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List of Errata

Handbook of Integral Equations, CRC Press, 1998 by A. D. Polyanin and A. V. Manzhirov

Page 42: Equation 2:
Was: $\ldots f(a) = f'_x(a) = f_{xx}(x) = 0.$
Correct: $\ldots f(a) = f'_x(a) = f_{xx}(a) = 0.$

Page 217: Equation 2, the solution in Item 2°:
Was:

$$y(x) = \frac{1}{\pi^2\sqrt{(x-a)(b-x)}}\left[\ldots + \frac{1}{\pi \ln\left[\frac{1}{4}(b-a)\right]}\ldots\right]$$

Correct:

$$y(x) = \frac{1}{\pi^2\sqrt{(x-a)(b-x)}}\left[\ldots + \frac{1}{\ln\left[\frac{1}{4}(b-a)\right]}\ldots\right]$$

Page 428: Line 2:
Was: ... if $f(x)$ is measurable and
Correct: ... if $f(x,t)$ is measurable and

Page 465: Fig. 2, formula in the third box from top:
Was: $\widetilde{y}(p) = \dfrac{\widetilde{f}(p)}{1-\widetilde{K}(p)} \equiv \widetilde{f}(p) - \dfrac{\widetilde{K}(p)}{1-\widetilde{K}(p)}\widetilde{f}(p)$
Correct: $\widetilde{y}(p) = \dfrac{\widetilde{f}(p)}{1-\widetilde{K}(p)} \equiv \widetilde{f}(p) + \dfrac{\widetilde{K}(p)}{1-\widetilde{K}(p)}\widetilde{f}(p)$

Page 477: Table 5, row 5, column 2:
Was: $Ax^n x^\lambda$
Correct: $Ax^\lambda \ln^n x$

Page 733: Section 6.2, row 4 in the table, column 3:
Was: $\dfrac{\pi}{2a}e^{-au}$ (the integral is understood in the sense of Cauchy principal value)
Correct: $\dfrac{\pi}{2a}e^{-au}$

Page 733: Section 6.2, row 5 in the table, column 3:
Was: $\dfrac{\pi \sin(au)}{2u}$
Correct: $\dfrac{\pi \sin(au)}{2u}$ (the integral is understood in the sense of Cauchy principal value)

Page 761: Last line:
Was: $\ldots$ $(|\arg|z < \pi)$.
Correct: $\ldots$ $(|\arg z| < \pi)$.

Page 762: Formula on the third line from top:
Was:

$$\psi(z) = \frac{\ln\Gamma(z)}{dz} = \frac{\Gamma'_z(z)}{\Gamma(z)}.$$

Correct:

$$\psi(z) = \frac{d \ln \Gamma(z)}{dz} = \frac{\Gamma'_z(z)}{\Gamma(z)}.$$

Page 762: line 14:
Was: where $\mathcal{C} = -\psi(1) = 0.5572\ldots$ is the Euler constant.
Correct: where $\mathcal{C} = -\psi(1) = 0.5772\ldots$ is the Euler constant.
Remark. A similar misprint also appears at some other places of the book.

Page 763: Section 10.5, Last displayed formula:
Was:

$$B_x(p,q) = \int_0^1 t^{p-1}(1-t)^{q-1}\,dt,$$

Correct:

$$B_x(p,q) = \int_0^x t^{p-1}(1-t)^{q-1}\,dt,$$

Page 763: Line right before Section 10.6:
Was: where $\operatorname{Re} x > 0$ and $\operatorname{Re} y > 0$.
Correct: where $\operatorname{Re} p > 0$ and $\operatorname{Re} q > 0$.