

**PEARSON EDEXCEL LEVEL 3  
ADVANCED SUBSIDIARY AND  
ADVANCED GCE IN STATISTICS**

**Statistical formulae and tables**

**For first certification from June 2018 for: Advanced  
Subsidiary GCE in Statistics (8ST0)**

**For first certification from June 2019 for: Advanced  
GCE in Statistics (9ST0)**

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## **1. INTRODUCTION**

**The formulae in this booklet have been arranged by qualification. Students sitting AS Statistics papers should refer to Section 2, pages 5 – 8. Students sitting A Level Statistics papers should refer to Section 3, pages 9 – 18.**

**(Turn over)**

## 2. AS LEVEL IN STATISTICS

Population variance,  $\sigma^2$ , =

$$\left( \frac{\sum x^2}{N} - \mu^2 \right) = \frac{1}{N} \sum (x - \mu)^2$$

Population standard deviation,  $\sigma$ , =

$$\sqrt{\left( \frac{\sum x^2}{N} - \mu^2 \right)} = \sqrt{\frac{1}{N} \sum (x - \mu)^2}$$

Sample variance =

$$\frac{1}{n-1} \left( \sum x^2 - \frac{(\sum x)^2}{n} \right) = \frac{1}{n-1} \sum (x - \bar{x})^2$$

(Turn over)

Sample standard deviation =

$$\sqrt{\frac{1}{n-1} \left( \sum x^2 - \frac{(\sum x)^2}{n} \right)} = \sqrt{\frac{1}{n-1} \sum (x - \bar{x})^2}$$

Binomial probability calculations:

$$P(X = x) = \binom{n}{x} p^x (1-p)^{n-x}$$

Mean =  $np$

Variance =  $np(1-p)$

For a random sample of  $n_x$  observations from

$N(\mu, \sigma^2)$

$$\frac{\bar{X} - \mu}{\frac{\sigma}{\sqrt{n}}} \sim N(0, 1)$$

(Turn over)

Test statistic for a binomial proportion using normal distribution:

$$\frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}} \sim N(0, 1)$$

Product moment correlation coefficient:

$$r = \frac{S_{xy}}{\sqrt{S_{xx} \times S_{yy}}} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\left\{ \sum (x_i - \bar{x})^2 \right\} \left\{ \sum (y_i - \bar{y})^2 \right\}}}$$

$$= \frac{\sum x_i y_i - \frac{(\sum x_i)(\sum y_i)}{n}}{\sqrt{\left( \sum x_i^2 - \frac{(\sum x_i)^2}{n} \right) \left( \sum y_i^2 - \frac{(\sum y_i)^2}{n} \right)}}$$

(Turn over)

**Coefficients for least squares regression line:**

least squares regression line of **y** on **x** is  **$y = a + bx$** ,

where  **$a = \bar{y} - b\bar{x}$**

the regression coefficient of **y** on **x** is

$$b = \frac{S_{xy}}{S_{xx}} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sum (x_i - \bar{x})^2}$$

**Test for association:**

$$\sum \frac{(O_i - E_i)^2}{E_i} \text{ is approximately distributed as } \chi^2$$

**(Turn over)**

### 3. A LEVEL IN STATISTICS

Population variance,  $\sigma^2$ , =

$$\left( \frac{\sum x^2}{N} - \mu^2 \right) = \frac{1}{N} \sum (x - \mu)^2$$

Population standard deviation,  $\sigma$ , =

$$\sqrt{\left( \frac{\sum x^2}{N} - \mu^2 \right)} = \sqrt{\frac{1}{N} \sum (x - \mu)^2}$$

Sample variance,  $s^2$ , =

$$\frac{1}{n-1} \left( \sum x^2 - \frac{(\sum x)^2}{n} \right) = \frac{1}{n-1} \sum (x - \bar{x})^2$$

(Turn over)

**Sample standard deviation,  $S$ , =**

$$\sqrt{\frac{1}{n-1} \left( \sum x^2 - \frac{(\sum x)^2}{n} \right)} = \sqrt{\frac{1}{n-1} \sum (x - \bar{x})^2}$$

**Binomial probability calculations:**

$$P(X = x) = \binom{n}{x} p^x (1-p)^{n-x}$$

**Binomial mean =  $np$**

**Binomial variance =  $np(1-p)$**

**For a random sample of  $n_x$  observations**

**from  $N(\mu, \sigma^2)$**

$$\frac{\bar{X} - \mu}{\frac{\sigma}{\sqrt{n}}} \sim N(0, 1)$$

**(Turn over)**

Test statistic for a binomial proportion using normal distribution:

$$\frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}} \sim N(0, 1)$$

Product moment correlation coefficient:

$$r = \frac{S_{xy}}{\sqrt{S_{xx} \times S_{yy}}} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\left\{ \sum (x_i - \bar{x})^2 \right\} \left\{ \sum (y_i - \bar{y})^2 \right\}}}$$

$$= \frac{\sum x_i y_i - \frac{(\sum x_i)(\sum y_i)}{n}}{\sqrt{\left( \sum x_i^2 - \frac{(\sum x_i)^2}{n} \right) \left( \sum y_i^2 - \frac{(\sum y_i)^2}{n} \right)}}$$

(Turn over)

**Coefficients for least squares regression line:**

least squares regression line of **y** on **x** is  **$y = a + bx$** ,

where  **$a = \bar{y} - b\bar{x}$**

the regression coefficient of **y** on **x** is

$$b = \frac{S_{xy}}{S_{xx}} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sum (x_i - \bar{x})^2}$$

**Bayes' theorem for up to three events:**

$$P(A_j | B) = \frac{P(A_j) \times P(B | A_j)}{\sum_{i=1}^n P(A_i) \times P(B | A_i)}$$

**The Poisson probability formula:**

$$P(X = x) = e^{-\lambda} \frac{\lambda^x}{x!}$$

**Poisson mean =  $\lambda$**

**Poisson variance =  $\lambda$**

**(Turn over)**

The exponential cumulative probability formula:

$$P(X \leq x) = 1 - e^{-\lambda x}$$

$$\text{Exponential mean} = \frac{1}{\lambda}$$

$$\text{Exponential variance} = \frac{1}{\lambda^2}$$

$$E(aX \pm bY) = aE(X) \pm bE(Y)$$

$\text{Var}(aX \pm bY) = a^2 \text{Var}(X) + b^2 \text{Var}(Y)$ , for independent variables  $X$  and  $Y$

For a random sample of  $n_x$  observations from

$$N(\mu, \sigma^2)$$

$$\frac{\bar{X} - \mu}{\frac{s}{\sqrt{n}}} \sim t_{n-1}$$

(also valid in matched-pairs situations)

(Turn over)

For a random sample of  $n_x$  observations from  $N(\mu_x, \sigma_x^2)$  and, independently, a random sample of  $n_y$  observations from  $N(\mu_y, \sigma_y^2)$

$$\frac{(\bar{X} - \bar{Y}) - (\mu_x - \mu_y)}{\sqrt{\frac{\sigma_x^2}{n_x} + \frac{\sigma_y^2}{n_y}}} \sim N(0, 1)$$

For a random sample of  $n_x$  observations from  $N(\mu_x, \sigma_x^2)$  and, independently, a random sample of  $n_y$

observations from  $N(\mu_y, \sigma_y^2)$  where

$$\sigma_x^2 = \sigma_y^2 = \sigma^2 \text{ (unknown)}$$

$$\frac{(\bar{X} - \bar{Y}) - (\mu_x - \mu_y)}{\sqrt{S_p^2 \left( \frac{1}{n_x} + \frac{1}{n_y} \right)}} \sim t_{n_x + n_y - 2} \text{ where}$$

$$S_p^2 = \frac{(n_x - 1)S_x^2 + (n_y - 1)S_y^2}{n_x + n_y - 2}$$

**Test statistic for the difference in two binomial proportions:**

$\frac{p_1 - p_2}{\text{standard error}}$  where standard error

$$= \sqrt{p \times (1 - p) \times \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}$$

where  $p = \frac{p_1 \times n_1 + p_2 \times n_2}{n_1 + n_2}$

**Test for association and goodness of fit test:**

$$\sum \frac{(O_i - E_i)^2}{E_i} \text{ is approximately distributed as } \chi^2$$

**Analysis of variance (one-way and two-way):**

one-factor model  $X_{ij} = \mu + \alpha_i + \varepsilon_{ij}$ ,

where  $\varepsilon_{ij} \sim N(0, \sigma^2)$

**(Turn over)**

total sum of squares  $SS_T = \sum_i \sum_j x_{ij}^2 - \frac{T^2}{n}$

between groups sum of squares

$$SS_B = \sum_i \frac{T_i^2}{n_i} - \frac{T^2}{n}$$

two-factor model (with  $m$  rows and  $n$  columns)

$$x_{ij} = \mu + \alpha_i + \beta_j + \varepsilon_{ij}, \text{ where } \varepsilon_{ij} \sim N(0, \sigma^2)$$

total sum of squares  $SS_T = \sum_i \sum_j x_{ij}^2 - \frac{T^2}{mn}$

between rows sum of squares

$$SS_R = \sum_i \frac{R_i^2}{n} - \frac{T^2}{mn}$$

between columns sum of squares

$$SS_C = \sum_j \frac{C_j^2}{m} - \frac{T^2}{mn}$$

(Turn over)

Cohen's **d** formula:

$$d = \frac{(\bar{x}_1 - \bar{x}_2)}{s}$$

where  $s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$

#### 4. STATISTICAL TABLES

##### TABLE 1: CUMULATIVE BINOMIAL DISTRIBUTION FUNCTION

The tabulated value is  $P(X \leq x)$ , where  $X$  has a binomial distribution with parameters  $n$  and parameters  $p$ .

---

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**(Turn over)**

**$n = 2$**

**$p = \dots 0.01 \dots 0.02 \dots 0.03 \dots 0.04$**

---

**$x = 0 \dots 0.9801 \dots 0.9604 \dots 0.9409 \dots 0.9216$**

**$x = 1 \dots 0.9999 \dots 0.9996 \dots 0.9991 \dots 0.9984$**

**$x = 2 \dots 1.0000 \dots 1.0000 \dots 1.0000 \dots 1.0000$**

---

**$p = \dots 0.05 \dots 0.06 \dots 0.07 \dots 0.08$**

---

**$x = 0 \dots 0.9025 \dots 0.8836 \dots 0.8649 \dots 0.8464$**

**$x = 1 \dots 0.9975 \dots 0.9964 \dots 0.9951 \dots 0.9936$**

**$x = 2 \dots 1.0000 \dots 1.0000 \dots 1.0000 \dots 1.0000$**

---

**$p = 0.09 - 0.20$  on the next page**

**(Turn over)**

**n = 2 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.8281 ... 0.8100 ... 0.7225 ... 0.6400**

**x = 1 ... 0.9919 ... 0.9900 ... 0.9775 ... 0.9600**

**x = 2 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

**x = 0 ... 0.5625 ... 0.4900 ... 0.4225 ... 0.3600**

**x = 1 ... 0.9375 ... 0.9100 ... 0.8775 ... 0.8400**

**x = 2 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.3025 ... 0.2500**

**x = 1 ... 0.7975 ... 0.7500**

**x = 2 ... 1.0000 ... 1.0000**

---

**n = 3 is on the next page**

**(Turn over)**

**n = 3**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9703 ... 0.9412 ... 0.9127 ... 0.8847**

**x = 1 ... 0.9997 ... 0.9988 ... 0.9974 ... 0.9953**

**x = 2 ... 1.0000 ... 1.0000 ... 1.0000 ... 0.9999**

**x = 3 ..... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.8574 ... 0.8306 ... 0.8044 ... 0.7787**

**x = 1 ... 0.9928 ... 0.9896 ... 0.9860 ... 0.9818**

**x = 2 ... 0.9999 ... 0.9998 ... 0.9997 ... 0.9995**

**x = 3 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 3 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.7536 ... 0.7290 ... 0.6141 ... 0.5120**

**x = 1 ... 0.9772 ... 0.9720 ... 0.9393 ... 0.8960**

**x = 2 ... 0.9993 ... 0.9990 ... 0.9966 ... 0.9920**

**x = 3 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

**x = 0 ... 0.4219 ... 0.3430 ... 0.2746 ... 0.2160**

**x = 1 ... 0.8438 ... 0.7840 ... 0.7183 ... 0.6480**

**x = 2 ... 0.9844 ... 0.9730 ... 0.9571 ... 0.9360**

**x = 3 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 3 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.1664 ... 0.1250**

**x = 1 ... 0.5748 ... 0.5000**

**x = 2 ... 0.9089 ... 0.8750**

**x = 3 ... 1.0000 ... 1.0000**

---

**n = 4 is on the next page**

**(Turn over)**

**n = 4**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9606 ... 0.9224 ... 0.8853 ... 0.8493**

**x = 1 ... 0.9994 ... 0.9977 ... 0.9948 ... 0.9909**

**x = 2 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9998**

**x = 3 ..... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.8145 ... 0.7807 ... 0.7481 ... 0.7164**

**x = 1 ... 0.9860 ... 0.9801 ... 0.9733 ... 0.9656**

**x = 2 ... 0.9995 ... 0.9992 ... 0.9987 ... 0.9981**

**x = 3 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 4 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.6857 ... 0.6561 ... 0.5220 ... 0.4096**

**x = 1 ... 0.9570 ... 0.9477 ... 0.8905 ... 0.8192**

**x = 2 ... 0.9973 ... 0.9963 ... 0.9880 ... 0.9728**

**x = 3 ... 0.9999 ... 0.9999 ... 0.9995 ... 0.9984**

**x = 4 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

**x = 0 ... 0.3164 ... 0.2401 ... 0.1785 ... 0.1296**

**x = 1 ... 0.7383 ... 0.6517 ... 0.5630 ... 0.4752**

**x = 2 ... 0.9492 ... 0.9163 ... 0.8735 ... 0.8208**

**x = 3 ... 0.9961 ... 0.9919 ... 0.9850 ... 0.9744**

**x = 4 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 4 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.0915 ... 0.0625**

**x = 1 ... 0.3910 ... 0.3125**

**x = 2 ... 0.7585 ... 0.6875**

**x = 3 ... 0.9590 ... 0.9375**

**x = 4 ... 1.0000 ... 1.0000**

---

**n = 5 is on the next page**

**(Turn over)**

**n = 5**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9510 ... 0.9039 ... 0.8587 ... 0.8154**

**x = 1 ... 0.9990 ... 0.9962 ... 0.9915 ... 0.9852**

**x = 2 ... 1.0000 ... 0.9999 ... 0.9997 ... 0.9994**

**x = 3 ..... 1.0000 ... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.7738 ... 0.7339 ... 0.6957 ... 0.6591**

**x = 1 ... 0.9774 ... 0.9681 ... 0.9575 ... 0.9456**

**x = 2 ... 0.9988 ... 0.9980 ... 0.9969 ... 0.9955**

**x = 3 ... 1.0000 ... 0.9999 ... 0.9999 ... 0.9998**

**x = 4 ..... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 5 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.6240 ... 0.5905 ... 0.4437 ... 0.3277**

**x = 1 ... 0.9326 ... 0.9185 ... 0.8352 ... 0.7373**

**x = 2 ... 0.9937 ... 0.9914 ... 0.9734 ... 0.9421**

**x = 3 ... 0.9997 ... 0.9995 ... 0.9978 ... 0.9933**

**x = 4 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9997**

**x = 5 ..... 1.0000 ... 1.0000**

---

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

**x = 0 ... 0.2373 ... 0.1681 ... 0.1160 ... 0.0778**

**x = 1 ... 0.6328 ... 0.5282 ... 0.4284 ... 0.3370**

**x = 2 ... 0.8965 ... 0.8369 ... 0.7648 ... 0.6826**

**x = 3 ... 0.9844 ... 0.9692 ... 0.9460 ... 0.9130**

**x = 4 ... 0.9990 ... 0.9976 ... 0.9947 ... 0.9898**

**x = 5 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 5 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.0503 ... 0.0313**

**x = 1 ... 0.2562 ... 0.1875**

**x = 2 ... 0.5931 ... 0.5000**

**x = 3 ... 0.8688 ... 0.8125**

**x = 4 ... 0.9815 ... 0.9688**

**x = 5 ... 1.0000 ... 1.0000**

---

**n = 6 is on the next page**

**(Turn over)**

**n = 6**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9415 ... 0.8858 ... 0.8330 ... 0.7828**

**x = 1 ... 0.9985 ... 0.9943 ... 0.9875 ... 0.9784**

**x = 2 ... 1.0000 ... 0.9998 ... 0.9995 ... 0.9988**

**x = 3 ..... 1.0000 ... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.7351 ... 0.6899 ... 0.6470 ... 0.6064**

**x = 1 ... 0.9672 ... 0.9541 ... 0.9392 ... 0.9227**

**x = 2 ... 0.9978 ... 0.9962 ... 0.9942 ... 0.9915**

**x = 3 ... 0.9999 ... 0.9998 ... 0.9997 ... 0.9995**

**x = 4 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 6 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.5679 ... 0.5314 ... 0.3771 ... 0.2621**

**x = 1 ... 0.9048 ... 0.8857 ... 0.7765 ... 0.6554**

**x = 2 ... 0.9882 ... 0.9842 ... 0.9527 ... 0.9011**

**x = 3 ... 0.9992 ... 0.9987 ... 0.9941 ... 0.9830**

**x = 4 ... 1.0000 ... 0.9999 ... 0.9996 ... 0.9984**

**x = 5 ..... 1.0000 ... 1.0000 ... 0.9999**

**x = 6 ..... 1.0000**

---

**p = 0.25 – 0.40 is on the next page**

**(Turn over)**

**n = 6 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

**x = 0 ... 0.1780 ... 0.1176 ... 0.0754 ... 0.0467**

**x = 1 ... 0.5339 ... 0.4202 ... 0.3191 ... 0.2333**

**x = 2 ... 0.8306 ... 0.7443 ... 0.6471 ... 0.5443**

**x = 3 ... 0.9624 ... 0.9295 ... 0.8826 ... 0.8208**

**x = 4 ... 0.9954 ... 0.9891 ... 0.9777 ... 0.9590**

**x = 5 ... 0.9998 ... 0.9993 ... 0.9982 ... 0.9959**

**x = 6 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 6 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.0277 ... 0.0156**

**x = 1 ... 0.1636 ... 0.1094**

**x = 2 ... 0.4415 ... 0.3438**

**x = 3 ... 0.7447 ... 0.6563**

**x = 4 ... 0.9308 ... 0.8906**

**x = 5 ... 0.9917 ... 0.9844**

**x = 6 ... 1.0000 ... 1.0000**

---

**n = 7 is on the next page**

**(Turn over)**

**n = 7**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9321 ... 0.8681 ... 0.8080 ... 0.7514**

**x = 1 ... 0.9980 ... 0.9921 ... 0.9829 ... 0.9706**

**x = 2 ... 1.0000 ... 0.9997 ... 0.9991 ... 0.9980**

**x = 3 ..... 1.0000 ... 1.0000 ... 0.9999**

**x = 4 ..... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.6983 ... 0.6485 ... 0.6017 ... 0.5578**

**x = 1 ... 0.9556 ... 0.9382 ... 0.9187 ... 0.8974**

**x = 2 ... 0.9962 ... 0.9937 ... 0.9903 ... 0.9860**

**x = 3 ... 0.9998 ... 0.9996 ... 0.9993 ... 0.9988**

**x = 4 ... 1.0000 ... 1.0000 ... 1.0000 ... 0.9999**

**x = 5 ..... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 7 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.5168 ... 0.4783 ... 0.3206 ... 0.2097**

**x = 1 ... 0.8745 ... 0.8503 ... 0.7166 ... 0.5767**

**x = 2 ... 0.9807 ... 0.9743 ... 0.9262 ... 0.8520**

**x = 3 ... 0.9982 ... 0.9973 ... 0.9879 ... 0.9667**

**x = 4 ... 0.9999 ... 0.9998 ... 0.9988 ... 0.9953**

**x = 5 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9996**

**x = 6 ..... 1.0000 ... 1.0000**

---

**p = 0.25 – 0.40 is on the next page**

**(Turn over)**

**n = 7 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

**x = 0 ... 0.1335 ... 0.0824 ... 0.0490 ... 0.0280**

**x = 1 ... 0.4449 ... 0.3294 ... 0.2338 ... 0.1586**

**x = 2 ... 0.7564 ... 0.6471 ... 0.5323 ... 0.4199**

**x = 3 ... 0.9294 ... 0.8740 ... 0.8002 ... 0.7102**

**x = 4 ... 0.9871 ... 0.9712 ... 0.9444 ... 0.9037**

**x = 5 ... 0.9987 ... 0.9962 ... 0.9910 ... 0.9812**

**x = 6 ... 0.9999 ... 0.9998 ... 0.9994 ... 0.9984**

**x = 7 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 7 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.0152 ... 0.0078**

**x = 1 ... 0.1024 ... 0.0625**

**x = 2 ... 0.3164 ... 0.2266**

**x = 3 ... 0.6083 ... 0.5000**

**x = 4 ... 0.8471 ... 0.7734**

**x = 5 ... 0.9643 ... 0.9375**

**x = 6 ... 0.9963 ... 0.9922**

**x = 7 ... 1.0000 ... 1.0000**

---

**n = 8 is on the next page**

**(Turn over)**

**n = 8**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9227 ... 0.8508 ... 0.7837 ... 0.7214**

**x = 1 ... 0.9973 ... 0.9897 ... 0.9777 ... 0.9619**

**x = 2 ... 0.9999 ... 0.9996 ... 0.9987 ... 0.9969**

**x = 3 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9998**

**x = 4 ..... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.6634 ... 0.6096 ... 0.5596 ... 0.5132**

**x = 1 ... 0.9428 ... 0.9208 ... 0.8965 ... 0.8702**

**x = 2 ... 0.9942 ... 0.9904 ... 0.9853 ... 0.9789**

**x = 3 ... 0.9996 ... 0.9993 ... 0.9987 ... 0.9978**

**x = 4 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9999**

**x = 5 ..... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 8 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 ... 0.4703 ... 0.4305 ... 0.2725 ... 0.1678**

**x = 1 ... 0.8423 ... 0.8131 ... 0.6572 ... 0.5033**

**x = 2 ... 0.9711 ... 0.9619 ... 0.8948 ... 0.7969**

**x = 3 ... 0.9966 ... 0.9950 ... 0.9786 ... 0.9437**

**x = 4 ... 0.9997 ... 0.9996 ... 0.9971 ... 0.9896**

**x = 5 ... 1.0000 ... 1.0000 ... 0.9998 ... 0.9988**

**x = 6 ..... 1.0000 ... 0.9999**

**x = 7 ..... 1.0000**

---

**p = 0.25 – 0.40 is on the next page**

**(Turn over)**

**n = 8 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

<b>x = 0</b>	<b>... 0.1001</b>	<b>... 0.0576</b>	<b>... 0.0319</b>	<b>... 0.0168</b>
<b>x = 1</b>	<b>... 0.3671</b>	<b>... 0.2553</b>	<b>... 0.1691</b>	<b>... 0.1064</b>
<b>x = 2</b>	<b>... 0.6785</b>	<b>... 0.5518</b>	<b>... 0.4278</b>	<b>... 0.3154</b>
<b>x = 3</b>	<b>... 0.8862</b>	<b>... 0.8059</b>	<b>... 0.7064</b>	<b>... 0.5941</b>
<b>x = 4</b>	<b>... 0.9727</b>	<b>... 0.9420</b>	<b>... 0.8939</b>	<b>... 0.8263</b>
<b>x = 5</b>	<b>... 0.9958</b>	<b>... 0.9887</b>	<b>... 0.9747</b>	<b>... 0.9502</b>
<b>x = 6</b>	<b>... 0.9996</b>	<b>... 0.9987</b>	<b>... 0.9964</b>	<b>... 0.9915</b>
<b>x = 7</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9998</b>	<b>... 0.9993</b>
<b>x = 8</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 1.0000</b>

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 8 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.0084 ... 0.0039**

**x = 1 ... 0.0632 ... 0.0352**

**x = 2 ... 0.2201 ... 0.1445**

**x = 3 ... 0.4770 ... 0.3633**

**x = 4 ... 0.7396 ... 0.6367**

**x = 5 ... 0.9115 ... 0.8555**

**x = 6 ... 0.9819 ... 0.9648**

**x = 7 ... 0.9983 ... 0.9961**

**x = 8 ... 1.0000 ... 1.0000**

---

**n = 9 is on the next page**

**(Turn over)**

**n = 9**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9135 ... 0.8337 ... 0.7602 ... 0.6925**

**x = 1 ... 0.9966 ... 0.9869 ... 0.9718 ... 0.9522**

**x = 2 ... 0.9999 ... 0.9994 ... 0.9980 ... 0.9955**

**x = 3 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9997**

**x = 4 ..... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.6302 ... 0.5730 ... 0.5204 ... 0.4722**

**x = 1 ... 0.9288 ... 0.9022 ... 0.8729 ... 0.8417**

**x = 2 ... 0.9916 ... 0.9862 ... 0.9791 ... 0.9702**

**x = 3 ... 0.9994 ... 0.9987 ... 0.9977 ... 0.9963**

**x = 4 ... 1.0000 ... 0.9999 ... 0.9998 ... 0.9997**

**x = 5 ..... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 9 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>... 0.4279</b>	<b>... 0.3874</b>	<b>... 0.2316</b>	<b>... 0.1342</b>
<b>x = 1</b>	<b>... 0.8088</b>	<b>... 0.7748</b>	<b>... 0.5995</b>	<b>... 0.4362</b>
<b>x = 2</b>	<b>... 0.9595</b>	<b>... 0.9470</b>	<b>... 0.8591</b>	<b>... 0.7382</b>
<b>x = 3</b>	<b>... 0.9943</b>	<b>... 0.9917</b>	<b>... 0.9661</b>	<b>... 0.9144</b>
<b>x = 4</b>	<b>... 0.9995</b>	<b>... 0.9991</b>	<b>... 0.9944</b>	<b>... 0.9804</b>
<b>x = 5</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9994</b>	<b>... 0.9969</b>
<b>x = 6</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9997</b>	
<b>x = 7</b>	<b>..... 1.0000</b>			

---

**p = 0.25 – 0.40 is on the next page**

**(Turn over)**

**n = 9 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35 ..... 0.40**

---

<b>x = 0</b>	<b>... 0.0751</b>	<b>... 0.0404</b>	<b>... 0.0207</b>	<b>... 0.0101</b>
<b>x = 1</b>	<b>... 0.3003</b>	<b>... 0.1960</b>	<b>... 0.1211</b>	<b>... 0.0705</b>
<b>x = 2</b>	<b>... 0.6007</b>	<b>... 0.4628</b>	<b>... 0.3373</b>	<b>... 0.2318</b>
<b>x = 3</b>	<b>... 0.8343</b>	<b>... 0.7297</b>	<b>... 0.6089</b>	<b>... 0.4826</b>
<b>x = 4</b>	<b>... 0.9511</b>	<b>... 0.9012</b>	<b>... 0.8283</b>	<b>... 0.7334</b>
<b>x = 5</b>	<b>... 0.9900</b>	<b>... 0.9747</b>	<b>... 0.9464</b>	<b>... 0.9006</b>
<b>x = 6</b>	<b>... 0.9987</b>	<b>... 0.9957</b>	<b>... 0.9888</b>	<b>... 0.9750</b>
<b>x = 7</b>	<b>... 0.9999</b>	<b>... 0.9996</b>	<b>... 0.9986</b>	<b>... 0.9962</b>
<b>x = 8</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9997</b>
<b>x = 9</b>	<b>.....</b>			<b>1.0000 ... 1.0000</b>

---

**p = 0.45 – 0.50 is on the next page**

**(Turn over)**

**n = 9 continued**

**p = ..... 0.45 ..... 0.50**

---

**x = 0 ... 0.0046 ... 0.0020**

**x = 1 ... 0.0385 ... 0.0195**

**x = 2 ... 0.1495 ... 0.0898**

**x = 3 ... 0.3614 ... 0.2539**

**x = 4 ... 0.6214 ... 0.5000**

**x = 5 ... 0.8342 ... 0.7461**

**x = 6 ... 0.9502 ... 0.9102**

**x = 7 ... 0.9909 ... 0.9805**

**x = 8 ... 0.9992 ... 0.9980**

**x = 9 ... 1.0000 ... 1.0000**

---

**n = 10 is on the next page**

**(Turn over)**

**n = 10**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.9044 ... 0.8171 ... 0.7374 ... 0.6648**

**x = 1 ... 0.9957 ... 0.9838 ... 0.9655 ... 0.9418**

**x = 2 ... 0.9999 ... 0.9991 ... 0.9972 ... 0.9938**

**x = 3 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9996**

**x = 4 ..... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.5987 ... 0.5386 ... 0.4840 ... 0.4344**

**x = 1 ... 0.9139 ... 0.8824 ... 0.8483 ... 0.8121**

**x = 2 ... 0.9885 ... 0.9812 ... 0.9717 ... 0.9599**

**x = 3 ... 0.9990 ... 0.9980 ... 0.9964 ... 0.9942**

**x = 4 ... 0.9999 ... 0.9998 ... 0.9997 ... 0.9994**

**x = 5 ... 1.0000 ... 1.0000 ... 1.0000 ... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 10 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>... 0.3894</b>	<b>... 0.3487</b>	<b>... 0.1969</b>	<b>... 0.1074</b>
<b>x = 1</b>	<b>... 0.7746</b>	<b>... 0.7361</b>	<b>... 0.5443</b>	<b>... 0.3758</b>
<b>x = 2</b>	<b>... 0.9460</b>	<b>... 0.9298</b>	<b>... 0.8202</b>	<b>... 0.6778</b>
<b>x = 3</b>	<b>... 0.9912</b>	<b>... 0.9872</b>	<b>... 0.9500</b>	<b>... 0.8791</b>
<b>x = 4</b>	<b>... 0.9990</b>	<b>... 0.9984</b>	<b>... 0.9901</b>	<b>... 0.9672</b>
<b>x = 5</b>	<b>... 0.9999</b>	<b>... 0.9999</b>	<b>... 0.9986</b>	<b>... 0.9936</b>
<b>x = 6</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9991</b>
<b>x = 7</b>	<b>..... 1.0000</b>			<b>... 0.9999</b>
<b>x = 8</b>	<b>..... 1.0000</b>			<b>1.0000</b>

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 10 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>... 0.0563</b>	<b>... 0.0282</b>	<b>... 0.0135</b>
<b>x = 1</b>	<b>... 0.2440</b>	<b>... 0.1493</b>	<b>... 0.0860</b>
<b>x = 2</b>	<b>... 0.5256</b>	<b>... 0.3828</b>	<b>... 0.2616</b>
<b>x = 3</b>	<b>... 0.7759</b>	<b>... 0.6496</b>	<b>... 0.5138</b>
<b>x = 4</b>	<b>... 0.9219</b>	<b>... 0.8497</b>	<b>... 0.7515</b>
<b>x = 5</b>	<b>... 0.9803</b>	<b>... 0.9527</b>	<b>... 0.9051</b>
<b>x = 6</b>	<b>... 0.9965</b>	<b>... 0.9894</b>	<b>... 0.9740</b>
<b>x = 7</b>	<b>... 0.9996</b>	<b>... 0.9984</b>	<b>... 0.9952</b>
<b>x = 8</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9995</b>
<b>x = 9</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 10** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

**x = 0 ..... 0.0060 ... 0.0025 ... 0.0010**

**x = 1 ..... 0.0464 ... 0.0233 ... 0.0107**

**x = 2 ..... 0.1673 ... 0.0996 ... 0.0547**

**x = 3 ..... 0.3823 ... 0.2660 ... 0.1719**

**x = 4 ..... 0.6331 ... 0.5044 ... 0.3770**

**x = 5 ..... 0.8338 ... 0.7384 ... 0.6230**

**x = 6 ..... 0.9452 ... 0.8980 ... 0.8281**

**x = 7 ..... 0.9877 ... 0.9726 ... 0.9453**

**x = 8 ..... 0.9983 ... 0.9955 ... 0.9893**

**x = 9 ..... 0.9999 ... 0.9997 ... 0.9990**

**x = 10 ... 1.0000 ... 1.0000 ... 1.0000**

---

**n = 11** is on the next page

(Turn over)

**n = 11**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.8953 ... 0.8007 ... 0.7153 ... 0.6382**

**x = 1 ... 0.9948 ... 0.9805 ... 0.9587 ... 0.9308**

**x = 2 ... 0.9998 ... 0.9988 ... 0.9963 ... 0.9917**

**x = 3 ... 1.0000 ... 1.0000 ... 0.9998 ... 0.9993**

**x = 4 ..... 1.0000 ... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.5688 ... 0.5063 ... 0.4501 ... 0.3996**

**x = 1 ... 0.8981 ... 0.8618 ... 0.8228 ... 0.7819**

**x = 2 ... 0.9848 ... 0.9752 ... 0.9630 ... 0.9481**

**x = 3 ... 0.9984 ... 0.9970 ... 0.9947 ... 0.9915**

**x = 4 ... 0.9999 ... 0.9997 ... 0.9995 ... 0.9990**

**x = 5 ... 1.0000 ... 1.0000 ... 1.0000 ... 0.9999**

**x = 6 ..... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 11 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>... 0.3544</b>	<b>... 0.3138</b>	<b>... 0.1673</b>	<b>... 0.0859</b>
<b>x = 1</b>	<b>... 0.7399</b>	<b>... 0.6974</b>	<b>... 0.4922</b>	<b>... 0.3221</b>
<b>x = 2</b>	<b>... 0.9305</b>	<b>... 0.9104</b>	<b>... 0.7788</b>	<b>... 0.6174</b>
<b>x = 3</b>	<b>... 0.9871</b>	<b>... 0.9815</b>	<b>... 0.9306</b>	<b>... 0.8389</b>
<b>x = 4</b>	<b>... 0.9983</b>	<b>... 0.9972</b>	<b>... 0.9841</b>	<b>... 0.9496</b>
<b>x = 5</b>	<b>... 0.9998</b>	<b>... 0.9997</b>	<b>... 0.9973</b>	<b>... 0.9883</b>
<b>x = 6</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9997</b>	<b>... 0.9980</b>
<b>x = 7</b>	<b>..... 1.0000</b>			<b>... 0.9998</b>
<b>x = 8</b>	<b>..... 1.0000</b>			<b>1.0000</b>

