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CORRIGENDA

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Table of Integrals, Series, and Products

Fifth Edition
Alan Jeffrey, Editor
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compiled by

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Notes

These *Corrigenda* consists mainly of corrections of inaccurate expressions, misprints or typographical errors. In some cases, simplifications or additions have been made (partly in view of consistent presentation and to facilitate a possible new edition). Some relevant comments are also given.

As indicated in its *Preface*, the present *Fifth Edition* of the table of Gradshteyn–Ryzhik has been entirely reset. Therefore, the correctness of a formula in earlier editions does not necessarily imply its correctness in this edition. On the other hand, a number of corrections in these *Corrigenda* also applies to previous editions.

Note that almost all of the some 400 page numbers given with reference code WA referring to the second edition of G.N. Watson, *A Treatise on the Theory of Bessel Functions*, University Press Cambridge, 1944 (reprinted 1966), are incorrect in this and in the previous edition. Exceptions in this edition are 6.596 6.–8., 8.442 1., 8.552 1.–2. Curiously enough, these numbers are also incorrect when compared to the first edition (1922) of Watson's treatise, so that their origin remains a mystery. (A list of correct page numbers is available.)

I am indebted to Dr. G. Dôme (CERN) for pointing out some errors in earlier editions of the *Table*, for providing an alternative expression for entry 6.541 2., and for helpful discussions.

The corrections for entries 3.132 6., 3.137 2., 3.137 6., 3.137 7., 3.141 21., 3.141 24., 3.141 30., 3.148 1., 3.148 6. and 3.167 23. were noticed by A. Lambert (University of Dundee).

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The following entries have been added or modified in the June 1996 edition:

Page	*Formula or line*
267	3.132 6.
276	3.137 2.
276	3.137 6.
276	3.137 7.
281	3.141 21.
281	3.141 24.
282	3.141 30.
703	6.541 2.
953	8.363 6.
1002	8.578 6.
1104	9.551
1104	9.554

Page	*Formula or line*	
xii	7.6	For Degenerate read Confluent .
xii	7.61–69	For degenerate read confluent .
xiii	8.21	For **Ei** read Ei.
xiii	8.22	For **shi chi** read shi chi.
xiii	8.23	For **si ci** read si ci.
xiii	8.24	For **li** read li.
xiii	8.25	Move $\Phi(x)$ after probability integral.
xiii	8.38	For B read B .
xiii	8.55	Add $\mathbf{H}_\nu(z)$, $\mathbf{L}_\nu(z)$.
xiii	8.56	For **ber bei her** read ber bei her; for **hei ker kei** read hei ker kei .
xiii	8.57	Add $s_{\mu,\nu}(z)$, $S_{\mu,\nu}(z)$, $U_\nu(w,z)$, $V_\nu(w,z)$.
xv	9.5, 9.55	For $\Phi(z,s,\nu)$ read $\Phi(z,s,v)$.
xxvii	line 5	For Degenerate read Confluent .
xxx	lines 10–12,15	For **C** read C.
xxx	lines 16,19	For **G** read G.
xxxiii	line l–3,...	Section **The Factorial (Gamma) Function**. By writing $\Psi(z+1)$ instead of $\Psi(z)$ in the formula on line 5 of page xxxiv, this section becomes useless, except for the notation $\Gamma(1+z) = z! = \Pi(z)$. In fact $\Psi(z)$ so defined is identical to $\psi(z)$ as defined in 8.36, and the letter ψ should in any case be used in the remaining four equations, which thus become superfluous.
xxxiv	line 9	For **C** read C.
xxxv	line 9	For $(z \gg 1$ and $n > 0)$ read $[\lvert\arg z\rvert < \frac{3}{2}\pi]$.
xxxv	lines l–5,l–1	For **C** read C; suppress the ( ) in the integrand.
xxxvii	line l–2	In the logic of the notation used in this table: For $Y_n(z)$ by $N_n(z)$ read $N_n(z)$ by $Y_n(z)$.
xxxviii	lines 4,5	The notations $Hs_\nu(z)$, $Hi_\nu(z)$ and $G_\nu(z)$ should fall into oblivion; hence delete these lines. In any case, replace $\left(\dfrac{1}{2}\right)$ by $\frac{1}{2}$.
xxxviii	line l–5	For Ai read Ai ; add $= \dfrac{1}{\pi}\sqrt{\dfrac{z}{3}}\,K_{\frac{1}{3}}(\frac{2}{3}z^{\frac{3}{2}})$.
xxxviii	line l–4	For Ai read Ai .
xxxviii	lines l–2,l–1	For Bi read Bi .
xli	line 8	For B read B.
xli	line 9	For B_x read B_x.
xli	line 11	For bei ber read bei_ν ber_ν.
xli	line 16	For (x) read (t).

Page	Formula or line	
xlii	line 7	This notation is superfluous. Delete.
xlii	line 8	For See probability read Probability .
xlii	line 9	For erfc read erf.
xlii	line 13	Delete.
xlii	line 17	For Degenerate read Confluent .
xlii	line 18	For $F_\Lambda(\alpha:\beta_1$ read $F_A(\alpha;\beta_1$.
xlii	line $l-17$	For Other nonperiodic read Non-periodic .
xlii	line $l-15$	For **G** read G.
xlii	line l-13	Replace Gudermannian by Hyperbolic amplitude (Gudermannian).
xlii	line $l-12$	For Other nonperiodic read Non-periodic .
xlii	line $l-9$	For function read functions .
xlii	line $l-8$	For function's read function .
xlii	line $l-7$	For hei_ν read hei$_\nu$.
xliii	line 6,7	For Bessel functions of an imaginary argument read Modified Bessel functions .
xliii	line 11	For 9.21 read 9.2103 .
xliii	line 14,15	For Bessel functions of imaginary argument read Modified Bessel functions .
xliii	line 25	For Neumann's functions read Bessel functions of the second kind (Neumann functions)
xliii	line 26	Replace $\nu(x)$ by $\nu(x)$, $\nu(x,\alpha)$.
xliii	line 27	Delete.
xliii	line $l-9$	For $p_\nu^\mu(x)$ read $P_\nu^\mu(x)$; add $\mathrm{P}_\nu^\mu(z)$, $\mathrm{P}_\nu^\mu(x)$ in left column.
xliii	line $l-7$	Add $\mathrm{P}_\nu(z)$, $\mathrm{P}_\nu(x)$ in left column.
xliii	line $l-5$	For $p_n^{(\alpha,\beta)}(x)$ read $P_n^{(\alpha,\beta)}(x)$.
xliii	line $l-1$	Add Lerch function in centre column.
xliv	lines 5, 8	For Degenerate read Confluent.
xliv	line 10	Add $\mathrm{Q}_\nu^\mu(z)$, $\mathrm{Q}_\nu^\mu(x)$ in left column.
xliv	line 11	Add $\mathrm{Q}_\nu(z)$, $\mathrm{Q}_\nu(x)$ in left column.
xliv	line $l-9,\ldots$	Replace the section between $T_n(x)$ and $U_n(x)$ by

$\Theta(u)$, $\Theta_1(u)$, $\vartheta_k(u)$, $\vartheta_k(u,q)$, $\vartheta_k(u\|\tau)$, $\theta_k(u)$, $\theta_k(u,q)$, $\theta_k(u\|\tau)$, $(k=0,\ldots,4)$; $\vartheta_0\equiv\vartheta_4$; $\theta_0\equiv\theta_4$	Jacobian theta functions 8.18, 8.19

xliv	line $l-3$	Insert after this line:

$Y_\nu(z)\equiv N_\nu(z)$	Bessel function of the second kind 8.403, 8.41

Page	Formula or line	
xlv		This whole page NOTATIONS is superficial and confused. Some notations which are used later are not defined at all, e.g. the general binomial coefficient $\binom{a}{n}$, the Kronecker δ_{ij} and the Heaviside step function $H(x)$.
xlv	line 9	Presumably, add $\operatorname{sign}(0) = 0$.
xlv	lines 16–21	For ... read $\cdots$.
xlv	line 17	Add $(-1)!! = 1$.
xlv	line 18	Add $0!! = 1$.
xlv	line 19	Replace this line by

$$\binom{a}{n} = \frac{a(a-1)\cdots(a-n+1)}{n!} \qquad [n = 1, 2, \ldots];$$

$$\binom{a}{0} = 1, \qquad \binom{a}{-n} = 0 \qquad [n = 1, 2, \ldots;\ a \neq -1, -2, \ldots];$$

$$\binom{p}{n} = \frac{p!}{n!\,(p-n)!} \qquad [n = 1, 2, \ldots, p];$$

$$\binom{p}{n} = 0 \qquad [n = -1, -2, \ldots \text{ or } n > p].$$

Page	Formula or line	
xlv	line l-12	Add (Pochhammer symbol).
xlv	line l-11	Delete.
xlv	lines l-5,l-4	Delete.
xlv	line l-3	Delete (cf. 0.112 and 0.113 for $q = 0$).
xlv	line $l-2$,$l-1$	Replace these two lines by An empty $\sum$ has the value 0. An empty $\prod$ has the value 1.
3	0.132	Add $[n \to \infty]$.
8	0.227 3.	For Leibnitz read Leibniz .
12	0.241 5.–8.	Delete $\left[\binom{n}{m} = 0,\ m < 0\right]$.
13	0.243 2.	For i read 1 in the upper limit of the integral.
15	0.264	For e^C read $e^{\mathcal{C}}$.
19	0.317 3.	For diffrent read different.
20	0.320 3.	For t read l in the limits of the integral.
23	0.42	For Leibnitz read Leibniz .
25	0.44	This subsection is in the wrong place. It should be in **3.02**.
26	1.110	Add $= \sum_{k=0}^{\infty} \binom{q}{k} x^k$.

Page	Formula or line	
27	1.211 1.	For x^h read x^k .
113	2.33	Add New Item [1, No. 7.4.32]: $$\int e^{-(ax^2+2bx+c)}\,dx = \frac{1}{2}\sqrt{\frac{\pi}{a}}\exp\left(\frac{b^2-ac}{a}\right)\operatorname{erf}\left(\sqrt{a}x+\frac{b}{\sqrt{a}}\right) \quad [a \neq 0].$$
170	2.532 2.	Insert a $-$ sign before the first term on the right-hand side.
170	2.533 1.	For $\cos(a+b)$ read $\cos(a+b)x$.
170	2.533 2.	For $\sin dx$ read $\sin cx\,dx$.
249	2.728	Delete See **1.511** and **0.312**.
258	3.02	Replace the title of this section by *Integration by substitution*.
263	line 7	Insert *Cauchy* before *principal* .
267	3.132 6.	Replace the incorrect r.h.s. by $\frac{2}{\sqrt{a-c}}[(a-b)\Pi(\mu,1,q)+bF(\mu,q)]$.
276	3.137 2.	For $r \neq 0$ read $r \neq c$.
276	3.137 6.	For $b-a$ read $a-b$.
276	3.137 7.	For $a-b$ read $a-r$; for $(a-p)$ read $(a-r)$.
281	3.141 21.	For $(2c-b-u)$ read $(b+c-a-u)$.
281	3.141 24.	For $\sqrt{\frac{(u-a)(u-b)}{u-c}}$ read $\sqrt{\frac{(u-a)(u-c)}{u-b}}$.
282	3.141 30.	For $\frac{\sqrt{(a-c)^3}}{b-c}$ read $\sqrt{a-c}$; for $\frac{2}{3}\frac{a-c}{b-c}$ read $\frac{2}{3}$.
290	3.148 1.	For $c\Pi$ read $(d-c)\Pi$; for $-(c-d)F$ read $+cF$.
291	3.148 6.	For $\frac{b-a}{a-c}$ read $\frac{a-b}{a-c}$.
314	3.167 23.	For $(d-a)\Pi$ read $(a-d)\Pi$.
334	3.194 4.	For $\operatorname{Re}\nu$ read $\operatorname{Re}\mu$.
352	3.278	Add $[pq > -1]$.
352	3.310	Delete this trivial formula.
352	3.311 5., 8., 10.	For ct$g$ read ctg .
353	3.313 1.	Delete P.V.
353	3.313 2.	For β read B.
354	3.318 2.	For $\sqrt{\pi e}$ read $\sqrt{\pi}\,e$.
354	3.321 1.	Insert $\Phi(u) = \frac{\sqrt{\pi}}{2}\operatorname{erf} u =$ before the integral; add (cf. **8.25**).
354	3.321 2.	Superfluous.
354	3.322 1.	For $u > 0$ read $u \geq 0$. If entry 2.33 is added on page 113 (see above), integral 3.321 1. becomes superfluous.
355	3.322 2.	*do.*

