



# 5-Minute Check

**Subtract or divide.**

1.  $5,678 - 3,479$

2.  $29,811 \div 57$

3. Each classroom in a school has 30 student desks. If the average class size is 25 students, and there are 55 classrooms occupied by classes, about how many unused desks are there?

4. Katrina's family wants to order Chinese food for dinner. Using the table at the right, write and solve an equation to find how much money

Chinese Food Order		
Number of Items	Item	Price
2	Fried Dumplings	\$2.95
1	Lemon Chicken	\$4.95
2	Kung Pao Beef	\$5.95
3	Wontons	\$1.89

Katrina's family needs to pay for their order.

5. How much change should Katrina's father receive if he pays for the Chinese food with a fifty-dollar bill?

6. **Standardized Test Practice** Write  $\frac{9}{12}$  as a percent.

(A) 55%

(B) 65%

(C) 75%

(D) 85%

**ANSWERS**

1. 2,199

2. 523

3. 275

4.  $(2 \times \$2.95) + \$4.95 + (2 \times \$5.95) +$ 

5. \$21.58

 $(3 \times \$1.89) = x; x = \$28.42$ 

6. C



# 5-Minute Check (over Lesson 1-1)

**Use the four-step plan to solve each problem.**

1. Ryan's living room is 10 feet wide, 12 feet long, and 10 feet high. If one gallon of paint covers 400 square feet of surface area, how many gallons of paint would Ryan need to paint all four walls and the ceiling?
2. Nolan is selling coupon books to raise money for a class trip. The cost of the trip is \$400, and the profit from each coupon book is \$15. How many coupon books does Nolan need to sell to earn enough money to go on the class trip?
3. Cangialosi's Café made a \$6,000 profit during January. Mr. Cangialosi expects profits to increase \$500 per month. In what month can Mr. Cangialosi expect his profit to be  $\frac{1}{3}$  greater than his January profit?
4. **Standardized Test Practice** A comic book store took in \$2,700 in sales of first editions during November. December sales of first editions are expected to be double that amount. If the first editions are sold for \$75 each, how many first editions are expected to be sold in December?

(A) 18

(B) 36

(C) 38

(D) 72

## ANSWERS

1. 2 gallons

3. May

2. 27 coupon books

4. D



# 5-Minute Check

(over Lesson 1-2)

**Write each power as a product of the same factor.**

1.  $5^3$
2.  $2^6$

**Evaluate each expression.**

3.  $8^3$
4.  $2^5$
5. A certain type of bacteria reproduces at a rate of  $10 \cdot 10 \cdot 10$  per hour. Write the rate at which this bacteria reproduces in exponential form.
6. **Standardized Test Practice** Write  $8^7$  in words.

## ANSWERS

1.  $5 \cdot 5 \cdot 5$
2.  $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$
3. 512
4. 32
5.  $10^3$  per hour
6. eight to the seventh power



# 5-Minute Check (over Lesson 1-3)

**Evaluate each expression.**

1.  $7 \cdot 4 + (21 - 5)$

2.  $(7 - 4)^3 + 32$

3.  $16 \div 4 + 63 \div 9$

4.  $3 \times 10^3$

5.  $144 \div (2)6$

6. **Standardized Test Practice** On Mondays, Wednesdays, and Fridays, Adrian runs five miles. On Tuesdays, Thursdays, and Saturdays, he runs two miles. On Sunday, Adrian runs 10 miles. Write a numerical expression to find how many miles Adrian runs in a week. Then evaluate the expression.

## ANSWERS

1. 44

2. 59

3. 11

4. 3,000

5. 12

6.  $(3 \cdot 5) + (3 \cdot 2) + 10 = x; x = 31$



# 5-Minute Check (over Lesson 1-4)

Evaluate each expression if  $m = 2$ ,  $n = 4$ ,  $r = 7$ , and  $p = 9$ .

1.  $\frac{n^2}{m}$

2.  $7r - 3p$

3.  $(p - m) + 5(2n)$

4.  $\frac{(13 - r)^2}{3p^{12}}$

5.  $\frac{3p}{n}$

6. **Standardized Test Practice** Kerrie works at an art supply store. Which expression could Kerrie use to find the cost of buying  $p$  cases of paintbrushes at \$145 each and  $e$  easels at \$59 each?

