ERRATA

391.—E. P. Adams & R. L. Hippisley, *Smithsonian Mathematical Formulae and Tables of Elliptic Functions*, second and third reprints, The Smithsonian Institution, Washington, D. C., 1947 and 1957.

On p. 25, in Formula 1.86 the second term of the right member should read $A_1\{f(b) + f(a)\}$, with $A_1 = +\frac{1}{2}$ rather than $-\frac{1}{2}$ as in the fourth line from the bottom of the page.

On p. 26, in Formula 1.861 the second term of the right member should read $+\frac{1}{2}\{f(b) + f(a)\}$ instead of $-\frac{1}{2}\{f(b) - f(a)\}$.

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Editorial note: For previous notices of errors in this book, see *Math. Comp.*, v. 16, 1962, p. 126, MTE **307**, and *MTAC*, v. 12, 1958, p. 262, MTE **265**, where further references are given.

392.—I. M. Ryshik & I. S. Gradstein, *Summen-, Produkt- und Integral-Tafeln: Tables of Series, Products, and Integrals*, VEB Deutscher Verlag der Wissenschaften, Berlin, 1957.

On p. 146, in formula 3.214 1, the integral diverges. This error appears also in the 1963 edition.

The value of this integral has also appeared erroneously in a number of earlier collections published within the past one hundred years, as, for example, those of Bierens de Haan [1], Silberstein [2], and Dwight [3].

In his elaborate examination of Bierens de Haan's tables, Lindman [4], on the other hand, noted the divergence of this integral.

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1. D. Bierens de Haan, *Nouvelles Tables d'Intégrales Définies*, Leyden, 1867 (reprinted by Stechert, New York, 1939), Table 26, formula 7. (See *MTAC*, v. 1, 1943–1945, pp. 321–322, RMT **167**.)
2. L. Silberstein, *Synopsis of Applicable Mathematics, with Tables*, Bell, London, 1923. (First published in 1922 as *Bell's Mathematical Tables*.)
3. H. B. Dwight, *Tables of Integrals and other Mathematical Data*, Macmillan, New York, 1934. (See *MTAC*, v. 1, 1943–1945, pp. 190–191, RMT **154**; *ibid.*, pp. 195–196, MTE **32**.) The integral under discussion has been omitted in the later editions.
4. C. F. Lindman, *Examen des Nouvelles Tables d'Intégrales Définies de M. Bierens de Haan*, K. Svenska Vetenskaps Akad., *Handlingar*, v. 24, no. 5, Stockholm, 1891. (Reprinted by Stechert, 1944, and reviewed in *MTAC*, v. 1, 1943–1945, pp. 321–322, RMT **167**.)

Editorial note: For additional errata in Ryshik & Gradstein, see *Math. Comp.*, v. 14, 1960, pp. 401–403, MTE **293**; v. 17, 1963, p. 102, MTE **326**. It seems appropriate to note here the convergent integral

$$\int_0^\infty (1 - e^{(-1/x^2)})\, dx = \sqrt{\pi},$$

which may not have been published before.

393.—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.

In the table under 6.1.34, on p. 256, the value of c_k for $k = 23$ has been incorrectly transcribed from the cited table of H. T. Davis: *for* 206, *read* 207.

On p. 329, line 10, replace $\sqrt{2n - \frac{1}{4}}$ by $\sqrt{n - \frac{1}{8}}$. Also, while the reference to Table 7.10 on lines 12–13 is correct, the asymptotic formula on lines 10–11 appears only in T. Laible, "Höhenkarte des Fehler integrals," *Z. Angew. Math. Phys.*, v. 2, 1951, pp. 484–486.

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On p. 302, in formula 7.4.10, the upper limit of the integral on the right-hand side should read $x\sqrt{a}$ instead of ax.

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Third printing March 1965:

All the entries in Table 9.7, on p. 415, have been recalculated to sufficient accuracy to yield respective cross products that differ by less than 10^{-14}. The zeros were subsequently rounded to 10D. In this computation a Bessel function subroutine was used that yields values correct to 16D.

Comparison of these more extended approximations with those constituting Table 9.7 revealed that the following corrections are necessary in the latter.

sth zero of $J_0(x)Y_0(\lambda x) - Y_0(x)J_0(\lambda x)$

λ^{-1}	s	*for*	*read*
0.8	1	12.55847 028	12.55847 031
0.6	1	4.69706 410	4.69706 409
0.4	1	2.07322 886	2.07322 885
0.2	2	1.55710	1.55711
0.2	3	2.34641	2.34642
0.08	4	1.08531	1.08536

sth zero of $J_1(x)Y_1(\lambda x) - Y_1(x)J_1(\lambda x)$

λ^{-1}	s	*for*	*read*
0.8	1	12.59004 148	12.59004 151
0.8	5	62.83662	62.83663
0.6	1	4.75805 426	4.75805 425
0.4	1	2.15647 249	2.15647 248
0.2	2	1.61108	1.61107
0.1	3	1.07483	1.07484
0.08	4	1.11437	1.11441
0.08	5	1.38435	1.38440

sth zero of $J_1(x)Y_0(\lambda x) - Y_1(x)J_0(\lambda x)$

λ^{-1}	s	*for*	*read*
0.8	1	6.56973 323	6.56973 310
0.6	1	2.60328 237	2.60328 138
0.1	5	1.59489	1.59490
0.08	5	1.25198	1.25203

