INTRODUCTION, p. 17, Exercise 16: “Suppose the per unit mass rates at which the drug flows out of a compartment ...” should be “Suppose the rate at which the drug flows out of a compartment ...”. Also delete “(per unit mass)” in the fifth sentence.

CHAPTER 1.1, p. 23: “From the formula \( x(t) = e^{t^2/2} \) should be “From the formula \( x(t) = e^{t^2/2}/2 \).”

CHAPTER 1.1, p. 25: “Exercise 17” is not an exercise, but a paragraph concerning Exercises 18-21.

CHAPTER 1.2, Exercise 3, p. 30: The differential equation and the first initial condition should be \( x_0 = 1 - x^2, x(0) = -1 \).

CHAPTER 1.2, Exercise 12, p. 30: In (a) use a window \( 0 \leq t \leq 20, 0 \leq x \leq 10 \).

CHAPTER 1.5, p. 43: In the sentence after (5.1) delete “we”.

CHAPTER 1.5, p. A-2: The graph on the lower right of Figure 1.11 should be

\[
\begin{array}{c}
\text{A corrected graph in Figure 2.4 is indistinguishable from that appearing in the text.}
\end{array}
\]

CHAPTER 2.1, Example 7, p. 52: “(see Exercise 32)” should be “(see Exercise 32 in Section 2.6)”.

CHAPTER 2.5, Exercise 43, p. 70: In (b), delete “the container is initially empty and”.

CHAPTER 2.6
p. B-3: In the sentence containing equation (6.4) replace \( r(t) = -kt^p \) by \( r(t) = kt^p \).

p. B-4: Numerical corrections in \( p, k \) and \( x(t) \) (to four significant digits):

\[
p = -1 + \frac{\ln\left(\frac{10^2/10^3}{x(t)/10^3}\right)}{\ln 2} \approx 2.003, \quad k = -\left(\frac{2 + 1}{2}\right) \ln \left(\frac{10^3}{10^2}\right) \approx 0.05449
\]

A corrected graph in Figure 2.4 is indistinguishable from that appearing in the text.

p. B-7, Table 2.4:

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Data 0 F</th>
<th>Prediction 0 F</th>
<th>% Error</th>
<th>Time (min)</th>
<th>Data 0 F</th>
<th>Prediction 0 F</th>
<th>% Error</th>
</tr>
</thead>
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<td>100</td>
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<td>4.0</td>
<td>80.5</td>
<td>80.4</td>
<td>0.1</td>
</tr>
<tr>
<td>0.5</td>
<td>94.5</td>
<td>94.2</td>
<td>0.4</td>
<td>4.5</td>
<td>80.0</td>
<td>79.9</td>
<td>0.08</td>
</tr>
<tr>
<td>1.0</td>
<td>90.0</td>
<td>89.9</td>
<td>0.08</td>
<td>5.0</td>
<td>80.0</td>
<td>79.6</td>
<td>0.5</td>
</tr>
<tr>
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<td>87.0</td>
<td>86.9</td>
<td>0.2</td>
<td>5.5</td>
<td>79.5</td>
<td>79.4</td>
<td>0.1</td>
</tr>
<tr>
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<td>84.5</td>
<td>84.6</td>
<td>-0.2</td>
<td>6.0</td>
<td>79.5</td>
<td>79.2</td>
<td>0.4</td>
</tr>
<tr>
<td>2.5</td>
<td>83.5</td>
<td>83.0</td>
<td>-0.6</td>
<td>6.5</td>
<td>79.0</td>
<td>79.1</td>
<td>-0.1</td>
</tr>
<tr>
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<td>0</td>
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<tr>
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<td>81.0</td>
<td>0</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
fallen at time 
the di
the drug into the bloodstream ...” by “The application in Sec. 5.8.1 involved the injection of 
determine a value of $k_0$ so that $x(1.873) = 9.5$” to “determine a value of $k_0$ so that $x(0.717) = 2.13$”.

p. C-18, 2nd paragraph. Replace “The reader is asked to do this in Exercise 18” by “The reader is asked to do this in Exercise 17”.

p. C-18, 3rd paragraph, first line. Change “determine a value of $k_0$ so that $x(1.873) = 9.5$” to “determine a value of $k_0$ so that $x(0.717) = 2.13$”.

p. C-19 & C-20. In the captions of both Table 3.7 and Table 3.8 replace “where $x$ is the population data value at year $t$ and $x(t)$ is the model predicted population size” with “where $x$ is the actual distance fallen at time $t$ and $x(t)$ is the model predicted distance fallen at time $t$”. In the footnote, “procedure” is misspelled.

p. C-27, Exercise 5(a): In (6.48) replace $x(\Delta t)$ by $x(t)$.

p. C-29, Exercise 23(e): Replace “Use your solution in (c)” by “Use your solution in (d)”.

p. C-29, Exercise 23(f): “How does $t_{half}$ depend on the enzyme concentration $z$?”

p. C-29, Exercise 23(g): “How does $t_{half}$ depend on the maximal uptake rate $m$?”

p. C-29, Exercise 23(h): “How does $t_{half}$ depend on the half saturation constant $a$?”