(A)  $145e + 59p$

(B)  $145p + 59e$

(C)  $(145 + 59) + pe$

(D)  $p(145 - 59) + e$

## ANSWERS

1. 8

2. 22

3. 47

4. 3

5. 6.75

6. B



# 5-Minute Check (over Lesson 1-5)

**Solve each equation mentally.**

1.  $27 + n = 55$
2.  $9y = 45$

**Name the number that is the solution of the given equation.**

3.  $2.4 + a = 4$ ; 1.6, 2.8, 3.1
4.  $18m = 63$ ; 2.3, 3.5, 4.6
5. Kieran worked for 9.5 hours and earned \$80.75. How much does she get paid per hour? Use the equation  $9.5w = 80.75$ , where  $w$  is Kieran's hourly wage.
6. **Standardized Test Practice** Warren had 26 bobbleheads in his collection. After he bought some more bobbleheads at an auction, he had a total of 32 bobbleheads. Which equation could be used to find how many bobbleheads he bought at the auction?

(A)  $32 + t = 26$

(B)  $32 \div t = 26$

(C)  $26 - 32 = t$

(D)  $26 + t = 32$

## ANSWERS

1. 28

4. 3.5

2. 5

5. \$8.50

3. 1.6

6. D



# 5-Minute Check (over Lesson 1-6)

**Use the Distributive Property to write each expression as an equivalent expression. Then evaluate the expression.**

1.  $3(4 + 8)$

2.  $9(8 - 4)$

**Name the property shown by each statement.**

3.  $x + y = y + x$

4.  $31 \times 1 = 31$

5.  $(m \times n) \times p = m \times (n \times p)$

6. **Standardized Test Practice** Rewrite  $a \times (b \times c)$  using the Associative Property of Multiplication.

A  $a \times (c \times b)$

B  $c \times (a \times b)$

C  $(b \times c) \times a$

D  $(a \times b) \times c$

## ANSWERS

1.  $3 \cdot 4 + 3 \cdot 8$ ; 36

2.  $9 \cdot 8 - 4 \cdot 9$ ; 36

3. Commutative Property of Addition

4. Identity Property of Multiplication

5. Associative Property of Multiplication

6. D



# 5-Minute Check (over Lesson 1-7)

**Describe the pattern in each sequence and identify the sequence as *arithmetic*, *geometric*, or *neither*.**

1. 2, 16, 128, 1,024, . . .
2. 2.8, 6, 9.2, 12.4, . . .

**Write the next three terms of each sequence.**

3. 4, 12, 36, 108, . . .
4. 2.1, 2.8, 3.5, 4.2, . . .
5. Every 18 months, National Surveys conducts a population survey of the United States. If they conducted a survey in September of 2003, when will they conduct the next four surveys?
6. **Standardized Test Practice** Find the next term in the sequence 3.2, 12.8, 51.2, 204.8, . . .

- (A) 723.5      (B) 819.2      (C) 845.9      (D) 901.1

## ANSWERS

1.  $\times 8$ ; geometric
2.  $+ 3.2$ ; arithmetic
3. 324, 972, 2,916
4. 4.9, 5.6, 6.3
5. March 2005, September 2006, March 2008, September 2009
6. B



# 5-Minute Check

(over Lesson 1-8)

## Complete.

1.  $854 \text{ mm} = \underline{\hspace{2cm}} \text{ m}$
2.  $12 \text{ L} = \underline{\hspace{2cm}} \text{ kL}$
3. Order 14 g, 0.23 kg, and 320,000 mg from least to greatest mass.
4. A warehouse ceiling is 4.2 m tall. How tall is the ceiling in centimeters? In millimeters?
5. Uli is preparing petri dishes for an experiment. He has 4 liters of solution, and each petri dish must contain 3 milliliters. How many petri dishes can Uli prepare?
6. **Standardized Test Practice** Sierra has 1,420 mL of paint. How many liters of paint does Sierra have?  
 A 1.42 L     B 14.2 L     C 142 L     D 0.142 L

## ANSWERS

1. 0.854
2. 0.012
3. 14 g, 0.23 kg, 320,000 mg
4. 420 cm; 4,200 mm
5. 1,333 petri dishes
6. A



# 5-Minute Check (over Chapter 1)

## Evaluate each expression.

- $12^3$
- If  $a = 4$  and  $b = 3.2$ ,  $ab + a(b + 2) = ?$
- Solve  $8x = 64$  mentally.
- Name the property shown by  $7 + (x + 43) = (7 + x) + 43$ .
- A crane can lift 21.4 kilograms of steel at one time. How many milligrams of steel can it lift?
- Standardized Test Practice** There are about 74,000,000 grains of rice in a box. Write 74,000,000 in scientific notation.

A  $74 \times 10^4$

B  $7.4 \times 10^5$

C  $74 \times 10^6$

D  $7.4 \times 10^7$

## ANSWERS

1. 1,728

2. 33.6

3. 8

4. Associative Property of Addition

5. 21,400,000 mg

6. D

# 5-Minute Check (over Lesson 2-1)

**Make a frequency table of the set of data using the intervals 5–10, 11–15, and 16–20.**

1.

