

## TABLE ERRATA

**458.**—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 reprints to date.

In Section 25.4.45, on p. 890, the numerator of the formula for the weights associated with the Gauss-Laguerre quadrature formula should read  $x_i$  instead of  $(n!)^2 x_i$ .

This correction is consistent with the form of the Laguerre polynomials adopted in Chapter 22 of this handbook and used in the computation of the weight factors in Table 25.9 on p. 923.

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**459.**—W. S. ALDIS, “Tables for the solution of the equation  $d^2y/dx^2 + (1/x)dy/dx - (1 + n^2/x^2)y = 0$ ,” *Proc. Roy. Soc. London*, v. 64, 1899, pp. 203–223.

Comparison of these tables with new, unpublished tables of Berger & McAllister [1] has revealed a number of errors in Aldis’s values.

Thus, in Table II (p. 220) the following corrections in ending digits are required:

$x$	$K_0(x)$		$x$	$K_1(x)$	
	for	read		for	read
11.0	... 6	... 7	9.0	... 382	... 379
12.0	... 302	... 311	10.0	... 9	... 8

In Table III (p. 221) the following changes are indicated:

$x$	$I_0(x)$		$x$	$I_1(x)$	
	for	read		for	read
8.0	... 175	... 177	9.0	... 228	... 219
9.0	... 845	... 846	10.0	... 428	... 429
10.0	... 294	... 470	11.0	... 247	... 341
11.0	... 179	... 181		... 818	... 821

  

$x$	$K_0(x)$		$x$	$K_1(x)$	
	for	read		for	read
7.0	... 231	... 232	8.0	... 898	... 897
8.0	... 804	... 815	9.0	... 4984	... 5001
9.0	... 458	... 459	10.0	... 453	... 452
10.0	... 066	... 168	11.0	... 874	... 826
11.0	... 653	... 654		... 582	... 581

The discovery of errors in this table is particularly interesting in view of the relevant remark in the FMRC *Index* [2] that, “it seems probable that no error exists.”

J. W. W.

1. B. S. BERGER & H. MCALLISTER, *A Table of the Modified Bessel Functions  $K_n(x)$  and  $I_n(x)$  to at Least 60S for  $n = 0, 1$  and  $x = 1, 2, \dots, 40$* , ms. in UMT file. (See *Math. Comp.*, v. 24, 1970, p. 488, RMT 34.)

2. A. FLETCHER, J. C. P. MILLER, L. ROSENHEAD & L. J. COMRIE, *An Index of Mathematical Tables*, 2nd ed., Addison-Wesley Publishing Co., Reading, Mass., 1962, Volume II, p. 783.

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

On p. 81, in Eq. (11) of Section 2.4 the second factor in the left member should read

$$b^{2\nu} F(-\nu, \tfrac{1}{2}\alpha - \tfrac{1}{2}\beta - \tfrac{1}{2}\nu; 1 + \tfrac{1}{2}\beta + \tfrac{1}{2}\alpha - \tfrac{1}{2}\nu; a^2/b^2)$$

instead of

$$F(-\nu, \tfrac{1}{2}\alpha - \tfrac{1}{2}\beta - \tfrac{1}{2}\nu; 1 + \tfrac{1}{2}\beta + \tfrac{1}{2}\alpha - \tfrac{1}{2}\nu; a^2/b^2).$$

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EDITORIAL NOTE: For notices of additional errata, see *Math. Comp.*, v. 19, 1965, pp. 527–528, MTE 374; v. 20, 1966, p. 641, MTE 400.

**461.**—W. GRÖBNER & N. HOFREITER, *Integraltafel, Erster Teil: Unbestimmte Integrale*, Springer-Verlag, Wien, 1961. (First edition, 1949; second edition, 1957.)

On p. 133, in formula 334.3c the denominator of the coefficient appearing in the summation on the right side should read  $a^2 + 4\nu^2 b^2$ , instead of  $a^4 + 4\nu^2 b^2$ .

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**462.**—DONALD E. KNUTH, *The Art of Computer Programming*, Vol. 2: *Seminumerical Algorithms*, Addison-Wesley Publishing Co., Reading, Mass., 1969.

