299	11.785	.00067
6.701	.02934	8.334	.01009	10.026	.00293	11.807	.00065
6.731	.02847	8.378	.00992	10.085	.00282	11.844	.00063
6.768	.02804	8.401	.00976	10.160	.00277	11.852	.00060
6.798	.02763	8.438	.00960	10.174	.00269	11.874	.00058
6.820	.02722	8.468	.00944	10.182	.00264	11.896	.00058
6.835	.02681	8.482	.00914	10.249	.00254	11.941	.00055
6.865	.02641	8.512	.00898	10.293	.00249	11.963	.00053
6.879	.02601	8.557	.00869	10.308	.00239	12.030	.00051
6.909	.02562	8.579	.00854	10.338	.00234	12.045	.00050
6.954	.02446	8.601	.00847	10.360	.00225	12.074	.00049
6.968	.02408	8.616	.00818	10.382	.00221	12.089	.00047
7.035	.02371	8.638	.00804	10.419	.00216	12.141	.00046
7.043	.02335	8.668	.00790	10.442	.00212	12.178	.00045
7.132	.02263	8.690	.00777	10.486	.00203	12.223	.00044
7.154	.02212	8.779	.00763	10.516	.00199	12.230	.00043
7.176	.02179	8.839	.00725	10.560	.00191	12.252	.00042
7.213	.02145	8.883	.00713	10.575	.00187	12.297	.00040
7.221	.02129	8.905	.00689	10.605	.00183	12.312	.00039
7.236	.02065	8.913	.00683	10.709	.00179	12.341	.00037
7.243	.02033	8.935	.00672	10.716	.00172	12.378	.00036
7.280	.02001	8.972	.00649	10.738	.00167	12.386	.00035
7.332	.01970	9.002	.00627	10.776	.00164	12.430	.00034
7.354	.01910	9.024	.00615	10.783	.00162	12.445	.00033
7.369	.01880	9.091	.00605	10.805	.00159	12.475	.00031
7.399	.01850	9.106	.00589	10.828	.00153	12.497	.00031
7.414	.01821	9.113	.00579	10.842	.00149	12.519	.00030
7.481	.01792	9.135	.00569	10.887	.00146	12.564	.00029
7.488	.01765	9.173	.00558	10.894	.00143	12.609	.00028
7.503	.01737	9.180	.00549	10.917	.00140	12.623	.00027
7.577	.01709	9.269	.00539	10.961	.00137	12.675	.00026
7.599	.01683	9.284	.00529	11.006	.00132	12.712	.00025
7.622	.01670	9.291	.00520	11.043	.00129	12.787	.00024
7.636	.01619	9.358	.00511	11.050	.00126	12.824	.00023
7.666	.01568	9.373	.00493	11.072	.00123	12.831	.00023
7.688	.01543	9.380	.00485	11.109	.00121	12.846	.00021
7.711	.01494	9.403	.00476	11.139	.00118	12.853	.00020
7.770	.01470	9.447	.00459	11.250	.00113	12.891	.00020
7.800	.01446	9.492	.00442	11.273	.00111	12.920	.00019
7.814	.01423	9.506	.00434	11.288	.00104	12.942	.00019
7.844	.01400	9.581	.00418	11.310	.00100	12.965	.00018
7.884	.01355	9.618	.00411	11.317	.00098	13.009	.00018
7.933	.01333	9.625	.00407	11.362	.00096	13.032	.00017
7.955	.01311	9.640	.00400	11.377	.00094	13.054	.00017

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
7 7 7		7 7 7		8 8 8		8 8 8	
13.091	.00016	15.414	.00000	5.255	.06865	6.395	.03557
13.113	.00016	15.503	.00000	5.265	.06802	6.405	.03523
13.180	.00015	15.636	.00000	5.285	.06739	6.455	.03454
13.187	.00014	15.703	.00000	5.315	.06615	6.480	.03421
13.232	.00014	15.725	.00000	5.345	.06554	6.485	.03404
13.276	.00013	15.792	.00000	5.360	.06494	6.495	.03372
13.291	.00013	15.904	.00000	5.375	.06434	6.500	.03339
13.299	.00013	16.052	.00000	5.415	.06374	6.515	.03306
13.365	.00012	16.096	.00000	5.420	.06267	6.540	.03274
13.380	.00012	16.186	.00000	5.435	.06229	6.585	.03242
13.410	.00011	16.393	.00000	5.445	.06172	6.605	.03211
13.425	.00010	16.416	.00000	5.460	.06143	6.615	.03180
13.447	.00010	16.482	.00000	5.465	.06030	6.620	.03135
13.455	.00010	16.750	.00000	5.495	.05973	6.635	.03104
13.514	.00009	16.794	.00000	5.505	.05862	6.660	.03074
13.544	.00008	17.098	.00000	5.540	.05807	6.665	.03044
13.566	.00008	17.121	.00000	5.580	.05752	6.695	.02984
13.588	.00007	17.462	.00000	5.585	.05699	6.720	.02926
13.647	.00007	17.818	.00000	5.595	.05646	6.740	.02897
13.677	.00007			5.615	.05593	6.755	.02868
13.722	.00006	8 8 8		5.645	.05540	6.795	.02812
13.744	.00006			5.660	.05489	6.845	.02784
13.781	.00005	4.580	.10023	5.685	.05438	6.855	.02743
13.811	.00005	4.595	.09933	5.705	.05388	6.860	.02717
13.855	.00005	4.605	.09845	5.715	.05268	6.905	.02663
13.892	.00005	4.625	.09757	5.735	.05239	6.935	.02637
13.900	.00004	4.635	.09670	5.765	.05141	6.945	.02586
13.922	.00004	4.655	.09583	5.780	.05092	6.965	.02561
14.033	.00004	4.685	.09326	5.795	.05068	6.980	.02510
14.048	.00004	4.695	.09241	5.805	.04973	6.995	.02485
14.078	.00004	4.740	.09157	5.820	.04926	7.020	.02460
14.093	.00003	4.745	.09075	5.840	.04879	7.035	.02436
14.182	.00003	4.805	.08911	5.855	.04833	7.065	.02387
14.278	.00003	4.820	.08792	5.915	.04787	7.085	.02364
14.315	.00002	4.835	.08712	5.955	.04653	7.115	.02317
14.345	.00002	4.860	.08634	5.985	.04609	7.125	.02293
14.367	.00002	4.865	.08595	6.000	.04523	7.145	.02270
14.390	.00002	4.875	.08441	6.005	.04502	7.215	.02247
14.456	.00002	4.880	.08364	6.020	.04460	7.220	.02204
14.494	.00002	4.905	.08288	6.045	.04375	7.235	.02171
14.523	.00002	4.940	.08212	6.065	.04292	7.260	.02149
14.568	.00002	4.955	.08063	6.080	.04251	7.265	.02138
14.701	.00001	4.965	.07990	6.125	.04210	7.280	.02117
14.716	.00001	4.995	.07916	6.135	.04150	7.295	.02075
14.774	.00001	4.995	.07844	6.140	.04110	7.305	.02054
14.746	.00001	5.040	.07771	6.155	.04070	7.335	.02033
14.835	.00001	5.045	.07701	6.180	.04031	7.340	.02012
14.924	.00001	5.055	.07631	6.185	.03993	7.355	.01992
14.968	.00001	5.105	.07561	6.245	.03954	7.385	.01972
15.028	.00001	5.120	.07492	6.255	.03917	7.415	.01932
15.050	.00001	5.135	.07458	6.260	.03879	7.440	.01912
15.117	.00001	5.145	.07324	6.305	.03842	7.445	.01893
15.147	.00001	5.165	.07191	6.315	.03770	7.460	.01873
15.228	.00001	5.180	.07125	6.320	.03734	7.485	.01855
15.369	.00000	5.195	.06993	6.335	.03698	7.505	.01835
15.384	.00000	5.235	.06928	6.365	.03627	7.580	.01798

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
7.595	.01780	8.705	.00847	9.905	.00381	11.045	.00[illegible]
7.605	.01727	8.720	.00838	9.915	.00373	11.060	.001[illegible]
7.620	.01701	8.735	.00829	9.920	.00368	11.085	.001[illegible]
7.625	.01683	8.765	.00820	9.935	.00364	11.105	.001[illegible]
7.655	.01666	8.780	.00811	9.965	.00359	11.115	.001[illegible]
7.665	.01649	8.795	.00802	9.980	.00355	11.120	.001[illegible]
7.695	.01615	8.820	.00793	9.995	.00351	11.179	.001[illegible]
7.715	.01599	8.835	.00780	10.035	.00347	11.195	.001[illegible]
7.740	.01562	8.880	.00763	10.055	.00343	11.255	.001[illegible]
7.745	.01566	8.885	.00755	10.085	.00339	11.265	.001[illegible]
7.760	.01550	8.915	.00747	10.095	.00335	11.285	.001[illegible]
7.805	.01534	8.945	.00738	10.115	.00331	11.315	.001[illegible]
7.835	.01502	8.955	.00730	10.125	.00327	11.340	.001[illegible]
7.845	.01487	8.960	.00723	10.140	.00325	11.345	.001[illegible]
7.865	.01471	9.005	.00715	10.145	.00320	11.355	.001[illegible]
7.875	.01456	9.015	.00707	10.160	.00316	11.375	.001[illegible]
7.895	.01441	9.035	.00699	10.185	.00312	11.405	.001[illegible]
7.935	.01426	9.045	.00684	10.205	.00305	11.420	.001[illegible]
7.940	.01419	9.060	.00677	10.220	.00298	11.435	.001[illegible]
7.955	.01405	9.065	.00669	10.260	.00291	11.445	.001[illegible]
7.980	.01376	9.105	.00647	10.265	.00287	11.465	.001[illegible]
7.985	.01347	9.125	.00640	10.305	.00283	11.495	.001[illegible]
8.000	.01333	9.140	.00633	10.320	.00280	11.520	.001[illegible]
8.015	.01326	9.155	.00626	10.355	.00277	11.535	.001[illegible]
8.045	.01298	9.195	.00619	10.365	.00270	11.540	.001[illegible]
8.060	.01285	9.215	.00612	10.385	.00267	11.555	.001[illegible]
8.105	.01258	9.245	.00598	10.415	.00260	11.580	.001[illegible]
8.115	.01244	9.260	.00588	10.445	.00257	11.585	.001[illegible]
8.135	.01231	9.285	.00582	10.460	.00254	11.625	.001[illegible]
8.145	.01218	9.305	.00575	10.500	.00251	11.655	.001[illegible]
8.180	.01206	9.335	.00589	10.535	.00248	11.705	.0009[illegible]
8.205	.01193	9.360	.00562	10.545	.00239	11.735	.0009[illegible]
8.235	.01181	9.365	.00556	10.545	.00234	11.760	.0009[illegible]
8.240	.01168	9.375	.00550	10.580	.00231	11.765	.0009[illegible]
8.255	.01156	9.380	.00547	10.595	.00230	11.780	.0009[illegible]
8.285	.01132	9.395	.00535	10.635	.00224	11.795	.0009[illegible]
8.295	.01120	9.420	.00529	10.640	.00221	11.805	.0009[illegible]
8.315	.01097	9.455	.00523	10.655	.00216	11.840	.0009[illegible]
8.340	.01085	9.465	.00511	10.665	.00213	11.855	.0009[illegible]
8.345	.01074	9.485	.00505	10.685	.00211	11.885	.0008[illegible]
8.375	.01062	9.495	.00494	10.715	.00208	11.895	.0008[illegible]
8.385	.01051	9.500	.00488	10.745	.00205	11.915	.0008[illegible]
8.405	.01029	9.555	.00483	10.805	.00200	11.940	.0008[illegible]
8.420	.01023	9.620	.00466	10.815	.00198	11.945	.0007[illegible]
8.435	.01012	9.645	.00456	10.820	.00193	12.005	.0007[illegible]
8.465	.00991	9.665	.00450	10.845	.00191	12.020	.0007[illegible]
8.495	.00980	9.680	.00445	10.860	.00188	12.060	.0007[illegible]
8.505	.00970	9.695	.00443	10.895	.00186	12.065	.0007[illegible]
8.540	.00959	9.740	.00433	10.905	.00184	12.080	.0007[illegible]
8.565	.00939	9.755	.00428	10.935	.00181	12.125	.0007[illegible]
8.615	.00929	9.765	.00423	10.940	.00180	12.140	.0006[illegible]
8.640	.00919	9.780	.00413	10.955	.00178	12.165	.0006[illegible]
8.645	.00914	9.785	.00409	10.980	.00174	12.185	.00067
8.655	.00876	9.815	.00399	10.985	.00172	12.195	.00066
8.660	.00866	9.855	.00390	10.995	.00167	12.215	.0006[illegible]
8.685	.00857	9.875	.00366	11.015	.00165	12.245	.0006[illegible]

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
12.255	.00062	13.460	.00021	14.640	.00006	15.935	.00001
12.260	.00060	13.500	.00021	14.660	.00005	15.965	.00001
12.285	.00059	13.505	.00020	14.715	.00005	15.995	.00001
12.335	.00057	13.520	.00020	14.735	.00005	16.035	.00001
12.345	.00056	13.535	.00019	14.765	.00005	16.055	.00001
12.365	.00056	13.545	.00019	14.780	.00005	16.080	.00001
12.380	.00055	13.565	.00018	14.820	.00005	16.085	.00001
12.395	.00054	13.580	.00018	14.855	.00005	16.145	.00001
12.435	.00053	13.595	.00017	14.865	.00005	16.205	.00001
12.465	.00052	13.605	.00017	14.885	.00005	16.220	.00001
12.480	.00051	13.625	.00017	14.895	.00004	16.245	.00001
12.500	.00050	13.655	.00017	14.915	.00004	16.260	.00001
12.515	.00050	13.680	.00016	14.945	.00004	16.265	.00001
12.545	.00049	13.715	.00016	14.955	.00004	16.305	.00001
12.555	.00048	13.740	.00016	14.985	.00004	16.340	.00001
12.560	.00047	13.745	.00015	15.005	.00004	16.380	.00001
12.605	.00046	13.760	.00015	15.020	.00004	16.415	.00000
12.615	.00046	13.785	.00015	15.035	.00004	16.485	.00000
12.620	.00045	13.815	.00014	15.095	.00003	16.535	.00000
12.635	.00045	13.820	.00014	15.120	.00003	16.565	.00000
12.660	.00043	13.835	.00014	15.125	.00003	16.595	.00000
12.695	.00042	13.875	.00014	15.135	.00003	16.620	.00000
12.705	.00042	13.895	.00014	15.140	.00003	16.625	.00000
12.735	.00041	13.905	.00013	15.155	.00003	16.640	.00000
12.740	.00040	13.955	.00013	15.165	.00003	16.715	.00000
12.755	.00039	13.965	.00013	15.185	.00003	16.785	.00000
12.785	.00038	13.985	.00012	15.245	.00003	16.805	.00000
12.795	.00037	14.000	.00012	15.260	.00003	16.820	.00000
12.845	.00037	14.015	.00012	15.305	.00003	16.835	.00000
12.860	.00036	14.045	.00011	15.315	.00003	16.880	.00000
12.875	.00035	14.055	.00011	15.335	.00003	16.955	.00000
12.885	.00035	14.060	.00011	15.360	.00003	16.980	.00000
12.935	.00034	14.085	.00011	15.365	.00003	16.985	.00000
12.965	.00033	14.105	.00011	15.380	.00002	17.060	.00000
13.005	.00033	14.165	.00010	15.395	.00002	17.115	.00000
13.020	.00032	14.180	.00010	15.405	.00002	17.145	.00000
13.040	.00031	14.220	.00009	15.435	.00002	17.165	.00000
13.055	.00031	14.235	.00009	15.440	.00002	17.195	.00000
13.065	.00030	14.255	.00009	15.485	.00002	17.205	.00000
13.085	.00029	14.285	.00009	15.495	.00002	17.295	.00000
13.095	.00029	14.315	.00009	15.500	.00002	17.360	.00000
13.115	.00028	14.345	.00008	15.540	.00002	17.405	.00000
13.140	.00027	14.405	.00008	15.545	.00002	17.415	.00000
13.155	.00027	14.475	.00008	15.585	.00002	17.420	.00000
13.205	.00027	14.420	.00008	15.605	.00002	17.465	.00000
13.220	.00026	14.435	.00007	15.665	.00002	17.540	.00000
13.235	.00025	14.460	.00007	15.680	.00001	17.565	.00000
13.245	.00025	14.480	.00007	15.695	.00001	17.645	.00000
13.265	.00025	14.495	.00007	15.705	.00001	17.705	.00000
13.295	.00024	14.505	.00007	15.740	.00001	17.735	.00000
13.335	.00023	14.540	.00007	15.765	.00001	17.780	.00000
13.355	.00023	14.580	.00006	15.795	.00001	17.795	.00000
13.380	.00022	14.585	.00006	15.815	.00001	17.885	.00000
13.385	.00022	14.595	.00006	15.855	.00001	18.000	.00000
13.415	.00022	14.615	.00006	15.860	.00001	18.005	.00000
13.445	.00021	14.625	.00006	15.920	.00001	18.015	.00000

h	P(H≥h)
8 8 8	
18.060	.00000
18.135	.00000
18.240	.00000
18.305	.00000
18.335	.00000
18.395	.00000
18.485	.00000
18.605	.00000
18.620	.00000
18.665	.00000
18.740	.00000
18.915	.00000
18.945	.00000
19.005	.00000
19.220	.00000
19.235	.00000
19.280	.00000
19.535	.00000
19.565	.00000
19.845	.00000
19.860	.00000
20.165	.00000
20.480	.00000
2 2 1 1	
4.714	.13333
2 2 2 1	
5.036	.12381
5.357	.06667
5.679	.03810
2 2 2 2	
5.500	.11429
5.667	.07619
6.000	.06667
6.167	.03810
6.667	.00952
3 1 1 1	
4.429	.20000
3 2 1 1	
4.893	.14286
5.143	.08571
5.464	.05714
3 2 2 1	
5.389	.10952
5.556	.07143