Price per CD							
8	7	15	16	13	17	15	12
9	6	16	10	11	14	17	12
8	9	14	16	16	15	13	6

**For Exercises 2–3, use the chart at the right that shows the number of days that students spend the greatest amount of time doing homework.**

**Days Students Spend The Greatest Amount of Time Doing Homework**

Tu	Tu	Th	M	M	S	S
Tu	Th	Th	W	F	F	F
Th	Th	Tu	W	M	M	W
Th	Th	Tu	S			

M = Monday, Tu = Tuesday, W = Wednesday,  
Th = Thursday, F = Friday, S = Saturday

2. Make a frequency table for the data.

3. **Standardized Test Practice** During which day do the most number of students spend the greatest amount of time doing homework?

## ANSWERS

1.

Price Range(\$)	Tally	Frequency
5–10	III	8
11–15		10
16–20	I	6

3. Thursday

2.

Day	Tally	Frequency
Monday		4
Tuesday		5
Wednesday		3
Thursday		7
Friday		3
Saturday		3

# 5-Minute Check (over Lesson 2-2)

**For Exercises 1–3, use the table at the right. It shows the population for the town of Cedar Creek from 1990 to 2001.**

Year	Pop.	Year	Pop.
1990	400	1996	760
1991	470	1997	810
1992	520	1998	880
1993	590	1999	940
1994	630	2000	990
1995	700	2001	1050

1. Make a line graph for the data.
2. Predict in what year the population of Cedar Creek will exceed 1,500.
3. What trend can be observed about the population of Cedar Creek?
4. **Standardized Test Practice** If Mike timed how fast he ran home after school every day, which of the following could he use to see if he had improved over time?

(A) frequency chart

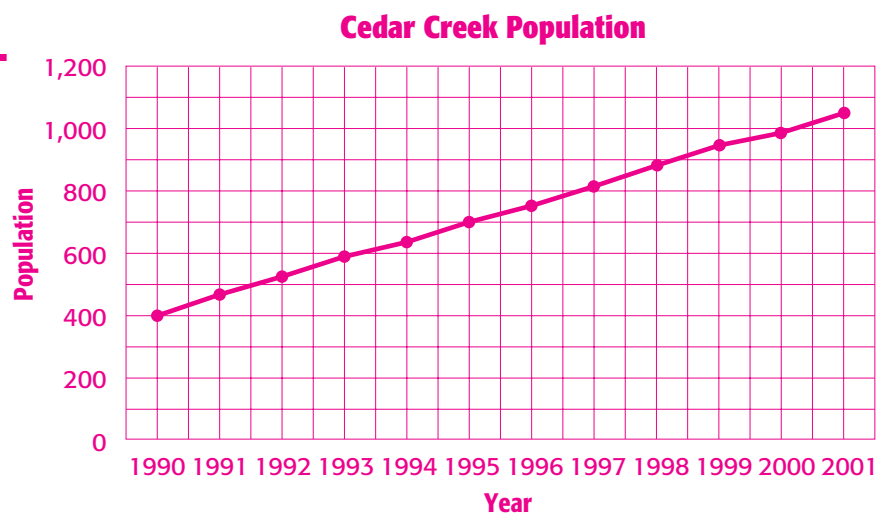
(B) scatter plot

(C) line graph

(D) tally marks

## ANSWERS

1.



2. 2005

3. population is increasing

4. B

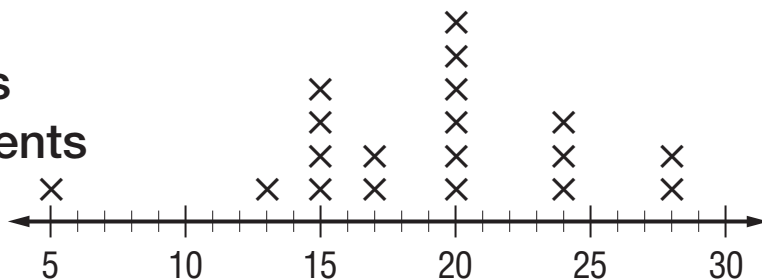
# 5-Minute Check (over Lesson 2-3)

**Make a line plot for each set of data. Identify any clusters, gaps, or outliers.**

1. 

Bicycle Prices							
150	175	130	150	190	230	200	180
175	175	160	150	175	140	140	85

2. Use the line plot at the right that shows the number of students in each classroom throughout the school. What is the most common class size?

