

## TABLE ERRATA

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

On p. 578, formulas 4.358.2 and 4.358.3 should read, respectively,

$$\int_0^\infty x^{\nu-1} e^{-\mu x} (\ln x)^2 dx = \frac{\Gamma(\nu)}{\mu^\nu} \{[\psi(\nu) - \ln \mu]^2 + \zeta(2, \nu)\},$$

$$\int_0^\infty x^{\nu-1} e^{-\mu x} (\ln x)^3 dx = \frac{\Gamma(\nu)}{\mu^\nu} \{[\psi(\nu) - \ln \mu]^3 + 3[\psi(\nu) - \ln \mu] \zeta(2, \nu) - 2\zeta(3, \nu)\},$$

each valid for  $\operatorname{Re} \mu > 0$ ,  $\operatorname{Re} \nu > 0$ , as stated.

Formula 9.521.1, on p. 1073, in conjunction with formula 6.4.10 on p. 260 of [1] implies  $\psi^{(n)}(\nu) = (-1)^{n+1} n! \zeta(n+1, \nu)$ ,  $\nu \neq 0, -1, -2, \dots$ . Accordingly, the integrals can be conveniently written

$$\int_0^\infty x^{\nu-1} e^{-\mu x} (\ln x)^2 dx = \frac{\Gamma(\nu)}{\mu^\nu} \{[\psi(\nu) - \ln \mu]^2 + \psi^{(1)}(\nu)\}, \text{ and}$$

$$\int_0^\infty x^{\nu-1} e^{-\mu x} (\ln x)^3 dx = \frac{\Gamma(\nu)}{\mu^\nu} \{[\psi(\nu) - \ln \mu]^3 + 3[\psi(\nu) - \ln \mu] \psi^{(1)}(\nu) + \psi^{(2)}(\nu)\}.$$

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1. M. ABRAMOWITZ & I. A. STEGUN, Editors, *Handbook of Mathematical Functions, with Formulas, Graphs and Mathematical Tables*, Dover, New York, 1965.

EDITORIAL NOTE: For previous notices of errata in this edition see *Math. Comp.*, v. 33, 1979, p. 1377, MTE 565 and the editorial footnote thereto.

573.—MICHAEL A. MORRISON & JOHN BRILLHART, "A method of factoring and the factorization of  $F_7$ ," *Math. Comp.*, v. 29, 1975, pp. 183–205.

On p. 203, in Table 6, in the factorization of  $V_{249}$ , for 221806434537978679, read  $35761381 \cdot 6202401259$ , and in that of  $V_{264}$ , for 52337681992411201, read  $93058241 \cdot 562418561$ .

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