Textbook Errata

This document lists known errata for all textbooks. Textbooks with known errata are listed in alphabetical order. Within each book, errata are listed in order by page number.

Last revised: August 31, 2018

Table of Contents

ASPC (Accelerated Studies in Physics and Chemistry) 1st edition

Chapter V Energy Questions, Set 2

1a. 727 kg. (This value has the correct number of significant digits. There is no extra digit here.)

Chapter VII Content

p. 121, Figure 7-4: The direction of rotation for the floating object shown in the figure should be clockwise.

Chapter VII Exercises

16. $\lambda/D = 3.9$, or $\lambda/D = 4$ (one sig. dig.)

Chapter XI Content

p. 248 The correct solution to Example 11.3 is as follows:

$$\rho = 8.96 \ \frac{\text{g}}{\text{cm}^3}$$
$$d = 1.5 \text{ cm}$$
$$l = 2.5 \text{ cm}$$

$$r = \frac{d}{2} = \frac{1.5 \text{ cm}}{2} = 0.75 \text{ cm}$$
$$V = \pi r^2 \cdot l = 3.14 \cdot (0.75 \text{ cm})^2 \cdot 2.5 \text{ cm} = 1.77 \text{ cm}^3$$

$$\rho = \frac{m}{V}$$
$$m = \rho V = 8.96 \ \frac{\text{g}}{\text{cm}^3} \cdot 1.77 \text{ cm}^3 = 15.9 \text{ g}$$

$m = 16$ g

p. 263 The last major sentence in the second paragraph should read: "Any atom in the third column from the left, which could mean it is in either Group 13 or Group 3, will have three electrons in its valence shell."

p. 291 At the end of Section 14.2.2, in the text and in the caption to Figure 14.4, references to copper carbonate and copper oxide are represented as CuCO3 and CuO (not CaCO3 and CaO or CO)

Chapter XI Exercises

13. 25,000,000 lb

16. 13,000 lb

Chapter XIII Exercises

Number of Atoms Represented by a Chemical Formula: The entry for item 3 in the table should read $(NH_4)_3PO_4$

ASPC Resource CD

Weekly Review Guide #10

Answer to #4 is 47 J in answer section of the document. It should be 1276 J or 1300 J with 2 sig. dig.

Sample Answers to Verbal Questions

Ch 12, PTE Atomic Data Exercises should be

285 – 112 = 173 neutrons

Quizzes

Quiz 7, problem 3. The correct answer is 1.23 x 10^–23 N

Introductory Physics, 1st edition (2013)

Chapter III Exercises

7. 1.64 m/s^2

Chapter VI

p. 126 Example problem - the dimensions of the block should be 4.0 in x 2.5 in x 9.0 in.

Volume Mass and Weight Exercises

7. Correct significant digits make the answer 1.0×10^5 lb.

Density Exercises

11. Correct significant digits make the answer 25,000,000 lb.

Chapter VIII Pressure Problems

12. 36,000 Pa, 5.2 psi

Chapter VIII Pressure Problems

13. 5,200,000 Pa, 750 psi

Chapter VIII Buoyancy Problems

3. 1.90×10^3 N

Chapter IX Text

Figure 9-4: The direction of rotation for the floating object shown in the figure should be clockwise.

Chapter XI Multi Resistor Circuit Calculations III

2. $I = 0.9071$ mA, $P = 0.4526$ mW

4. $V = 2.8001$, $I = 3.0770$ μA, $P = 8.6159$ μW

Weekly Review Guide

WRG 12, Question 4. $p = 2.07 \times 10^{-20}$ kg·m/s

Introductory Physics, 2nd edition (2016)

Chapter 2 Exercises

7. (Page 61) The answer to number 7 should have five significant digits, not 4. Answers: 983,560,000 ft/s and 9.8356 x 10^8 ft/s.

Chapter 6 Text

p. 140 Example problem - the dimensions of the block should be 4.0 in x 2.5 in x 9.0 in.

Exercises

Pg 156 Answers to Volume, Mass, and Weight Exercises

10. The stem in the answer should be 3.600.

20. 21,780 m^3

Weekly Review Guide

WRG 9, Question 4 is a momentum problem, which has not been covered yet. Below is a replacement problem.