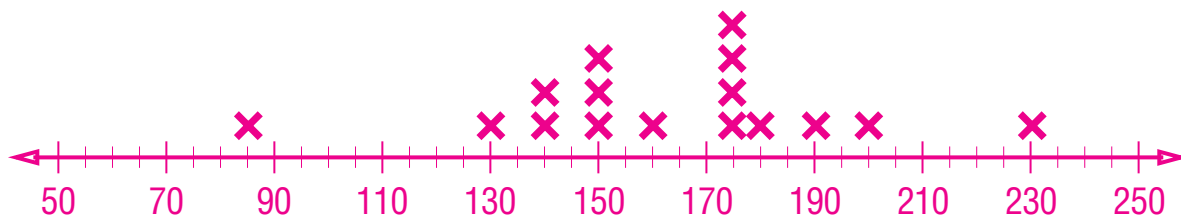


3. **Standardized Test Practice** Using the line plot from Exercise 3, which of the following describes a gap?

(A) 5–13    (B) 14–20    (C) 31–25    (D) 25–30

## ANSWERS

1.



outlier 85; gap 85–130 and 200–230; cluster 130–200

2. 20

3. A



# 5-Minute Check (over Lesson 2-4)

**Find the mean, median, and mode for each set of data. Round to the nearest tenth if necessary.**

- 13, 17, 11, 12, 20, 14, 18, 16
- 14, 32, 35, 40, 37, 45, 48, 50, 43, 43
- 3, 1, 3, 5, 8, 4, 6, 4, 4, 2, 29
- In Exercise 2, which measurement of central tendency best describes the data? Explain.
- The *average* is another common term for which measurement of central tendency?
- Standardized Test Practice** If the Kentucky State University Orchestra has 42 musicians organized into 7 sections based on types of instruments, what is the mean number of musicians in each section?

A 6

B 8

C 7

D 9

## ANSWERS

- 15.1; 15; none
- 38.7; 41.5; 43
- 6.3; 4; 4
- Median; because the data set has outliers and there are no big gaps in the middle of the data.
- mean
- A

# 5-Minute Check (over Lesson 2-5)

**Make a stem-and-leaf plot for each set of data.**

- 11, 32, 21, 43, 57, 5, 53, 45, 75, 25, 37, 73, 56, 45, 28, 15, 3, 72, 39, 20, 22
- 321, 358, 344, 325, 374, 335, 365, 316, 369, 317, 345, 358, 330, 310
- Find the median, mode, and range for the data in Exercise 2.
- Standardized Test Practice** Using the stem-and-leaf plot from Exercise 1, which is the mode for the data?

(A) 34

(B) 37

(C) 45

(D) 53

## ANSWERS

1. Stem	Leaf
0	3 5
1	1 5
2	0 1 2 5 8
3	2 7 9
4	3 5 5
5	3 6 7
6	
7	2 3 5

$3|2 = 32$

2. Stem	Leaf
31	0 6 7
32	1 5
33	0 5
34	4 5
35	8 8
36	5 9
37	4

$$32|5 = 325$$

3. 413.5; none; 401

4. C

# 5-Minute Check (over Lesson 2-6)

**For Exercises 1–4, refer to the chart at the right. It shows the number of days it snowed in the town of Otho per year.**

## Number of Days it Snowed per Year

11	15	12	21	18	14	9
23	15	17	20	14	31	16
13	12	24	12	23	15	16

1. Draw a box-and-whisker plot of the data.
2. Find the lower extreme, LQ, median, UQ, and upper extreme.
3. Identify any outliers.
4. Find the mean and mode for the data.
5. Describe a situation in which a box-and-whisker plot would be helpful to analyze data.
6. **Standardized Test Practice** Identify the lower quartile for the data: 7, 11, 5, 10, 8, 16, 12, 2

(A) 5

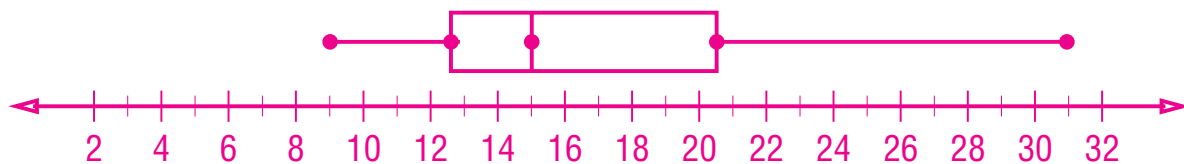
(B) 6

(C) 7

(D) 8

## ANSWERS

1.



2. 9; 12.5; 15; 20.5; 31

3. 31

4. 16.7; 12 and 15

5. Sample answer: If I could run a mile in 6 minutes and I wanted to know how that compared to the rest of the class, a box-and-whisker plot would tell me roughly where I stood.