Page	*Formula or line*	
355	3.323 1.	For $\sim$ read $=$; delete $[q \neq -2]$.
355	3.323 2.	For $\dfrac{\sqrt{\pi}}{p}$ read $\dfrac{\sqrt{\pi}}{\lvert p \rvert}$; delete $[p > 0]$.
		If entry 2.33 is added on page 113 (see above), integrals 3.323 1. and 3.323 2. become superfluous.
357	3.351 1.–9.	All these entries are superfluous. They can easily be deduced from the indefinite integrals in 2.32.
358	3.352–4	In most of these formulas, the restrictions should be reconsidered.
358	3.352 1.	Replace $\mathrm{Ei}(-\mu u - \mu\beta)$ by $\mathrm{Ei}[-\mu(u+\beta)]$.
358	3.352 2.	Replace $\mathrm{Ei}(-\mu u - \mu\beta)$ by $\mathrm{Ei}[-\mu(u+\beta)]$.
358	3.352 5.	Replace $\mathrm{Ei}(pa - pu)$ by $\mathrm{Ei}[p(a-u)]$.
		End the restrictions after $a < u$.
358	3.352 6.	Delete the line after the formula.
359	3.353 2.	For $n > 2$ read $n \geq 2$.
359	3.353 3.	Superfluous.
359	3.353 5.	Add $n \geq 0$ in the restrictions.
359	3.354 3., 4.	After the formula, retain only $[\lvert \arg(\pm\beta) \rvert < \pi, \ \mathrm{Re}\, \mu > 0]$.
359	3.354 5.	For $\dfrac{\pi}{a}$ read $\dfrac{\pi}{\lvert a \rvert}$; for $[a > 0]$, p real read $[a \neq 0,\ p \text{ real}]$.
360	3.355 3., 4.	For $\mathrm{Im}(a^2) > 0$ read $\mathrm{Im}(a^2) \neq 0$.
364	3.381 6.	Replace $(1-\nu)$ by $1-\nu$.
365	3.383 5.	For $\psi(q, q+1-\nu, p/a)$ read $\Psi(q, q+1-\nu; p/a)$;
		for $0(a/p)^{N+1}$ read $O\big((a/p)^{N+1}\big)$.
369	3.389 2.	For $\left\lvert T^{1-\nu}_{1-\rho-\nu,0,\frac{1}{2}} \right)$ read $\left\lvert \begin{matrix} 1-\nu \\ 1-\rho-\nu,\ 0,\ \frac{1}{2} \end{matrix} \right)$.
369	3.389 3.	For $\mathrm{L}_{\nu+\frac{1}{2}}$ read $\mathbf{L}_{\nu+\frac{1}{2}}$.
371	3.411 6.	For β^{η} read β^{μ}.
371	3.411 8.	Replace $\displaystyle\sum_{k=1}^{\infty} \frac{(-1)^{k-1}}{(p+k)^n}$ by $\Phi(-1, n, p+1)$.
371	3.411 14.	Replace $2\displaystyle\sum_{k=n}^{\infty} \frac{1}{k^3}$ by $2\left(\zeta(3) - \displaystyle\sum_{k=1}^{n-1} \frac{1}{k^3}\right)$.
371	3.411 15.	Replace $2\displaystyle\sum_{k=n}^{\infty} \frac{(-1)^{n+k}}{k^3}$ by $(-1)^{n+1}\left(\frac{3}{2}\zeta(3) + 2\displaystyle\sum_{k=1}^{n-1} \frac{(-1)^k}{k^3}\right)$.
371	3.411 18.	Replace $6\displaystyle\sum_{k=n}^{\infty} \frac{(-1)^{n+k}}{k^4}$ by $(-1)^{n+1}\left(\frac{7}{120}\pi^4 - 6\displaystyle\sum_{k=1}^{n-1} \frac{(-1)^k}{k^4}\right)$.
372	3.411 22.	Replace the right-hand side by
		$\Gamma(p)\, r^{-p}\, \Phi(q, p, 1) \qquad [p > 0,\ r > 0,\ \lvert q \rvert < 1]$.
373	3.415 2.	For B_{2k+2} read B_{2k+2}.
373	3.416 3.	For $2^{2^n}\mathrm{B}_{2n}$ read $2^{2n}B_{2n}$.

Page	*Formula or line*	
375	3.423 3.	Replace the right-hand side by $\Gamma(p+1)\,p^{-q-1}\,\Phi(a,q,1) \qquad [-1 \le a < 1,\ q > -1,\ p > 0]$.
376	3.423 4.	For $\Phi(\beta;\ \nu - 1;\ \mu) - (\mu-1)\Phi(\beta;\nu;\mu)$ read $\Phi(\beta,\ \nu-1,\ \mu) - (\mu-1)\Phi(\beta,\nu,\mu)$.
376	3.424 1.	Add $[a > -1,\ n = 1, 2, \ldots]$.
376	3.424 2.	Replace the incorrect right-hand side by $n!\,\Phi(-1,n,a+1) \qquad [a > -1,\ n = 1, 2, \ldots]$.
376	3.425 1.	For $\mathbf{C}$ read C .
376	3.425 2.	For $\mathbf{B}$ read B .
377	3.427 2.	For $\mathbf{C}$ read C .
381	3.458 1.	Replace the right-hand side by $p^{-1}[\ln 2 - \Phi(-1,1,p+1)] \qquad [p > -1]$.
382	3.461	This number is missing.
382	3.462 2.	For $E(n/2)$ read $[\frac{1}{2}n]$ in the upper limit of the sum.
385	3.475 1.	This integral is incorrect. In [2, Table 92(14)], the first term reads $\exp(-x^{2^n})$ instead of $\exp(-x^2)$. From 3.475 2., and under the assumption that this integral is valid for all $n \in \mathbb{Z}$, 3.475 1. can be written as $$\int_0^\infty \left\{ e^{-x^2} - \frac{1}{1+x^{2^n}} \right\} \frac{dx}{x} = -\tfrac{1}{2} C \qquad [n \in \mathbb{Z}].$$ There is numerical evidence that the integrals in 3.475, and maybe others in this section, are also valid for non-integer values of n.
386	3.477 1., 2.	For $\overline{\mathrm{Ei}}$ read Ei .
391	3.518 4.	For $2^{\mu+\nu-\rho}\,\beta$ read $2^{\mu+\nu-\rho-2}\,\mathrm{B}$; for $2 - \frac{1}{2}\mu - \nu$ read $\rho + 2 - \frac{1}{2}\mu - \nu$.
391	3.518 5.	Replace $2^{-(2-\mu-\nu+\rho)}$ by $2^{\mu+\nu-\rho-2}$; For $\mathrm{Re}(2+\rho)\mathrm{Re}(\mu+\nu)$ read $\mathrm{Re}(2+\rho) > \mathrm{Re}(\mu+\nu)$.
391	3.518 6.	For ${}_2F_1$ read $\frac{1}{2}\,{}_2F_1$; for 2B read B .
394		Insert 9. — after the double line.
394	3.524 9.	For is divergent read $\dfrac{\pi^3}{4b^3} \sin \dfrac{a\pi}{2b} \sec^3 \dfrac{a\pi}{2b} \quad [b > \lvert a \rvert]$.
394	3.524 9.–23.	Increase the numbers 9. to 23. by 1, thus read 10. to 24.
397	3.531	Delete [see **8.26** for $L(x)$] and the numerical value in the next line. It is misplaced anyway.
398	3.536 3.	Delete $\times$.
404	3.352 5.	Replace $\zeta[\mu, \frac{1}{2}(\beta+1)]$ by $\zeta(\mu, \frac{1}{2}\beta + \frac{1}{2})$.
408	3.612 7.	Replace $\cos x$ by $\cos^{2m+1} x$; add $[n > m \ge 0]$.
410	3.614	For $a < b$ read $a^2 < b$ in third line.

Page	Formula or line	
414	3.624 4.	For $+dx$ read dx.
414	3.624 5.	Delete the superfluous expression after the second = sign.
414	3.625 4.	For $+dx$ read dx.
415	3.628	This entry is incorrect and clumsy: For $\sec^{2p+1} x$ read $\sec^{2p} x$. Replace the whole formula by $$\int_0^{\frac{1}{2}\pi} \sec^{2p} x \, \sin^{2p-1} x \, dx = \frac{1}{2p\sqrt{\pi}} \Gamma(p+1)\,\Gamma(\tfrac{1}{2}-p) \quad [0 < p < \tfrac{1}{2}].$$
415	3.63	In many of these integrals, add $[n \geq 0]$.
415	3.631 2.	Delete the factor 2 in the integrand. Replace $\frac{-1}{\nu-1}$ by $\frac{1}{1-\nu}$.
415	3.631 5.	Delete the * in second and third line; delete the footnote.
416	3.631 13.	In second line, for $(2m-2n-3)!!$ read $(2n-2m+1)!!$; in third line, for $(2m-2n+3)!!$ read $(2m-2n-3)!!$.
416	3.631 15.	Replace the clumsy second and third lines by $$= [1-(-1)^{m+n}]\frac{m!}{(m+n)!!}\left\{\sum_{k=0}^{\min(m,n)-1} \frac{(m+n-2k-2)!!}{(m-k)!} + s\right\}$$ $$s = \begin{cases} 0 & [n-m \leq 0 \text{ or } \tfrac{1}{2}(n-m) \text{ even}], \\ (n-m-2)!! & [n-m \text{ odd}], \\ 2(n-m-2)!! & [\tfrac{1}{2}(n-m) \text{ odd}]. \end{cases}$$
416	3.631 17.	Replace the clumsy formula on top of p. 417 by [16, No. 2.5.12.24, 25.] $$= [1+(-1)^{m+n}] \begin{cases} 0 & [n < m] \\ \dfrac{s\, n!}{(n-m)!!\,(n+m)!!} & [n \geq m] \end{cases}$$ $(s = \frac{1}{2}\pi$ if $n-m$ even, $s = 1$ if $n-m$ odd).
417	3.631 20.	For n read ν (4 times).
418	3.635 1.	Replace the right-hand side by $\frac{1}{2}\beta(\mu)$.
419	3.635 2.	For $2^{p+2+n+1}$ read 2^{p+2n+1}.
421	3.644	Since references to articles are usually not given, there seems to be no particular reason for having this one. It is in Russian and difficult to obtain.