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 11 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0422</b>	<b>... 0.0198</b>	<b>... 0.0088</b>
<b>x = 1</b>	<b>..... 0.1971</b>	<b>... 0.1130</b>	<b>... 0.0606</b>
<b>x = 2</b>	<b>..... 0.4552</b>	<b>... 0.3127</b>	<b>... 0.2001</b>
<b>x = 3</b>	<b>..... 0.7133</b>	<b>... 0.5696</b>	<b>... 0.4256</b>
<b>x = 4</b>	<b>..... 0.8854</b>	<b>... 0.7897</b>	<b>... 0.6683</b>
<b>x = 5</b>	<b>..... 0.9657</b>	<b>... 0.9218</b>	<b>... 0.8513</b>
<b>x = 6</b>	<b>..... 0.9924</b>	<b>... 0.9784</b>	<b>... 0.9499</b>
<b>x = 7</b>	<b>..... 0.9988</b>	<b>... 0.9957</b>	<b>... 0.9878</b>
<b>x = 8</b>	<b>..... 0.9999</b>	<b>... 0.9994</b>	<b>... 0.9980</b>
<b>x = 9</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9998</b>
<b>x = 10</b>	<b>..... 1.0000</b>		

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 11** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0036</b>	<b>... 0.0014</b>	<b>... 0.0005</b>
<b>x = 1</b>	<b>..... 0.0302</b>	<b>... 0.0139</b>	<b>... 0.0059</b>
<b>x = 2</b>	<b>..... 0.1189</b>	<b>... 0.0652</b>	<b>... 0.0327</b>
<b>x = 3</b>	<b>..... 0.2963</b>	<b>... 0.1911</b>	<b>... 0.1133</b>
<b>x = 4</b>	<b>..... 0.5328</b>	<b>... 0.3971</b>	<b>... 0.2744</b>
<b>x = 5</b>	<b>..... 0.7535</b>	<b>... 0.6331</b>	<b>... 0.5000</b>
<b>x = 6</b>	<b>..... 0.9006</b>	<b>... 0.8262</b>	<b>... 0.7256</b>
<b>x = 7</b>	<b>..... 0.9707</b>	<b>... 0.9390</b>	<b>... 0.8867</b>
<b>x = 8</b>	<b>..... 0.9941</b>	<b>... 0.9852</b>	<b>... 0.9673</b>
<b>x = 9</b>	<b>..... 0.9993</b>	<b>... 0.9978</b>	<b>... 0.9941</b>
<b>x = 10</b>	<b>... 1.0000</b>	<b>... 0.9998</b>	<b>... 0.9995</b>
<b>x = 11</b>	<b>..... 1.0000</b>		

---

**n = 12** is on the next page

(Turn over)

**n = 12**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.8864 ... 0.7847 ... 0.6938 ... 0.6127**

**x = 1 ... 0.9938 ... 0.9769 ... 0.9514 ... 0.9191**

**x = 2 ... 0.9998 ... 0.9985 ... 0.9952 ... 0.9893**

**x = 3 ... 1.0000 ... 0.9999 ... 0.9997 ... 0.9990**

**x = 4 ..... 1.0000 ... 1.0000 ... 0.9999**

**x = 5 ..... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.5404 ... 0.4759 ... 0.4186 ... 0.3677**

**x = 1 ... 0.8816 ... 0.8405 ... 0.7967 ... 0.7513**

**x = 2 ... 0.9804 ... 0.9684 ... 0.9532 ... 0.9348**

**x = 3 ... 0.9978 ... 0.9957 ... 0.9925 ... 0.9880**

**x = 4 ... 0.9998 ... 0.9996 ... 0.9991 ... 0.9984**

**x = 5 ... 1.0000 ... 1.0000 ... 0.9999 ... 0.9998**

**x = 6 ..... 1.0000 ... 1.0000**

---

(Turn over)

**n = 12 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>... 0.3225</b>	<b>... 0.2824</b>	<b>... 0.1422</b>	<b>... 0.0687</b>
<b>x = 1</b>	<b>... 0.7052</b>	<b>... 0.6590</b>	<b>... 0.4435</b>	<b>... 0.2749</b>
<b>x = 2</b>	<b>... 0.9134</b>	<b>... 0.8891</b>	<b>... 0.7358</b>	<b>... 0.5583</b>
<b>x = 3</b>	<b>... 0.9820</b>	<b>... 0.9744</b>	<b>... 0.9078</b>	<b>... 0.7946</b>
<b>x = 4</b>	<b>... 0.9973</b>	<b>... 0.9957</b>	<b>... 0.9761</b>	<b>... 0.9274</b>
<b>x = 5</b>	<b>... 0.9997</b>	<b>... 0.9995</b>	<b>... 0.9954</b>	<b>... 0.9806</b>
<b>x = 6</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9993</b>	<b>... 0.9961</b>
<b>x = 7</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9994</b>	
<b>x = 8</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>		
<b>x = 9</b>	<b>..... 1.0000</b>			

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 12 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

**x = 0 ..... 0.0317 ... 0.0138 ... 0.0057**

**x = 1 ..... 0.1584 ... 0.0850 ... 0.0424**

**x = 2 ..... 0.3907 ... 0.2528 ... 0.1513**

**x = 3 ..... 0.6488 ... 0.4925 ... 0.3467**

**x = 4 ..... 0.8424 ... 0.7237 ... 0.5833**

**x = 5 ..... 0.9456 ... 0.8822 ... 0.7873**

**x = 6 ..... 0.9857 ... 0.9614 ... 0.9154**

**x = 7 ..... 0.9972 ... 0.9905 ... 0.9745**

**x = 8 ..... 0.9996 ... 0.9983 ... 0.9944**

**x = 9 ..... 1.0000 ... 0.9998 ... 0.9992**

**x = 10 ..... 1.0000 ... 0.9999**

**x = 11 ..... 1.0000**

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 12 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0022</b>	<b>... 0.0008</b>	<b>... 0.0002</b>
<b>x = 1</b>	<b>..... 0.0196</b>	<b>... 0.0083</b>	<b>... 0.0032</b>
<b>x = 2</b>	<b>..... 0.0834</b>	<b>... 0.0421</b>	<b>... 0.0193</b>
<b>x = 3</b>	<b>..... 0.2253</b>	<b>... 0.1345</b>	<b>... 0.0730</b>
<b>x = 4</b>	<b>..... 0.4382</b>	<b>... 0.3044</b>	<b>... 0.1938</b>
<b>x = 5</b>	<b>..... 0.6652</b>	<b>... 0.5269</b>	<b>... 0.3872</b>
<b>x = 6</b>	<b>..... 0.8418</b>	<b>... 0.7393</b>	<b>... 0.6128</b>
<b>x = 7</b>	<b>..... 0.9427</b>	<b>... 0.8883</b>	<b>... 0.8062</b>
<b>x = 8</b>	<b>..... 0.9847</b>	<b>... 0.9644</b>	<b>... 0.9270</b>
<b>x = 9</b>	<b>..... 0.9972</b>	<b>... 0.9921</b>	<b>... 0.9807</b>
<b>x = 10</b>	<b>... 0.9997</b>	<b>... 0.9989</b>	<b>... 0.9968</b>
<b>x = 11</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9998</b>
<b>x = 12</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	

---

**n = 13 is on the next page**

**(Turn over)**

**n = 13**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.8775 ... 0.7690 ... 0.6730 ... 0.5882**

**x = 1 ... 0.9928 ... 0.9730 ... 0.9436 ... 0.9068**

**x = 2 ... 0.9997 ... 0.9980 ... 0.9938 ... 0.9865**

**x = 3 ... 1.0000 ... 0.9999 ... 0.9995 ... 0.9986**

**x = 4 ..... 1.0000 ... 1.0000 ... 0.9999**

**x = 5 ..... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.5133 ... 0.4474 ... 0.3893 ... 0.3383**

**x = 1 ... 0.8646 ... 0.8186 ... 0.7702 ... 0.7206**

**x = 2 ... 0.9755 ... 0.9608 ... 0.9422 ... 0.9201**

**x = 3 ... 0.9969 ... 0.9940 ... 0.9897 ... 0.9837**

**x = 4 ... 0.9997 ... 0.9993 ... 0.9987 ... 0.9976**

**x = 5 ... 1.0000 ... 0.9999 ... 0.9999 ... 0.9997**

**x = 6 ..... 1.0000 ... 1.0000 ... 1.0000**

---

(Turn over)

**n = 13 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>... 0.2935</b>	<b>... 0.2542</b>	<b>... 0.1209</b>	<b>... 0.0550</b>
<b>x = 1</b>	<b>... 0.6707</b>	<b>... 0.6213</b>	<b>... 0.3983</b>	<b>... 0.2336</b>
<b>x = 2</b>	<b>... 0.8946</b>	<b>... 0.8661</b>	<b>... 0.6920</b>	<b>... 0.5017</b>
<b>x = 3</b>	<b>... 0.9758</b>	<b>... 0.9658</b>	<b>... 0.8820</b>	<b>... 0.7473</b>
<b>x = 4</b>	<b>... 0.9959</b>	<b>... 0.9935</b>	<b>... 0.9658</b>	<b>... 0.9009</b>
<b>x = 5</b>	<b>... 0.9995</b>	<b>... 0.9991</b>	<b>... 0.9925</b>	<b>... 0.9700</b>
<b>x = 6</b>	<b>... 0.9999</b>	<b>... 0.9999</b>	<b>... 0.9987</b>	<b>... 0.9930</b>
<b>x = 7</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9998</b>	<b>... 0.9988</b>
<b>x = 8</b>	<b>..... 1.0000</b>			<b>... 0.9998</b>
<b>x = 9</b>	<b>..... 1.0000</b>			<b>1.0000</b>

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 13 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0238</b>	<b>... 0.0097</b>	<b>... 0.0037</b>
<b>x = 1</b>	<b>..... 0.1267</b>	<b>... 0.0637</b>	<b>... 0.0296</b>
<b>x = 2</b>	<b>..... 0.3326</b>	<b>... 0.2025</b>	<b>... 0.1132</b>
<b>x = 3</b>	<b>..... 0.5843</b>	<b>... 0.4206</b>	<b>... 0.2783</b>
<b>x = 4</b>	<b>..... 0.7940</b>	<b>... 0.6543</b>	<b>... 0.5005</b>
<b>x = 5</b>	<b>..... 0.9198</b>	<b>... 0.8346</b>	<b>... 0.7159</b>
<b>x = 6</b>	<b>..... 0.9757</b>	<b>... 0.9376</b>	<b>... 0.8705</b>
<b>x = 7</b>	<b>..... 0.9944</b>	<b>... 0.9818</b>	<b>... 0.9538</b>
<b>x = 8</b>	<b>..... 0.9990</b>	<b>... 0.9960</b>	<b>... 0.9874</b>
<b>x = 9</b>	<b>..... 0.9999</b>	<b>... 0.9993</b>	<b>... 0.9975</b>
<b>x = 10</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9997</b>
<b>x = 11</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 13 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0013</b>	<b>... 0.0004</b>	<b>... 0.0001</b>
<b>x = 1</b>	<b>..... 0.0126</b>	<b>... 0.0049</b>	<b>... 0.0017</b>
<b>x = 2</b>	<b>..... 0.0579</b>	<b>... 0.0269</b>	<b>... 0.0112</b>
<b>x = 3</b>	<b>..... 0.1686</b>	<b>... 0.0929</b>	<b>... 0.0461</b>
<b>x = 4</b>	<b>..... 0.3530</b>	<b>... 0.2279</b>	<b>... 0.1334</b>
<b>x = 5</b>	<b>..... 0.5744</b>	<b>... 0.4268</b>	<b>... 0.2905</b>
<b>x = 6</b>	<b>..... 0.7712</b>	<b>... 0.6437</b>	<b>... 0.5000</b>
<b>x = 7</b>	<b>..... 0.9023</b>	<b>... 0.8212</b>	<b>... 0.7095</b>
<b>x = 8</b>	<b>..... 0.9679</b>	<b>... 0.9302</b>	<b>... 0.8666</b>
<b>x = 9</b>	<b>..... 0.9922</b>	<b>... 0.9797</b>	<b>... 0.9539</b>
<b>x = 10</b>	<b>... 0.9987</b>	<b>... 0.9959</b>	<b>... 0.9888</b>
<b>x = 11</b>	<b>... 0.9999</b>	<b>... 0.9995</b>	<b>... 0.9983</b>
<b>x = 12</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>
<b>x = 13</b>	<b>..... 1.0000</b>		

---

**n = 14 is on the next page**

**(Turn over)**

**n = 14**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.8687 ... 0.7536 ... 0.6528 ... 0.5647**

**x = 1 ... 0.9916 ... 0.9690 ... 0.9355 ... 0.8941**

**x = 2 ... 0.9997 ... 0.9975 ... 0.9923 ... 0.9833**

**x = 3 ... 1.0000 ... 0.9999 ... 0.9994 ... 0.9981**

**x = 4 ..... 1.0000 ... 1.0000 ... 0.9998**

**x = 5 ..... 1.0000**

---

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.4877 ... 0.4205 ... 0.3620 ... 0.3112**

**x = 1 ... 0.8470 ... 0.7963 ... 0.7436 ... 0.6900**

**x = 2 ... 0.9699 ... 0.9522 ... 0.9302 ... 0.9042**

**x = 3 ... 0.9958 ... 0.9920 ... 0.9864 ... 0.9786**

**x = 4 ... 0.9996 ... 0.9990 ... 0.9980 ... 0.9965**

**x = 5 ... 1.0000 ... 0.9999 ... 0.9998 ... 0.9996**

**x = 6 ..... 1.0000 ... 1.0000 ... 1.0000**

---

(Turn over)

**n = 14 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>... 0.2670</b>	<b>... 0.2288</b>	<b>... 0.1028</b>	<b>... 0.0440</b>
<b>x = 1</b>	<b>... 0.6368</b>	<b>... 0.5846</b>	<b>... 0.3567</b>	<b>... 0.1979</b>
<b>x = 2</b>	<b>... 0.8745</b>	<b>... 0.8416</b>	<b>... 0.6479</b>	<b>... 0.4481</b>
<b>x = 3</b>	<b>... 0.9685</b>	<b>... 0.9559</b>	<b>... 0.8535</b>	<b>... 0.6982</b>
<b>x = 4</b>	<b>... 0.9941</b>	<b>... 0.9908</b>	<b>... 0.9533</b>	<b>... 0.8702</b>
<b>x = 5</b>	<b>... 0.9992</b>	<b>... 0.9985</b>	<b>... 0.9885</b>	<b>... 0.9561</b>
<b>x = 6</b>	<b>... 0.9999</b>	<b>... 0.9998</b>	<b>... 0.9978</b>	<b>... 0.9884</b>
<b>x = 7</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9997</b>	<b>... 0.9976</b>
<b>x = 8</b>	<b>..... 1.0000</b>			<b>... 0.9996</b>
<b>x = 9</b>	<b>..... 1.0000</b>			<b>1.0000</b>

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 14 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

**x = 0 ..... 0.0178 ... 0.0068 ... 0.0024**

**x = 1 ..... 0.1010 ... 0.0475 ... 0.0205**

**x = 2 ..... 0.2811 ... 0.1608 ... 0.0839**

**x = 3 ..... 0.5213 ... 0.3552 ... 0.2205**

**x = 4 ..... 0.7415 ... 0.5842 ... 0.4227**

**x = 5 ..... 0.8883 ... 0.7805 ... 0.6405**

**x = 6 ..... 0.9617 ... 0.9067 ... 0.8164**

**x = 7 ..... 0.9897 ... 0.9685 ... 0.9247**

**x = 8 ..... 0.9978 ... 0.9917 ... 0.9757**

**x = 9 ..... 0.9997 ... 0.9983 ... 0.9940**

**x = 10 ... 1.0000 ... 0.9998 ... 0.9989**

**x = 11 ..... 1.0000 ... 0.9999**

**x = 12 ..... 1.0000**

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 14 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0008</b>	<b>... 0.0002</b>	<b>... 0.0001</b>
<b>x = 1</b>	<b>..... 0.0081</b>	<b>... 0.0029</b>	<b>... 0.0009</b>
<b>x = 2</b>	<b>..... 0.0398</b>	<b>... 0.0170</b>	<b>... 0.0065</b>
<b>x = 3</b>	<b>..... 0.1234</b>	<b>... 0.0632</b>	<b>... 0.0287</b>
<b>x = 4</b>	<b>..... 0.2793</b>	<b>... 0.1672</b>	<b>... 0.0898</b>
<b>x = 5</b>	<b>..... 0.4859</b>	<b>... 0.3373</b>	<b>... 0.2120</b>
<b>x = 6</b>	<b>..... 0.6925</b>	<b>... 0.5461</b>	<b>... 0.3953</b>
<b>x = 7</b>	<b>..... 0.8499</b>	<b>... 0.7414</b>	<b>... 0.6047</b>
<b>x = 8</b>	<b>..... 0.9417</b>	<b>... 0.8811</b>	<b>... 0.7880</b>
<b>x = 9</b>	<b>..... 0.9825</b>	<b>... 0.9574</b>	<b>... 0.9102</b>
<b>x = 10</b>	<b>... 0.9961</b>	<b>... 0.9886</b>	<b>... 0.9713</b>
<b>x = 11</b>	<b>... 0.9994</b>	<b>... 0.9978</b>	<b>... 0.9935</b>
<b>x = 12</b>	<b>... 0.9999</b>	<b>... 0.9997</b>	<b>... 0.9991</b>
<b>x = 13</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>
<b>x = 14</b>	<b>..... 1.0000</b>		

---

**n = 15 is on the next page**

**(Turn over)**

**n = 15**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.8601 ... 0.7386 ... 0.6333 ... 0.5421**

**x = 1 ... 0.9904 ... 0.9647 ... 0.9270 ... 0.8809**

**x = 2 ... 0.9996 ... 0.9970 ... 0.9906 ... 0.9797**

**x = 3 ... 1.0000 ... 0.9998 ... 0.9992 ... 0.9976**

**x = 4 ..... 1.0000 ... 0.9999 ... 0.9998**

**x = 5 ..... 1.0000 ... 1.0000**

---

**p = 0.05 – 0.08 is on the next page**

**(Turn over)**

**n = 15 continued**

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

**x = 0 ... 0.4633 ... 0.3953 ... 0.3367 ... 0.2863**

**x = 1 ... 0.8290 ... 0.7738 ... 0.7168 ... 0.6597**

**x = 2 ... 0.9638 ... 0.9429 ... 0.9171 ... 0.8870**

**x = 3 ... 0.9945 ... 0.9896 ... 0.9825 ... 0.9727**

**x = 4 ... 0.9994 ... 0.9986 ... 0.9972 ... 0.9950**

**x = 5 ... 0.9999 ... 0.9999 ... 0.9997 ... 0.9993**

**x = 6 ... 1.0000 ... 1.0000 ... 1.0000 ... 0.9999**

**x = 7 ..... 1.0000**

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 15 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 0 .... 0.2430 ... 0.2059 ... 0.0874 ... 0.0352**

**x = 1 .... 0.6035 ... 0.5490 ... 0.3186 ... 0.1671**

**x = 2 ..... 0.8531 ... 0.8159 ... 0.6042 ... 0.3980**

**x = 3 ..... 0.9601 ... 0.9444 ... 0.8227 ... 0.6482**

**x = 4 ..... 0.9918 ... 0.9873 ... 0.9383 ... 0.8358**

**x = 5 ..... 0.9987 ... 0.9978 ... 0.9832 ... 0.9389**

**x = 6 ..... 0.9998 ... 0.9997 ... 0.9964 ... 0.9819**

**x = 7 ..... 1.0000 ... 1.0000 ... 0.9994 ... 0.9958**

**x = 8 ..... 0.9999 ... 0.9992**

**x = 9 ..... 1.0000 ... 0.9999**

**x = 10 ..... 1.0000**

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 15 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

**x = 0 ..... 0.0134 ... 0.0047 ... 0.0016**

**x = 1 ..... 0.0802 ... 0.0353 ... 0.0142**

**x = 2 ..... 0.2361 ... 0.1268 ... 0.0617**

**x = 3 ..... 0.4613 ... 0.2969 ... 0.1727**

**x = 4 ..... 0.6865 ... 0.5155 ... 0.3519**

**x = 5 ..... 0.8516 ... 0.7216 ... 0.5643**

**x = 6 ..... 0.9434 ... 0.8689 ... 0.7548**

**x = 7 ..... 0.9827 ... 0.9500 ... 0.8868**

**x = 8 ..... 0.9958 ... 0.9848 ... 0.9578**

**x = 9 ..... 0.9992 ... 0.9963 ... 0.9876**

**x = 10 ... 0.9999 ... 0.9993 ... 0.9972**

**x = 11 ... 1.0000 ... 0.9999 ... 0.9995**

**x = 12 ..... 1.0000 ... 0.9999**

**x = 13 ..... 1.0000**

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 15** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0005</b>	<b>... 0.0001</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0052</b>	<b>... 0.0017</b>	<b>... 0.0005</b>
<b>x = 2</b>	<b>..... 0.0271</b>	<b>... 0.0107</b>	<b>... 0.0037</b>
<b>x = 3</b>	<b>..... 0.0905</b>	<b>... 0.0424</b>	<b>... 0.0176</b>
<b>x = 4</b>	<b>..... 0.2173</b>	<b>... 0.1204</b>	<b>... 0.0592</b>
<b>x = 5</b>	<b>..... 0.4032</b>	<b>... 0.2608</b>	<b>... 0.1509</b>
<b>x = 6</b>	<b>..... 0.6098</b>	<b>... 0.4522</b>	<b>... 0.3036</b>
<b>x = 7</b>	<b>..... 0.7869</b>	<b>... 0.6535</b>	<b>... 0.5000</b>
<b>x = 8</b>	<b>..... 0.9050</b>	<b>... 0.8182</b>	<b>... 0.6964</b>
<b>x = 9</b>	<b>..... 0.9662</b>	<b>... 0.9231</b>	<b>... 0.8491</b>
<b>x = 10</b>	<b>... 0.9907</b>	<b>... 0.9745</b>	<b>... 0.9408</b>
<b>x = 11</b>	<b>... 0.9981</b>	<b>... 0.9937</b>	<b>... 0.9824</b>
<b>x = 12</b>	<b>... 0.9997</b>	<b>... 0.9989</b>	<b>... 0.9963</b>
<b>x = 13</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9995</b>
<b>x = 14</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	

---

**n = 20** is on the next page

(Turn over)

**n = 20**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.8179 ... 0.6676 ... 0.5438 ... 0.4420**

**x = 1 ... 0.9831 ... 0.9401 ... 0.8802 ... 0.8103**

**x = 2 ... 0.9990 ... 0.9929 ... 0.9790 ... 0.9561**

**x = 3 ... 1.0000 ... 0.9994 ... 0.9973 ... 0.9926**

**x = 4 ..... 1.0000 ... 0.9997 ... 0.9990**

**x = 5 ..... 1.0000 ... 0.9999**

**x = 6 ..... 1.0000**

---

**p = 0.05 – 0.08 is on the next page**

**(Turn over)**

**n = 20 continued**

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

<b>x = 0</b>	<b>... 0.3585</b>	<b>... 0.2901</b>	<b>... 0.2342</b>	<b>... 0.1887</b>
<b>x = 1</b>	<b>... 0.7358</b>	<b>... 0.6605</b>	<b>... 0.5869</b>	<b>... 0.5169</b>
<b>x = 2</b>	<b>... 0.9245</b>	<b>... 0.8850</b>	<b>... 0.8390</b>	<b>... 0.7879</b>
<b>x = 3</b>	<b>... 0.9841</b>	<b>... 0.9710</b>	<b>... 0.9529</b>	<b>... 0.9294</b>
<b>x = 4</b>	<b>... 0.9974</b>	<b>... 0.9944</b>	<b>... 0.9893</b>	<b>... 0.9817</b>
<b>x = 5</b>	<b>... 0.9997</b>	<b>... 0.9991</b>	<b>... 0.9981</b>	<b>... 0.9962</b>
<b>x = 6</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9997</b>	<b>... 0.9994</b>
<b>x = 7</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	
<b>x = 8</b>	<b>..... 1.0000</b>			

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 20** continued

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>..... 0.1516</b>	<b>... 0.1216</b>	<b>... 0.0388</b>	<b>... 0.0115</b>
<b>x = 1</b>	<b>..... 0.4516</b>	<b>... 0.3917</b>	<b>... 0.1756</b>	<b>... 0.0692</b>
<b>x = 2</b>	<b>..... 0.7334</b>	<b>... 0.6769</b>	<b>... 0.4049</b>	<b>... 0.2061</b>
<b>x = 3</b>	<b>..... 0.9007</b>	<b>... 0.8670</b>	<b>... 0.6477</b>	<b>... 0.4114</b>
<b>x = 4</b>	<b>..... 0.9710</b>	<b>... 0.9568</b>	<b>... 0.8298</b>	<b>... 0.6296</b>
<b>x = 5</b>	<b>..... 0.9932</b>	<b>... 0.9887</b>	<b>... 0.9327</b>	<b>... 0.8042</b>
<b>x = 6</b>	<b>..... 0.9987</b>	<b>... 0.9976</b>	<b>... 0.9781</b>	<b>... 0.9133</b>
<b>x = 7</b>	<b>..... 0.9998</b>	<b>... 0.9996</b>	<b>... 0.9941</b>	<b>... 0.9679</b>
<b>x = 8</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9987</b>	<b>... 0.9900</b>
<b>x = 9</b>	<b>..... 1.0000</b>	<b>... 0.9998</b>	<b>... 0.9974</b>	
<b>x = 10</b>	<b>..... 1.0000</b>	<b>... 0.9994</b>		
<b>x = 11</b>	<b>..... 0.9999</b>			
<b>x = 12</b>	<b>..... 1.0000</b>			

---

**p = 0.25 – 0.35** is on the next page

(Turn over)

**n = 20** continued

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0032</b>	<b>... 0.0008</b>	<b>... 0.0002</b>
<b>x = 1</b>	<b>..... 0.0243</b>	<b>... 0.0076</b>	<b>... 0.0021</b>
<b>x = 2</b>	<b>..... 0.0913</b>	<b>... 0.0355</b>	<b>... 0.0121</b>
<b>x = 3</b>	<b>..... 0.2252</b>	<b>... 0.1071</b>	<b>... 0.0444</b>
<b>x = 4</b>	<b>..... 0.4148</b>	<b>... 0.2375</b>	<b>... 0.1182</b>
<b>x = 5</b>	<b>..... 0.6172</b>	<b>... 0.4164</b>	<b>... 0.2454</b>
<b>x = 6</b>	<b>..... 0.7858</b>	<b>... 0.6080</b>	<b>... 0.4166</b>
<b>x = 7</b>	<b>..... 0.8982</b>	<b>... 0.7723</b>	<b>... 0.6010</b>
<b>x = 8</b>	<b>..... 0.9591</b>	<b>... 0.8867</b>	<b>... 0.7624</b>
<b>x = 9</b>	<b>..... 0.9861</b>	<b>... 0.9520</b>	<b>... 0.8782</b>
<b>x = 10</b>	<b>... 0.9961</b>	<b>... 0.9829</b>	<b>... 0.9468</b>
<b>x = 11</b>	<b>... 0.9991</b>	<b>... 0.9949</b>	<b>... 0.9804</b>
<b>x = 12</b>	<b>... 0.9998</b>	<b>... 0.9987</b>	<b>... 0.9940</b>
<b>x = 13</b>	<b>... 1.0000</b>	<b>... 0.9997</b>	<b>... 0.9985</b>
<b>x = 14</b>	<b>..... 1.0000</b>	<b>... 0.9997</b>	
<b>x = 15</b>	<b>..... 1.0000</b>		

---

(Turn over)

**n = 20 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0005</b>	<b>... 0.0001</b>	<b>... 0.0000</b>
<b>x = 2</b>	<b>..... 0.0036</b>	<b>... 0.0009</b>	<b>... 0.0002</b>
<b>x = 3</b>	<b>..... 0.0160</b>	<b>... 0.0049</b>	<b>... 0.0013</b>
<b>x = 4</b>	<b>..... 0.0510</b>	<b>... 0.0189</b>	<b>... 0.0059</b>
<b>x = 5</b>	<b>..... 0.1256</b>	<b>... 0.0553</b>	<b>... 0.0207</b>
<b>x = 6</b>	<b>..... 0.2500</b>	<b>... 0.1299</b>	<b>... 0.0577</b>
<b>x = 7</b>	<b>..... 0.4159</b>	<b>... 0.2520</b>	<b>... 0.1316</b>
<b>x = 8</b>	<b>..... 0.5956</b>	<b>... 0.4143</b>	<b>... 0.2517</b>
<b>x = 9</b>	<b>..... 0.7553</b>	<b>... 0.5914</b>	<b>... 0.4119</b>
<b>x = 10</b>	<b>... 0.8725</b>	<b>... 0.7507</b>	<b>... 0.5881</b>
<b>x = 11</b>	<b>... 0.9435</b>	<b>... 0.8692</b>	<b>... 0.7483</b>
<b>x = 12</b>	<b>... 0.9790</b>	<b>... 0.9420</b>	<b>... 0.8684</b>
<b>x = 13</b>	<b>... 0.9935</b>	<b>... 0.9786</b>	<b>... 0.9423</b>
<b>x = 14</b>	<b>... 0.9984</b>	<b>... 0.9936</b>	<b>... 0.9793</b>

**(continued on the next page)**

**(Turn over)**

**n = 20** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

**x = 15 ... 0.9997 ... 0.9985 ... 0.9941**

**x = 16 ... 1.0000 ... 0.9997 ... 0.9987**

**x = 17 ..... 1.0000 ... 0.9998**

**x = 18 ..... 1.0000**

---

**n = 25** is on the next page

**(Turn over)**

**n = 25**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.7778 ... 0.6035 ... 0.4670 ... 0.3604**

**x = 1 ... 0.9742 ... 0.9114 ... 0.8280 ... 0.7358**

**x = 2 ... 0.9980 ... 0.9868 ... 0.9620 ... 0.9235**

**x = 3 ... 0.9999 ... 0.9986 ... 0.9938 ... 0.9835**

**x = 4 ... 1.0000 ... 0.9999 ... 0.9992 ... 0.9972**

**x = 5 ..... 1.0000 ... 0.9999 ... 0.9996**

**x = 6 ..... 1.0000 ... 1.0000**

---

**p = 0.05 – 0.08 is on the next page**

**(Turn over)**

**n = 25 continued**

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

<b>x = 0</b>	<b>... 0.2774</b>	<b>... 0.2129</b>	<b>... 0.1630</b>	<b>... 0.1224</b>
<b>x = 1</b>	<b>... 0.6424</b>	<b>... 0.5527</b>	<b>... 0.4696</b>	<b>... 0.3947</b>
<b>x = 2</b>	<b>... 0.8729</b>	<b>... 0.8129</b>	<b>... 0.7466</b>	<b>... 0.6768</b>
<b>x = 3</b>	<b>... 0.9659</b>	<b>... 0.9402</b>	<b>... 0.9064</b>	<b>... 0.8649</b>
<b>x = 4</b>	<b>... 0.9928</b>	<b>... 0.9850</b>	<b>... 0.9726</b>	<b>... 0.9549</b>
<b>x = 5</b>	<b>... 0.9988</b>	<b>... 0.9969</b>	<b>... 0.9935</b>	<b>... 0.9877</b>
<b>x = 6</b>	<b>... 0.9998</b>	<b>... 0.9995</b>	<b>... 0.9987</b>	<b>... 0.9972</b>
<b>x = 7</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9998</b>	<b>... 0.9995</b>
<b>x = 8</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	
<b>x = 9</b>	<b>..... 1.0000</b>			

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 25 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>..... 0.0946</b>	<b>... 0.0718</b>	<b>... 0.0172</b>	<b>... 0.0038</b>
<b>x = 1</b>	<b>..... 0.3286</b>	<b>... 0.2712</b>	<b>... 0.0931</b>	<b>... 0.0274</b>
<b>x = 2</b>	<b>..... 0.6063</b>	<b>... 0.5371</b>	<b>... 0.2537</b>	<b>... 0.0982</b>
<b>x = 3</b>	<b>..... 0.8169</b>	<b>... 0.7636</b>	<b>... 0.4711</b>	<b>... 0.2340</b>
<b>x = 4</b>	<b>..... 0.9314</b>	<b>... 0.9020</b>	<b>... 0.6821</b>	<b>... 0.4207</b>
<b>x = 5</b>	<b>..... 0.9790</b>	<b>... 0.9666</b>	<b>... 0.8385</b>	<b>... 0.6167</b>
<b>x = 6</b>	<b>..... 0.9946</b>	<b>... 0.9905</b>	<b>... 0.9305</b>	<b>... 0.7800</b>
<b>x = 7</b>	<b>..... 0.9989</b>	<b>... 0.9977</b>	<b>... 0.9745</b>	<b>... 0.8909</b>
<b>x = 8</b>	<b>..... 0.9998</b>	<b>... 0.9995</b>	<b>... 0.9920</b>	<b>... 0.9532</b>
<b>x = 9</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9979</b>	<b>... 0.9827</b>
<b>x = 10</b>	<b>..... 1.0000</b>	<b>... 0.9995</b>	<b>... 0.9944</b>	
<b>x = 11</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9985</b>	
<b>x = 12</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9996</b>	
<b>x = 13</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	
<b>x = 14</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 25 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0008</b>	<b>... 0.0001</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0070</b>	<b>... 0.0016</b>	<b>... 0.0003</b>
<b>x = 2</b>	<b>..... 0.0321</b>	<b>... 0.0090</b>	<b>... 0.0021</b>
<b>x = 3</b>	<b>..... 0.0962</b>	<b>... 0.0332</b>	<b>... 0.0097</b>
<b>x = 4</b>	<b>..... 0.2137</b>	<b>... 0.0905</b>	<b>... 0.0320</b>
<b>x = 5</b>	<b>..... 0.3783</b>	<b>... 0.1935</b>	<b>... 0.0826</b>
<b>x = 6</b>	<b>..... 0.5611</b>	<b>... 0.3407</b>	<b>... 0.1734</b>
<b>x = 7</b>	<b>..... 0.7265</b>	<b>... 0.5118</b>	<b>... 0.3061</b>
<b>x = 8</b>	<b>..... 0.8506</b>	<b>... 0.6769</b>	<b>... 0.4668</b>
<b>x = 9</b>	<b>..... 0.9287</b>	<b>... 0.8106</b>	<b>... 0.6303</b>
<b>x = 10</b>	<b>... 0.9703</b>	<b>... 0.9022</b>	<b>... 0.7712</b>
<b>x = 11</b>	<b>... 0.9893</b>	<b>... 0.9558</b>	<b>... 0.8746</b>
<b>x = 12</b>	<b>... 0.9966</b>	<b>... 0.9825</b>	<b>... 0.9396</b>
<b>x = 13</b>	<b>... 0.9991</b>	<b>... 0.9940</b>	<b>... 0.9745</b>
<b>x = 14</b>	<b>... 0.9998</b>	<b>... 0.9982</b>	<b>... 0.9907</b>

