



Table Errata

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TABLE ERRATA

606.—ELDON R. HANSEN, *A Table of Series and Products*, Prentice-Hall, Englewood Cliffs, N. J., 1985.

p. 132: (6.6.102) In the denominator of the summand, replace $(1 - c)_k$ by $(1 + c)_k$.

p. 138: (6.7.37) Add $m = 1, 2, \dots$

p. 142: (6.9.2) For x_r , read x^r .

pp. 224, 225: The right members of formulas (14.6.1)–(14.6.3), (14.7.1)–(14.7.3) contain indefinite integrals. To obtain the correct integration constant, one may substitute definite integrals on the interval $[0, x]$, thereby renaming the integration variable as x' , for example.

p. 308: (47.4.8) For $C_{2n}^{(q)}(x)$, read $C_{2k}^{(q)}(x)$.

p. 311: (47.6.11) The third expression on the right side is incorrect; it should read

$$2^{1-2q} \frac{\Gamma(2q)}{\Gamma^2(q)} (t \sin x \sin y)^{-q} \mathfrak{D}_{q-1} \left(\frac{1 + t^2 - 2t \cos x \cos y}{2t \sin x \sin y} \right).$$

Another expression for this sum, very similar to the second expression on the right side, is

$$u^{-2q} {}_2F_1(q, q; 2q; 4u^{-2} t \sin x \sin y).$$

p. 324: (48.23.15) For ϕ_3 , read Φ_3 .

p. 377: (56.8.1) Add the condition $x, y, z \in (0, \pi)$. The condition on the second expression on the right side should read: if $|x - y| < z < x + y < \pi$. Cf. formula (46.9.1) on p. 307.

p. 506 Add: $B_n^{(r, m)}$ a generalization of the Bernoulli polynomial (6.7.5), (6.7.26).

p. 521: ET For 1953, read 1955.

FR For FRANICS, read FRANCIS.

p. 522: NO For NORLUND, read NÖRLUND.

p. 523: RZ For RYSHIK, read RYZHIK.

SZ For SZEGO, read SZEGÖ.

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607.—I. S. GRADSHTEYN & I. M. RYZHIK, *Table of Integrals, Series, and Products*, corrected and enlarged edition prepared by A. Jeffrey, Academic Press, New York, 1980.

On page 679 the right member of formula 6.541.2 should read

$$(-1)^n c^{-2n} \left\{ I_\nu(bc) K_\nu(ac) - \frac{1}{2} \left(\frac{b}{a} \right)^\nu \frac{\pi}{\sin \pi \nu} \sum_{p=0}^{n-1} \frac{(ac/2)^{2p}}{p! \Gamma(1-\nu+p)} \sum_{k=0}^{n-1-p} \frac{(bc/2)^{2k}}{k! \Gamma(1+\nu+k)} \right\},$$

for $0 < b < a$, $\operatorname{Re} c > 0$, $\operatorname{Re} \nu > n - 1$, $n = 1, 2, \dots$. For $0 < a < b$, the arguments a and b should be interchanged.

The correct formula was derived by using Barnes' integral representation of the Bessel function $J_\nu(z)$, as proposed originally by Watson [1] for evaluating certain integrals.

The error of omitting the term beside $I_\nu(bc)K_\nu(ac)$ appears also in formula (11) on p. 49 of [2] and in formula (12) on p. 213 of [3].

It should be noted that when $n = 0$ the integral is of Hankel's type [1] and is evaluated correctly in formula 6.541.1 herein.

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1. G. N. WATSON, *A Treatise on the Theory of Bessel Functions*, Cambridge Univ. Press, Cambridge, 1966, pp. 434–436 and 428–431.

2. A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, vol. 2, McGraw-Hill, New York, 1954.

3. A. P. PRUDNIKOV, YU. A. BRYČKOV & O. I. MARIČEV, *Integrals and Series*, "Nauka", Moscow, 1983. (Russian)