Page	*Formula or line*	
421	3.644 1.	For $\left(\frac{p^2-q^2}{-q^2}\right)k$ read $\left(\frac{p^2-q^2}{-q^2}\right)^k$.
421	3.645	For $\left(\frac{a+b}{a-b}\right)k$ read $\left(\frac{a+b}{a-b}\right)^k$.
422	3.651 1.	In some copies this formula may be mutilated. It should read $$\int_0^{\frac{\pi}{4}} \frac{\mathrm{tg}^\mu x\,dx}{1+\sin x\cos x} = \frac{1}{3}\left[\psi\left(\frac{\mu+2}{3}\right)-\psi\left(\frac{\mu+1}{3}\right)\right].$$
423	3.653 2.	Delete the factor 2 in the integrand.
441	3.715 10.	For $[\mathrm{Re}\, n > -\frac{1}{2}]$ read $[n = 0, 1, 2, \ldots]$.
441	3.715 12.	For $\mathbf{J}_\nu$, $\mathbf{J}_{-}\nu$, $\mathbf{E}_\nu$, $\mathbf{E}_{-\nu}$ read $\mathbf{J}_a$, $\mathbf{J}_{-a}$, $\mathbf{E}_a$, $\mathbf{E}_{-a}$. Alternatively, delete the two (superfluous) expressions which contain these functions.
444	3.721 3.	For $dx - \mathrm{ci}$ read $dx = -\mathrm{ci}$.
445	3.722 2., 4.	For iab read $ia\beta$.
445	3.722 6., 8.	For iab read $ia\beta$.
445	3.723 1., 5.	For $\overline{\mathrm{Ei}}$ read Ei .
447	3.726 1., 2.	For $\overline{\mathrm{Ei}}$ read Ei ; after the formula, retain only $[a > 0,\ b > 0]$.
447	3.727 2.	For $\overline{\mathrm{Ei}}$ read Ei ; delete (cf. **3.723** 1. and **3.723** 8.).
447	3.727 3.	Delete (cf. **3.723** 2. and **3.723** 9.).
447	3.727 5.	Delete (cf. **3.723** 3. and **3.723** 10.).
447	3.727 6.	For $\overline{\mathrm{Ei}}$ read Ei ; delete (cf. **3.723** 5. and **3.723** 11.).
448	3.727 8.	For $\overline{\mathrm{Ei}}$ read Ei ; delete (cf. **3.723** 1. and **3.723** 8.).
448	3.727 9.	Delete (cf. **3.723** 2. and **3.723** 9.).
448	3.727 11.	Delete (cf. **3.723** 4. and **3.723** 10.).
448	3.727 12.	For $\overline{\mathrm{Ei}}$ read Ei ; delete (cf. **3.723** 1. and **3.723** 11.).
451	3.737 1.	In second line: For $e^{-ab}\sqrt{p}$ read $e^{-ab\sqrt{p}}$; for b^{2n-1} read $2b^{2n-1}$. In third line: For $2b^{2n-1}$ read b^{2n-1}.
455	3.747 1.	Add $= 2\pi G - \frac{7}{2}\zeta(3) \qquad [m = 2]$.
458	3.761 5.	For $\frac{m!\,[m-2E[m/2]-1]}{n^{m+1}}$ read $m!\,\frac{m-2[m/2]-1}{n^{m+1}}$.
458	3.761 6.	For ${}_1F_1(\mu;\, u+1;\, ia) + {}_1F_1(\mu,\, u+1;\, -ia)$ read ${}_1F_1(\mu;\, \mu+1;\, ia) + {}_1F_1(\mu;\, \mu+1;\, -ia)$.
461	3.766 4.	Replace $\Gamma[2(\mu+\frac{1}{2})]$ by $\Gamma(2\mu+1)$.
465	3.771 12.	For $s_{(\nu-1)\nu+1}$ read $s_{\nu-1,\nu+1}$.

Page	Formula or line	
466	3.773 1.	For *sin* read sin; for $\mu-\nu)_1$ read $\mu-\nu)$; for $\nu+1-\mu;\ \frac{3}{2}$ read $\nu+1-\mu,\ \frac{3}{2}$; for $a^{2u-2\nu+1}$ read $a^{2\mu-2\nu+1}$. Replace $G_{13}^{21}\left(\frac{a^2\beta^2}{4}\middle\vert{}^{-\nu+\frac{1}{2}}_{\mu-\nu+\frac{1}{2},\frac{1}{2},0}\right)$ by $G_{13}^{21}\left(\frac{a^2\beta^2}{4}\middle\vert\begin{matrix}-\nu+\frac{1}{2}\\ \mu-\nu+\frac{1}{2},\frac{1}{2},0\end{matrix}\right)$.
466	3.773 2.	For *sin* read sin;
467	3.773 4.	Replace $G_{13}^{21}\left(\frac{a^2\beta^2}{4}\middle\vert{}^{-\nu+\frac{1}{2}}_{\mu-\nu+\frac{1}{2},0,\frac{1}{2}}\right)$ by $G_{13}^{21}\left(\frac{a^2\beta^2}{4}\middle\vert\begin{matrix}-\nu+\frac{1}{2}\\ \mu-\nu+\frac{1}{2},0,\frac{1}{2}\end{matrix}\right)$.
467	3.773 6.	For $0\le m<n+\frac{1}{2}$ read $0\le m\le n$.
473	3.792 7.	For a^3 read a^2; for $(1-a)^2$ read $(1-a^2)$; for $[b=0,1,2,\dots]$ read $[b=1,2,\dots]$; for ET I 181(26) read ET I 81(26).
474	3.792 20.	In the last expression: For π read $-\pi$; for a^{2^k} read a^{2k}. (The two intermediate integrals have not been checked.)
476	3.798 1., 2.	For $[a^2>b^2]$ read $0<b<a$; for $[a^2<b^2]$ $[a>0]$ read $0<a<b$.
477	3.812 4.	Delete [divergent if $a^2=0$].
477	3.812 5.	For $0\ne a^2\ne 1$ read $0<a^2<1$; delete [divergent if $a^2=0$].
480	3.816 2.	For $\frac{\pi}{2}$ read $\frac{\pi}{a}$.
484	3.824 3.	For $\cdot\frac{\pi}{2}$ read $\frac{\pi}{a}$. The simpler formula $\frac{\pi}{2^{2m+1}a}\sum_{k=0}^{m}(-1)^k\binom{2m}{m-k}e^{-2ka}$ which has been proposed in [7] is incorrect; for $m=1$, it yields $\frac{\pi}{8a}(2-e^{-2a})$ instead of $\frac{\pi}{4a}(1-e^{-2a})$ [16, No. 2.5.6.11].
484	3.824 4.	For $\sin^{2^m+1}x$ read $\sin^{2m+1}x$.
484	3.824 5.	Replace the right-hand side by the simpler formula $\frac{\pi}{2^{2m+1}}e^{-(2m+1)a}\sum_{k=0}^{m}(-1)^{m+k}\binom{2m+1}{k}e^{2ka}$. Delete BI ((160))(15).
484	3.824 6.	For 2^{2m} read $2^{2m}a$.
486	3.827	Add: In **3.827** 1.–15.: $[a>0]$. Delete this restriction elsewhere in these entries.
486	3.827 1.	For $[a>0,\ 0<\operatorname{Re}\nu<4]$ read $[0<\operatorname{Re}\nu<4,\ \nu\ne 1,2,3]$.
486	3.827 2., 4.	Delete sign a.

Page	Formula or line	
487	3.828	Add: In **3.828** 1.–21.: $[a>0,\ b>0,\ c>0]$. Delete these restrictions elsewhere in these entries.
487	3.828 1.	Replace this entry by $\int_0^\infty \frac{\sin ax \sin bx}{x}\,dx = \frac{1}{2}\ln\left\lvert\frac{a+b}{a-b}\right\rvert \qquad [a\neq b]$.
487	3.828 2.	Replace this entry by $\int_0^\infty \frac{\sin ax \sin bx}{x^2}\,dx = \frac{1}{2}\pi\min(a,b)$.
487	3.828 3.	Replace $[0<b<2a]$ by $[b<2a]$.
487	3.828 4.	Add $[2a\neq b]$.
487	3.828 5.	Replace the right-hand sides (including the restrictions) by $\frac{1}{2}\pi\max(0,a-b)$; delete FI III 648a,.
487	3.828 7.	The right-hand side is incorrect. Replace it by $\frac{1}{8}\pi\{\max(0,2a-\lvert b-c\rvert)-\max(0,2a-b-c)\}$. Delete BI((157))(9)a,ET I 79(15). The corresponding (different) formula [5, No. 2.6(15)] is also incorrect.
487	3.828 8.	The right-hand side is incorrect. Replace it (including the restrictions) by $\frac{1}{8}\ln\left\lvert\frac{(b+c)^2(2a-b+c)(2a+b-c)}{(b-c)^2(2a+b+c)(2a-b-c)}\right\rvert$ $[b\neq c,\ 2a+c\neq b,\ 2a+b\neq c,\ 2a\neq b+c]$.
487	3.828 9.	Replace the right-hand sides (including the restrictions) by $\frac{1}{4}\pi\min(a,b)$.
488	3.828 10.	Replace the right-hand sides (including the restrictions) by $\frac{1}{6}\pi\min(a^2,b^2)[3\max(a,b)-\min(a,b)]$.
488	3.828 11.	Replace the right-hand sides (including the restrictions) by $\frac{1}{4}\pi[a+\max(0,a-b)]$.
488	3.828 14.	The right-hand side is incorrect. Replace it by $\frac{3}{8}\{(a+b)\ln 3(a+b)+(a-b)\ln 3\lvert a-b\rvert -(a+3b)\ln(a+3b)-(a-3b)\ln\lvert a-3b\rvert\}$. For BI((157))(7)a,ET I 19(9) read BI((157))(7). The corresponding formula [5, No. 1.6(9)] is also incorrect.
489	3.828 16.	This is a trivial special case of 3.828 12.; hence **3.828** 16. —
489	3.828 18.	Replace the right-hand sides (including the restrictions) by $\frac{1}{16}\ln\left\lvert\frac{(2a+b)^3(2a-b)^3(2a+3b)(2a-3b)}{9b^8}\right\rvert$. $[2a\neq b,\ 2a\neq 3b]$.

Page	*Formula or line*	
489	3.828 19.	With sign(0) = 0: For $\frac{\pi}{16}[1+\operatorname{sign}(c-a+b)+\operatorname{sign}(c+a-b)$ read $\frac{\pi}{32}[2+\operatorname{sign}(c-a-b)+\operatorname{sign}(c-\lvert a-b\rvert)$. Delete ET I 80(17). The corresponding formula [5, No. 2.6(17)] is also incorrect.
489	3.828 21.	For $[b>2a]$; $[a>0,\ b>0]$ read $[b\geq 2a]$.
494	3.836 2.	Replace $\sum\limits_{0\leq k<\frac{m+n}{2}}$ by $\sum\limits_{k=0}^{[\frac{1}{2}(m+n)]}$.
494	3.836 4.	For $\frac{\pi}{2}$ read $-\frac{\pi}{2}$; for $\sum\limits_{0\leq k<\frac{n}{2}(1-a)}$ read $\sum\limits_{k=0}^{[\frac{1}{2}n(1+a)]}$.
495	3.836 5.	Delete $I_n(b)=\frac{2}{\pi}$; for $n(2^{n-1}n!)^{-1}$ read $\frac{\pi}{2^{n-2}(n-1)!}$; write second line as $[0\leq b<n,\ n\geq 1,\ r=(n-b)/2]$.
512	3.893 1., 2.	For $[p>0]$ read $[\operatorname{Re} p>0]$.
512	3.893 4.	For non-integer a/b, the integral exists as a Cauchy principal value. Hence delete the two lines of text and replace the right-hand side by $= \operatorname{Re}\left\{\frac{1}{2bi}\left[\psi\left(\frac{a+b-i\beta}{2b}\right)-\psi\left(\frac{b-a-i\beta}{2b}\right)\right]\right\}.$ In the corresponding formulae [16, No. 2.5.33.5.], [19, No. 2.4.1.22.], a factor $-i$ is missing.
512	3.893 5.–7.	For $[p>0]$ read $[\operatorname{Re} p>0]$.
513	3.895 6.	For $pe^{\frac{p\pi}{2}}$ read $pe^{-\frac{p\pi}{2}}$.
513	3.895 9.	Add $[p>0]$.
514	3.895 10.	Delete $[p\neq 0]$.
514	3.895 12.	For $a\geq 0$ read $a>0$.
514	3.895 11.–14.	These formulae are simple special cases of [19, No. 2.4.1.21.]: $\int_0^\infty e^{-\beta x}\sin^n ax \begin{Bmatrix}\sin bx\\ \cos bx\end{Bmatrix} dx = \frac{2^{-n-2}}{a(n+1)}\, e^{\frac{1}{4}(1\mp 1+2n)\pi i}$ $\left\{\binom{\frac{b+na+i\beta}{2a}}{n+1}^{-1} \pm (-1)^n \binom{\frac{b+na-i\beta}{2a}}{n+1}^{-1}\right\}$ $[a>0,\ b>0,\ \operatorname{Re}\beta>0].$ Hence replace 3.895 11. by this formula and delete 3.895 12.–14. Note that a factor $(\mp 1)^n$ is missing in [19, No. 2.4.1.21.]. The corresponding formula [16, No. 2.5.33.4.] is incorrect.