6. B

# 5-Minute Check (over Lesson 2-7)

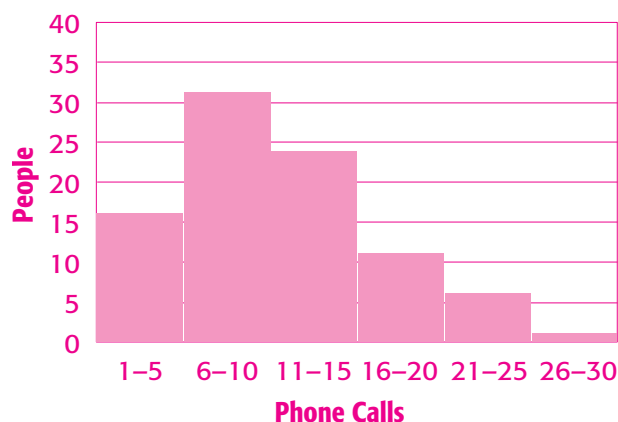
**For Exercises 1–2, refer to the table at the right.**

Phone Calls Received per Day	
Number of Phone Calls	Frequency
1–5	16
6–10	32
11–15	24
16–20	12
21–25	7
26–30	2

- Make a histogram of the data.
- Standardized Test Practice** A bar graph is best used to do which of the following?
  - predict future events
  - show the number of times each piece of data appears
  - show how data is distributed
  - compare data

## ANSWERS

1. **Phone Calls Received per Day**



2. **D**

# 5-Minute Check (over Chapter 2)

Use the table at the right to solve each problem.

## Prices of DVD Players (\$)

50	60	70	100	130	150
80	70	60	100	180	150
50	80	50	100	130	180

1. Make a frequency table of the set of data.
2. Make a line plot for the set of data.
3. Draw a box-and-whisker plot of the data.
4. Find the mean, median, and mode for the set of data.
5. **Standardized Test Practice** Which measure best represents the data?

(A) mean    (B) median    (C) mode    (D) range

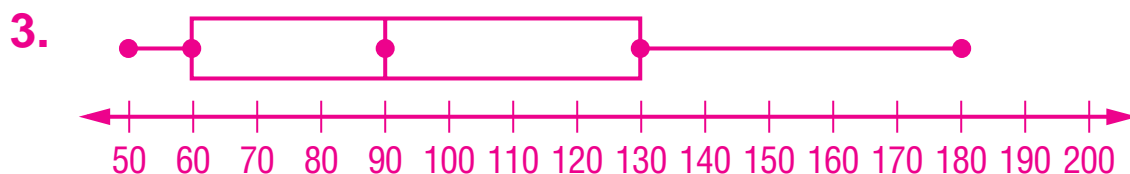
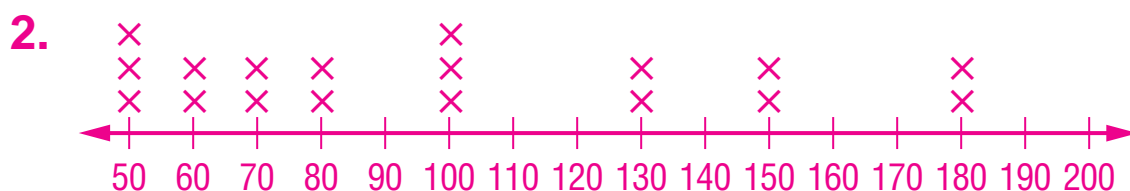
## ANSWERS

1.

Price(\$)	Tally	Frequency
50–100	IIII	9
101–150	II	7
151–200	II	2

4. 99.4; 90; 50 and 100

5. B





# 5-Minute Check (over Lesson 3-1)

**Write an integer for each situation.**

1. stock market down 56 points
2. a score of 3
3. a bank deposit of \$25

**Evaluate each expression.**

4.  $|-19|$
5.  $|12| + |-2|$
6. **Standardized Test Practice** Find  $|k| - |m|$  if  $k = -6$  and  $m = -2$ .  
 A  $-8$        B  $-4$        C  $4$        D  $8$

## ANSWERS

1.  $-56$
2.  $3$
3.  $25$
4.  $19$
5.  $14$
6. C



# 5-Minute Check

(over Lesson 3-2)

Replace each ● with  $<$  or  $>$  to make a true sentence.

1.  $-21 \bullet -15$

2.  $5 \bullet -5$

3.  $0 \bullet -1$

4. Order 7,  $-1$ , 0, 4,  $-6$  from least to greatest.

5. If 0 is the second smallest number in a set of 10 integers, what can you conclude about the other 9 numbers?

6. **Standardized Test Practice** Which of the following is a true sentence?

