Errata for *Integrated Physics and Calculus*, Volume 2

Andrew Rex and Martin Jackson

Updated January 18, 2005

Note: "Line $-n$" means the nth line from the bottom of the page.

p. 447, line -4	lines in the plane by linear equations in three variables $\rightarrow$ lines in the plane by linear equations in two variables
p. 450, line 1	line $\rightarrow$ plane
p. 450, line -4	in two places: $-D/A \rightarrow -D/C$
p. 456, line 9-10	a infinite number of values for $\arcsin 0.5$ $\rightarrow$ infinitely many values of $\arcsin 0.5$
p. 461, line -8	desribes $\rightarrow$ describes
p. 463, line 4	The text following the first display should read: Fix the parameters a, b, and c while considering d as varying from 1 to -1. Think of the corresponding surfaces in animation with d serving as the time (running backward from $d = 1$ to $d = -1$). At $d = 1$, we see a one-sheet hyperboloid. As d decreases, the neck of the one-sheet hyperboloid contracts in toward the origin. For $d = 0$, the neck pinches down to the origin itself and the surface is an elliptic cone. As d continues to decrease (and is now negative), the surface splits into a two-sheet hyperboloid.
p. 468, line -8	$\lim_{u\to K} \cos(u) = K \rightarrow \lim_{u\to K} \cos(u) = \cos(K)$
p. 487, first display	Should read: $\tilde{f}(x,y) = \begin{cases} f(x,y) & \text{if } (x,y) \text{ is in } R \\ 0 & \text{if } (x,y) \text{ is in } \tilde{R} \text{ but not in } R. \end{cases}$
p. 498, line -12	The third coordinate is z is the same $\rightarrow$ The third coordinate is the same
p. 502, line 6	by integrating the the function $\rightarrow$ by integrating the function
p. 526, Table 15.1 and inside back cover	mass of Mercury should read 3.30×10^{23}
p. 527, line -1	N·m^2/s^2 $\rightarrow$ N·m^2/kg^2
p. 529, line 3 and line14	N·m^2/s^2 $\rightarrow$ N·m^2/kg^2
p. 529, line 14	2.70×10^3 m/s^2 $\rightarrow$ 2.70×10^{-3} m/s^2
p. 558, lines -6 to -4	$F_{32} \rightarrow F_{23}$
p. 564, Figure 16.9	$-L \rightarrow -L/2$, $L \rightarrow L/2$
p. 572, lines -1	a input point $\rightarrow$ an input point
p. 574, lines 11	As example $\rightarrow$ As an example
p. 583, first display	in denominator: $x - a \rightarrow x + a$
p. 601, Problem 27, line 1	$y = 2.50$ m $\rightarrow$ $z = 2.50$ m

p. 601, Problem 29, line 1	between the two parallel disks $\rightarrow$ between two parallel disks
p. 602, Problem 10, line 1	charge $0.25\ \mu$C $\rightarrow$ charge $-0.25\ \mu$C
p. 605, line -9	$\partial/\partial x \rightarrow \partial/\partial y$
p. 606, last display	$\left.\frac{\partial f}{\partial y}\right\|_{1,\pi} \rightarrow \left.\frac{\partial f}{\partial y}\right\|_{(1,\pi)}$
p. 635, last display	$\frac{\partial V}{dx} \rightarrow \frac{\partial V}{\partial x}$, $\frac{\partial V}{dy} \rightarrow \frac{\partial V}{\partial y}$, $\frac{\partial V}{dz} \rightarrow \frac{\partial V}{\partial z}$
p. 643, first display	$f_{xxx}(x,y) = \frac{\partial^3 f}{\partial x^3}\frac{\partial}{\partial x}\left[\frac{\partial^2 f}{\partial x^2}\right] \rightarrow f_{xxx}(x,y) = \frac{\partial^3 f}{\partial x^3} = \frac{\partial}{\partial x}\left[\frac{\partial^2 f}{\partial x^2}\right]$
p. 649, Problems 17,18	$f(x,y) \rightarrow f(x,y,z)$
p. 699, last display	$y-2 \rightarrow y-1$ and $x+1 \rightarrow x+2$
p. 703, line 13	$(2+\pi)r+h \rightarrow (2+\pi)r+2h$
p. 720, line -8	be $\rightarrow$ by
p. 742, second display	in two places: $\sin\theta_i \rightarrow \cos\theta_i$
p. 752, Problem 8 of Section 22.1	radius 4 $\rightarrow$ radius $2\sqrt{2}$
p. 762, line 4	field lines $\rightarrow$ field vectors
p. 764, line 6	am $\rightarrow$ an
p. 764, line 17	of that Example 23.3 $\rightarrow$ of Example 23.3
p. 784, Problem 26	$r > R \rightarrow r < R$
p. 794, line 10	experience $\rightarrow$ experiences
p. 800, line 11	carries $\rightarrow$ carrier
p. 814, Problem 6	form $\rightarrow$ from
p. 822, Figure 25.4 caption	Example 24.1 $\rightarrow$ Example 25.1
p. 847, Line 1	continuous partial derivatives $\rightarrow$ continuous second partial derivatives
p. 847, Line 11	Theorem 25.2 $\rightarrow$ Theorem 22.3
p. 856, Line -7	defined in Problem 7 $\rightarrow$ defined in Problem 12
p. 900, Line -9	defintion $\rightarrow$ definition
p. 902, Line -12	for all (x,y) in $\mathbb{R}$ $\rightarrow$ for all (x,y) in $\mathbb{R}^2$
p. 905, Line 6	throught $\rightarrow$ through
p. 912, Table 27.1 caption	theoreoms $\rightarrow$ theorems
p. 916, line -1	examine this extra term $\rightarrow$ examine how this extra term
p. 920, Figure 27.10 caption	in Equation (27.39). $\rightarrow$ in Equation (27.39) with $\phi = 0$.