**(continued on the next page)**

**(Turn over)**

**n = 25 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

**x = 15 ... 1.0000 ... 0.9995 ... 0.9971**

**x = 16 ..... 0.9999 ... 0.9992**

**x = 17 ..... 1.0000 ... 0.9998**

**x = 18 ..... 1.0000**

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 25 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0001</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 2</b>	<b>..... 0.0004</b>	<b>... 0.0001</b>	<b>... 0.0000</b>
<b>x = 3</b>	<b>..... 0.0024</b>	<b>... 0.0005</b>	<b>... 0.0001</b>
<b>x = 4</b>	<b>..... 0.0095</b>	<b>... 0.0023</b>	<b>... 0.0005</b>
<b>x = 5</b>	<b>..... 0.0294</b>	<b>... 0.0086</b>	<b>... 0.0020</b>
<b>x = 6</b>	<b>..... 0.0736</b>	<b>... 0.0258</b>	<b>... 0.0073</b>
<b>x = 7</b>	<b>..... 0.1536</b>	<b>... 0.0639</b>	<b>... 0.0216</b>
<b>x = 8</b>	<b>..... 0.2735</b>	<b>... 0.1340</b>	<b>... 0.0539</b>
<b>x = 9</b>	<b>..... 0.4246</b>	<b>... 0.2424</b>	<b>... 0.1148</b>
<b>x = 10</b>	<b>... 0.5858</b>	<b>... 0.3843</b>	<b>... 0.2122</b>
<b>x = 11</b>	<b>... 0.7323</b>	<b>... 0.5426</b>	<b>... 0.3450</b>
<b>x = 12</b>	<b>... 0.8462</b>	<b>... 0.6937</b>	<b>... 0.5000</b>
<b>x = 13</b>	<b>... 0.9222</b>	<b>... 0.8173</b>	<b>... 0.6550</b>
<b>x = 14</b>	<b>... 0.9656</b>	<b>... 0.9040</b>	<b>... 0.7878</b>

**(continued on the next page)**

**(Turn over)**

**n = 25 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

**x = 15 ... 0.9868 ... 0.9560 ... 0.8852**

**x = 16 ... 0.9957 ... 0.9826 ... 0.9461**

**x = 17 ... 0.9988 ... 0.9942 ... 0.9784**

**x = 18 ... 0.9997 ... 0.9984 ... 0.9927**

**x = 19 ... 0.9999 ... 0.9996 ... 0.9980**

**x = 20 ... 1.0000 ... 0.9999 ... 0.9995**

**x = 21 ..... 1.0000 ... 0.9999**

**x = 22 ..... 1.0000**

---

**n = 30 is on the next page**

**(Turn over)**

**n = 30**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

**x = 0 ... 0.7397 ... 0.5455 ... 0.4010 ... 0.2939**

**x = 1 ... 0.9639 ... 0.8795 ... 0.7731 ... 0.6612**

**x = 2 ... 0.9967 ... 0.9783 ... 0.9399 ... 0.8831**

**x = 3 ... 0.9998 ... 0.9971 ... 0.9881 ... 0.9694**

**x = 4 ... 1.0000 ... 0.9997 ... 0.9982 ... 0.9937**

**x = 5 ..... 1.0000 ... 0.9998 ... 0.9989**

**x = 6 ..... 1.0000 ... 0.9999**

**x = 7 ..... 1.0000**

---

**p = 0.05 – 0.08 is on the next page**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

<b>x = 0</b>	<b>..... 0.2146</b>	<b>... 0.1563</b>	<b>... 0.1134</b>	<b>... 0.0820</b>
<b>x = 1</b>	<b>..... 0.5535</b>	<b>... 0.4555</b>	<b>... 0.3694</b>	<b>... 0.2958</b>
<b>x = 2</b>	<b>..... 0.8122</b>	<b>... 0.7324</b>	<b>... 0.6487</b>	<b>... 0.5654</b>
<b>x = 3</b>	<b>..... 0.9392</b>	<b>... 0.8974</b>	<b>... 0.8450</b>	<b>... 0.7842</b>
<b>x = 4</b>	<b>..... 0.9844</b>	<b>... 0.9685</b>	<b>... 0.9447</b>	<b>... 0.9126</b>
<b>x = 5</b>	<b>..... 0.9967</b>	<b>... 0.9921</b>	<b>... 0.9838</b>	<b>... 0.9707</b>
<b>x = 6</b>	<b>..... 0.9994</b>	<b>... 0.9983</b>	<b>... 0.9960</b>	<b>... 0.9918</b>
<b>x = 7</b>	<b>..... 0.9999</b>	<b>... 0.9997</b>	<b>... 0.9992</b>	<b>... 0.9980</b>
<b>x = 8</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9996</b>
<b>x = 9</b>	<b>..... 1.0000</b>			<b>... 0.9999</b>
<b>x = 10</b>	<b>..... 1.0000</b>			

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>..... 0.0591</b>	<b>... 0.0424</b>	<b>... 0.0076</b>	<b>... 0.0012</b>
<b>x = 1</b>	<b>..... 0.2343</b>	<b>... 0.1837</b>	<b>... 0.0480</b>	<b>... 0.0105</b>
<b>x = 2</b>	<b>..... 0.4855</b>	<b>... 0.4114</b>	<b>... 0.1514</b>	<b>... 0.0442</b>
<b>x = 3</b>	<b>..... 0.7175</b>	<b>... 0.6474</b>	<b>... 0.3217</b>	<b>... 0.1227</b>
<b>x = 4</b>	<b>..... 0.8723</b>	<b>... 0.8245</b>	<b>... 0.5245</b>	<b>... 0.2552</b>
<b>x = 5</b>	<b>..... 0.9519</b>	<b>... 0.9268</b>	<b>... 0.7106</b>	<b>... 0.4275</b>
<b>x = 6</b>	<b>..... 0.9848</b>	<b>... 0.9742</b>	<b>... 0.8474</b>	<b>... 0.6070</b>
<b>x = 7</b>	<b>..... 0.9959</b>	<b>... 0.9922</b>	<b>... 0.9302</b>	<b>... 0.7608</b>
<b>x = 8</b>	<b>..... 0.9990</b>	<b>... 0.9980</b>	<b>... 0.9722</b>	<b>... 0.8713</b>
<b>x = 9</b>	<b>..... 0.9998</b>	<b>... 0.9995</b>	<b>... 0.9903</b>	<b>... 0.9389</b>
<b>x = 10</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9971</b>	<b>... 0.9744</b>
<b>x = 11</b>	<b>..... 1.0000</b>	<b>... 0.9992</b>	<b>... 0.9905</b>	
<b>x = 12</b>	<b>..... 0.9998</b>	<b>... 0.9969</b>		
<b>x = 13</b>	<b>..... 1.0000</b>	<b>... 0.9991</b>		
<b>x = 14</b>	<b>..... 0.9998</b>			

**(continued on the next page)**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 15 ..... 0.9999**

**x = 16 ..... 1.0000**

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0002</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0020</b>	<b>... 0.0003</b>	<b>... 0.0000</b>
<b>x = 2</b>	<b>..... 0.0106</b>	<b>... 0.0021</b>	<b>... 0.0003</b>
<b>x = 3</b>	<b>..... 0.0374</b>	<b>... 0.0093</b>	<b>... 0.0019</b>
<b>x = 4</b>	<b>..... 0.0979</b>	<b>... 0.0302</b>	<b>... 0.0075</b>
<b>x = 5</b>	<b>..... 0.2026</b>	<b>... 0.0766</b>	<b>... 0.0233</b>
<b>x = 6</b>	<b>..... 0.3481</b>	<b>... 0.1595</b>	<b>... 0.0586</b>
<b>x = 7</b>	<b>..... 0.5143</b>	<b>... 0.2814</b>	<b>... 0.1238</b>
<b>x = 8</b>	<b>..... 0.6736</b>	<b>... 0.4315</b>	<b>... 0.2247</b>
<b>x = 9</b>	<b>..... 0.8034</b>	<b>... 0.5888</b>	<b>... 0.3575</b>
<b>x = 10</b>	<b>... 0.8943</b>	<b>... 0.7304</b>	<b>... 0.5078</b>
<b>x = 11</b>	<b>... 0.9493</b>	<b>... 0.8407</b>	<b>... 0.6548</b>
<b>x = 12</b>	<b>... 0.9784</b>	<b>... 0.9155</b>	<b>... 0.7802</b>
<b>x = 13</b>	<b>... 0.9918</b>	<b>... 0.9599</b>	<b>... 0.8737</b>
<b>x = 14</b>	<b>... 0.9973</b>	<b>... 0.9831</b>	<b>... 0.9348</b>

**(continued on the next page)**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

**x = 15 ... 0.9992 ... 0.9936 ... 0.9699**

**x = 16 ... 0.9998 ... 0.9979 ... 0.9876**

**x = 17 ... 0.9999 ... 0.9994 ... 0.9955**

**x = 18 ... 1.0000 ... 0.9998 ... 0.9986**

**x = 19 ..... 1.0000 ... 0.9996**

**x = 20 ..... 0.9999**

**x = 21 ..... 1.0000**

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>.....</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>
<b>x = 1</b>	<b>.....</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>
<b>x = 2</b>	<b>.....</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>
<b>x = 3</b>	<b>.....</b>	<b>0.0003</b>	<b>...</b>	<b>0.0000</b>	<b>...</b>	<b>0.0000</b>
<b>x = 4</b>	<b>.....</b>	<b>0.0015</b>	<b>...</b>	<b>0.0002</b>	<b>...</b>	<b>0.0000</b>
<b>x = 5</b>	<b>.....</b>	<b>0.0057</b>	<b>...</b>	<b>0.0011</b>	<b>...</b>	<b>0.0002</b>
<b>x = 6</b>	<b>.....</b>	<b>0.0172</b>	<b>...</b>	<b>0.0040</b>	<b>...</b>	<b>0.0007</b>
<b>x = 7</b>	<b>.....</b>	<b>0.0435</b>	<b>...</b>	<b>0.0121</b>	<b>...</b>	<b>0.0026</b>
<b>x = 8</b>	<b>.....</b>	<b>0.0940</b>	<b>...</b>	<b>0.0312</b>	<b>...</b>	<b>0.0081</b>
<b>x = 9</b>	<b>.....</b>	<b>0.1763</b>	<b>...</b>	<b>0.0694</b>	<b>...</b>	<b>0.0214</b>
<b>x = 10</b>	<b>...</b>	<b>0.2915</b>	<b>...</b>	<b>0.1350</b>	<b>...</b>	<b>0.0494</b>
<b>x = 11</b>	<b>...</b>	<b>0.4311</b>	<b>...</b>	<b>0.2327</b>	<b>...</b>	<b>0.1002</b>
<b>x = 12</b>	<b>...</b>	<b>0.5785</b>	<b>...</b>	<b>0.3592</b>	<b>...</b>	<b>0.1808</b>
<b>x = 13</b>	<b>...</b>	<b>0.7145</b>	<b>...</b>	<b>0.5025</b>	<b>...</b>	<b>0.2923</b>
<b>x = 14</b>	<b>...</b>	<b>0.8246</b>	<b>...</b>	<b>0.6448</b>	<b>...</b>	<b>0.4278</b>

**(continued on the next page)**

**(Turn over)**

**n = 30 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

**x = 15 ... 0.9029 ... 0.7691 ... 0.5722**

**x = 16 ... 0.9519 ... 0.8644 ... 0.7077**

**x = 17 ... 0.9788 ... 0.9286 ... 0.8192**

**x = 18 ... 0.9917 ... 0.9666 ... 0.8998**

**x = 19 ... 0.9971 ... 0.9862 ... 0.9506**

**x = 20 ... 0.9991 ... 0.9950 ... 0.9786**

**x = 21 ... 0.9998 ... 0.9984 ... 0.9919**

**x = 22 ... 1.0000 ... 0.9996 ... 0.9974**

**x = 23 ..... 0.9999 ... 0.9993**

**x = 24 ..... 1.0000 ... 0.9998**

**x = 25 ..... 1.0000**

---

**n = 40 is on the next page**

**(Turn over)**

**n = 40**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

<b>x = 0</b>	<b>... 0.6690</b>	<b>... 0.4457</b>	<b>... 0.2957</b>	<b>... 0.1954</b>
<b>x = 1</b>	<b>... 0.9393</b>	<b>... 0.8095</b>	<b>... 0.6615</b>	<b>... 0.5210</b>
<b>x = 2</b>	<b>... 0.9925</b>	<b>... 0.9543</b>	<b>... 0.8822</b>	<b>... 0.7855</b>
<b>x = 3</b>	<b>... 0.9993</b>	<b>... 0.9918</b>	<b>... 0.9686</b>	<b>... 0.9252</b>
<b>x = 4</b>	<b>... 1.0000</b>	<b>... 0.9988</b>	<b>... 0.9933</b>	<b>... 0.9790</b>
<b>x = 5</b>	<b>..... 0.9999</b>	<b>... 0.9988</b>	<b>... 0.9951</b>	
<b>x = 6</b>	<b>..... 1.0000</b>	<b>... 0.9998</b>	<b>... 0.9990</b>	
<b>x = 7</b>	<b>..... 1.0000</b>	<b>... 0.9998</b>		
<b>x = 8</b>	<b>..... 1.0000</b>			

---

**p = 0.05 – 0.08 is on the next page**

**(Turn over)**

**n = 40 continued**

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

<b>x = 0</b>	<b>..... 0.1285</b>	<b>... 0.0842</b>	<b>... 0.0549</b>	<b>... 0.0356</b>
<b>x = 1</b>	<b>..... 0.3991</b>	<b>... 0.2990</b>	<b>... 0.2201</b>	<b>... 0.1594</b>
<b>x = 2</b>	<b>..... 0.6767</b>	<b>... 0.5665</b>	<b>... 0.4625</b>	<b>... 0.3694</b>
<b>x = 3</b>	<b>..... 0.8619</b>	<b>... 0.7827</b>	<b>... 0.6937</b>	<b>... 0.6007</b>
<b>x = 4</b>	<b>..... 0.9520</b>	<b>... 0.9104</b>	<b>... 0.8546</b>	<b>... 0.7868</b>
<b>x = 5</b>	<b>..... 0.9861</b>	<b>... 0.9691</b>	<b>... 0.9419</b>	<b>... 0.9033</b>
<b>x = 6</b>	<b>..... 0.9966</b>	<b>... 0.9909</b>	<b>... 0.9801</b>	<b>... 0.9624</b>
<b>x = 7</b>	<b>..... 0.9993</b>	<b>... 0.9977</b>	<b>... 0.9942</b>	<b>... 0.9873</b>
<b>x = 8</b>	<b>..... 0.9999</b>	<b>... 0.9995</b>	<b>... 0.9985</b>	<b>... 0.9963</b>
<b>x = 9</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9997</b>	<b>... 0.9990</b>
<b>x = 10</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9999</b>	<b>... 0.9998</b>
<b>x = 11</b>	<b>..... 1.0000</b>	<b>... 1.0000</b>	<b>... 1.0000</b>	<b>... 1.0000</b>

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 40 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>..... 0.0230</b>	<b>... 0.0148</b>	<b>... 0.0015</b>	<b>... 0.0001</b>
<b>x = 1</b>	<b>..... 0.1140</b>	<b>... 0.0805</b>	<b>... 0.0121</b>	<b>... 0.0015</b>
<b>x = 2</b>	<b>..... 0.2894</b>	<b>... 0.2228</b>	<b>... 0.0486</b>	<b>... 0.0079</b>
<b>x = 3</b>	<b>..... 0.5092</b>	<b>... 0.4231</b>	<b>... 0.1302</b>	<b>... 0.0285</b>
<b>x = 4</b>	<b>..... 0.7103</b>	<b>... 0.6290</b>	<b>... 0.2633</b>	<b>... 0.0759</b>
<b>x = 5</b>	<b>..... 0.8535</b>	<b>... 0.7937</b>	<b>... 0.4325</b>	<b>... 0.1613</b>
<b>x = 6</b>	<b>..... 0.9361</b>	<b>... 0.9005</b>	<b>... 0.6067</b>	<b>... 0.2859</b>
<b>x = 7</b>	<b>..... 0.9758</b>	<b>... 0.9581</b>	<b>... 0.7559</b>	<b>... 0.4371</b>
<b>x = 8</b>	<b>..... 0.9919</b>	<b>... 0.9845</b>	<b>... 0.8646</b>	<b>... 0.5931</b>
<b>x = 9</b>	<b>..... 0.9976</b>	<b>... 0.9949</b>	<b>... 0.9328</b>	<b>... 0.7318</b>
<b>x = 10</b>	<b>... 0.9994</b>	<b>... 0.9985</b>	<b>... 0.9701</b>	<b>... 0.8392</b>
<b>x = 11</b>	<b>... 0.9999</b>	<b>... 0.9996</b>	<b>... 0.9880</b>	<b>... 0.9125</b>
<b>x = 12</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9957</b>	<b>... 0.9568</b>
<b>x = 13</b>	<b>..... 1.0000</b>	<b>... 0.9986</b>	<b>... 0.9806</b>	
<b>x = 14</b>	<b>..... 0.9996</b>	<b>... 0.9921</b>		

**(continued on the next page)**

**(Turn over)**

**n = 40 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

**x = 15 ..... 0.9999 ... 0.9971**

**x = 16 ..... 1.0000 ... 0.9990**

**x = 17 ..... 0.9997**

**x = 18 ..... 0.9999**

**x = 19 ..... 1.0000**

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 40 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0001</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 2</b>	<b>..... 0.0010</b>	<b>... 0.0001</b>	<b>... 0.0000</b>
<b>x = 3</b>	<b>..... 0.0047</b>	<b>... 0.0006</b>	<b>... 0.0001</b>
<b>x = 4</b>	<b>..... 0.0160</b>	<b>... 0.0026</b>	<b>... 0.0003</b>
<b>x = 5</b>	<b>..... 0.0433</b>	<b>... 0.0086</b>	<b>... 0.0013</b>
<b>x = 6</b>	<b>..... 0.0962</b>	<b>... 0.0238</b>	<b>... 0.0044</b>
<b>x = 7</b>	<b>..... 0.1820</b>	<b>... 0.0553</b>	<b>... 0.0124</b>
<b>x = 8</b>	<b>..... 0.2998</b>	<b>... 0.1110</b>	<b>... 0.0303</b>
<b>x = 9</b>	<b>..... 0.4395</b>	<b>... 0.1959</b>	<b>... 0.0644</b>
<b>x = 10</b>	<b>... 0.5839</b>	<b>... 0.3087</b>	<b>... 0.1215</b>
<b>x = 11</b>	<b>... 0.7151</b>	<b>... 0.4406</b>	<b>... 0.2053</b>
<b>x = 12</b>	<b>... 0.8209</b>	<b>... 0.5772</b>	<b>... 0.3143</b>
<b>x = 13</b>	<b>... 0.8968</b>	<b>... 0.7032</b>	<b>... 0.4408</b>
<b>x = 14</b>	<b>... 0.9456</b>	<b>... 0.8074</b>	<b>... 0.5721</b>

**(continued on the next page)**

**(Turn over)**

**n = 40 continued**

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 15</b>	<b>... 0.9738</b>	<b>... 0.8849</b>	<b>... 0.6946</b>
<b>x = 16</b>	<b>... 0.9884</b>	<b>... 0.9367</b>	<b>... 0.7978</b>
<b>x = 17</b>	<b>... 0.9953</b>	<b>... 0.9680</b>	<b>... 0.8761</b>
<b>x = 18</b>	<b>... 0.9983</b>	<b>... 0.9852</b>	<b>... 0.9301</b>
<b>x = 19</b>	<b>... 0.9994</b>	<b>... 0.9937</b>	<b>... 0.9637</b>
<b>x = 20</b>	<b>... 0.9998</b>	<b>... 0.9976</b>	<b>... 0.9827</b>
<b>x = 21</b>	<b>... 1.0000</b>	<b>... 0.9991</b>	<b>... 0.9925</b>
<b>x = 22</b>	<b>.....</b>	<b>0.9997</b>	<b>... 0.9970</b>
<b>x = 23</b>	<b>.....</b>	<b>0.9999</b>	<b>... 0.9989</b>
<b>x = 24</b>	<b>.....</b>	<b>1.0000</b>	<b>... 0.9996</b>
<b>x = 25</b>	<b>.....</b>	<b>.....</b>	<b>0.9999</b>
<b>x = 26</b>	<b>.....</b>	<b>.....</b>	<b>1.0000</b>

---

**p = 0.40 – 0.50 is on the next page**

**(Turn over)**

**n = 40** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 0</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 2</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 3</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 4</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 5</b>	<b>..... 0.0001</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 6</b>	<b>..... 0.0006</b>	<b>... 0.0001</b>	<b>... 0.0000</b>
<b>x = 7</b>	<b>..... 0.0021</b>	<b>... 0.0002</b>	<b>... 0.0000</b>
<b>x = 8</b>	<b>..... 0.0061</b>	<b>... 0.0009</b>	<b>... 0.0001</b>
<b>x = 9</b>	<b>..... 0.0156</b>	<b>... 0.0027</b>	<b>... 0.0003</b>
<b>x = 10</b>	<b>... 0.0352</b>	<b>... 0.0074</b>	<b>... 0.0011</b>
<b>x = 11</b>	<b>... 0.0709</b>	<b>... 0.0179</b>	<b>... 0.0032</b>
<b>x = 12</b>	<b>... 0.1285</b>	<b>... 0.0386</b>	<b>... 0.0083</b>
<b>x = 13</b>	<b>... 0.2112</b>	<b>... 0.0751</b>	<b>... 0.0192</b>
<b>x = 14</b>	<b>... 0.3174</b>	<b>... 0.1326</b>	<b>... 0.0403</b>

(continued on the next page)

(Turn over)

**n = 40 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 15</b>	<b>...</b>	<b>0.4402</b>	<b>...</b>	<b>0.2142</b>	<b>...</b>	<b>0.0769</b>
<b>x = 16</b>	<b>...</b>	<b>0.5681</b>	<b>...</b>	<b>0.3185</b>	<b>...</b>	<b>0.1341</b>
<b>x = 17</b>	<b>...</b>	<b>0.6885</b>	<b>...</b>	<b>0.4391</b>	<b>...</b>	<b>0.2148</b>
<b>x = 18</b>	<b>...</b>	<b>0.7911</b>	<b>...</b>	<b>0.5651</b>	<b>...</b>	<b>0.3179</b>
<b>x = 19</b>	<b>...</b>	<b>0.8702</b>	<b>...</b>	<b>0.6844</b>	<b>...</b>	<b>0.4373</b>
<b>x = 20</b>	<b>...</b>	<b>0.9256</b>	<b>...</b>	<b>0.7870</b>	<b>...</b>	<b>0.5627</b>
<b>x = 21</b>	<b>...</b>	<b>0.9608</b>	<b>...</b>	<b>0.8669</b>	<b>...</b>	<b>0.6821</b>
<b>x = 22</b>	<b>...</b>	<b>0.9811</b>	<b>...</b>	<b>0.9233</b>	<b>...</b>	<b>0.7852</b>
<b>x = 23</b>	<b>...</b>	<b>0.9917</b>	<b>...</b>	<b>0.9595</b>	<b>...</b>	<b>0.8659</b>
<b>x = 24</b>	<b>...</b>	<b>0.9966</b>	<b>...</b>	<b>0.9804</b>	<b>...</b>	<b>0.9231</b>
<b>x = 25</b>	<b>...</b>	<b>0.9988</b>	<b>...</b>	<b>0.9914</b>	<b>...</b>	<b>0.9597</b>
<b>x = 26</b>	<b>...</b>	<b>0.9996</b>	<b>...</b>	<b>0.9966</b>	<b>...</b>	<b>0.9808</b>
<b>x = 27</b>	<b>...</b>	<b>0.9999</b>	<b>...</b>	<b>0.9988</b>	<b>...</b>	<b>0.9917</b>
<b>x = 28</b>	<b>...</b>	<b>1.0000</b>	<b>...</b>	<b>0.9996</b>	<b>...</b>	<b>0.9968</b>
<b>x = 29</b>	<b>.....</b>	<b>0.9999</b>	<b>...</b>	<b>0.9989</b>		

**(continued on the next page)**

**(Turn over)**

**n = 40** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

**x = 30 ..... 1.0000 ... 0.9997**

**x = 31 ..... 0.9999**

**x = 32 ..... 1.0000**

---

**n = 50** is on the next page

**n = 50**

**p = ..... 0.01 ..... 0.02 ..... 0.03 ..... 0.04**

---

<b>x = 0</b>	<b>... 0.6050</b>	<b>... 0.3642</b>	<b>... 0.2181</b>	<b>... 0.1299</b>
<b>x = 1</b>	<b>... 0.9106</b>	<b>... 0.7358</b>	<b>... 0.5553</b>	<b>... 0.4005</b>
<b>x = 2</b>	<b>... 0.9862</b>	<b>... 0.9216</b>	<b>... 0.8108</b>	<b>... 0.6767</b>
<b>x = 3</b>	<b>... 0.9984</b>	<b>... 0.9822</b>	<b>... 0.9372</b>	<b>... 0.8609</b>
<b>x = 4</b>	<b>... 0.9999</b>	<b>... 0.9968</b>	<b>... 0.9832</b>	<b>... 0.9510</b>
<b>x = 5</b>	<b>... 1.0000</b>	<b>... 0.9995</b>	<b>... 0.9963</b>	<b>... 0.9856</b>
<b>x = 6</b>	<b>..... 0.9999</b>	<b>... 0.9993</b>	<b>... 0.9964</b>	
<b>x = 7</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9992</b>	
<b>x = 8</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>		
<b>x = 9</b>	<b>..... 1.0000</b>			

---

**p = 0.05 – 0.08 is on the next page**

**(Turn over)**

**n = 50 continued**

**p = ..... 0.05 ..... 0.06 ..... 0.07 ..... 0.08**

---

<b>x = 0</b>	<b>..... 0.0769</b>	<b>... 0.0453</b>	<b>... 0.0266</b>	<b>... 0.0155</b>
<b>x = 1</b>	<b>..... 0.2794</b>	<b>... 0.1900</b>	<b>... 0.2165</b>	<b>... 0.0827</b>
<b>x = 2</b>	<b>..... 0.5405</b>	<b>... 0.4162</b>	<b>... 0.3108</b>	<b>... 0.2260</b>
<b>x = 3</b>	<b>..... 0.7604</b>	<b>... 0.6473</b>	<b>... 0.5327</b>	<b>... 0.4253</b>
<b>x = 4</b>	<b>..... 0.8964</b>	<b>... 0.8206</b>	<b>... 0.7290</b>	<b>... 0.6290</b>
<b>x = 5</b>	<b>..... 0.9622</b>	<b>... 0.9224</b>	<b>... 0.8650</b>	<b>... 0.7919</b>
<b>x = 6</b>	<b>..... 0.9882</b>	<b>... 0.9711</b>	<b>... 0.9417</b>	<b>... 0.8981</b>
<b>x = 7</b>	<b>..... 0.9968</b>	<b>... 0.9906</b>	<b>... 0.9780</b>	<b>... 0.9562</b>
<b>x = 8</b>	<b>..... 0.9992</b>	<b>... 0.9973</b>	<b>... 0.9927</b>	<b>... 0.9833</b>
<b>x = 9</b>	<b>..... 0.9998</b>	<b>... 0.9993</b>	<b>... 0.9978</b>	<b>... 0.9944</b>
<b>x = 10</b>	<b>... 1.0000</b>	<b>... 0.9998</b>	<b>... 0.9994</b>	<b>... 0.9983</b>
<b>x = 11</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9995</b>	
<b>x = 12</b>	<b>..... 1.0000</b>	<b>... 0.9999</b>		
<b>x = 13</b>	<b>..... 1.0000</b>			

---

**p = 0.09 – 0.20 is on the next page**

**(Turn over)**

**n = 50** continued

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 0</b>	<b>..... 0.0090</b>	<b>... 0.0052</b>	<b>... 0.0003</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0532</b>	<b>... 0.0338</b>	<b>... 0.0029</b>	<b>... 0.0002</b>
<b>x = 2</b>	<b>..... 0.1605</b>	<b>... 0.1117</b>	<b>... 0.0142</b>	<b>... 0.0013</b>
<b>x = 3</b>	<b>..... 0.3303</b>	<b>... 0.2503</b>	<b>... 0.0460</b>	<b>... 0.0057</b>
<b>x = 4</b>	<b>..... 0.5277</b>	<b>... 0.4312</b>	<b>... 0.1121</b>	<b>... 0.0185</b>
<b>x = 5</b>	<b>..... 0.7072</b>	<b>... 0.6161</b>	<b>... 0.2194</b>	<b>... 0.0480</b>
<b>x = 6</b>	<b>..... 0.8404</b>	<b>... 0.7702</b>	<b>... 0.3613</b>	<b>... 0.1034</b>
<b>x = 7</b>	<b>..... 0.9232</b>	<b>... 0.8779</b>	<b>... 0.5188</b>	<b>... 0.1904</b>
<b>x = 8</b>	<b>..... 0.9672</b>	<b>... 0.9421</b>	<b>... 0.6681</b>	<b>... 0.3073</b>
<b>x = 9</b>	<b>..... 0.9875</b>	<b>... 0.9755</b>	<b>... 0.7911</b>	<b>... 0.4437</b>
<b>x = 10</b>	<b>... 0.9957</b>	<b>... 0.9906</b>	<b>... 0.8801</b>	<b>... 0.5836</b>
<b>x = 11</b>	<b>... 0.9987</b>	<b>... 0.9968</b>	<b>... 0.9372</b>	<b>... 0.7107</b>
<b>x = 12</b>	<b>... 0.9996</b>	<b>... 0.9990</b>	<b>... 0.9699</b>	<b>... 0.8139</b>
<b>x = 13</b>	<b>... 0.9999</b>	<b>... 0.9997</b>	<b>... 0.9868</b>	<b>... 0.8894</b>
<b>x = 14</b>	<b>... 1.0000</b>	<b>... 0.9999</b>	<b>... 0.9947</b>	<b>... 0.9393</b>

(continued on the next page)

(Turn over)

**n = 50 continued**

**p = ..... 0.09 ..... 0.10 ..... 0.15 ..... 0.20**

---

<b>x = 15</b>	<b>..... 1.0000 ... 0.9981 ... 0.9692</b>
<b>x = 16</b>	<b>..... 0.9993 ... 0.9856</b>
<b>x = 17</b>	<b>..... 0.9998 ... 0.9937</b>
<b>x = 18</b>	<b>..... 0.9999 ... 0.9975</b>
<b>x = 19</b>	<b>..... 1.0000 ... 0.9991</b>
<b>x = 20</b>	<b>..... 0.9997</b>
<b>x = 21</b>	<b>..... 0.9999</b>
<b>x = 22</b>	<b>..... 1.0000</b>

---

**p = 0.25 – 0.35 is on the next page**

**(Turn over)**

**n = 50** continued

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 0</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 1</b>	<b>..... 0.0000</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 2</b>	<b>..... 0.0001</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 3</b>	<b>..... 0.0005</b>	<b>... 0.0000</b>	<b>... 0.0000</b>
<b>x = 4</b>	<b>..... 0.0021</b>	<b>... 0.0002</b>	<b>... 0.0000</b>
<b>x = 5</b>	<b>..... 0.0070</b>	<b>... 0.0007</b>	<b>... 0.0001</b>
<b>x = 6</b>	<b>..... 0.0194</b>	<b>... 0.0025</b>	<b>... 0.0002</b>
<b>x = 7</b>	<b>..... 0.0453</b>	<b>... 0.0073</b>	<b>... 0.0008</b>
<b>x = 8</b>	<b>..... 0.0916</b>	<b>... 0.0183</b>	<b>... 0.0025</b>
<b>x = 9</b>	<b>..... 0.1637</b>	<b>... 0.0402</b>	<b>... 0.0067</b>
<b>x = 10</b>	<b>... 0.2622</b>	<b>... 0.0789</b>	<b>... 0.0160</b>
<b>x = 11</b>	<b>... 0.3816</b>	<b>... 0.1390</b>	<b>... 0.0342</b>
<b>x = 12</b>	<b>... 0.5110</b>	<b>... 0.2229</b>	<b>... 0.0661</b>
<b>x = 13</b>	<b>... 0.6370</b>	<b>... 0.3279</b>	<b>... 0.1163</b>
<b>x = 14</b>	<b>... 0.7481</b>	<b>... 0.4468</b>	<b>... 0.1878</b>

(continued on the next page)

(Turn over)

**n = 50** continued

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

<b>x = 15</b>	<b>... 0.8369</b>	<b>... 0.5692</b>	<b>... 0.2801</b>
<b>x = 16</b>	<b>... 0.9017</b>	<b>... 0.6839</b>	<b>... 0.3889</b>
<b>x = 17</b>	<b>... 0.9449</b>	<b>... 0.7822</b>	<b>... 0.5060</b>
<b>x = 18</b>	<b>... 0.9713</b>	<b>... 0.8594</b>	<b>... 0.6216</b>
<b>x = 19</b>	<b>... 0.9861</b>	<b>... 0.9152</b>	<b>... 0.7264</b>
<b>x = 20</b>	<b>... 0.9937</b>	<b>... 0.9522</b>	<b>... 0.8139</b>
<b>x = 21</b>	<b>... 0.9974</b>	<b>... 0.9749</b>	<b>... 0.8813</b>
<b>x = 22</b>	<b>... 0.9990</b>	<b>... 0.9877</b>	<b>... 0.9290</b>
<b>x = 23</b>	<b>... 0.9996</b>	<b>... 0.9944</b>	<b>... 0.9604</b>
<b>x = 24</b>	<b>... 0.9999</b>	<b>... 0.9976</b>	<b>... 0.9793</b>
<b>x = 25</b>	<b>... 1.0000</b>	<b>... 0.9991</b>	<b>... 0.9900</b>
<b>x = 26</b>	<b>.....</b>	<b>0.9997</b>	<b>... 0.9955</b>
<b>x = 27</b>	<b>.....</b>	<b>0.9999</b>	<b>... 0.9981</b>
<b>x = 28</b>	<b>.....</b>	<b>1.0000</b>	<b>... 0.9993</b>
<b>x = 29</b>	<b>.....</b>	<b>.....</b>	<b>0.9997</b>

(continued on the next page)

(Turn over)

**n = 50** continued

**p = ..... 0.25 ..... 0.30 ..... 0.35**

---

**x = 30 ..... 0.9999**

**x = 31 ..... 1.0000**

---

**p = 0.40 – 0.50** is on the next page

**(Turn over)**

**n = 50** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

**x = 0 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 1 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 2 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 3 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 4 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 5 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 6 ..... 0.0000 ... 0.0000 ... 0.0000**

**x = 7 ..... 0.0001 ... 0.0000 ... 0.0000**

**x = 8 ..... 0.0002 ... 0.0000 ... 0.0000**

**x = 9 ..... 0.0008 ... 0.0001 ... 0.0000**

**x = 10 ... 0.0022 ... 0.0002 ... 0.0000**

**x = 11 ... 0.0057 ... 0.0006 ... 0.0000**

**x = 12 ... 0.0133 ... 0.0018 ... 0.0002**

**x = 13 ... 0.0280 ... 0.0045 ... 0.0005**

**x = 14 ... 0.0540 ... 0.0104 ... 0.0013**

(continued on the next page)

(Turn over)

**n = 50** continued

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 15</b>	<b>... 0.0955</b>	<b>... 0.0220</b>	<b>... 0.0033</b>
<b>x = 16</b>	<b>... 0.1561</b>	<b>... 0.0427</b>	<b>... 0.0077</b>
<b>x = 17</b>	<b>... 0.2369</b>	<b>... 0.0765</b>	<b>... 0.0164</b>
<b>x = 18</b>	<b>... 0.3356</b>	<b>... 0.1273</b>	<b>... 0.0325</b>
<b>x = 19</b>	<b>... 0.4465</b>	<b>... 0.1974</b>	<b>... 0.0595</b>
<b>x = 20</b>	<b>... 0.5610</b>	<b>... 0.2862</b>	<b>... 0.1013</b>
<b>x = 21</b>	<b>... 0.6701</b>	<b>... 0.3900</b>	<b>... 0.1611</b>
<b>x = 22</b>	<b>... 0.7660</b>	<b>... 0.5019</b>	<b>... 0.2399</b>
<b>x = 23</b>	<b>... 0.8438</b>	<b>... 0.6134</b>	<b>... 0.3359</b>
<b>x = 24</b>	<b>... 0.9022</b>	<b>... 0.7160</b>	<b>... 0.4439</b>
<b>x = 25</b>	<b>... 0.9427</b>	<b>... 0.8034</b>	<b>... 0.5561</b>
<b>x = 26</b>	<b>... 0.9686</b>	<b>... 0.8721</b>	<b>... 0.6641</b>
<b>x = 27</b>	<b>... 0.9840</b>	<b>... 0.9220</b>	<b>... 0.7601</b>
<b>x = 28</b>	<b>... 0.9924</b>	<b>... 0.9556</b>	<b>... 0.8389</b>
<b>x = 29</b>	<b>... 0.9966</b>	<b>... 0.9765</b>	<b>... 0.8987</b>

(continued on the next page)

(Turn over)

**n = 50 continued**

**p = ..... 0.40 ..... 0.45 ..... 0.50**

---

<b>x = 30</b>	<b>... 0.9986</b>	<b>... 0.9884</b>	<b>... 0.9405</b>
<b>x = 31</b>	<b>... 0.9995</b>	<b>... 0.9947</b>	<b>... 0.9675</b>
<b>x = 32</b>	<b>... 0.9998</b>	<b>... 0.9978</b>	<b>... 0.9836</b>
<b>x = 33</b>	<b>... 0.9999</b>	<b>... 0.9991</b>	<b>... 0.9923</b>
<b>x = 34</b>	<b>... 1.0000</b>	<b>... 0.9997</b>	<b>... 0.9967</b>
<b>x = 35</b>	<b>.....</b>	<b>0.9999</b>	<b>... 0.9987</b>
<b>x = 36</b>	<b>.....</b>	<b>1.0000</b>	<b>... 0.9995</b>
<b>x = 37</b>	<b>.....</b>	<b>.....</b>	<b>0.9998</b>
<b>x = 38</b>	<b>.....</b>	<b>.....</b>	<b>1.0000</b>

---

**END OF TABLE 1**

---

**(Turn over)**

**4. STATISTICAL TABLES****TABLE 2: CUMULATIVE POISSON DISTRIBUTION  
FUNCTION**

The tabulated value is  $P(X \leq x)$ , where  $X$  has a  
Poisson distribution with mean  $\lambda$ .