A  $0 < -7$

B  $-3 > 6$

C  $-2 > -5$

D  $1 < -4$

## ANSWERS

1.  $<$

2.  $>$

3.  $>$

4.  $-6, -1, 0, 4, 7$ 

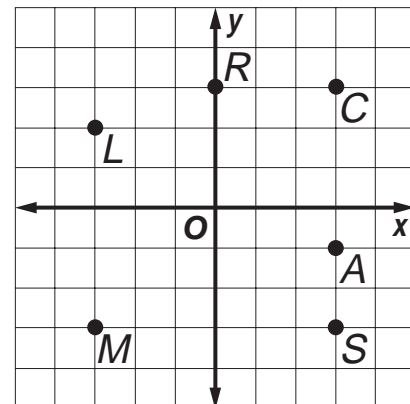
5. You can tell that 8 numbers in the set are greater than 0, and 1 number is less than 0.

6. C

# 5-Minute Check (over Lesson 3-3)

Name the ordered pair for each point graphed at the right. Then identify the quadrant in which each point lies.

1. C
2. L
3. S



Graph and label each point.

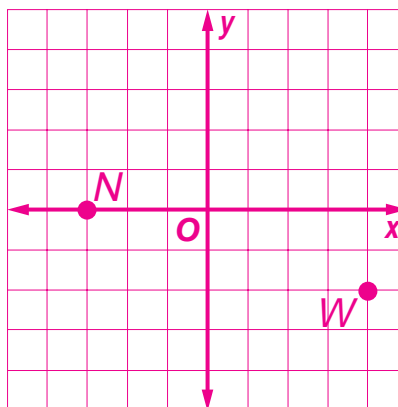
4.  $W(4, -2)$
5.  $N(-3, 0)$
6. **Standardized Test Practice** Which ordered pair is 5 units left and 3 units up from the origin?
 

<input type="radio"/> A $(-5, -3)$	<input type="radio"/> B $(5, -3)$
<input type="radio"/> C $(5, 3)$	<input type="radio"/> D $(-5, 3)$

## ANSWERS

1.  $(3, 3)$ , I
2.  $(-3, 2)$ , II
3.  $(3, -3)$ , IV
6. D

4-5.





# 5-Minute Check

(over Lesson 3-4)

**Add.**

1.  $-4 + 4$
2.  $8 + (-7)$
3.  $-3 + (-5)$

**Write an addition expression to describe each situation. Then find each sum.**

4. A bird flies up 50 feet and swoops back down 10 feet.
5. Teresa loses \$14 at poker and then wins \$10.

6. **Standardized Test Practice** Evaluate  $x + y$  if  $x = -3$  and  $y = -9$ .

(A)  $-12$       (B)  $-6$       (C)  $6$       (D)  $12$

**ANSWERS**

1. 0
2. 1
3.  $-8$
4.  $50 - 10 = 40$
5.  $-14 + 10 = -4$
6. A



# 5-Minute Check

(over Lesson 3-5)

**Subtract.**

1.  $4 + (-5)$
2.  $-14 - 34$
3.  $-45 - (-8)$

**Evaluate each expression if  $a = -2$ ,  $b = 3$ , and  $c = -1$ .**

4.  $c - b$
5.  $9 - a$

6. **Standardized Test Practice** What is  $-4$  subtracted from  $-3$ ?

(A)  $-7$        (B)  $-1$        (C)  $1$        (D)  $7$

**ANSWERS**

1.  $-1$
2.  $-48$
3.  $-37$
4.  $-4$
5.  $11$
6. C



# 5-Minute Check

(over Lesson 3-6)

**Multiply.**

1.  $21(-5)$
2.  $-7(-4)$
3.  $(-9)^2$

**Evaluate each expression if  $x = -4$ , and  $y = 11$ .**

4.  $9(x^2 + y^2)$
5. Find the product of  $-x$  and  $y$ .
6. **Standardized Test Practice** What is  $-3(8g)$  simplified?  

<input type="radio"/> A $-38g$	<input type="radio"/> B $-24g$
<input type="radio"/> C $-24 + g$	<input type="radio"/> D $-24 + 3g$

**ANSWERS**

1.  $-105$
2.  $28$
3.  $81$
4.  $1,233$
5.  $44$
6. B



# 5-Minute Check (over Chapter 3)

**Solve.**

1.  $18 - (-2)$

2.  $\frac{-48}{6}$

3.  $-2(-12)$

4.  $-24 + (-8)$

5. Find the quotient of 78 and  $-13$ .

6. **Standardized Test Practice** During the third quarter, the Bears missed 10 baskets for the same number of points for a total of 30 points. Find the number of points for each basket.