h	P(H≥h)
3 2 2 1	
5.583	.06190
5.806	.05714
5.833	.04286
6.000	.03571
6.056	.02857
6.250	.02143
6.500	.01429
3 2 2 2	
5.644	.10000
5.711	.09841
5.733	.09524
5.800	.08889
5.911	.08413
5.933	.07619
5.978	.07302
6.000	.06984
6.111	.06667
6.133	.06032
6.178	.05714
6.244	.05397
6.333	.04762
6.444	.04286
6.533	.03651
6.578	.03175
6.600	.02857
6.644	.02698
6.978	.01746
7.000	.01270
7.133	.00794
7.533	.00317
3 3 1 1	
5.222	.11071
5.333	.09643
5.444	.08929
5.889	.06429
6.333	.02143
3 3 2 1	
5.622	.10079
5.689	.08571
5.711	.08373
5.778	.08214
5.800	.08056
5.956	.06865
5.978	.06706
6.044	.06230
6.156	.05595
6.244	.04246
6.311	.04087
6.400	.03929
6.489	.03294

h	P(H≥h)
3 3 2 1	
6.511	.02397
6.689	.01786
6.844	.01548
7.044	.01071
7.200	.00595
7.400	.00476
3 3 2 2	
5.727	.10016
5.745	.09921
5.800	.09762
5.818	.09698
5.836	.09127
5.873	.08841
5.964	.08746
5.982	.08556
6.018	.07984
6.036	.07921
6.091	.07571
6.127	.07317
6.164	.07000
6.182	.06905
6.236	.06492
6.255	.06444
6.309	.06063
6.327	.06032
6.400	.05841
6.418	.05746
6.455	.05302
6.473	.05238
6.527	.04921
6.545	.04889
6.564	.04698
6.618	.04460
6.673	.04429
6.691	.04333
6.709	.04302
6.745	.04111
6.818	.04048
6.836	.03873
6.855	.03683
6.909	.03429
6.964	.03111
6.982	.03048
7.000	.02921
7.055	.02317
7.109	.02254
7.127	.02190
7.145	.02063
7.182	.01921
7.273	.01730
7.345	.01476
7.436	.01349
7.473	.01190
7.545	.01159

h	P(H≥h)
3 3 2 2	
7.564	.01063
7.636	.01000
7.727	.00810
7.873	.00429
8.000	.00381
8.018	.00190
8.127	.00143
8.455	.00095
3 3 3 1	
5.582	.11285
5.655	.09786
5.727	.09571
5.800	.09429
5.873	.09143
5.945	.08571
6.018	.08357
6.164	.07000
6.236	.06643
6.309	.06071
6.382	.05357
6.527	.05214
6.600	.04929
6.673	.04143
6.745	.04071
6.891	.03429
7.036	.02429
7.109	.01500
7.327	.01429
7.400	.00857
7.473	.00714
7.764	.00571
8.055	.00357
8.345	.00143
3 3 3 2	
5.818	.10234
5.879	.09974
5.894	.09727
5.939	.09532
5.955	.09455
6.000	.09416
6.015	.09390
6.061	.08844
6.121	.08584
6.136	.08273
6.197	.07805
6.242	.07545
6.258	.07377
6.303	.07091
6.318	.06870
6.364	.06831
6.379	.06688
6.424	.06091

h	P(H≥h)
3 3 3 2	
6.439	.05974
6.485	.05922
6.545	.05857
6.561	.05740
6.606	.05688
6.621	.05338
6.682	.05078
6.727	.04948
6.742	.04883
6.788	.04506
6.803	.04312
6.848	.04260
6.864	.04221
6.909	.04039
6.924	.03987
6.970	.03935
6.985	.03818
7.030	.03584
7.045	.03468
7.091	.03455
7.106	.03312
7.152	.02974
7.212	.02961
7.227	.02935
7.273	.02818
7.288	.02792
7.333	.02766
7.348	.02753
7.409	.02649
7.455	.02610
7.470	.02584
7.515	.02390
7.530	.02195
7.576	.02169
7.591	.02013
7.636	.01831
7.652	.01740
7.697	.01662
7.712	.01649
7.758	.01416
7.818	.01364
7.833	.01286
7.879	.01260
7.939	.01208
7.955	.01117
8.015	.00961
8.061	.00948
8.076	.00870
8.182	.00818
8.197	.00766
8.242	.00597
8.318	.00545
8.379	.00377
8.485	.00364
8.545	.00338
8.561	.00312

h	P(H≥h)
3 3 3 2	
8.727	.00221
8.803	.00182
8.924	.00104
9.030	.00065
9.409	.00026
3 3 3 3	
5.974	.10273
6.026	.09779
6.077	.09649
6.179	.09182
6.231	.08773
6.282	.08500
6.385	.07883
6.436	.07455
6.487	.06935
6.590	.06805
6.641	.06169
6.692	.05987
6.795	.05364
6.846	.05149
6.897	.05019
7.000	.04351
7.051	.04182
7.103	.03935
7.205	.03825
7.256	.03331
7.308	.03279
7.410	.02994
7.462	.02929
7.513	.02838
7.615	.02571
7.667	.02338
7.718	.02104
7.821	.02052
7.872	.01844
7.923	.01792
8.026	.01662
8.077	.01649
8.128	.01519
8.231	.01370
8.282	.01214
8.333	.01175
8.436	.01084
8.538	.00838
8.641	.00779
8.692	.00688
8.744	.00636
8.897	.00442
8.949	.00390
9.051	.00325
9.154	.00279
9.256	.00227
9.359	.00201
9.462	.00143

h	P(H≥h)
3 3 3 3	
9.513	.00084
9.564	.00071
9.667	.00065
9.974	.00026
10.385	.00006
4 1 1 1	
4.929	.11429
4 2 1 1	
5.208	.11429
5.250	.09048
5.417	.07619
5.458	.07143
5.833	.04286
6.083	.02857
4 2 2 1	
5.500	.10317
5.533	.09788
5.600	.09577
5.633	.08624
5.700	.08519
5.733	.06825
5.800	.06720
5.933	.06085
5.967	.05873
6.000	.05661
6.133	.04180
6.167	.03968
6.200	.03545
6.300	.03333
6.467	.02910
6.500	.02698
6.533	.02063
6.667	.01905
6.700	.01587
6.800	.01270
7.000	.00952
7.200	.00635
4 2 2 2	
5.673	.10190
5.755	.09302
5.782	.08222
5.891	.08095
5.973	.07905
6.082	.07143
6.109	.07016
6.191	.06698
6.218	.06254
6.327	.06000

h	P(H≥h)
4 2 2 2	
6.409	.05556
6.436	.05238
6.545	.04921
6.627	.04667
6.655	.04095
6.736	.03714
6.764	.03460
6.845	.03333
6.873	.03270
6.982	.02889
7.064	.02222
7.091	.01714
7.282	.01651
7.309	.01397
7.391	.00889
7.527	.00762
7.718	.00698
7.855	.00508
7.964	.00317
8.291	.00127
4 3 1 1	
4.978	.10635
5.067	.09524
5.111	.09365
5.144	.09206
5.200	.08889
5.411	.08730
5.467	.08413
5.511	.08254
5.644	.06984
5.678	.06667
5.767	.06349
5.867	.05714
6.000	.05397
6.044	.05238
6.178	.04921
6.211	.04603
6.267	.03492
6.400	.03333
6.567	.02857
6.711	.01905
7.067	.00952
4 3 2 1	
5.573	.10032
5.591	.09857
5.600	.09746
5.618	.09508
5.645	.09476
5.655	.09444
5.709	.09333
5.727	.09175
5.736	.08794

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 3 2 1		4 3 2 1		4 3 2 2		4 3 2 2	
5.764	.08651	7.241	.01333	6.295	.06364	7.098	.03224
5.791	.08635	7.318	.01302	6.326	.06335	7.121	.03154
5.809	.08302	7.336	.01143	6.348	.06317	7.144	.03120
5.864	.08095	7.364	.01111	6.364	.06271	7.159	.03056
5.873	.07984	7.455	.00984	6.371	.06208	7.167	.02981
5.891	.07952	7.482	.00762	6.386	.06104	7.205	.02918
5.955	.07429	7.609	.00667	6.394	.06087	7.212	.02906
5.982	.06762	7.636	.00571	6.409	.05977	7.227	.02773
6.000	.06556	7.727	.00524	6.417	.05861	7.235	.02704
6.009	.06460	7.773	.00429	6.432	.05804	7.258	.02681
6.027	.06413	7.891	.00333	6.439	.05758	7.280	.02646
6.036	.06349	8.018	.00238	6.477	.05723	7.303	.02595
6.055	.06206	8.182	.00190	6.485	.05711	7.318	.02508
6.082	.06175			6.500	.05550	7.326	.02496
6.091	.06143	4 3 2 2		6.508	.05515	7.341	.02485
6.145	.06016			6.530	.05423	7.348	.02439
6.164	.05540	5.712	.10118	6.545	.05411	7.364	.02427
6.173	.05524	5.750	.09980	6.553	.05354	7.417	.02332
6.200	.05397	5.758	.09922	6.568	.05267	7.439	.02228
6.227	.05381	5.773	.09749	6.576	.05244	7.455	.02193
6.245	.05238	5.780	.09680	6.591	.05232	7.462	.02165
6.273	.05175	5.803	.09622	6.598	.05186	7.477	.02159
6.300	.05111	5.818	.09582	6.614	.05152	7.485	.02113
6.309	.04937	5.826	.09573	6.621	.04949	7.500	.02084
6.327	.04873	5.848	.09319	6.636	.04869	7.508	.02026
6.382	.04841	5.864	.09290	6.659	.04834	7.523	.02014
6.391	.04762	5.871	.09227	6.667	.04811	7.530	.01991
6.418	.04619	5.886	.09152	6.682	.04776	7.545	.01962
6.436	.04603	5.894	.09123	6.689	.04736	7.568	.01939
6.445	.04540	5.909	.09053	6.712	.04713	7.576	.01859
6.464	.04476	5.932	.09019	6.727	.04603	7.598	.01685
6.473	.04032	5.939	.08955	6.735	.04569	7.621	.01645
6.491	.03921	5.955	.08903	6.750	.04442	7.636	.01616
6.527	.03889	5.962	.08863	6.758	.04297	7.644	.01582
6.582	.03857	5.985	.08724	6.780	.04216	7.682	.01460
6.609	.03667	6.000	.08649	6.795	.04193	7.705	.01426
6.636	.03587	6.008	.08372	6.803	.04176	7.712	.01397
6.664	.03556	6.023	.08176	6.818	.04153	7.727	.01374
6.682	.03381	6.030	.08147	6.848	.04107	7.773	.01345
6.709	.03286	6.053	.07934	6.864	.04049	7.780	.01299
6.745	.03222	6.068	.07882	6.871	.04032	7.803	.01276
6.764	.03159	6.076	.07726	6.894	.03945	7.818	.01229
6.818	.03127	6.091	.07685	6.909	.03934	7.826	.01212
6.827	.03063	6.114	.07657	6.917	.03928	7.841	.01201
6.855	.03032	6.121	.07633	6.932	.03789	7.848	.01126
6.873	.02968	6.136	.07478	6.955	.03766	7.871	.00999
6.909	.02730	6.144	.07385	6.962	.03720	7.886	.00952
6.955	.02317	6.167	.07229	6.977	.03709	7.894	.00918
7.018	.02000	6.182	.07079	6.985	.03662	7.939	.00905
7.036	.01873	6.189	.07045	7.000	.03616	7.962	.00860
7.045	.01841	6.205	.06952	7.023	.03512	8.000	.00831
7.073	.01651	6.227	.06756	7.030	.03501	8.008	.00820
7.118	.01619	6.235	.06722	7.045	.03495	8.030	.00808
7.145	.01587	6.250	.06693	7.053	.03483	8.045	.00797
7.182	.01556	6.258	.06566	7.076	.03391	8.076	.00773
7.200	.01524	6.273	.06433	7.091	.03333	8.114	.00727

h	P(H≥h)
4 3 2 2	
8.167	.00704
8.182	.00670
8.189	.00618
8.212	.00571
8.250	.00525
8.273	.00433
8.326	.00427
8.348	.00404
8.417	.00392
8.432	.00358
8.455	.00346
8.530	.00271
8.591	.00260
8.667	.00225
8.689	.00156
8.795	.00139
8.894	.00104
8.909	.00069
9.000	.00052
9.273	.00035
4 3 3 1	
5.667	.10043
5.689	.09602
5.697	.09541
5.758	.09212
5.788	.09152
5.811	.08996
5.871	.08580
5.909	.08329
5.932	.08268
5.939	.08251
5.970	.08139
5.992	.08069
6.000	.07939
6.030	.07922
6.053	.07801
6.061	.07593
6.114	.07333
6.121	.07117
6.152	.07056
6.174	.06892
6.182	.06745
6.212	.06693
6.235	.06641
6.242	.06424
6.273	.06407
6.303	.06338
6.333	.06095
6.356	.06087
6.394	.06043
6.417	.05965
6.424	.05567
6.455	.05377
6.477	.05342

h	P(H≥h)
4 3 3 1	
6.485	.05290
6.515	.05273
6.545	.05152
6.545	.04952
6.576	.04944
6.606	.04857
6.636	.04814
6.667	.04701
6.697	.04398
6.727	.04390
6.727	.04294
6.758	.04268
6.788	.04000
6.788	.03879
6.848	.03870
6.879	.03853
6.909	.03784
6.939	.03766
6.962	.03749
6.970	.03688
7.000	.03680
7.023	.03567
7.030	.03532
7.061	.03325
7.083	.03307
7.121	.03030
7.144	.02978
7.152	.02848
7.205	.02805
7.212	.02771
7.242	.02753
7.265	.02537
7.273	.02511
7.326	.02329
7.333	.02052
7.424	.02048
7.447	.02030
7.485	.01987
7.508	.01658
7.515	.01528
7.545	.01458
7.576	.01450
7.606	.01442
7.629	.01433
7.636	.01329
7.667	.01286
7.689	.01234
7.750	.01190
7.758	.00974
7.848	.00922
7.879	.00905
7.970	.00818
7.992	.00688
8.053	.00654
8.091	.00619
8.121	.00541

h	P(H≥h)
4 3 3 1	
8.212	.00420
8.235	.00403
8.242	.00385
8.295	.00377
8.333	.00359
8.356	.00290
8.394	.00238
8.598	.00221
8.697	.00169
8.727	.00143
8.841	.00130
8.939	.00104
9.182	.00052
4 3 3 2	
5.859	.10025
5.872	.09929
5.878	.09872
5.885	.09681
5.917	.09554
5.929	.09453
5.968	.09310
5.974	.09235
5.987	.09203
6.000	.09089
6.026	.09045
6.032	.08993
6.051	.08895
6.064	.08815
6.071	.08778
6.083	.08670
6.090	.08615
6.122	.08462
6.128	.08369
6.167	.08359
6.173	.08190
6.179	.08154
6.186	.08121
6.205	.08013
6.224	.07941
6.231	.07877
6.237	.07825
6.256	.07667
6.276	.07602
6.282	.07550
6.288	.07488
6.295	.07407
6.333	.07257
6.340	.07218
6.372	.07154
6.378	.07061
6.391	.07001
6.397	.06880
6.410	.06789
6.429	.06711

h	P(H≥h)
4 3 3 2	
6.436	.06632
6.462	.06584
6.474	.06488
6.487	.06426
6.494	.06358
6.532	.06244
6.545	.06201
6.577	.06098
6.583	.06027
6.590	.05925
6.603	.05889
6.635	.05818
6.641	.05709
6.647	.05700
6.667	.05638
6.679	.05592
6.686	.05447
6.692	.05400
6.699	.05391
6.705	.05286
6.737	.05183
6.744	.05157
6.750	.05123
6.782	.05014
6.795	.04925
6.801	.04880
6.808	.04824
6.821	.04714
6.840	.04678
6.853	.04615
6.872	.04558
6.891	.04485
6.897	.04414
6.910	.04387
6.949	.04290
6.955	.04257
6.987	.04219
6.994	.04130
7.006	.04095
7.013	.04030
7.026	.03994
7.045	.03962
7.051	.03893
7.090	.03880
7.096	.03851
7.103	.03794
7.109	.03776
7.147	.03726
7.154	.03698
7.160	.03664
7.199	.03597
7.205	.03525
7.212	.03508
7.218	.03468
7.256	.03405
7.263	.03372