---

(Turn over)

$\lambda = \dots 0.10 \dots 0.20 \dots 0.30 \dots 0.40$

---

$x = 0 \dots 0.9048 \dots 0.8187 \dots 0.7408 \dots 0.6703$

$x = 1 \dots 0.9953 \dots 0.9825 \dots 0.9631 \dots 0.9384$

$x = 2 \dots 0.9998 \dots 0.9989 \dots 0.9964 \dots 0.9921$

$x = 3 \dots 1.0000 \dots 0.9999 \dots 0.9997 \dots 0.9992$

$x = 4 \dots 1.0000 \dots 1.0000 \dots 0.9999$

$x = 5 \dots 1.0000$

---

$\lambda = \dots 0.50 \dots 0.60 \dots 0.70 \dots 0.80$

---

$x = 0 \dots 0.6065 \dots 0.5488 \dots 0.4966 \dots 0.4493$

$x = 1 \dots 0.9098 \dots 0.8781 \dots 0.8442 \dots 0.8088$

$x = 2 \dots 0.9856 \dots 0.9769 \dots 0.9659 \dots 0.9526$

$x = 3 \dots 0.9982 \dots 0.9966 \dots 0.9942 \dots 0.9909$

$x = 4 \dots 0.9998 \dots 0.9996 \dots 0.9992 \dots 0.9986$

$x = 5 \dots 1.0000 \dots 1.0000 \dots 0.9999 \dots 0.9998$

$x = 6 \dots 1.0000 \dots 1.0000$

---

$\lambda = 0.90 - 1.4$  on the next page

(Turn over)

$\lambda = \dots 0.90 \dots 1.0 \dots 1.2 \dots 1.4$

---

$x = 0 \dots 0.4066 \dots 0.3679 \dots 0.3012 \dots 0.2466$

$x = 1 \dots 0.7725 \dots 0.7358 \dots 0.6626 \dots 0.5918$

$x = 2 \dots 0.9371 \dots 0.9197 \dots 0.8795 \dots 0.8335$

$x = 3 \dots 0.9865 \dots 0.9810 \dots 0.9662 \dots 0.9463$

$x = 4 \dots 0.9977 \dots 0.9963 \dots 0.9923 \dots 0.9857$

$x = 5 \dots 0.9997 \dots 0.9994 \dots 0.9985 \dots 0.9968$

$x = 6 \dots 1.0000 \dots 0.9999 \dots 0.9997 \dots 0.9994$

$x = 7 \dots 1.0000 \dots 1.0000 \dots 0.9999$

$x = 8 \dots 1.0000$

---

$\lambda = 1.6 - 2.2$  on the next page

(Turn over)

$\lambda = \dots 1.6 \dots 1.8 \dots 2.0 \dots 2.2$

---

$x = 0 \dots 0.2019 \dots 0.1653 \dots 0.1353 \dots 0.1108$

$x = 1 \dots 0.5249 \dots 0.4628 \dots 0.4060 \dots 0.3546$

$x = 2 \dots 0.7834 \dots 0.7306 \dots 0.6767 \dots 0.6227$

$x = 3 \dots 0.9212 \dots 0.8913 \dots 0.8571 \dots 0.8194$

$x = 4 \dots 0.9763 \dots 0.9636 \dots 0.9473 \dots 0.9275$

$x = 5 \dots 0.9940 \dots 0.9896 \dots 0.9834 \dots 0.9751$

$x = 6 \dots 0.9987 \dots 0.9974 \dots 0.9955 \dots 0.9925$

$x = 7 \dots 0.9997 \dots 0.9994 \dots 0.9989 \dots 0.9980$

$x = 8 \dots 1.0000 \dots 0.9999 \dots 0.9998 \dots 0.9995$

$x = 9 \dots 1.0000 \dots 1.0000 \dots 0.9999$

$x = 10 \dots 1.0000$

---

$\lambda = 2.4 - 3.0$  on the next page

(Turn over)

$\lambda = \dots\dots 2.4 \dots\dots 2.6 \dots\dots 2.8 \dots\dots 3.0$

---

$x = 0$	$\dots\dots 0.0907$	$\dots\dots 0.0743$	$\dots\dots 0.0608$	$\dots\dots 0.0498$
$x = 1$	$\dots\dots 0.3084$	$\dots\dots 0.2674$	$\dots\dots 0.2311$	$\dots\dots 0.1991$
$x = 2$	$\dots\dots 0.5697$	$\dots\dots 0.5184$	$\dots\dots 0.4695$	$\dots\dots 0.4232$
$x = 3$	$\dots\dots 0.7787$	$\dots\dots 0.7360$	$\dots\dots 0.6919$	$\dots\dots 0.6472$
$x = 4$	$\dots\dots 0.9041$	$\dots\dots 0.8774$	$\dots\dots 0.8477$	$\dots\dots 0.8153$
$x = 5$	$\dots\dots 0.9643$	$\dots\dots 0.9510$	$\dots\dots 0.9349$	$\dots\dots 0.9161$
$x = 6$	$\dots\dots 0.9884$	$\dots\dots 0.9828$	$\dots\dots 0.9756$	$\dots\dots 0.9665$
$x = 7$	$\dots\dots 0.9967$	$\dots\dots 0.9947$	$\dots\dots 0.9919$	$\dots\dots 0.9881$
$x = 8$	$\dots\dots 0.9991$	$\dots\dots 0.9985$	$\dots\dots 0.9976$	$\dots\dots 0.9962$
$x = 9$	$\dots\dots 0.9998$	$\dots\dots 0.9996$	$\dots\dots 0.9993$	$\dots\dots 0.9989$
$x = 10$	$\dots\dots 1.0000$	$\dots\dots 0.9999$	$\dots\dots 0.9998$	$\dots\dots 0.9997$
$x = 11$	$\dots\dots 1.0000$	$\dots\dots 1.0000$	$\dots\dots 1.0000$	$\dots\dots 0.9999$
$x = 12$	$\dots\dots 1.0000$	$\dots\dots 1.0000$	$\dots\dots 1.0000$	$\dots\dots 1.0000$

---

$\lambda = 3.2 - 3.8$  on the next page

(Turn over)

$\lambda = \dots\dots 3.2 \dots\dots 3.4 \dots\dots 3.6 \dots\dots 3.8$

---

$x = 0$	$\dots\dots 0.0408$	$\dots 0.0334$	$\dots 0.0273$	$\dots 0.0224$
$x = 1$	$\dots\dots 0.1712$	$\dots 0.1468$	$\dots 0.1257$	$\dots 0.1074$
$x = 2$	$\dots\dots 0.3799$	$\dots 0.3397$	$\dots 0.3027$	$\dots 0.2689$
$x = 3$	$\dots\dots 0.6025$	$\dots 0.5584$	$\dots 0.5152$	$\dots 0.4735$
$x = 4$	$\dots\dots 0.7806$	$\dots 0.7442$	$\dots 0.7064$	$\dots 0.6678$
$x = 5$	$\dots\dots 0.8946$	$\dots 0.8705$	$\dots 0.8441$	$\dots 0.8156$
$x = 6$	$\dots\dots 0.9554$	$\dots 0.9421$	$\dots 0.9267$	$\dots 0.9091$
$x = 7$	$\dots\dots 0.9832$	$\dots 0.9769$	$\dots 0.9692$	$\dots 0.9599$
$x = 8$	$\dots\dots 0.9943$	$\dots 0.9917$	$\dots 0.9883$	$\dots 0.9840$
$x = 9$	$\dots\dots 0.9982$	$\dots 0.9973$	$\dots 0.9960$	$\dots 0.9942$
$x = 10$	$\dots 0.9995$	$\dots 0.9992$	$\dots 0.9987$	$\dots 0.9981$
$x = 11$	$\dots 0.9999$	$\dots 0.9998$	$\dots 0.9996$	$\dots 0.9994$
$x = 12$	$\dots 1.0000$	$\dots 0.9999$	$\dots 0.9999$	$\dots 0.9998$
$x = 13$	$\dots\dots\dots 1.0000$	$\dots 1.0000$	$\dots 1.0000$	$\dots 1.0000$

---

$\lambda = 4.0 - 5.5$  on the next page

(Turn over)

$\lambda = \dots\dots 4.0 \dots\dots 4.5 \dots\dots 5.0 \dots\dots 5.5$

---

$x = 0$	$\dots\dots 0.0183$	$\dots\dots 0.0111$	$\dots\dots 0.0067$	$\dots\dots 0.0041$
$x = 1$	$\dots\dots 0.0916$	$\dots\dots 0.0611$	$\dots\dots 0.0404$	$\dots\dots 0.0266$
$x = 2$	$\dots\dots 0.2381$	$\dots\dots 0.1736$	$\dots\dots 0.1247$	$\dots\dots 0.0884$
$x = 3$	$\dots\dots 0.4335$	$\dots\dots 0.3423$	$\dots\dots 0.2650$	$\dots\dots 0.2017$
$x = 4$	$\dots\dots 0.6288$	$\dots\dots 0.5321$	$\dots\dots 0.4405$	$\dots\dots 0.3575$
$x = 5$	$\dots\dots 0.7851$	$\dots\dots 0.7029$	$\dots\dots 0.6160$	$\dots\dots 0.5289$
$x = 6$	$\dots\dots 0.8893$	$\dots\dots 0.8311$	$\dots\dots 0.7622$	$\dots\dots 0.6860$
$x = 7$	$\dots\dots 0.9489$	$\dots\dots 0.9134$	$\dots\dots 0.8666$	$\dots\dots 0.8095$
$x = 8$	$\dots\dots 0.9786$	$\dots\dots 0.9597$	$\dots\dots 0.9319$	$\dots\dots 0.8944$
$x = 9$	$\dots\dots 0.9919$	$\dots\dots 0.9829$	$\dots\dots 0.9682$	$\dots\dots 0.9462$
$x = 10$	$\dots\dots 0.9972$	$\dots\dots 0.9933$	$\dots\dots 0.9863$	$\dots\dots 0.9747$
$x = 11$	$\dots\dots 0.9991$	$\dots\dots 0.9976$	$\dots\dots 0.9945$	$\dots\dots 0.9890$
$x = 12$	$\dots\dots 0.9997$	$\dots\dots 0.9992$	$\dots\dots 0.9980$	$\dots\dots 0.9955$
$x = 13$	$\dots\dots 0.9999$	$\dots\dots 0.9997$	$\dots\dots 0.9993$	$\dots\dots 0.9983$
$x = 14$	$\dots\dots 1.0000$	$\dots\dots 0.9999$	$\dots\dots 0.9998$	$\dots\dots 0.9994$
$x = 15$	$\dots\dots 1.0000$	$\dots\dots 0.9999$	$\dots\dots 0.9998$	$\dots\dots 0.9998$

(continued on the next page)

(Turn over)

$\lambda = \dots\dots 4.0 \dots\dots 4.5 \dots\dots 5.0 \dots\dots 5.5$

---

$x = 16 \dots\dots\dots 1.0000 \dots 0.9999$

$x = 17 \dots\dots\dots 1.0000$

---

$\lambda = 6.0 - 7.5$  on the next page

$\lambda = \dots\dots 6.0 \dots\dots 6.5 \dots\dots 7.0 \dots\dots 7.5$

---

$x = 0$	.....	0.0025	...	0.0015	...	0.0009	...	0.0006
$x = 1$	.....	0.0174	...	0.0113	...	0.0073	...	0.0047
$x = 2$	.....	0.0620	...	0.0430	...	0.0296	...	0.0203
$x = 3$	.....	0.1512	...	0.1118	...	0.0818	...	0.0591
$x = 4$	.....	0.2851	...	0.2237	...	0.1730	...	0.1321
$x = 5$	.....	0.4457	...	0.3690	...	0.3007	...	0.2414
$x = 6$	.....	0.6063	...	0.5265	...	0.4497	...	0.3782
$x = 7$	.....	0.7440	...	0.6728	...	0.5987	...	0.5246
$x = 8$	.....	0.8472	...	0.7916	...	0.7291	...	0.6620
$x = 9$	.....	0.9161	...	0.8774	...	0.8305	...	0.7764
$x = 10$	...	0.9574	...	0.9332	...	0.9015	...	0.8622
$x = 11$	...	0.9799	...	0.9661	...	0.9467	...	0.9208
$x = 12$	...	0.9912	...	0.9840	...	0.9730	...	0.9573
$x = 13$	...	0.9964	...	0.9929	...	0.9872	...	0.9784
$x = 14$	...	0.9986	...	0.9970	...	0.9943	...	0.9897
$x = 15$	...	0.9995	...	0.9988	...	0.9976	...	0.9954

(continued on the next page)

(Turn over)

$\lambda = \dots\dots 6.0 \dots\dots 6.5 \dots\dots 7.0 \dots\dots 7.5$

---

$x = 16 \dots 0.9998 \dots 0.9996 \dots 0.9990 \dots 0.9980$

$x = 17 \dots 0.9999 \dots 0.9998 \dots 0.9996 \dots 0.9992$

$x = 18 \dots 1.0000 \dots 0.9999 \dots 0.9999 \dots 0.9997$

$x = 19 \dots\dots\dots 1.0000 \dots 1.0000 \dots 0.9999$

$x = 20 \dots\dots\dots 1.0000$

---

$\lambda = 8.0 - 9.5$  on the next page

(Turn over)

$\lambda = \dots\dots 8.0 \dots\dots 8.5 \dots\dots 9.0 \dots\dots 9.5$

---

$x = 0$	.....	0.0003	...	0.0002	...	0.0001	...	0.0001
$x = 1$	.....	0.0030	...	0.0019	...	0.0012	...	0.0008
$x = 2$	.....	0.0138	...	0.0093	...	0.0062	...	0.0042
$x = 3$	.....	0.0424	...	0.0301	...	0.0212	...	0.0149
$x = 4$	.....	0.0996	...	0.0744	...	0.0550	...	0.0403
$x = 5$	.....	0.1912	...	0.1496	...	0.1157	...	0.0885
$x = 6$	.....	0.3134	...	0.2562	...	0.2068	...	0.1649
$x = 7$	.....	0.4530	...	0.3856	...	0.3239	...	0.2687
$x = 8$	.....	0.5925	...	0.5231	...	0.4557	...	0.3918
$x = 9$	.....	0.7166	...	0.6530	...	0.5874	...	0.5218
$x = 10$	...	0.8159	...	0.7634	...	0.7060	...	0.6453
$x = 11$	...	0.8881	...	0.8487	...	0.8030	...	0.7520
$x = 12$	...	0.9362	...	0.9091	...	0.8758	...	0.8364
$x = 13$	...	0.9658	...	0.9486	...	0.9261	...	0.8981
$x = 14$	...	0.9827	...	0.9726	...	0.9585	...	0.9400
$x = 15$	...	0.9918	...	0.9862	...	0.9780	...	0.9665

(continued on the next page)

(Turn over)

$\lambda = \dots\dots 8.0 \dots\dots 8.5 \dots\dots 9.0 \dots\dots 9.5$

---

$x = 16 \dots 0.9963 \dots 0.9934 \dots 0.9889 \dots 0.9823$

$x = 17 \dots 0.9984 \dots 0.9970 \dots 0.9947 \dots 0.9911$

$x = 18 \dots 0.9993 \dots 0.9987 \dots 0.9976 \dots 0.9957$

$x = 19 \dots 0.9997 \dots 0.9995 \dots 0.9989 \dots 0.9980$

$x = 20 \dots 0.9999 \dots 0.9998 \dots 0.9996 \dots 0.9991$

$x = 21 \dots 1.0000 \dots 0.9999 \dots 0.9998 \dots 0.9996$

$x = 22 \dots\dots\dots 1.0000 \dots 0.9999 \dots 0.9999$

$x = 23 \dots\dots\dots 1.0000 \dots 0.9999$

$x = 24 \dots\dots\dots 1.0000$

---

$\lambda = 10.0 - 13.0$  on the next page

(Turn over)

$\lambda = \dots\dots 10.0 \dots\dots 11.0 \dots\dots 12.0 \dots\dots 13.0$

---

$x = 0$	$\dots\dots 0.0000$	$\dots\dots 0.0000$	$\dots\dots 0.0000$	$\dots\dots 0.0000$
$x = 1$	$\dots\dots 0.0005$	$\dots\dots 0.0002$	$\dots\dots 0.0001$	$\dots\dots 0.0000$
$x = 2$	$\dots\dots 0.0028$	$\dots\dots 0.0012$	$\dots\dots 0.0005$	$\dots\dots 0.0002$
$x = 3$	$\dots\dots 0.0103$	$\dots\dots 0.0049$	$\dots\dots 0.0023$	$\dots\dots 0.0011$
$x = 4$	$\dots\dots 0.0293$	$\dots\dots 0.0151$	$\dots\dots 0.0076$	$\dots\dots 0.0037$
$x = 5$	$\dots\dots 0.0671$	$\dots\dots 0.0375$	$\dots\dots 0.0203$	$\dots\dots 0.0107$
$x = 6$	$\dots\dots 0.1301$	$\dots\dots 0.0786$	$\dots\dots 0.0458$	$\dots\dots 0.0259$
$x = 7$	$\dots\dots 0.2202$	$\dots\dots 0.1432$	$\dots\dots 0.0895$	$\dots\dots 0.0540$
$x = 8$	$\dots\dots 0.3328$	$\dots\dots 0.2320$	$\dots\dots 0.1550$	$\dots\dots 0.0998$
$x = 9$	$\dots\dots 0.4579$	$\dots\dots 0.3405$	$\dots\dots 0.2424$	$\dots\dots 0.1658$
$x = 10$	$\dots\dots 0.5830$	$\dots\dots 0.4599$	$\dots\dots 0.3472$	$\dots\dots 0.2517$
$x = 11$	$\dots\dots 0.6968$	$\dots\dots 0.5793$	$\dots\dots 0.4616$	$\dots\dots 0.3532$
$x = 12$	$\dots\dots 0.7916$	$\dots\dots 0.6887$	$\dots\dots 0.5760$	$\dots\dots 0.4631$
$x = 13$	$\dots\dots 0.8645$	$\dots\dots 0.7813$	$\dots\dots 0.6815$	$\dots\dots 0.5730$
$x = 14$	$\dots\dots 0.9165$	$\dots\dots 0.8540$	$\dots\dots 0.7720$	$\dots\dots 0.6751$
$x = 15$	$\dots\dots 0.9513$	$\dots\dots 0.9074$	$\dots\dots 0.8444$	$\dots\dots 0.7636$

(continued on the next page)

(Turn over)

$\lambda = \dots\dots 10.0 \dots\dots 11.0 \dots\dots 12.0 \dots\dots 13.0$

---

$x = 16 \dots 0.9730 \dots 0.9441 \dots 0.8987 \dots 0.8355$

$x = 17 \dots 0.9857 \dots 0.9678 \dots 0.9370 \dots 0.8905$

$x = 18 \dots 0.9928 \dots 0.9823 \dots 0.9626 \dots 0.9302$

$x = 19 \dots 0.9965 \dots 0.9907 \dots 0.9787 \dots 0.9573$

$x = 20 \dots 0.9984 \dots 0.9953 \dots 0.9884 \dots 0.9750$

$x = 21 \dots 0.9993 \dots 0.9977 \dots 0.9939 \dots 0.9859$

$x = 22 \dots 0.9997 \dots 0.9990 \dots 0.9970 \dots 0.9924$

$x = 23 \dots 0.9999 \dots 0.9995 \dots 0.9985 \dots 0.9960$

$x = 24 \dots 1.0000 \dots 0.9998 \dots 0.9993 \dots 0.9980$

$x = 25 \dots\dots\dots 0.9999 \dots 0.9997 \dots 0.9990$

$x = 26 \dots\dots\dots 1.0000 \dots 0.9999 \dots 0.9995$

$x = 27 \dots\dots\dots 0.9999 \dots 0.9998$

$x = 28 \dots\dots\dots 1.0000 \dots 0.9999$

$x = 29 \dots\dots\dots 1.0000$

---

$\lambda = 14.0 - 15.0$  on the next page

(Turn over)

$\lambda = \dots\dots 14.0 \dots\dots 15.0$

---

$x = 0 \dots\dots 0.0000 \dots 0.0000$

$x = 1 \dots\dots 0.0000 \dots 0.0000$

$x = 2 \dots\dots 0.0001 \dots 0.0000$

$x = 3 \dots\dots 0.0005 \dots 0.0002$

$x = 4 \dots\dots 0.0018 \dots 0.0009$

$x = 5 \dots\dots 0.0055 \dots 0.0028$

$x = 6 \dots\dots 0.0142 \dots 0.0076$

$x = 7 \dots\dots 0.0316 \dots 0.0180$

$x = 8 \dots\dots 0.0621 \dots 0.0374$

$x = 9 \dots\dots 0.1094 \dots 0.0699$

$x = 10 \dots 0.1757 \dots 0.1185$

$x = 11 \dots 0.2600 \dots 0.1848$

$x = 12 \dots 0.3585 \dots 0.2676$

$x = 13 \dots 0.4644 \dots 0.3632$

$x = 14 \dots 0.5704 \dots 0.4657$

$x = 15 \dots 0.6694 \dots 0.5681$

(continued on the next page)

(Turn over)

$\lambda = \dots\dots 14.0 \dots\dots 15.0$

---

$x = 16 \dots 0.7559 \dots 0.6641$

$x = 17 \dots 0.8272 \dots 0.7489$

$x = 18 \dots 0.8826 \dots 0.8195$

$x = 19 \dots 0.9235 \dots 0.8752$

$x = 20 \dots 0.9521 \dots 0.9170$

$x = 21 \dots 0.9712 \dots 0.9469$

$x = 22 \dots 0.9833 \dots 0.9673$

$x = 23 \dots 0.9907 \dots 0.9805$

$x = 24 \dots 0.9950 \dots 0.9888$

$x = 25 \dots 0.9974 \dots 0.9938$

$x = 26 \dots 0.9987 \dots 0.9967$

$x = 27 \dots 0.9994 \dots 0.9983$

$x = 28 \dots 0.9997 \dots 0.9991$

$x = 29 \dots 0.9999 \dots 0.9996$

$x = 30 \dots 0.9999 \dots 0.9998$

(continued on the next page)

(Turn over)

$\lambda = \dots\dots 14.0 \dots\dots 15.0$

---

$x = 31 \dots 1.0000 \dots 0.9999$

$x = 32 \dots\dots\dots 1.0000$

---

**END OF TABLE 2**

---

**4. STATISTICAL TABLES****TABLE 3: NORMAL DISTRIBUTION FUNCTION**

The table gives the probability,  $\rho$ , that a normally distributed random variable  $Z$ , with mean = 0 and variance = 1, is less than or equal to  $Z$ .

---

**z = ..... 0.00 ..... 0.01 ..... 0.02**

---

**z = 0.0 ... 0.50000 ... 0.50399 ... 0.50798**

**z = 0.1 ... 0.53938 ... 0.54380 ... 0.54776**

**z = 0.2 ... 0.57926 ... 0.58317 ... 0.58706**

**z = 0.3 ... 0.61791 ... 0.62172 ... 0.62552**

**z = 0.4 ... 0.65542 ... 0.65910 ... 0.66276**

**z = 0.5 ... 0.69146 ... 0.69497 ... 0.69847**

**z = 0.6 ... 0.72575 ... 0.72907 ... 0.73237**

**z = 0.7 ... 0.75804 ... 0.76115 ... 0.76424**

**z = 0.8 ... 0.78814 ... 0.79103 ... 0.79389**

**z = 0.9 ... 0.81594 ... 0.81859 ... 0.82121**

**z = 1.0 ... 0.84134 ... 0.84375 ... 0.84614**

**z = 1.1 ... 0.86433 ... 0.86650 ... 0.86864**

**z = 1.2 ... 0.88493 ... 0.88686 ... 0.88877**

**z = 1.3 ... 0.90320 ... 0.90490 ... 0.90658**

**z = 1.4 ... 0.91924 ... 0.92073 ... 0.92220**

**z = 1.5 ... 0.93319 ... 0.93448 ... 0.93574**

**(continued on the next page)**

**(Turn over)**

**z = ..... 0.00 ..... 0.01 ..... 0.02**

---

**z = 1.6 ... 0.94520 ... 0.94630 ... 0.94738**

**z = 1.7 ... 0.95543 ... 0.95637 ... 0.95728**

**z = 1.8 ... 0.96407 ... 0.96485 ... 0.96562**

**z = 1.9 ... 0.97128 ... 0.97193 ... 0.97257**

**z = 2.0 ... 0.97725 ... 0.97778 ... 0.97831**

**z = 2.1 ... 0.98214 ... 0.98257 ... 0.98300**

**z = 2.2 ... 0.98610 ... 0.98645 ... 0.98679**

**z = 2.3 ... 0.98928 ... 0.98956 ... 0.98983**

**z = 2.4 ... 0.99180 ... 0.99202 ... 0.99224**

**z = 2.5 ... 0.99379 ... 0.99396 ... 0.99413**

**z = 2.6 ... 0.99534 ... 0.99547 ... 0.99560**

**z = 2.7 ... 0.99653 ... 0.99664 ... 0.99674**

**z = 2.8 ... 0.99744 ... 0.99752 ... 0.99760**

**z = 2.9 ... 0.99813 ... 0.99819 ... 0.99825**

**z = 3.0 ... 0.99865 ... 0.99869 ... 0.99874**

**z = 3.1 ... 0.99903 ... 0.99906 ... 0.99910**

**(continued on the next page)**

**(Turn over)**

**z = ..... 0.00 ..... 0.01 ..... 0.02**

---

**z = 3.2 ... 0.99931 ... 0.99934 ... 0.99936**

**z = 3.3 ... 0.99952 ... 0.99953 ... 0.99955**

**z = 3.4 ... 0.99966 ... 0.99968 ... 0.99969**

**z = 3.5 ... 0.99977 ... 0.99978 ... 0.99978**

**z = 3.6 ... 0.99984 ... 0.99985 ... 0.99985**

**z = 3.7 ... 0.99989 ... 0.99990 ... 0.99990**

**z = 3.8 ... 0.99993 ... 0.99993 ... 0.99993**

**z = 3.9 ... 0.99995 ... 0.99995 ... 0.99996**

---

**z = 0.03 – 0.05 on the next page**

**(Turn over)**

**z = ..... 0.03 ..... 0.04 ..... 0.05**

---

**z = 0.0 ... 0.51197 ... 0.51595 ... 0.51994**

**z = 0.1 ... 0.55172 ... 0.55567 ... 0.55962**

**z = 0.2 ... 0.59095 ... 0.59483 ... 0.59871**

**z = 0.3 ... 0.62930 ... 0.63307 ... 0.63683**

**z = 0.4 ... 0.66640 ... 0.67003 ... 0.67364**

**z = 0.5 ... 0.70194 ... 0.70540 ... 0.70884**

**z = 0.6 ... 0.73565 ... 0.73891 ... 0.74215**

**z = 0.7 ... 0.76730 ... 0.77035 ... 0.77337**

**z = 0.8 ... 0.79673 ... 0.79955 ... 0.80234**

**z = 0.9 ... 0.82381 ... 0.82639 ... 0.82894**

**z = 1.0 ... 0.84849 ... 0.85083 ... 0.85314**

**z = 1.1 ... 0.87076 ... 0.87286 ... 0.87493**

**z = 1.2 ... 0.89065 ... 0.89251 ... 0.89435**

**z = 1.3 ... 0.90824 ... 0.90988 ... 0.91149**

**z = 1.4 ... 0.92364 ... 0.92507 ... 0.92647**

**z = 1.5 ... 0.93699 ... 0.93822 ... 0.93943**

(continued on the next page)

(Turn over)

**z = ..... 0.03 ..... 0.04 ..... 0.05**

---

**z = 1.6 ... 0.94845 ... 0.94950 ... 0.95053**

**z = 1.7 ... 0.95818 ... 0.95907 ... 0.95994**

**z = 1.8 ... 0.96638 ... 0.96712 ... 0.96784**

**z = 1.9 ... 0.97320 ... 0.97381 ... 0.97441**

**z = 2.0 ... 0.97882 ... 0.97932 ... 0.97982**

**z = 2.1 ... 0.98341 ... 0.98382 ... 0.98422**

**z = 2.2 ... 0.98713 ... 0.98745 ... 0.98778**

**z = 2.3 ... 0.99010 ... 0.99036 ... 0.99061**

**z = 2.4 ... 0.99245 ... 0.99266 ... 0.99286**

**z = 2.5 ... 0.99430 ... 0.99446 ... 0.99461**

**z = 2.6 ... 0.99573 ... 0.99585 ... 0.99598**

**z = 2.7 ... 0.99683 ... 0.99693 ... 0.99702**

**z = 2.8 ... 0.99767 ... 0.99774 ... 0.99781**

**z = 2.9 ... 0.99831 ... 0.99836 ... 0.99841**

**z = 3.0 ... 0.99878 ... 0.99882 ... 0.99886**

**z = 3.1 ... 0.99913 ... 0.99916 ... 0.99918**

**(continued on the next page)**

**(Turn over)**

**z = ..... 0.03 ..... 0.04 ..... 0.05**

---

**z = 3.2 ... 0.99938 ... 0.99940 ... 0.99942**

**z = 3.3 ... 0.99957 ... 0.99958 ... 0.99960**

**z = 3.4 ... 0.99970 ... 0.99971 ... 0.99972**

**z = 3.5 ... 0.99979 ... 0.99980 ... 0.99981**

**z = 3.6 ... 0.99986 ... 0.99986 ... 0.99987**

**z = 3.7 ... 0.99990 ... 0.99991 ... 0.99991**

**z = 3.8 ... 0.99994 ... 0.99994 ... 0.99994**

**z = 3.9 ... 0.99996 ... 0.99996 ... 0.99996**

---

**z = 0.06 – 0.08 on the next page**

**(Turn over)**

**z = ..... 0.06 ..... 0.07 ..... 0.08**

---

**z = 0.0 ... 0.52392 ... 0.52790 ... 0.53188**

**z = 0.1 ... 0.56356 ... 0.56749 ... 0.57142**

**z = 0.2 ... 0.60257 ... 0.60642 ... 0.61026**

**z = 0.3 ... 0.64058 ... 0.64431 ... 0.64803**

**z = 0.4 ... 0.67724 ... 0.68082 ... 0.68439**

**z = 0.5 ... 0.71226 ... 0.71566 ... 0.71904**

**z = 0.6 ... 0.74537 ... 0.74857 ... 0.75175**

**z = 0.7 ... 0.77637 ... 0.77935 ... 0.78230**

**z = 0.8 ... 0.80511 ... 0.80785 ... 0.81057**

**z = 0.9 ... 0.83147 ... 0.83398 ... 0.83646**

**z = 1.0 ... 0.85543 ... 0.85769 ... 0.85993**

**z = 1.1 ... 0.87698 ... 0.87900 ... 0.88100**

**z = 1.2 ... 0.89617 ... 0.89796 ... 0.89973**

**z = 1.3 ... 0.91309 ... 0.91466 ... 0.91621**

**z = 1.4 ... 0.92785 ... 0.92922 ... 0.93056**

**z = 1.5 ... 0.94062 ... 0.94179 ... 0.94295**

(continued on the next page)