A truck traveling at 55 mph hits the brakes and slows to 27 mph in 3.55 s. Determine the acceleration of the truck.

Answer: –3.8 m/s²

WRG 15, Question 1

$m_1 = 6.696 \times 10^{-27}\ \text{kg}$

$m_2 = 3.348 \times 10^{-25}\ \text{kg}$

$v_{1i} = 1.500 \times 10^{7}\ \frac{\text{m}}{\text{s}}$

$v_{1f} = 1.441 \times 10^{7}\ \frac{\text{m}}{\text{s}}$

$p_{1i} = -p_{1f} + p_{2f}$

$p_{2f} = p_{1i} + p_{1f} = m_1 v_{1i} + m_1 v_{1f} = m_1 \left(v_{1i} + v_{1f} \right)$

$p_{2f} = 6.696 \times 10^{-27}\ \text{kg} \left(1.500 \times 10^{7}\ \frac{\text{m}}{\text{s}} + 1.441 \times 10^{7}\ \frac{\text{m}}{\text{s}} \right) = 1.9693 \times 10^{-19}\ \text{kg} \cdot \frac{\text{m}}{\text{s}}$

$p_{2f} = m_2 v_{2f}$

$v_{2f} = \frac{p_{2f}}{m_2} = \frac{1.9693 \times 10^{-19}\ \text{kg} \cdot \frac{\text{m}}{\text{s}}}{3.348 \times 10^{-25}\ \text{kg}} = 588{,}200\ \frac{\text{m}}{\text{s}}$

Novare Physical Science, 1st Ed. (2013)

Chapter 8 Exercises

5e. 9,110,000 μL

5j. 6.10 gal/min

Chapter 10 Exercises

14. 1.51 m/s^2

Chapter 10 Text

p. 213 Last paragraph of example problem: The estimate for the answer would be "6 or so," not "6 million or so."

p. 218 Answer Key: The remaining answers should be numbered from 5 to 8. Answer to #3 is 20 m/s assuming the object starts from a rest.

Chapter 10 Exercises

14. 1.51 m/s^2

Chapter 13 Exercises

12. 1.68 μA

Chapter 10 Exercises

14. 1.51 m/s^2

General Chemistry, 1st edition (2014)

Chapter 1 Answer Key

8f. $$739.22\ \frac{\text{ft}^3}{\text{s}} \cdot \frac{7.48052\ \text{gal}}{1\ \text{ft}^3} \cdot \frac{3600\ \text{s}}{1\ \text{hr}} = 19{,}907{,}000\ \frac{\text{gal}}{\text{hr}}$$

Chapter 4 Exercises

10. The problem statement should refer to cesium (Cs).

Answer: Mg < Na < Ba < Cs

Chapter 2 Text

Example 2.6: Oxygen should be 2 x 15.9994 = 31.9988

Answer: Molar Mass = 60.052 g/mol

Chapter 3 Exercises

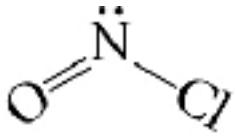
46e. Correct answer is 1300.05 bar

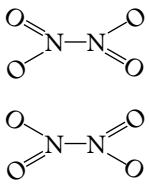
Chapter 4 Text

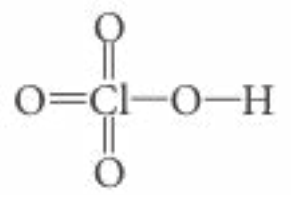
p. 104 The opening of the first paragraph should read, "The first 92 elements...are found in nature. Elements 93–118 have been synthesized in laboratories..."

Chapter 5 Answer Key

13a. Should have a triple bond. 

