

Skills

- **Lesson 1-1** Tell whether each equation is true or false.

1. $65 = 10 + 65$ 2. $8 \times 0 = 8$ 3. $1 \times 9.8 = 9.8$ 4. $4 + 5 + 7 = 4 + 11$

- **Lesson 1-2** Find the value of each expression.

5. $2 + 6 \times 3 + 1$ 6. $(14 + 44) \div 2$ 7. $3 + 64 \div 4 - 10$ 8. $144 + 56 \div 4$

- **Lesson 1-3** Write each number in expanded form.

9. two hundred sixteen 10. two hundred twenty-two thousandths

Write each number in words.

11. 0.26 12. 0.3481 13. 72.053 14. 691.4

- **Lesson 1-4** First estimate and then find each sum or difference.

15. $1.14 + 9.3$ 16. $3.541 + 1.333$ 17. $5.45 - 2.8$ 18. $4.11 - 2.621$
19. $15.348 - 7.92$ 20. $1.925 + 3.085$ 21. $18 - 5.3619$ 22. $728.6 + 36.09$

- **Lesson 1-5** Find each product.

23. 1.8×4.302 24. $0.29(0.43)$ 25. $7.4(930)$ 26. $0.617 \cdot 0.09$
27. 5.32×2.01 28. 9.4×0.94 29. 24.3×8.5 30. 3.7×48.043

- **Lesson 1-6** Find each quotient.

31. $23 \div 25$ 32. $348 \div 60$ 33. $0.672 \div 3$ 34. $228.2 \div 7$
35. $1.428 \div 2.1$ 36. $91.2 \div 7.6$ 37. $22.932 \div 3.6$ 38. $233.445 \div 23.7$

Skills

- **Lesson 2-1** Evaluate each expression for $n = 9$.

1. $n - 7$

2. $3n - 5$

3. $22 - 2n$

4. $4n \div 6$

- **Lesson 2-2** Write an expression for each word phrase.

5. 1 less than b

6. p times 2

7. 4 more than b

8. n divided by 2

- **Lesson 2-3** Solve each equation. Use mental math or the strategy, *Guess, Check, and Revise*.

9. $x + 6 = 8$

10. $5x = 40$

11. $36 = 36 - x$

12. $x + 2 = 8.3$

Use mental math to solve each equation.

13. $c + 3 = 7$

14. $8 = d - 6$

15. $3m = 15$

16. $5 = 30 \div n$

17. $20 = y + 1$

18. $t - 10 = 24$

19. $a \div 3 = 3$

20. $178 = 10b$

- **Lessons 2-4 and 2-5** Solve each equation. Then check the solution.

21. $b + 4 = 7.7$

22. $c + 3.5 = 7.5$

23. $n - 1.7 = 8$

24. $8.4 = s - 0.2$

- **Lesson 2-6** Solve each equation. Then check the solution.

25. $15t = 600$

26. $62 = 2b$

27. $x \div 5 = 2.5$

28. $a \div 0.05 = 140$

29. $5f = 75$

30. $121 = 11d$

31. $32.1 = g \div 3$

32. $n \div 7.5 = 4$

Word Problems

- **Lesson 2-1**

33. The formula $A = l \times w$ gives the area of a rectangle with length l and width w . Find the area of a rectangle with length 8.5 cm and width 3.2 cm.
34. A company selling T-shirts charges \$45 to create a design it will print on shirts. Each T-shirt costs \$3. You can use the expression $3x + 45$ to find the cost of an order, where x stands for the number of T-shirts. How much does it cost to order 350 T-shirts?

**CHAPTER
3****Extra Practice****Skills**

- **Lesson 3-1** Test each number for divisibility by 2, 3, 5, 9, or 10.

1. 324 2. 2,685 3. 540 4. 114 5. 31 6. 981

- **Lesson 3-2** Simplify each expression.

7. $7 + 5^2$ 8. $(6 - 2)^3 \times 3$ 9. 8^3 10. $9^2 + 2^2$

- **Lesson 3-3** Tell whether each number is prime or composite.

11. 24 12. 49 13. 7 14. 81 15. 37 16. 29

- **Lesson 3-4** Find the GCF of each set of numbers.

17. 10, 30 18. 15, 18 19. 25, 35 20. 28, 36 21. 45, 72 22. 8, 12
23. 24, 42 24. 4, 24 25. 22, 121 26. 35, 49 27. 6, 12, 15 28. 14, 42, 84

- **Lesson 3-5** Find the LCM of each set of numbers.