(Turn over)

**z = ..... 0.06 ..... 0.07 ..... 0.08**

---

**z = 1.6 ... 0.95154 ... 0.95254 ... 0.95352**

**z = 1.7 ... 0.96080 ... 0.96164 ... 0.96246**

**z = 1.8 ... 0.96856 ... 0.96926 ... 0.96995**

**z = 1.9 ... 0.97500 ... 0.97558 ... 0.97615**

**z = 2.0 ... 0.98030 ... 0.98077 ... 0.98124**

**z = 2.1 ... 0.98461 ... 0.98500 ... 0.98537**

**z = 2.2 ... 0.98809 ... 0.98840 ... 0.98870**

**z = 2.3 ... 0.99086 ... 0.99111 ... 0.99134**

**z = 2.4 ... 0.99305 ... 0.99324 ... 0.99343**

**z = 2.5 ... 0.99477 ... 0.99492 ... 0.99506**

**z = 2.6 ... 0.99609 ... 0.99621 ... 0.99632**

**z = 2.7 ... 0.99711 ... 0.99720 ... 0.99728**

**z = 2.8 ... 0.99788 ... 0.99795 ... 0.99801**

**z = 2.9 ... 0.99846 ... 0.99851 ... 0.99856**

**z = 3.0 ... 0.99889 ... 0.99893 ... 0.99896**

**z = 3.1 ... 0.99921 ... 0.99924 ... 0.99926**

**(continued on the next page)**

**(Turn over)**

**z = ..... 0.06 ..... 0.07 ..... 0.08**

---

**z = 3.2 ... 0.99944 ... 0.99946 ... 0.99948**

**z = 3.3 ... 0.99961 ... 0.99962 ... 0.99964**

**z = 3.4 ... 0.99973 ... 0.99974 ... 0.99975**

**z = 3.5 ... 0.99981 ... 0.99982 ... 0.99983**

**z = 3.6 ... 0.99987 ... 0.99988 ... 0.99988**

**z = 3.7 ... 0.99992 ... 0.99992 ... 0.99992**

**z = 3.8 ... 0.99994 ... 0.99995 ... 0.99995**

**z = 3.9 ... 0.99996 ... 0.99996 ... 0.99997**

---

**z = 0.09 on the next page**

**(Turn over)**

**z = ..... 0.09**

---

**z = 0.0 ... 0.53586**

**z = 0.1 ... 0.57535**

**z = 0.2 ... 0.61409**

**z = 0.3 ... 0.65173**

**z = 0.4 ... 0.68793**

**z = 0.5 ... 0.72240**

**z = 0.6 ... 0.75490**

**z = 0.7 ... 0.78524**

**z = 0.8 ... 0.81327**

**z = 0.9 ... 0.83891**

**z = 1.0 ... 0.86214**

**z = 1.1 ... 0.88298**

**z = 1.2 ... 0.90147**

**z = 1.3 ... 0.91774**

**z = 1.4 ... 0.93189**

**z = 1.5 ... 0.94408**

**(continued on the next page)**

**(Turn over)**

**z = ..... 0.09**

---

**z = 1.6 ... 0.95449**

**z = 1.7 ... 0.96327**

**z = 1.8 ... 0.97062**

**z = 1.9 ... 0.97670**

**z = 2.0 ... 0.98169**

**z = 2.1 ... 0.98574**

**z = 2.2 ... 0.98899**

**z = 2.3 ... 0.99158**

**z = 2.4 ... 0.99361**

**z = 2.5 ... 0.99520**

**z = 2.6 ... 0.99643**

**z = 2.7 ... 0.99736**

**z = 2.8 ... 0.99807**

**z = 2.9 ... 0.99861**

**z = 3.0 ... 0.99900**

**z = 3.1 ... 0.99929**

**(continued on the next page)**

**(Turn over)**

**z = ..... 0.09**

---

**z = 3.2 ... 0.99950**

**z = 3.3 ... 0.99965**

**z = 3.4 ... 0.99976**

**z = 3.5 ... 0.99983**

**z = 3.6 ... 0.99989**

**z = 3.7 ... 0.99992**

**z = 3.8 ... 0.99995**

**z = 3.9 ... 0.99997**

---

**END OF TABLE 3**

---

**(Turn over)**

#### 4. STATISTICAL TABLES

##### TABLE 4: PERCENTAGE POINTS OF THE NORMAL DISTRIBUTION

The table gives the values of **Z** satisfying

$P(Z \leq z) = p$ , where **Z** is the normally distributed random variable with mean = 0 and variance = 1.

---

**p = ..... 0.00 ..... 0.01 ..... 0.02**

---

**p = 0.5 ..... 0.0000 ... 0.0251 ... 0.0502**

**p = 0.6 ..... 0.2533 ... 0.2793 ... 0.3055**

**p = 0.7 ..... 0.5244 ... 0.5534 ... 0.5828**

**p = 0.8 ..... 0.8416 ... 0.8779 ... 0.9154**

**p = 0.9 ..... 1.2816 ... 1.3408 ... 1.4051**

---

**p = ..... 0.03 ..... 0.04 ..... 0.05**

---

**p = 0.5 ..... 0.0753 ... 0.1004 ... 0.1257**

**p = 0.6 ..... 0.3319 ... 0.3585 ... 0.3853**

**p = 0.7 ..... 0.6128 ... 0.6433 ... 0.6745**

**p = 0.8 ..... 0.9542 ... 0.9945 ... 1.0364**

**p = 0.9 ..... 1.4758 ... 1.5548 ... 1.6449**

---

**p = 0.06 – 0.08 on the next page**

**(Turn over)**

**p = ..... 0.06 ..... 0.07 ..... 0.08**

---

**p = 0.5 ..... 0.1510 ... 0.1764 ... 0.2019**

**p = 0.6 ..... 0.4125 ... 0.4399 ... 0.4677**

**p = 0.7 ..... 0.7063 ... 0.7388 ... 0.7722**

**p = 0.8 ..... 1.0803 ... 1.1264 ... 1.1750**

**p = 0.9 ..... 1.7507 ... 1.8808 ... 2.0537**

---

**p = ..... 0.09**

---

**p = 0.5 ..... 0.2275**

**p = 0.6 ..... 0.4958**

**p = 0.7 ..... 0.8064**

**p = 0.8 ..... 1.2265**

**p = 0.9 ..... 2.3263**

---

**p = 0.000 to 0.002 on the next page**

**(Turn over)**

**p = ..... 0.000 ..... 0.001 ..... 0.002**

---

**p = 0.95 .... 1.6449 ... 1.6546 ... 1.6646**

**p = 0.96 .... 1.7507 ... 1.7624 ... 1.7744**

**p = 0.97 .... 1.8808 ... 1.8975 ... 1.9110**

**p = 0.98 .... 2.0537 ... 2.0749 ... 2.0969**

**p = 0.99 .... 2.3263 ... 2.3656 ... 2.4089**

---

**p = ..... 0.003 ..... 0.004 ..... 0.005**

---

**p = 0.95 .... 1.6747 ... 1.6849 ... 1.6954**

**p = 0.96 .... 1.7866 ... 1.7991 ... 1.8119**

**p = 0.97 .... 1.9268 ... 1.9431 ... 1.9600**

**p = 0.98 .... 2.1201 ... 2.1444 ... 2.1701**

**p = 0.99 .... 2.4573 ... 2.5121 ... 2.5758**

---

**p = 0.006 – 0.008 on the next page**

**(Turn over)**

**p = ..... 0.006 ..... 0.007 ..... 0.008**

---

**p = 0.95 .... 1.7060 ... 1.7169 ... 1.7279**

**p = 0.96 .... 1.8250 ... 1.8384 ... 1.8522**

**p = 0.97 .... 1.9774 ... 1.9954 ... 2.0141**

**p = 0.98 .... 2.1973 ... 2.2262 ... 2.2571**

**p = 0.99 .... 2.6521 ... 2.7478 ... 2.8782**

---

**p = ..... 0.009**

---

**p = 0.95 ... 1.7392**

**p = 0.96 ... 1.8663**

**p = 0.97 ... 2.0335**

**p = 0.98 ... 2.2904**

**p = 0.99 ... 3.0902**

---

**END OF TABLE 4**

---

**4. STATISTICAL TABLES****TABLE 5: PERCENTAGE POINTS OF THE STUDENT'S  
t-DISTRIBUTION**

The table gives the values of **X** satisfying

**$P(X \leq x) = p$** , where **X** is a random variable having  
the Student's t-distribution with **V** degrees of freedom.

---

(Turn over)

**p = ..... 0.9 ..... 0.95 ..... 0.975**

---

<b>v = 1</b>	<b>..... 3.078</b>	<b>..... 6.314</b>	<b>..... 12.706</b>
<b>v = 2</b>	<b>..... 1.886</b>	<b>..... 2.920</b>	<b>..... 4.303</b>
<b>v = 3</b>	<b>..... 1.638</b>	<b>..... 2.353</b>	<b>..... 3.182</b>
<b>v = 4</b>	<b>..... 1.533</b>	<b>..... 2.132</b>	<b>..... 2.776</b>
<b>v = 5</b>	<b>..... 1.476</b>	<b>..... 2.015</b>	<b>..... 2.571</b>
<b>v = 6</b>	<b>..... 1.440</b>	<b>..... 1.943</b>	<b>..... 2.447</b>
<b>v = 7</b>	<b>..... 1.415</b>	<b>..... 1.895</b>	<b>..... 2.365</b>
<b>v = 8</b>	<b>..... 1.397</b>	<b>..... 1.860</b>	<b>..... 2.306</b>
<b>v = 9</b>	<b>..... 1.383</b>	<b>..... 1.833</b>	<b>..... 2.262</b>
<b>v = 10</b>	<b>..... 1.372</b>	<b>..... 1.812</b>	<b>..... 2.228</b>
<b>v = 11</b>	<b>..... 1.363</b>	<b>..... 1.796</b>	<b>..... 2.201</b>
<b>v = 12</b>	<b>..... 1.356</b>	<b>..... 1.782</b>	<b>..... 2.179</b>
<b>v = 13</b>	<b>..... 1.350</b>	<b>..... 1.771</b>	<b>..... 2.160</b>
<b>v = 14</b>	<b>..... 1.345</b>	<b>..... 1.761</b>	<b>..... 2.145</b>
<b>v = 15</b>	<b>..... 1.341</b>	<b>..... 1.753</b>	<b>..... 2.131</b>
<b>v = 16</b>	<b>..... 1.337</b>	<b>..... 1.746</b>	<b>..... 2.121</b>

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.9 ..... 0.95 ..... 0.975**

---

<b>v = 17</b>	<b>..... 1.333</b>	<b>..... 1.740</b>	<b>..... 2.110</b>
<b>v = 18</b>	<b>..... 1.330</b>	<b>..... 1.734</b>	<b>..... 2.101</b>
<b>v = 19</b>	<b>..... 1.328</b>	<b>..... 1.729</b>	<b>..... 2.093</b>
<b>v = 20</b>	<b>..... 1.325</b>	<b>..... 1.725</b>	<b>..... 2.086</b>
<b>v = 21</b>	<b>..... 1.323</b>	<b>..... 1.721</b>	<b>..... 2.080</b>
<b>v = 22</b>	<b>..... 1.321</b>	<b>..... 1.717</b>	<b>..... 2.074</b>
<b>v = 23</b>	<b>..... 1.319</b>	<b>..... 1.714</b>	<b>..... 2.069</b>
<b>v = 24</b>	<b>..... 1.318</b>	<b>..... 1.711</b>	<b>..... 2.064</b>
<b>v = 25</b>	<b>..... 1.316</b>	<b>..... 1.708</b>	<b>..... 2.060</b>
<b>v = 26</b>	<b>..... 1.315</b>	<b>..... 1.706</b>	<b>..... 2.056</b>
<b>v = 27</b>	<b>..... 1.314</b>	<b>..... 1.703</b>	<b>..... 2.052</b>
<b>v = 28</b>	<b>..... 1.313</b>	<b>..... 1.701</b>	<b>..... 2.048</b>
<b>v = 29</b>	<b>..... 1.311</b>	<b>..... 1.699</b>	<b>..... 2.045</b>
<b>v = 30</b>	<b>..... 1.310</b>	<b>..... 1.697</b>	<b>..... 2.042</b>
<b>v = 31</b>	<b>..... 1.309</b>	<b>..... 1.696</b>	<b>..... 2.040</b>
<b>v = 32</b>	<b>..... 1.309</b>	<b>..... 1.694</b>	<b>..... 2.037</b>

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.9 ..... 0.95 ..... 0.975**

---

<b>v = 33</b>	<b>..... 1.308</b>	<b>..... 1.692</b>	<b>..... 2.035</b>
<b>v = 34</b>	<b>..... 1.307</b>	<b>..... 1.691</b>	<b>..... 2.032</b>
<b>v = 35</b>	<b>..... 1.306</b>	<b>..... 1.690</b>	<b>..... 2.030</b>
<b>v = 36</b>	<b>..... 1.306</b>	<b>..... 1.688</b>	<b>..... 2.028</b>
<b>v = 37</b>	<b>..... 1.305</b>	<b>..... 1.687</b>	<b>..... 2.026</b>
<b>v = 38</b>	<b>..... 1.304</b>	<b>..... 1.686</b>	<b>..... 2.024</b>
<b>v = 39</b>	<b>..... 1.304</b>	<b>..... 1.685</b>	<b>..... 2.023</b>
<b>v = 40</b>	<b>..... 1.303</b>	<b>..... 1.684</b>	<b>..... 2.021</b>
<b>v = 45</b>	<b>..... 1.301</b>	<b>..... 1.679</b>	<b>..... 2.014</b>
<b>v = 50</b>	<b>..... 1.299</b>	<b>..... 1.676</b>	<b>..... 2.009</b>
<b>v = 55</b>	<b>..... 1.297</b>	<b>..... 1.673</b>	<b>..... 2.004</b>
<b>v = 60</b>	<b>..... 1.296</b>	<b>..... 1.671</b>	<b>..... 2.000</b>
<b>v = 65</b>	<b>..... 1.295</b>	<b>..... 1.669</b>	<b>..... 1.997</b>
<b>v = 70</b>	<b>..... 1.294</b>	<b>..... 1.667</b>	<b>..... 1.994</b>
<b>v = 75</b>	<b>..... 1.293</b>	<b>..... 1.665</b>	<b>..... 1.992</b>
<b>v = 80</b>	<b>..... 1.292</b>	<b>..... 1.664</b>	<b>..... 1.990</b>

(continued on the next page)

(Turn over)

**p = ..... 0.9 ..... 0.95 ..... 0.975**

---

**v = 85 ..... 1.292 ..... 1.663 ..... 1.998**

**v = 90 ..... 1.291 ..... 1.662 ..... 1.987**

**v = 95 ..... 1.291 ..... 1.661 ..... 1.985**

**v = 100 ..... 1.290 ..... 1.660 ..... 1.984**

**v = 125 ..... 1.288 ..... 1.657 ..... 1.979**

**v = 150 ..... 1.287 ..... 1.655 ..... 1.976**

**v = 200 ..... 1.286 ..... 1.653 ..... 1.972**

**v =  $\infty$  ..... 1.282 ..... 1.645 ..... 1.960**

---

**p = 0.99 – 0.995 on the next pages**

**(Turn over)**

**p = ..... 0.99 ..... 0.995**

---

**v = 1 ..... 31.821 ..... 63.657**

**v = 2 ..... 6.965 ..... 9.925**

**v = 3 ..... 4.541 ..... 5.841**

**v = 4 ..... 3.747 ..... 4.604**

**v = 5 ..... 3.365 ..... 4.032**

**v = 6 ..... 3.143 ..... 3.707**

**v = 7 ..... 2.998 ..... 3.499**

**v = 8 ..... 2.896 ..... 3.355**

**v = 9 ..... 2.821 ..... 3.250**

**v = 10 ..... 2.764 ..... 3.169**

**v = 11 ..... 2.718 ..... 3.106**

**v = 12 ..... 2.681 ..... 3.055**

**v = 13 ..... 2.650 ..... 3.012**

**v = 14 ..... 2.624 ..... 2.977**

**v = 15 ..... 2.602 ..... 2.947**

**v = 16 ..... 2.583 ..... 2.921**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.99 ..... 0.995**

---

**v = 17 ..... 2.567 ..... 2.898**

**v = 18 ..... 2.552 ..... 2.878**

**v = 19 ..... 2.539 ..... 2.861**

**v = 20 ..... 2.528 ..... 2.845**

**v = 21 ..... 2.518 ..... 2.831**

**v = 22 ..... 2.508 ..... 2.819**

**v = 23 ..... 2.500 ..... 2.807**

**v = 24 ..... 2.492 ..... 2.797**

**v = 25 ..... 2.485 ..... 2.787**

**v = 26 ..... 2.479 ..... 2.779**

**v = 27 ..... 2.473 ..... 2.771**

**v = 28 ..... 2.467 ..... 2.763**

**v = 29 ..... 2.462 ..... 2.756**

**v = 30 ..... 2.457 ..... 2.750**

**v = 31 ..... 2.453 ..... 2.744**

**v = 32 ..... 2.449 ..... 2.738**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.99 ..... 0.995**

---

**v = 33 ..... 2.445 ..... 2.733**

**v = 34 ..... 2.441 ..... 2.728**

**v = 35 ..... 2.438 ..... 2.724**

**v = 36 ..... 2.434 ..... 2.719**

**v = 37 ..... 2.431 ..... 2.715**

**v = 38 ..... 2.429 ..... 2.712**

**v = 39 ..... 2.426 ..... 2.708**

**v = 40 ..... 2.423 ..... 2.704**

**v = 45 ..... 2.412 ..... 2.690**

**v = 50 ..... 2.403 ..... 2.678**

**v = 55 ..... 2.396 ..... 2.668**

**v = 60 ..... 2.390 ..... 2.660**

**v = 65 ..... 2.385 ..... 2.654**

**v = 70 ..... 2.381 ..... 2.648**

**v = 75 ..... 2.377 ..... 2.643**

**v = 80 ..... 2.374 ..... 2.639**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.99 ..... 0.995**

---

**v = 85 ..... 2.371 ..... 2.635**

**v = 90 ..... 2.368 ..... 2.632**

**v = 95 ..... 2.366 ..... 2.629**

**v = 100 ..... 2.364 ..... 2.626**

**v = 125 ..... 2.357 ..... 2.616**

**v = 150 ..... 2.351 ..... 2.609**

**v = 200 ..... 2.345 ..... 2.601**

**v =  $\infty$  ..... 2.326 ..... 2.576**

---

**END OF TABLE 5**

---

**(Turn over)**

**4. STATISTICAL TABLES****TABLE 6: PERCENTAGE POINTS OF THE  $\chi^2$   
DISTRIBUTION**

The table gives the values of  $x$  satisfying

$P(X \leq x) = p$ , where  $X$  is a random variable having  
the  $\chi^2$  distribution with  $V$  degrees of freedom.

---

**p = ..... 0.005 ..... 0.01 ..... 0.025**

---

**v = 1 ..... 0.00004 .... 0.0002 ..... 0.001**

**v = 2 ..... 0.010 ..... 0.020 ..... 0.051**

**v = 3 ..... 0.072 ..... 0.115 ..... 0.216**

**v = 4 ..... 0.207 ..... 0.297 ..... 0.484**

**v = 5 ..... 0.412 ..... 0.554 ..... 0.831**

**v = 6 ..... 0.676 ..... 0.872 ..... 1.237**

**v = 7 ..... 0.989 ..... 1.239 ..... 1.690**

**v = 8 ..... 1.344 ..... 1.646 ..... 2.180**

**v = 9 ..... 1.735 ..... 2.088 ..... 2.700**

**v = 10 ..... 2.156 ..... 2.558 ..... 3.247**

**v = 11 ..... 2.603 ..... 3.053 ..... 3.816**

**v = 12 ..... 3.074 ..... 3.571 ..... 4.404**

**v = 13 ..... 3.565 ..... 4.107 ..... 5.009**

**v = 14 ..... 4.075 ..... 4.660 ..... 5.629**

**v = 15 ..... 4.601 ..... 5.229 ..... 6.262**

**v = 16 ..... 5.142 ..... 5.812 ..... 6.908**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.005 ..... 0.01 ..... 0.025**

---

<b>v = 17</b>	<b>..... 5.697</b>	<b>..... 6.408</b>	<b>..... 7.564</b>
<b>v = 18</b>	<b>..... 6.265</b>	<b>..... 7.015</b>	<b>..... 8.231</b>
<b>v = 19</b>	<b>..... 6.844</b>	<b>..... 7.633</b>	<b>..... 8.907</b>
<b>v = 20</b>	<b>..... 7.434</b>	<b>..... 8.260</b>	<b>..... 9.591</b>
<b>v = 21</b>	<b>..... 8.034</b>	<b>..... 8.897</b>	<b>..... 10.283</b>
<b>v = 22</b>	<b>..... 8.643</b>	<b>..... 9.542</b>	<b>..... 10.982</b>
<b>v = 23</b>	<b>..... 9.260</b>	<b>..... 10.196</b>	<b>..... 11.689</b>
<b>v = 24</b>	<b>..... 9.886</b>	<b>..... 10.856</b>	<b>..... 12.401</b>
<b>v = 25</b>	<b>..... 10.520</b>	<b>..... 11.524</b>	<b>..... 13.120</b>
<b>v = 26</b>	<b>..... 11.160</b>	<b>..... 12.198</b>	<b>..... 13.844</b>
<b>v = 27</b>	<b>..... 11.808</b>	<b>..... 12.879</b>	<b>..... 14.573</b>
<b>v = 28</b>	<b>..... 12.461</b>	<b>..... 13.565</b>	<b>..... 15.308</b>
<b>v = 29</b>	<b>..... 13.121</b>	<b>..... 14.256</b>	<b>..... 16.047</b>
<b>v = 30</b>	<b>..... 13.787</b>	<b>..... 14.953</b>	<b>..... 16.791</b>
<b>v = 31</b>	<b>..... 14.458</b>	<b>..... 15.655</b>	<b>..... 17.539</b>
<b>v = 32</b>	<b>..... 15.134</b>	<b>..... 16.362</b>	<b>..... 18.291</b>

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.005 ..... 0.01 ..... 0.025**

---

<b>v = 33</b>	<b>..... 15.815</b>	<b>..... 17.074</b>	<b>..... 19.047</b>
<b>v = 34</b>	<b>..... 16.501</b>	<b>..... 17.789</b>	<b>..... 19.806</b>
<b>v = 35</b>	<b>..... 17.192</b>	<b>..... 18.509</b>	<b>..... 20.569</b>
<b>v = 36</b>	<b>..... 17.887</b>	<b>..... 19.223</b>	<b>..... 21.336</b>
<b>v = 37</b>	<b>..... 18.586</b>	<b>..... 19.960</b>	<b>..... 22.106</b>
<b>v = 38</b>	<b>..... 19.289</b>	<b>..... 20.691</b>	<b>..... 22.878</b>
<b>v = 39</b>	<b>..... 19.996</b>	<b>..... 21.426</b>	<b>..... 23.654</b>
<b>v = 40</b>	<b>..... 20.707</b>	<b>..... 22.164</b>	<b>..... 24.433</b>
<b>v = 45</b>	<b>..... 24.311</b>	<b>..... 25.901</b>	<b>..... 28.366</b>
<b>v = 50</b>	<b>..... 27.991</b>	<b>..... 29.707</b>	<b>..... 32.357</b>
<b>v = 55</b>	<b>..... 31.735</b>	<b>..... 33.570</b>	<b>..... 36.398</b>
<b>v = 60</b>	<b>..... 35.534</b>	<b>..... 37.485</b>	<b>..... 40.482</b>
<b>v = 65</b>	<b>..... 39.383</b>	<b>..... 41.444</b>	<b>..... 44.603</b>
<b>v = 70</b>	<b>..... 43.275</b>	<b>..... 45.442</b>	<b>..... 48.758</b>
<b>v = 75</b>	<b>..... 47.206</b>	<b>..... 49.475</b>	<b>..... 52.942</b>
<b>v = 80</b>	<b>..... 51.172</b>	<b>..... 53.540</b>	<b>..... 57.153</b>

(continued on the next page)

(Turn over)

**p = ..... 0.005 ..... 0.01 ..... 0.025**

---

**v = 85 ..... 55.170 ..... 57.634 ..... 61.389**

**v = 90 ..... 59.196 ..... 61.754 ..... 65.647**

**v = 95 ..... 63.250 ..... 65.898 ..... 69.925**

**v = 100 ..... 67.328 ..... 70.065 ..... 74.222**

---

**p = 0.05 – 0.9 on the next page**

**(Turn over)**

**p = ..... 0.05 ..... 0.1 ..... 0.9**

---

<b>v = 1</b>	<b>0.004</b>	<b>0.016</b>	<b>2.706</b>
<b>v = 2</b>	<b>0.103</b>	<b>0.211</b>	<b>4.605</b>
<b>v = 3</b>	<b>0.352</b>	<b>0.584</b>	<b>6.251</b>
<b>v = 4</b>	<b>0.711</b>	<b>1.064</b>	<b>7.779</b>
<b>v = 5</b>	<b>1.145</b>	<b>1.610</b>	<b>9.236</b>
<b>v = 6</b>	<b>1.635</b>	<b>2.204</b>	<b>10.645</b>
<b>v = 7</b>	<b>2.167</b>	<b>2.833</b>	<b>12.017</b>
<b>v = 8</b>	<b>2.733</b>	<b>3.490</b>	<b>13.362</b>
<b>v = 9</b>	<b>3.325</b>	<b>4.168</b>	<b>14.684</b>
<b>v = 10</b>	<b>3.940</b>	<b>4.865</b>	<b>15.987</b>
<b>v = 11</b>	<b>4.575</b>	<b>5.578</b>	<b>17.275</b>
<b>v = 12</b>	<b>5.226</b>	<b>6.304</b>	<b>18.549</b>
<b>v = 13</b>	<b>5.892</b>	<b>7.042</b>	<b>19.812</b>
<b>v = 14</b>	<b>6.571</b>	<b>7.790</b>	<b>21.064</b>
<b>v = 15</b>	<b>7.261</b>	<b>8.547</b>	<b>22.307</b>
<b>v = 16</b>	<b>7.962</b>	<b>9.312</b>	<b>23.542</b>

(continued on the next page)

(Turn over)

**p = ..... 0.05 ..... 0.1 ..... 0.9**

---

<b>v = 17</b>	<b>8.672</b>	<b>10.085</b>	<b>24.769</b>
<b>v = 18</b>	<b>9.390</b>	<b>10.865</b>	<b>25.989</b>
<b>v = 19</b>	<b>10.117</b>	<b>11.651</b>	<b>27.204</b>
<b>v = 20</b>	<b>10.851</b>	<b>12.443</b>	<b>28.412</b>
<b>v = 21</b>	<b>11.591</b>	<b>13.240</b>	<b>29.615</b>
<b>v = 22</b>	<b>12.338</b>	<b>14.041</b>	<b>30.813</b>
<b>v = 23</b>	<b>13.091</b>	<b>14.848</b>	<b>32.007</b>
<b>v = 24</b>	<b>13.848</b>	<b>15.659</b>	<b>33.196</b>
<b>v = 25</b>	<b>14.611</b>	<b>16.473</b>	<b>34.382</b>
<b>v = 26</b>	<b>15.379</b>	<b>17.292</b>	<b>35.563</b>
<b>v = 27</b>	<b>16.151</b>	<b>18.114</b>	<b>36.741</b>
<b>v = 28</b>	<b>16.928</b>	<b>18.939</b>	<b>37.916</b>
<b>v = 29</b>	<b>17.708</b>	<b>19.768</b>	<b>39.087</b>
<b>v = 30</b>	<b>18.493</b>	<b>20.599</b>	<b>40.256</b>
<b>v = 31</b>	<b>19.281</b>	<b>21.434</b>	<b>41.422</b>
<b>v = 32</b>	<b>20.072</b>	<b>22.271</b>	<b>42.585</b>

(continued on the next page)

(Turn over)

**p = ..... 0.05 ..... 0.1 ..... 0.9**

---

<b>v = 33</b>	<b>..... 20.867</b>	<b>..... 23.110</b>	<b>..... 43.745</b>
<b>v = 34</b>	<b>..... 21.664</b>	<b>..... 23.952</b>	<b>..... 44.903</b>
<b>v = 35</b>	<b>..... 22.465</b>	<b>..... 24.797</b>	<b>..... 46.059</b>
<b>v = 36</b>	<b>..... 23.269</b>	<b>..... 25.643</b>	<b>..... 47.212</b>
<b>v = 37</b>	<b>..... 24.075</b>	<b>..... 26.492</b>	<b>..... 48.363</b>
<b>v = 38</b>	<b>..... 24.884</b>	<b>..... 27.343</b>	<b>..... 49.513</b>
<b>v = 39</b>	<b>..... 25.695</b>	<b>..... 28.196</b>	<b>..... 50.660</b>
<b>v = 40</b>	<b>..... 26.509</b>	<b>..... 29.051</b>	<b>..... 51.805</b>
<b>v = 45</b>	<b>..... 30.612</b>	<b>..... 33.350</b>	<b>..... 57.505</b>
<b>v = 50</b>	<b>..... 34.764</b>	<b>..... 37.689</b>	<b>..... 63.167</b>
<b>v = 55</b>	<b>..... 38.958</b>	<b>..... 42.060</b>	<b>..... 68.796</b>
<b>v = 60</b>	<b>..... 43.188</b>	<b>..... 46.459</b>	<b>..... 74.397</b>
<b>v = 65</b>	<b>..... 47.450</b>	<b>..... 50.883</b>	<b>..... 79.973</b>
<b>v = 70</b>	<b>..... 51.739</b>	<b>..... 55.329</b>	<b>..... 85.527</b>
<b>v = 75</b>	<b>..... 56.054</b>	<b>..... 59.795</b>	<b>..... 91.061</b>
<b>v = 80</b>	<b>..... 60.391</b>	<b>..... 64.278</b>	<b>..... 96.578</b>

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.05 ..... 0.1 ..... 0.9**

---

**v = 85 ..... 64.749 ..... 68.777 .... 102.079**

**v = 90 ..... 69.126 ..... 73.291 .... 107.565**

**v = 95 ..... 73.520 ..... 77.818 .... 113.038**

**v = 100 ..... 77.929 ..... 82.358 .... 118.498**

---

**p = 0.95 – 0.99 on the next page**

**(Turn over)**

**p = ..... 0.95 ..... 0.975 ..... 0.99**

---

<b>v = 1</b>	<b>3.841</b>	<b>5.024</b>	<b>6.635</b>
<b>v = 2</b>	<b>5.991</b>	<b>7.378</b>	<b>9.210</b>
<b>v = 3</b>	<b>7.815</b>	<b>9.348</b>	<b>11.345</b>
<b>v = 4</b>	<b>9.488</b>	<b>11.143</b>	<b>13.277</b>
<b>v = 5</b>	<b>11.070</b>	<b>12.833</b>	<b>15.086</b>
<b>v = 6</b>	<b>12.592</b>	<b>14.449</b>	<b>16.812</b>
<b>v = 7</b>	<b>14.067</b>	<b>16.013</b>	<b>18.475</b>
<b>v = 8</b>	<b>15.507</b>	<b>17.535</b>	<b>20.090</b>
<b>v = 9</b>	<b>16.919</b>	<b>19.023</b>	<b>21.666</b>
<b>v = 10</b>	<b>18.307</b>	<b>20.483</b>	<b>23.209</b>
<b>v = 11</b>	<b>19.675</b>	<b>21.920</b>	<b>24.725</b>
<b>v = 12</b>	<b>21.026</b>	<b>23.337</b>	<b>26.217</b>
<b>v = 13</b>	<b>22.362</b>	<b>24.736</b>	<b>27.688</b>
<b>v = 14</b>	<b>23.685</b>	<b>26.119</b>	<b>29.141</b>
<b>v = 15</b>	<b>24.996</b>	<b>27.488</b>	<b>30.578</b>
<b>v = 16</b>	<b>26.296</b>	<b>28.845</b>	<b>32.000</b>

(continued on the next page)

(Turn over)