13l. NOCl 

13 o. N_2O_4 

13s. $HClO_4$ 

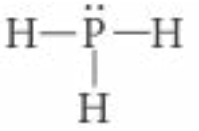
17d. perchloric acid

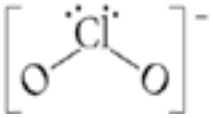
17f. bromous acid

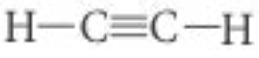
18i. $Cr(SO_3)_3$ chromium(VI) sulfite

20a. The Be—F bond is ionic

Chapter 6 Answer Key

3a. phosphine, PH_3  tetrahedral/pyramidal

3g. ClO_2^-  tetrahedral/bent

3i. acetylene, C_2H_2  linear/linear

Chapter 7 Answer Key

14d. $$2Al(s) + 3H_2SO_4(aq) \rightarrow Al_2(SO_4)_3(aq) + 3H_2(g)$$

14f. $$Ba(s) + 2H_2O(l) \rightarrow Ba(OH)_2(aq) + H_2(g)$$

19a. 0.029 mol HCl

19b. 0.52 g H_2O

Chapter 8 text

p. 219 The definition of the molar heat of vaporization should be "the quantity of heat required to boil or condense one mole of the substance." (The definition is correct in the table on the same page.)

Chapter 11 Answer Key

35c.
$$20.87 \text{ mL} \cdot \frac{1 \text{ L}}{1000 \text{ mL}} \cdot 4.077 \times 10^{-2} \ M = 8.509 \times 10^{-4} \text{ mol } HClO_4$$

$Ca(OH)_2$ provides two moles of OH^- ions for each mole of $Ca(OH)_2$. So only half as many moles of $Ca(OH)_2$ are required to neutralize $HClO_4$.

$$\frac{8.509 \times 10^{-4} \text{ mol } HClO_4}{2} \rightarrow 4.254 \times 10^{-4} \text{ mol } Ca(OH)_2$$

$$M_{Ca(OH)_2} \cdot 22.94 \text{ mL} \cdot \frac{1 \text{ L}}{1000 \text{ mL}} = 4.254 \times 10^{-4} \text{ mol } Ca(OH)_2$$

$$M_{Ca(OH)_2} = \frac{4.254 \times 10^{-4} \text{ mol } Ca(OH)_2}{0.02294 \text{ L}} = 0.01855 \ M \ Ca(OH)_2$$

General Chemistry, 2nd Edition (2016)

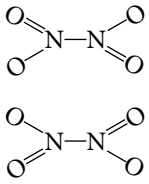
Chapter 3 Exercises

20i. This item should be neodymium.

23 The third answer should be No: [Rn]$7s^2 5f^{14}$

46e. Correct answer is 1300.05 bar

Chapter 5 Exercises



13 o. N_2O_4

20a. the Be—F bond is ionic.

Chapter 11 Exercises

2 Item (g) is basic.

Chapter 12 Exercises

For exercise 2, the following descriptions should accompany the equations in the answer key.

a. Not a redox reaction.
b. Cl is reduced; it is the oxidizing agent. O is oxidized; it is the reducing agent.
c. S is reduced; it is the oxidizing agent. Br is oxidized; it is the reducing agent.
d. Not a redox reaction.
e. Cl is reduced; it is the oxidizing agent. I is oxidized; it is the reducing agent.
f. N is reduced; it is the oxidizing agent. S is oxidized; it is the reducing agent.

For exercise 7, the following descriptions should accompany the equations in the answer key.

a. oxidizing agent: Fe; reducing agent: S
b. oxidizing agent: Cl; reducing agent: I
c. oxidizing agent: Mn; reducing agent: C
d. oxidizing agent: Cl; reducing agent: O
e. oxidizing agent: N; reducing agent: Al
f. oxidizing agent: Mn; reducing agent: Cl
g. oxidizing agent: N; reducing agent: S
h. oxidizing agent: Mn; reducing agent: Br

Chapter 3

46e. Correct answer is 1300.05 bar

Chapter 7

19a.

$$750 \text{ mg } Al(OH)_3 \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{\text{mol}}{78.0034 \text{ g}} = 0.00961 \text{ mol } Al(OH)_3$$

$$0.00961 \text{ mol } Al(OH)_3 \cdot \frac{3 \text{ mol HCl}}{1 \text{ mol } Al(OH)_3} = 0.0288 \text{ mol HCl}$$

Rounding this result to 2 sig digs gives 0.029 mol HCl.