Page	*Formula or line*	
515	3.897 1.	For $-\beta x^2 - \nu x$ read $-\beta x^2 - \gamma x$.
515	3.898 3.	For $[p > 0]$ read $[\operatorname{Re} p > 0]$.
515	3.899 1.	For $p^2 x^2$ read $-p^2 x^2$.
523	3.941 1.	Delete 1.
524	3.941 2.	Delete.
548	4.116 1.	Delete.
549	4.116 2.	Delete 2.
549	4.118	Replace the right-hand side (including $[a > 0]$) by $\frac{\pi}{2} \frac{1}{\operatorname{sh} \frac{1}{2}\pi a} \left(\frac{1}{2}\pi a \operatorname{cth} \frac{1}{2}\pi a - 1\right)$.
556	4.212 1.	Delete P.V.; for $\overline{\mathrm{Ei}}$ read Ei .
556	4.212 3., 5., 8.	For $\overline{\mathrm{Ei}}$ read Ei ; add (cf. note after **4.212** 9.).
556	4.212 5.	For $1 + \ln x$ read $a + \ln x$.
556	line $l-1$	The proposed substitution leads to $-\int \frac{(-t)^m e^{-t}}{(a^n + (-t)^n)^l} dt$. Delete?
557	line 1	Insert and **4.213** 6., **4.213** 8. below after [for $n > 1$].
557	4.213 2., 4.	For $\overline{\mathrm{Ei}}$ read Ei ; delete (cf. **4.212** 1 and 2.).
557	4.213 6., 8.	For $\overline{\mathrm{Ei}}$ read Ei ; add (See note after **4.212** 9.).
557	4.214 1.–3.	For $\overline{\mathrm{Ei}}$ read Ei .
557	line $l-1$	Delete.
558	4.214 4.	For $\overline{\mathrm{Ei}}$ read Ei .
560	4.224 11.	This entry is confused and should be given as follows:

$$\int_0^{\frac{\pi}{2}} \ln(1 + a \sin x)^2 \, dx = \begin{cases} \pi \ln(a/2) + 4G + 4 \sum_{k=1}^{\infty} \frac{b^k}{k} \sum_{n=1}^{k} \frac{(-1)^{n+1}}{2n-1} & [a > 0], \\ -\pi \ln 2 - 4G & [a = -1]; \end{cases}$$
$$b = (1-a)/(1+a).$$

The cosine integral and the separate line for $a = 1$ are obviously superfluous. Note the unusual notation $\ln(1 + a \sin x)^2$. It occurs also in other formulas and means $2 \ln |1 + a \sin x|$.
Delete the old reference BI((308))(5,6,7,8).

Page	*Formula or line*	
560	4.224 14.	The integrand is periodic, integration from 0 to π is sufficient. The right-hand side is incorrect. Hence replace this entry by $\int_0^{\pi} \ln(a^2 - 2ab\cos x + b^2)\, dx = 2\pi \ln[\max(\lvert a\rvert, \lvert b\rvert)] \qquad [ab > 0]$.
562	4.227 4.	For n even, the right-hand side is equal to $\frac{1}{2}\left(\frac{\pi}{2}\right)^{n+1} \lvert E_n\rvert$.
562	4.227 5.	Replace the right-hand side by $\left(\frac{\pi}{2}\right)^{2n+1} \lvert E_{2n}\rvert$.
564	4.229 5.	For $\overline{\mathrm{Ei}}$ read Ei .
564	4.231 5.	For $[0 < a < 1]$ read $[a > 0]$.
564	4.231 7.–10.	By replacing the parameters in the right-hand side by their absolute values, the restrictions can be replaced by $[ab \neq 0]$. There are more of such cases.
564	4.231 7.	For C read $\mathbf{C}$.
565	4.233 3.	For $2\pi^2$ read $7\pi^2$.
570	4.253 1., 4.	For B read B.
570	4.253 6.	For $\mu - a$ is not a natural number read $\lvert \arg a\rvert < \pi$.
570	4.253 7.	For $-\sum_{k=1}^{n-2} \frac{1}{k} - 2\sum_{k=n=1}^{2n-3} \frac{1}{k}$ read $-2\sum_{k=1}^{n-1} \frac{1}{2k-1}$; For $a > 0$ read $\lvert \arg a\rvert < \pi$, $n = 1, 2, \ldots$.
572	4.261 11.	Replace the right-hand side by $(-1)^n \left(\frac{3}{2}\zeta(3) + 2\sum_{k=1}^{n} \frac{(-1)^k}{k^3}\right) \qquad [n = 0, 1, \ldots]$.
572	4.261 12.	Replace the right-hand side by $2\left(\zeta(3) - \sum_{k=1}^{n} \frac{1}{k^3}\right) \qquad [n = 0, 1, \ldots]$.
572	4.261 13.	Replace the right-hand side by $\frac{7}{4}\zeta(3) - 2\sum_{k=1}^{n} \frac{1}{(2k-1)^3} \qquad [n = 0, 1, \ldots]$.
573	4.261 17.	For $\psi 7(\mu)$ read $\psi'(\mu)$.
573	4.261 20.	Replace the the first term in the right-hand side by $\frac{7}{4}(n+1)\zeta(3)$. Add $[n = 0, 1, \ldots]$.
573	4.261 21.	For B read B.
575	4.267 3.	For $\frac{1}{2}(n-1)$ read $[\frac{1}{2}(n-1)]$.
589	4.293 9.	Replace $-\psi(1)$ by $+\mathbf{C}$.
589	4.293 13., 14.	For B read B.

Page	Formula or line	
595	4.311 1.	Replace this entry by 1. —
598	4.318 2.	Delete the trivial remark (three lines) after this formula.
599	4.322 1.	Replace $\ln\sin xx$ by $x\ln\sin x$.
599	4.322 7., 8.	Replace $\ln\sin xx^{\mu-1}$ by $x^{\mu-1}\ln\sin x$.
599	4.323	Replace $\ln \mathrm{tg}^2 xx$ by $x\ln\mathrm{tg}^2 x$.
600	4.325 1.	Delete the two intermediate equations.
603	4.335 3.	Replace $-\psi''(1)$ by $+2\zeta(3)$.
603	4.337 3.	For $\overline{\mathrm{Ei}}$ read Ei .
603	4.337 4.	For $\dfrac{\beta}{\beta-x}$ read $\left\lvert\dfrac{\beta}{\beta-x}\right\rvert$; delete β cannot be a real positive number,.
606	4.356 4.–6.	Delete the text before the formula.
607	4.358 4.	For $\dfrac{\Gamma(\nu)}{\nu}$ read $\dfrac{\Gamma(\nu)}{\mu^{\nu}}$.
612	4.376 8.	Move $[n=1,2,\ldots, a>0]$ to first line; move BI((356))(2) to second line.
613	4.384 2.	Delete the incorrect second line. Replace the third line by $= \dfrac{2}{(2n+1)\pi}\left[\ln 2 - \dfrac{1}{2n+1} - 2\sum_{k=1}^{n}\dfrac{1}{2k-1}\right].$
626	4.416 4.	The two results given are incorrect. Replace them by $\frac{1}{2}(-1)^n(n-1)!(1-2^{-n-1})\zeta(n+1)$. Delete BI ((287))(20).
632	4.441 1.	For $\dfrac{p}{c}$ read $\dfrac{p}{2}$.
638	4.551 1.	For L_0 read $\mathbf{L}_0$.
638	4.551 2.	For L_0 read $\mathbf{L}_0$; for L_1 read $\mathbf{L}_1$.
639	4.574 2.	For $\overline{\mathrm{Ei}}$ read Ei .
646	4.625	For $P_l(a,b)$ read $p_l(a,b)$; for $P_{2l}(a,b)$ read $p_{2l}(a,b)$. Exchange the left-hand side with the right-hand side in the first line.
647	4.634	For $(\frac{x_2}{q^2})$ read $(\frac{x_2}{q_2})$ in the limit of the integral.
647	4.635 1., 2.	*do.*
647	4.635 1.	For $q_2^{p_1}$ read $q_1^{p_1}$.
647	line $l-1$	For coverges read converges.
648	4.635 4.	For $x_n^{\alpha}n \le 1$ read $x_n^{\alpha_n} \le 1$; for $\dfrac{1}{\alpha_1\alpha_2\ldots\alpha_n}$ read $\dfrac{\Gamma(1-\mu)}{\alpha_1\alpha_2\cdots\alpha_n}$; for $\mu>1$ read $\mu<1$.

Page	*Formula or line*	
648	4.636 1.	For $x_n^\alpha n \le 1$ read $x_n^{\alpha_n} \le 1$.
648	4.636 2.	For $x_n^\alpha n \le 1$ read $x_n^{\alpha_n} \le 1$; for $\mu < \dfrac{p_1}{\alpha_1} - \dfrac{p_2}{\alpha_2}$ read $\mu < \dfrac{p_1}{\alpha_1} + \dfrac{p_2}{\alpha_2}$.
649	4.636 3.	For $x_n^\alpha n \le 1$ read $x_n^{\alpha_n} \le 1$.
649	4.637	For $x_1 \le 0$ read $x_1 \ge 0$.
649	4.638 3.	For 8 read s as exponent; for $r_2^{p_1 q_2}$ read $r_2^{p_2 q_2}$.
651	4.646	For $q_2 > 0$, $q_2 > 0$ read $q_1 > 0$, $q_2 > 0$.
651	4.648	For $xc_1^{\frac{1}{n+1}-1} x_2^{\frac{2}{x+1}-1}$ read $x_1^{\frac{1}{n+1}-1} x_2^{\frac{2}{n+1}-1}$.
658	5.141 4.	For $\mathscr{P}$ read $\wp$ (3 times); add (see **8.162**); add $[\wp(v) \neq e_1,\, e_2,\, e_3]$. [4, No. 1037.06].
659	5.141 5.	In the integrand: For $\mathscr{P}$ read $\wp$ (twice). For $\dfrac{au}{\gamma} - \dfrac{\alpha\delta - \beta\gamma}{\gamma^2 \mathscr{P}'(v)}$ read $\dfrac{\alpha u}{\gamma} + \dfrac{\alpha\delta - \beta\gamma}{\gamma^2 \wp'(v)}$; for $\mathscr{P}'(v) = -\dfrac{\delta}{\gamma}$ read $v = \wp^{-1}\left(-\dfrac{\delta}{\gamma}\right)$. The corresponding (different) formula [4, No. 1037.10] is also incorrect.
661	5.5	Insert after 5.51: Z and $\mathfrak{Z}$ denote $J, N, H^{(1)}, H^{(2)}$.
661	5.52–56	Delete the asterisk * and the misleading footnote.
661	5.56 1., 2.	These are simple special cases of 5.52 1., 2. Hence delete.
672	6.244 1., 2.	For [si(px)] read si(px).
689	6.443 4.	Replace 0 on the right-hand side by [10] $\dfrac{2}{\pi^2}\left[\dfrac{1}{(2n+1)^2}(C + \ln 2\pi) + 2\sum_{k=2}^{\infty}\dfrac{\ln k}{4k^2 - (2n+1)^2}\right]$. Delete NH 203(6).
691	6.465 1.	Replace 0 on the right-hand side by [10] $-\dfrac{2}{\pi}\left[C + \ln 2\pi + 2\sum_{k=2}^{\infty}\dfrac{\ln k}{4k^2 - 1}\right]$. Delete NH 204. Note the relation to 6.443 4.
691	6.469 2.	For $= 0$ read $= \dfrac{n}{1-n^2}$; for $[n-$ odd$]$ read $[n > 1$ odd$]$. [10]
693	6.512 2.	Add $[n \ge 0]$.
693	6.512 3.	For $J_\nu(ax)$ read $J_\nu(\alpha x)$.

Page	Formula or line	
697	6.522 1.	For symmetry, replace $P^{-\mu}_{\frac{1}{2}\nu-1}$ by $P^{-\mu}_{-\frac{1}{2}\nu}$.
698	6.522 4.	This is a special case of 6.578 16.; hence **6.522** 4. —
698	6.522 5.	This is a special case of 6.578 15.; hence **6.522** 5. —
698	6.522 6.	This is a special case of 6.578 13.; hence **6.522** 6. —
698	6.522 9.	For $K_{\frac{1}{2}}(ax)$ read $K_{\frac{1}{2}\nu}(ax)$.
699	6.522 11.	For $2a < b < \infty$ read $2a < b$.
699	6.522 13.	For $0 < \varphi;\quad \psi < \dfrac{\pi}{2}$ read $0 < \varphi < \frac{1}{2}\pi,\ 0 < \psi < \frac{1}{2}\pi$.
699	6.522 14.	For $0 < \varphi;\quad \psi < \dfrac{1}{2}\pi$ read $0 < \varphi < \frac{1}{2}\pi,\ 0 < \psi < \frac{1}{2}\pi$.
703	6.541 2.	For $\Gamma(1-\nu+k)$ read $\Gamma(1+\nu+k)$ in second line.

For k^2c^2 read b^2c^2 in third line.