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 3	3 2	4 3	3 2	4 3	3 2	4 3	3 3
7.282	.03319	8.083	.01471	8.955	.00292	6.324	.08131
7.295	.03297	8.103	.01461	8.994	.00286	6.330	.08032
7.301	.03192	8.122	.01445	9.006	.00281	6.352	.08009
7.314	.03165	8.128	.01398	9.045	.00272	6.368	.07932
7.321	.03120	8.135	.01395	9.051	.00269	6.374	.07908
7.353	.03055	8.141	.01372	9.058	.00258	6.412	.07790
7.359	.02991	8.179	.01310	9.103	.00226	6.418	.07709
7.397	.02977	8.186	.01308	9.128	.00223	6.440	.07684
7.410	.02944	8.218	.01234	9.141	.00214	6.456	.07558
7.417	.02931	8.224	.01185	9.147	.00209	6.462	.07408
7.436	.02863	8.237	.01181	9.160	.00203	6.484	.07346
7.455	.02823	8.244	.01158	9.167	.00197	6.500	.07300
7.468	.02804	8.256	.01146	9.199	.00191	6.505	.07121
7.487	.02732	8.276	.01109	9.244	.00183	6.527	.07087
7.500	.02674	8.282	.01090	9.263	.00162	6.544	.06963
7.506	.02599	8.308	.01084	9.282	.00151	6.549	.06890
7.513	.02566	8.321	.01061	9.314	.00148	6.588	.06781
7.526	.02541	8.333	.00985	9.333	.00145	6.615	.06682
7.558	.02504	8.340	.00968	9.346	.00142	6.632	.06625
7.564	.02494	8.378	.00965	9.372	.00123	6.637	.06560
7.571	.02475	8.391	.00918	9.404	.00105	6.659	.06400
7.603	.02447	8.423	.00913	9.455	.00094	6.676	.06367
7.609	.02375	8.429	.00895	9.468	.00085	6.703	.06231
7.615	.02356	8.449	.00881	9.487	.00082	6.720	.06119
7.622	.02335	8.481	.00855	9.551	.00079	6.725	.05948
7.628	.02290	8.487	.00820	9.577	.00069	6.764	.05892
7.641	.02255	8.494	.00812	9.692	.00061	6.769	.05867
7.660	.02203	8.513	.00797	9.756	.00052	6.791	.05820
7.667	.02173	8.526	.00770	9.776	.00035	6.808	.05756
7.673	.02170	8.532	.00744	9.859	.00026	6.813	.05693
7.705	.02098	8.538	.00740	9.865	.00022	6.835	.05599
7.718	.02035	8.545	.00722	9.949	.00017	6.852	.05568
7.724	.02025	8.551	.00676	10.269	.00009	6.857	.05372
7.731	.02013	8.583	.00656			6.879	.05317
7.763	.01999	8.596	.00649	4 3	3 3	6.896	.05243
7.776	.01986	8.628	.00646			6.901	.05176
7.814	.01962	8.641	.00626	6.000	.10009	6.940	.05107
7.821	.01958	8.647	.00624	6.016	.09779	6.945	.05044
7.833	.01949	8.654	.00621	6.022	.09675	6.967	.05025
7.846	.01896	8.667	.00574	6.060	.09640	6.984	.04897
7.872	.01861	8.686	.00563	6.066	.09367	6.989	.04802
7.878	.01853	8.699	.00549	6.088	.09349	7.011	.04747
7.897	.01830	8.718	.00500	6.104	.09288	7.027	.04727
7.910	.01789	8.737	.00477	6.110	.09259	7.033	.04683
7.917	.01752	8.756	.00458	6.132	.09134	7.055	.04676
7.929	.01736	8.795	.00452	6.148	.09094	7.071	.04646
7.936	.01688	8.801	.00435	6.154	.09047	7.077	.04445
7.968	.01661	8.833	.00429	6.176	.09011	7.115	.04382
7.974	.01641	8.840	.00386	6.192	.08900	7.121	.04320
8.013	.01626	8.853	.00377	6.198	.08714	7.143	.04292
8.019	.01597	8.859	.00372	6.236	.08608	7.159	.04209
8.026	.01569	8.872	.00331	6.242	.08560	7.165	.04109
8.032	.01551	8.891	.00323	6.264	.08520	7.187	.04062
8.051	.01516	8.936	.00317	6.280	.08464	7.203	.04032
8.071	.01500	8.942	.00308	6.286	.08327	7.209	.03992
8.077	.01490	8.949	.00298	6.308	.08217	7.231	.03960

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 3	3 3	4 3	3 3	4 3	3 3	4 4	1 1
7.247	.03917	8.258	.01554	9.231	.00501	5.127	.10349
7.253	.03874	8.264	.01517	9.253	.00499	5.182	.09968
7.291	.03833	8.286	.01509	9.269	.00475	5.209	.09587
7.319	.03739	8.302	.01412	9.275	.00454	5.291	.08698
7.335	.03664	8.308	.01384	9.297	.00425	5.345	.07746
7.341	.03628	8.346	.01346	9.313	.00418	5.427	.07619
7.363	.03600	8.352	.01336	9.319	.00398	5.564	.07492
7.379	.03576	8.374	.01328	9.341	.00395	5.618	.07365
7.407	.03488	8.390	.01320	9.357	.00374	5.645	.06857
7.423	.03434	8.396	.01300	9.363	.00336	5.755	.06603
7.429	.03406	8.418	.01274	9.401	.00332	5.782	.06476
7.467	.03246	8.434	.01249	9.429	.00329	5.864	.05714
7.495	.03201	8.462	.01228	9.445	.00305	5.945	.04952
7.511	.03157	8.478	.01200	9.451	.00286	5.973	.04762
7.516	.03049	8.484	.01171	9.473	.00278	6.000	.04635
7.538	.02973	8.522	.01159	9.489	.00276	6.055	.04381
7.555	.02943	8.527	.01151	9.516	.00270	6.164	.04254
7.560	.02900	8.549	.01145	9.533	.00262	6.382	.04190
7.582	.02886	8.566	.01117	9.538	.00260	6.436	.03810
7.599	.02853	8.571	.01093	9.577	.00255	6.518	.03556
7.604	.02816	8.593	.01072	9.604	.00245	6.600	.03302
7.643	.02805	8.610	.01064	9.621	.00233	6.627	.03175
7.670	.02707	8.615	.01048	9.626	.00219	6.818	.02921
7.687	.02691	8.637	.01039	9.670	.00207	6.845	.02857
7.692	.02678	8.654	.01009	9.692	.00205	6.927	.02603
7.714	.02599	8.659	.00990	9.709	.00195	6.955	.02349
7.731	.02569	8.698	.00975	9.714	.00193	7.036	.02095
7.736	.02533	8.725	.00934	9.753	.00169	7.091	.01968
7.758	.02522	8.742	.00902	9.797	.00161	7.364	.01524
7.775	.02437	8.747	.00898	9.824	.00155	7.500	.01143
7.780	.02361	8.769	.00879	9.868	.00153	7.909	.00381
7.819	.02349	8.786	.00876	9.885	.00144		
7.824	.02282	8.791	.00863	9.890	.00138	4 4	2 1
7.846	.02269	8.813	.00857	9.929	.00123		
7.863	.02232	8.830	.00837	9.973	.00107	5.545	.10026
7.868	.02191	8.835	.00794	10.000	.00101	5.568	.09980
7.890	.02161	8.874	.00790	10.016	.00096	5.591	.09703
7.907	.02139	8.879	.00774	10.044	.00092	5.614	.09633
7.912	.02122	8.901	.00770	10.060	.00080	5.636	.09576
7.934	.02108	8.918	.00757	10.066	.00073	5.659	.09091
7.951	.02087	8.923	.00747	10.148	.00069	5.682	.09056
7.956	.02043	8.945	.00743	10.154	.00065	5.705	.08733
7.995	.01985	8.962	.00727	10.220	.00061	5.727	.08433
8.022	.01973	8.967	.00711	10.236	.00057	5.773	.08364
8.038	.01922	9.011	.00707	10.396	.00044	5.795	.08317
8.044	.01853	9.049	.00668	10.456	.00034	5.818	.08294
8.082	.01822	9.077	.00626	10.484	.00032	5.841	.08225
8.110	.01794	9.093	.00602	10.500	.00023	5.864	.07867
8.126	.01771	9.099	.00591	10.505	.00021	5.886	.07775
8.132	.01747	9.121	.00576	10.527	.00015	5.909	.07694
8.170	.01735	9.137	.00572	10.659	.00014	5.932	.07648
8.176	.01699	9.143	.00548	10.852	.00008	5.955	.07544
8.198	.01689	9.165	.00544	10.923	.00005	5.977	.07475
8.214	.01647	9.181	.00516	11.275	.00002	6.000	.07198
8.220	.01594	9.187	.00514			6.023	.07152
8.242	.01573	9.225	.00504			6.045	.07117

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	2 1	4 4	2 1	4 4	2 2	4 4	2 2
6.068	.06805	7.523	.01709	6.442	.06082	7.981	.01445
6.114	.06690	7.545	.01697	6.500	.06020	8.000	.01406
6.136	.06609	7.568	.01651	6.519	.05884	8.038	.01364
6.159	.06390	7.591	.01582	6.577	.05884	8.058	.01328
6.182	.06343	7.614	.01535	6.596	.05595	8.077	.01312
6.205	.05732	7.636	.01374	6.615	.05437	8.115	.01254
6.227	.05628	7.682	.01351	6.654	.05376	8.135	.01247
6.295	.05582	7.773	.01253	6.673	.05360	8.154	.01162
6.318	.05478	7.795	.01137	6.692	.05191	8.192	.01154
6.341	.05143	7.818	.01091	6.731	.04872	8.212	.01139
6.364	.05004	7.841	.01068	6.750	.04825	8.231	.01101
6.386	.04981	7.864	.01045	6.769	.04571	8.288	.01037
6.409	.04947	7.886	.01022	6.808	.04487	8.308	.01018
6.432	.04704	7.909	.00906	6.827	.04412	8.346	.00941
6.455	.04635	7.955	.00883	6.846	.04342	8.365	.00922
6.477	.04612	7.977	.00779	6.885	.04333	8.423	.00829
6.523	.04519	8.000	.00756	6.904	.04287	8.462	.00779
6.545	.04392	8.023	.00745	6.923	.04229	8.500	.00768
6.568	.04121	8.091	.00583	6.962	.04106	8.519	.00745
6.591	.04075	8.114	.00560	6.981	.04033	8.538	.00706
6.614	.04017	8.182	.00537	7.000	.03810	8.596	.00660
6.636	.03971	8.227	.00514	7.038	.03779	8.615	.00564
6.659	.03925	8.341	.00317	7.058	.03721	8.654	.00548
6.682	.03740	8.364	.00294	7.077	.03636	8.673	.00514
6.705	.03729	8.568	.00260	7.115	.03575	8.692	.00494
6.727	.03706	8.591	.00190	7.135	.03556	8.769	.00477
6.773	.03521	8.705	.00156	7.192	.03502	8.808	.00416
6.795	.03394	8.909	.00087	7.212	.03477	8.827	.00400
6.818	.03244	9.045	.00069	7.231	.03269	8.846	.00354
6.841	.03221			7.269	.03242	8.885	.00331
6.864	.03209	4 4	2 2	7.288	.03119	8.904	.00300
6.886	.03036			7.308	.03069	8.962	.00292
6.909	.02990	5.769	.10195	7.346	.02980	8.981	.00291
6.932	.02967	5.808	.09882	7.365	.02949	9.058	.00275
6.977	.02955	5.827	.09812	7.385	.02911	9.077	.00244
7.000	.02909	5.846	.09131	7.423	.02857	9.135	.00225
7.023	.02874	5.885	.09054	7.442	.02907	9.231	.00217
7.045	.02863	5.904	.08910	7.462	.02584	9.269	.00183
7.068	.02840	5.962	.08760	7.500	.02542	9.288	.00175
7.091	.02771	5.981	.08733	7.519	.02503	9.308	.00121
7.114	.02701	6.000	.08637	7.538	.02453	9.346	.00117
7.136	.02609	6.038	.08217	7.577	.02376	9.442	.00106
7.159	.02459	6.058	.08152	7.596	.02349	9.462	.00098
7.182	.02424	6.077	.07767	7.615	.02295	9.577	.00052
7.205	.02413	6.115	.07617	7.654	.02161	9.750	.00046
7.227	.02297	6.135	.07521	7.673	.02138	9.846	.00023
7.273	.02251	6.192	.07405	7.692	.02095	9.923	.00017
7.295	.02078	6.212	.07302	7.731	.02053	10.154	.00012
7.318	.02043	6.231	.07136	7.750	.01901		
7.341	.02020	6.269	.07038	7.809	.01801	4 4	3 1
7.364	.01974	6.288	.06990	7.827	.01778		
7.409	.01962	6.308	.06686	7.846	.01709	5.660	.10020
7.432	.01951	6.346	.06597	7.885	.01587	5.692	.09853
7.455	.01905	6.365	.06293	7.904	.01572	5.712	.09625
7.477	.01789	6.385	.06263	7.923	.01499	5.718	.09550
7.500	.01743	6.423	.06101	7.962	.01460	5.737	.09509

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	3 1	4 4	3 1	4 4	3 1	4 4	3 2
5.756	.09411	6.987	.03850	8.231	.00955	5.956	.09514
5.769	.09169	7.019	.03804	8.250	.00877	5.967	.09477
5.795	.09091	7.026	.03671	8.256	.00866	5.973	.09460
5.808	.08848	7.038	.03596	8.276	.00837	5.984	.09421
5.814	.08768	7.045	.03584	8.353	.00834	5.989	.09302
5.865	.08592	7.096	.03469	8.372	.00776	6.005	.09262
5.891	.08392	7.122	.03351	8.404	.00759	6.016	.09214
5.910	.08245	7.141	.03333	8.429	.00747	6.022	.09205
5.923	.08144	7.192	.03255	8.462	.00733	6.033	.09043
5.942	.08078	7.199	.03160	8.481	.00661	6.038	.09020
5.968	.08035	7.250	.03131	8.506	.00638	6.049	.08940
6.000	.07928	7.256	.03068	8.526	.00554	6.055	.08912
6.026	.07899	7.276	.02999	8.564	.00537	6.066	.08871
6.045	.07827	7.295	.02918	8.577	.00534	6.082	.08849
6.064	.07694	7.327	.02877	8.583	.00470	6.088	.08820
6.096	.07556	7.333	.02848	8.635	.00459	6.099	.08801
6.103	.07518	7.353	.02785	8.641	.00444	6.104	.08735
6.115	.07319	7.410	.02745	8.660	.00361	6.115	.08685
6.122	.07296	7.429	.02675	8.679	.00352	6.121	.08664
6.173	.07212	7.449	.02635	8.692	.00349	6.132	.08615
6.179	.07128	7.481	.02548	8.712	.00346	6.137	.08597
6.199	.07004	7.500	.02462	8.769	.00341	6.148	.08493
6.218	.06843	7.506	.02439	8.795	.00335	6.154	.08476
6.231	.06681	7.538	.02424	8.814	.00312	6.165	.08371
6.269	.06644	7.558	.02358	8.865	.00300	6.170	.08357
6.276	.06496	7.564	.02326	8.872	.00248	6.181	.08309
6.327	.06436	7.583	.02271	8.891	.00231	6.187	.08280
6.333	.06280	7.603	.02202	8.968	.00208	6.198	.08154
6.353	.06219	7.615	.02199	9.000	.00202	6.203	.08139
6.372	.06173	7.641	.02121	9.038	.00185	6.214	.08027
6.385	.06101	7.654	.02052	9.096	.00176	6.220	.08015
6.404	.06014	7.660	.01954	9.122	.00170	6.231	.08000
6.410	.05957	7.712	.01893	9.173	.00165	6.236	.07938
6.429	.05769	7.737	.01861	9.179	.00159	6.247	.07866
6.506	.05665	7.756	.01804	9.199	.00118	6.253	.07849
6.526	.05582	7.769	.01740	9.256	.00113	6.264	.07814
6.558	.05463	7.788	.01665	9.276	.00107	6.269	.07804
6.577	.05255	7.814	.01625	9.295	.00101	6.280	.07673
6.583	.05201	7.846	.01602	9.327	.00084	6.286	.07614
6.615	.05094	7.872	.01593	9.500	.00078	6.297	.07607
6.635	.04978	7.891	.01590	9.583	.00069	6.302	.07599
6.641	.04949	7.910	.01567	9.692	.00052	6.313	.07565
6.660	.04898	7.942	.01541	9.788	.00043	6.319	.07512
6.679	.04877	7.949	.01483	9.872	.00026	6.330	.07450
6.718	.04724	7.962	.01414	10.077	.00017	6.335	.07350
6.731	.04652	7.968	.01359			6.346	.07326
6.737	.04557	8.026	.01339	4 4	3 2	6.352	.07310
6.788	.04494	8.045	.01253			6.363	.07278
6.795	.04401	8.064	.01224	5.890	.10070	6.368	.07258
6.814	.04361	8.077	.01209	5.901	.09950	6.379	.07213
6.833	.04228	8.115	.01186	5.907	.09932	6.385	.07142
6.846	.04196	8.122	.01177	5.918	.09835	6.401	.07087
6.891	.04156	8.173	.01131	5.923	.09808	6.412	.07016
6.923	.04029	8.179	.01056	5.934	.09684	6.418	.07008
6.949	.03945	8.199	.01051	5.940	.09566	6.429	.06974
6.968	.03896	8.218	.01027	5.951	.09523	6.434	.06965