19b.

$$750 \text{ mg } Al(OH)_3 \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{\text{mol}}{78.0034 \text{ g}} = 0.00961 \text{ mol } Al(OH)_3$$

$$0.00961 \text{ mol } Al(OH)_3 \cdot \frac{3 \text{ mol } H_2O}{1 \text{ mol } Al(OH)_3} = 0.0288 \text{ mol } H_2O$$

$$0.0288 \text{ mol } H_2O \cdot \frac{18.02 \text{ g}}{\text{mol}} = 0.5198 \text{ g } H_2O$$

After the 7-19b solution, write: Rounding this result to 2 sig digs gives 0.52 g H_2O.

Chemistry for Accelerated Students (2016)

Chapter 1 Exercises

16 Yb: [Xe]6s24f14
Es: [Rn]7s25f11
No: [Rn]7s25f14

Chapter 2 text

p. 52, The opening of the first paragraph should read, "The first 92 elements...are found in nature. Elements 93–118 have been synthesized in laboratories..."

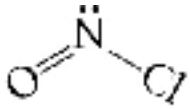
Chapter 2 Exercises

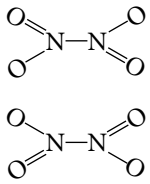
10. The problem statement should refer to cesium (Cs).

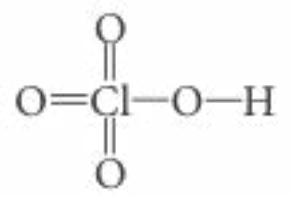
Answer: Mg < Na < Ba < Cs

Chapter 3 Answer Key

12a. 

12l. 

12 o.  N_2O_4

12s. 

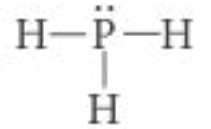
15d. perchoric acid

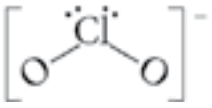
15f. bromous acid

18i. $Cr(SO_3)_3$ chromium(VI) sulfite

22a. The Be—F bond is ionic

Chapter 4 Answer Key

2a.  tetrahedral/pyramidal

2g.  tetradehral/bent

2i.  linear/linear

3e. N: *sp2* O: *sp3*

3f. sp3

Chapter 5 Answer Key

14d. $$2\mathrm{Al}(s) + 3\mathrm{H_2SO_4}(aq) \rightarrow \mathrm{Al_2(SO_4)_3}(aq) + 3\mathrm{H_2}(g)$$

14f. $$\mathrm{Ba}(s) + 2\mathrm{H_2O}(l) \rightarrow \mathrm{Ba(OH)_2}(aq) + \mathrm{H_2}(g)$$

19a.

$$750\ \text{mg}\ \mathrm{Al(OH)_3} \cdot \frac{1\ \text{g}}{1000\ \text{mg}} \cdot \frac{\text{mol}}{78.0034\ \text{g}} = 0.00961\ \text{mol}\ \mathrm{Al(OH)_3}$$

$$0.00961\ \text{mol}\ \mathrm{Al(OH)_3} \cdot \frac{3\ \text{mol HCl}}{1\ \text{mol}\ \mathrm{Al(OH)_3}} = 0.0288\ \text{mol HCl}$$

Rounding this result to 2 sig digs gives 0.029 mol HCl.

19b.

$$750\ \text{mg}\ \mathrm{Al(OH)_3} \cdot \frac{1\ \text{g}}{1000\ \text{mg}} \cdot \frac{\text{mol}}{78.0034\ \text{g}} = 0.00961\ \text{mol}\ \mathrm{Al(OH)_3}$$

$$0.00961\ \text{mol}\ \mathrm{Al(OH)_3} \cdot \frac{3\ \text{mol}\ \mathrm{H_2O}}{1\ \text{mol}\ \mathrm{Al(OH)_3}} = 0.0288\ \text{mol}\ \mathrm{H_2O}$$

$$0.0288\ \text{mol}\ \mathrm{H_2O} \cdot \frac{18.02\ \text{g}}{\text{mol}} = 0.5198\ \text{g}\ \mathrm{H_2O}$$

Rounding this result to 2 sig digs gives 0.52 g H_2O.