**ANSWERS**

1. 20

2.  $-8$

3. 24

4.  $-32$

5.  $-6$

6. 3



# 5-Minute Check

(over Lesson 4-1)

**Write each phrase as an algebraic expression.**

1. the product of  $y$  and 9
2. six dollars more than  $d$

**Write each sentence as an algebraic equation.**

3. Seven less than a number is 28.
4. Four more than three times a number is 16.
5. Kamaya's biology class requires 580 pages of reading over the course of the school year. Her history class requires 130 more pages than her biology class. Write an equation that models this situation.
6. **Standardized Test Practice** A diner charges \$1.35 for a cup of coffee and \$0.59 for refills. Which equation could be used to find the cost  $c$  of a cup of coffee with  $r$  number of refills?

- A  $c = 1.35 + 0.59r$        B  $1.35c + 0.59 = r$   
 C  $0.59r - 1.35 = c$        D  $c = 1.35 - 0.59r$

## ANSWERS

1.  $9y$
2.  $d + 6$
3.  $x - 7 = 28$
4.  $4 + 3b = 16$
5.  $h - 130 = 580$
6. A

# 5-Minute Check (over Lesson 4-2)

**Solve each equation. Check your solution.**

1.  $x + 31 = 53$

2.  $-5 + y = 13$

3.  $r - 7.2 = 22.8$

4. The sum of a number and 8 is  $-13$ . Find the number.

5. Using the table, write and solve an equation to determine Dale's top speed at the racetrack if Dale's top speed was 17 mph less than Andy's.

Top Speeds at the Racetrack	
Ken	125 mph
Dale	?
Andy	152 mph

6. **Standardized Test Practice** The combined ages of the students in the 7th grade class at Sunnydale Middle School is 1,582. The combined ages of the students in the 8th grade class is 34 more than the combined ages of the students in the 7th grade class. Which equation can help you find the combined ages of the students in the 8th grade class?

Ⓐ  $h = 1,582 - 34$

Ⓑ  $1,582 - h = 34$

Ⓒ  $1,582 + 34 = h$

Ⓓ  $34 = h + 1,582$

## ANSWERS

1. 22

2. 18

3. 30

4.  $-21$

5.  $17 + s = 152$ ;  $s = 135$  mph

6. C



# 5-Minute Check

*(over Lesson 4-3)*

**Solve each equation. Check your solution.**

1.  $7y = 42$

2.  $-8h = 64$

3.  $24 = 6r$

4. The product of a number and 5 is  $-45$ . Find the number.

5. Lynwood earns \$7 per hour working at the coffee shop. How many hours does he need to work to earn \$105?

6. **Standardized Test Practice** Rita invited 16 friends to her birthday party. If she has 112 party favors, how many party favors can each of her friends receive? (A) 4 (B) 5 (C) 7 (D) 9

## ANSWERS

1. 6

2.  $-8$ 

3. 4

4.  $-9$ 

5. 15 hours

6. C



# 5-Minute Check

(over Lesson 4-4)

**Solve each equation. Check your solution.**

1.  $4x + 8 = 32$

2.  $15 - 3a = 45$

3.  $-9 + 7x = 68$

4.  $-18 = 4m - 6$

5. Four less than six times a number is 32. Find the number.

6. **Standardized Test Practice** Daryl can cut 3 lawns in an hour. How many hours will it take him to cut 27 lawns?

## ANSWERS

1. 6

2. -10

3. 11

4. -3

5. 6

6. 9 hours

# 5-Minute Check (over Lesson 4-5)

**Graph each inequality on a number line.**

- $a > 5$
- $b \leq 1$

**Solve each inequality.**

- $c + 6 \leq -3$
- $g - 5 < 7$
- $3u + 3 \geq 12$
- Standardized Test Practice** Five decreased by a certain number is less than or equal to 9. Which inequality represents this situation?

(A)  $5 - n \geq 9$                       (B)  $n - 5 \leq 9$

(C)  $5 - n \leq 9$                         (D)  $n - 5 \geq 9$

## ANSWERS



- $c \leq -9$
- $g < 12$
- $u \geq 3$
- C

# 5-Minute Check (over Lesson 4-6)

**Copy and complete each function table. Identify the domain and range.**

1.  $y = 2x + 1$

$x$	$2x + 1$	$y$
1		
2		
3		

2.  $y = 3x$

$x$	$3x$	$y$
1		
2		
3		

**Graph.**

3.  $y = 2x + 2$

4. **Standardized Test Practice** Which ordered pair is a solution of the equation  $y = 2x$ ?