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Fifth printing December 1965:
On p. 562, at the end of Eq. 15.4.25, *for*

$$P_{a+b-1}^{b-a}[-x(1+x)^{-1/2}],$$

read

$$P_{a+b-1}^{b-a}[-x^{1/2}(1+x)^{-1/2}].$$

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Editorial note: Other errata in this *Handbook* have been previously announced in *Math. Comp.*, v. 19, p. 174, MTE **362**; pp. 360–361, MTE **365**; p. 527, MTE **373**; p. 705, MTE **376**; v. 20, p. 202, MTE **379**; p. 344, MTE **388**.

394.—J. W. Sheldon, B. Zondek & M. Friedman, "On the time-step to be used for the computation of orbits by numerical integration," *MTAC*, v. 11, 1957, pp. 181–189.

On p. 181, in formula (1) the coefficient of the tenth backward difference, $\nabla^{10}X_n{}^i$, should read

$$\frac{13,695,779,093}{237,758,976,000}$$

instead of

$$\frac{301,307,139,941}{5,230,697,472,000}.$$

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Editorial note: These coefficients can be identified with the numbers $(-1)^{n-1}(n-1)\cdot B_n^{(n)}(1)/n!$, where $B_n^{(n)}(1)$ denotes the value of the nth Bernoulli polynomial of the nth order when $x = 1$. For a table of the exact values of $B_n^{(n)}(1)/n!$, $n = 1(1)20$, see A. N. Lowan & H.

Salzer, "Table of coefficients in numerical integration formulae," *J. Math. Phys.*, v. 22, 1943, pp. 49–50.

395.—J. W. Glover, *Tables of Applied Mathematics in Finance, Insurance, and Statistics*, Wahr Publishing Co., Ann Arbor, Mich., 1951.

On p. 492 of this reprint of the 1930 edition of these tables, the following terminal-digit corrections are required in the 10D table of mathematical constants.

Entry	*for*	*read*
$(2\pi)^{-1/2}$	3	4
$r\ (=\rho\sqrt{2})$	0	2
$\log r$	3	4

Also, immediately below $\sqrt{e}$, *for* $1/\sqrt{\ }$, *read* $1/\sqrt{e}$.

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Editorial note: For additional corrections see *MTAC*, v. 5, 1951, p. 228, MTE **194** and the FMRC *Index*, v. 2, p. 822.

396.—G. W. Spenceley, R. M. Spenceley & E. R. Epperson, *Smithsonian Logarithmic Tables to Base e and Base* 10, The Smithsonian Institution, Washington, D.C., 1952.

The following corrections supplement those previously reported (*MTAC*, v. 10, 1956, p. 261, MTE **251**; *ibid.*, v. 11, 1957, p. 226, MTE **256**; *Math. Comp.*, v. 14, 1960, p. 308, MTE **283**; *ibid.*, v. 15, 1961, p. 113, MTE **297**; *ibid.*, v. 17, 1963, p. 103, MTE **327**; *ibid.*, v. 19, 1965, p. 362, MTE **370**).

Page	*Entry*	*For*	*Read*
14	ln 670	. . . 74368 807	. . . 74368 806
34	ln 1682	. . . 36378 377	. . . 36378 378
39	ln 1925	. . . 59836 882	. . . 59836 881
40	ln 1975	. . . 24337 447	. . . 24337 446
47	ln 2312	. . . 82268 . . .	. . . 92268 . . .
91	ln 4534	. . . 67444 . . .	. . . 67474 . . .
100	ln 4993	. . . 00009 . . .	. . . 00609 . . .
109	ln 5442	. . . 43190 . . .	. . . 43191 . . .
129	ln 6441	. . . 76890 . . .	. . . 46890 . . .
135	ln 6748	. . . 65859 . . .	. . . 65858 . . .
172	ln 8570	. . . 91425 . . .	. . . 91825 . . .
178	ln 8862	. . . 59436 . . .	. . . 59434 . . .
190	ln 9480	. . . 49068 . . .	. . . 49067 . . .
322	log 5992	. . . 01410 . . .	. . . 91410 . . .

On p. 124, in the value given for ln 6196 the digit 6 in the sequence 36759 is so imperfectly formed as to be almost certainly misread as a zero.

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