

TABLE ERRATA

488.—P. F. BYRD & M. D. FRIEDMAN, *Handbook of Elliptic Integrals for Engineers and Physicists*, 2nd rev. ed., Springer-Verlag, New York, 1971.

The following corrections are required in this new edition:

P. 18: In Formula 119.03,

$$\text{for } k_1 = \frac{k}{k'} \sqrt{a^2 - 1}, \quad \text{read } k_1 = \sqrt{1 - k^2 a^2}/k'.$$

P. 28: In Formula 129.51, for $k(q)$, read q .

P. 39: In the footnote, for 810, 811, read 813, 814.

P. 145: In Formula 264.54, for α , read $-\alpha$.

P. 232: In line 3 in the box, for H , read Θ .

P. 251: In line 3 of Formula 563.01, for $p^2 + r^2 - s^2$, read $p^2 - r^2 + s^2$ in the numerator.

P. 263: In Formula 585.02, replace $+$ by $-$ between the two integrals, and replace $-$ by $+$ in the denominator of the last sn^{-1} argument.

P. 289: In the third line of Formula 800.07,

$$\text{for } \pi K'/2, \quad \text{read } -\pi K'/2.$$

The errata noted above on pages 18, 28, 145, and 232 were listed on the errata sheet of the first edition, but were not rectified in this edition.

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EDITORIAL NOTE: For previous notices of errata in this handbook, see *MTAC*, v. 13, 1959, p. 141, MTE 269; *Math. Comp.*, v. 18, 1964, p. 532, MTE 352, p. 687, MTE 359; v. 20, 1966, p. 344, MTE 389, p. 639, MTE 397; v. 23, 1969, MTE 435.

489.—L. COLLATZ, *The Numerical Treatment of Differential Equations*, 3rd English ed., Springer-Verlag, New York, 1960 (second printing, 1966).

On p. 13, in Table I/4, the value of $\rho_{4,5}$ should read 5849/1814400 instead of 5849/181440. This error also occurs in the second German edition (1955) on p. 12.

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490.—A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Higher Transcendental Functions*, Vol. II, McGraw-Hill Book Co., New York, 1953.

In Section 9.5, p. 141, formula

$$(7) \quad \textit{instead of} \quad 2(2a)^{1/2} \quad \textit{read} \quad (2a)^{1/2}.$$

In Section 9.6, p. 141, two lines before formula (1),

$$\textit{instead of} \quad a \quad \textit{read} \quad |a|.$$

In formula

$$(1) \quad \textit{instead of} \quad y^*(a) + O(|a|^{-1}) \quad \textit{read} \quad y^*(a) + O(|a|^{-1/2})$$

$$(2) \quad \textit{instead of} \quad 1 + \tau(-a\pi/2)^{1/2} \quad \textit{read} \quad (1 + \tau)[(1 - a)\pi/2]^{1/2}$$

$$\textit{instead of} \quad |a|^{-1} \quad \textit{read} \quad |a|^{-2}.$$

Insert after formula (2)

provided that a is not too close to a negative integer.

In the line after formula (2),

$$\textit{instead of} \quad \textit{positive} \quad \textit{read} \quad \textit{real}.$$

Replace formula (3) by

$$(3) \quad \operatorname{Erfi}(y) = \frac{1}{2}\pi^{1/2} \operatorname{ctn}(|a|\pi).$$

In the line after formula (3),

$$\textit{instead of} \quad 0.278463 \dots \quad \textit{read} \quad 0.278464 \dots$$

In Section 9.9, pp. 147–148, formula

$$(4) \quad \textit{instead of} \quad 1 - 2\pi^{-1/2} \operatorname{Erf} x \quad \textit{read} \quad 1 - 2\pi^{-1/2} \operatorname{Erfc} x$$

$$(20) \quad \textit{instead of} \quad \sum_{n=0}^{\infty} \quad \textit{read} \quad \sum_{n=1}^{\infty}$$

The corrections in Sections 9.5 and 9.6 became apparent when reconsidering the proofs in F. G. Tricomi (*Math. Z.*, v. 53, 1950, pp. 136–148), from which the original formulae had been taken, and in F. G. Tricomi, *Funzioni ipergeometriche confluenti*, Edizioni Cremonese, Roma, 1954. It should be noted that the formulae corresponding to (1), (2) and (3) above, namely (1) and (2) on p. 187, and (7) on p. 190 of this book are also erroneous. In fact, α should be replaced by $1 - \alpha$ in these relations. Further, there exists a third version of these formulae in F. G. Tricomi, “Fonctions hypergéométriques confluentes,” *Mémor. Sci. Math.*, v. 140, 1960, where the expressions corresponding to (1) and (2) above, namely (2) and (3) on p. 63, are also incorrect.

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491.—A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, Volumes I and II, McGraw-Hill Book Co., New York, 1953.

In Volume I on p. 95, Eq. (11), the power of y in the value of the integral should be $2m + 1$ instead of $2m$.

In Volume II on p. 289, Eq. (13), in the value of the integral for $L_n^{n-m}(-y^2)$ read $L_m^{n-m}(-y^2)$.

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

On p. 837, formula 7.374.7 is incorrect. In the right-hand side, replace $L_n^{n-m}(-2y^2)$ by $L_m^{n-m}(-2y^2)$.

On p. 841, formula 7.388.6 is incorrect. In the right-hand side replace b^{2m} by b^{2m+1} .

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493.—F. M. HENDERSON, *Elliptic Functions with Complex Arguments*, Univ. of Michigan Press, Ann Arbor, 1960.

On p. 4 of the introduction, the extension of $F(k, x)$ to real $x > 1/k$ is erroneous because of an omitted minus sign before the last integral preceding Eq. (8). This equation should consequently be replaced by

$$F \begin{pmatrix} x_0 \\ 1 \end{pmatrix} = F \begin{pmatrix} 1/(kx_0) \\ 1/k \end{pmatrix}.$$

An equivalent and more informative statement is

$$F(k, x_0) = F(k, 1/(kx_0)) - iK', \quad \text{for } x = x_0 > 1/k.$$

In Part II the values indicated as those of y in the tables of $x + iy = cn(u + iv)$ are, in fact, the values of $-y$. The same correction applies to the tables of $x + iy = dn(u + iv)$ in Part III.

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EDITORIAL NOTE: For a review of this book see *Math Comp.*, v. 15, 1961, pp. 95-96, RMT 18.