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	3 2	4 4	3 2	4 4	3 2	4 4	3 2
6.445	.06897	6.923	.04812	7.407	.03295	7.918	.02060
6.451	.06880	6.940	.04801	7.418	.03281	7.934	.02045
6.462	.06737	6.945	.04783	7.423	.03224	7.945	.02025
6.467	.06696	6.956	.04690	7.434	.03191	7.951	.01998
6.478	.06625	6.962	.04672	7.440	.03187	7.962	.01982
6.484	.06587	6.973	.04641	7.456	.03176	7.967	.01955
6.495	.06568	6.978	.04616	7.467	.03160	7.984	.01944
6.500	.06557	6.989	.04563	7.473	.03109	8.011	.01928
6.511	.06550	6.995	.04542	7.484	.03069	8.016	.01910
6.516	.06530	7.005	.04510	7.489	.03062	8.027	.01887
6.527	.06494	7.011	.04496	7.505	.03050	8.033	.01879
6.533	.06478	7.022	.04461	7.516	.02967	8.044	.01845
6.544	.06446	7.027	.04422	7.522	.02938	8.049	.01828
6.549	.06411	7.038	.04388	7.533	.02911	8.060	.01795
6.560	.06343	7.044	.04373	7.538	.02891	8.066	.01769
6.566	.06311	7.055	.04349	7.549	.02878	8.077	.01765
6.577	.06286	7.060	.04336	7.555	.02866	8.082	.01760
6.582	.06260	7.077	.04295	7.566	.02852	8.093	.01740
6.593	.06231	7.088	.04255	7.582	.02829	8.099	.01737
6.599	.06214	7.093	.04240	7.588	.02821	8.110	.01721
6.610	.06123	7.104	.04198	7.599	.02776	8.115	.01712
6.615	.06116	7.110	.04190	7.604	.02773	8.126	.01689
6.626	.06101	7.121	.04156	7.615	.02750	8.132	.01677
6.632	.05996	7.126	.04094	7.621	.02727	8.148	.01654
6.648	.05944	7.137	.04065	7.632	.02713	8.159	.01648
6.659	.05896	7.143	.04048	7.637	.02708	8.165	.01625
6.665	.05891	7.154	.04042	7.648	.02686	8.176	.01613
6.676	.05858	7.159	.04014	7.654	.02677	8.181	.01608
6.681	.05801	7.170	.03985	7.665	.02671	8.192	.01594
6.692	.05698	7.176	.03936	7.670	.02641	8.198	.01582
6.698	.05680	7.187	.03904	7.681	.02636	8.209	.01568
6.709	.05627	7.192	.03899	7.687	.02624	8.225	.01518
6.714	.05609	7.203	.03848	7.698	.02592	8.231	.01514
6.725	.05597	7.209	.03822	7.703	.02578	8.247	.01506
6.731	.05522	7.220	.03792	7.714	.02561	8.258	.01491
6.742	.05472	7.225	.03776	7.720	.02554	8.264	.01479
6.747	.05460	7.236	.03757	7.736	.02535	8.275	.01438
6.758	.05451	7.242	.03737	7.747	.02500	8.280	.01430
6.764	.05444	7.253	.03683	7.753	.02493	8.291	.01423
6.775	.05408	7.258	.03659	7.764	.02466	8.297	.01410
6.780	.05372	7.269	.03619	7.769	.02438	8.308	.01387
6.791	.05332	7.275	.03600	7.780	.02371	8.313	.01378
6.797	.05312	7.291	.03592	7.797	.02360	8.324	.01364
6.808	.05289	7.302	.03566	7.802	.02349	8.330	.01357
6.813	.05269	7.308	.03554	7.813	.02343	8.341	.01340
6.824	.05173	7.319	.03532	7.819	.02333	8.346	.01339
6.830	.05156	7.324	.03514	7.830	.02314	8.363	.01328
6.841	.05126	7.335	.03480	7.835	.02295	8.379	.01324
6.846	.05100	7.341	.03477	7.846	.02267	8.390	.01292
6.863	.05070	7.352	.03440	7.852	.02261	8.396	.01290
6.874	.04983	7.357	.03434	7.863	.02212	8.407	.01273
6.879	.04925	7.368	.03429	7.868	.02191	8.412	.01270
6.890	.04913	7.374	.03386	7.885	.02144	8.423	.01254
6.896	.04872	7.385	.03364	7.896	.02121	8.429	.01247
6.907	.04840	7.390	.03330	7.901	.02116	8.440	.01245
6.912	.04826	7.401	.03301	7.912	.02106	8.445	.01230

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4 3 2		4 4 3 2		4 4 3 2		4 4 3 2	
8.456	.01215	8.989	.00642	9.582	.00221	10.582	.00020
8.473	.01186	9.000	.00638	9.593	.00218	10.681	.00015
8.478	.01174	9.005	.00631	9.599	.00211	10.736	.00012
8.489	.01165	9.016	.00626	9.610	.00201	10.753	.00009
8.495	.01160	9.038	.00621	9.615	.00200	10.830	.00007
8.505	.01151	9.049	.00605	9.626	.00188	10.901	.00004
8.511	.01142	9.055	.00593	9.632	.00187	11.176	.00003
8.522	.01120	9.066	.00587	9.648	.00186		
8.527	.01110	9.082	.00582	9.665	.00184	4 4 3 3	
8.538	.01099	9.088	.00580	9.681	.00177		
8.544	.01095	9.099	.00554	9.692	.00174	6.005	.10028
8.555	.01083	9.104	.00523	9.698	.00168	6.019	.09948
8.560	.01071	9.115	.00512	9.709	.00167	6.024	.09897
8.571	.01047	9.121	.00508	9.725	.00167	6.029	.09826
8.577	.01043	9.132	.00507	9.731	.00166	6.043	.09803
8.593	.01024	9.137	.00506	9.747	.00164	6.048	.09788
8.604	.01014	9.148	.00503	9.758	.00163	6.062	.09736
8.610	.01004	9.154	.00501	9.764	.00160	6.067	.09660
8.621	.00999	9.165	.00476	9.775	.00158	6.081	.09613
8.626	.00991	9.170	.00475	9.791	.00156	6.095	.09546
8.637	.00974	9.181	.00464	9.813	.00142	6.105	.09488
8.654	.00968	9.187	.00462	9.830	.00131	6.119	.09453
8.659	.00955	9.198	.00457	9.841	.00119	6.124	.09387
8.676	.00931	9.203	.00436	9.846	.00115	6.133	.09322
8.687	.00913	9.220	.00417	9.879	.00111	6.138	.09156
8.692	.00910	9.231	.00416	9.890	.00109	6.157	.09136
8.703	.00906	9.236	.00415	9.896	.00103	6.171	.09105
8.709	.00883	9.247	.00396	9.907	.00102	6.176	.09099
8.720	.00880	9.253	.00389	9.912	.00101	6.181	.09032
8.725	.00876	9.264	.00385	9.945	.00099	6.195	.09006
8.736	.00874	9.269	.00382	9.962	.00088	6.200	.08956
8.742	.00862	9.280	.00380	9.978	.00083	6.210	.08883
8.753	.00856	9.302	.00379	9.995	.00081	6.214	.08839
8.758	.00849	9.313	.00378	10.011	.00079	6.219	.08825
8.769	.00832	9.319	.00375	10.022	.00076	6.233	.08807
8.775	.00830	9.335	.00361	10.044	.00074	6.248	.08705
8.791	.00816	9.346	.00355	10.060	.00072	6.252	.08649
8.802	.00801	9.352	.00337	10.093	.00068	6.257	.08574
8.808	.00788	9.363	.00314	10.104	.00067	6.276	.08568
8.824	.00782	9.368	.00307	10.126	.00066	6.286	.08509
8.835	.00758	9.379	.00301	10.137	.00065	6.290	.08487
8.841	.00757	9.385	.00301	10.159	.00055	6.295	.08439
8.852	.00747	9.396	.00300	10.176	.00052	6.310	.08398
8.868	.00736	9.418	.00286	10.187	.00051	6.324	.08328
8.874	.00728	9.434	.00283	10.225	.00050	6.329	.08268
8.885	.00726	9.445	.00278	10.242	.00047	6.333	.08251
8.890	.00724	9.451	.00267	10.253	.00045	6.348	.08162
8.901	.00718	9.462	.00262	10.258	.00043	6.352	.08118
8.907	.00713	9.467	.00260	10.286	.00042	6.362	.08070
8.923	.00704	9.484	.00254	10.302	.00041	6.367	.08029
8.934	.00671	9.495	.00245	10.374	.00040	6.371	.07880
8.940	.00670	9.500	.00241	10.385	.00040	6.386	.07862
8.951	.00665	9.516	.00240	10.407	.00036	6.405	.07850
8.956	.00650	9.527	.00239	10.418	.00028	6.410	.07798
8.967	.00646	9.544	.00235	10.434	.00027	6.424	.07775
8.973	.00643	9.566	.00222	10.489	.00021	6.429	.07735

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	3 3	4 4	3 3	4 4	3 3	4 4	3 3
6.438	.07723	6.976	.05311	7.529	.03426	8.062	.02213
6.448	.07651	6.981	.05236	7.543	.03415	8.076	.02172
6.462	.07639	6.995	.05216	7.548	.03408	8.081	.02159
6.476	.07576	7.010	.05200	7.552	.03381	8.086	.02145
6.481	.07535	7.014	.05166	7.567	.03368	8.105	.02136
6.500	.07465	7.019	.05122	7.571	.03313	8.119	.02096
6.505	.07417	7.033	.05093	7.581	.03285	8.124	.02079
6.514	.07361	7.038	.04990	7.586	.03261	8.138	.02069
6.519	.07341	7.048	.04932	7.590	.03255	8.152	.02058
6.524	.07299	7.052	.04884	7.605	.03239	8.162	.02032
6.538	.07271	7.057	.04843	7.619	.03204	8.176	.02022
6.552	.07214	7.090	.04824	7.624	.03172	8.181	.01999
6.557	.07180	7.095	.04801	7.629	.03152	8.190	.01967
6.562	.07175	7.110	.04793	7.648	.03144	8.195	.01953
6.576	.07146	7.114	.04756	7.657	.03126	8.214	.01938
6.581	.07103	7.124	.04740	7.662	.03098	8.233	.01922
6.590	.07024	7.133	.04716	7.667	.03071	8.238	.01884
6.595	.06995	7.148	.04642	7.681	.03052	8.252	.01872
6.600	.06959	7.162	.04626	7.695	.03016	8.257	.01838
6.629	.06942	7.167	.04580	7.700	.02997	8.267	.01824
6.633	.06898	7.186	.04528	7.705	.02951	8.271	.01804
6.638	.06752	7.190	.04493	7.719	.02938	8.276	.01793
6.652	.06741	7.200	.04479	7.724	.02923	8.290	.01777
6.667	.06706	7.205	.04466	7.733	.02896	8.305	.01763
6.671	.06601	7.210	.04414	7.738	.02848	8.310	.01746
6.676	.06591	7.224	.04393	7.743	.02825	8.314	.01727
6.690	.06555	7.238	.04347	7.757	.02822	8.333	.01724
6.705	.06486	7.243	.04313	7.776	.02816	8.343	.01681
6.710	.06427	7.248	.04298	7.781	.02794	8.348	.01670
6.714	.06392	7.262	.04274	7.795	.02782	8.352	.01657
6.729	.06379	7.267	.04231	7.800	.02753	8.367	.01651
6.733	.06361	7.276	.04162	7.810	.02730	8.381	.01619
6.748	.06259	7.281	.04106	7.819	.02714	8.386	.01605
6.752	.06209	7.286	.04088	7.833	.02697	8.390	.01601
6.767	.06183	7.314	.04082	7.848	.02629	8.405	.01582
6.781	.06080	7.319	.04060	7.852	.02593	8.410	.01565
6.790	.06055	7.324	.04006	7.871	.02579	8.419	.01551
6.805	.06033	7.338	.03982	7.876	.02568	8.424	.01531
6.810	.05982	7.352	.03970	7.890	.02558	8.429	.01520
6.819	.05928	7.357	.03946	7.895	.02523	8.443	.01516
6.824	.05865	7.362	.03933	7.910	.02511	8.462	.01504
6.843	.05830	7.376	.03913	7.924	.02502	8.467	.01477
6.857	.05796	7.390	.03882	7.929	.02487	8.481	.01455
6.862	.05769	7.395	.03853	7.933	.02479	8.486	.01443
6.867	.05740	7.400	.03812	7.948	.02460	8.495	.01440
6.881	.05686	7.414	.03798	7.952	.02445	8.505	.01429
6.886	.05660	7.419	.03779	7.962	.02426	8.519	.01425
6.895	.05639	7.433	.03735	7.967	.02405	8.533	.01422
6.900	.05602	7.438	.03681	7.971	.02357	8.538	.01377
6.905	.05568	7.452	.03666	8.000	.02354	8.557	.01363
6.919	.05547	7.467	.03649	8.005	.02322	8.562	.01349
6.933	.05500	7.476	.03576	8.010	.02306	8.571	.01321
6.938	.05433	7.490	.03552	8.024	.02288	8.576	.01313
6.943	.05386	7.495	.03501	8.038	.02267	8.581	.01305
6.962	.05384	7.505	.03483	8.043	.02249	8.595	.01298
6.971	.05327	7.510	.03464	8.048	.02233	8.610	.01280

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	3 3	4 4	3 3	4 4	3 3	4 4	3 3
8.619	.01271	9.181	.00709	9.738	.00377	10.329	.00137
8.633	.01255	9.190	.00705	9.752	.00373	10.333	.00135
8.638	.01233	9.205	.00703	9.757	.00371	10.348	.00131
8.648	.01224	9.219	.00683	9.762	.00370	10.362	.00130
8.652	.01215	9.224	.00673	9.776	.00367	10.367	.00129
8.657	.01201	9.243	.00666	9.781	.00357	10.371	.00121
8.686	.01198	9.248	.00661	9.790	.00356	10.390	.00120
8.690	.01195	9.257	.00644	9.795	.00355	10.400	.00117
8.695	.01177	9.262	.00643	9.800	.00351	10.405	.00108
8.710	.01175	9.267	.00640	9.833	.00344	10.410	.00105
8.724	.01169	9.281	.00634	9.838	.00328	10.424	.00104
8.729	.01158	9.295	.00632	9.852	.00325	10.443	.00104
8.733	.01149	9.300	.00627	9.857	.00324	10.462	.00103
8.748	.01135	9.305	.00619	9.867	.00321	10.467	.00098
8.762	.01112	9.319	.00611	9.876	.00305	10.476	.00089
8.767	.01104	9.324	.00599	9.890	.00303	10.486	.00087
8.771	.01095	9.333	.00588	9.905	.00298	10.524	.00085
8.786	.01089	9.338	.00575	9.910	.00296	10.538	.00083
8.790	.01079	9.343	.00570	9.929	.00295	10.552	.00080
8.805	.01068	9.371	.00569	9.933	.00291	10.576	.00078
8.810	.01060	9.376	.00563	9.943	.00276	10.590	.00078
8.824	.01056	9.381	.00562	9.948	.00273	10.614	.00077
8.838	.01043	9.395	.00559	9.952	.00268	10.619	.00075
8.848	.01031	9.410	.00554	9.967	.00264	10.629	.00072
8.862	.01016	9.414	.00546	9.981	.00246	10.633	.00071
8.867	.01003	9.419	.00540	9.986	.00244	10.638	.00063
8.876	.00974	9.433	.00536	9.990	.00242	10.652	.00062
8.881	.00966	9.448	.00529	10.005	.00236	10.667	.00060
8.900	.00955	9.452	.00526	10.010	.00234	10.676	.00057
8.914	.00935	9.457	.00520	10.019	.00231	10.695	.00055
8.919	.00930	9.476	.00516	10.024	.00230	10.705	.00055
8.924	.00918	9.490	.00503	10.029	.00228	10.714	.00054
8.938	.00916	9.495	.00497	10.057	.00227	10.748	.00053
8.943	.00902	9.510	.00497	10.062	.00225	10.752	.00052
8.952	.00889	9.524	.00488	10.067	.00222	10.767	.00051
8.957	.00885	9.533	.00483	10.081	.00212	10.781	.00048
8.962	.00884	9.548	.00475	10.095	.00207	10.786	.00047
8.976	.00880	9.552	.00466	10.100	.00202	10.819	.00046
8.990	.00870	9.562	.00463	10.105	.00196	10.829	.00045
8.995	.00855	9.567	.00456	10.119	.00193	10.848	.00044
9.019	.00849	9.586	.00451	10.133	.00188	10.867	.00042
9.029	.00840	9.605	.00443	10.138	.00176	10.881	.00039
9.033	.00836	9.610	.00439	10.143	.00175	10.919	.00038
9.038	.00820	9.624	.00431	10.162	.00171	10.933	.00037
9.052	.00816	9.629	.00429	10.176	.00169	10.976	.00035
9.067	.00809	9.638	.00424	10.181	.00168	10.981	.00034
9.071	.00806	9.643	.00417	10.195	.00166	11.000	.00034
9.076	.00800	9.648	.00416	10.219	.00165	11.010	.00031
9.090	.00797	9.662	.00415	10.233	.00164	11.033	.00030
9.095	.00782	9.676	.00413	10.238	.00155	11.048	.00025
9.105	.00767	9.681	.00404	10.248	.00152	11.086	.00024
9.110	.00759	9.686	.00400	10.271	.00149	11.090	.00022
9.148	.00750	9.705	.00398	10.290	.00146	11.095	.00022
9.152	.00743	9.714	.00393	10.295	.00145	11.110	.00021
9.167	.00733	9.719	.00389	10.310	.00141	11.133	.00021
9.171	.00711	9.724	.00383	10.324	.00140	11.152	.00016

