

**ERRATUM TO “FORMULAS AND THEOREMS FOR THE  
SPECIAL FUNCTIONS OF MATHEMATICAL PHYSICS” BY  
W. MAGNUS, F. OBERHETTINGER, R. P. SONI**

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ABSTRACT. We correct 25 errors and misprints detected in “Formulas and Theorems for the Special Functions of Mathematical Physics”, third edition, by W. Magnus, F. Oberhettinger, R. P. Soni (Springer, Berlin, 1966), and not listed in earlier errata for this handbook published in *Mathematics of Computation*.

The following errors and misprints, not listed in earlier errata for this handbook [*Math. Comput.* 23 (1969) 471; 24 (1970) 240; 24 (1970) 505; 25 (1971) 201; 29 (1975) 672; 30 (1976) 677–8; 32 (1978) 319–20; 36 (1981) 315–7; 41 (1983) 775–8], have been detected (see next page):

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Received by the editor December 28, 2011.  
2010 *Mathematics Subject Classification*. Primary 33-00.

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Location	For	Read
page 54, line 2	$P\left(-\frac{\sqrt{x}}{\sqrt{1+x}}\right)$	$P_{a+b-1}^{b-a}\left(-\frac{\sqrt{x}}{\sqrt{1+x}}\right)$
page 168, line 1 up	$(1+\nu+\mu)$	$(1+\nu+\mu)_l$
page 170, line 12	$0 < x < 1$	$-1 < x < 1$
page 171, line 4	$\Gamma\left(1+\frac{1}{2}\nu-\frac{1}{2}\mu\right)$	$\Gamma\left(\frac{1}{2}+\frac{1}{2}\nu-\frac{1}{2}\mu\right)$
page 172, line 7 up	$(1-x^2)^{-\frac{1}{4}}$	$(1-x^2)^{-\frac{1}{4}}$
page 178, line 6	$\frac{\partial}{\partial\nu}$	$\frac{\partial}{\partial\nu}$
page 183, line 2	$x < \cos\varphi$	$\cos\varphi < x < 1$
page 197, entry for $P_\nu(x)$ , the third column	} $\gamma$	$2\gamma$
page 197, entry for $Q_\nu(x)$ , the third column		
page 200, line 7 up	$\times F$	$\times z^{-\alpha-2\nu} F$
page 200, line 7 up	$z^2$	$z^{-2}$
page 219, line 7	$x^2 - 1$	$1 - x^2$
page 260, line 10	$y = \frac{1}{\sqrt{1-x^2}} T_n(x) = U_{n-1}(x)$	$y_1 = \frac{T_n(x)}{\sqrt{1-x^2}}, y_2 = U_{n-1}(x)$
page 298, line 2	$\Gamma(1+2\mu)$	$\Gamma(1-2\mu)$
page 298, line 2	$M_{k,-\mu}(z)$	$M_{\varkappa,-\mu}(z)$
page 302, line 5 up	$\sqrt{z} W'_{\varkappa,\mu}(z)$	$2\sqrt{z} W'_{\varkappa,\mu}(z)$
page 302, line 4 up	$\sqrt{z} W'_{\varkappa,\mu}(z)$	$2\sqrt{z} W'_{\varkappa,\mu}(z)$
page 302, line 2 up	$2W'_{\varkappa+\frac{1}{2},\mu+\frac{1}{2}}(z)$	$W'_{\varkappa+\frac{1}{2},\mu+\frac{1}{2}}(z)$
page 303, line 6	$(1+\mu-2\varkappa)$	$(1+2\mu-2\varkappa)$
page 305, line 3	$e^{-i\frac{\pi}{4}(2\mu-1)}$	$e^{-i\frac{\pi}{4}(2\mu-1)}$
page 305, line 3	$J_\mu\left(-\frac{1}{2}z\right)$	$J_\mu\left(\frac{1}{2}ze^{i\pi}\right)$
page 317, line 11	$\Gamma\left(\frac{1}{2}+\mu-\varkappa\right)$	$\Gamma\left(\frac{1}{2}+\mu+\varkappa\right)$
page 317, line 11	$e^{\pm i\frac{\pi}{2}(2\varkappa-2\mu-1)}$	$e^{\pm i\frac{\pi}{2}(2\varkappa-2\mu-1)}$
page 324, line 2	$\left(\nu+\frac{1}{2}-\frac{1}{4}z^2\right)$	$\left(\nu+\frac{1}{2}-\frac{1}{4}z^2\right)y$
page 327, line 9 up	$\frac{\sqrt{2\pi}}{\Gamma(1+\nu)}$	$\frac{i\sqrt{2\pi}}{\Gamma(1+\nu)}$

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