29. 4, 8 30. 6, 14 31. 15, 25 32. 20, 36 33. 3, 4, 12 34. 8, 15
35. 5, 12 36. 4, 18 37. 22, 121 38. 7, 49 39. 6, 12, 15 40. 6, 10, 15

- **Lesson 3-6** Use the Distributive Property to write an equivalent expression for each of the following.

41. $5(y + 6)$ 42. $(r + 6) \times 11$ 43. $7(w + 4y - 8)$ 44. $(9 + 3s) \times 13$

- **Lesson 3-7** Find an equivalent expression for each expression by simplifying.

45. $3a + 5a - a$ 46. $(r + 6) \times 11$ 47. $7(w + 4y - 8)$
48. $9b + 5 - b$ 49. $(q - 12) \times 6$ 50. $11(z - 5y - 11)$
51. $12c - 9 - c + 9$ 52. $(p - t) \times 2$ 53. $6(x + 2y - 2y)$

Skills

● Lesson 4-1 Find each product.

1. $\frac{1}{2}$ of $\frac{2}{3}$

2. $\frac{1}{3}$ of $\frac{1}{5}$

3. $\frac{7}{8} \times \frac{3}{4}$

4. $\frac{7}{6} \times 42$

5. $7\frac{1}{2} \times 2\frac{2}{3}$

6. $6\frac{2}{3} \times 7\frac{1}{5}$

7. $5\frac{5}{8} \times 2\frac{1}{3}$

8. $12\frac{1}{4} \times 6\frac{2}{7}$

● Lesson 4-2 Draw a model to find each quotient.

9. $4 \div \frac{1}{4}$

10. $3 \div \frac{3}{4}$

11. $7 \div \frac{1}{5}$

12. $6 \div \frac{2}{3}$

● Lesson 4-3 Write the reciprocal of each fraction.

13. $\frac{5}{6}$

14. 8

15. $\frac{2}{3}$

16. 15

Find each quotient.

17. $2 \div \frac{4}{5}$

18. $\frac{2}{3} \div \frac{2}{5}$

19. $\frac{1}{4} \div \frac{1}{5}$

20. $\frac{4}{11} \div 8$

● Lesson 4-4 Estimate each quotient.

21. $12 \div 3\frac{1}{5}$

22. $7\frac{3}{7} \div 1\frac{2}{5}$

23. $41\frac{8}{10} \div 6\frac{1}{3}$

24. $36\frac{2}{7} \div 4\frac{3}{9}$

Find each quotient.

25. $2\frac{1}{4} \div \frac{2}{3}$

26. $4\frac{1}{2} \div 3\frac{1}{3}$

27. $2\frac{2}{5} \div \frac{2}{25}$

28. $5\frac{2}{3} \div 1\frac{1}{2}$

● Lesson 4-5 Solve each equation. Check the solution.

29. $a + 9 = 12\frac{7}{9}$

30. $4\frac{5}{7} = b - 3\frac{1}{2}$

31. $c - 11\frac{2}{3} = 15$

32. $n + 4\frac{1}{2} = 5$

33. $\frac{x}{4} = 8$

34. $\frac{a}{3} = 9$

35. $\frac{c}{7} = 24$

36. $\frac{m}{2} = 14$

37. $\frac{t}{4} = 3.5$

38. $\frac{t}{12} = 3$

39. $\frac{1}{3}y = 15$

40. $\frac{3}{4}w = 12$

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Extra Practice

Skills

- **Lesson 5-1** Write each ratio in two other ways.

1. $\frac{30}{60}$

2. $5 : 15$

3. 13 to 52

4. $7 : 77$

5. 18 to 72

- **Lesson 5-2** Find each unit price. Round to the nearest cent. Then determine the better buy.

6. cereal: 12 ounces for \$2.99
16 ounces for \$3.59

7. rice: 8 ounces for \$1.95
15 ounces for \$2.99

- **Lesson 5-3** Copy and complete the equivalent ratio tables.

8.

1	2	3	4
5	■	■	■

9.

3	6	■	12
4	8	■	■

10.

1	3	■	7
■	6	8	■

- **Lesson 5-4** Convert each measurement.

11. 36 inches to feet

12. 6 quarts to cups

13. 12 meters to centimeters

14. 500 milliliters to liters

15. 4 miles to yards

16. 5 grams to milligrams

- **Lesson 5-5** Write each ratio as a percent.