Alternatively, replace the second and third lines by the more general expression (modified from [21])

$$= \frac{(-1)^n}{c^{2n}}\left\{ I_\nu(cu)K_\nu(cv) - \frac{1}{2\nu}\left(\frac{u}{v}\right)^\nu \sum_{p=0}^{n-1} \frac{(\frac{1}{2}cv)^{2p}}{p!\,(1-\nu)_p} \sum_{k=0}^{n-1-p} \frac{(\frac{1}{2}cu)^{2k}}{k!\,(1+\nu)_k} \right\}$$

$[u = \min(a,b),\ v = \max(a,b);$
$n = 0, 1, \dots,\ \operatorname{Re}\nu > n-1;\ a > 0,\ b > 0,\ \operatorname{Re} c > 0]$.

Another alternative expression is

$$= \frac{(-1)^n}{c^{2n}}\Bigg\{ I_\nu(cu)K_\nu(cv) - \frac{1}{2\nu}\left(\frac{u}{v}\right)^\nu \sum_{j=0}^{n-1} \frac{(\frac{1}{2}cv)^{2j}}{j!\,(1-\nu)_j}\, {}_2F_1\left(-j,\ \nu-j;\ \nu+1;\ \frac{u^2}{v^2}\right) \Bigg\}$$

$[u = \min(a,b),\ v = \max(a,b);$
$n = 0, 1, \dots,\ \operatorname{Re}\nu > n-1;\ a > 0,\ b > 0,\ \operatorname{Re} c > 0]$.

704	6.541 3.	For $(x^2+z^2)\rho$ read $(x^2+z^2)^\rho$; for $\operatorname{Re}(\alpha-2p)$ read $\operatorname{Re}(\alpha-2\rho)$.

The notation

$$\Gamma\begin{bmatrix} a_1, \dots, a_p \\ b_1, \dots, b_q \end{bmatrix} = \frac{\Gamma(a_1)\cdots\Gamma(a_p)}{\Gamma(b_1)\cdots\Gamma(b_q)}$$

used in this entry is apparently not defined.

704	6.543	For $\operatorname{Re} + > 0$ read $\operatorname{Re} r > 0$.
706	6.554 5.	Replace this formula by the more general formula

$$\int_0^\infty \frac{x^{\nu+1}\,J_\nu(ax)}{(x^4+4k^4)^{\nu+\frac{1}{2}}}\,dx = \frac{(\frac{1}{2}a)^\nu\sqrt{\pi}}{(2k)^{2\nu}\,\Gamma(\nu+\frac{1}{2})}\,J_\nu(ak)\,K_\nu(ak)$$

$[a > 0,\ k > 0,\ \operatorname{Re}\nu > -\frac{1}{2}]$

WA 435(5).

Page	*Formula or line*	
707	6.561 13.	For $a^{\mu+1}$ read $a^{\mu+1}\Gamma$.
715	6.573 1., 2.	For $b<\infty$ read b.
715	6.574 1.	For $\frac{a^2}{\beta^2}$ read $\frac{\alpha^2}{\beta^2}$.
717	6.576 7.	Delete the undefined reference B 449(2).
717	6.577 1.	For $1+\operatorname{Re}\mu-2n$ read $2+\operatorname{Re}\mu-2n$.
717	6.577 2.	For $\operatorname{Re}\nu-2n+1$ read $\operatorname{Re}\nu-2n+2$.
718	6.578 3.	Replace the restrictions by [17, No. 2.12.42.5.] $[-1<\operatorname{Re}\lambda<\operatorname{Re}(\nu+\mu)+\frac{1}{2},\ c>a+b,\ a>0,\ b>0]$.

718 6.578 5. According to [17, No. 2.13.22.2.], replace 0 on the right-hand side and the restrictions by

$$= \begin{cases} \mp\sqrt{\dfrac{2}{\pi^3}}\, a^{\mu}(bc)^{-\mu-1} \begin{Bmatrix} \cos\mu\pi \\ \cos\nu\pi \end{Bmatrix} (z^2-1)^{-\frac{1}{4}(2\mu+1)}\, e^{-\frac{1}{2}(2\mu+1)\pi i}\, Q^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(z) \\ \qquad\qquad \left[\begin{Bmatrix} a<|b-c| \\ a>b+c \end{Bmatrix}\right]; \\ -\dfrac{1}{\sqrt{2\pi}}\, a^{\mu}(bc)^{-\mu-1}\,(1-z^2)^{-\frac{1}{4}(2\mu+1)} \\ \qquad \left[\sin\mu\pi\, P^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(z) + \dfrac{2}{\pi}\cos\mu\pi\, Q^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(z)\right] \quad [|b-c|<a<b+c]. \end{cases}$$

$$2bc\,z = b^2+c^2-a^2;$$

$$[a>0,\ b>0,\ c>0;\ \operatorname{Re}\mu<\tfrac{1}{2},\ \operatorname{Re}\nu>-1,\ \operatorname{Re}(\mu+\nu)>-1].$$

(These expressions have not been checked.)

718	6.578 6.	For $\operatorname{Re}a>\lvert\operatorname{Im}b\rvert,\ c>0,$ read $\operatorname{Re}a>\lvert\operatorname{Im}b\rvert+\lvert\operatorname{Im}c\rvert$.
718	6.578 7.	For $\operatorname{Re}b>\lvert\operatorname{Re}a\rvert,\ c>0,$ read $\operatorname{Re}b>\lvert\operatorname{Re}a\rvert+\lvert\operatorname{Im}c\rvert$.
718	6.578 8.	Besides the incorrect restrictions, the presentation of this entry is particularily clumsy.

Replace the right-hand sides by [17, No. 2.12.41.11.-13.]

$$= \begin{cases} \sqrt{\dfrac{2}{\pi^3}}\, a^{-\mu}(bc)^{\mu-1}\,(\operatorname{sh}u)^{\mu-\frac{1}{2}}\, \sin[(\mu-\nu)\pi]\, e^{(\mu-\frac{1}{2})\pi i}\, Q^{\frac{1}{2}-\mu}_{\nu-\frac{1}{2}}(\operatorname{ch}u) \\ \qquad\qquad [a>b+c]; \\ \dfrac{1}{\sqrt{2\pi}}\, a^{-\mu}(bc)^{\mu-1}\,(\sin v)^{\mu-\frac{1}{2}}\, P^{\frac{1}{2}-\mu}_{\nu-\frac{1}{2}}(\cos v) \quad [|b-c|<a<b+c]; \\ 0 \qquad\qquad [0<a<|b-c|]. \end{cases}$$

$$2bc\operatorname{ch}u = a^2-b^2-c^2, \quad 2bc\cos v = b^2+c^2-a^2;$$

$$[b>0,\ c>0;\ \operatorname{Re}\nu>-1,\ \operatorname{Re}\mu>-\tfrac{1}{2}].$$

Page	*Formula or line*	
718	6.578 9.	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$.
		Replace the rather useless text by [17, No. 2.12.41.15.]
		$$\Delta = \begin{cases} \frac{1}{4}\sqrt{[c^2-(a-b)^2][(a+b)^2-c^2]} & [\lvert a-b\rvert < c < a+b] \\ 0 & [0 < c \leq \lvert a-b\rvert \text{ or } c \geq a+b] \end{cases}$$ $[a>0,\ b>0,\ c>0;\ \operatorname{Re}\nu > -\frac{1}{2}]$.
		($\Delta > 0$ is equal to the area of a triangle whose sides are a, b, c.)
719	6.578 10.	For $2^{\frac{2}{3}(ab)^{\nu+1}}$ read $2^{\frac{2}{3}}(ab)^{\nu+1}$;
		for $\operatorname{Re}a > 0,\ \operatorname{Re}b > 0,\ c > 0,$ read $\operatorname{Re}(a+b) > \lvert\operatorname{Im}c\rvert$.
719	6.578 11.	For $\operatorname{Re}a > \lvert\operatorname{Re}b\rvert,\ c > 0,$ read $\operatorname{Re}a > \lvert\operatorname{Re}b\rvert + \lvert\operatorname{Im}c\rvert$.
719	6.578 12., 13.	Delete $a > 0$ in first line.
		Replace $a > 0,\ 2a < b < \infty$ by $0 < 2a < b$.
719	6.578 14.	Replace $\frac{\pi}{2} > \varphi > 0$ by $0 < \varphi < \frac{1}{2}\pi$.
719	6.578 15.	For $\operatorname{Re}b > \lvert\operatorname{Im}a\rvert,\ c > 0,$ read $\operatorname{Re}b > \lvert\operatorname{Im}a\rvert + \lvert\operatorname{Im}c\rvert$.
720	6.578 16.	For $\operatorname{Re}b > \operatorname{Re}a,\ c > 0,$ read $\operatorname{Re}b > \lvert\operatorname{Re}a\rvert + \lvert\operatorname{Im}c\rvert$.
721	6.581 2.	For a^{λ} read 2^{λ}.
721	6.584 1.	For $\frac{\pi i}{m!}\left(\frac{d}{dr}\right)^m$ read $\frac{\pi i}{2^m m!}\left(\frac{d}{rdr}\right)^m$.
722	6.584 2.	For (x^2-k^2) read (x^2+k^2).
722	6.584 5.	For $\prod_{j,n} J_{\mu_j}(b_n x)$ read $\prod_{j=1}^{n} J_{\mu_j}(b_j x)$;
		for $\prod_{j,n} I_{\mu_j}(b_n x)$ read $\prod_{j=1}^{n} I_{\mu_j}(b_j x)$;
		for $\sum_n \lvert\operatorname{Re}b_n\rvert$ read $\sum_j \lvert\operatorname{Re}b_j\rvert$; for $\sum \mu_j$ read $\sum_j \mu_j$.
727	6.596 4.	For $K_\nu(\beta x)$ read $K_\nu(\beta z)$; delete WA 459(11)a.
727	6.596 5.	For $J_{\mu(\alpha z)}$ read $J_\mu(\alpha z)$.
727	6.596 7.	For $\sqrt{z\alpha^2+\beta^2}$ read $\sqrt{\alpha^2+\beta^2}$.
727	6.596 8. &	
728	6.596 9.	These two integrals are identical. However, the right-hand sides have different exponential terms, i.e. $\exp[-\frac{1}{2}\pi i(\mu-\nu-\frac{1}{2})]$ in 6.596 8. and $\exp[-i\pi(\mu-\nu-\frac{1}{2})]$ in 6.596 9. Numerical tests and [14, Sect. 3.8.7], [17, No. 2.16.22.14] suggest that 6.596 9. is correct. The error in 6.596 8. has its origin in an erroneous correction of the (wrong) factor $\exp[-\frac{1}{2}\pi(\mu-\nu-\frac{1}{2})]$ in [25, p. 416(3)]. Hence delete the formula in 6.596 8. (including the text) and replace this entry by **6.596** 8. —;