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	3 3	4 4	4 1	4 4	4 1	4 4	4 1
11.167	.00015	6.396	.06204	7.599	.02579	8.802	.00682
11.224	.00014	6.412	.06178	7.615	.02541	8.835	.00661
11.238	.00013	6.429	.06053	7.632	.02517	8.852	.00639
11.300	.00013	6.462	.05821	7.648	.02470	8.868	.00631
11.376	.00009	6.478	.05757	7.665	.02454	8.901	.00618
11.400	.00009	6.495	.05674	7.681	.02443	8.934	.00578
11.429	.00008	6.544	.05648	7.714	.02432	8.951	.00522
11.438	.00008	6.560	.05552	7.731	.02350	9.000	.00496
11.467	.00007	6.577	.05461	7.747	.02334	9.033	.00490
11.490	.00006	6.593	.05405	7.764	.02227	9.049	.00424
11.514	.00006	6.610	.05379	7.780	.02219	9.066	.00400
11.533	.00005	6.626	.05288	7.797	.02198	9.082	.00394
11.667	.00003	6.659	.05219	7.813	.02089	9.099	.00392
11.771	.00002	6.676	.05102	7.846	.02065	9.115	.00378
11.833	.00002	6.709	.05032	7.863	.02049	9.132	.00373
11.895	.00001	6.725	.04979	7.879	.01966	9.181	.00352
12.200	.00001	6.742	.04944	7.896	.01947	9.198	.00309
		6.758	.04931	7.929	.01934	9.214	.00258
4 4	4 1	6.791	.04737	7.945	.01897	9.247	.00253
		6.808	.04707	7.978	.01828	9.264	.00248
5.637	.10086	6.824	.04646	7.995	.01817	9.330	.00245
5.654	.09801	6.857	.04555	8.011	.01758	9.379	.00240
5.670	.09772	6.874	.04534	8.027	.01732	9.396	.00224
5.687	.09673	6.890	.04446	8.044	.01721	9.429	.00216
5.736	.09598	6.923	.04412	8.060	.01684	9.478	.00176
5.753	.09556	6.940	.04393	8.077	.01652	9.527	.00160
5.769	.09455	6.956	.04321	8.126	.01644	9.593	.00148
5.786	.09183	6.973	.04095	8.143	.01622	9.610	.00145
5.819	.09002	6.989	.04065	8.159	.01497	9.626	.00143
5.835	.08818	7.005	.04007	8.192	.01487	9.643	.00132
5.868	.08733	7.022	.03921	8.209	.01447	9.709	.00124
5.885	.08605	7.071	.03903	8.242	.01396	9.725	.00121
5.901	.08530	7.088	.03799	8.258	.01343	9.758	.00097
5.918	.08416	7.104	.03756	8.275	.01316	9.775	.00092
5.934	.08352	7.137	.03692	8.291	.01308	9.824	.00081
5.951	.08304	7.154	.03642	8.308	.01295	9.841	.00079
5.967	.08250	7.187	.03498	8.324	.01269	9.989	.00068
6.016	.08045	7.203	.03482	8.341	.01257	10.088	.00065
6.033	.07947	7.220	.03442	8.390	.01217	10.121	.00049
6.049	.07893	7.236	.03373	8.407	.01180	10.170	.00044
6.066	.07845	7.253	.03330	8.423	.01169	10.187	.00039
6.082	.07798	7.269	.03301	8.440	.01162	10.236	.00036
6.099	.07771	7.286	.03247	8.456	.01156	10.269	.00031
6.132	.07758	7.319	.03173	8.522	.01092	10.516	.00025
6.148	.07608	7.335	.03128	8.538	.01076	10.681	.00017
6.165	.07504	7.352	.03117	8.555	.01012	10.764	.00013
6.181	.07329	7.368	.03082	8.571	.01007	11.011	.00005
6.214	.07286	7.401	.03061	8.588	.00986		
6.231	.07028	7.418	.03002	8.604	.00943	4 4	4 2
6.264	.06828	7.451	.02893	8.654	.00892		
6.280	.06679	7.467	.02808	8.687	.00871	5.900	.10136
6.297	.06575	7.484	.02795	8.703	.00826	5.914	.09940
6.313	.06466	7.500	.02773	8.720	.00807	5.929	.09799
6.330	.06367	7.516	.02731	8.736	.00797	5.943	.09759
6.346	.06351	7.533	.02712	8.769	.00783	5.971	.09719
6.363	.06324	7.549	.02661	8.786	.00778	5.986	.09602

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	4 2	4 4	4 2	4 4	4 2	4 4	4 2
6.014	.09515	6.957	.04960	7.929	.02428	8.886	.00983
6.029	.09478	6.971	.04902	7.943	.02393	8.900	.00975
6.043	.09241	7.000	.04807	7.957	.02388	8.914	.00911
6.057	.09087	7.014	.04728	7.971	.02367	8.943	.00905
6.086	.09060	7.029	.04680	7.986	.02310	8.957	.00883
6.100	.08999	7.043	.04647	8.000	.02305	8.971	.00866
6.114	.08832	7.057	.04626	8.029	.02265	8.986	.00862
6.129	.08729	7.071	.04557	8.043	.02242	9.000	.00857
6.143	.08713	7.086	.04516	8.057	.02203	9.014	.00816
6.157	.08632	7.114	.04500	8.071	.02188	9.029	.00803
6.171	.08515	7.129	.04436	8.086	.02174	9.057	.00778
6.200	.08457	7.143	.04403	8.100	.02131	9.071	.00770
6.214	.08143	7.157	.04368	8.114	.02050	9.086	.00748
6.229	.08087	7.171	.04347	8.143	.02029	9.100	.00742
6.243	.08059	7.186	.04299	8.157	.01992	9.114	.00732
6.257	.07964	7.200	.04233	8.171	.01975	9.129	.00711
6.271	.07873	7.229	.04149	8.186	.01937	9.171	.00701
6.286	.07838	7.243	.04086	8.200	.01915	9.186	.00684
6.314	.07732	7.257	.04027	8.214	.01876	9.214	.00668
6.329	.07669	7.271	.04010	8.257	.01825	9.229	.00664
6.343	.07551	7.286	.03968	8.271	.01760	9.243	.00659
6.357	.07505	7.300	.03940	8.300	.01751	9.257	.00635
6.371	.07473	7.314	.03883	8.314	.01710	9.286	.00622
6.386	.07406	7.343	.03876	8.329	.01684	9.300	.00592
6.400	.07321	7.357	.03842	8.343	.01653	9.314	.00583
6.429	.07297	7.386	.03756	8.371	.01622	9.329	.00573
6.443	.07149	7.400	.03732	8.386	.01610	9.343	.00565
6.471	.07102	7.414	.03539	8.400	.01555	9.357	.00558
6.486	.07044	7.429	.03512	8.414	.01509	9.400	.00553
6.500	.06995	7.457	.03488	8.429	.01502	9.414	.00526
6.514	.06773	7.471	.03390	8.443	.01472	9.429	.00521
6.543	.06739	7.486	.03367	8.457	.01453	9.443	.00518
6.557	.06608	7.500	.03342	8.486	.01445	9.457	.00517
6.571	.06567	7.514	.03295	8.500	.01420	9.471	.00502
6.586	.06539	7.529	.03268	8.514	.01391	9.486	.00487
6.600	.06498	7.571	.03199	8.529	.01385	9.514	.00484
6.614	.06274	7.586	.03139	8.543	.01378	9.529	.00481
6.629	.06217	7.600	.03088	8.557	.01359	9.543	.00474
6.657	.06193	7.614	.03061	8.571	.01340	9.557	.00456
6.671	.06139	7.629	.03022	8.600	.01322	9.571	.00455
6.686	.06044	7.643	.02998	8.614	.01229	9.586	.00451
6.700	.06011	7.657	.02982	8.629	.01198	9.600	.00444
6.714	.05972	7.686	.02961	8.643	.01184	9.629	.00433
6.729	.05853	7.700	.02927	8.657	.01167	9.643	.00412
6.743	.05787	7.714	.02842	8.671	.01154	9.671	.00395
6.771	.05763	7.729	.02811	8.686	.01135	9.686	.00383
6.786	.05706	7.743	.02797	8.714	.01121	9.700	.00376
6.800	.05667	7.757	.02716	8.729	.01111	9.714	.00370
6.814	.05555	7.771	.02696	8.757	.01100	9.743	.00356
6.829	.05495	7.800	.02684	8.771	.01089	9.757	.00348
6.843	.05439	7.814	.02636	8.786	.01066	9.771	.00324
6.857	.05385	7.843	.02609	8.800	.01054	9.786	.00315
6.886	.05366	7.857	.02601	8.829	.01039	9.800	.00314
6.900	.05247	7.871	.02570	8.843	.01014	9.814	.00292
6.929	.05099	7.886	.02527	8.857	.01006	9.829	.00286
6.943	.05040	7.914	.02499	8.871	.00987	9.857	.00283

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	4 2	4 4	4 2	4 4	4 3	4 4	4 3
9.871	.00277	11.186	.00015	6.429	.07975	6.992	.05517
9.886	.00275	11.229	.00014	6.442	.07902	7.013	.05460
9.900	.00264	11.314	.00014	6.450	.07812	7.017	.05408
9.914	.00255	11.357	.00011	6.454	.07787	7.029	.05389
9.929	.00250	11.386	.00010	6.475	.07759	7.050	.05348
9.943	.00241	11.429	.00010	6.479	.07692	7.054	.05319
9.971	.00240	11.457	.00008	6.488	.07671	7.067	.05286
9.986	.00225	11.471	.00008	6.492	.07640	7.075	.05269
10.000	.00220	11.600	.00005	6.513	.07589	7.079	.05223
10.014	.00214	11.686	.00003	6.517	.07543	7.092	.05168
10.029	.00208	11.814	.00002	6.529	.07495	7.113	.05123
10.043	.00194	12.114	.00001	6.542	.07415	7.117	.05057
10.057	.00191			6.554	.07401	7.129	.05022
10.100	.00185	4 4	4 3	6.563	.07348	7.142	.04954
10.129	.00158			6.567	.07335	7.150	.04902
10.143	.00157	6.029	.10084	6.579	.07312	7.154	.04882
10.157	.00156	6.042	.09980	6.583	.07262	7.163	.04860
10.200	.00155	6.054	.09966	6.592	.07199	7.167	.04831
10.229	.00150	6.063	.09922	6.600	.07136	7.179	.04822
10.243	.00142	6.067	.09893	6.617	.07124	7.188	.04778
10.257	.00139	6.075	.09879	6.629	.07094	7.192	.04770
10.271	.00136	6.079	.09872	6.642	.07037	7.225	.04720
10.286	.00135	6.092	.09795	6.654	.06955	7.242	.04647
10.314	.00131	6.100	.09677	6.663	.06914	7.254	.04605
10.329	.00114	6.113	.09631	6.675	.06828	7.263	.04579
10.357	.00110	6.117	.09574	6.679	.06777	7.267	.04534
10.371	.00105	6.129	.09537	6.692	.06716	7.275	.04527
10.386	.00104	6.142	.09460	6.700	.06630	7.279	.04489
10.400	.00102	6.154	.09381	6.713	.06595	7.292	.04446
10.429	.00089	6.167	.09332	6.717	.06564	7.300	.04443
10.443	.00088	6.175	.09311	6.742	.06530	7.313	.04418
10.457	.00084	6.179	.09207	6.750	.06488	7.317	.04409
10.471	.00081	6.192	.09133	6.754	.06486	7.329	.04379
10.486	.00080	6.213	.09084	6.767	.06459	7.342	.04334
10.500	.00072	6.217	.09004	6.775	.06427	7.367	.04288
10.543	.00069	6.225	.08981	6.779	.06365	7.375	.04265
10.600	.00062	6.229	.08930	6.788	.06302	7.379	.04243
10.614	.00061	6.242	.08906	6.792	.06282	7.388	.04204
10.629	.00057	6.254	.08806	6.825	.06254	7.392	.04184
10.657	.00055	6.263	.08763	6.829	.06215	7.413	.04125
10.671	.00054	6.267	.08698	6.842	.06173	7.417	.04090
10.686	.00051	6.279	.08672	6.850	.06127	7.425	.04086
10.700	.00048	6.288	.08615	6.854	.06095	7.429	.04078
10.729	.00045	6.300	.08580	6.867	.06079	7.442	.04015
10.743	.00045	6.317	.08567	6.879	.06066	7.450	.03976
10.800	.00039	6.325	.08539	6.888	.05987	7.454	.03945
10.829	.00036	6.329	.08465	6.892	.05953	7.463	.03917
10.857	.00034	6.342	.08383	6.900	.05911	7.467	.03889
10.886	.00034	6.354	.08296	6.925	.05889	7.479	.03886
10.900	.00032	6.363	.08286	6.929	.05805	7.488	.03867
10.957	.00030	6.367	.08214	6.942	.05761	7.492	.03843
11.000	.00027	6.375	.08174	6.954	.05701	7.500	.03800
11.014	.00021	6.379	.08164	6.963	.05655	7.517	.03796
11.043	.00019	6.392	.08060	6.967	.05581	7.525	.03776
11.114	.00018	6.400	.08006	6.975	.05543	7.529	.03726
11.171	.00016	6.413	.07999	6.979	.05525	7.554	.03699

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4 4 3		4 4 4 3		4 4 4 3		4 4 4 3	
7.567	.03678	8.125	.02398	8.663	.01452	9.267	.00808
7.575	.03657	8.129	.02395	8.667	.01446	9.279	.00806
7.579	.03620	8.142	.02369	8.679	.01444	9.288	.00798
7.592	.03594	8.154	.02340	8.692	.01431	9.292	.00791
7.600	.03560	8.163	.02322	8.700	.01408	9.300	.00787
7.613	.03554	8.175	.02294	8.717	.01400	9.317	.00779
7.629	.03529	8.179	.02281	8.725	.01386	9.325	.00769
7.642	.03502	8.192	.02250	8.729	.01370	9.329	.00758
7.650	.03470	8.200	.02227	8.742	.01364	9.342	.00743
7.654	.03462	8.217	.02218	8.754	.01341	9.354	.00732
7.675	.03441	8.229	.02207	8.763	.01335	9.363	.00730
7.679	.03412	8.242	.02204	8.767	.01309	9.367	.00725
7.688	.03386	8.250	.02181	8.775	.01302	9.379	.00719
7.692	.03381	8.254	.02176	8.779	.01297	9.392	.00706
7.713	.03351	8.267	.02156	8.829	.01274	9.400	.00697
7.717	.03310	8.275	.02151	8.842	.01248	9.413	.00695
7.725	.03287	8.279	.02114	8.850	.01233	9.429	.00689
7.729	.03247	8.288	.02078	8.867	.01224	9.442	.00679
7.742	.03238	8.313	.02071	8.875	.01222	9.450	.00672
7.754	.03197	8.317	.02064	8.879	.01216	9.454	.00670
7.763	.03174	8.325	.02052	8.892	.01200	9.467	.00665
7.767	.03169	8.329	.02040	8.913	.01177	9.475	.00662
7.779	.03151	8.342	.02020	8.925	.01161	9.479	.00644
7.788	.03099	8.350	.01991	8.929	.01152	9.488	.00642
7.792	.03069	8.354	.01976	8.942	.01137	9.492	.00639
7.800	.03060	8.363	.01973	8.954	.01127	9.513	.00632
7.817	.03054	8.367	.01953	8.963	.01121	9.517	.00620
7.825	.03041	8.379	.01934	8.967	.01105	9.525	.00613
7.829	.03003	8.388	.01919	8.979	.01093	9.529	.00607
7.842	.02958	8.392	.01905	8.988	.01087	9.550	.00597
7.863	.02929	8.400	.01889	8.992	.01077	9.554	.00592
7.867	.02887	8.425	.01885	9.017	.01061	9.567	.00588
7.879	.02874	8.429	.01851	9.025	.01051	9.579	.00580
7.892	.02849	8.442	.01819	9.029	.01031	9.588	.00566
7.900	.02826	8.454	.01794	9.042	.01019	9.592	.00559
7.913	.02802	8.463	.01786	9.054	.01016	9.629	.00554
7.917	.02782	8.467	.01762	9.063	.01008	9.642	.00547
7.929	.02777	8.475	.01759	9.067	.01003	9.654	.00544
7.942	.02749	8.492	.01744	9.075	.01000	9.663	.00541
7.950	.02722	8.513	.01728	9.079	.00988	9.675	.00536
7.954	.02715	8.517	.01706	9.092	.00975	9.679	.00532
7.967	.02693	8.529	.01694	9.100	.00965	9.692	.00521
7.975	.02676	8.542	.01670	9.117	.00953	9.700	.00516
7.988	.02644	8.554	.01667	9.129	.00945	9.713	.00510
7.992	.02635	8.567	.01654	9.142	.00930	9.717	.00504
8.013	.02611	8.575	.01634	9.150	.00919	9.742	.00498
8.025	.02581	8.579	.01608	9.154	.00913	9.754	.00489
8.029	.02563	8.588	.01585	9.175	.00903	9.767	.00486
8.042	.02541	8.592	.01574	9.179	.00882	9.775	.00481
8.050	.02528	8.613	.01560	9.188	.00870	9.779	.00475
8.054	.02505	8.617	.01537	9.192	.00869	9.788	.00467
8.079	.02494	8.625	.01528	9.213	.00860	9.792	.00466
8.088	.02469	8.629	.01521	9.242	.00840	9.813	.00464
8.092	.02457	8.642	.01503	9.250	.00823	9.817	.00463
8.100	.02414	8.650	.01480	9.254	.00820	9.825	.00459
8.117	.02411	8.654	.01465	9.263	.00813	9.829	.00454