17. $\frac{1}{4}$

18. $\frac{3}{10}$

19. $\frac{8}{25}$

20. $\frac{41}{50}$

21. $\frac{2}{5}$

- **Lesson 5-6** Write each percent as a decimal and as a fraction in simplest form.

22. 42%

23. 96%

24. 80%

25. 1%

26. 87%

27. 88%

- **Lesson 5-7** Find each answer.

28. 20% of 80

29. 15% of 22.5

30. 50% of 86

31. 90% of 100

- **Lesson 5-8** Solve each problem.

32. 50 is 20% of what number?

33. 120 is 75% of what number?

34. 42 is 15% of what number?

35. 9 is 60% of what number?

Skills

● **Lesson 6-1** Use an integer to represent each situation.

1. 1,000 ft above 2. in debt \$125 3. 17° below 0°C 4. gaining 11 lb

● **Lesson 6-2** Order from least to greatest.

5. $3, -1, 0, -2$ 6. $4, -8, -5, 2$ 7. $-6, 8, 7, -8$ 8. $-1, -8, 0, 1$

● **Lesson 6-3** Show that each number is a rational number by writing it as the quotient of two integers.

9. 12 10. $-\frac{1}{2}$ 11. 3.56 12. -9.1

Plot each rational number on a vertical number line.

13. -3.5 14. $\frac{3}{4}$ 15. 0.3 16. -1




● **Lesson 6-4** Compare the numbers. Write $<$ or $>$.

17. -0.1 \blacksquare -1.9 18. -0.4 \blacksquare $-\frac{1}{2}$ 19. -0.7 \blacksquare $-\frac{2}{5}$

Order the numbers from least to greatest.

20. $0.3, -1.4, -2$ 21. $-0.5, -1\frac{2}{3}, -3.6$ 22. $-1.74, -\frac{7}{8}, -\frac{2}{3}$

● **Lesson 6-5** Write an inequality for each graph.

23.  24.  25. 

Write an inequality to represent each situation. Then graph the inequality.

26. The temperature stayed below 0° .
 27. You must bring at least \$5 to cover the cost of lunch.
 28. The paintings for display can be a maximum of 12 inches wide.

● **Lesson 6-6** Solve each inequality.

29. $m + 8 < 14$ 30. $n - 16 \geq 3$ 31. $p + 9 \leq -5$ 32. $q - 8 > 7$

CHAPTER
7

Extra Practice

Skills

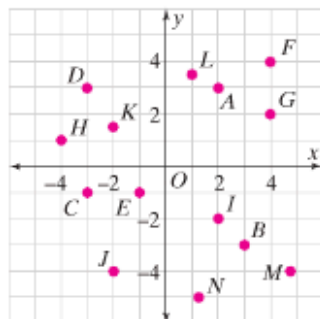
● **Lesson 7-1** Use the coordinate grid at the right for Exercises 1–12.

Find the coordinates of each point.

1. *A* 2. *B* 3. *C* 4. *D*

Name the point with the given coordinates.

5. $(4.75, -4)$ 6. $(-2, 1.5)$ 7. $(1\frac{1}{4}, -5)$ 8. $(1, 3\frac{1}{2})$
 9. $(4, 2)$ 10. $(2, -2)$ 11. $(-4, 1)$ 12. $(-2, -4)$



● **Lesson 7-2** Find the distance between the two points.

13. *A* $(-2, -7)$ and *B* $(-10, -7)$ 14. *C* $(1, -5)$ and *D* $(1, 9)$ 15. *E* $(3, -8)$ and *F* $(20, -8)$

● **Lesson 7-3** Complete each function table.

16. Output = Input \div (-5)

Input	Output
-10	■
0	■
20	■
50	■

17. Output = Input + (-2)

Input	Output
-5	■
-1	■
3	■
9	■

● **Lesson 7-4** Make a table and graph some points for each function. Use $-2, -1, 0, 1,$ and 2 for x .