Page	*Formula or line*	
728	6.596 9.	For $v > 0$; read $v > 0,\ y > 0$;. In the second line of the restrictions, the definition $\arg(x^2-y^2)^\sigma = \pi\sigma$ is obscure for $\sigma = -\frac{1}{2}\mu$, since complex values of μ are permitted by $\operatorname{Re}\mu < 1$. Presumably, replace the restrictions after the first semicolon by $(x^2-y^2)^{\frac{1}{2}\alpha} = e^{\frac{1}{2}\alpha\pi i}(y^2-x^2)^{\frac{1}{2}\alpha}$ if $x < y$.
728	6.596 10.	Delete $[u < v]$; for $\operatorname{Re}\mu < \operatorname{Re}\nu,\ \operatorname{Re}\nu > -1$ read $\operatorname{Re}\mu > \operatorname{Re}\nu > -1$. Presumably (see the remark for p. 728, 6.596 9. above), replace the restrictions after the semicolon by $(v^2-u^2)^{\frac{1}{2}\alpha} = e^{-\frac{1}{2}\alpha\pi i}(u^2-v^2)^{\frac{1}{2}\alpha}$ if $v < u$. A simpler expression for the right-hand side is [14, Sect. 3.8.7]: $$= \begin{cases} \dfrac{u^\nu}{v^\mu}\left(\dfrac{\sqrt{v^2-u^2}}{y}\right)^{\mu-\nu-1} H^{(2)}_{\mu-\nu-1}\left(y\sqrt{v^2-u^2}\right) & (v > u) \\ \dfrac{2i}{\pi}\dfrac{u^\nu}{v^\mu}\left(\dfrac{\sqrt{u^2-v^2}}{y}\right)^{\mu-\nu-1} K_{\mu-\nu-1}\left(y\sqrt{u^2-v^2}\right) & (u > v) \end{cases}$$ $[y > 0,\ \operatorname{Re}\mu > \operatorname{Re}\nu > -1]$. MS 104
730	6.613	For $x2$ read x^2.
733	6.622 3.	Add $[\operatorname{Re}p > -\frac{1}{2},\ \operatorname{Re}(\operatorname{ch}\alpha) > 1]$. A more general formula is $$\int_0^\infty e^{-x\operatorname{ch}\alpha} I_\nu(x)\, x^{\mu-1}\, dx = \sqrt{\frac{2}{\pi}}\, e^{-(\mu-\frac{1}{2})\pi i}\, \frac{Q^{\mu-\frac{1}{2}}_{\nu-\frac{1}{2}}(\operatorname{ch}\alpha)}{\operatorname{sh}^{\mu-\frac{1}{2}}\alpha}$$ $[\operatorname{Re}(\mu+\nu) > 0,\ \operatorname{Re}(\operatorname{ch}\alpha) > 1]$ WA 388(6)a.
736	6.627	Replace $(\sqrt{x})^{-1}$ by $x^{-\frac{1}{2}}$.
737	6.628 4.	For $\operatorname{Re}\mu > -2$ read $\operatorname{Re}(\mu+\nu) > -1,\ \lvert\operatorname{Im}\alpha\rvert < \frac{1}{2}\pi$.
737	6.629	Replace $(\sqrt{x})^{-1}$ by $x^{-\frac{1}{2}}$; for $0 < \varphi,\quad \psi < \dfrac{\pi}{2}$ read $0 < \varphi < \frac{1}{2}\pi,\ 0 < \psi < \frac{1}{2}\pi$.
742	6.646 3.	For e^{-bx} read e^{-bs}.
743	6.647 3.	For $-(a/2)$ read $-(\alpha/2)$.
745	6.653 1.	Delete WA 482(2)a, WA 482(3)a.
748	6.666	Replace $\operatorname{cosech}\pi x$ by $\operatorname{cosech}(\pi x)$.
751	6.671 14.	Replace α and β are real; by $\alpha > 0$,.
757	6.681 13.	For $\dfrac{\pi^2}{4}$ read $\dfrac{\pi}{2}$.
757	6.682 1.	Replace the restriction by $[x > 0;\ \nu \geq 0$ integer or half-integer$]$.
757	6.683 1.	For $\operatorname{Re}\nu > \operatorname{Re}\mu > -1$ read $\operatorname{Re}\mu > \operatorname{Re}\nu > -1$.
760	6.693 2.	For $\arcsin\dfrac{\beta}{a}$ read $\arcsin\dfrac{\beta}{\alpha}$.

Page	Formula or line	
773	6.727 4.	For $\cos I_\nu$ read $\cos x\, I_\nu$.
778	6.753 1.,2.	For $0<\varphi,\quad \psi<\frac{\pi}{2}$ read $0<\varphi<\frac{1}{2}\pi,\ 0<\psi<\frac{1}{2}\pi$.
778	6.753 3.	For $I_\nu(ax)$ read $J_\nu(ax)$.
778	6.753 4.	For Q read φ (twice).
~~778~~	~~6.753 3.,4.~~	~~It is unclear why these integrals have not been introduced as 6.753 7. and 6.753 8. The integrals 6.753 3. and 6.753 4. in the previous edition [9], which are now deleted, are not covered by 6.753 5. and 6.753 6., as it might appear at first glance.~~
778	6.753 5.,6.	For $0<\varphi,\quad \psi<\frac{\pi}{2}$ read $0<\varphi<\frac{1}{2}\pi,\ 0<\psi<\frac{1}{2}\pi$.
830	7.229	This formula is identical to 7.228. Delete.
847	7.391 9.	For $\Gamma(\alpha-\beta+m$ read $\Gamma(\sigma-\beta+m$.
853	7.422 2.	In [24], referring to the previous edition [9], this formula is said to be *incorrect, in particular for* $n=0, \sigma=0, \alpha=1$. It does not necessarily become correct merely by excluding these values, as has been done. Also sign errors are now present in the superscript of the first L on the right-hand side. The problem lies, however, in the interchanged subscripts of the two L on the right-hand side. It can be shown [11] that: For $L_n^{\sigma+m-n}$ read $L_m^{\sigma-m+n}$; for $L_m^{\nu-\sigma+m-n}$ read $L_n^{\nu-\sigma+m-n}$. Retain from the restrictions only $[y>0, \operatorname{Re}\alpha>0, \operatorname{Re}\nu>-1]$. The remark about the subscripts of the L also applies to [6, No. 8.9(8)], [15, No. 1.7.12] and [17, No. 2.19.12.14.].
861	7.6	In the whole section (pp. 861–887): for degenerate read confluent .
865	7.622 2.	For $\Psi(a';c';\lambda t)$ read $\Psi(a',c';\lambda t)$.
871	7.629 1.	For $\sqrt{as}$ read $\sqrt{a}\,s$.
887	7.683	For $M_{\kappa-\frac{1+\alpha}{2},\frac{\mu-\alpha-1}{1}}$ read $M_{\kappa-\frac{1}{2}(1+\alpha),\frac{1}{2}(\mu-\alpha-1)}$.
907	8.110	Replace *modulus** by *modulus* or *module*; delete the footnote.
914	8.130 8.	Delete which is not a constant .
923	8.160 4.	For *second-order periodic* read *doubly-periodic*.
926	8.178 2.	For $t^1\sigma$ read $t^{-1}\sigma$. For the (indefinite) read indefinite .
926	8.18–19	The notation used for the theta functions in this volume is deplorably inconsistent, not only with respect to the letters ϑ and θ. See in particular formulas 8.199(1)–(3) and Sect. 6.16
928	8.186	In the equation, for ∂_τ read $\partial\tau$.
928	8.187 2.	For $\vartheta'{}''_1(0)$ read $\vartheta'''_1(0)$.
929	8.189 1.	For $\vartheta_4(i)$ read $\vartheta_4(u)$.
933	8.211 3.	For $\overline{\mathrm{Ei}}$ read Ei .

Page	*Formula or line*	
934	8.212 2.	The integral on the right-hand side is divergent.
935	8.215	Replace this entry by [12, p. 33],

$$\mathrm{Ei}(z) = \frac{e^z}{z}\left[\sum_{k=0}^{n}\frac{k!}{z^k} + r_n(z)\right], \quad |r_n(z)| = O(|z|^{-n-1}),$$
$$[z\to\infty,\ |\arg(-z)|\le\pi-\delta;\ \delta>0\,\text{small}].$$
$$|r_n(z)| \le (n+1)!\,|z|^{-n-1} \quad [\mathrm{Re}\,z\le 0].$$

935	8.216	Presumably, for $O(n^0)$ read $O(1)$; for n large read $n\to\infty$.
935	8.216	Replace x by z.
935	8.217 1.	*do.*
936	8.217 2., 3.	*do.*
937	8.232 2.	Replace $\ln(x)$ by $\ln x$.
937	8.234 1.	Delete the comma in the upper limit of the integral.
938	8.25	Move $\Phi(x)$ after *probability integral*.
939	8.252 5.	For $4x2$ read $4x^2$.
939	8.254	Replace this entry by [12, p. 19],

$$\Phi(z) = 1 - \frac{e^{-z^2}}{\sqrt{\pi}z}\left[\sum_{k=0}^{n}(-1)^k\frac{(2k-1)!!}{(2z^2)^k} + O(|z|^{-2n-2})\right],$$
$$[z\to\infty,\ |\arg(-z)|\le\pi-\delta;\ \delta>0\,\text{small}].$$

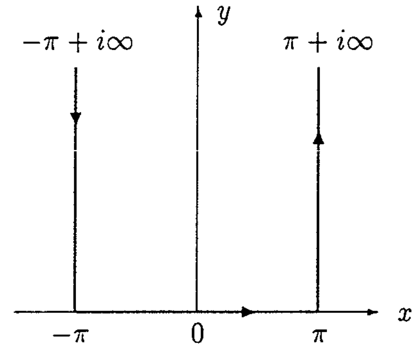
942	8.310 2.	Delete $\Gamma(z)$ satisfies the relation
943	8.315	Add (For C see **8.310** 2.).; Delete for z, not an integer.
944	line 2	Delete.
944	8.315 2.	This formula is incorrect. According to [13, p. 81–82], replace it by

$$\int_{-\infty}^{\infty}\frac{e^{bti}}{(a+it)^z}\,dt = \frac{2\pi\, e^{-ab}\, b^{z-1}}{\Gamma(z)}$$
$$\int_{-\infty}^{\infty}\frac{e^{-bti}}{(a+it)^z}\,dt = 0$$
$$[\mathrm{Re}\,a>0,\ b>0,\ \mathrm{Re}\,z>0,\ |\arg(a+it)|<\tfrac{1}{2}\pi].$$

945	8.323	For B read B .
945	8.324	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$.
945	8.325 3.	*do.*
946	8.335	For n^{mx} read n^{nx} .
948	8.341 2.	For ω read w in the upper limit of the integral; for w-plane read w-plane.

Page	*Formula or line*	
948	8.342 2.	For $\{\zeta(2n+1)\}$ read $\zeta(2n+1)$.
949	8.344	For $\cos L^{2n-1}$ read $\cos^{2n-1}$.
949	8.35	For *function* read *functions*.
949	8.350 2.	For 0 read x in the lower limit of the integral.
950	8.352 3.	Replace $\Gamma(0,x)$ by $-\mathrm{Ei}(-x)$.
952	8.36	There exist a number of important formulas for $\psi(z)$ and $\psi^{(n)}(x)$ which are not given. See [1, Sect. 6.3–4].
953	8.363 6.	Replace $\left[\dfrac{q+1}{2}\right]-1$ by $\left[\frac{1}{2}(q-1)\right]$; for $[q=2,3,\ldots,p,=1,$ read $[q=2,3,\ldots;\ p=1,$.
953	8.363 8.	Add $=(-1)^{n+1}\, n!\, \zeta(n+1,x)$.
953	line $l-1$	For degenerate read confluent.
955	8.367	Insert C (also denoted by γ) before the colon.
955	8.367 1.	Delete (also denoted by γ).
956	8.372 1.	For $[-x\in \mathrm{N}]$ read $[-x\notin \mathrm{N}]$.
956	8.372 2.	Add $[-x\notin \mathrm{N}]$.
956	8.372 3.	Add $[-x\notin \mathrm{N}]$. Add after this formula: $\beta(x)$ has simple poles at $x=-n$ with residue $(-1)^n$.
957	8.374	For $[-x\in \mathrm{N}]$ read $[-x\notin \mathrm{N}]$. Delete the line after this formula.
960	8.391	For $\dfrac{x^p}{p^2}F_1$ read $\dfrac{x^p}{p}\,{}_2F_1$.
961	8.405	Delete for an arbitrary Bessel function $Z_\nu(z)$, that is, in the line after the formula.
961	line 11	For Bessel functions of imaginary argument read Modified Bessel functions .
961	8.407 1., 2.	Replace these formulae by $K_\nu(z)=\frac{1}{2}\pi i e^{\frac{1}{2}\nu\pi i}H_\nu^{(1)}(ze^{\frac{1}{2}\pi i})\quad[-\pi<\arg z\le\frac{1}{2}\pi]$ $K_\nu(z)=-\frac{1}{2}\pi i e^{-\frac{1}{2}\nu\pi i}H_\nu^{(2)}(ze^{-\frac{1}{2}\pi i})\quad[-\frac{1}{2}\pi<\arg z\le\pi]$. AS 9.6.4.
961	8.411 1.	For [n – a natural number] read $[n=0,1,2,\ldots]$.
962	8.411 4.–10.	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$.
963	8.411 12.	*do.*
963	8.411 13.	Delete ν – arbitrary .
963	8.412 3.	For $\dfrac{z}{2^{\nu+1}\pi i}\sum_{k=1}^{\infty}$ read $\dfrac{z^\nu}{2^{\nu+1}\pi i}\sum_{k=0}^{\infty}$.

