

## TABLE ERRATA

512.—L. M. MILNE-THOMSON. “Ten-figure table of the complete elliptic integrals  $K$ ,  $K'$ ,  $E$ ,  $E'$ , and a table of  $1/\vartheta_3^2(0|\tau)$ ,  $1/\vartheta_3^2(0|\tau')$ ,” *Proc. London Math. Soc.*, (2), v. 33, 1931, pp. 160–164.

Recalculation of the tables of  $K$  and  $E$  to 15S on an IBM 360/165 system, using Algol 60 programs CEL 1 and CEL 2 by Bulirsch [1], has revealed a total of 81 terminal-digit errors (48 in  $K$  and 33 in  $E$ ) in the 200 tabular entries. Only one of these errors exceeds a unit, which confirms a statement of Comrie [2].

In the 9D table of  $K$  the last decimal should be increased by a unit for  $m = k^2 = 0.05, 0.08, 0.10, 0.19, 0.20, 0.42, 0.47$ , and  $0.82$ ; it should be decreased by a unit for  $m = 0.02, 0.04, 0.15, 0.18, 0.21, 0.22, 0.26, 0.28, 0.33, 0.36, 0.37, 0.39, 0.40, 0.43, 0.44, 0.48, 0.51, 0.52, 0.54, 0.57, 0.58, 0.61, 0.62, 0.63, 0.68, 0.70, 0.73, 0.74, 0.75, 0.77, 0.78, 0.79, 0.83, 0.85, 0.87, 0.91, 0.93, 0.95$ , and  $0.98$ . For  $m = 0.99$ , the final figure of  $K$  should read 3 in place of 5, as originally noted by Comrie [2].

In the companion 9D table of  $E$  the final decimal should be increased by a unit for  $m = 0.06, 0.07, 0.13, 0.15, 0.17, 0.18, 0.27, 0.32, 0.43, 0.46, 0.48, 0.49, 0.60, 0.63, 0.69, 0.70, 0.76, 0.84, 0.87$ , and  $0.88$ ; whereas it should be decreased by a unit for  $m = 0.19, 0.22, 0.23, 0.28, 0.29, 0.42, 0.44, 0.66, 0.72, 0.77, 0.79, 0.98$ , and  $0.99$ .

The associated 10D table of the arithmetic-geometric mean  $M = \pi/(2K) = 1/\vartheta_3^2$  has also been recalculated and has thereby been found to contain a total of 41 terminal-digit errors. Thus, the final decimal should be increased by a unit for  $m = 0.02, 0.03, 0.06, 0.14, 0.19, 0.22, 0.26, 0.31, 0.32, 0.34, 0.37, 0.38, 0.44, 0.49, 0.60, 0.70, 0.76$  and  $0.99$ ; it should be correspondingly decreased for  $m = 0.01, 0.07, 0.12, 0.13, 0.17, 0.20, 0.28, 0.36, 0.47, 0.56, 0.59, 0.73, 0.75, 0.78, 0.79, 0.80, 0.81, 0.88$ , and  $0.91$ . Furthermore, the final decimal should be increased by two units when  $m = 0.15, 0.21$ , and  $0.48$ ; and it should be decreased by the same amount when  $m = 0.05$ .

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1. ROLAND BULIRSCH, “Numerical calculation of elliptic integrals and elliptic functions,” *Numer. Math.*, v. 7, 1965, pp. 78–90.

2. ALAN FLETCHER, “Guide to tables of elliptic functions,” *MTAC*, v. 3, 1948, p. 276.

513.—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, and all known reprints.

On p. 612, the headings of the argument columns in Table 17.3 should read  $K'/K$ . The typographical omission of the solidus also should be corrected in two places in the appended note to this table.

On p. 609 the 9D table of  $E(m)$  and  $E'(m)$  has been reproduced from the table of Milne-Thomson, as acknowledged in the footnote on the preceding page. Accordingly, the same 33 last-place corrections of a unit are required here as in the latter table. (See the preceding errata notice.) It should be noted, however, that all these numerical errors lie within the tolerance stipulated on page ix of the *Handbook*.

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