TABLE ERRATA

433.—MILTON ABRAMOWITZ & IRENE A. STEGUN, Editors, *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*, National Bureau of Standards, Applied Mathematics Series, No. 55, U. S. Government Printing Office, Washington, D. C., 1964, and all known reprints.

In Section 8.13, on p. 337, the argument of the complete elliptic integrals is chosen as the modulus k and not the parameter m, as might be erroneously inferred from the notation introduced in Section 17.3, p. 590.

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EDITORIAL NOTE: For additional errors in this section (corrected in the sixth printing) see *Math. Comp.*, v. 22, 1968, p. 244, MTE **418**.

434.—WILLIAM H. BEYER, Editor, *Handbook of Tables for Probability and Statistics*, Chemical Rubber Co., Cleveland, Ohio, 1966.

In Table VII.2, entitled Variances and Covariances of Order Statistics (for Normal Distribution), which appears on pp. 261–265 of the professional (502-page) edition and on pp. 117–121 of the student (362-page) edition, the entry for $n = 8$, $i = 2, j = 6$ should read .0787224682 instead of .0787224662, and the entry for $n = 11, i = 2, j = 6$ should read .0719205024 instead of .0719305024.

These errors were detected by first converting the tabulated covariances $\sigma_{i,j,n} = \text{Cov}\,\{X_{(i,n)}, X_{(j,n)}\}$ to ordinary second moments $\mu_{i,j,n} = E\{X_{(i,n)} \cdot X_{(j,n)}\}$, and then applying the well-known recursion formula [1]:

$$\mu_{i,j,n} = \frac{i}{n+1}\,\mu_{i+1,j+1,n+1} + \frac{j-1}{n+1}\,\mu_{i,j+1,n+1} + \frac{n-j+1}{n+1}\,\mu_{i,j,n+1}\,.$$

The same errors appeared originally in a paper by Sarhan & Greenberg [2] and were reproduced in a book edited by the same writers [3].

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1. Z. GOVINDARAJULU, "Exact lower moments of order statistics in samples from the chi-distribution (1 d.f.)," *Ann. Math. Statist.*, v. 33, 1962, pp. 1292–1305 (especially p. 1293).

2. A. E. SARHAN & B. G. GREENBERG, "Estimation of location and scale parameters by order statistics from singly and doubly censored samples," *Ann. Math. Statist.*, v. 27, 1956, pp. 427–451 (Table I, pp. 428–433).
3. A. E. SARHAN & B. G. GREENBERG, Editors, *Contributions to Order Statistics*, John Wiley & Sons, New York, 1962 (Table 10B. 3, pp. 200–205).

435.—PAUL F. BYRD & MORRIS D. FRIEDMAN, *Handbook of Elliptic Integrals for Engineers and Physicists*, Springer-Verlag, Berlin, 1954.

On p. 289, in Formula 800.07, the upper limit in the first integral should be 1 instead of K, and the third term in the third line should be $-\pi K'/2$ instead of $+\pi K'/2$.

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EDITORIAL NOTE: For notices of additional errors, see *MTAC*, v. 13, 1959, p. 141, MTE **269**; *Math. Comp.*, v. 18, 1964, p. 532, MTE **352**; p. 687, MTE **359**; *ibid.*, v. 20, 1966, p. 344, MTE **389**; p. 639, MTE **397**.

436.—A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, McGraw-Hill Book Co., New York, 1954.

In Volume II, on p. 350, in the denominator of the right member of Eq. 19.3(7), *for* $2^{\lambda+\mu}$, *read* $2^{\lambda+\mu+1}$.

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EDITORIAL NOTE: For earlier announcements of errata in this work, see *Math. Comp.*, v. 15, 1961, pp. 319–321, MTE **304**; v. 18, 1964, pp. 532–533, MTE **353**; v. 19, 1965, p. 361, MTE **367**; v. 20, 1966, p. 641, MTE **401**; v. 22, 1968, p. 473, MTE **422**; *ibid.*, pp. 695–696, MTE **424**.

437.—I. S. GRADSHTEYN & I. M. RYZHIK, *Tables of Integrals, Series, and Products*, 4th edition, Academic Press, New York, 1965.

On p. 294, the right member of Eq. 3.248(1) should read

$$\frac{1}{\nu} B\left(\frac{\mu}{\nu}, \frac{1}{2} - \frac{\mu}{\nu}\right) \qquad [\operatorname{Re} \nu > \operatorname{Re} 2\mu > 0]$$

instead of

$$2^{2\mu/\nu} B(\nu - 2\mu, \mu) \qquad [\nu > 2\mu] .$$

This error has been reproduced from the tables of Bierens de Haan. (See the following erratum notice.)