Chapter 9 Exercises

28 Item (g) is *basic*.

36c.

$$20.87\ \text{mL} \cdot \frac{1\ \text{L}}{1000\ \text{mL}} \cdot 4.077 \times 10^{-2}\ M = 8.509 \times 10^{-4}\ \text{mol}\ \mathrm{HClO_4}$$

$\mathrm{Ca(OH)_2}$ provides two moles of $\mathrm{OH^-}$ ions for each mole of $\mathrm{Ca(OH)_2}$. So only half as many moles of $\mathrm{Ca(OH)_2}$ are required to neutralize $\mathrm{HClO_4}$.

$$\frac{8.509 \times 10^{-4}\ \text{mol}\ \mathrm{HClO_4}}{2} \rightarrow 4.254 \times 10^{-4}\ \text{mol}\ \mathrm{Ca(OH)_2}$$

$$M_{\mathrm{Ca(OH)_2}} \cdot 22.94\ \text{mL} \cdot \frac{1\ \text{L}}{1000\ \text{mL}} = 4.254 \times 10^{-4}\ \text{mol}\ \mathrm{Ca(OH)_2}$$

$$M_{\mathrm{Ca(OH)_2}} = \frac{4.254 \times 10^{-4}\ \text{mol}\ \mathrm{Ca(OH)_2}}{0.02294\ \text{L}} = 0.01855\ M\ \mathrm{Ca(OH)_2}$$

Chapter 10 Text

Table 10-3, p. 304, Second column, fourth row should read “decreases disorder.”

Chapter 12 Exercises

For exercise 2, the following descriptions should accompany the equations in the answer key.

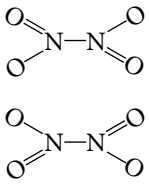
a. Not a redox reaction.
b. Cl is reduced; it is the oxidizing agent. O is oxidized; it is the reducing agent.
c. S is reduced; it is the oxidizing agent. Br is oxidized; it is the reducing agent.
d. Not a redox reaction.
e. Cl is reduced; it is the oxidizing agent. I is oxidized; it is the reducing agent.
f. N is reduced; it is the oxidizing agent. S is oxidized; it is the reducing agent.

For exercise 7, the following descriptions should accompany the equations in the answer key.

a. oxidizing agent: Fe; reducing agent: S
b. oxidizing agent: Cl; reducing agent: I
c. oxidizing agent: Mn; reducing agent: C
d. oxidizing agent: Cl; reducing agent: O
e. oxidizing agent: N; reducing agent: Al
f. oxidizing agent: Mn; reducing agent: Cl
g. oxidizing agent: N; reducing agent: S
h. oxidizing agent: Mn; reducing agent: Br

14. The second sentence in this question should read: "On your diagram, identify the following: anode, cathode, positive electrode, negative electrode, direction of electron flow, direction of nitrate ion migration in the salt bridge, direction of potassium ion migration in the salt bridge."

Chapter 3 Exercises



12 o. N_2O_4

22a. The Be—F bond is ionic

Chapter 1

12. 5.63×10^5 GHz

14. 109.4 N

Physics: Modeling Nature (2015)

Chapter 1 Text

26 Example 1.2. The result of the R_y calculation should be 1.69 units, and the angle for the resultant should be 7.0°.

Chapter 1 Answers

19. magnitude = 278 km/hr

22f. $\theta = -131°$

25. $\theta = 35.1°$

27. $\theta_R = 140°$

Chapter 2 Problem correction

p. 73, #39. The time given should be 1.00 s, not 2.6 s.

Chapter 2 Answers

10. v = 0.625 m/s (0.63 m/s with 2 sig digs)

12. $v_f = 4.1$ m/s

14. d = 4.000 cm

25. t = 0.474 s (In the solutions manual, the second equation at the top of page 20 is incorrect, and should read $d_F = d_K$.)