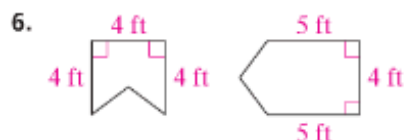
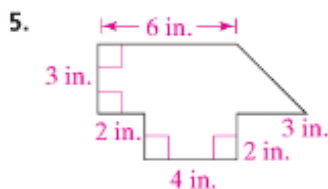
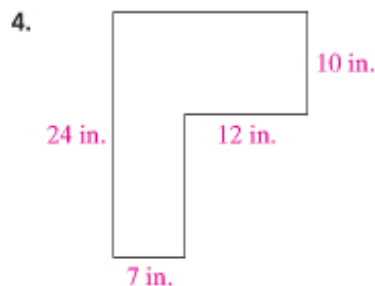
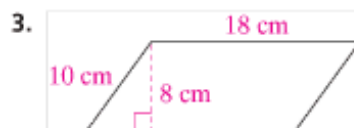
18. $y = x + 5$ 19. $y = x - 5$ 20. $y = \frac{x}{5}$

● **Lesson 7-5** Write an equation showing the relationship between the two variables. Then solve the problem.

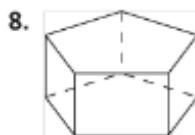
21. A company loses \$3 per day. How much do they lose in 4 days?
 22. Carrie works 4 fewer hours a week than Jane. How many hours does Carrie work if Jane works 23 hours?

Skills

- **Lessons 8-1 and 8-2** Find the area of each figure.



- **Lesson 8-3** Name each figure.

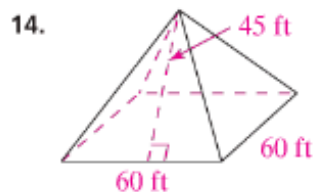
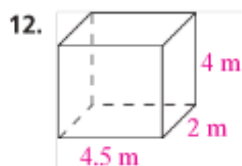


- **Lesson 8-4** Find the surface area of each rectangular prism with the given dimensions.

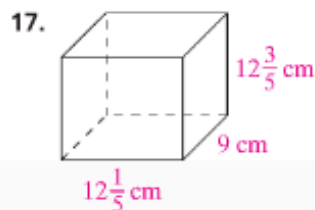
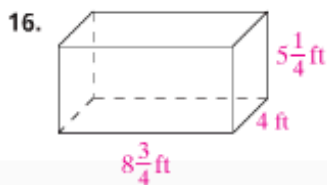
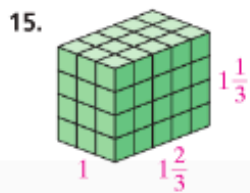
10. $\ell = 10$ ft, $w = 5$ ft, $h = 8$ ft

11. $\ell = 12$ m, $w = 16$ m, $h = 12$ m

Find the surface area of each figure.



- **Lesson 8-5** Find the volume of each figure.



Skills

● **Lesson 9-1** Find the mean of each data set.

1. 35, 39, 27, 28

2. 253, 277, 249, 279, 265

3. 7.5, 3.8, 12.4, 11.7, 12.4

● **Lesson 9-2** Find the median and mode of each data set.

4. 23, 26, 22, 25, 22, 28, 22, 10

5. 14.2, 11.3, 12.0, 11.1, 13.0, 13.3

6. 36, 42, 58, 29, 45, 63, 57, 29

● **Lesson 9-3** Make a frequency table and a dot plot for each set of data.

7. books read each month:

3, 1, 4, 2, 4, 1, 3, 2, 4, 4, 2, 1

8. words typed per minute:

65, 35, 40, 65, 40, 40, 55, 35, 35, 70, 35, 55

● **Lesson 9-4** Make a box-and-whisker plot for the set of data below.

9. test scores (percents): 86, 76, 72, 85, 69, 85, 78, 91, 77

● **Lesson 9-5** Construct a histogram with at least three intervals for the following data.

10. scores on a 25-item test: 23, 15, 20, 17, 21, 24, 12, 15, 25, 25, 25, 25, 11, 23, 22, 16, 24, 18, 18, 21

11. ages of students in a night school class: 23, 25, 38, 23, 53, 46, 51, 29, 22, 35, 41, 38

● **Lesson 9-6** Find the mean absolute deviation (MAD) and the interquartile range (IQR) for each data set.

12. Data Set A: 5, 10, 12, 2, 1, 8, 10, 12, 12, 18

13. Data Set B: 10, 4, 5, 9, 8, 9, 8, 3

● **Lesson 9-7** Use Data Sets A and B above.

14. Which set shows gaps? Explain.

15. Which set has less overall spread? Explain the relationship between the measures of variability and the shape of that data.

● **Lesson 9-8**

16. In a survey, which is NOT a statistical question? Explain.

a. How many hours did you spend on homework yesterday?

b. How tall is the Empire State Building?