6.6 Applying Fraction Operations, pages 234–235

4. a) $\frac{5}{12}$ **b)** 4 **c)** $4\frac{3}{4}$

5. a) $\frac{9}{14}$ **b)** $2\frac{1}{2}$ **c)** $7\frac{7}{11}$

6. a) \$584 **b)** \$656 **c)** \$728 **d)** \$620

7. $\frac{1}{6}$

8. a) $\frac{3}{16}$ **b)** $\frac{1}{8}$

9. $\left(1-\frac{5}{7}\right)\times 28 = 8$; $\frac{5}{7}\times 28 = 20$, $28 - 20 = 8$

10. a) 105 g **b)** 150 g **c)** 125 g

11. a) $4\frac{1}{4}$ pages **b)** \$1050 **c)** approximately \$247.06

12. \$40

13. a) $\frac{5}{2}\times\left(\frac{3}{5}-\frac{2}{5}\right)+\frac{1}{2}=1$ **b)** $1\frac{1}{2}+2\frac{1}{2}\div\left(\frac{3}{4}-\frac{1}{8}\right)$
c) $\left(\frac{2}{3}-\frac{1}{6}+\frac{5}{6}\right)\div\frac{16}{9}=\frac{3}{4}$

14. Answers may vary. Example: **a)** $\frac{1}{2}\times\frac{1}{2}-\frac{1}{2}\times\frac{1}{2}$
b) $\frac{1}{2}+\frac{1}{2}\div\frac{1}{2}-\frac{1}{2}$ **c)** $\left(\frac{1}{2}+\frac{1}{2}\right)\times\frac{1}{2}\times\frac{1}{2}$ **d)** $\left(\frac{1}{2}+\frac{1}{2}+\frac{1}{2}\right)\div\frac{1}{2}$
e) $\frac{1}{2}\times\frac{1}{2}+\frac{1}{2}\times\frac{1}{2}$ **f)** $\frac{1}{2}\div\frac{1}{2}\div\frac{1}{2}\div\frac{1}{2}$ **g)** $\frac{1}{2}\times\frac{1}{2}\times\frac{1}{2}+\frac{1}{2}$
h) $\left(\frac{1}{2}+\frac{1}{2}\right)+\left(\frac{1}{2}\times\frac{1}{2}\right)$ **i)** $\left(\frac{1}{2}+\frac{1}{2}\right)\div\frac{1}{2}+\frac{1}{2}$

15. $\frac{13}{12}$

16. There are 36 black notes and 52 white notes.

17. The racks hold 128, 64, and 32 CDs.

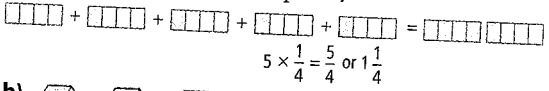
Chapter Review, pages 236–237

1. B **2.** C **3.** A

4. a) reciprocal **b)** Answer may vary. Example: The multiplier of a number to give a product of 1.

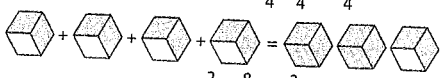
5. order of operations

6. Answer may vary. Example: **a)**



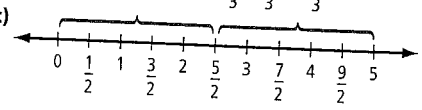
$5\times\frac{1}{4}=\frac{5}{4}$ or $1\frac{1}{4}$

b)



$4\times\frac{2}{3}=\frac{8}{3}$ or $2\frac{2}{3}$

c)

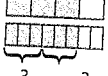


$2\times\frac{5}{2}=\frac{10}{2}$ or 5

7. 9 kg

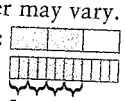
8. 4 cm

9. a) Answer may vary. Example:



$\frac{3}{4}\div 2=\frac{3}{8}$

b) Answer may vary. Example:

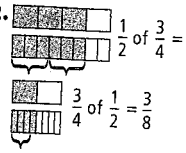


$\frac{2}{3}\div 4=\frac{2}{12}$ or $\frac{1}{6}$

10. $\frac{1}{12}$ of an onion

11. $\frac{3}{40}$ of the days of the year

12.



$\frac{1}{2}$ of $\frac{3}{4}=\frac{3}{8}$

$\frac{3}{4}$ of $\frac{1}{2}=\frac{3}{8}$

13. a) Estimates will vary. Example: $\frac{1}{4}$; Answer: $\frac{9}{25}$
b) Estimates will vary. Example: $\frac{1}{2}$; Answer: $\frac{1}{3}$
c) Estimates will vary. Example: 0; Answer: $\frac{1}{14}$

14. $\frac{1}{5}$ of the class

15. a) Estimates will vary. Example: 3; Answer: $\frac{48}{15}$ or $3\frac{1}{5}$
b) Estimates will vary. Example: 4; Answer: $\frac{49}{12}$ or $4\frac{1}{12}$
c) Estimates will vary. Example: 8; Answer: $\frac{19}{2}$ or $9\frac{1}{2}$

16. 1330 km

17. 84 h

18. approximately 44 cm

19. a) He multiplied the two numbers rather than dividing them. **b)** $\frac{2}{9}$

20. a) $\frac{4}{5}$ **b)** $1\frac{5}{9}$ **c)** 10

21. 30 days

22. $7\frac{1}{2}$ h

23. $1\frac{1}{2}$ times as long

24. a) $\frac{7}{8}$ **b)** $1\frac{4}{5}$

25. $3\frac{1}{2}\div\frac{1}{4}=14$; $16\times\frac{1}{4}=4$; He only has enough pasta to cook 14 dinners. He would need four full packages of pasta to cook 16 dinners.

26. $\frac{1}{2}$ full

27. 6 m

Chapter 7

7.1 Understanding Volume, pages 250–253

3. a) 60 cm^3 **b)** 216 cm^3 **c)** 1920 cm^3

4. a) 96 cm^3 **b)** 72 cm^3 **c)** 126 cm^3

5. a) 60 cm^3; 60 cm^3 **b)** 960 cm^3; 960 cm^3

6. a) 153 cm^3; 153 cm^3 **b)** 375 cm^3; 375 cm^3

7. a) 4 cm **b)** 7 cm **c)** 4 cm

8. 75 cm^3