CHAPTER 4.2, 1, p. 144: The approximation $\Delta x$ should be $0.08$ instead of $-0.08$.

CHAPTER 5.3, Exercises 14-17, p. 196: “phase line portrait” should be “phase plane portrait” and these exercises should appear in Section CHAPTER 5.4.3, p. 206: Replace $\lambda = \frac{1}{2}(a + d)$ by $\lambda = \frac{1}{2}(a + d)$.

CHAPTER 5.7, Exercises 22-25, p. 225: In the compartment model diagram replace 0.02y by 0.2y.

CHAPTER 5.8, p. E-5: In second line replace “$x(t) = 37.5$” by “$x(t) = 7.5$”.

CHAPTER 5.8.2, p. E-12: The left hand side of the 2nd equation in (8.16) should be $y'$ instead of $y$.

CHAPTER 5.8.2, p. E-13: The 1st sentence in the caption of Figure 5.28 should read: “The top phase plane graphs show selected orbits of (8.15) with coefficients $m = 1, k = 2$. In (a) $c = 3$ and in (b) $c = 1/2$.”

CHAPTER 6.1, p. 230: Six lines from the bottom, $\sin \frac{2\pi}{2\pi}$ should be $\sin \frac{2\pi}{3\pi}$.

CHAPTER 6.1.1, p. 233: In the last sentence replace $\alpha$ by $\omega$.

CHAPTER 6.5.1, p. F-1: In the 1st paragraph, change “The application in Sec. 5.8.1 involved the injection of the drug into the bloodstream ...” by “The application in Sec. 5.8.1 involved the injection of the drug into the body tissues ...”.

CHAPTER 6.5, p. F-7: The vertical axes in Figure 6.12 should be labelled $x$ (instead of $z$).

CHAPTER 6.5, Exercise 2, p. F-11: Delete “and initial conditions $x_0$ in the range $7.5 < x_0 < 30$.”

CHAPTER 8.3, p. 293: The second equation in (3.4) should be $y' = cu + dv$.

CHAPTER 8.5, p. 304-305: In Figures 8.7 and 8.8 the tick marks on the x-axis are a unit intervals.

CHAPTER 8.9, p. H-15: In the 2nd paragraph, change “First, as $K$ increases through $K = 1$” to “First, as $K$ increases through $K = 2/3$).

CHAPTER 8.9, p. H-16: In the 3rd paragraph, change “$(K < 1)$” to “$(K < 1)$” and “increase $K > 1$” to “increase $K < 1$”.

CHAPTER 8.9: In Exercises 29-34, pp. H-22 and H-23: Take $a = c = d = 1$. In Exercises 30 and 32, p. H-23: Replace “$m > 1$” by “$m > 1 + 1/K$”.

CHAPTER 9.4, Exercise 94, p. 359: The correct expression is $x' = \frac{ax^2 + bx^2 + \beta s - g_d}{(s - p)(s + \beta)}$.

CHAPTER 9.7, Exercise 5, p. I-7: The initial value problem should be

$$x' = -2.92x - 4.34y + g_0 - g_0u(t - \delta), y' = 0.208 - 0.780y, x(0) = y(0) = 0.$$
CHAPTER 1.2, Exercise 17: Replace $|m| > 1$ by $0 < m < 1$.

CHAPTER 3.1.4, Exercise 35. For Exercise 21 the graph should be

![Graph](image)

CHAPTER 3.5

Exercise 43: Answer in the book is missing a superscript of “−1”: $x^2 = \alpha x_0^2 \left( (x_0^2 + \alpha) e^{-2at} - x_0^2 \right)^{-1}$.

Exercise 53: The answer should be

$x = c_1 \left( -0.59 \cos 5.98t + 0.41 \sin 5.98t \right) + c_2 \left( -0.41 \cos 5.98t - 0.59 \sin 5.98t \right)$

$y = -c_1 \sin 5.98t + c_2 \cos 5.98t$

Exercise 9: Let $\lambda = e^{-a}$. The answer should be

$x = c_1 \lambda e^{\lambda t} + c_2 \left( \frac{3}{2} + \lambda t \right) e^{\lambda t}$,

$y = c_1 e^{\lambda t} + c_2 \left( \frac{1}{\lambda} + t \right) e^{\lambda t}$.

Exercise 13: The answer for Exercise 5 should be

$x = \cos 5.98t + 0.18 \sin 5.98t$,

$y = -\cos 5.98t - \sin 5.98t$.

Exercise 14: Let $\lambda = e^{-a}$. The answer for Exercise 9 should be

$x = 2e^{\lambda t} + 2(2 - 3\lambda) \lambda e^{\lambda t}$,

$y = 3e^{\lambda t} + 2(2 - 3\lambda) t e^{\lambda t}$.

CHAPTER 6.4, Exercise 5: The answer should be $x = 4c_1 e^{-t} + 2c_2 e^t - 5r$,

$y = -3c_1 e^{-t} - c_2 e^t + 3r$.

CHAPTER 7.4, Exercise 1: The Picard iterate $x_3(t)$ has an incorrect subscript. It should be $x_2(t)$.

CHAPTER 8.6, Exercise 5: A pitchfork bifurcation occurs at $p_0 = 2$. 