Errata for Calculus II, Second Edition

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The following errata are for the current printing of the second edition.[1] We are grateful to those who provide additional corrections. Please communicate any new ones by sending e-mail to the authors.

Chapter 7

Page 364, 7.1, Exercise 38. 0^- should read 0.

Page 367, 7.R, Exercise 70. "lie" should read "lies".

Chapter 8

Page 396. Near the top of the table, $\frac{d}{dx}\cosh^{-1}x = \frac{1}{\sqrt{x^2-1}}$ is defined for $x > 1$ (not $|x| > 1$). Correspondingly, in the formula for the integral of $1/\sqrt{x^2-1}$ involving $\cosh^{-1}(x)$ in the middle of the table, $|x| > 1$ should be $x > 1$. In integral formula 44 at the back of the book, $(a > 0)$ should be $(x > a > 0)$.

Page 413, 8.6, Exercise 1. The problem should read:

$$\frac{dy}{dx} = \frac{-y}{1-x} + \frac{2}{1-x} + 3$$

(replace y on the right hand side with $-y$.)

Page 414, 8.R Exercise 18. $\frac{dx}{dt}$ should be $\frac{dy}{dt}$.

Chapter 9

Page 452, 9.5, Exercise 22. "a ball weighing 20 grams" should be "a ball with a mass of 20 grams"

Page 452, 9.5, Exercise 24. The units of the answer should be pound-feet (not pound-feet^2 per second^2).

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[1]This can be seen on the inside front cover, where it says "Mathematics Subject Classification (2000)", while earlier printings have "(1991)".

Chapter 10

Page 488, 10.3, Exercise 40a. *Find an equation . . . of S and C* should read:
Write equations which can be used to find the surface area of the steel cap in terms of S and C.

Page 488, 10.3, Exercise 40b. Replace with the following: *Write equations for finding the surface area of the tank in terms of S, C, and H.*

Page 498, 10.4, Exercise 11. In part (b) of the solution, the total area beneath the arch is $A = \int_0^{2\pi a} y\,dx$ (not $\int_0^{2\pi} y\,dx$).

Page 507, 10.R, Exercise 93. The problem should read: "when m and n are **integers**."

Chapter 11

Page 510. In Example 1(a), the solution should read:
"A useful general rule is to write down $f(x) - l$" (rather than "$f(x) = l$").

Page 520, 11.1, Exercise 66. Remove the superfluous right hand parenthesis.

Page 520, 11.1, Exercise 67. Part (a) should read: "Find $f'(x)$ and sketch its graph."

Page 520, 11.1, Exercise 76. Line 3 from the bottom of the page, $(\varepsilon/2)M$ should be $\varepsilon/(2|M|)$ if $M \neq 0$. In the same exercise, in line 4 at the top of page 521, $(\varepsilon/2)(|L| + 1)$ should be $\varepsilon/[2(|L| + 1)]$

Page 526. The first line of Cauchy's mean value theorem should read:
"Suppose that f and g are continuous on $[a, b]$, with $g(a) \neq g(b)$, and that f and g are differentiable on (a, b) and g' does not vanish on (a, b).

Page 527, 11.2, Exercise 11. The limit should be one-sided: $\displaystyle\lim_{x \to 0^+} \frac{\ln x}{x^{-2}}$

Page 559, 11.R, Exercise 100c. The hint should read "$P(x) = x - f(x)/f'(x_0)$" (not "$x - f'(x)/f(x_0)$").

Chapter 12

Page 593, 12.4, Exercise 41. Insert a "] " at the end of the exercise.

Page 617, 12.6, Exercise 115, Line 3. The first exponential should be $e^{2\pi \mathbf{i}(t/365)}$.

Page 630. Equation 17b should read

$$c_2 = \frac{y(x_0)y_1'(x_0) - y_1(x_0)y'(x_0)}{y_1(x_0)y_2'(x_0) - y_2(x_0)y_1'(x_0)}$$

and NOT

$$c_2 = \frac{y(x_0)y_1'(x_0) - y_1'(x_0)y(x_0)}{y_1(x_0)y_2'(x_0) - y_2(x_0)y_1'(x_0)}$$

(swap the primes in the second term in the numerator).

Page 640, 12.8, Exercise 22. Add this Hint: Show that the right hand side is a polynomial whose coefficients satisfy the same recursion relation as P_n.

Answers

Page A.50, 9.1, Exercise 15. In the diagram, the x-axis label should be "1" (not "2").

Page A.55, 10.5, Exercise 1. The answer should be 24 (not $12\sqrt{2}$).

Page A.64, 12.6, Exercise 87. "0,46" should be "0.46"

Index

Page I.1 Add the entry "analytic 600".

Page I.2 "cardioid 198" should be: "cardioid 298".

Page I.8 Add the entry "Pappus theorem 454".