36. $d_h = 23.4$ m

45. $\theta_p = 41.2°$

Chapter 3 Problem corrections

p. 111, #46. $m_2 = 300.0$ g

p. 111, #48. The wind should be blowing from due southeast, not southwest.

Chapter 3 Answers

17. a = –1.34 m/s2, F = –9100 N

24c. $F_N = 41$ N

30c. The answer given is correct, but in the solutions manual the normal force used in the solution should be $F_N = 41$ N.

34. d = 1.1 m (two sig digs)

35. d = 46 m

37a. a = 1.7m/s^2

37b. $v_f = 1.4$ m/s

37c. d = 0.39 m

39. a = 5.3 m/s^2, T_B = 26 N

40. a = 1.2 m/s^2

44b. T_1 = 8.29 N

44c. T_1 = 5.48 N

46. m_{max} = 220 g

Chapter 4 Answers

7d. $|\mathbf{p} \times \mathbf{E}|$ = 1.20 x 10^3 m·N

9. θ_3 = 139° (2 sig digs)

11. θ = 63°

17. F_4: 11 m·N; F_5: 3.5 m·N

18. For the 0.1450 N force on the left, torque = 0.3537 m·N; for the 0.1450 N force on the right, torque = 0.1282 m·N

28. θ = +1.4° (In the solutions manual, the numerator in the equation 4 lines from the end should have (-) not (+).)

Chapter 5 Answers

18. F = 3.81 x 10^{-13} N

22. F = 21.0 N (3 sig digs)

27. a. and b., W = 9600 J

33. W = 3400 J

36. The height should use the sine of the angle, giving vf = 5.3 m/s

53. E = 4.03329 MeV

Chapter 6 Answers

1b. 4.0 105 (kg-m)/s

3. 1.1 m/s

Chapter 7 Answers

14. α = 3.10 rad/s^2, s = 218 m

15. θ = 25 rev

21. t = 0.107 s

25. v = 18.1 m/s

27. $F_c = 9.60 \times 10^{-5}$ N

Chapter 8 Answers

7. $\tau = -0.000362$ m · N

10. $\alpha = 8.542$ rad/s, $\omega_f = 11.0$ rad/s, $U_K = 70.1$ J

11. $t = 8.84$ s, $\omega_f = 21.6$ rpm

15. $h = 0.0547$ m

32. In line 5 of the solution, the $-2R$ term should be $+ 2R$. This gives $r = 3.83 \times 107$ m and $R - r = 3.46 \times 108$ m. This means r is 90% of the distance from earth to the moon, and $(R - r)/r = 9.03$.

    In the second part, $F_{GS} / F_{GE} = 1.77$.

Chapter 9 Answers

45. $v_0 = 509$ m/s

46. $v_c = 21$ cm/s

47. $P_{in} = 0.40$ hp

Chapter 10 Answers

1. 159.692 g/mol

2. 108 g

5. The correct atomic mass for iodine is 126.9045 g/mol, giving 2.107298×10^{-22} g/particle.

15. $V_2 = 355$ cm^3

19. $F_w = 0.0276$ N

22. $T = 295.2$ K. This gives for oxygen $v_{rms} = 4.80 \times 10^2$ m/s and for nitrogen $v_{rms} = 513$ m/s.

36. $m_w = 10.4$ g, or with 2 sig figs, 1.0×101 g.

40. Equilibrium temperature should be 38.5° C.

44. $P_{duct} = 100{,}200$ Pa

Chapter 11 Answers

9. Corrected solution:

$P = 155\ \text{kPa} = 155{,}000\ \text{Pa}$

$V_0 = 5.00\ \text{L} = 0.00500\ \text{m}^3$

$V_f = 3.00\ \text{L}$

$PV = nRT = const = P \cdot V_0 = 155{,}000\ \text{Pa} \cdot 0.00500\ \text{m}^3 = 775\ \text{Pa} \cdot \text{m}^3 = 775\ \text{J}$

$W = nRT \ln \frac{V_f}{V_0} = PV \ln \frac{V_f}{V_0} = 775\ \text{J} \cdot \ln \frac{3}{5} = -396\ \text{J}$

$\Delta U = 0$

$Q = W = -396\ \text{J}$

11. The problem statement should read: Determine the amount of work done by a system during a gas expansion from $V_0 = 250$ L to $V_f = 350$ L at constant temperature if 525 J of heat are added to the system during the process.