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4	4 3	4 4	4 3	4 4	4 3	4 4	4 3
9.842	.00446	10.429	.00226	11.050	.00077	11.754	.00016
9.850	.00437	10.442	.00223	11.054	.00075	11.763	.00015
9.863	.00429	10.450	.00220	11.067	.00074	11.767	.00014
9.879	.00424	10.454	.00217	11.079	.00072	11.775	.00014
9.888	.00416	10.463	.00215	11.088	.00070	11.779	.00013
9.892	.00412	10.467	.00214	11.092	.00069	11.842	.00012
9.917	.00407	10.488	.00213	11.100	.00069	11.850	.00011
9.925	.00406	10.492	.00213	11.117	.00068	11.854	.00011
9.929	.00400	10.500	.00211	11.125	.00066	11.867	.00011
9.942	.00395	10.517	.00209	11.129	.00064	11.913	.00010
9.954	.00385	10.525	.00209	11.142	.00063	11.942	.00010
9.963	.00382	10.529	.00203	11.154	.00063	11.950	.00009
9.967	.00377	10.542	.00196	11.163	.00061	11.988	.00008
9.975	.00374	10.554	.00195	11.167	.00057	12.025	.00008
9.979	.00367	10.567	.00190	11.175	.00056	12.029	.00007
9.992	.00364	10.579	.00187	11.179	.00055	12.075	.00007
10.000	.00356	10.592	.00184	11.192	.00053	12.079	.00007
10.013	.00356	10.600	.00182	11.213	.00051	12.100	.00007
10.029	.00354	10.613	.00180	11.229	.00051	12.129	.00006
10.050	.00351	10.617	.00177	11.242	.00050	12.142	.00005
10.054	.00349	10.629	.00173	11.254	.00048	12.175	.00005
10.075	.00346	10.642	.00166	11.275	.00046	12.179	.00004
10.079	.00338	10.650	.00157	11.279	.00045	12.192	.00004
10.088	.00332	10.654	.00155	11.288	.00045	12.217	.00004
10.092	.00331	10.675	.00154	11.317	.00045	12.363	.00003
10.113	.00326	10.679	.00149	11.325	.00044	12.375	.00002
10.117	.00318	10.692	.00148	11.329	.00043	12.429	.00002
10.129	.00314	10.713	.00146	11.342	.00041	12.450	.00002
10.142	.00309	10.717	.00141	11.363	.00040	12.454	.00001
10.154	.00305	10.725	.00137	11.367	.00040	12.475	.00001
10.163	.00303	10.729	.00134	11.379	.00038	12.567	.00001
10.179	.00298	10.742	.00134	11.388	.00037	12.775	.00001
10.188	.00294	10.750	.00134	11.392	.00036	12.829	.00000
10.192	.00293	10.754	.00133	11.400	.00036	13.150	.00000
10.217	.00290	10.763	.00129	11.425	.00035		
10.225	.00287	10.767	.00127	11.429	.00034	4 4	4 4
10.229	.00283	10.779	.00126	11.442	.00033		
10.242	.00281	10.788	.00123	11.454	.00032	6.066	.10033
10.254	.00277	10.825	.00119	11.475	.00031	6.088	.09900
10.263	.00276	10.829	.00116	11.492	.00031	6.110	.09814
10.267	.00267	10.842	.00115	11.513	.00030	6.132	.09601
10.275	.00266	10.863	.00110	11.517	.00029	6.154	.09548
10.279	.00263	10.879	.00104	11.529	.00028	6.176	.09320
10.292	.00259	10.892	.00103	11.542	.00028	6.199	.09279
10.300	.00257	10.900	.00102	11.550	.00028	6.221	.09205
10.313	.00254	10.929	.00100	11.575	.00027	6.243	.09138
10.317	.00253	10.942	.00096	11.579	.00024	6.265	.08864
10.329	.00252	10.954	.00093	11.592	.00023	6.287	.08825
10.342	.00250	10.967	.00093	11.629	.00022	6.331	.08687
10.350	.00245	10.975	.00091	11.642	.00021	6.353	.08548
10.367	.00244	10.988	.00089	11.650	.00020	6.375	.08523
10.379	.00241	10.992	.00086	11.654	.00019	6.397	.08374
10.388	.00236	11.013	.00083	11.663	.00018	6.419	.08312
10.392	.00235	11.017	.00083	11.679	.00017	6.441	.08179
10.413	.00233	11.025	.00080	11.725	.00017	6.463	.08034
10.425	.00229	11.029	.00079	11.742	.00016	6.485	.07891

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4 4 4		4 4 4 4		4 4 4 4		4 4 4 4	
6.507	.07855	7.853	.03242	9.199	.01073	10.522	.00271
6.529	.07702	7.875	.03207	9.221	.01052	10.566	.00258
6.551	.07684	7.897	.03125	9.243	.01027	10.610	.00249
6.574	.07436	7.919	.03091	9.265	.01013	10.632	.00239
6.596	.07338	7.941	.03053	9.287	.00999	10.654	.00236
6.618	.07280	7.963	.03032	9.309	.00964	10.676	.00227
6.640	.07197	7.985	.02967	9.331	.00960	10.699	.00220
6.684	.07025	8.007	.02939	9.353	.00908	10.721	.00217
6.706	.06941	8.029	.02866	9.375	.00898	10.743	.00215
6.728	.06890	8.051	.02821	9.397	.00877	10.765	.00202
6.750	.06806	8.096	.02787	9.419	.00871	10.787	.00202
6.772	.06730	8.118	.02662	9.441	.00816	10.809	.00196
6.794	.06498	8.140	.02645	9.463	.00806	10.831	.00192
6.816	.06436	8.162	.02587	9.507	.00789	10.853	.00189
6.838	.06354	8.184	.02544	9.529	.00785	10.875	.00185
6.860	.06307	8.206	.02517	9.551	.00771	10.919	.00172
6.904	.06229	8.228	.02476	9.574	.00720	10.941	.00161
6.926	.05999	8.250	.02402	9.596	.00717	10.963	.00157
6.949	.05962	8.272	.02392	9.618	.00699	10.985	.00154
6.971	.05842	8.316	.02327	9.640	.00684	11.007	.00153
6.993	.05788	8.338	.02274	9.662	.00666	11.029	.00149
7.037	.05700	8.360	.02235	9.684	.00660	11.051	.00145
7.059	.05581	8.382	.02176	9.728	.00643	11.074	.00140
7.081	.05567	8.404	.02166	9.750	.00617	11.096	.00137
7.103	.05475	8.449	.02134	9.772	.00606	11.140	.00134
7.125	.05390	8.471	.02078	9.794	.00592	11.184	.00128
7.147	.05301	8.493	.02075	9.816	.00578	11.206	.00124
7.169	.05244	8.515	.01997	9.860	.00553	11.228	.00119
7.191	.05080	8.537	.01989	9.882	.00534	11.272	.00117
7.213	.05071	8.559	.01916	9.904	.00529	11.294	.00110
7.235	.04922	8.581	.01859	9.926	.00522	11.316	.00110
7.257	.04875	8.603	.01828	9.949	.00514	11.338	.00100
7.279	.04833	8.625	.01813	9.971	.00491	11.360	.00098
7.301	.04797	8.647	.01752	9.993	.00484	11.382	.00096
7.324	.04687	8.669	.01741	10.015	.00466	11.404	.00094
7.346	.04632	8.691	.01705	10.037	.00461	11.426	.00084
7.390	.04486	8.713	.01686	10.059	.00450	11.449	.00083
7.412	.04431	8.735	.01656	10.081	.00448	11.471	.00081
7.434	.04409	8.757	.01628	10.103	.00422	11.493	.00079
7.456	.04295	8.801	.01538	10.125	.00418	11.515	.00077
7.478	.04264	8.824	.01507	10.147	.00409	11.537	.00073
7.500	.04170	8.846	.01488	10.169	.00392	11.559	.00067
7.522	.04109	8.868	.01462	10.213	.00389	11.581	.00066
7.544	.04054	8.890	.01441	10.235	.00362	11.625	.00062
7.566	.04013	8.912	.01387	10.257	.00360	11.647	.00061
7.588	.03873	8.934	.01375	10.279	.00347	11.669	.00059
7.610	.03865	8.956	.01310	10.301	.00341	11.691	.00055
7.632	.03796	8.978	.01297	10.324	.00330	11.713	.00053
7.654	.03740	9.000	.01276	10.346	.00319	11.735	.00050
7.676	.03699	9.022	.01267	10.368	.00312	11.757	.00045
7.699	.03643	9.044	.01216	10.390	.00308	11.801	.00044
7.743	.03536	9.066	.01205	10.412	.00305	11.846	.00041
7.765	.03474	9.088	.01172	10.434	.00303	11.868	.00037
7.787	.03463	9.110	.01130	10.456	.00300	11.890	.00035
7.809	.03372	9.154	.01111	10.478	.00296	11.912	.00034
7.831	.03358	9.176	.01077	10.500	.00274	11.934	.00032

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
4 4 4 4		2 2 2 1 1		3 2 2 1 1		3 2 2 2 2	
11.978	.00029	6.500	.05238	7.200	.02460	7.030	.09449
12.000	.00028	6.750	.02381	7.244	.02063	7.045	.09414
12.022	.00027			7.400	.01429	7.076	.09322
12.044	.00026	2 2 2 2 1		7.600	.00794	7.091	.08906
12.066	.00025					7.121	.08768
12.088	.00024	6.533	.10476	3 2 2 2 1		7.136	.08560
12.110	.00023	6.600	.08889			7.167	.08537
12.132	.00021	6.667	.08254	6.691	.10111	7.182	.08341
12.176	.00021	6.733	.07619	6.709	.09873	7.212	.08144
12.199	.00020	6.800	.06984	6.745	.09238	7.227	.07948
12.221	.00017	6.933	.05714	6.818	.09143	7.258	.07856
12.243	.00017	7.000	.05397	6.855	.09000	7.303	.07671
12.265	.00016	7.133	.04127	6.873	.08667	7.318	.07290
12.287	.00015	7.200	.03492	6.909	.08286	7.348	.07082
12.331	.00013	7.333	.02222	6.927	.07905	7.364	.06967
12.375	.00013	7.533	.00952	6.964	.07794	7.394	.06753
12.397	.00012	7.733	.00529	6.982	.07730	7.409	.06684
12.419	.00011			7.018	.07349	7.439	.06661
12.441	.00011	2 2 2 2 2		7.073	.06698	7.455	.06361
12.463	.00010			7.127	.06365	7.485	.06153
12.507	.00009	6.873	.10159	7.145	.06079	7.500	.05980
12.574	.00008	6.982	.09101	7.182	.05698	7.530	.05887
12.640	.00007	7.091	.07937	7.200	.05603	7.545	.05795
12.706	.00006	7.309	.06349	7.291	.05381	7.576	.05726
12.728	.00006	7.418	.04868	7.309	.04889	7.591	.05460
12.750	.00005	7.527	.03810	7.345	.04651	7.621	.05322
12.772	.00005	7.636	.03386	7.364	.04365	7.636	.05102
12.794	.00004	7.745	.03175	7.400	.04143	7.667	.05079
12.860	.00003	7.855	.02540	7.455	.04111	7.682	.04745
12.882	.00003	7.964	.02222	7.473	.03714	7.712	.04652
12.904	.00003	8.073	.01270	7.509	.03556	7.727	.04560
12.926	.00002	8.291	.00952	7.564	.03413	7.773	.04421
13.059	.00002	8.400	.00529	7.582	.03063	7.803	.04283
13.081	.00001	8.727	.00106	7.635	.03032	7.818	.04121
13.125	.00001			7.727	.02746	7.848	.04063
13.169	.00001	3 1 1 1 1		7.745	.02317	7.864	.03867
13.257	.00001			7.800	.02270	7.894	.03706
13.434	.00000	5.571	.14286	7.836	.01937	7.909	.03636
13.456	.00000			7.855	.01841	7.939	.03532
13.500	.00000	3 2 1 1 1		7.891	.01794	7.985	.03267
13.787	.00000			8.000	.01270	8.000	.03117
14.118	.00000	6.139	.10000	8.018	.01079	8.030	.03094
		6.333	.05714	8.127	.00937	8.045	.02978
2 1 1 1 1		6.583	.03571	8.164	.00889	8.076	.02782
				8.182	.00698	8.091	.02713
4.857	.33333	3 2 2 1 1		8.291	.00508	8.121	.02672
				8.327	.00317	8.136	.02649
2 2 1 1 1		6.511	.10000	8.455	.00254	8.167	.02557
		6.533	.08466	8.618	.00159	8.182	.02384
5.464	.20952	6.600	.08254			8.212	.02297
5.786	.09524	6.711	.06984	3 2 2 2 2		8.258	.02124
		6.800	.04921			8.273	.02078
2 2 2 1 1		6.844	.04841	6.939	.10257	8.303	.01962
		6.867	.04206	6.955	.09922	8.318	.01870
6.083	.12381	7.044	.03889	6.985	.09680	8.348	.01847
6.250	.08810	7.067	.02937	7.000	.09553	8.394	.01801

EXACT PROBABILITY LEVELS FOR THE KRUSKAL-WALLIS TEST

h	P(H≥h)
3 2 2 2 2	
8.409	.01720
8.439	.01651
8.455	.01582
8.530	.01455
8.545	.01339
8.576	.01258
8.591	.01224
8.621	.01154
8.636	.01108
8.667	.01097
8.682	.00958
8.712	.00889
8.758	.00854
8.818	.00716
8.894	.00629
8.909	.00525
8.955	.00508
8.985	.00462
9.000	.00392
9.030	.00323
9.091	.00231
9.258	.00214
9.273	.00167
9.364	.00098
9.636	.00029
3 3 1 1 1	
6.222	.11905
6.311	.09286
6.578	.08095
6.667	.06667
6.756	.05952
7.111	.04048
7.467	.01190
3 3 2 1 1	
6.545	.10119
6.600	.09929
6.618	.09865
6.673	.09310
6.691	.09103
6.745	.08754
6.764	.08532
6.891	.08365
6.909	.07873
6.964	.07206
7.036	.06952
7.055	.06524
7.109	.05444
7.127	.05317
7.182	.05159
7.200	.05000
7.327	.04413
7.345	.04159

h	P(H≥h)
3 3 2 1 1	
7.400	.03841
7.418	.03349
7.491	.03317
7.564	.02548
7.618	.02452
7.691	.02357
7.764	.02071
7.782	.01833
7.855	.01262
7.927	.01214
8.055	.01024
8.073	.00738
8.218	.00714
8.345	.00333
8.509	.00238
3 3 2 2 1	
6.758	.10316
6.788	.09892
6.803	.09794
6.818	.09577
6.848	.09511
6.864	.09447
6.879	.09352
6.924	.09100
6.939	.08889
6.970	.08817
6.985	.08742
7.000	.08407
7.030	.08346
7.045	.08205
7.061	.08185
7.091	.08141
7.106	.08069
7.121	.07789
7.152	.07362
7.167	.07319
7.212	.07137
7.227	.07074
7.242	.06909
7.273	.06646
7.288	.06600
7.303	.06436
7.333	.06421
7.348	.06338
7.364	.06038
7.394	.05921
7.409	.05880
7.424	.05863
7.470	.05823
7.485	.05707
7.515	.05387
7.530	.05317
7.545	.05124
7.576	.05107

h	P(H≥h)
3 3 2 2 1	
7.591	.04919
7.606	.04908
7.636	.04658
7.652	.04571
7.667	.04364
7.697	.04315
7.712	.04302
7.727	.04019
7.758	.03993
7.773	.03924
7.788	.03811
7.818	.03785
7.833	.03768
7.848	.03646
7.879	.03349
7.894	.03309
7.909	.03159
7.939	.03139
7.955	.03087
7.970	.02997
8.015	.02789
8.030	.02723
8.061	.02685
8.076	.02605
8.091	.02501
8.121	.02437
8.182	.02391
8.197	.02333
8.212	.02140
8.242	.02004
8.258	.01973
8.303	.01817
8.318	.01794
8.333	.01687
8.379	.01452
8.394	.01414
8.424	.01397
8.439	.01362
8.455	.01304
8.485	.01201
8.500	.01114
8.561	.01102
8.576	.00984
8.621	.00926
8.697	.00840
8.727	.00710
8.758	.00680
8.788	.00671
8.803	.00645
8.818	.00576
8.864	.00571
8.924	.00476
8.939	.00433
9.030	.00260
9.045	.00225
9.061	.00216

h	P(H≥h)
3 3 2 2 1	
9.167	.00199
9.182	.00130
9.273	.00113
9.303	.00095
9.409	.00061
9.545	.00043
3 3 2 2 2	
7.013	.10045
7.026	.09897
7.051	.09706
7.064	.09685
7.090	.09494
7.103	.09363
7.115	.09321
7.128	.09214
7.154	.09069
7.167	.09043
7.179	.08936
7.205	.08708
7.218	.08690
7.231	.08559
7.256	.08468
7.269	.08442
7.282	.08405
7.295	.08244
7.321	.08084
7.333	.07973
7.359	.07856
7.372	.07830
7.385	.07639
7.397	.07605
7.410	.07452
7.436	.07439
7.462	.07255
7.474	.07243
7.487	.07149
7.500	.06952
7.513	.06873
7.526	.06823
7.564	.06709
7.577	.06642
7.590	.06569
7.603	.06437
7.615	.06297
7.628	.06289
7.641	.06190
7.667	.06038
7.679	.06028
7.692	.05898
7.705	.05802
7.718	.05667
7.731	.05618
7.744	.05602
7.782	.05514

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
3 3 2 2 2		3 3 2 2 2		3 3 2 2 2		3 3 3 1 1	
7.795	.05423	8.718	.01903	9.744	.00250	9.455	.00065
7.808	.05280	8.731	.01772	9.756	.00215		
7.821	.05218	8.744	.01725	9.769	.00198	3 3 3 2 1	
7.833	.05206	8.756	.01716	9.795	.00189		
7.846	.05117	8.769	.01677	9.833	.00176	6.897	.10229
7.872	.05058	8.795	.01663	9.859	.00159	6.910	.09916
7.897	.05048	8.821	.01631	9.885	.00146	6.949	.09694
7.910	.04934	8.833	.01592	9.936	.00138	6.962	.09596
7.923	.04788	8.846	.01503	9.949	.00125	7.000	.09495
7.936	.04771	8.859	.01497	10.000	.00108	7.013	.09395
7.949	.04710	8.872	.01448	10.026	.00090	7.051	.08937
7.974	.04564	8.910	.01379	10.038	.00082	7.064	.08800
7.987	.04519	8.936	.01312	10.064	.00079	7.103	.08725
8.013	.04440	8.949	.01250	10.167	.00045	7.115	.08576
8.026	.04291	8.962	.01236	10.256	.00042	7.154	.08384
8.038	.04279	8.974	.01198	10.269	.00025	7.167	.08232
8.051	.04240	9.000	.01164	10.346	.00016	7.205	.08136
8.077	.04155	9.013	.01161	10.577	.00007	7.218	.07948
8.090	.04145	9.026	.01135			7.256	.07721
8.103	.04084	9.051	.01063	3 3 3 1 1		7.269	.07641
8.128	.03974	9.064	.01057			7.308	.07548
8.141	.03951	9.077	.01034	6.727	.10156	7.321	.07451
8.154	.03828	9.103	.01005	6.788	.09779	7.359	.07106
8.179	.03766	9.115	.00996	6.848	.08753	7.372	.06979
8.192	.03753	9.128	.00990	6.909	.08623	7.410	.06930
8.205	.03717	9.141	.00938	6.970	.08247	7.423	.06835
8.218	.03551	9.167	.00887	7.030	.08156	7.462	.06584
8.244	.03413	9.179	.00861	7.091	.07753	7.474	.06475
8.256	.03377	9.205	.00817	7.152	.07597	7.513	.06394
8.282	.03294	9.218	.00802	7.212	.06688	7.526	.06199
8.295	.03284	9.231	.00771	7.273	.06545	7.564	.06018
8.308	.03193	9.244	.00739	7.333	.06091	7.577	.05972
8.321	.03150	9.256	.00705	7.394	.05896	7.615	.05938
8.333	.03050	9.282	.00702	7.455	.05506	7.628	.05868
8.359	.03002	9.308	.00685	7.515	.05377	7.667	.05561
8.385	.02910	9.321	.00682	7.576	.04545	7.679	.05341
8.397	.02881	9.333	.00649	7.636	.04481	7.718	.05301
8.410	.02775	9.346	.00637	7.697	.04247	7.731	.05166
8.423	.02701	9.359	.00609	7.758	.03812	7.769	.04885
8.436	.02684	9.372	.00600	7.818	.03227	7.782	.04867
8.449	.02681	9.423	.00577	7.879	.03104	7.821	.04767
8.487	.02622	9.436	.00547	7.939	.03000	7.833	.04693
8.500	.02618	9.449	.00522	8.000	.02844	7.872	.04532
8.513	.02579	9.474	.00496	8.061	.02325	7.885	.04427
8.526	.02514	9.487	.00488	8.121	.02273	7.923	.04405
8.538	.02408	9.526	.00442	8.242	.01909	7.936	.04298
8.551	.02400	9.538	.00433	8.303	.01416	7.974	.03985
8.564	.02346	9.551	.00416	8.364	.01390	7.987	.03922
8.590	.02266	9.564	.00352	8.424	.00909	8.026	.03878
8.603	.02245	9.577	.00346	8.606	.00825	8.038	.03832
8.615	.02182	9.590	.00339	8.667	.00591	8.077	.03748
8.628	.02139	9.628	.00335	8.727	.00513	8.090	.03640
8.641	.02046	9.641	.00317	8.848	.00435	8.128	.03597
8.654	.02036	9.654	.00297	8.909	.00396	8.141	.03435
8.667	.01991	9.679	.00284	8.970	.00377	8.179	.03324
8.705	.01931	9.692	.00258	9.212	.00221	8.192	.03281