It also appears on p. 308 in the Russian edition, entitled *Tablitsy Integralov Summ Ryadov i Proizvedeniĭ*, published by Gosudarstvennoe Izdatel′stvo Fiziko-Matematicheskoĭ Literatury, Moscow, 1963.

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EDITORIAL NOTE: For further corrections, see *Math. Comp.*, v. 22, 1968, pp. 903–906, MTE **428**.

On p. 325 the right side of Formula 6 in Article 3.411 should read

$$\Gamma(\nu)\Phi(\beta, \nu, \mu) ,$$

where

$$\Phi(\beta, \nu, \mu) = \sum_{n=0}^{\infty} (n + \mu)^{-\nu}\beta^n ,$$

according to the definition in Article 9.55, on p. 1075.

This confusion apparently arose from the authors' use of $\Phi(\alpha, \gamma; z)$ to denote the confluent hypergeometric function ${}_1F_1(\alpha, \gamma; z)$ in Article 9.21, on p. 1058.

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EDITORIAL NOTE: For additional errata in this edition, as well as references to errata in earlier editions, see *Math. Comp.*, v. 20, 1966, pp. 616–617, RMT **85**; v. 21, 1967, pp. 293–294, MTE **408**; v. 22, 1968, pp. 903–907, MTE **428**.

438.—D. BIERENS DE HAAN, *Nouvelles Tables d'Intégrales Définies*, Hafner Publishing Co., New York, 1957 (corrected reprint of the edition of 1867).

On p. 48, in Table 21, the right member of Eq. 9 should read

$$\frac{1}{q} B\left(\frac{p}{q}, \frac{1}{2} - \frac{p}{q}\right) \quad [\mathrm{Re}\, q > \mathrm{Re}\, 2p > 0]$$

instead of

$$2^{2p/q}B(q - 2p, p) \quad [q > 2p] .$$

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EDITORIAL NOTE: For additional corrections see C. F. Lindman, *Examen des Nouvelles Tables d'Intégrales Définies de M. Bierens de Haan*, off-set print published by G. E. Stechert & Co., New York, 1944. (See *MTAC*, v. 1, 1944, pp. 321–322, RMT **167**.)

439.—JOHN F. HART, E. W. CHENEY, CHARLES L. LAWSON, HANS J. MAEHLY, CHARLES K. MESZTENYI, JOHN R. RICE, HENRY G. THACHER, JR. & CHRISTOPH WITZGALL, *Computer Approximations*, John Wiley & Sons, Inc., New York, 1968.

The following corrections should be made in this book.

p. v, l. 2 — *For* or, *read* for.

p. 41 — Change the references to (2.7.31), (2.7.33), and (2.7.34) to (2.8.31), (2.8.33), and (2.8.34), respectively.

p. 55, l. −9 — *For* Lawson [1963], *read* Lawson [1962].

p. 66, l. 28 — *For* (4.5.7), *read* (4.5.8).

l. 30 — *For* $P_6(0.7) = 0.60$, *read* $P_6(0.7) = 0.060$.

p. 71, l. 25 — *For* [Ostrowski, 1956], *read* [Ostrowski, 1954].

p. 90 — Eq. (6.1.10) should *read*

$$y_{n+1} = \frac{2}{3}\, y_n + \frac{x/3}{y_n{}^2} = y_n - \frac{1}{3}\left(y_n - \frac{x}{y_n{}^2}\right).$$

p. 91 — In Eq. (6.1.16), *for* $x^{1/3}(1 + \epsilon)$, *read* $(x(1 + \epsilon))^{1/3}$.

p. 98 — In Eq. (6.2.16), for I_{2k+1}, *read* $I_{2k+1}(\alpha)$.

Eq. (6.2.18) should *read*

$$I_k(\alpha) = e^{-ik\pi/2} J_k(i\alpha)\ .$$

p. 106 — *For* Vionnet [1960], *read* Vionnet [1959].

p. 107 — In (6.3.18), *for* $x - 1/x$, *read* $1 - 1/x$.

In (6.3.20), *for* $\epsilon/(1 - \epsilon)$, *read* $\epsilon/(1 + \epsilon)$.

p. 113 — In Eq. (6.4.8), *for* $\pi/\sin(x) = \csc(x)$, *read* $\pi/\sin(\pi x) = \pi \csc(\pi x)$.