25. Since heat is being removed, Q is negative and $\Delta S = -1.23$ kJ/K.

33. $W = 1.20 \times 10^2$ hp

Chapter 13 Answers

8. $a = 52{,}900\ \text{m/s}^2$

11. In the solution and the diagram, replace θ everywhere with $\theta/2$.

17. $E = 2.9 \times 10^9$ N/C, $\theta = -11°$

26. $W = 1.8 \times 10^{-14}$ J

34. $E = 60{,}200$ N/C

57. 97%

Chapter 14 Answers

9a. B = 0.0204 T (0.020 T with 2 sig digs)

9b. $\Phi_B = 9.0$ mWb

10. The last line should read $\Phi_B = B \cdot A \cos\theta$, giving $\Phi_B = 0.83\ \mu\text{Wb}$

15. Units for q/m are C/kg.

18. $\tau = 0.013\ \text{m} \cdot \text{N}$

25. $B = 2.6 \times 10^{-5}$ T

36. $v(t) = (\sqrt{2} \cdot 240\ \text{V})\sin 100\pi t$

37. $i(t) = (\sqrt{2} \cdot 1.3 \times 10^{-5}\ \text{V})\cos 2400\pi t$

51. The graph in part A should be inverted, and thus is the same as the graphs in parts b and c.

53. This represents a 75% reduction.

Earth Science (2016)

Chapter 1

p 5. The sample answer given on our Resource CD for plutonium lists 120 neutrons. The correct answer is 150 neutrons.

Chapter 1 Exercises

12 Should refer to Fig 1.22.

Chapter 2 Exercises

10d. 1400 ft/mi, 480 ft/mi

Chapter 4 Text

Learning Check 4.2, question 3, the correct response for sillimanite should read:

sillimanite (Al2SiSO5) - silicate

Chapter 6 Text

p. 139, 2nd paragraph. The second sentence should read: "*Beyond this, the seafloor drops more steeply down to depths that are generally 3,000 m (10,000 ft) or greater.*"

Chapter 7 Exercises

5a. 400 km

5b. 2800 km

Chapter 11

p. 417 There is an error on the weather map for Experimental Investigation 8: Weather Maps. On the cold front curve that stretches from Kansas up to Ohio, the blue flags are pointing the wrong way. The flags should be pointing south.

Science for Every Teacher (2013)

Chapter 3

Ideas for Your Classroom No. 7. The link referenced in no. 7 has expired. To see similar animations that explain retrograde motion, visit the below link. The appropriate animations are under the heading "Mathematical Equivalence and Copernican Models."

http://faculty.fullerton.edu/cmcconnell/Planets.html

Experiment 2

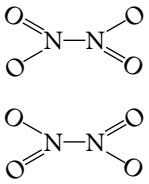
p. 52 The equation given for the percent recovery should be:

$$\text{percent recovery} = \frac{\text{sum of 3 recovered component masses}}{\text{original mixture mass}} \times 100\%$$

Chapter 3 Exercises

46e. Correct answer is 1300.05 bar

Chapter 5 Exercises



13 o.

Chapter 5

Energy Questions, Set 3

Exercise 3 should read: Imagine a new frictionless roller coaster that uses magnetic levitation so that the cars float above the rails without actually touching them. Imagine also that the aerodynamic design of the cars is so brilliant that there is essentially no air friction. The car has a mass of 5,122 kg. From the top of a 25.0 m-hill, the car rolls down a valley where the lowest point is 2.50 m above the ground, and then back up to the top of a lower hill, 18.0 m above the ground. Assuming the roller coaster begins at rest at the top of the first hill, determine how fast it is traveling when it reaches

a. the bottom of the valley.

b. the top of the second hill.

Answers:

1f. 111 J

1g. 4.26 m/s

1h. 5.71 m/s

3a. 21.0 m/s

3b. 11.7 m/s

Chapter 11

Density Exercises

17. 661,000 gal