**p = ..... 0.95 ..... 0.975 ..... 0.99**

---

<b>v = 17</b>	<b>..... 27.587</b>	<b>..... 30.191</b>	<b>..... 33.409</b>
<b>v = 18</b>	<b>..... 28.869</b>	<b>..... 31.526</b>	<b>..... 34.805</b>
<b>v = 19</b>	<b>..... 30.144</b>	<b>..... 32.852</b>	<b>..... 36.191</b>
<b>v = 20</b>	<b>..... 31.410</b>	<b>..... 34.170</b>	<b>..... 37.566</b>
<b>v = 21</b>	<b>..... 32.671</b>	<b>..... 35.479</b>	<b>..... 38.932</b>
<b>v = 22</b>	<b>..... 33.924</b>	<b>..... 36.781</b>	<b>..... 40.289</b>
<b>v = 23</b>	<b>..... 35.172</b>	<b>..... 38.076</b>	<b>..... 41.638</b>
<b>v = 24</b>	<b>..... 36.415</b>	<b>..... 39.364</b>	<b>..... 42.980</b>
<b>v = 25</b>	<b>..... 37.652</b>	<b>..... 40.646</b>	<b>..... 44.314</b>
<b>v = 26</b>	<b>..... 38.885</b>	<b>..... 41.923</b>	<b>..... 45.642</b>
<b>v = 27</b>	<b>..... 40.113</b>	<b>..... 43.195</b>	<b>..... 46.963</b>
<b>v = 28</b>	<b>..... 41.337</b>	<b>..... 44.461</b>	<b>..... 48.278</b>
<b>v = 29</b>	<b>..... 42.557</b>	<b>..... 45.722</b>	<b>..... 49.588</b>
<b>v = 30</b>	<b>..... 43.773</b>	<b>..... 46.979</b>	<b>..... 50.892</b>
<b>v = 31</b>	<b>..... 44.985</b>	<b>..... 48.232</b>	<b>..... 52.191</b>
<b>v = 32</b>	<b>..... 46.194</b>	<b>..... 49.480</b>	<b>..... 53.486</b>

(continued on the next page)

(Turn over)

**p = ..... 0.95 ..... 0.975 ..... 0.99**

---

<b>v = 33</b>	<b>..... 47.400</b>	<b>..... 50.725</b>	<b>..... 54.776</b>
<b>v = 34</b>	<b>..... 48.602</b>	<b>..... 51.996</b>	<b>..... 56.061</b>
<b>v = 35</b>	<b>..... 49.802</b>	<b>..... 53.203</b>	<b>..... 57.342</b>
<b>v = 36</b>	<b>..... 50.998</b>	<b>..... 54.437</b>	<b>..... 58.619</b>
<b>v = 37</b>	<b>..... 52.192</b>	<b>..... 55.668</b>	<b>..... 59.892</b>
<b>v = 38</b>	<b>..... 53.384</b>	<b>..... 56.896</b>	<b>..... 61.162</b>
<b>v = 39</b>	<b>..... 54.572</b>	<b>..... 58.120</b>	<b>..... 62.428</b>
<b>v = 40</b>	<b>..... 55.758</b>	<b>..... 59.342</b>	<b>..... 63.691</b>
<b>v = 45</b>	<b>..... 61.656</b>	<b>..... 65.410</b>	<b>..... 69.957</b>
<b>v = 50</b>	<b>..... 67.505</b>	<b>..... 71.420</b>	<b>..... 76.154</b>
<b>v = 55</b>	<b>..... 73.311</b>	<b>..... 77.380</b>	<b>..... 82.292</b>
<b>v = 60</b>	<b>..... 79.082</b>	<b>..... 83.298</b>	<b>..... 88.379</b>
<b>v = 65</b>	<b>..... 84.821</b>	<b>..... 89.177</b>	<b>..... 94.422</b>
<b>v = 70</b>	<b>..... 90.531</b>	<b>..... 95.023</b>	<b>..... 100.425</b>
<b>v = 75</b>	<b>..... 96.217</b>	<b>..... 100.839</b>	<b>..... 106.393</b>
<b>v = 80</b>	<b>..... 101.879</b>	<b>..... 106.629</b>	<b>..... 112.329</b>

(continued on the next page)

(Turn over)

**p = ..... 0.95 ..... 0.975 ..... 0.99**

---

**v = 85 ..... 107.522 ..... 112.393 ..... 118.236**

**v = 90 ..... 113.145 ..... 118.136 ..... 124.116**

**v = 95 ..... 118.752 ..... 123.858 ..... 129.973**

**v = 100 ..... 124.342 ..... 129.561 ..... 135.807**

---

**p = 0.995 on the next page**

**(Turn over)**

**p = .....0.995**

---

**v = 1 ..... 7.879**

**v = 2 ..... 10.597**

**v = 3 ..... 12.838**

**v = 4 ..... 14.860**

**v = 5 ..... 16.750**

**v = 6 ..... 18.548**

**v = 7 ..... 20.278**

**v = 8 ..... 21.955**

**v = 9 ..... 23.589**

**v = 10 ..... 25.188**

**v = 11 ..... 26.757**

**v = 12 ..... 28.300**

**v = 13 ..... 29.819**

**v = 14 ..... 31.319**

**v = 15 ..... 32.801**

**v = 16 ..... 34.267**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.995**

---

**v = 17 ..... 35.718**

**v = 18 ..... 37.156**

**v = 19 ..... 38.582**

**v = 20 ..... 39.997**

**v = 21 ..... 41.401**

**v = 22 ..... 42.796**

**v = 23 ..... 44.181**

**v = 24 ..... 45.559**

**v = 25 ..... 46.928**

**v = 26 ..... 48.290**

**v = 27 ..... 49.645**

**v = 28 ..... 50.993**

**v = 29 ..... 52.336**

**v = 30 ..... 53.672**

**v = 31 ..... 55.003**

**v = 32 ..... 56.328**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.995**

---

**v = 33 ..... 57.648**

**v = 34 ..... 58.964**

**v = 35 ..... 60.275**

**v = 36 ..... 61.581**

**v = 37 ..... 62.883**

**v = 38 ..... 64.181**

**v = 39 ..... 65.476**

**v = 40 ..... 66.766**

**v = 45 ..... 73.166**

**v = 50 ..... 79.490**

**v = 55 ..... 85.749**

**v = 60 ..... 91.952**

**v = 65 ..... 98.105**

**v = 70 ..... 104.215**

**v = 75 ..... 110.286**

**v = 80 ..... 116.321**

**(continued on the next page)**

**(Turn over)**

**p = ..... 0.995**

---

**v = 85 ..... 122.325**

**v = 90 ..... 128.299**

**v = 95 ..... 134.247**

**v = 100 ..... 140.169**

---

**END OF TABLE 6**

---

**(Turn over)**

#### 4. STATISTICAL TABLES

##### TABLE 7: PERCENTAGE POINTS OF THE F-DISTRIBUTION

The tables give the values of  $X$  satisfying

$P(X \leq x) = p$ , where  $X$  is a random variable having the F-distribution with  $v_1$  degrees of freedom in the numerator and  $v_2$  degrees of freedom in the denominator.

---

**CONTENTS**

**F-DISTRIBUTION ( $p = 0.995$ ) ... pages 176 – 189**

**F-DISTRIBUTION ( $p = 0.99$ ) ..... pages 190 – 203**

**F-DISTRIBUTION ( $p = 0.975$ ) ... pages 204 – 217**

**F-DISTRIBUTION ( $p = 0.95$ ) ..... pages 218 – 231**

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**(Turn over)**

**F-DISTRIBUTION ( $p = 0.995$ )**

Use for one-tail tests at significance level **0.5%** or  
two-tail tests at significance level **1%**.

$v_1 =$  ..... 1 ..... 2 ..... 3

---

$v_2 = 1$  ..... 16211 ..... 20000 ..... 21615

$v_2 = 2$  ..... 198.5 ..... 199.0 ..... 199.2

$v_2 = 3$  ..... 55.55 ..... 49.80 ..... 47.47

$v_2 = 4$  ..... 31.33 ..... 26.28 ..... 24.26

$v_2 = 5$  ..... 22.78 ..... 18.31 ..... 16.53

$v_2 = 6$  ..... 18.635 ..... 14.544 ..... 12.917

$v_2 = 7$  ..... 16.236 ..... 12.404 ..... 10.882

$v_2 = 8$  ..... 14.688 ..... 11.042 ..... 9.596

$v_2 = 9$  ..... 13.614 ..... 10.107 ..... 8.717

$v_2 = 10$  ..... 12.826 ..... 9.427 ..... 8.081

$v_2 = 11$  ..... 12.226 ..... 8.912 ..... 7.600

$v_2 = 12$  ..... 11.754 ..... 8.510 ..... 7.226

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 1 \dots\dots\dots 2 \dots\dots\dots 3$

---

$v_2 = 13 \dots\dots 11.374 \dots\dots 8.186 \dots\dots 6.926$

$v_2 = 14 \dots\dots 11.060 \dots\dots 7.922 \dots\dots 6.680$

$v_2 = 15 \dots\dots 10.798 \dots\dots 7.701 \dots\dots 6.476$

$v_2 = 20 \dots\dots\dots 9.944 \dots\dots\dots 6.986 \dots\dots\dots 5.818$

$v_2 = 25 \dots\dots\dots 9.475 \dots\dots\dots 6.598 \dots\dots\dots 5.462$

$v_2 = 30 \dots\dots\dots 9.180 \dots\dots\dots 6.355 \dots\dots\dots 5.239$

$v_2 = 40 \dots\dots\dots 8.828 \dots\dots\dots 6.066 \dots\dots\dots 4.976$

$v_2 = 50 \dots\dots\dots 8.626 \dots\dots\dots 5.902 \dots\dots\dots 4.826$

$v_2 = 100 \dots\dots 8.241 \dots\dots 5.589 \dots\dots 4.542$

$v_2 = \infty \dots\dots\dots 7.879 \dots\dots\dots 5.298 \dots\dots\dots 4.279$

---

$v_1 = 4 - 6$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 1 \dots\dots 22500 \dots\dots 23056 \dots\dots 23437$

$v_2 = 2 \dots\dots 199.2 \dots\dots 199.3 \dots\dots 199.3$

$v_2 = 3 \dots\dots 46.19 \dots\dots 45.39 \dots\dots 44.84$

$v_2 = 4 \dots\dots 23.15 \dots\dots 22.46 \dots\dots 21.97$

$v_2 = 5 \dots\dots 15.56 \dots\dots 14.94 \dots\dots 14.51$

$v_2 = 6 \dots\dots 12.028 \dots\dots 11.464 \dots\dots 11.073$

$v_2 = 7 \dots\dots 10.050 \dots\dots 9.522 \dots\dots 9.155$

$v_2 = 8 \dots\dots 8.805 \dots\dots 8.302 \dots\dots 7.952$

$v_2 = 9 \dots\dots 7.956 \dots\dots 7.471 \dots\dots 7.134$

$v_2 = 10 \dots\dots 7.343 \dots\dots 6.872 \dots\dots 6.545$

$v_2 = 11 \dots\dots 6.881 \dots\dots 6.422 \dots\dots 6.102$

$v_2 = 12 \dots\dots 6.521 \dots\dots 6.071 \dots\dots 5.757$

$v_2 = 13 \dots\dots 6.233 \dots\dots 5.791 \dots\dots 5.482$

$v_2 = 14 \dots\dots 5.998 \dots\dots 5.562 \dots\dots 5.257$

$v_2 = 15 \dots\dots 5.803 \dots\dots 5.372 \dots\dots 5.071$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 20 \dots\dots\dots 5.174 \dots\dots\dots 4.762 \dots\dots\dots 4.472$

$v_2 = 25 \dots\dots\dots 4.835 \dots\dots\dots 4.433 \dots\dots\dots 4.150$

$v_2 = 30 \dots\dots\dots 4.623 \dots\dots\dots 4.228 \dots\dots\dots 3.949$

$v_2 = 40 \dots\dots\dots 4.374 \dots\dots\dots 3.986 \dots\dots\dots 3.713$

$v_2 = 50 \dots\dots\dots 4.232 \dots\dots\dots 3.849 \dots\dots\dots 3.579$

$v_2 = 100 \dots\dots\dots 3.963 \dots\dots\dots 3.589 \dots\dots\dots 3.325$

$v_2 = \infty \dots\dots\dots 3.715 \dots\dots\dots 3.350 \dots\dots\dots 3.091$

---

$v_1 = 7 - 9$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 1 \dots\dots 23715 \dots\dots 23925 \dots\dots 24091$

$v_2 = 2 \dots\dots 199.4 \dots\dots 199.4 \dots\dots 199.4$

$v_2 = 3 \dots\dots 44.43 \dots\dots 44.13 \dots\dots 43.88$

$v_2 = 4 \dots\dots 21.62 \dots\dots 21.35 \dots\dots 21.14$

$v_2 = 5 \dots\dots 14.20 \dots\dots 13.96 \dots\dots 13.77$

$v_2 = 6 \dots\dots 10.786 \dots\dots 10.566 \dots\dots 10.391$

$v_2 = 7 \dots\dots 8.885 \dots\dots 8.678 \dots\dots 8.514$

$v_2 = 8 \dots\dots 7.694 \dots\dots 7.496 \dots\dots 7.339$

$v_2 = 9 \dots\dots 6.885 \dots\dots 6.693 \dots\dots 6.541$

$v_2 = 10 \dots\dots 6.302 \dots\dots 6.116 \dots\dots 5.968$

$v_2 = 11 \dots\dots 5.865 \dots\dots 5.682 \dots\dots 5.537$

$v_2 = 12 \dots\dots 5.525 \dots\dots 5.345 \dots\dots 5.202$

$v_2 = 13 \dots\dots 5.253 \dots\dots 5.076 \dots\dots 4.935$

$v_2 = 14 \dots\dots 5.031 \dots\dots 4.857 \dots\dots 4.717$

$v_2 = 15 \dots\dots 4.847 \dots\dots 4.674 \dots\dots 4.536$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 20 \dots\dots\dots 4.257 \dots\dots\dots 4.090 \dots\dots\dots 3.956$

$v_2 = 25 \dots\dots\dots 3.939 \dots\dots\dots 3.776 \dots\dots\dots 3.645$

$v_2 = 30 \dots\dots\dots 3.742 \dots\dots\dots 3.580 \dots\dots\dots 3.450$

$v_2 = 40 \dots\dots\dots 3.509 \dots\dots\dots 3.350 \dots\dots\dots 3.222$

$v_2 = 50 \dots\dots\dots 3.376 \dots\dots\dots 3.219 \dots\dots\dots 3.092$

$v_2 = 100 \dots\dots\dots 3.127 \dots\dots\dots 2.972 \dots\dots\dots 2.847$

$v_2 = \infty \dots\dots\dots 2.897 \dots\dots\dots 2.744 \dots\dots\dots 2.621$

---

$v_1 = 10 - 12$  on the next page

(Turn over)

$v_1 = \dots 10 \dots 11 \dots 12$

---

$v_2 = 1 \dots 24224 \dots 24334 \dots 24426$

$v_2 = 2 \dots 199.4 \dots 199.4 \dots 199.4$

$v_2 = 3 \dots 43.69 \dots 43.52 \dots 43.39$

$v_2 = 4 \dots 20.97 \dots 20.82 \dots 20.70$

$v_2 = 5 \dots 13.62 \dots 13.49 \dots 13.38$

$v_2 = 6 \dots 10.250 \dots 10.133 \dots 10.034$

$v_2 = 7 \dots 8.380 \dots 8.270 \dots 8.176$

$v_2 = 8 \dots 7.211 \dots 7.104 \dots 7.015$

$v_2 = 9 \dots 6.417 \dots 6.314 \dots 6.227$

$v_2 = 10 \dots 5.847 \dots 5.746 \dots 5.661$

$v_2 = 11 \dots 5.418 \dots 5.320 \dots 5.236$

$v_2 = 12 \dots 5.085 \dots 4.988 \dots 4.906$

$v_2 = 13 \dots 4.820 \dots 4.724 \dots 4.643$

$v_2 = 14 \dots 4.603 \dots 4.508 \dots 4.428$

$v_2 = 15 \dots 4.424 \dots 4.329 \dots 4.250$

(continued on the next page)

(Turn over)

$$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$$


---

$$v_2 = 20 \dots\dots\dots 3.847 \dots\dots\dots 3.756 \dots\dots\dots 3.678$$

$$v_2 = 25 \dots\dots\dots 3.537 \dots\dots\dots 3.447 \dots\dots\dots 3.370$$

$$v_2 = 30 \dots\dots\dots 3.344 \dots\dots\dots 3.255 \dots\dots\dots 3.179$$

$$v_2 = 40 \dots\dots\dots 3.117 \dots\dots\dots 3.028 \dots\dots\dots 2.953$$

$$v_2 = 50 \dots\dots\dots 2.988 \dots\dots\dots 2.900 \dots\dots\dots 2.825$$

$$v_2 = 100 \dots\dots\dots 2.744 \dots\dots\dots 2.657 \dots\dots\dots 2.583$$

$$v_2 = \infty \dots\dots\dots 2.519 \dots\dots\dots 2.432 \dots\dots\dots 2.358$$


---

$v_1 = 15 - 25$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 1 \dots\dots 24630 \dots\dots 24836 \dots\dots 24960$

$v_2 = 2 \dots\dots 199.4 \dots\dots 199.4 \dots\dots 199.5$

$v_2 = 3 \dots\dots 43.08 \dots\dots 42.78 \dots\dots 42.59$

$v_2 = 4 \dots\dots 20.44 \dots\dots 20.17 \dots\dots 20.00$

$v_2 = 5 \dots\dots 13.15 \dots\dots 12.90 \dots\dots 12.76$

$v_2 = 6 \dots\dots 9.814 \dots\dots 9.589 \dots\dots 9.451$

$v_2 = 7 \dots\dots 7.968 \dots\dots 7.754 \dots\dots 7.623$

$v_2 = 8 \dots\dots 6.814 \dots\dots 6.608 \dots\dots 6.482$

$v_2 = 9 \dots\dots 6.032 \dots\dots 5.832 \dots\dots 5.708$

$v_2 = 10 \dots\dots 5.471 \dots\dots 5.274 \dots\dots 5.153$

$v_2 = 11 \dots\dots 5.049 \dots\dots 4.855 \dots\dots 4.736$

$v_2 = 12 \dots\dots 4.721 \dots\dots 4.530 \dots\dots 4.412$

$v_2 = 13 \dots\dots 4.460 \dots\dots 4.270 \dots\dots 4.153$

$v_2 = 14 \dots\dots 4.247 \dots\dots 4.059 \dots\dots 3.942$

$v_2 = 15 \dots\dots 4.070 \dots\dots 3.883 \dots\dots 3.766$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 20 \dots\dots\dots 3.502 \dots\dots\dots 3.318 \dots\dots\dots 3.203$

$v_2 = 25 \dots\dots\dots 3.196 \dots\dots\dots 3.013 \dots\dots\dots 2.898$

$v_2 = 30 \dots\dots\dots 3.006 \dots\dots\dots 2.823 \dots\dots\dots 2.708$

$v_2 = 40 \dots\dots\dots 2.781 \dots\dots\dots 2.598 \dots\dots\dots 2.482$

$v_2 = 50 \dots\dots\dots 2.653 \dots\dots\dots 2.470 \dots\dots\dots 2.353$

$v_2 = 100 \dots\dots\dots 2.411 \dots\dots\dots 2.227 \dots\dots\dots 2.108$

$v_2 = \infty \dots\dots\dots 2.187 \dots\dots\dots 2.000 \dots\dots\dots 1.877$

---

$v_1 = 30 - 50$  on the next page

(Turn over)

$v_1 = \dots 30 \dots 40 \dots 50$

---

$v_2 = 1 \dots 25044 \dots 25148 \dots 25211$

$v_2 = 2 \dots 199.5 \dots 199.5 \dots 199.5$

$v_2 = 3 \dots 42.47 \dots 42.31 \dots 42.21$

$v_2 = 4 \dots 19.89 \dots 19.75 \dots 19.67$

$v_2 = 5 \dots 12.66 \dots 12.53 \dots 12.45$

$v_2 = 6 \dots 9.358 \dots 9.241 \dots 9.170$

$v_2 = 7 \dots 7.534 \dots 7.422 \dots 7.354$

$v_2 = 8 \dots 6.396 \dots 6.288 \dots 6.222$

$v_2 = 9 \dots 5.625 \dots 5.519 \dots 5.454$

$v_2 = 10 \dots 5.071 \dots 4.966 \dots 4.902$

$v_2 = 11 \dots 4.654 \dots 4.551 \dots 4.488$

$v_2 = 12 \dots 4.331 \dots 4.228 \dots 4.165$

$v_2 = 13 \dots 4.073 \dots 3.970 \dots 3.908$

$v_2 = 14 \dots 3.862 \dots 3.760 \dots 3.697$

$v_2 = 15 \dots 3.687 \dots 3.585 \dots 3.523$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 20 \dots\dots\dots 3.123 \dots\dots\dots 3.022 \dots\dots\dots 2.959$

$v_2 = 25 \dots\dots\dots 2.819 \dots\dots\dots 2.716 \dots\dots\dots 2.652$

$v_2 = 30 \dots\dots\dots 2.628 \dots\dots\dots 2.524 \dots\dots\dots 2.459$

$v_2 = 40 \dots\dots\dots 2.401 \dots\dots\dots 2.296 \dots\dots\dots 2.230$

$v_2 = 50 \dots\dots\dots 2.272 \dots\dots\dots 2.164 \dots\dots\dots 2.097$

$v_2 = 100 \dots\dots\dots 2.024 \dots\dots\dots 1.912 \dots\dots\dots 1.840$

$v_2 = \infty \dots\dots\dots 1.789 \dots\dots\dots 1.669 \dots\dots\dots 1.590$

---

$v_1 = 100 - \infty$  on the next page

(Turn over)

$$v_1 = \dots 100 \dots \infty$$


---

$$v_2 = 1 \dots 25337 \dots 25464$$

$$v_2 = 2 \dots 199.5 \dots 199.5$$

$$v_2 = 3 \dots 42.02 \dots 41.83$$

$$v_2 = 4 \dots 19.50 \dots 19.32$$

$$v_2 = 5 \dots 12.30 \dots 12.14$$

$$v_2 = 6 \dots 9.026 \dots 8.879$$

$$v_2 = 7 \dots 7.217 \dots 7.076$$

$$v_2 = 8 \dots 6.088 \dots 5.951$$

$$v_2 = 9 \dots 5.322 \dots 5.188$$

$$v_2 = 10 \dots 4.772 \dots 4.639$$

$$v_2 = 11 \dots 4.359 \dots 4.226$$

$$v_2 = 12 \dots 4.037 \dots 3.904$$

$$v_2 = 13 \dots 3.780 \dots 3.647$$

$$v_2 = 14 \dots 3.569 \dots 3.436$$

(continued on the next page)

(Turn over)

$$v_1 = \dots\dots\dots 100 \dots\dots\dots \infty$$


---

$$v_2 = 15 \dots\dots\dots 3.394 \dots\dots\dots 3.260$$

$$v_2 = 20 \dots\dots\dots 2.828 \dots\dots\dots 2.690$$

$$v_2 = 25 \dots\dots\dots 2.519 \dots\dots\dots 2.377$$

$$v_2 = 30 \dots\dots\dots 2.323 \dots\dots\dots 2.176$$

$$v_2 = 40 \dots\dots\dots 2.088 \dots\dots\dots 1.932$$

$$v_2 = 50 \dots\dots\dots 1.951 \dots\dots\dots 1.786$$

$$v_2 = 100 \dots\dots\dots 1.681 \dots\dots\dots 1.485$$

$$v_2 = \infty \dots\dots\dots 1.402 \dots\dots\dots 1.001$$


---

**F-DISTRIBUTION (p = 0.99) on the next page**

**(Turn over)**

**F-DISTRIBUTION ( $p = 0.99$ )**

Use for one-tail tests at significance level 1% or  
two-tail tests at significance level 2%.

$v_1 =$  ..... 1 ..... 2 ..... 3

---

$v_2 = 1$  ..... 4052 ..... 5000 ..... 5403

$v_2 = 2$  ..... 98.50 ..... 99.00 ..... 99.17

$v_2 = 3$  ..... 34.12 ..... 30.82 ..... 29.46

$v_2 = 4$  ..... 21.20 ..... 18.00 ..... 16.69

$v_2 = 5$  ..... 16.26 ..... 13.27 ..... 12.06

$v_2 = 6$  ..... 13.745 ..... 10.925 ..... 9.780

$v_2 = 7$  ..... 12.246 ..... 9.547 ..... 8.451

$v_2 = 8$  ..... 11.259 ..... 8.649 ..... 7.591

$v_2 = 9$  ..... 10.561 ..... 8.022 ..... 6.992

$v_2 = 10$  ..... 10.044 ..... 7.559 ..... 6.552

$v_2 = 11$  ..... 9.646 ..... 7.206 ..... 6.217

$v_2 = 12$  ..... 9.330 ..... 6.927 ..... 5.953

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 1 \dots\dots\dots 2 \dots\dots\dots 3$

---

$v_2 = 13 \dots\dots 9.074 \dots\dots 6.701 \dots\dots 5.739$

$v_2 = 14 \dots\dots 8.862 \dots\dots 6.515 \dots\dots 5.564$

$v_2 = 15 \dots\dots 8.683 \dots\dots 6.359 \dots\dots 5.417$

$v_2 = 20 \dots\dots 8.096 \dots\dots 5.849 \dots\dots 4.938$

$v_2 = 25 \dots\dots 7.770 \dots\dots 5.568 \dots\dots 4.675$

$v_2 = 30 \dots\dots 7.562 \dots\dots 5.390 \dots\dots 4.510$

$v_2 = 40 \dots\dots 7.314 \dots\dots 5.179 \dots\dots 4.313$

$v_2 = 50 \dots\dots 7.171 \dots\dots 5.057 \dots\dots 4.199$

$v_2 = 100 \dots\dots 6.895 \dots\dots 4.824 \dots\dots 3.984$

$v_2 = \infty \dots\dots 6.635 \dots\dots 4.605 \dots\dots 3.782$

---

$v_1 = 4 - 6$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 1 \dots\dots\dots 5625 \dots\dots\dots 5764 \dots\dots\dots 5859$

$v_2 = 2 \dots\dots\dots 99.25 \dots\dots\dots 99.30 \dots\dots\dots 99.33$

$v_2 = 3 \dots\dots\dots 28.71 \dots\dots\dots 28.24 \dots\dots\dots 27.91$

$v_2 = 4 \dots\dots\dots 15.98 \dots\dots\dots 15.52 \dots\dots\dots 15.21$

$v_2 = 5 \dots\dots\dots 11.39 \dots\dots\dots 10.97 \dots\dots\dots 10.67$

$v_2 = 6 \dots\dots\dots 9.148 \dots\dots\dots 8.746 \dots\dots\dots 8.466$

$v_2 = 7 \dots\dots\dots 7.847 \dots\dots\dots 7.460 \dots\dots\dots 7.191$

$v_2 = 8 \dots\dots\dots 7.006 \dots\dots\dots 6.632 \dots\dots\dots 6.371$

$v_2 = 9 \dots\dots\dots 6.422 \dots\dots\dots 6.057 \dots\dots\dots 5.802$

$v_2 = 10 \dots\dots\dots 5.994 \dots\dots\dots 5.636 \dots\dots\dots 5.386$

$v_2 = 11 \dots\dots\dots 5.668 \dots\dots\dots 5.316 \dots\dots\dots 5.069$

$v_2 = 12 \dots\dots\dots 5.412 \dots\dots\dots 5.064 \dots\dots\dots 4.821$

$v_2 = 13 \dots\dots\dots 5.205 \dots\dots\dots 4.862 \dots\dots\dots 4.620$

$v_2 = 14 \dots\dots\dots 5.035 \dots\dots\dots 4.695 \dots\dots\dots 4.456$

$v_2 = 15 \dots\dots\dots 4.893 \dots\dots\dots 4.556 \dots\dots\dots 4.318$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 20 \dots\dots\dots 4.431 \dots\dots\dots 4.103 \dots\dots\dots 3.871$

$v_2 = 25 \dots\dots\dots 4.177 \dots\dots\dots 3.855 \dots\dots\dots 3.627$

$v_2 = 30 \dots\dots\dots 4.018 \dots\dots\dots 3.699 \dots\dots\dots 3.473$

$v_2 = 40 \dots\dots\dots 3.828 \dots\dots\dots 3.514 \dots\dots\dots 3.291$

$v_2 = 50 \dots\dots\dots 3.720 \dots\dots\dots 3.408 \dots\dots\dots 3.186$

$v_2 = 100 \dots\dots\dots 3.513 \dots\dots\dots 3.206 \dots\dots\dots 2.988$

$v_2 = \infty \dots\dots\dots 3.319 \dots\dots\dots 3.017 \dots\dots\dots 2.802$

---

$v_1 = 7 - 9$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 1 \dots\dots\dots 5928 \dots\dots\dots 5981 \dots\dots\dots 6022$

$v_2 = 2 \dots\dots\dots 99.36 \dots\dots\dots 99.37 \dots\dots\dots 99.39$

$v_2 = 3 \dots\dots\dots 27.67 \dots\dots\dots 27.49 \dots\dots\dots 27.35$

$v_2 = 4 \dots\dots\dots 14.98 \dots\dots\dots 14.80 \dots\dots\dots 14.66$

$v_2 = 5 \dots\dots\dots 10.46 \dots\dots\dots 10.29 \dots\dots\dots 10.16$

$v_2 = 6 \dots\dots\dots 8.260 \dots\dots\dots 8.102 \dots\dots\dots 7.976$

$v_2 = 7 \dots\dots\dots 6.993 \dots\dots\dots 6.840 \dots\dots\dots 6.719$

$v_2 = 8 \dots\dots\dots 6.178 \dots\dots\dots 6.029 \dots\dots\dots 5.911$

$v_2 = 9 \dots\dots\dots 5.613 \dots\dots\dots 5.467 \dots\dots\dots 5.351$

$v_2 = 10 \dots\dots\dots 5.200 \dots\dots\dots 5.057 \dots\dots\dots 4.942$

$v_2 = 11 \dots\dots\dots 4.886 \dots\dots\dots 4.744 \dots\dots\dots 4.632$

$v_2 = 12 \dots\dots\dots 4.640 \dots\dots\dots 4.499 \dots\dots\dots 4.388$

$v_2 = 13 \dots\dots\dots 4.441 \dots\dots\dots 4.302 \dots\dots\dots 4.191$

$v_2 = 14 \dots\dots\dots 4.278 \dots\dots\dots 4.140 \dots\dots\dots 4.030$

$v_2 = 15 \dots\dots\dots 4.142 \dots\dots\dots 4.004 \dots\dots\dots 3.895$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 20 \dots\dots\dots 3.699 \dots\dots\dots 3.564 \dots\dots\dots 3.457$

$v_2 = 25 \dots\dots\dots 3.457 \dots\dots\dots 3.324 \dots\dots\dots 3.217$

$v_2 = 30 \dots\dots\dots 3.304 \dots\dots\dots 3.173 \dots\dots\dots 3.067$

$v_2 = 40 \dots\dots\dots 3.124 \dots\dots\dots 2.993 \dots\dots\dots 2.888$

$v_2 = 50 \dots\dots\dots 3.020 \dots\dots\dots 2.890 \dots\dots\dots 2.785$

$v_2 = 100 \dots\dots\dots 2.823 \dots\dots\dots 2.694 \dots\dots\dots 2.590$

$v_2 = \infty \dots\dots\dots 2.639 \dots\dots\dots 2.511 \dots\dots\dots 2.407$

---

$v_1 = 10 - 12$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$

---

$v_2 = 1 \dots\dots\dots 6056 \dots\dots\dots 6083 \dots\dots\dots 6106$

$v_2 = 2 \dots\dots\dots 99.40 \dots\dots\dots 99.41 \dots\dots\dots 99.42$

$v_2 = 3 \dots\dots\dots 27.23 \dots\dots\dots 27.13 \dots\dots\dots 27.05$

$v_2 = 4 \dots\dots\dots 14.55 \dots\dots\dots 14.45 \dots\dots\dots 14.37$

$v_2 = 5 \dots\dots\dots 10.05 \dots\dots\dots 9.96 \dots\dots\dots 9.89$

$v_2 = 6 \dots\dots\dots 7.874 \dots\dots\dots 7.790 \dots\dots\dots 7.718$

$v_2 = 7 \dots\dots\dots 6.620 \dots\dots\dots 6.538 \dots\dots\dots 6.469$

$v_2 = 8 \dots\dots\dots 5.814 \dots\dots\dots 5.734 \dots\dots\dots 5.667$

$v_2 = 9 \dots\dots\dots 5.257 \dots\dots\dots 5.178 \dots\dots\dots 5.111$

$v_2 = 10 \dots\dots\dots 4.849 \dots\dots\dots 4.772 \dots\dots\dots 4.706$

$v_2 = 11 \dots\dots\dots 4.539 \dots\dots\dots 4.462 \dots\dots\dots 4.397$

$v_2 = 12 \dots\dots\dots 4.296 \dots\dots\dots 4.220 \dots\dots\dots 4.155$

$v_2 = 13 \dots\dots\dots 4.100 \dots\dots\dots 4.025 \dots\dots\dots 3.960$

$v_2 = 14 \dots\dots\dots 3.939 \dots\dots\dots 3.864 \dots\dots\dots 3.800$

$v_2 = 15 \dots\dots\dots 3.805 \dots\dots\dots 3.730 \dots\dots\dots 3.666$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$

---

$v_2 = 20 \dots\dots\dots 3.368 \dots\dots\dots 3.294 \dots\dots\dots 3.231$

$v_2 = 25 \dots\dots\dots 3.129 \dots\dots\dots 3.056 \dots\dots\dots 2.993$

$v_2 = 30 \dots\dots\dots 2.979 \dots\dots\dots 2.906 \dots\dots\dots 2.843$

$v_2 = 40 \dots\dots\dots 2.801 \dots\dots\dots 2.727 \dots\dots\dots 2.665$

$v_2 = 50 \dots\dots\dots 2.698 \dots\dots\dots 2.625 \dots\dots\dots 2.562$

$v_2 = 100 \dots\dots\dots 2.503 \dots\dots\dots 2.430 \dots\dots\dots 2.368$

$v_2 = \infty \dots\dots\dots 2.321 \dots\dots\dots 2.248 \dots\dots\dots 2.185$

---

$v_1 = 15 - 25$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 1 \dots\dots\dots 6157 \dots\dots\dots 6209 \dots\dots\dots 6240$