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
3 3	3 2 1	3 3	3 2 1	3 3	3 2 2	3 3	3 2 2
8.231	.03209	9.718	.00221	7.670	.06658	8.495	.03357
8.244	.03181	9.769	.00198	7.692	.06579	8.505	.03308
8.282	.02929	9.782	.00192	7.703	.06511	8.527	.03285
8.295	.02828	9.833	.00130	7.714	.06446	8.538	.03266
8.333	.02798	9.872	.00123	7.736	.06427	8.549	.03229
8.346	.02752	9.885	.00120	7.747	.06398	8.571	.03128
8.385	.02618	9.923	.00114	7.758	.06309	8.582	.03108
8.397	.02587	9.974	.00097	7.780	.06186	8.593	.03060
8.436	.02566	9.987	.00081	7.791	.06141	8.615	.03043
8.449	.02471	10.090	.00052	7.802	.06012	8.626	.03007
8.487	.02357	10.179	.00039	7.824	.05974	8.637	.02943
8.500	.02284	10.295	.00026	7.835	.05923	8.659	.02880
8.538	.02265	10.385	.00013	7.846	.05834	8.670	.02856
8.551	.02169	10.500	.00011	7.868	.05749	8.681	.02795
8.590	.01950			7.879	.05730	8.703	.02773
8.603	.01927	3 3	3 2 2	7.890	.05630	8.714	.02760
8.641	.01908			7.912	.05594	8.725	.02671
8.654	.01870	7.099	.10016	7.923	.05558	8.747	.02616
8.692	.01764	7.121	.09979	7.934	.05419	8.758	.02599
8.705	.01722	7.132	.09923	7.956	.05344	8.769	.02566
8.744	.01676	7.143	.09749	7.967	.05288	8.791	.02548
8.756	.01592	7.165	.09627	7.978	.05218	8.802	.02517
8.795	.01495	7.176	.09576	8.000	.05202	8.813	.02472
8.808	.01474	7.187	.09488	8.011	.05178	8.835	.02397
8.846	.01463	7.209	.09447	8.022	.05088	8.846	.02384
8.859	.01448	7.220	.09400	8.044	.04915	8.857	.02286
8.897	.01323	7.231	.09252	8.055	.04899	8.879	.02274
8.910	.01225	7.253	.09037	8.066	.04793	8.890	.02243
8.949	.01214	7.264	.08983	8.088	.04783	8.901	.02206
8.962	.01155	7.275	.08822	8.099	.04737	8.923	.02134
9.000	.01049	7.297	.08798	8.110	.04687	8.934	.02125
9.013	.01013	7.308	.08739	8.132	.04589	8.945	.02099
9.051	.00976	7.319	.08587	8.143	.04566	8.967	.02086
9.064	.00956	7.341	.08473	8.154	.04516	8.978	.02071
9.103	.00846	7.352	.08446	8.176	.04488	8.989	.02009
9.115	.00831	7.363	.08334	8.187	.04454	9.011	.01981
9.154	.00820	7.385	.08275	8.198	.04333	9.022	.01931
9.167	.00766	7.396	.08229	8.220	.04277	9.033	.01901
9.205	.00732	7.407	.08053	8.231	.04247	9.055	.01895
9.218	.00701	7.429	.07943	8.242	.04184	9.066	.01882
9.256	.00684	7.440	.07872	8.264	.04163	9.077	.01803
9.269	.00656	7.451	.07794	8.275	.04144	9.099	.01722
9.308	.00567	7.473	.07767	8.286	.04078	9.110	.01714
9.321	.00561	7.484	.07725	8.308	.03957	9.121	.01668
9.359	.00548	7.495	.07593	8.319	.03925	9.143	.01666
9.372	.00514	7.516	.07449	8.330	.03856	9.154	.01650
9.410	.00466	7.527	.07406	8.352	.03840	9.165	.01606
9.462	.00461	7.538	.07265	8.363	.03791	9.187	.01551
9.474	.00423	7.560	.07241	8.374	.03733	9.198	.01541
9.513	.00353	7.571	.07200	8.396	.03663	9.209	.01509
9.526	.00327	7.582	.07108	8.407	.03648	9.231	.01494
9.564	.00323	7.604	.06979	8.418	.03584	9.242	.01468
9.577	.00319	7.615	.06945	8.440	.03560	9.253	.01430
9.628	.00240	7.626	.06874	8.451	.03546	9.275	.01394
9.667	.00237	7.648	.06838	8.462	.03446	9.286	.01379
9.679	.00231	7.659	.06808	8.484	.03390	9.297	.01329

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
3 3 3 2 2		3 3 3 2 2		3 3 3 3 1		3 3 3 3 1	
9.319	.01323	10.132	.00335	7.033	.10030	9.495	.00921
9.330	.01307	10.154	.00316	7.077	.09836	9.538	.00865
9.341	.01283	10.165	.00311	7.121	.09482	9.582	.00803
9.363	.01191	10.176	.00290	7.165	.09279	9.626	.00782
9.374	.01170	10.198	.00288	7.209	.08807	9.670	.00687
9.385	.01129	10.209	.00286	7.253	.08597	9.714	.00674
9.407	.01123	10.220	.00271	7.297	.08332	9.758	.00609
9.418	.01110	10.242	.00250	7.341	.08207	9.802	.00590
9.429	.01082	10.253	.00249	7.385	.07880	9.846	.00493
9.451	.01053	10.264	.00235	7.429	.07692	9.890	.00481
9.462	.01045	10.286	.00231	7.473	.07342	9.934	.00432
9.473	.01015	10.297	.00225	7.516	.07269	9.978	.00423
9.495	.01008	10.308	.00219	7.560	.06848	10.022	.00374
9.505	.00999	10.330	.00196	7.604	.06660	10.066	.00342
9.516	.00940	10.341	.00194	7.648	.06388	10.110	.00273
9.538	.00905	10.374	.00187	7.692	.06257	10.154	.00266
9.549	.00893	10.385	.00185	7.736	.06034	10.198	.00254
9.560	.00876	10.396	.00171	7.780	.05919	10.242	.00235
9.582	.00868	10.418	.00164	7.824	.05555	10.286	.00188
9.593	.00861	10.429	.00162	7.868	.05471	10.330	.00181
9.604	.00835	10.462	.00154	7.912	.05217	10.374	.00171
9.626	.00790	10.473	.00151	7.956	.05051	10.418	.00165
9.637	.00785	10.484	.00144	8.000	.04792	10.462	.00133
9.648	.00759	10.505	.00128	8.044	.04722	10.505	.00131
9.670	.00755	10.516	.00127	8.088	.04395	10.549	.00100
9.681	.00744	10.527	.00126	8.132	.04226	10.593	.00096
9.692	.00732	10.549	.00125	8.176	.04097	10.681	.00071
9.714	.00699	10.560	.00120	8.220	.04049	10.725	.00041
9.725	.00684	10.571	.00114	8.264	.03779	10.769	.00038
9.736	.00666	10.593	.00108	8.308	.03654	10.857	.00036
9.758	.00662	10.604	.00106	8.352	.03333	10.901	.00021
9.769	.00656	10.637	.00097	8.396	.03284	10.945	.00018
9.780	.00610	10.648	.00096	8.440	.03153	11.121	.00012
9.802	.00580	10.659	.00088	8.484	.03047	11.297	.00006
9.813	.00576	10.692	.00068	8.527	.02792	11.473	.00002
9.824	.00562	10.725	.00064	8.571	.02755		
9.846	.00560	10.736	.00062	8.615	.02627	3 3 3 3 2	
9.857	.00553	10.747	.00060	8.659	.02539		
9.868	.00529	10.769	.00050	8.703	.02396	7.181	.10196
9.890	.00495	10.791	.00045	8.747	.02336	7.210	.09965
9.901	.00485	10.824	.00044	8.791	.02140	7.219	.09880
9.912	.00471	10.868	.00036	8.835	.02105	7.248	.09849
9.934	.00470	10.912	.00033	8.879	.01939	7.257	.09735
9.945	.00456	10.923	.00031	8.923	.01905	7.286	.09442
9.956	.00439	10.945	.00025	8.967	.01829	7.295	.09348
9.978	.00421	10.989	.00025	9.011	.01753	7.324	.09275
9.989	.00417	11.000	.00022	9.055	.01664	7.333	.09150
10.000	.00411	11.044	.00021	9.099	.01638	7.362	.09020
10.022	.00407	11.099	.00017	9.143	.01490	7.371	.08914
10.033	.00406	11.187	.00009	9.187	.01411	7.400	.08851
10.044	.00392	11.264	.00007	9.231	.01342	7.410	.08720
10.066	.00378	11.275	.00003	9.275	.01328	7.438	.08554
10.077	.00368	11.341	.00002	9.319	.01216	7.448	.08484
10.088	.00356	11.538	.00002	9.363	.01166	7.476	.08426
10.110	.00355			9.407	.01030	7.486	.08372
10.121	.00350			9.451	.00997	7.514	.08176

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
3 3 3 3 2		3 3 3 3 2		3 3 3 3 2		3 3 3 3 2	
7.524	.08049	8.590	.03587	9.657	.01297	10.724	.00240
7.552	.08004	8.619	.03560	9.686	.01282	10.752	.00237
7.562	.07930	8.629	.03528	9.695	.01248	10.762	.00229
7.590	.07745	8.657	.03400	9.724	.01186	10.790	.00216
7.600	.07653	8.667	.03339	9.733	.01159	10.800	.00212
7.629	.07588	8.695	.03312	9.762	.01144	10.829	.00206
7.638	.07451	8.705	.03263	9.771	.01128	10.838	.00198
7.667	.07293	8.733	.03195	9.800	.01064	10.867	.00187
7.676	.07229	8.743	.03159	9.810	.01036	10.876	.00180
7.705	.07190	8.771	.03137	9.838	.01028	10.905	.00178
7.714	.07115	8.781	.03093	9.848	.01010	10.914	.00174
7.743	.06907	8.810	.02985	9.876	.00966	10.943	.00158
7.752	.06823	8.819	.02959	9.886	.00951	10.952	.00155
7.781	.06771	8.848	.02939	9.914	.00937	10.981	.00153
7.790	.06677	8.857	.02901	9.924	.00912	10.990	.00147
7.819	.06512	8.886	.02811	9.952	.00859	11.019	.00135
7.829	.06463	8.895	.02766	9.962	.00850	11.029	.00130
7.857	.06400	8.924	.02738	9.990	.00843	11.057	.00127
7.867	.06323	8.933	.02689	10.000	.00817	11.067	.00120
7.895	.06170	8.962	.02621	10.029	.00780	11.095	.00106
7.905	.06082	8.971	.02585	10.038	.00754	11.133	.00104
7.933	.06060	9.000	.02556	10.067	.00744	11.143	.00102
7.943	.05990	9.010	.02515	10.076	.00721	11.171	.00096
7.971	.05845	9.038	.02452	10.105	.00691	11.181	.00091
7.981	.05763	9.048	.02419	10.114	.00683	11.210	.00091
8.010	.05713	9.076	.02402	10.143	.00666	11.219	.00091
8.019	.05642	9.086	.02376	10.152	.00653	11.248	.00082
8.048	.05530	9.114	.02292	10.181	.00625	11.257	.00080
8.057	.05483	9.124	.02251	10.190	.00609	11.286	.00079
8.086	.05416	9.152	.02224	10.219	.00604	11.295	.00078
8.095	.05345	9.162	.02189	10.229	.00590	11.324	.00070
8.124	.05221	9.190	.02117	10.257	.00547	11.333	.00065
8.133	.05147	9.200	.02093	10.267	.00529	11.362	.00064
8.162	.05113	9.229	.02069	10.295	.00526	11.371	.00060
8.171	.05044	9.238	.02022	10.305	.00513	11.400	.00054
8.200	.04940	9.267	.01975	10.333	.00487	11.410	.00050
8.210	.04870	9.276	.01934	10.343	.00478	11.438	.00048
8.238	.04841	9.305	.01916	10.371	.00474	11.448	.00047
8.248	.04797	9.314	.01889	10.381	.00462	11.476	.00038
8.276	.04673	9.343	.01799	10.410	.00437	11.486	.00037
8.286	.04626	9.352	.01762	10.419	.00427	11.514	.00036
8.314	.04592	9.381	.01749	10.448	.00422	11.524	.00034
8.324	.04499	9.390	.01724	10.457	.00412	11.552	.00032
8.352	.04362	9.419	.01664	10.486	.00375	11.590	.00030
8.362	.04312	9.429	.01649	10.495	.00368	11.600	.00027
8.390	.04273	9.457	.01634	10.524	.00358	11.629	.00022
8.400	.04221	9.467	.01592	10.533	.00351	11.638	.00021
8.429	.04056	9.495	.01537	10.562	.00328	11.667	.00021
8.438	.04002	9.505	.01501	10.571	.00318	11.676	.00020
8.467	.03985	9.533	.01486	10.600	.00315	11.743	.00018
8.476	.03926	9.543	.01467	10.610	.00302	11.752	.00016
8.505	.03854	9.571	.01407	10.638	.00283	11.781	.00013
8.514	.03809	9.581	.01396	10.648	.00274	11.829	.00012
8.543	.03773	9.610	.01372	10.676	.00272	11.867	.00007
8.552	.03732	9.619	.01352	10.686	.00261	11.905	.00007
8.581	.03639	9.648	.01324	10.714	.00245	11.933	.00007

h	P(H≥h)	h	P(H≥h)	h	P(H≥h)	h	P(H≥h)
11.971	.00006	8.833	.03408	10.700	.00510	12.667	.00005
11.981	.00005	8.867	.03263	10.733	.00492	12.700	.00005
12.086	.00003	8.900	.03227	10.767	.00478	12.767	.00004
12.133	.00003	8.933	.03119	10.800	.00437	12.833	.00003
12.210	.00002	8.967	.03015	10.833	.00426	12.900	.00002
12.276	.00001	9.000	.02922	10.867	.00387	12.933	.00001
12.514	.00000	9.033	.02884	10.900	.00382	12.967	.00001
		9.067	.02787	10.933	.00355	13.033	.00001
		9.100	.02715	10.967	.00338	13.233	.00000
		9.133	.02641	11.000	.00319	13.500	.00000
		9.167	.02608	11.033	.00313		
7.300	.10075	9.200	.02500	11.067	.00288		
7.333	.09922	9.233	.02463	11.100	.00273		
7.367	.09692	9.267	.02330	11.133	.00252		
7.400	.09488	9.300	.02291	11.167	.00246		
7.433	.09383	9.333	.02220	11.200	.00226		
7.467	.09020	9.367	.02169	11.233	.00222		
7.500	.08902	9.400	.02102	11.267	.00196		
7.533	.08670	9.433	.02078	11.300	.00190		
7.567	.08576	9.467	.01970	11.333	.00183		
7.600	.08256	9.500	.01931	11.367	.00173		
7.633	.08100	9.533	.01866	11.400	.00160		
7.667	.07882	9.567	.01840	11.433	.00155		
7.700	.07791	9.600	.01762	11.467	.00135		
7.733	.07665	9.633	.01713	11.500	.00132		
7.767	.07487	9.667	.01647	11.533	.00122		
7.800	.07202	9.700	.01617	11.567	.00119		
7.833	.07139	9.733	.01579	11.600	.00107		
7.867	.06882	9.767	.01521	11.633	.00104		
7.900	.06763	9.800	.01435	11.667	.00093		
7.933	.06573	9.833	.01426	11.700	.00092		
7.967	.06479	9.867	.01357	11.733	.00086		
8.000	.06311	9.900	.01334	11.767	.00080		
8.033	.06220	9.933	.01266	11.800	.00071		
8.067	.06039	9.967	.01235	11.833	.00070		
8.100	.05933	10.000	.01198	11.867	.00060		
8.133	.05741	10.033	.01170	11.900	.00057		
8.167	.05623	10.067	.01130	11.933	.00054		
8.200	.05453	10.100	.01111	11.967	.00051		
8.233	.05410	10.133	.01065	12.000	.00047		
8.267	.05178	10.167	.01036	12.033	.00045		
8.300	.05054	10.200	.00986	12.067	.00041		
8.333	.04955	10.233	.00973	12.100	.00039		
8.367	.04872	10.267	.00903	12.133	.00034		
8.400	.04737	10.300	.00868	12.167	.00033		
8.433	.04641	10.333	.00842	12.233	.00029		
8.467	.04413	10.367	.00822	12.267	.00022		
8.500	.04369	10.400	.00779	12.300	.00021		
8.533	.04269	10.433	.00761	12.333	.00019		
8.567	.04193	10.467	.00697	12.367	.00019		
8.600	.04017	10.500	.00684	12.400	.00016		
8.633	.03967	10.533	.00651	12.433	.00015		
8.667	.03865	10.567	.00627	12.467	.00010		
8.700	.03778	10.600	.00576	12.533	.00009		
8.733	.03681	10.633	.00565	12.567	.00008		
8.767	.03602	10.667	.00526	12.633	.00006		
8.800	.03451						

Table IV *Upper tail probabilities for the null distribution of Friedman's S statistic:* $k = 3, n = 2(1)13;\ k = 4, n = 2(1)8;\ k = 5, n = 3, 4, 5$

For given k and n, the tabled entry for the point x is $P_0\{S \geq x\}$. Under these conditions, if x is such that $P_0\{S \geq x\} = \alpha$, then $x(\alpha, k, n) = x$. For given k and n, the entries are terminated at $x_{k,n}$, where $x_{k,n}$ is the smallest value of x such that $P_0\{S \geq x\}$ is zero to three decimal places.