On p. 165, 1. 4, for  $\pi$ , read  $2\pi$ , and in 1. 6, replace 3 1415926535898732 by 6 2831853071795865.

The author has communicated the following major corrections in Table 1 on p. 417: the entries 361 and 689 should be deleted and three additional entries, namely, 165, 561, and 645, should be inserted.

J. W. W.

**463.**—H. KOBER, *Dictionary of Conformal Representations*, Dover Publications, 1952.

On p. 197 the vertical line in the right figure is erroneously marked  $u = 0$  rather than  $u = \frac{1}{2}$ .

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- 464.**—W. MAGNUS, F. OBERHETTINGER & R. P. SONI, *Formulas and Theorems for the Special Functions of Mathematical Physics*, third edition, Springer-Verlag New York, Inc., New York, 1966.

On p. 56, line 7, the coefficient of the hypergeometric function

$${}_2F_1\left(-\mu, \frac{\alpha - \beta - \mu}{2}; 1 + \frac{\alpha + \beta - \mu}{2}; \frac{\alpha^2}{\lambda^2}\right)$$

should read

$$\frac{\lambda^{2\mu}}{\Gamma\left(1 + \frac{\beta - \alpha + \mu}{2}\right)}$$

instead of

$$\frac{1}{\Gamma\left(1 + \frac{\beta - \alpha + \mu}{2}\right)}.$$

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EDITORIAL NOTE: For notices of additional errors in this and earlier editions, see *Math. Comp.*, v. 21, 1967, pp. 523–524, MTE **413** and MTE **414**; v. 22, 1968, p. 909, MTE **430**; v. 23, 1969, p. 471, MTE **440**.

- 465.**—C. A. NICHOL, JOHN L. SELFRIDGE & LOWRY MCKEE, under the direction of RICHARD V. ANDREE, *A Table of Indices and Power Residues for All Primes and Prime Powers Below 2000*, W. W. Norton & Co., New York, 1962.

In my review, RMT **72**, *Math. Comp.*, v. 17, 1963, pp. 463–464, of this very useful set of tables, I pointed out many defects in its format and printing. It is now noted that the 2nd and 3rd pages of the table for  $P = 1439$  are interchanged. (The pages are unnumbered.)

D. S.

- 466.**—GEORG VEGA, *10 Place Logarithms including Wolfram's Tables of Natural Logarithms*. Reprint of the rare edition of 1794, G. E. Stechert & Co., New York, 1946.

On p. 666, the final digit in Wolfram's 48D value of  $\ln 2000$  should read 7, instead of 6.

On p. 655 and p. 669, respectively, the 48D natural logarithms of 1087 and 2174, calculated by Wolfram, are entirely correct as printed, except for the known error of transposition of digits in the 29th and 30th decimal places of  $\ln 1087$ . This refutes last-digit changes of a unit in these logarithms proposed by C. R. Cosens, cited by R. C. Archibald in several places [1], [2], [3], and listed in the FMRC *Index* [4].

Accordingly, the 48D value of  $\ln 1087$  as reproduced by J. T. Peters [5] with correction of the transpositional error is entirely free from error.

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1. *MTAC*, v. 1, 1943, p. 57, MTE 7.
2. *MTAC*, v. 2, 1946, pp. 161–165, RMT 319.
3. R. C. ARCHIBALD, "New information concerning Isaac Wolfram's life and calculations," *MTAC*, v. 4, 1950, pp. 185–200.
4. A. FLETCHER, J. C. P. MILLER, L. ROSENHEAD & L. J. COMRIE, *An Index of Mathematical Tables*, 2nd ed., Addison-Wesley Publishing Co., Reading, Mass., 1962, Volume II, p. 929.
5. J. T. PETERS, *Zehnstellige Logarithmentafel, Erster Band, Zehnstellige Logarithmen der Zahlen von 1 bis 100,000 nebst einem Anhang Mathematischer Tafeln*, Berlin, 1922. New, revised edition with English translations published in 1957 by Frederick Ungar Publishing Co., New York. (See p. 132 of the Appendix.)