$v_2 = 2 \dots\dots\dots 99.43 \dots\dots\dots 99.45 \dots\dots\dots 99.46$

$v_2 = 3 \dots\dots\dots 26.87 \dots\dots\dots 26.69 \dots\dots\dots 26.58$

$v_2 = 4 \dots\dots\dots 14.20 \dots\dots\dots 14.02 \dots\dots\dots 13.91$

$v_2 = 5 \dots\dots\dots 9.72 \dots\dots\dots 9.55 \dots\dots\dots 9.45$

$v_2 = 6 \dots\dots\dots 7.559 \dots\dots\dots 7.396 \dots\dots\dots 7.296$

$v_2 = 7 \dots\dots\dots 6.314 \dots\dots\dots 6.155 \dots\dots\dots 6.058$

$v_2 = 8 \dots\dots\dots 5.515 \dots\dots\dots 5.359 \dots\dots\dots 5.263$

$v_2 = 9 \dots\dots\dots 4.962 \dots\dots\dots 4.808 \dots\dots\dots 4.713$

$v_2 = 10 \dots\dots\dots 4.558 \dots\dots\dots 4.405 \dots\dots\dots 4.311$

$v_2 = 11 \dots\dots\dots 4.251 \dots\dots\dots 4.099 \dots\dots\dots 4.005$

$v_2 = 12 \dots\dots\dots 4.010 \dots\dots\dots 3.858 \dots\dots\dots 3.765$

$v_2 = 13 \dots\dots\dots 3.815 \dots\dots\dots 3.665 \dots\dots\dots 3.571$

$v_2 = 14 \dots\dots\dots 3.656 \dots\dots\dots 3.505 \dots\dots\dots 3.412$

$v_2 = 15 \dots\dots\dots 3.522 \dots\dots\dots 3.372 \dots\dots\dots 3.278$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 20 \dots\dots\dots 3.088 \dots\dots\dots 2.938 \dots\dots\dots 2.843$

$v_2 = 25 \dots\dots\dots 2.850 \dots\dots\dots 2.699 \dots\dots\dots 2.604$

$v_2 = 30 \dots\dots\dots 2.700 \dots\dots\dots 2.549 \dots\dots\dots 2.453$

$v_2 = 40 \dots\dots\dots 2.522 \dots\dots\dots 2.369 \dots\dots\dots 2.271$

$v_2 = 50 \dots\dots\dots 2.419 \dots\dots\dots 2.265 \dots\dots\dots 2.167$

$v_2 = 100 \dots\dots\dots 2.223 \dots\dots\dots 2.067 \dots\dots\dots 1.965$

$v_2 = \infty \dots\dots\dots 2.039 \dots\dots\dots 1.878 \dots\dots\dots 1.773$

---

$v_1 = 30 - 50$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 1 \dots\dots\dots 6261 \dots\dots\dots 6287 \dots\dots\dots 6303$

$v_2 = 2 \dots\dots\dots 99.47 \dots\dots\dots 99.47 \dots\dots\dots 99.48$

$v_2 = 3 \dots\dots\dots 26.50 \dots\dots\dots 26.41 \dots\dots\dots 26.35$

$v_2 = 4 \dots\dots\dots 13.84 \dots\dots\dots 13.75 \dots\dots\dots 13.69$

$v_2 = 5 \dots\dots\dots 9.38 \dots\dots\dots 9.29 \dots\dots\dots 9.24$

$v_2 = 6 \dots\dots\dots 7.229 \dots\dots\dots 7.143 \dots\dots\dots 7.091$

$v_2 = 7 \dots\dots\dots 5.992 \dots\dots\dots 5.908 \dots\dots\dots 5.858$

$v_2 = 8 \dots\dots\dots 5.198 \dots\dots\dots 5.116 \dots\dots\dots 5.065$

$v_2 = 9 \dots\dots\dots 4.649 \dots\dots\dots 4.567 \dots\dots\dots 4.517$

$v_2 = 10 \dots\dots\dots 4.247 \dots\dots\dots 4.165 \dots\dots\dots 4.115$

$v_2 = 11 \dots\dots\dots 3.941 \dots\dots\dots 3.860 \dots\dots\dots 3.810$

$v_2 = 12 \dots\dots\dots 3.701 \dots\dots\dots 3.619 \dots\dots\dots 3.569$

$v_2 = 13 \dots\dots\dots 3.507 \dots\dots\dots 3.425 \dots\dots\dots 3.375$

$v_2 = 14 \dots\dots\dots 3.348 \dots\dots\dots 3.266 \dots\dots\dots 3.215$

$v_2 = 15 \dots\dots\dots 3.214 \dots\dots\dots 3.132 \dots\dots\dots 3.081$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 20 \dots\dots\dots 2.778 \dots\dots\dots 2.695 \dots\dots\dots 2.643$

$v_2 = 25 \dots\dots\dots 2.538 \dots\dots\dots 2.453 \dots\dots\dots 2.400$

$v_2 = 30 \dots\dots\dots 2.386 \dots\dots\dots 2.299 \dots\dots\dots 2.245$

$v_2 = 40 \dots\dots\dots 2.203 \dots\dots\dots 2.114 \dots\dots\dots 2.058$

$v_2 = 50 \dots\dots\dots 2.098 \dots\dots\dots 2.007 \dots\dots\dots 1.949$

$v_2 = 100 \dots\dots\dots 1.893 \dots\dots\dots 1.797 \dots\dots\dots 1.735$

$v_2 = \infty \dots\dots\dots 1.696 \dots\dots\dots 1.592 \dots\dots\dots 1.523$

---

$v_1 = 100 - \infty$  on the next page

(Turn over)

$$v_1 = \dots\dots\dots 100 \dots\dots\dots \infty$$


---

$$v_2 = 1 \dots\dots\dots 6334 \dots\dots\dots 6366$$

$$v_2 = 2 \dots\dots\dots 99.49 \dots\dots\dots 99.50$$

$$v_2 = 3 \dots\dots\dots 26.24 \dots\dots\dots 26.13$$

$$v_2 = 4 \dots\dots\dots 13.58 \dots\dots\dots 13.46$$

$$v_2 = 5 \dots\dots\dots 9.13 \dots\dots\dots 9.02$$

$$v_2 = 6 \dots\dots\dots 6.987 \dots\dots\dots 6.880$$

$$v_2 = 7 \dots\dots\dots 5.755 \dots\dots\dots 5.650$$

$$v_2 = 8 \dots\dots\dots 4.963 \dots\dots\dots 4.859$$

$$v_2 = 9 \dots\dots\dots 4.415 \dots\dots\dots 4.311$$

$$v_2 = 10 \dots\dots\dots 4.014 \dots\dots\dots 3.909$$

$$v_2 = 11 \dots\dots\dots 3.708 \dots\dots\dots 3.602$$

$$v_2 = 12 \dots\dots\dots 3.467 \dots\dots\dots 3.361$$

$$v_2 = 13 \dots\dots\dots 3.272 \dots\dots\dots 3.165$$

$$v_2 = 14 \dots\dots\dots 3.112 \dots\dots\dots 3.004$$

(continued on the next page)

(Turn over)

$$v_1 = \dots\dots\dots 100 \dots\dots\dots \infty$$


---

$$v_2 = 15 \dots\dots\dots 2.977 \dots\dots\dots 2.868$$

$$v_2 = 20 \dots\dots\dots 2.535 \dots\dots\dots 2.421$$

$$v_2 = 25 \dots\dots\dots 2.289 \dots\dots\dots 2.169$$

$$v_2 = 30 \dots\dots\dots 2.131 \dots\dots\dots 2.006$$

$$v_2 = 40 \dots\dots\dots 1.938 \dots\dots\dots 1.805$$

$$v_2 = 50 \dots\dots\dots 1.825 \dots\dots\dots 1.683$$

$$v_2 = 100 \dots\dots\dots 1.598 \dots\dots\dots 1.427$$

$$v_2 = \infty \dots\dots\dots 1.358 \dots\dots\dots 1.000$$


---

**F-DISTRIBUTION ( $p = 0.975$ ) on the next page**

**(Turn over)**

**F-DISTRIBUTION ( $p = 0.975$ )**

Use for one-tail tests at significance level 2.5% or  
two-tail tests at significance level 5%.

$v_1 =$  ..... 1 ..... 2 ..... 3

---

$v_2 = 1$  ..... 647.8 ..... 799.5 ..... 864.2

$v_2 = 2$  ..... 38.51 ..... 39.00 ..... 39.17

$v_2 = 3$  ..... 17.44 ..... 16.04 ..... 15.44

$v_2 = 4$  ..... 12.22 ..... 10.65 ..... 9.98

$v_2 = 5$  ..... 10.01 ..... 8.43 ..... 7.76

$v_2 = 6$  ..... 8.813 ..... 7.260 ..... 6.599

$v_2 = 7$  ..... 8.073 ..... 6.542 ..... 5.890

$v_2 = 8$  ..... 7.571 ..... 6.059 ..... 5.416

$v_2 = 9$  ..... 7.209 ..... 5.715 ..... 5.078

$v_2 = 10$  ..... 6.937 ..... 5.456 ..... 4.826

$v_2 = 11$  ..... 6.724 ..... 5.256 ..... 4.630

$v_2 = 12$  ..... 6.554 ..... 5.096 ..... 4.474

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 1 \dots\dots\dots 2 \dots\dots\dots 3$

---

$v_2 = 13 \dots\dots\dots 6.414 \dots\dots\dots 4.965 \dots\dots\dots 4.347$

$v_2 = 14 \dots\dots\dots 6.298 \dots\dots\dots 4.857 \dots\dots\dots 4.242$

$v_2 = 15 \dots\dots\dots 6.200 \dots\dots\dots 4.765 \dots\dots\dots 4.153$

$v_2 = 20 \dots\dots\dots 5.871 \dots\dots\dots 4.461 \dots\dots\dots 3.859$

$v_2 = 25 \dots\dots\dots 5.686 \dots\dots\dots 4.291 \dots\dots\dots 3.694$

$v_2 = 30 \dots\dots\dots 5.568 \dots\dots\dots 4.182 \dots\dots\dots 3.589$

$v_2 = 40 \dots\dots\dots 5.424 \dots\dots\dots 4.051 \dots\dots\dots 3.463$

$v_2 = 50 \dots\dots\dots 5.340 \dots\dots\dots 3.975 \dots\dots\dots 3.390$

$v_2 = 100 \dots\dots\dots 5.179 \dots\dots\dots 3.828 \dots\dots\dots 3.250$

$v_2 = \infty \dots\dots\dots 5.024 \dots\dots\dots 3.689 \dots\dots\dots 3.116$

---

$v_1 = 4 - 6$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 1 \dots\dots 899.6 \dots\dots 921.8 \dots\dots 937.1$

$v_2 = 2 \dots\dots 39.25 \dots\dots 39.30 \dots\dots 39.33$

$v_2 = 3 \dots\dots 15.10 \dots\dots 14.88 \dots\dots 14.73$

$v_2 = 4 \dots\dots 9.60 \dots\dots 9.36 \dots\dots 9.20$

$v_2 = 5 \dots\dots 7.39 \dots\dots 7.15 \dots\dots 6.98$

$v_2 = 6 \dots\dots 6.227 \dots\dots 5.988 \dots\dots 5.820$

$v_2 = 7 \dots\dots 5.523 \dots\dots 5.285 \dots\dots 5.119$

$v_2 = 8 \dots\dots 5.053 \dots\dots 4.817 \dots\dots 4.652$

$v_2 = 9 \dots\dots 4.718 \dots\dots 4.484 \dots\dots 4.320$

$v_2 = 10 \dots\dots 4.468 \dots\dots 4.236 \dots\dots 4.072$

$v_2 = 11 \dots\dots 4.275 \dots\dots 4.044 \dots\dots 3.881$

$v_2 = 12 \dots\dots 4.121 \dots\dots 3.891 \dots\dots 3.728$

$v_2 = 13 \dots\dots 3.996 \dots\dots 3.767 \dots\dots 3.604$

$v_2 = 14 \dots\dots 3.892 \dots\dots 3.663 \dots\dots 3.501$

$v_2 = 15 \dots\dots 3.804 \dots\dots 3.576 \dots\dots 3.415$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 20 \dots\dots\dots 3.515 \dots\dots\dots 3.289 \dots\dots\dots 3.128$

$v_2 = 25 \dots\dots\dots 3.353 \dots\dots\dots 3.129 \dots\dots\dots 2.969$

$v_2 = 30 \dots\dots\dots 3.250 \dots\dots\dots 3.026 \dots\dots\dots 2.867$

$v_2 = 40 \dots\dots\dots 3.126 \dots\dots\dots 2.904 \dots\dots\dots 2.744$

$v_2 = 50 \dots\dots\dots 3.054 \dots\dots\dots 2.833 \dots\dots\dots 2.674$

$v_2 = 100 \dots\dots\dots 2.917 \dots\dots\dots 2.696 \dots\dots\dots 2.537$

$v_2 = \infty \dots\dots\dots 2.786 \dots\dots\dots 2.567 \dots\dots\dots 2.408$

---

$v_1 = 7 - 9$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 1 \dots\dots 948.2 \dots\dots 956.7 \dots\dots 963.3$

$v_2 = 2 \dots\dots 39.36 \dots\dots 39.37 \dots\dots 39.39$

$v_2 = 3 \dots\dots 14.62 \dots\dots 14.54 \dots\dots 14.47$

$v_2 = 4 \dots\dots 9.07 \dots\dots 8.98 \dots\dots 8.90$

$v_2 = 5 \dots\dots 6.85 \dots\dots 6.76 \dots\dots 6.68$

$v_2 = 6 \dots\dots 5.695 \dots\dots 5.600 \dots\dots 5.523$

$v_2 = 7 \dots\dots 4.995 \dots\dots 4.899 \dots\dots 4.823$

$v_2 = 8 \dots\dots 4.529 \dots\dots 4.433 \dots\dots 4.357$

$v_2 = 9 \dots\dots 4.197 \dots\dots 4.102 \dots\dots 4.026$

$v_2 = 10 \dots\dots 3.950 \dots\dots 3.855 \dots\dots 3.779$

$v_2 = 11 \dots\dots 3.759 \dots\dots 3.664 \dots\dots 3.588$

$v_2 = 12 \dots\dots 3.607 \dots\dots 3.512 \dots\dots 3.436$

$v_2 = 13 \dots\dots 3.483 \dots\dots 3.388 \dots\dots 3.312$

$v_2 = 14 \dots\dots 3.380 \dots\dots 2.285 \dots\dots 3.209$

$v_2 = 15 \dots\dots 3.293 \dots\dots 3.199 \dots\dots 3.123$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 20 \dots\dots\dots 3.007 \dots\dots\dots 2.913 \dots\dots\dots 2.837$

$v_2 = 25 \dots\dots\dots 2.848 \dots\dots\dots 2.753 \dots\dots\dots 2.677$

$v_2 = 30 \dots\dots\dots 2.746 \dots\dots\dots 2.651 \dots\dots\dots 2.575$

$v_2 = 40 \dots\dots\dots 2.624 \dots\dots\dots 2.529 \dots\dots\dots 2.452$

$v_2 = 50 \dots\dots\dots 2.553 \dots\dots\dots 2.458 \dots\dots\dots 2.381$

$v_2 = 100 \dots\dots\dots 2.417 \dots\dots\dots 2.321 \dots\dots\dots 2.244$

$v_2 = \infty \dots\dots\dots 2.288 \dots\dots\dots 2.192 \dots\dots\dots 2.114$

---

$v_1 = 10 - 12$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$

---

$v_2 = 1 \dots\dots 968.6 \dots\dots 973.0 \dots\dots 976.7$

$v_2 = 2 \dots\dots 39.40 \dots\dots 39.41 \dots\dots 39.41$

$v_2 = 3 \dots\dots 14.42 \dots\dots 14.37 \dots\dots 14.34$

$v_2 = 4 \dots\dots 8.84 \dots\dots 8.79 \dots\dots 8.75$

$v_2 = 5 \dots\dots 6.62 \dots\dots 6.57 \dots\dots 6.52$

$v_2 = 6 \dots\dots 5.461 \dots\dots 5.410 \dots\dots 5.366$

$v_2 = 7 \dots\dots 4.761 \dots\dots 4.709 \dots\dots 4.666$

$v_2 = 8 \dots\dots 4.295 \dots\dots 4.243 \dots\dots 4.200$

$v_2 = 9 \dots\dots 3.964 \dots\dots 3.912 \dots\dots 3.868$

$v_2 = 10 \dots\dots 3.717 \dots\dots 3.665 \dots\dots 3.621$

$v_2 = 11 \dots\dots 3.526 \dots\dots 3.474 \dots\dots 3.430$

$v_2 = 12 \dots\dots 3.374 \dots\dots 3.321 \dots\dots 3.277$

$v_2 = 13 \dots\dots 3.250 \dots\dots 3.197 \dots\dots 3.153$

$v_2 = 14 \dots\dots 3.147 \dots\dots 3.095 \dots\dots 3.050$

$v_2 = 15 \dots\dots 3.060 \dots\dots 3.008 \dots\dots 2.963$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$

---

$v_2 = 20 \dots\dots\dots 2.774 \dots\dots\dots 2.721 \dots\dots\dots 2.676$

$v_2 = 25 \dots\dots\dots 2.613 \dots\dots\dots 2.560 \dots\dots\dots 2.515$

$v_2 = 30 \dots\dots\dots 2.511 \dots\dots\dots 2.458 \dots\dots\dots 2.412$

$v_2 = 40 \dots\dots\dots 2.388 \dots\dots\dots 2.334 \dots\dots\dots 2.288$

$v_2 = 50 \dots\dots\dots 2.317 \dots\dots\dots 2.263 \dots\dots\dots 2.216$

$v_2 = 100 \dots\dots\dots 2.179 \dots\dots\dots 2.125 \dots\dots\dots 2.077$

$v_2 = \infty \dots\dots\dots 2.048 \dots\dots\dots 1.993 \dots\dots\dots 1.945$

---

$v_1 = 15 - 25$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 1 \dots\dots 984.9 \dots\dots 993.1 \dots\dots 998.1$

$v_2 = 2 \dots\dots 39.43 \dots\dots 39.45 \dots\dots 39.46$

$v_2 = 3 \dots\dots 14.25 \dots\dots 14.17 \dots\dots 14.12$

$v_2 = 4 \dots\dots 8.66 \dots\dots 8.56 \dots\dots 8.50$

$v_2 = 5 \dots\dots 6.43 \dots\dots 6.33 \dots\dots 6.27$

$v_2 = 6 \dots\dots 5.269 \dots\dots 5.168 \dots\dots 5.107$

$v_2 = 7 \dots\dots 4.568 \dots\dots 4.467 \dots\dots 4.405$

$v_2 = 8 \dots\dots 4.101 \dots\dots 3.999 \dots\dots 3.937$

$v_2 = 9 \dots\dots 3.769 \dots\dots 3.667 \dots\dots 3.604$

$v_2 = 10 \dots\dots 3.522 \dots\dots 3.419 \dots\dots 3.355$

$v_2 = 11 \dots\dots 3.330 \dots\dots 3.226 \dots\dots 3.162$

$v_2 = 12 \dots\dots 3.177 \dots\dots 3.073 \dots\dots 3.008$

$v_2 = 13 \dots\dots 3.053 \dots\dots 2.948 \dots\dots 2.882$

$v_2 = 14 \dots\dots 2.949 \dots\dots 2.844 \dots\dots 2.778$

$v_2 = 15 \dots\dots 2.862 \dots\dots 2.756 \dots\dots 2.689$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 20 \dots\dots\dots 2.573 \dots\dots\dots 2.464 \dots\dots\dots 2.396$

$v_2 = 25 \dots\dots\dots 2.411 \dots\dots\dots 2.300 \dots\dots\dots 2.230$

$v_2 = 30 \dots\dots\dots 2.307 \dots\dots\dots 2.195 \dots\dots\dots 2.124$

$v_2 = 40 \dots\dots\dots 2.182 \dots\dots\dots 2.068 \dots\dots\dots 1.994$

$v_2 = 50 \dots\dots\dots 2.109 \dots\dots\dots 1.993 \dots\dots\dots 1.919$

$v_2 = 100 \dots\dots\dots 1.968 \dots\dots\dots 1.849 \dots\dots\dots 1.770$

$v_2 = \infty \dots\dots\dots 1.833 \dots\dots\dots 1.708 \dots\dots\dots 1.626$

---

$v_1 = 30 - 50$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 1 \dots 1001.4 \dots\dots 1005.6 \dots\dots 1008.1$

$v_2 = 2 \dots\dots 39.46 \dots\dots 39.47 \dots\dots 39.48$

$v_2 = 3 \dots\dots 14.08 \dots\dots 14.04 \dots\dots 14.01$

$v_2 = 4 \dots\dots 8.46 \dots\dots 8.41 \dots\dots 8.38$

$v_2 = 5 \dots\dots 6.23 \dots\dots 6.18 \dots\dots 6.14$

$v_2 = 6 \dots\dots 5.065 \dots\dots 5.012 \dots\dots 4.980$

$v_2 = 7 \dots\dots 4.362 \dots\dots 4.309 \dots\dots 4.276$

$v_2 = 8 \dots\dots 3.894 \dots\dots 3.840 \dots\dots 3.807$

$v_2 = 9 \dots\dots 3.560 \dots\dots 3.505 \dots\dots 3.472$

$v_2 = 10 \dots\dots 3.311 \dots\dots 3.255 \dots\dots 3.221$

$v_2 = 11 \dots\dots 3.118 \dots\dots 3.061 \dots\dots 3.027$

$v_2 = 12 \dots\dots 2.963 \dots\dots 2.906 \dots\dots 2.871$

$v_2 = 13 \dots\dots 2.837 \dots\dots 2.780 \dots\dots 2.744$

$v_2 = 14 \dots\dots 2.732 \dots\dots 2.674 \dots\dots 2.638$

$v_2 = 15 \dots\dots 2.644 \dots\dots 2.585 \dots\dots 2.549$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 20 \dots\dots\dots 2.349 \dots\dots\dots 2.287 \dots\dots\dots 2.249$

$v_2 = 25 \dots\dots\dots 2.182 \dots\dots\dots 2.118 \dots\dots\dots 2.079$

$v_2 = 30 \dots\dots\dots 2.074 \dots\dots\dots 2.009 \dots\dots\dots 1.968$

$v_2 = 40 \dots\dots\dots 1.943 \dots\dots\dots 1.875 \dots\dots\dots 1.832$

$v_2 = 50 \dots\dots\dots 1.866 \dots\dots\dots 1.796 \dots\dots\dots 1.752$

$v_2 = 100 \dots\dots\dots 1.715 \dots\dots\dots 1.640 \dots\dots\dots 1.592$

$v_2 = \infty \dots\dots\dots 1.566 \dots\dots\dots 1.484 \dots\dots\dots 1.428$

---

$v_1 = 100 - \infty$  on the next page

(Turn over)

$$v_1 = \dots 100 \dots \infty$$


---

$$v_2 = 1 \dots 1013.2 \dots 1018.3$$

$$v_2 = 2 \dots 39.49 \dots 39.50$$

$$v_2 = 3 \dots 13.96 \dots 13.90$$

$$v_2 = 4 \dots 8.32 \dots 8.26$$

$$v_2 = 5 \dots 6.08 \dots 6.02$$

$$v_2 = 6 \dots 4.915 \dots 4.849$$

$$v_2 = 7 \dots 4.210 \dots 4.142$$

$$v_2 = 8 \dots 3.739 \dots 3.670$$

$$v_2 = 9 \dots 3.403 \dots 3.333$$

$$v_2 = 10 \dots 3.152 \dots 3.080$$

$$v_2 = 11 \dots 2.956 \dots 2.883$$

$$v_2 = 12 \dots 2.800 \dots 2.725$$

$$v_2 = 13 \dots 2.671 \dots 2.595$$

$$v_2 = 14 \dots 2.565 \dots 2.487$$

(continued on the next page)

(Turn over)

$$v_1 = \dots\dots\dots 100 \dots\dots\dots \infty$$


---

$$v_2 = 15 \dots\dots\dots 2.474 \dots\dots\dots 2.395$$

$$v_2 = 20 \dots\dots\dots 2.170 \dots\dots\dots 2.085$$

$$v_2 = 25 \dots\dots\dots 1.996 \dots\dots\dots 1.906$$

$$v_2 = 30 \dots\dots\dots 1.882 \dots\dots\dots 1.787$$

$$v_2 = 40 \dots\dots\dots 1.741 \dots\dots\dots 1.637$$

$$v_2 = 50 \dots\dots\dots 1.656 \dots\dots\dots 1.545$$

$$v_2 = 100 \dots\dots\dots 1.483 \dots\dots\dots 1.347$$

$$v_2 = \infty \dots\dots\dots 1.296 \dots\dots\dots 1.000$$


---

**F-DISTRIBUTION (p = 0.95) on the next page**

**(Turn over)**

**F-DISTRIBUTION (p= 0.95)**

Use for one-tail tests at significance level 5% or  
two-tail tests at significance level 10%.

$v_1 = \dots\dots\dots 1 \dots\dots\dots 2 \dots\dots\dots 3$

---

$v_2 = 1 \dots\dots 161.4 \dots\dots 199.5 \dots\dots 215.7$

$v_2 = 2 \dots\dots 18.51 \dots\dots 19.00 \dots\dots 19.16$

$v_2 = 3 \dots\dots 10.13 \dots\dots 9.55 \dots\dots 9.28$

$v_2 = 4 \dots\dots\dots 7.71 \dots\dots\dots 6.94 \dots\dots\dots 6.59$

$v_2 = 5 \dots\dots\dots 6.61 \dots\dots\dots 5.79 \dots\dots\dots 5.41$

$v_2 = 6 \dots\dots\dots 5.987 \dots\dots\dots 5.143 \dots\dots\dots 4.757$

$v_2 = 7 \dots\dots\dots 5.591 \dots\dots\dots 4.737 \dots\dots\dots 4.347$

$v_2 = 8 \dots\dots\dots 5.318 \dots\dots\dots 4.459 \dots\dots\dots 4.066$

$v_2 = 9 \dots\dots\dots 5.117 \dots\dots\dots 4.256 \dots\dots\dots 3.863$

$v_2 = 10 \dots\dots\dots 4.965 \dots\dots\dots 4.103 \dots\dots\dots 3.708$

$v_2 = 11 \dots\dots\dots 4.844 \dots\dots\dots 3.982 \dots\dots\dots 3.587$

$v_2 = 12 \dots\dots\dots 4.747 \dots\dots\dots 3.885 \dots\dots\dots 3.490$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 1 \dots\dots\dots 2 \dots\dots\dots 3$

---

$v_2 = 13 \dots\dots\dots 4.667 \dots\dots\dots 3.806 \dots\dots\dots 3.411$

$v_2 = 14 \dots\dots\dots 4.600 \dots\dots\dots 3.739 \dots\dots\dots 3.344$

$v_2 = 15 \dots\dots\dots 4.543 \dots\dots\dots 3.682 \dots\dots\dots 3.287$

$v_2 = 20 \dots\dots\dots 4.351 \dots\dots\dots 3.493 \dots\dots\dots 3.098$

$v_2 = 25 \dots\dots\dots 4.242 \dots\dots\dots 3.385 \dots\dots\dots 2.991$

$v_2 = 30 \dots\dots\dots 4.171 \dots\dots\dots 3.316 \dots\dots\dots 2.922$

$v_2 = 40 \dots\dots\dots 4.085 \dots\dots\dots 3.232 \dots\dots\dots 2.839$

$v_2 = 50 \dots\dots\dots 4.034 \dots\dots\dots 3.183 \dots\dots\dots 2.790$

$v_2 = 100 \dots\dots\dots 3.936 \dots\dots\dots 3.087 \dots\dots\dots 2.696$

$v_2 = \infty \dots\dots\dots 3.841 \dots\dots\dots 2.996 \dots\dots\dots 2.605$

---

$v_1 = 4 - 6$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 1 \dots\dots 224.6 \dots\dots 230.2 \dots\dots 234.0$

$v_2 = 2 \dots\dots 19.25 \dots\dots 19.30 \dots\dots 19.33$

$v_2 = 3 \dots\dots 9.12 \dots\dots 9.01 \dots\dots 8.94$

$v_2 = 4 \dots\dots 6.39 \dots\dots 6.26 \dots\dots 6.16$

$v_2 = 5 \dots\dots 5.19 \dots\dots 5.05 \dots\dots 4.95$

$v_2 = 6 \dots\dots 4.534 \dots\dots 4.387 \dots\dots 4.284$

$v_2 = 7 \dots\dots 4.120 \dots\dots 3.972 \dots\dots 3.866$

$v_2 = 8 \dots\dots 3.838 \dots\dots 3.688 \dots\dots 3.581$

$v_2 = 9 \dots\dots 3.633 \dots\dots 3.482 \dots\dots 3.374$

$v_2 = 10 \dots\dots 3.478 \dots\dots 3.326 \dots\dots 3.217$

$v_2 = 11 \dots\dots 3.357 \dots\dots 3.204 \dots\dots 3.095$

$v_2 = 12 \dots\dots 3.259 \dots\dots 3.106 \dots\dots 2.996$

$v_2 = 13 \dots\dots 3.179 \dots\dots 3.025 \dots\dots 2.915$

$v_2 = 14 \dots\dots 3.112 \dots\dots 2.958 \dots\dots 2.848$

$v_2 = 15 \dots\dots 3.056 \dots\dots 2.901 \dots\dots 2.790$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 4 \dots\dots\dots 5 \dots\dots\dots 6$

---

$v_2 = 20 \dots\dots\dots 2.866 \dots\dots\dots 2.711 \dots\dots\dots 2.599$

$v_2 = 25 \dots\dots\dots 2.759 \dots\dots\dots 2.603 \dots\dots\dots 2.490$

$v_2 = 30 \dots\dots\dots 2.690 \dots\dots\dots 2.534 \dots\dots\dots 2.421$

$v_2 = 40 \dots\dots\dots 2.606 \dots\dots\dots 2.449 \dots\dots\dots 2.336$

$v_2 = 50 \dots\dots\dots 2.557 \dots\dots\dots 2.400 \dots\dots\dots 2.286$

$v_2 = 100 \dots\dots\dots 2.463 \dots\dots\dots 2.305 \dots\dots\dots 2.191$

$v_2 = \infty \dots\dots\dots 2.372 \dots\dots\dots 2.214 \dots\dots\dots 2.099$

---

$v_1 = 7 - 9$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 1 \dots\dots 236.8 \dots\dots 238.9 \dots\dots 240.5$

$v_2 = 2 \dots\dots 19.35 \dots\dots 19.37 \dots\dots 19.38$

$v_2 = 3 \dots\dots 8.89 \dots\dots 8.85 \dots\dots 8.81$

$v_2 = 4 \dots\dots 6.09 \dots\dots 6.04 \dots\dots 6.00$

$v_2 = 5 \dots\dots 4.88 \dots\dots 4.82 \dots\dots 4.77$

$v_2 = 6 \dots\dots 4.207 \dots\dots 4.147 \dots\dots 4.099$

$v_2 = 7 \dots\dots 3.787 \dots\dots 3.726 \dots\dots 3.677$

$v_2 = 8 \dots\dots 3.500 \dots\dots 3.438 \dots\dots 3.388$

$v_2 = 9 \dots\dots 3.293 \dots\dots 3.230 \dots\dots 3.179$

$v_2 = 10 \dots\dots 3.135 \dots\dots 3.072 \dots\dots 3.020$

$v_2 = 11 \dots\dots 3.012 \dots\dots 2.948 \dots\dots 2.896$

$v_2 = 12 \dots\dots 2.913 \dots\dots 2.849 \dots\dots 2.796$

$v_2 = 13 \dots\dots 2.832 \dots\dots 2.767 \dots\dots 2.714$

$v_2 = 14 \dots\dots 2.764 \dots\dots 2.699 \dots\dots 2.646$

$v_2 = 15 \dots\dots 2.707 \dots\dots 2.641 \dots\dots 2.588$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 7 \dots\dots\dots 8 \dots\dots\dots 9$

---

$v_2 = 20 \dots\dots\dots 2.514 \dots\dots\dots 2.447 \dots\dots\dots 2.393$

$v_2 = 25 \dots\dots\dots 2.405 \dots\dots\dots 2.337 \dots\dots\dots 2.282$

$v_2 = 30 \dots\dots\dots 2.334 \dots\dots\dots 2.266 \dots\dots\dots 2.211$

$v_2 = 40 \dots\dots\dots 2.249 \dots\dots\dots 2.180 \dots\dots\dots 2.124$

$v_2 = 50 \dots\dots\dots 2.199 \dots\dots\dots 2.130 \dots\dots\dots 2.073$

$v_2 = 100 \dots\dots\dots 2.103 \dots\dots\dots 2.032 \dots\dots\dots 1.975$

$v_2 = \infty \dots\dots\dots 2.010 \dots\dots\dots 1.938 \dots\dots\dots 1.880$

---

$v_1 = 10 - 12$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$

---

$v_2 = 1 \dots\dots 241.9 \dots\dots 243.0 \dots\dots 243.9$

$v_2 = 2 \dots\dots\dots 19.40 \dots\dots\dots 19.40 \dots\dots\dots 19.41$

$v_2 = 3 \dots\dots\dots 8.79 \dots\dots\dots 8.76 \dots\dots\dots 8.74$

$v_2 = 4 \dots\dots\dots 5.96 \dots\dots\dots 5.94 \dots\dots\dots 5.91$

$v_2 = 5 \dots\dots\dots 4.74 \dots\dots\dots 4.70 \dots\dots\dots 4.68$

$v_2 = 6 \dots\dots\dots 4.060 \dots\dots\dots 4.027 \dots\dots\dots 4.000$

$v_2 = 7 \dots\dots\dots 3.637 \dots\dots\dots 3.603 \dots\dots\dots 3.575$

$v_2 = 8 \dots\dots\dots 3.347 \dots\dots\dots 3.313 \dots\dots\dots 3.284$

$v_2 = 9 \dots\dots\dots 3.137 \dots\dots\dots 3.102 \dots\dots\dots 3.073$

$v_2 = 10 \dots\dots\dots 2.978 \dots\dots\dots 2.943 \dots\dots\dots 2.913$

$v_2 = 11 \dots\dots\dots 2.854 \dots\dots\dots 2.818 \dots\dots\dots 2.788$

$v_2 = 12 \dots\dots\dots 2.753 \dots\dots\dots 2.717 \dots\dots\dots 2.687$

$v_2 = 13 \dots\dots\dots 2.671 \dots\dots\dots 2.635 \dots\dots\dots 2.604$

$v_2 = 14 \dots\dots\dots 2.602 \dots\dots\dots 2.565 \dots\dots\dots 2.534$

$v_2 = 15 \dots\dots\dots 2.544 \dots\dots\dots 2.507 \dots\dots\dots 2.475$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 10 \dots\dots\dots 11 \dots\dots\dots 12$