In Eq. (6.4.9), *for* $\pi/\tan(x) = \cot(x)$, *read* $\pi/\tan(\pi x) = \pi \cot(\pi x)$.

l. −6 — *For* $B_0 = 0$, *read* $B_0 = 1$; and *read* $B_4 = -1/30$.

p. 122 — In Eq. (6.5.15) insert brackets about the right member after the multiplier sgn x.

p. 123 — In (6.5.28) insert a space between $\pi/2$ and $1/(1 + x^2)^{1/2}$. These are members of two separate inequalities. Similarly, in (6.5.29) insert a space between $1/(1 - x^2)^{1/2}$ and $\arctan(x)/x$.

p. 131 — In Eq. (6.6.6) the lower limit of the sum should read $n = 2$. In Eq. (6.6.7) replace $1/x$ by x.

p. 132 — In Eq. (6.6.10), *for* $((j + a)^2 + 1)^{1/2}$, *read* $((j + a)^2 - 1)^{1/2}$.

p. 138 — In (6.7.14), *for* $1/[x + (x^2 + \pi/4)^{1/2}]$, *read* $1/[x + (x^2 + 4/\pi)^{1/2}]$.

p. 142 — In Eq. (6.8.8), *for* $2^n/x$, *read* $(2/x)^n$, and add the term

$$-\frac{2}{\pi} \sum_{k=1}^{\infty} (-1)^k \frac{n + 2k}{k(n + k)} J_{n+2k}(x)\ .$$

In Eq. (6.8.11), *for* $-(x/2)^1/(1!)^2$, *read* $-(x/2)^2/(1!)^2$.

In Eq. (6.8.12), *for* $-x/2/1!2!$, *read* $-(x/2)^3/1!2!$.

p. 143 — In Eq. (6.8.23), *for* $Jp_{+1}(\eta)$, *read* $J_{p+1}(\eta)$.

p. 147, l. 2	*For* Gautschi [1964], *read* Gautschi [1964b].
p. 152, l. 3	*For* Cody [1956b], *read* Cody [1965].
p. 187, l. 1	*For* Nitsche, J. C. C. [1961], *read* Nitsche, J. C. C. [1962].

In the text on pp. 83, 93, 102, 109, 116, 127, 135, 139, 146, and 154 the table of decimal and octal constants is consistently referred to as Appendix B instead of Appendix C. Furthermore, about one-third of the 35D approximations in this table have last-figure errors because of failure to round up the last place when appropriate. The octal values appear to be more reliable in the last place; of 17 values checked, only one instance of incorrect rounding was noted.

J. W. W.

On p. 165, lines 4 and 5,

for $$K(k) = \int_0^{\pi/2} \frac{d\varphi}{1 + k^2 \sin^2 \varphi}$$

read $$K(m) = \int_0^{\pi/2} \frac{d\varphi}{(1 - m \sin^2 \varphi)^{1/2}} ;$$

for $$E(k) = \int_0^{\pi/2} 1 - k^2 \sin^2 \varphi d\varphi ,$$

read $$E(m) = \int_0^{\pi/2} (1 - m \sin^2 \varphi)^{1/2} d\varphi .$$

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440.—W. Magnus, F. Oberhettinger & R. P. Soni, *Formulas and Theorems for the Special Functions of Mathematical Physics,* Springer-Verlag, New York, 1966.

On p. 173, the right member of the formula for $\mathfrak{Q}_{1/2}(z)$ should read

$$z\left(\frac{1}{2} z + \frac{1}{2}\right)^{-1/2} K\left[\left(\frac{1}{2} z + \frac{1}{2}\right)^{-1/2}\right] - (2z + 2)^{1/2} E\left[\left(\frac{1}{2} z + \frac{1}{2}\right)^{-1/2}\right].$$

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441.—NBS Applied Mathematics Series, No. 48, *Fractional Factorial Experimental Designs for Factors at Two Levels,* U. S. Government Printing Office, Washington, D. C., 1957; reprinted with corrections, 1962.

In Plan 8.11.16, on p. 38, the last eight treatments of Block 11 are incorrectly printed. Corrections are as follows:

for	*read*
cefjk	acdfhk
bdfg	abefghj
adefghkl	fgjkl
abcfhjl	bcdefl
abkl	bdehjkl
acdegjl	cghl
bcdghjk	abcegk
eh	adj

Other errors in this publication have been listed in *Math. Comp.*, v. 21, 1967, p. 295, MTE **410**.

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