Page	*Formula or line*	
963	8.412 4.	For $\operatorname{Re}\nu \geq 0$ read $\operatorname{Re}\nu > 0$.
963	8.412 5.	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$; replace $\{\Gamma(\frac{1}{2}-\nu)\}^{-1} \neq 0$ by $\nu \neq \frac{1}{2}, \frac{3}{2}, \ldots$.
964	8.412 6.	Add the drawing. $\longrightarrow$
964	8.415 4.	For ∞ read π in the upper limit of the first integral.
964	8.415 2., 5.	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$.
965	8.415 6.	*do.*
965	8.421 3. 4.	*do.*
966	8.422 1.	*do.*
967	8.422 2.	*do.*
968	8.431 1.–4.	*do.*
968	8.432 2.	*do.*
969	8.432 3. 5.	*do.*



969	8.432 6.	For $z2$ read z^2 .
969	8.432 7.	For $-\dfrac{\pi}{2}$ read $-\dfrac{x}{2}$; for $\vert\arg z =$ read $\vert\arg z\vert =$.
970	8.442 1.	Delete the two lines after the formula (except WA 147(1)).
970	8.442 2.	In the arguments of F, for $-\nu, -k;\ \mu - 1;$ read $-\nu - k;\ \mu + 1;$.
971	line 5	For Kn read K_n .
971	8.446	For $\ln\dfrac{ze^c}{2}$ read $(\ln\frac{1}{2}z + C)$. Delete the line after the formula (except MO 29).
973	line $l-1$	For *Fnctions* read *Functions* .
976	8.455 1.	Add $[x > n]$ in third line.
979	8.471	Add: Z denotes J, N, $H^{(1)}$, $H^{(2)}$ or any linear combination of these functions, the coefficients in which are independent of z and ν.
979	8.472	*do.*

Page	*Formula or line*	
979	8.474	In the form given, this entry is of rather limited use. Replace it by

8.474 Wronskians:

1. $W\{J_\mu, J_{-\mu}\} = J_{\mu+1}(z)J_{-\mu}(z) + J_\mu(z)J_{-(\mu+1)}(z) = -\dfrac{2\sin\mu\pi}{\pi z}$
2. $W\{J_\nu, N_\nu\} = J_{\nu+1}(z)N_\nu(z) - J_\nu(z)N_{\nu+1}(z) = \dfrac{2}{\pi z}$
3. $W\{H_\nu^{(1)}, H_\nu^{(2)}\} = H_{\nu+1}^{(1)}(z)H_\nu^{(2)}(z) - H_\nu^{(1)}(z)H_{\nu+1}^{(2)}(z) = -\dfrac{4i}{\pi z}$
4. $W\{I_\mu, I_{-\mu}\} = I_{\mu+1}(z)I_{-\mu}(z) - I_\mu(z)I_{-(\mu+1)}(z) = \dfrac{2\sin\mu\pi}{\pi z}$
5. $W\{I_\nu, K_\nu\} = I_{\nu+1}(z)K_\nu(z) + I_\nu(z)K_{\nu+1}(z) = \dfrac{1}{z}$

For $\mu \neq 0, \pm 1, \pm 2, \ldots$, the pairs of functions which occur as arguments of W are linearly independent functions of z.

AS 360, 375

(See also p. 980, 8.477 1., 2. below.)

980	8.476 10.	For $\overline{H_\nu^{(2)}}(z)$ read $\overline{H_\nu^{(2)}(z)}$.
980	8.477 1., 2.	Delete this entry. (See p. 979, 8.474 above.) The four lines of text have no relation to this entry, represent an unmotivated selection and are rather useless.
981	8.485	Read $\sin\nu\pi$ in the denominator.
982	8.486 7.	For $l_n(z)$ read $I_n(z)$.
982	8.486 8.	For $l_1(z)$ read $I_1(z)$.
982	8.486 1.–3.	Delete the restrictions, they are meaningless.
983	8.486 4., 5.	*do.*
984	8.486(1) 20.	For $\overline{\mathrm{Ei}}$ read Ei .
985	8.491 7.	For JA 111(5) read JA .
986	8.496 1.	Presumably, for $\overline{Z}_2(2i\sqrt{z})$ read $\overline{Z_2(2i\sqrt{z})}$.
987	8.496 2.	Presumably, for $\overline{Z}_{\frac{5}{6}}(\frac{5}{3}iz^{\frac{3}{5}})$ read $\overline{Z_{\frac{5}{6}}(\frac{5}{3}iz^{\frac{3}{5}})}$.
987	8.496 3.	Presumably, for $\overline{Z}_{10}(2iz^{-\frac{1}{2}})$ read $\overline{Z_{10}(2iz^{-\frac{1}{2}})}$.
988	8.513 3.	Delete In particular: (8.513 5. is *not* a particular case.)
994	8.537	Delete In particular: (The second formula is *not* a particular case.) Replace 8.537 by **8.537** 1. (first formula). **8.537** 2. (second formula).

Page	*Formula or line*	
995	8.545	Replace this entry by [25, p. 497]: The number of zeros of $z^{-\nu}J_\nu(z)$ between the imaginary axis and the line on which $\operatorname{Re} z = (m + \frac{1}{2}\operatorname{Re}\nu + \frac{1}{4})\pi$ WA 497 is exactly m.
1000	8.570 2.	For ν is an odd integer read ν is not an integer.
1001	8.575 2.	For $s_{\mu,\nu}+$ read $s'_{\mu,\nu}+$.
1001	8.575 5.	For $2s_{\mu,\nu}$ read $2s'_{\mu,\nu}$.
1001	8.578 3.	Delete Particular values:.
1002	8.578 6.	Replace $\sum_{m=0}^{n-1}(-1)^m\varepsilon_{2m+1}J_{2m+1}(z)$ by $2\sum_{m=0}^{n-1}(-1)^m J_{2m+1}(z)$; Delete $\varepsilon_m = \begin{cases} 2, & m>0, \\ 1, & m=0. \end{cases}$.
1005	8.594	Delete The inequality.
1005	8.596	Delete . These are the functions that .
1006	8.597	Delete 1. before the formula.
1013	8.671 4.	Presumably, for πVa read $\pi\sqrt{a}$.
1014	8.701	There is confusion on notation. In the previous edition [9, p. 999], the symbols $P_\nu^\mu(z)$, $Q_\nu^\mu(z)$ on line 5 were said to denote single-valued and regular solutions of 8.700 1. for $\lvert z\rvert < 1$, whereas the symbols $\mathrm{P}_\nu^\mu(z)$, $\mathrm{Q}_\nu^\mu(z)$ on line 8 were said to be used for such solutions with $\operatorname{Re} z > 1$. In this volume, the same symbols $P_\nu^\mu(z)$, $Q_\nu^\mu(z)$ are presented on both lines 4 and 6, thus making the lines 4 to 7 unintelligible. P and Q have also been used throughout in 8.7–8.8, whereas the distinction between P, Q and P, Q remains in other places, in particular in 7.1–7.2, but no detailed check has been made whether these notations are consistent within any definition.
1020	8.724	For The inequalities read Inequalities.
1024	8.75	Delete second line.
1025	8.751 3.	By comparison with 8.771 2.: For $Q^\mu_{n-\frac{3}{2}}$ read $Q^\mu_{n+\frac{1}{2}}$. This entry is a simple special case of 8.771 2. Hence delete.
1026	8.761	Replace $1\cdot 2\ldots n$ by $n!$.
1027	8.771 2.	For $2^{\nu+\mu+1}$ read $z^{\nu+\mu+1}$.
1032	8.811	For equation read representation.
1034	8.820 2.	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$.
1045	8.913 2.	For simple read closed.

Page	Formula or line	
1046	8.915 2.	For $\sum_{k=0}$ read $\sum_{k=0}^{\left[\frac{n-1}{2}\right]}$. Delete the sentence in square brackets after the formula.
1046	8.915 3.	For $\sum_{k=0}$ read $\sum_{k=0}^{\left[\frac{n-2}{2}\right]}$. Delete the sentence in square brackets after the formula.
1047	8.917 1.	Delete For $x > 1$; add $[x > 1]$.
1047	8.917 2.	Delete For $x > -1$; add $[x > -1]$.
1051	footn.	What is meant by an "arbitrary number"?
1065	9.100	Add also called Gaussian hypergeometric function.
1066	9.112	For $nB(p,n)$ read $\frac{\Gamma(p)\,n!}{\Gamma(p+n)}$; for $\operatorname{Re} p > 0$ read $p \neq 0, -1, -2, \dots$; $\lvert z\rvert < 1$; for WH,MO 16 read MS 2.5.1.
1066	9.113	For α, β, γ read $\alpha, \beta; \gamma$.
1066	9.121 1.	Delete [β arbitrary].
1068	line $l-10$	The words "all these" are unclear.
1070	9.132 2.	For $(-1)^{\alpha} z^{-\alpha}$ read $(-z)^{-\alpha}$; for $(-1)^{\beta} z^{-\beta}$ read $(-z)^{-\beta}$; add $[\lvert\arg(-z)\rvert < \pi,\ \alpha - \beta \neq \pm m,\ m = 0, 1, 2, \dots]$. ([14, Sect. 2.4.1])
1070	9.136	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$; $\Gamma(-\frac{1}{2})$ by $-2\sqrt{\pi}$.
1071	9.137	For functions read formulas.
1071	9.137 5.	For $\alpha; \beta; \gamma$ read $\alpha, \beta; \gamma$.
1071	9.137 12.	For $\alpha + 1; \beta; \gamma$ read $\alpha + 1, \beta; \gamma$.
1071	9.137 15.	For $\alpha, \beta + 1, \gamma + 1$ read $\alpha, \beta + 1; \gamma + 1$.
1071	9.137 18.	For $\alpha + 1; \beta; \gamma + 1$ read $\alpha + 1, \beta; \gamma + 1$.
1071	line $l-3$	Replace 9.210 by **9.210** .
1073	9.153 4.	For $F(1 + m', -m$ read $F(1 + m' - m$.
1074	line $l-4$	Delete.
1075	line $l-12$	For the pair, unity read one .
1076	line $l-7$	For fractional read bilinear.
1080	9.180 1.-4.	Delete Region of convergence before the formula; place the restrictions (in [ ]) on the line of the formula.
1083	9.183 2.	For $\beta, \beta'; \gamma$ read β, β', γ.
1083	9.183 3.	For $(-y)^{\beta}$ read $(-y)^{-\beta}$ in second line [18, No. 7.2.4.39].

Page	*Formula or line*	
1088	9.227	For $\pi - \alpha < o$ read $\pi - \alpha < \pi$.
1091	9.237	Delete the * and the corresponding footnote.
1095	9.255 3.	For $z2$ read z^2 .
1095	9.262 1.	For $\gamma, x, y)$ read $\gamma, x, y):$.
1096	9.262 2., 3.	*do.*
1096	9.301	For $b_1, \ldots, b_2$ read $b_1, \ldots, b_q$.
1096	line $l-1$	Delete the comma after $p < q$.
1097	line 6	For *and* read and.
1097	9.303–4	Delete $^{*})$.
1099	9.34 7.	For $(a, b : c : -x)$ read $(a, b; c; -x)$.
1100	9.5	Mixing the Riemann zeta function $\zeta(z)$ and the generalized zeta function $\zeta(z, q)$ in this section is unfortunate. In particular, it is unusual to extend the name of Riemann to $\zeta(z, q)$. This function has little in common with $\zeta(z)$ other than $\zeta(z) = \zeta(z, 1)$ and $(2^z - 1)\zeta(z) = \zeta(z, \frac{1}{2})$.
1101	line $l-1$	Delete , N is a natural number .
1102	9.523 1.	Replace this formula by $\zeta(z) = \prod_p \frac{1}{1 - p^{-z}} \qquad [\mathrm{Re}\, z > 1]$.
1102	9.523 2.	Add $[\mathrm{Re}\, z > 1]$.
1102	9.523 3.	For Δ read Λ in the formula and in the line after it; add $[\mathrm{Re}\, z > 1]$ in the formula, delete it in the line.
1103	9.537	The separate entries 9.537 and 9.561, 9.562 are confusing. They should be combined to read **9.537** 1. $\xi(z) = \frac{1}{2} z (z-1) \pi^{-\frac{1}{2}z} \Gamma(\frac{1}{2}z) \zeta(z) = \xi(1-z)$. **9.537** 2. $\Xi(t) = \xi(\frac{1}{2} + it) = \Xi(-t)$. Delete the line after 9.537.
1103	9.541 1.	For $\zeta(z, q)$ read $\zeta(z)$.
1103	9.541 2., 3.	For $0 \le \mathrm{Re}\, z \le 1$ read $0 < \mathrm{Re}\, z < 1$.
1103	9.541 3.	It would be interesting to insert a remark on the fact that the first 1,500,000,001 zeros lying in $0 < \mathrm{Im}\, z < 545,439,823.215$ are known [23] to have $\mathrm{Re}\, z = \frac{1}{2}$.
1103	9.55	Replace *The function* by *The Lerch function*.
1104	9.551	For $[m = 1, 2, 3, \ldots, v \neq 0, -1, -2, \ldots]$ read $[m = 1, 2, 3, \ldots;\ v \neq 0, -1, -2, \ldots]$.
1104	9.554	For $[m = 2, 3, 4, \ldots, \lvert \ln z \rvert < 2\pi$ read $[m = 2, 3, 4, \ldots;\ \lvert \ln z \rvert < 2\pi$.
1105	9.56	Delete the whole section (see p. 1103, 9.537 above).