---

$v_2 = 20 \dots\dots\dots 2.348 \dots\dots\dots 2.310 \dots\dots\dots 2.278$

$v_2 = 25 \dots\dots\dots 2.236 \dots\dots\dots 2.198 \dots\dots\dots 2.165$

$v_2 = 30 \dots\dots\dots 2.165 \dots\dots\dots 2.126 \dots\dots\dots 2.092$

$v_2 = 40 \dots\dots\dots 2.077 \dots\dots\dots 2.038 \dots\dots\dots 2.003$

$v_2 = 50 \dots\dots\dots 2.026 \dots\dots\dots 1.986 \dots\dots\dots 1.952$

$v_2 = 100 \dots\dots\dots 1.927 \dots\dots\dots 1.886 \dots\dots\dots 1.850$

$v_2 = \infty \dots\dots\dots 1.831 \dots\dots\dots 1.789 \dots\dots\dots 1.752$

---

$v_1 = 15 - 25$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 1 \dots\dots 245.9 \dots\dots 248.0 \dots\dots 249.3$

$v_2 = 2 \dots\dots 19.43 \dots\dots 19.45 \dots\dots 19.46$

$v_2 = 3 \dots\dots 8.70 \dots\dots 8.66 \dots\dots 8.63$

$v_2 = 4 \dots\dots 5.86 \dots\dots 5.80 \dots\dots 5.77$

$v_2 = 5 \dots\dots 4.62 \dots\dots 4.56 \dots\dots 4.52$

$v_2 = 6 \dots\dots 3.938 \dots\dots 3.874 \dots\dots 3.835$

$v_2 = 7 \dots\dots 3.511 \dots\dots 3.445 \dots\dots 3.404$

$v_2 = 8 \dots\dots 3.218 \dots\dots 3.150 \dots\dots 3.108$

$v_2 = 9 \dots\dots 3.006 \dots\dots 2.936 \dots\dots 2.893$

$v_2 = 10 \dots\dots 2.845 \dots\dots 2.774 \dots\dots 2.730$

$v_2 = 11 \dots\dots 2.719 \dots\dots 2.646 \dots\dots 2.601$

$v_2 = 12 \dots\dots 2.617 \dots\dots 2.544 \dots\dots 2.498$

$v_2 = 13 \dots\dots 2.533 \dots\dots 2.459 \dots\dots 2.412$

$v_2 = 14 \dots\dots 2.463 \dots\dots 2.388 \dots\dots 2.341$

$v_2 = 15 \dots\dots 2.403 \dots\dots 2.328 \dots\dots 2.280$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 15 \dots\dots\dots 20 \dots\dots\dots 25$

---

$v_2 = 20 \dots\dots\dots 2.203 \dots\dots\dots 2.124 \dots\dots\dots 2.074$

$v_2 = 25 \dots\dots\dots 2.089 \dots\dots\dots 2.007 \dots\dots\dots 1.955$

$v_2 = 30 \dots\dots\dots 2.015 \dots\dots\dots 1.932 \dots\dots\dots 1.878$

$v_2 = 40 \dots\dots\dots 1.924 \dots\dots\dots 1.839 \dots\dots\dots 1.783$

$v_2 = 50 \dots\dots\dots 1.871 \dots\dots\dots 1.784 \dots\dots\dots 1.727$

$v_2 = 100 \dots\dots\dots 1.768 \dots\dots\dots 1.676 \dots\dots\dots 1.616$

$v_2 = \infty \dots\dots\dots 1.666 \dots\dots\dots 1.571 \dots\dots\dots 1.506$

---

$v_1 = 30 - 50$  on the next page

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 1 \dots\dots 250.1 \dots\dots 251.1 \dots\dots 251.8$

$v_2 = 2 \dots\dots 19.46 \dots\dots 19.47 \dots\dots 19.48$

$v_2 = 3 \dots\dots 8.62 \dots\dots 8.59 \dots\dots 8.58$

$v_2 = 4 \dots\dots 5.75 \dots\dots 5.72 \dots\dots 5.70$

$v_2 = 5 \dots\dots 4.50 \dots\dots 4.46 \dots\dots 4.44$

$v_2 = 6 \dots\dots 3.808 \dots\dots 3.774 \dots\dots 3.754$

$v_2 = 7 \dots\dots 3.376 \dots\dots 3.340 \dots\dots 3.319$

$v_2 = 8 \dots\dots 3.079 \dots\dots 3.043 \dots\dots 3.020$

$v_2 = 9 \dots\dots 2.864 \dots\dots 2.826 \dots\dots 2.803$

$v_2 = 10 \dots\dots 2.700 \dots\dots 2.661 \dots\dots 2.637$

$v_2 = 11 \dots\dots 2.570 \dots\dots 2.531 \dots\dots 2.507$

$v_2 = 12 \dots\dots 2.466 \dots\dots 2.426 \dots\dots 2.401$

$v_2 = 13 \dots\dots 2.380 \dots\dots 2.339 \dots\dots 2.314$

$v_2 = 14 \dots\dots 2.308 \dots\dots 2.266 \dots\dots 2.241$

$v_2 = 15 \dots\dots 2.247 \dots\dots 2.204 \dots\dots 2.178$

(continued on the next page)

(Turn over)

$v_1 = \dots\dots\dots 30 \dots\dots\dots 40 \dots\dots\dots 50$

---

$v_2 = 20 \dots\dots\dots 2.039 \dots\dots\dots 1.994 \dots\dots\dots 1.966$

$v_2 = 25 \dots\dots\dots 1.919 \dots\dots\dots 1.872 \dots\dots\dots 1.842$

$v_2 = 30 \dots\dots\dots 1.841 \dots\dots\dots 1.792 \dots\dots\dots 1.761$

$v_2 = 40 \dots\dots\dots 1.744 \dots\dots\dots 1.693 \dots\dots\dots 1.660$

$v_2 = 50 \dots\dots\dots 1.687 \dots\dots\dots 1.634 \dots\dots\dots 1.599$

$v_2 = 100 \dots\dots\dots 1.573 \dots\dots\dots 1.515 \dots\dots\dots 1.477$

$v_2 = \infty \dots\dots\dots 1.459 \dots\dots\dots 1.394 \dots\dots\dots 1.350$

---

$v_1 = 100 - \infty$  on the next page

(Turn over)

$$v_1 = \dots\dots\dots 100 \dots\dots\dots \infty$$


---

$$v_2 = 1 \dots\dots 253.0 \dots\dots 254.3$$

$$v_2 = 2 \dots\dots\dots 19.49 \dots\dots 19.50$$

$$v_2 = 3 \dots\dots\dots 8.55 \dots\dots\dots 8.53$$

$$v_2 = 4 \dots\dots\dots 5.66 \dots\dots\dots 5.63$$

$$v_2 = 5 \dots\dots\dots 4.41 \dots\dots\dots 4.36$$

$$v_2 = 6 \dots\dots\dots 3.712 \dots\dots 3.669$$

$$v_2 = 7 \dots\dots\dots 3.275 \dots\dots 3.230$$

$$v_2 = 8 \dots\dots\dots 2.975 \dots\dots 2.928$$

$$v_2 = 9 \dots\dots\dots 2.756 \dots\dots 2.707$$

$$v_2 = 10 \dots\dots\dots 2.588 \dots\dots 2.538$$

$$v_2 = 11 \dots\dots\dots 2.457 \dots\dots 2.404$$

$$v_2 = 12 \dots\dots\dots 2.350 \dots\dots 2.296$$

$$v_2 = 13 \dots\dots\dots 2.261 \dots\dots 2.206$$

$$v_2 = 14 \dots\dots\dots 2.187 \dots\dots 2.131$$

(continued on the next page)

(Turn over)

$$v_1 = \dots\dots\dots 100 \dots\dots\dots \infty$$


---

$$v_2 = 15 \dots\dots\dots 2.123 \dots\dots\dots 2.066$$

$$v_2 = 20 \dots\dots\dots 1.907 \dots\dots\dots 1.843$$

$$v_2 = 25 \dots\dots\dots 1.779 \dots\dots\dots 1.711$$

$$v_2 = 30 \dots\dots\dots 1.695 \dots\dots\dots 1.622$$

$$v_2 = 40 \dots\dots\dots 1.589 \dots\dots\dots 1.509$$

$$v_2 = 50 \dots\dots\dots 1.525 \dots\dots\dots 1.438$$

$$v_2 = 100 \dots\dots\dots 1.392 \dots\dots\dots 1.283$$

$$v_2 = \infty \dots\dots\dots 1.243 \dots\dots\dots 1.000$$


---

**END OF TABLE 7**

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**(Turn over)**

#### 4. STATISTICAL TABLES

##### TABLE 8: CRITICAL VALUES OF THE PRODUCT MOMENT CORRELATION COEFFICIENT

The table gives the critical values, for different significance levels, of the product moment correlation coefficient,  $r$ , for varying sample sizes,  $n$ .

---

One tail = ... 10% ..... 5% ..... 2.5%

Two tail = ... 20% ..... 10% ..... 5%

---

n = 4	.....	0.8000	.....	0.9000	.....	0.9500
n = 5	.....	0.6870	.....	0.8054	.....	0.8783
n = 6	.....	0.6084	.....	0.7293	.....	0.8114
n = 7	.....	0.5509	.....	0.6694	.....	0.7545
n = 8	.....	0.5067	.....	0.6215	.....	0.7067
n = 9	.....	0.4716	.....	0.5822	.....	0.6664
n = 10	.....	0.4428	.....	0.5494	.....	0.6319
n = 11	.....	0.4187	.....	0.5214	.....	0.6021
n = 12	.....	0.3981	.....	0.4973	.....	0.5760
n = 13	.....	0.3802	.....	0.4762	.....	0.5529
n = 14	.....	0.3646	.....	0.4575	.....	0.5324
n = 15	.....	0.3507	.....	0.4409	.....	0.5140
n = 16	.....	0.3383	.....	0.4259	.....	0.4973
n = 17	.....	0.3271	.....	0.4124	.....	0.4821
n = 18	.....	0.3170	.....	0.4000	.....	0.4683

(continued on the next page)

(Turn over)

One tail = ... 10% ..... 5% ..... 2.5%

Two tail = ... 20% ..... 10% ..... 5%

---

n = 19	..... 0.3077	..... 0.3887	..... 0.4555
n = 20	..... 0.2992	..... 0.3783	..... 0.4438
n = 21	..... 0.2914	..... 0.3687	..... 0.4329
n = 22	..... 0.2841	..... 0.3598	..... 0.4227
n = 23	..... 0.2774	..... 0.3515	..... 0.4132
n = 24	..... 0.2711	..... 0.3438	..... 0.4044
n = 25	..... 0.2653	..... 0.3365	..... 0.3961
n = 26	..... 0.2598	..... 0.3297	..... 0.3882
n = 27	..... 0.2546	..... 0.3233	..... 0.3809
n = 28	..... 0.2497	..... 0.3172	..... 0.3739
n = 29	..... 0.2451	..... 0.3115	..... 0.3673
n = 30	..... 0.2407	..... 0.3061	..... 0.3610
n = 31	..... 0.2366	..... 0.3009	..... 0.3550
n = 32	..... 0.2327	..... 0.2960	..... 0.3494
n = 33	..... 0.2289	..... 0.2913	..... 0.3440

(continued on the next page)

(Turn over)

One tail = ... 10% ..... 5% ..... 2.5%

Two tail = ... 20% ..... 10% ..... 5%

---

<b>n = 34</b>	<b>..... 0.2254</b>	<b>..... 0.2869</b>	<b>..... 0.3388</b>
<b>n = 35</b>	<b>..... 0.2220</b>	<b>..... 0.2826</b>	<b>..... 0.3338</b>
<b>n = 36</b>	<b>..... 0.2187</b>	<b>..... 0.2785</b>	<b>..... 0.3291</b>
<b>n = 37</b>	<b>..... 0.2156</b>	<b>..... 0.2746</b>	<b>..... 0.3246</b>
<b>n = 38</b>	<b>..... 0.2126</b>	<b>..... 0.2709</b>	<b>..... 0.3202</b>
<b>n = 39</b>	<b>..... 0.2097</b>	<b>..... 0.2673</b>	<b>..... 0.3160</b>
<b>n = 40</b>	<b>..... 0.2070</b>	<b>..... 0.2638</b>	<b>..... 0.3120</b>
<b>n = 41</b>	<b>..... 0.2043</b>	<b>..... 0.2605</b>	<b>..... 0.3081</b>
<b>n = 42</b>	<b>..... 0.2018</b>	<b>..... 0.2573</b>	<b>..... 0.3044</b>
<b>n = 43</b>	<b>..... 0.1993</b>	<b>..... 0.2542</b>	<b>..... 0.3008</b>
<b>n = 44</b>	<b>..... 0.1970</b>	<b>..... 0.2512</b>	<b>..... 0.2973</b>
<b>n = 45</b>	<b>..... 0.1947</b>	<b>..... 0.2483</b>	<b>..... 0.2940</b>
<b>n = 46</b>	<b>..... 0.1925</b>	<b>..... 0.2455</b>	<b>..... 0.2907</b>
<b>n = 47</b>	<b>..... 0.1903</b>	<b>..... 0.2429</b>	<b>..... 0.2876</b>
<b>n = 48</b>	<b>..... 0.1883</b>	<b>..... 0.2403</b>	<b>..... 0.2845</b>

(continued on the next page)

(Turn over)

One tail = ... 10% ..... 5% ..... 2.5%

Two tail = ... 20% ..... 10% ..... 5%

---

n = 49 ..... 0.1863 ..... 0.2377 ..... 0.2816

n = 50 ..... 0.1843 ..... 0.2353 ..... 0.2787

n = 60 ..... 0.1678 ..... 0.2144 ..... 0.2542

n = 70 ..... 0.1550 ..... 0.1982 ..... 0.2352

n = 80 ..... 0.1448 ..... 0.1852 ..... 0.2199

n = 90 ..... 0.1364 ..... 0.1745 ..... 0.2072

n = 100 .... 0.1292 ..... 0.1654 ..... 0.1966

---

One tail 1% and 0.5% and Two tail 2% and 1% on  
the next page

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

**n = 4 ..... 0.9800 ..... 0.9900**

**n = 5 ..... 0.9343 ..... 0.9587**

**n = 6 ..... 0.8822 ..... 0.9172**

**n = 7 ..... 0.8329 ..... 0.8745**

**n = 8 ..... 0.7887 ..... 0.8343**

**n = 9 ..... 0.7498 ..... 0.7977**

**n = 10 ..... 0.7155 ..... 0.7646**

**n = 11 ..... 0.6851 ..... 0.7348**

**n = 12 ..... 0.6581 ..... 0.7079**

**n = 13 ..... 0.6339 ..... 0.6835**

**n = 14 ..... 0.6120 ..... 0.6614**

**n = 15 ..... 0.5923 ..... 0.6411**

**n = 16 ..... 0.5742 ..... 0.6226**

**n = 17 ..... 0.5577 ..... 0.6055**

**n = 18 ..... 0.5425 ..... 0.5897**

(continued on the next page)

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

**n = 19 ..... 0.5285 ..... 0.5751**

**n = 20 ..... 0.5155 ..... 0.5614**

**n = 21 ..... 0.5034 ..... 0.5487**

**n = 22 ..... 0.4921 ..... 0.5368**

**n = 23 ..... 0.4815 ..... 0.5256**

**n = 24 ..... 0.4716 ..... 0.5151**

**n = 25 ..... 0.4622 ..... 0.5052**

**n = 26 ..... 0.4534 ..... 0.4958**

**n = 27 ..... 0.4451 ..... 0.4869**

**n = 28 ..... 0.4372 ..... 0.4785**

**n = 29 ..... 0.4297 ..... 0.4705**

**n = 30 ..... 0.4226 ..... 0.4629**

**n = 31 ..... 0.4158 ..... 0.4556**

**n = 32 ..... 0.4093 ..... 0.4487**

**n = 33 ..... 0.4032 ..... 0.4421**

(continued on the next page)

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

**n = 34 ..... 0.3972 ..... 0.4357**

**n = 35 ..... 0.3916 ..... 0.4296**

**n = 36 ..... 0.3862 ..... 0.4238**

**n = 37 ..... 0.3810 ..... 0.4182**

**n = 38 ..... 0.3760 ..... 0.4128**

**n = 39 ..... 0.3712 ..... 0.4076**

**n = 40 ..... 0.3665 ..... 0.4026**

**n = 41 ..... 0.3621 ..... 0.3978**

**n = 42 ..... 0.3578 ..... 0.3932**

**n = 43 ..... 0.3536 ..... 0.3887**

**n = 44 ..... 0.3496 ..... 0.3843**

**n = 45 ..... 0.3457 ..... 0.3801**

**n = 46 ..... 0.3420 ..... 0.3761**

**n = 47 ..... 0.3384 ..... 0.3721**

**n = 48 ..... 0.3348 ..... 0.3683**

(continued on the next page)

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

---

**n = 49 ..... 0.3314 ..... 0.3646**

**n = 50 ..... 0.3281 ..... 0.3610**

**n = 60 ..... 0.2997 ..... 0.3301**

**n = 70 ..... 0.2776 ..... 0.3060**

**n = 80 ..... 0.2597 ..... 0.2864**

**n = 90 ..... 0.2449 ..... 0.2702**

**n = 100 .... 0.2324 ..... 0.2565**

---

**END OF TABLE 8**

---

**(Turn over)**

#### 4. STATISTICAL TABLES

##### TABLE 9: CRITICAL VALUES OF SPEARMAN'S RANK CORRELATION COEFFICIENT

The table gives the critical values, for different significance levels, of Spearman's rank correlation coefficient,  $r_s$ , for varying sample sizes,  $n$ . Since  $r_s$  is discrete, exact significance levels cannot be obtained in most cases. The critical values given are those with significance levels closest to the stated value.

(Turn over)

One tail = ... **10%** ..... **5%** ..... **2.5%**

Two tail = ... **20%** ..... **10%** ..... **5%**

---

<b>n = 4</b>	<b>..... 1.0000</b>	<b>..... 1.0000</b>	<b>..... 1.0000</b>
<b>n = 5</b>	<b>..... 0.7000</b>	<b>..... 0.9000</b>	<b>..... 0.9000</b>
<b>n = 6</b>	<b>..... 0.6571</b>	<b>..... 0.7714</b>	<b>..... 0.8286</b>
<b>n = 7</b>	<b>..... 0.5714</b>	<b>..... 0.6786</b>	<b>..... 0.7857</b>
<b>n = 8</b>	<b>..... 0.5476</b>	<b>..... 0.6429</b>	<b>..... 0.7381</b>
<b>n = 9</b>	<b>..... 0.4833</b>	<b>..... 0.6000</b>	<b>..... 0.6833</b>
<b>n = 10</b>	<b>..... 0.4424</b>	<b>..... 0.5636</b>	<b>..... 0.6485</b>
<b>n = 11</b>	<b>..... 0.4182</b>	<b>..... 0.5273</b>	<b>..... 0.6091</b>
<b>n = 12</b>	<b>..... 0.3986</b>	<b>..... 0.5035</b>	<b>..... 0.5874</b>
<b>n = 13</b>	<b>..... 0.3791</b>	<b>..... 0.4780</b>	<b>..... 0.5604</b>
<b>n = 14</b>	<b>..... 0.3670</b>	<b>..... 0.4593</b>	<b>..... 0.5385</b>
<b>n = 15</b>	<b>..... 0.3500</b>	<b>..... 0.4429</b>	<b>..... 0.5179</b>
<b>n = 16</b>	<b>..... 0.3382</b>	<b>..... 0.4265</b>	<b>..... 0.5029</b>
<b>n = 17</b>	<b>..... 0.3271</b>	<b>..... 0.4124</b>	<b>..... 0.4821</b>
<b>n = 18</b>	<b>..... 0.3170</b>	<b>..... 0.4000</b>	<b>..... 0.4683</b>

(continued on the next page)

(Turn over)

One tail = ... 10% ..... 5% ..... 2.5%

Two tail = ... 20% ..... 10% ..... 5%

---

<b>n = 19</b>	<b>..... 0.3077</b>	<b>..... 0.3887</b>	<b>..... 0.4555</b>
<b>n = 20</b>	<b>..... 0.2992</b>	<b>..... 0.3783</b>	<b>..... 0.4438</b>
<b>n = 21</b>	<b>..... 0.2914</b>	<b>..... 0.3687</b>	<b>..... 0.4329</b>
<b>n = 22</b>	<b>..... 0.2841</b>	<b>..... 0.3598</b>	<b>..... 0.4227</b>
<b>n = 23</b>	<b>..... 0.2774</b>	<b>..... 0.3515</b>	<b>..... 0.4132</b>
<b>n = 24</b>	<b>..... 0.2711</b>	<b>..... 0.3438</b>	<b>..... 0.4044</b>
<b>n = 25</b>	<b>..... 0.2653</b>	<b>..... 0.3365</b>	<b>..... 0.3961</b>
<b>n = 26</b>	<b>..... 0.2598</b>	<b>..... 0.3297</b>	<b>..... 0.3882</b>
<b>n = 27</b>	<b>..... 0.2546</b>	<b>..... 0.3233</b>	<b>..... 0.3809</b>
<b>n = 28</b>	<b>..... 0.2497</b>	<b>..... 0.3172</b>	<b>..... 0.3739</b>
<b>n = 29</b>	<b>..... 0.2451</b>	<b>..... 0.3115</b>	<b>..... 0.3673</b>
<b>n = 30</b>	<b>..... 0.2407</b>	<b>..... 0.3061</b>	<b>..... 0.3610</b>
<b>n = 31</b>	<b>..... 0.2366</b>	<b>..... 0.3009</b>	<b>..... 0.3550</b>
<b>n = 32</b>	<b>..... 0.2327</b>	<b>..... 0.2960</b>	<b>..... 0.3494</b>
<b>n = 33</b>	<b>..... 0.2289</b>	<b>..... 0.2913</b>	<b>..... 0.3440</b>

(continued on the next page)

(Turn over)

One tail = ... 10% ..... 5% ..... 2.5%

Two tail = ... 20% ..... 10% ..... 5%

---

<b>n = 34</b>	<b>..... 0.2254</b>	<b>..... 0.2869</b>	<b>..... 0.3388</b>
<b>n = 35</b>	<b>..... 0.2220</b>	<b>..... 0.2826</b>	<b>..... 0.3338</b>
<b>n = 36</b>	<b>..... 0.2187</b>	<b>..... 0.2785</b>	<b>..... 0.3291</b>
<b>n = 37</b>	<b>..... 0.2156</b>	<b>..... 0.2746</b>	<b>..... 0.3246</b>
<b>n = 38</b>	<b>..... 0.2126</b>	<b>..... 0.2709</b>	<b>..... 0.3202</b>
<b>n = 39</b>	<b>..... 0.2097</b>	<b>..... 0.2673</b>	<b>..... 0.3160</b>
<b>n = 40</b>	<b>..... 0.2070</b>	<b>..... 0.2638</b>	<b>..... 0.3120</b>
<b>n = 41</b>	<b>..... 0.2043</b>	<b>..... 0.2605</b>	<b>..... 0.3081</b>
<b>n = 42</b>	<b>..... 0.2018</b>	<b>..... 0.2573</b>	<b>..... 0.3044</b>
<b>n = 43</b>	<b>..... 0.1993</b>	<b>..... 0.2542</b>	<b>..... 0.3008</b>
<b>n = 44</b>	<b>..... 0.1970</b>	<b>..... 0.2512</b>	<b>..... 0.2973</b>
<b>n = 45</b>	<b>..... 0.1947</b>	<b>..... 0.2483</b>	<b>..... 0.2940</b>
<b>n = 46</b>	<b>..... 0.1925</b>	<b>..... 0.2455</b>	<b>..... 0.2907</b>
<b>n = 47</b>	<b>..... 0.1903</b>	<b>..... 0.2429</b>	<b>..... 0.2876</b>
<b>n = 48</b>	<b>..... 0.1883</b>	<b>..... 0.2403</b>	<b>..... 0.2845</b>

(continued on the next page)

(Turn over)

One tail = ... **10%** ..... **5%** ..... **2.5%**

Two tail = ... **20%** ..... **10%** ..... **5%**

---

**n = 49** ..... **0.1863** ..... **0.2377** ..... **0.2816**

**n = 50** ..... **0.1843** ..... **0.2353** ..... **0.2787**

**n = 60** ..... **0.1678** ..... **0.2144** ..... **0.2542**

**n = 70** ..... **0.1550** ..... **0.1982** ..... **0.2352**

**n = 80** ..... **0.1448** ..... **0.1852** ..... **0.2199**

**n = 90** ..... **0.1364** ..... **0.1745** ..... **0.2072**

**n = 100** ..... **0.1292** ..... **0.1654** ..... **0.1966**

---

One tail **1%** and **0.5%** and Two tail **2%** and **1%** on  
the next page

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

**n = 4 ..... 1.0000 ..... 1.0000**

**n = 5 ..... 1.0000 ..... 1.0000**

**n = 6 ..... 0.9429 ..... 0.9429**

**n = 7 ..... 0.8571 ..... 0.8929**

**n = 8 ..... 0.8095 ..... 0.8571**

**n = 9 ..... 0.7667 ..... 0.8167**

**n = 10 ..... 0.7333 ..... 0.7818**

**n = 11 ..... 0.7000 ..... 0.7545**

**n = 12 ..... 0.6713 ..... 0.7273**

**n = 13 ..... 0.6484 ..... 0.6978**

**n = 14 ..... 0.6220 ..... 0.6747**

**n = 15 ..... 0.6000 ..... 0.6536**

**n = 16 ..... 0.5824 ..... 0.6324**

**n = 17 ..... 0.5577 ..... 0.6055**

**n = 18 ..... 0.5425 ..... 0.5897**

(continued on the next page)

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

**n = 19 ..... 0.5285 ..... 0.5751**

**n = 20 ..... 0.5155 ..... 0.5614**

**n = 21 ..... 0.5034 ..... 0.5487**

**n = 22 ..... 0.4921 ..... 0.5368**

**n = 23 ..... 0.4815 ..... 0.5256**

**n = 24 ..... 0.4716 ..... 0.5151**

**n = 25 ..... 0.4622 ..... 0.5052**

**n = 26 ..... 0.4534 ..... 0.4958**

**n = 27 ..... 0.4451 ..... 0.4869**

**n = 28 ..... 0.4372 ..... 0.4785**

**n = 29 ..... 0.4297 ..... 0.4705**

**n = 30 ..... 0.4226 ..... 0.4629**

**n = 31 ..... 0.4158 ..... 0.4556**

**n = 32 ..... 0.4093 ..... 0.4487**

**n = 33 ..... 0.4032 ..... 0.4421**

(continued on the next page)

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

**n = 34 ..... 0.3972 ..... 0.4357**

**n = 35 ..... 0.3916 ..... 0.4296**

**n = 36 ..... 0.3862 ..... 0.4238**

**n = 37 ..... 0.3810 ..... 0.4182**

**n = 38 ..... 0.3760 ..... 0.4128**

**n = 39 ..... 0.3712 ..... 0.4076**

**n = 40 ..... 0.3665 ..... 0.4026**

**n = 41 ..... 0.3621 ..... 0.3978**

**n = 42 ..... 0.3578 ..... 0.3932**

**n = 43 ..... 0.3536 ..... 0.3887**

**n = 44 ..... 0.3496 ..... 0.3843**

**n = 45 ..... 0.3457 ..... 0.3801**

**n = 46 ..... 0.3420 ..... 0.3761**

**n = 47 ..... 0.3384 ..... 0.3721**

**n = 48 ..... 0.3348 ..... 0.3683**

(continued on the next page)

(Turn over)

One tail = ... 1% ..... 0.5%

Two tail = ... 2% ..... 1%

---

**n = 49 ..... 0.3314 ..... 0.3646**

**n = 50 ..... 0.3281 ..... 0.3610**

**n = 60 ..... 0.2997 ..... 0.3301**

**n = 70 ..... 0.2776 ..... 0.3060**

**n = 80 ..... 0.2597 ..... 0.2864**

**n = 90 ..... 0.2449 ..... 0.2702**

**n = 100 .... 0.2324 ..... 0.2565**

---

**END OF TABLE 9**

---

**(Turn over)**

#### 4. STATISTICAL TABLES

##### TABLE 10: CRITICAL VALUES OF THE WILCOXON SIGNED-RANK STATISTIC

The table gives the lower tail critical values of the statistic  $T$ .

The upper tail critical values are given by

$$\frac{1}{2}n(n + 1) - T.$$

$T$  is the sum of the ranks of observations with the same sign.

Since  $T$  is discrete, exact significance levels cannot usually be obtained.

The critical values tabulated are those with significance levels closest to the stated value.

The critical region includes the tabulated value.

---

One tail = ... 10% ... 5% .... 2.5% ... 1% ... 0.5%

Two tail = ... 20% ... 10% .. 5% ..... 2% ... 1%

---

**n = 3 ..... 0**

**n = 4 ..... 1 ..... 0**

**n = 5 ..... 2 ..... 1 ..... 0**

**n = 6 ..... 4 ..... 2 ..... 1 ..... 0**

**n = 7 ..... 6 ..... 4 ..... 2 ..... 0 ..... 0**

**n = 8 ..... 8 ..... 6 ..... 4 ..... 2 ..... 0**

**n = 9 ..... 11 ..... 8 ..... 6 ..... 3 ..... 2**

**n = 10 ..... 14 ..... 11 ..... 8 ..... 5 ..... 3**

**n = 11 ..... 18 ..... 14 ..... 11 ..... 7 ..... 5**

**n = 12 ..... 22 ..... 17 ..... 14 ..... 10 ..... 7**

**n = 13 ..... 26 ..... 21 ..... 17 ..... 13 ..... 10**

**n = 14 ..... 31 ..... 26 ..... 21 ..... 16 ..... 13**

**n = 15 ..... 37 ..... 30 ..... 25 ..... 20 ..... 16**

**n = 16 ..... 42 ..... 36 ..... 30 ..... 24 ..... 19**

**n = 20 ..... 70 ..... 60 ..... 52 ..... 43 ..... 37**

---

**END OF TABLE 10**

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#### 4. STATISTICAL TABLES

##### TABLE 11: CRITICAL VALUES OF THE WILCOXON RANK-SUM

The table gives the lower tail critical values of the statistic **U**.

The upper tail critical values are given by  $mn - U$ .

$$U = T - \frac{n(n+1)}{2}$$
 where **T** is the sum of the ranks of

the sample of size **n**.

Since **U** is discrete, exact significance levels cannot be obtained.

The critical values tabulated are those with significance levels closest to the stated value.

The critical region includes the tabulated value.

---

One tail 5% Two tail 10%

**m = ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7**

---

**n = 2 ..... 0 ..... 0 ..... 0 ..... 0 ..... 1**

**n = 3 ..... 0 ..... 0 ..... 1 ..... 1 ..... 2 ..... 3**

**n = 4 ..... 0 ..... 1 ..... 2 ..... 3 ..... 4 ..... 5**

**n = 5 ..... 0 ..... 1 ..... 3 ..... 4 ..... 5 ..... 7**

**n = 6 ..... 0 ..... 2 ..... 4 ..... 5 ..... 7 ..... 9**

**n = 7 ..... 1 ..... 3 ..... 5 ..... 7 ..... 9 ..... 11**

**n = 8 ..... 1 ..... 3 ..... 6 ..... 8 ..... 11 ..... 13**

**n = 9 ..... 1 ..... 4 ..... 7 ..... 10 ... 12 ..... 15**

**n = 10 ..... 2 ..... 5 ..... 8 ..... 11 ... 14 ..... 18**

**n = 11 ..... 2 ..... 5 ..... 9 ..... 12 ... 16 ..... 20**

**n = 12 ..... 2 ..... 6 ..... 10 ... 14 ... 18 ..... 22**

---

**m = 8 – 12 on the next page**

**(Turn over)**

**m = ..... 8 ..... 9 ..... 10 ..... 11 ..... 12**

---

**n = 2 ..... 1 ..... 1 ..... 2 ..... 2 ..... 2**

**n = 3 ..... 3 ..... 4 ..... 5 ..... 5 ..... 6**

**n = 4 ..... 6 ..... 7 ..... 8 ..... 9 ..... 10**

**n = 5 ..... 8 ..... 10 ... 11 ..... 12 ..... 14**

**n = 6 ..... 11 ... 12 ... 14 ..... 16 ..... 18**

**n = 7 ..... 13 ... 15 ... 18 ..... 20 ..... 22**

**n = 8 ..... 16 ... 18 ... 21 ..... 24 ..... 26**

**n = 9 ..... 18 ... 21 ... 24 ..... 27 ..... 30**

**n = 10 ..... 21 ... 24 ... 28 ..... 31 ..... 34**

**n = 11 ..... 24 ... 27 ... 31 ..... 35 ..... 39**

**n = 12 ..... 26 ... 30 ... 34 ..... 39 ..... 43**

---

**One tail 2.5% and Two tail 5% on the next page**

**(Turn over)**

One tail 2.5% Two tail 5%

**m = ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7**

---

**n = 2 ..... 0 ..... 0 ..... 0**

**n = 3 ..... 0 ..... 0 ..... 1 ..... 2**

**n = 4 ..... 0 ..... 1 ..... 2 ..... 2 ..... 3**

**n = 5 ..... 0 ..... 0 ..... 2 ..... 3 ..... 4 ..... 5**

**n = 6 ..... 0 ..... 1 ..... 2 ..... 4 ..... 5 ..... 7**

**n = 7 ..... 0 ..... 2 ..... 3 ..... 5 ..... 7 ..... 9**

**n = 8 ..... 0 ..... 2 ..... 4 ..... 6 ..... 8 ..... 11**

**n = 9 ..... 0 ..... 3 ..... 5 ..... 7 ..... 10 ..... 13**

**n = 10 ..... 1 ..... 3 ..... 6 ..... 9 ..... 12 ..... 15**

**n = 11 ..... 1 ..... 4 ..... 7 ..... 10 ..... 13 ..... 17**

**n = 12 ..... 1 ..... 4 ..... 8 ..... 11 ..... 15 ..... 18**

---

**m = 8 – 12 on the next page**

**(Turn over)**

<b>m =</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>n = 2</b>	0	0	1	1	1
<b>n = 3</b>	2	3	3	4	4
<b>n = 4</b>	4	5	6	7	8
<b>n = 5</b>	6	7	9	10	11
<b>n = 6</b>	8	10	12	13	15
<b>n = 7</b>	11	13	15	17	18
<b>n = 8</b>	13	15	18	20	22
<b>n = 9</b>	15	18	21	23	26
<b>n = 10</b>	18	21	24	27	30
<b>n = 11</b>	20	23	27	30	34
<b>n = 12</b>	22	26	30	34	38

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**END OF TABLE 11**

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