p. 920, line 18	$mL + M\left(-\frac{EL}{Mc^2}\right) \quad \rightarrow \quad mL + M\left(-\frac{EL}{Mc^2}\right) = 0$
p. 922, line 5	$\frac{\text{(C/s)m}}{\text{s}} \quad \rightarrow \quad \frac{\text{(C/s)m}}{\text{C}}$
p. 923, Figure 27.11	Figure should include an arrow from the label "visible light" to the narrow band between UV and infrared
p. 927, line 18	insert equal sign between $\frac{2(5.0 \times 10^{-3}\ \text{J/s})(3600\ \text{s})}{3.00 \times 10^{8}\ \text{m/s}}$ and 1.2×10^{-7} J/m
p. AN-3, Volume 2, Section 18.1, Problem 13	$f_z(x, y, z) = 2x(14y^2 + z)^2 \quad \rightarrow \quad f_z(x, y, z) = 2x(14y^2 + z)^{-2}$
p. AN-3, Volume 2, Section 18.2, Problem 7	$z = e^2 + e^2(x - 2) + e^2(y - 1) \quad \rightarrow \quad z = e^2 + e^2(x - 2) + 2e^2(y - 1)$
p. AN-3, Volume 2, Section 18.2, Problem 21	$(-\frac{1}{3}, -\frac{1}{6}) \quad \rightarrow \quad (-\frac{1}{3}, \frac{1}{6})$
p. AN-3, Volume 2, Section 18.2, Problem 23	(a) 0.94 m (b) 0.13 m (c) -0.94 m $\quad \rightarrow \quad$ (a) 1.48 m (b) 0.212 m (c) -1.48 m
p. AN-3, Volume 2, Section 18.5, Problem 3	$\frac{2x}{(x^2+y^2)^2}\hat{\imath} + \frac{2y}{(x^2+y^2)^2}\hat{\jmath} \quad \rightarrow \quad \frac{4x}{(x^2+y^2)^2}\hat{\imath} + \frac{4y}{(x^2+y^2)^2}\hat{\jmath}$
p. AN-3, Volume 2, Section 18.5, Problem 5	$-3\sin(2x)\cos(y)\hat{\jmath} \quad \rightarrow \quad +3\sin(2x)\sin(y)\hat{\jmath}$
p. AN-3, Volume 2, Section 18.6, Problem 1	$-\frac{2kq}{\sqrt{2}\,a^2} \quad \rightarrow \quad -\frac{kq}{\sqrt{2}\,a^2}$
p. AN-5, Volume 2, Section 21.2, Problem 13	$30\,\Omega \quad \rightarrow \quad 40\,\Omega$
p. AN-5, Volume 2, Section 22.2, Problem 5	$8 \quad \rightarrow \quad -8$
p. AN-5, Volume 2, Section 22.3, Problem 5	$\frac{1}{2}x^2 + \frac{1}{2}y^2 + \sin x \quad \rightarrow \quad xy + \sin x$
p. AN-5, Volume 2, Section 23.2, Problem 15	$\sqrt{2}v \quad \rightarrow \quad \sqrt{2}\lvert v\rvert$