$k = 3, n = 2$

x	$P_0\{S \geq x\}$
0	1.000
1	.833
3	.500
4	.167

$k = 3, n = 3$

x	$P_0\{S \geq x\}$
.000	1.000
.667	.944
2.000	.528
2.667	.361
4.667	.194
6.000	.028

$k = 3, n = 4$

x	$P_0\{S \geq x\}$
.0	1.000
.5	.931
1.5	.653
2.0	.431
3.5	.273
4.5	.125
6.0	.069
6.5	.042
8.0	.005

$k = 3, n = 5$

x	$P_0\{S \geq x\}$
.0	1.000
.4	.954
1.2	.691
1.6	.522
2.8	.367
3.6	.182
4.8	.124
5.2	.093
6.4	.039
7.6	.024
8.4	.008
10.0	.001

$k = 3, n = 6$

x	$P_0\{S \geq x\}$
.000	1.000
.333	.956
1.000	.740
1.333	.570
2.333	.430
3.000	.252
4.000	.184
4.333	.142
5.333	.072
6.333	.052
7.000	.029
8.333	.012
9.000	.008
9.333	.006
10.333	.002
12.000	.000

$k = 3, n = 7$

x	$P_0\{S \geq x\}$
.000	1.000
.286	.964
.857	.768
1.143	.620
2.000	.486
2.571	.305
3.429	.237
3.714	.192
4.571	.112
5.429	.085
6.000	.051
7.143	.027
7.714	.021
8.000	.016
8.857	.008
10.286	.004
10.571	.003
11.143	.001
12.286	.000

$k = 3, n = 8$

x	$P_0\{S \geq x\}$
.00	1.000
.25	.967
.75	.794
1.00	.654
1.75	.531
2.25	.355
3.00	.285
3.25	.236
4.00	.149
4.75	.120

$k = 3, n = 8$

x	$P_0\{S > x\}$
5.25	.079
6.25	.047
6.75	.038
7.00	.030
7.75	.018
9.00	.010
9.25	.008
9.75	.005
10.75	.002
12.00	.001
12.25	.001
13.00	.000

$k = 3, n = 9$

x	$P_0\{S > x\}$
.000	1.000
.222	.971
.667	.814
.889	.685
1.556	.569
2.000	.398
2.667	.328
2.889	.278
3.556	.187
4.222	.154
4.667	.107
5.556	.069
6.000	.057
6.222	.048
6.889	.031
8.000	.019

Table IV *(continued)*

$k = 3, n = 9$

x	$P_0\{S \geq x\}$
8.222	.016
8.667	.010
9.556	.006
10.667	.004
10.889	.003
11.556	.001
12.667	.001
13.556	.000

$k = 3, n = 10$

x	$P_0\{S \geq x\}$
.0	1.000
.2	.974
.8	.830
.8	.710
1.4	.601
1.8	.436
2.4	.368
2.6	.316
3.2	.222
3.8	.187
4.2	.135
5.0	092
5.4	.078
5.6	.066
6.2	.046
7.2	.030
7.4	.026
7.8	.018
8.6	.012
9.6	.007
9.8	.006
10.4	.003
11.4	.002
12.2	.001
12.6	.001
12.8	.001
13.4	.000

$k = 3, n = 11$

x	$P_0\{S \geq x\}$
.000	1.000
.182	.976
.545	.844
.727	.772
1.273	.629
1.636	.477
2.182	.403
2.364	.351
2.909	.259
3.455	.219
3.818	.165
4.545	.126
4.909	.100
5.091	.087
5.636	.062
6.545	.045
6.727	.038
7.091	.027
7.818	.020
8.727	.014
8.909	.011
9.455	.009
10.364	.006
11.091	.004
11.455	.002
11.636	.001
12.182	.001
13.273	.001
13.636	.000

$k = 3, n = 12$

x	$P_0\{S \geq x\}$
.000	1.000
.167	.978
.500	.856
.667	.754
1.167	.654
1.500	.500
2.000	.434
2.167	.383
2.667	.287
3.167	.249
3.500	.191
4.167	.141
4.500	.123
4.667	.108
5.167	.080
6.000	.058
6.167	.051
6.500	.038
7.167	.027
8.000	.020
8.167	.017
8.667	.011
9.500	.007
10.167	.005
10.500	.004
10.667	.003
11.167	.002
12.167	.002
12.500	.001
12.667	.001
13.167	.001
13.500	.000

$k = 3, n = 13$

x	$P_0\{S \geq x\}$
.000	1.000
.154	.980
.462	.866
.615	.767
1.077	.675

$k = 3, n = 13$

x	$P_0\{S \geq x\}$
1.385	.527
1.846	.463
2.000	.412
2.462	.316
2.923	.278
3.231	.217
3.846	.165
4.154	.145
4.308	.129
4.769	.098
5.538	.073
5.692	.065
6.000	.050
6.615	.037
7.385	.028
7.538	.025
8.000	.016
8.769	.012
9.385	.009
9.692	.007
9.846	.005
10.308	.004
11.231	.003
11.538	.002
11.692	.002
12.154	.001
12.462	.001
12.923	.001
14.000	.001
14.308	.000

$k = 4, n = 2$

x	$P_0\{S \geq x\}$
.0	1.000
.6	.958
1.2	.833

Table IV (continued)

$k = 4, n = 2$

x	$P_0\{S \geq x\}$
1.8	.792
2.4	.625
3.0	.542
3.6	.458
4.2	.375
4.8	.208
5.4	.167
6.0	.042

$k = 4, n = 3$

x	$P_0\{S \geq x\}$
.2	1.000
.6	.958
1.0	.910
1.8	.727
2.2	.608
2.6	.524
3.4	.446
3.8	.342
4.2	.300
5.0	.207
5.4	.175
5.8	.148
6.6	.075
7.0	.054
7.4	.033
8.2	.017
9.0	.002

$k = 4, n = 4$

x	$P_0\{S \geq x\}$
.0	1.000
.3	.992
.6	.928
.9	.900
1.2	.800
1.5	.754
1.8	.677
2.1	.649
2.4	.524
2.7	.508
3.0	.432
3.3	.389
3.6	.355
3.9	.324
4.5	.242
4.8	.200
5.1	.190
5.4	.158
5.7	.141
6.0	.105
6.3	.094
6.6	.077
6.9	.068
7.2	.054
7.5	.052
7.8	.036
8.1	.033
8.4	.019
8.7	.014
9.3	.012
9.6	.007
9.9	.006
10.2	.003
10.8	.002
11.1	.001
12.0	.000

$k = 4, n = 5$

x	$P_0\{S \geq x\}$
.12	1.000
.36	.975
.60	.944
1.08	.857
1.32	.771
1.56	.709
2.04	.652
2.28	.561
2.52	.521
3.00	.445
3.24	.408
3.48	.372
3.96	.298
4.20	.260
4.44	.226
4.92	.210
5.16	.162
5.40	.151
5.88	.123
6.12	.107
6.36	.093
6.84	.075
7.08	.067
7.32	.055
7.80	.044
8.04	.034
8.28	.031
8.76	.023
9.00	.020
9.24	.017
9.72	.012
9.96	.009
10.20	.007
10.68	.005
10.92	.003
11.16	.002
11.64	.002
11.88	.002
12.12	.001
12.60	.001
12.84	.000

$k = 4, n = 6$

x	$P_0\{S \geq x\}$
.0	1.000
.2	.996
.4	.957
.6	.940
.8	.874
1.0	.844
1.2	.789
1.4	.772
1.6	.679
1.8	.668
2.0	.609
2.2	.574
2.4	.541
2.6	.512
3.0	.431
3.2	.386
3.4	.375
3.6	.338
3.8	.317
4.0	.270
4.2	.256
4.4	.230
4.6	.218
4.8	.197
5.0	.194
5.2	.163
5.4	.155
5.6	.127
5.8	.114
6.2	.108
6.4	.089
6.6	.088
6.8	.073
7.0	.066
7.2	.060
7.4	.056
7.6	.043
7.8	.041
8.0	.037
8.2	.035
8.4	.032
8.6	.029
8.8	.023
9.0	.022
9.4	.017
9.6	.014
9.8	.013
10.0	.010
10.2	.010
10.4	.009
10.6	.007

Table IV *(continued)*

$k = 4, n = 6$	
x	$P_0\{S > x\}$
10.8	.006
11.0	.006
11.4	.004
11.6	.003
11.8	.003
12.0	.002
12.2	.002
12.6	.001
12.8	.001
13.0	.001
13.2	.001
13.4	.001
13.6	.000

$k = 4, n = 7$	
x	$P_0\{S > x\}$
.086	1.000
.257	.984
.429	.963
.771	.906
.943	.845
1.114	.800
1.457	.757
1.629	.685
1.800	.652
2.143	.590
2.314	.557
2.486	.524
2.629	.456
3.000	.418
3.171	.382
3.514	.366
3.686	.310
3.857	.297
4.200	.262
4.371	.239
4.543	.220
4.886	.195
5.057	.180

$k = 4, n = 7$	
x	$P_0\{S > x\}$
5.229	.161
5.571	.143
5.743	.122
5.914	.118
6.257	.100
6.429	.093
6.600	.085
6.943	.073
7.114	.063
7.286	.056
7.629	.052
7.800	.041
7.971	.038
8.314	.035
8.486	.033
8.657	.030
9.000	.023
9.171	.020
9.343	.017
9.686	.015
9.857	.013
10.029	.012
10.371	.010
10.543	.009
10.714	.008
11.057	.007
11.229	.005
11.400	.004
11.743	.004
11.914	.003
12.086	.003
12.429	.002
12.600	.002
12.771	.002
13.114	.001
13.286	.001
13.457	.001
13.800	.001
13.971	.001
14.143	.001
14.486	.000

$k = 4, n = 8$	
x	$P_0\{S > x\}$
.00	1.000
.15	.998
.30	.971
.45	.959
.60	.912
.75	.890
.90	.849
1.05	.837
1.20	.765
1.35	.757
1.50	.710
1.65	.681
1.80	.654
1.95	.629
2.25	.558
2.40	.517
2.55	.507
2.70	.471
2.85	.450
3.00	.404
3.15	.389
3.30	362
3.45	.350
3.60	.326
3.75	.323
3.90	.287
4.05	.278
4.20	.242
4.35	.226
4.65	.219
4.80	.193
4.95	.191
5.10	.168
5.25	.158
5.40	.148
5.55	.141
5.70	.121
5.85	.117
6.00	.110
6.15	.106
6.30	.100
6.45	.094

$k = 4, n = 8$	
x	$P_0\{S > x\}$
6.60	.081
6.75	.079
7.05	.068
7.20	.060
7.35	.058
7.50	.051
7.65	.049
7.80	.046
7.95	.042
8.10	.038
8.25	.037
8.55	.031
8.70	.028
8.85	.025
9.00	.023
9.15	.022
9.45	.019
9.60	.016
9.75	.015
9.90	.014
10.05	.014
10.20	.011
10.35	.011
10.50	.009
10.65	.009
10.80	.008
10.95	.008
11.10	.006
11.25	.006
11.40	.005
11.55	.005
11.85	.004
12.00	.004
12.15	.004
12.30	.003
12.45	.003
12.60	.002
12.75	.002
12.90	.002
13.05	.002
13.20	.002
13.35	.001
13.50	.001

Table IV *(continued)*

$k = 4, n = 8$

x	$P_0\{S \geq x\}$
13.65	.001
13.80	.001
13.95	.001
14.25	.001
14.40	.001
14.55	.001
14.70	.001
14.85	.000

$k = 5, n = 3$

x	$P_0\{S \geq x\}$
.000	1.000
.267	1.000
.533	.988
.800	.972
1.067	.941
1.333	.914
1.600	.845
1.867	.831
2.133	.768
2.400	.720
2.667	.682
2.933	.649
3.200	.595
3.467	.559
3.733	.493
4.000	.475
4.267	.432
4.533	.406
4.800	.347
5.067	.326
5.333	.291
5.600	.253
5.867	.236
6.133	.213
6.400	.172
6.667	.163
6.933	.127
7.200	.117
7.467	.096
7.733	.080

$k = 5, n = 3$

x	$P_0\{S \geq x\}$
8.000	.063
8.267	.056
8.533	.045
8.800	.038
9.067	.028
9.333	.026
9.600	.017
9.867	.015
10.133	.008
10.400	.005
10.667	.004
10.933	.003
11.467	.001
12.000	.000

$k = 5, n = 4$

x	$P_0\{S \geq x\}$
.0	1.000
.2	.999
.4	.991
.6	.980
.8	.959
1.0	.940
1.2	.906
1.4	.895
1.6	.850
1.8	.815
2.0	.785
2.2	.759
2.4	.715
2.6	.685
2.8	.630
3.0	.612
3.2	.579
3.4	.552
3.6	.500
3.8	.479
4.0	.442
4.2	.413
4.4	.395
4.6	.370

$k = 5, n = 4$

x	$P_0\{S \geq x\}$
4.8	.329
5.0	.317
5.2	.286
5.4	.275
5.6	.249
5.8	.227
6.0	.205
6.2	.197
6.4	.178
6.6	.161
6.8	.143
7.0	.136
7.2	.121
7.4	.113
7.6	.095
7.8	.086
8.0	.080
8.2	.072
8.4	.063
8.6	.060
8.8	.049
9.0	.043
9.2	.038
9.4	.035
9.6	.028
9.8	.025
10.0	.021
10.2	.019
10.4	.017
10.6	.014
10.8	.011
11.0	.010
11.2	.008
11.4	.007
11.6	.006
11.8	.005
12.0	.004
12.2	.004
12.4	.003
12.6	.002
12.8	.002
13.0	.001
13.2	.001
13.4	.001

$k = 5, n = 4$

x	$P_0\{S \geq x\}$
13.6	.001
13.8	.000

$k = 5, n = 5$

x	$P_0\{S \geq x\}$
.00	1.000
.16	1.000
.32	.994
.48	.986
.64	.972
.80	.958
.96	.932
1.12	.925
1.28	.891
1.44	.865
1.60	.842
1.76	.823
1.92	.789
2.08	.765
2.24	.721
2.40	.707
2.56	.679
2.72	.657
2.88	.613
3.04	.594
3.20	.562
3.36	.535
3.52	.518
3.68	.494
3.84	.454
4.00	.443
4.16	.410
4.32	.398
4.48	.371
4.64	.349
4.80	.325
4.96	.316
5.12	.295
5.28	.275
5.44	.255
5.60	.246

Table IV *(continued)*

$k = 5, n = 5$		$k = 5, n = 5$		$k = 5, n = 5$		$k = 5, n = 5$	
x	$P_0\{S \geq x\}$	x	$P_0\{S \geq x\}$	x	$P_0\{S \geq x\}$	x	$P_0\{S \geq x\}$
5.76	.227	8.16	.077	10.56	.019	12.96	.003
5.92	.218	8.32	.073	10.72	.018	13.12	.003
6.08	.195	8.48	.066	10.88	.015	13.28	.003
6.24	.183	8.64	.058	11.04	.013	13.44	.002
6.40	.174	8.80	.056	11.20	.012	13.60	.002
6.56	.164	8.96	.049	11.36	.012	13.76	.002
6.72	.151	9.12	.046	11.52	.010	13.92	.002
6.88	.146	9.28	.042	11.68	.009	14.08	.001
7.04	.130	9.44	.038	11.84	.008	14.24	.001
7.20	.121	9.60	.035	12.00	.007	14.40	.001
7.36	.112	9.76	.032	12.16	.006	14.56	.001
7.52	.107	9.92	.029	12.32	.006	14.72	.001
7.68	.094	10.08	.026	12.48	.005	14.88	.001
7.84	.089	10.24	.024	12.64	.004	15.04	.000
8.00	.082	10.40	.022	12.80	.004		

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16. Abstract

This report contains two natural distinct parts:

(i) Discussion of nonparametric methods that are available for NASA-type applications. An attempt will be made here to survey what can be used, to attempt recommendations as to when each would be applicable, and to compare the methods, when possible, with the usual normal-theory procedures that are available for the Gaussion analog. It is important here to point out the hypotheses that are being tested, the assumptions that are being made, and limitations of the nonparametric procedures.

(ii) Discussion and study of the appropriateness of doing analysis of variance on sample variances. This procedure is followed in several NASA simulation projects. On the surface this would appear to be a reasonably sound procedure. However, difficulties involved center around the normality problem and the basic homogeneous variance assumption that is made in usual analysis of variance problems. These difficulties will be discussed and guidelines will be given for using the method.

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