Page	*Formula or line*	
1105	9.6	The presentation of this section and of the following section 9.7 is confused. For example, *9.71 Bernoulli numbers* belongs to section 9.61, which should be presented in a more concise way. Similarly, *9.72 Euler numbers* belongs to section 9.63. Section 9.64 is a separate matter and should be given as such. At present, it separates artificially *9.63 Euler numbers* from *9.65 Euler polynomials*. The presentation of *9.74 Stirling numbers* in **9.7 Constants** is inappropriate.
1105	9.612	For clarity, `replace` this entry `by` A symbolic notation: $$(B+\alpha)^{[n]} = \sum_{k=0}^{n} \binom{n}{k} B_k\, \alpha^{n-k}, \qquad [n \geq 2];$$ in particular $$B_n = (B+1)^{[n]} = \sum_{k=0}^{n} \binom{n}{k} B_k, \qquad [n \geq 2];$$ hence by recursion $$B_n = -n! \sum_{k=0}^{n-1} \frac{B_k}{k!\,(n+1-k)!}, \qquad [n \geq 2].$$
1106	9.615	`Replace` the sum in the formula `by` $$\sum_{k=1}^{n-1} \frac{2n(2n-1)\cdots(2n-2k+2)}{(2k)!} B_{2k}.$$
1106	9.616	`Add` (cf. **9.542**).
1106	9.617	`For` $B_{2n}(-1)^{n-1}$ `read` $B_{2n} = (-1)^{n-1}$; `for` $\prod_{p=2}^{\infty}$ `read` $\prod_{p}$; `for` (cf. **9.523**) `read` (cf. **9.523** 1.).
1106	9.618	`Delete.`
1106	9.622 1.	`For` $, n > 1, 1 \geq x \geq 0, n = 1, 1 > x > 0.$ `read` $[n > 1,\ 0 \leq x \leq 1;\ n = 1, 0 < x < 1]$.
1107	9.624	`For` $n = 0$ `read` $; n = 0$.
1109	9.64	`For` $\nu(\mathrm{S}x)$ `read` $\nu(x)$.
1110	9.655 2.	`For` $E_n = (0)$ `read` $E_n(0)$.
1110	9.7	See the remark on section 9.6 above.
1110	9.71	This table of the Bernoulli numbers should be rearranged properly.
1111	line $l-8$	`Add` (cf. **8.367**) .
1111	line $l-6$	`Insert` $=\sum_{k=0}^{\infty} \frac{(-1)^k}{(2k+1)^2}$ before the numerical value.

Page	Formula or line	
1112	9.742 1.	Add $S_n^{(0)} = \delta_{0n}$; $S_n^{(1)} = (-1)^{n-1}(n-1)!$; $S_n^{(n)} = 1$.
1112	9.743 1.	Add $\mathfrak{S}_n^{(0)} = \delta_{0n}$; $\mathfrak{S}_n^{(1)} = \mathfrak{S}_n^{(n)} = 1$.
1113	9.744	In the headline of the table, for s read S (9 times); in the column headed $s_9^{(m)}$: for 118121 read 118124.
1107	9.622 2.	*do.*
1127	line $l-2$	For 2 Im z read $2i$ Im z.
1128	line 2	For $\overline{1}$ read 1.
1136	13.123–5	For **A**† read $\mathbf{A}^\dagger$ (5 times).
1138	13.214	For $x \neq 0$ read $\mathbf{x} \neq \mathbf{0}$ (twice); for $Q(x)$ read $Q(\mathbf{x})$.
1139	13.41	For e^{Az} read $e^{\mathbf{A}z}$ (twice).
1140	13.411 1.	For e^{Iz} read $e^{\mathbf{I}z}$.
1141	14.12	For when the following results read then the following statements.
1144	14.21	For $\lvert A\rvert$ read $\lvert\mathbf{A}\rvert$ in the denominator for x_j.
1145	14.312	For $\prod_{j=1}$ read $\prod_{j=1}^{n}$.
1176	16.93	For Pôlya read Pólya.
1177	17.12 1.	For $F(s) + G(s)$ read $aF(s) + bG(s)$.
1178	line 1	For (17.11) read (17.12).
1178	17.12 3.	For $d\zeta$ read $d\xi$.
1178	17.13 3.	For $x^\nu, \nu > -1$ read x^ν, $\operatorname{Re} \nu > -1$.
1178	17.13 4.	For $\left(\frac{\sqrt{\pi}}{2}\right)\left(\frac{3}{2}\right)\left(\frac{5}{2}\right)\cdots\left(\frac{n-1}{2}\right)$ read $\Gamma(n+\frac{1}{2})$.
1179	17.12 33.	For 154(3) read 154(43).
1179	17.12 39.	Here and in other cases, e.g. p. 1188, 17.33.18, p. 1191, 17.34.13, only the simplest special case is taken from the source. There, the result for $x^n \sin ax$ is given.
1181	17.13 80.	For $bv\mathrm{Re}\,a\rvert$ read $\lvert\mathrm{Re}\,a\rvert$.
1181	17.13 90., 92.	For C read C.
1181	17.13 91.	For Ei read Ei.
1182	17.13 97.	For si read si.
1182	17.13 99.	Replace $\Phi\left(\frac{x}{2a}\right) \equiv \frac{2}{\sqrt{\pi}}\int_0^{x/(2a)} e^{-\tau^2}\,d\tau$ by $\mathrm{erf}\left(\frac{x}{2a}\right)$.
1182	17.13 100.	Replace $\Phi(a\sqrt{x})$ by $\mathrm{erf}(a\sqrt{x})$.
1182	17.13 101.	Delete $1 - \Phi(a\sqrt{x})$. Replace the right-hand side by $s^{-1}(s+a^2)^{-\frac{1}{2}}\left[(s+a^2)^{\frac{1}{2}} - a\right]$.

Page	*Formula or line*	
1182	17.13 103.	Move the restriction on Re ν to the left column. (Also in other formulas on this page.)
1182	17.13 111.	For $x^{-(\nu+1)}$ read $x^{\nu+1}$.
1184	17.23 2.	For $\|x\|$ read x.
1184	17.23 3.	Delete.
1184	17.23 4.	Replace $\delta(x-a)$, a real by $\delta(ax+b)$ $a, b \in \mathbb{R}$, $a \neq 0$; replace $e^{-a\xi}$ by $e^{-ib\xi/a}$. Add SU 517.
1184	17.23 6.	The Fourier transform of $1/\|x\|$ leads to a divergent integral. Delete.
1184	17.23 8.	For Re a read $a \in \mathbb{R}$.
1184	17.23 10.	Delete $\xi > 0$.
1184	17.23 8.–11.	For SU 50 read SU 517.
1185	17.23 14.	For SU 51 read SU 517.
1185	17.23 15.	For $i(\pi/2)^{\frac{1}{2}} e^{-\xi a}$ read $i \operatorname{sgn} \xi \, (\pi/2)^{\frac{1}{2}} e^{-a\|\xi\|}$. Add SU 517 .
1185	17.23 20.	For SU 123 read SU 124.
1185	17.23 23.	For $(2/\pi^3)$ read $(2\pi^3)$.
1185	17.23 24.	For $x^\nu \operatorname{sgn} x$, $\nu < -1$ but not integral read $x^n \operatorname{sgn} x$, $n = 1, 2, \ldots$; for $(-i\xi)^{-(1+\nu)} \nu!$ read $n!(-i\xi)^{-n-1}$. ([20, p. 506])
1185	17.23 25.	Replace the formula in the right-hand column by $(2/\pi)^{\frac{1}{2}} \Gamma(\nu+1)\|\xi\|^{-\nu-1} \cos[\pi(\nu+1)/2]$. ([20, p. 506])
1185	17.23 26.	For (2π) read $(2/\pi)$.
1188	17.33	In all the headings of this table (pp. 1188–1190), insert $\xi > 0$ after $F_s(\xi)$; delete $\xi > 0$ elsewhere in the table.
1188	17.33 8.	For $\overline{\mathrm{Ei}}$ read Ei .
1188	17.33 11.	According to [13, No. 2.5.9.11]: For $(x^2+a^2)^{\nu-\frac{3}{2}}$ read $(x^2+a^2)^{-\nu-\frac{3}{2}}$; replace the right-hand side by $\dfrac{\xi^{\nu+1}}{\sqrt{2}\,(2a)^\nu\,\Gamma(\nu+\frac{3}{2})} K_\nu(a\xi)$. Delete ET I 69(11).
1188	17.33 13.	For $(2\pi)^{-\frac{1}{2}}$ read $\sqrt{\pi/8}$.
1189	17.33 31.	Add ET I 83(3).
1189	17.33 33.	For $(2\pi)^{-\frac{1}{2}}$ read $(2\pi)^{\frac{1}{2}}$; for $\sinh(a\xi)$ read $\sinh(a\xi)/\xi$.
1190	17.33 36.	For *Ei* read Ei .
1190	17.33 40.	For $K_0(ab)$ read $K_0(ab)/b$.

Page	*Formula or line*	
1190	17.34	In all the headings of this table (pp. 1190–1193), insert $\xi > 0$ after $F_c(\xi)$; delete $\xi > 0$ elsewhere in the table.
1191	17.34 6.	For $0 < \nu < 1$ read $0 < \mathrm{Re}\,\nu < 1$.
1191	17.34 7.	For 11(7) read 8(11) .
1191	17.34 8.	Delete ET I 11(7).
1191	17.34 13.	For 15(7) read 14(5) .
1191	17.34 14.	For $\mathrm{Re}\,\nu > a$ read $\mathrm{Re}\,\nu > 0$.
1191	17.34 16.	For $\lvert a\rvert^{-1}$ read a^{-1} .
1192	17.34 21.	For $\xi > 2a$ read $\xi < 2a$.
1192	17.34 22.	For $\alpha > 0$, $\mathrm{Re}\,\beta > 0$ read $a > 0$, $\mathrm{Re}\,b > 0$.
1192	17.34 24.	For $(x^2+a^2)^{\frac{1}{2}}$ read $(x^2+a^2)^{-\frac{1}{2}}$.
1193	17.34 33.	For $(e^{-b\xi} - e^{-a\xi})$ read $(e^{-b\xi} - e^{-a\xi})/\xi$.
1195	17.43 8.–11.	Presumably, $H(1-x)$ is the Heaviside step function.
1195	17.43 11.	Replace $\Gamma(\frac{1}{2})$ by $\sqrt{\pi}$.
1196	17.43 20.	Replace (s/n) by s/n .
1196	17.43 21.	For B read B ; replace (s/h) by s/h .
1196	17.43 22.	For B read B .
1197	17.43 27.	For $\Gamma(s)$ read $(1-2^{2-s})\Gamma(s)$; for $\mathrm{Re}\,s > 2$ read $\mathrm{Re}\,s > 0$.
1198	BU	There exists an English edition; see [3]. Also p. 1202, line l–7 and p. 1203, line 18.
1198	FI	There exists a German edition; see [8].
1200	WA	Replace 1944 by 1966 .
1202	line 2	For Losch read Lösch . For Fakultat (Gamma-funktion) read Fakultät (Gammafunktion) .
1202	line 3	For Neilsen read Nielsen . for *Theorieder* read *Theorie der* .
1203	lines l-12,13	Replace these two references by [22].
1203	line l–4	For Spheroid-funktionen read Spheroidfunktionen.
1204	lines 11,12	Type titles in *italic*.

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