

## TABLE ERRATA

**533.**—A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, Vol. 2, McGraw-Hill Book Co., New York, 1954.

On p. 284, in formula (1) of Section 16.4, for  $\Gamma(\alpha + n + 1)$ , read  $\Gamma(\alpha + 1)$ . This formula will then agree with the result of putting  $\rho = \alpha$  in formula (3), p. 284, and using Vandermonde's theorem [1] to sum the hypergeometric series  ${}_2F_1$ .

On p. 286, in formula (12) of Section 16.4, for  $\Gamma(\sigma - \beta + m + 1)$ , read  $\Gamma(\sigma - \beta + m - n + 1)$ . When  $\beta = 0$ , the resultant expression agrees with formula (13) of the same section. In the special case  $\sigma = \beta$ ,  $m = n$ , it agrees with certain special cases of formulae (5), (7), (10), (16), (17), and (20); when  $\sigma = \beta$ ,  $m \neq n$ , it gives the zero result of formula (9).

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1. L. J. SLATER, *Generalised Hypergeometric Functions*, Cambridge Univ. Press, Cambridge, 1966, Section 1.7.

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

In formula 7.391 (3), for  $\Gamma(\alpha + n + 1)$  read  $\Gamma(\alpha + 1)$ .

In formula 7.391 (9), for  $\Gamma(\sigma - \beta + m + 1)$  read  $\Gamma(\sigma - \beta + m - n + 1)$ .

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**535.**—MILTON ABRAMOWITZ & IRENE A. STEGUN, *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.

Equation 10.4.76, p. 449, should read

$$(M^2)''' + 4x(M^2)' + 2M^2 = 0.$$

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**536.**—ALBERT EAGLE, *The Elliptic Functions as They Should Be*, Galloway & Porter, Ltd., Cambridge, 1958.

Table I in Supplement B, pp. 476–479, has been completely checked by a calculation briefly described in [1].

A total of 24 last-figure corrections are required in the values of the modulus  $k$  as a function of the period-ratio  $\mu = K'/K$ ; namely, increase  $k$  by a final unit when  $\mu = 1.30, 1.32, 1.36, 1.52, 1.54, 1.82, 1.92, 1.94, 1.96, 1.98, 2.04, 2.14, 2.20, 2.24, 2.32, 2.34, 2.36, 2.40, 2.80, 2.84, 2.88$ ; decrease by a unit when  $\mu = 1.18, 1.78, 2.96$ .

The following 21 last-figure corrections are required in the complementary

modulus  $k'$ : increase by a final unit when  $\mu = 1.06, 1.74, 1.78, 1.80, 1.88, 1.90, 2.00, 2.02, 2.04, 2.06, 2.20, 2.44, 3.20$ ; decrease by a similar amount when  $1.16, 1.36, 1.38, 1.50, 1.52, 1.58, 1.94, 2.60$ .

Twenty corrections are required for the complete elliptic integral of the first kind,  $K$ ; namely, increase the final digit by a unit when  $\mu = 1.26, 1.38, 1.60, 1.62, 1.64, 1.70, 1.94, 2.38, 2.76$ ; decrease by a like amount when  $\mu = 1.02, 1.46, 1.76, 1.88, 1.98, 2.02, 2.24, 2.44, 3.25, 3.40$ ; and for 914, read 194 when  $\mu = 1.04$ .

Thirty-three corrections are required for the associated complete elliptic integral of the first kind,  $K'$ . Of these, 28 are of a unit in the last place; namely, increase by that amount when  $\mu = 1.06, 1.26, 1.52, 1.60, 1.62, 1.64, 1.68, 1.70, 2.38, 2.50, 2.62, 2.82, 3.50$ ; decrease when  $\mu = 1.14, 1.56, 1.78, 1.88, 1.90, 2.00, 2.02, 2.20, 2.22, 2.26, 2.28, 2.44, 3.20, 3.25, 3.35$ . The remaining corrections are as follows: increase by two final units when  $\mu = 1.72$ ; decrease by three units when  $\mu = 1.76$ ; decrease by six units when  $\mu = 1.74$ ; when  $\mu = 2.58$ , for 476 read 576; and when  $\mu = 2.64$ , for 410 read 511.

The 18 values of  $k$  and  $k'$  as functions of  $\mu$  in Table 3.31, p. 76 were found to be free from error.

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1. *Math. Comp.*, v. 28, 1974, p. 1181, MTE 512.

537.—BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, *Mathematical Tables*, Vol. VI: *Bessel Functions, Part I*, Cambridge Univ. Press, Cambridge, 1937, reprinted 1950 and 1958.

A complete check of Table II, pp. 171–173, revealed a total of 78 terminal-digit errors (none exceeding a unit) of which 70 are new.

In addition to the eight errors noted by Gerber [1], the values of  $j_{0,s}$  are too low by a final unit when  $s = 105, 115, \text{ and } 145$ .

Of the 150 tabulated values of  $j_{1,s}$  a total of 38 require correction in the last place. Thus, increase the values of  $j_{1,s}$  each by a final unit for  $s = 56, 57, 58, 64, 66, 70, 74, 76, 87, 90, 93, 94, 96, 98, 103, 106, 113, 115, 119, 134, 135, 136, 142, 146, \text{ and } 147$ , and decrease by a similar amount for  $s = 61, 69, 72, 78, 82, 83, 91, 92, 101, 128, 137, 140, \text{ and } 141$ .

The following 20 corrections are required in the values of  $J_1(j_{0,s})$ : increase by a final unit for  $s = 2$  and 94, and decrease by the same amount for  $s = 34, 35, 43, 46, 54, 60, 73, 82, 88, 102, 105, 110, 125, 127, 133, 134, 140, \text{ and } 148$ .

Similarly, for  $J_0(j_{1,s})$  increase by a final unit when  $s = 90$ , and decrease by a similar amount when  $s = 54, 80, 94, 98, 99, 109, 113, \text{ and } 126$ .

The first 100 zeros  $j_{0,s}$  were checked against the table in [1] and the remaining values of  $j_{0,s}$  were computed from the first five terms of Mc Mahon's expansion. The first five values of  $j_{1,s}$  were checked by using a table of Luke [2, p. 233], and the remainder were computed from the first eight terms of the appropriate Mc Mahon expansion.

The values of  $J_1(j_{0,s})$  and  $J_0(j_{1,s})$  were calculated to 15S by means of a PI/I version of BESLRI [3].

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1. HENRY GERBER, "First one hundred zeros of  $J_0(x)$  accurate to 19 significant figures," *Math. Comp.*, v. 18, 1964, pp. 319–322.
2. Y. L. LUKE, *The Special Functions and Their Applications*, Vol. II, Academic Press, New York, 1969.
3. D. J. SOOKNE, "Bessel functions of real argument and integer order," *J. Res. Nat. Bur. Standards Sect. B*, v. 77, 1973, pp. 125–132.

538.—C. R. WALL, P. L. CREWS & D. B. JOHNSON, "Density bounds for the sum of divisors function," *Math. Comp.*, v. 26, 1972, pp. 773–777.

On p. 775, in the sixth line of the text, for  $3^2 \cdot 5 \cdot 7$ , read  $3^2 \cdot 5 \cdot 7p$  ( $11 \leq p \leq 41$ ), and at the end of the eleventh line, for  $3^4 \cdot 5 \cdot 13$ , read  $3^4 \cdot 5 \cdot 13p$  ( $17 \leq p \leq 23$ ).

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