(A) (20, 10)

(B) (2, 4)

(C) (6, 3)

(D) (1, 3)

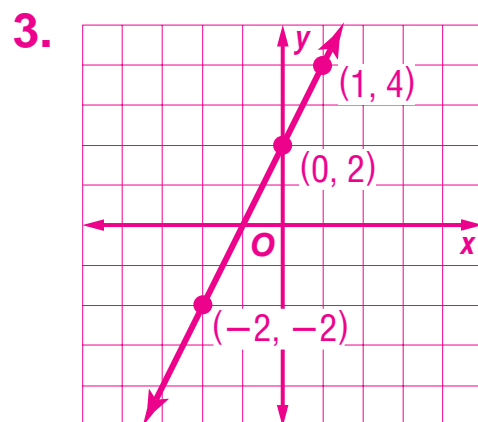
## ANSWERS

1.

$x$	$2x + 1$	$y$
1	$2(1) + 1$	3
2	$2(2) + 1$	5
3	$2(3) + 1$	7

2.

$x$	$3x$	$y$
1	$3(1)$	3
2	$3(2)$	6
3	$3(3)$	9



4. B

# 5-Minute Check (over Lesson 4-7)

**Find the slope of the line that passes through each pair of points.**

- $(-4, -2), (2, 1)$
- $(4, 3), (0, 0)$
- $(4, -2), (2, -1)$
- What is the least number of points one needs to find the slope of a line?
- Look at the following 2 functions. Which one describes a straight line? How do you know?

A.

x	y
1	2
2	4
3	6
5	10

B.

x	y
1	3
2	2
3	6
4	12

6. **Standardized Test Practice** What is the slope of the line passing through  $(-2, 6)$  and  $(1, -3)$ ?
- (A)  $-3$       (B)  $-\frac{1}{3}$       (C)  $\frac{1}{3}$       (D)  $3$

## ANSWERS

- $\frac{1}{2}$
- $\frac{3}{4}$
- $-\frac{1}{2}$
- $2$
- A; The slope is constant.
- A

# 5-Minute Check (over Chapter 4)

**Write the sentence as an algebraic equation.**

1. Seven years more than Tom's age is 35.

**Solve.**

2.  $n - 7 = -10$

3.  $6s = 42$

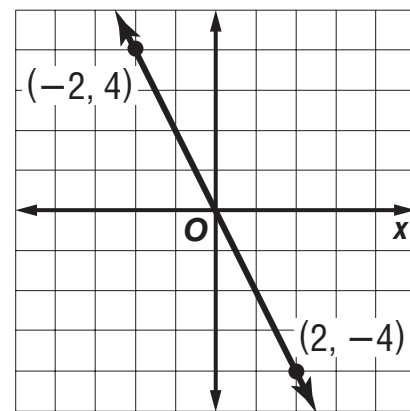
4.  $r + 4 \leq -3$

5. Copy and complete the function table.  $y = 3x - 2$   
Identify the domain and range.

x	$3x - 2$	y
1		
2		
3		

6. **Standardized Test Practice** Find the slope of the line that passes through the pair of points.

- (A)  $-2$       (B)  $-\frac{1}{2}$   
(C)  $2$       (D)  $\frac{1}{2}$



## ANSWERS

1.  $t + 7 = 35$

2.  $-3$

3.  $7$

4.  $r \leq -7$

5. 

x	$3x - 2$	y
1	$3(1) - 2$	1
2	$3(2) - 2$	4
3	$3(3) - 2$	7

 domain:  $\{1, 2, 3\}$ ;  
range:  $\{1, 4, 7\}$

6. A



# 5-Minute Check (over Lesson 5-1)

**Determine whether each number is *prime* or *composite*.**

- 47
- 63

**Find the prime factorization of each number.**

- 54
- 32
- Evaluate  $2p^2 + 5$  for  $p = 0, 1, 2, 3$ . List the resulting numbers that are prime numbers.
- Standardized Test Practice** Zoran needs to rent storage space to store his furniture. He thinks he will need a floor space of 9 ft x 12 ft. What is the prime factorization of this area?

A  $3^2 \times 2^2$

B  $3^3 \times 2^2$

C  $3^2 \times 2^3$

D  $3^3 \times 2^3$

## ANSWERS

- prime
- composite
- $2 \times 3^3$
- $2^5$
- The resulting numbers 5, 7, 13, and 23 are all prime.
- B



# 5-Minute Check

(over Lesson 5-2)

**Find the GCF of each set of numbers.**

1. 12, 36
2. 27, 45

**Find the GCF of each set of algebraic expressions.**

3.  $8b$ ,  $12b$
4.  $36r^2$ ,  $18rq$
5. What is the GCF of  $2^4 \times 3$  and  $2^3 \times 3^2$ ?

6. **Standardized Test Practice** Which set of numbers has a GCF of 9?

(A) 49, 18, 81

(B) 72, 117, 153

(C) 27, 58, 63

(D) 9, 45, 98

## ANSWERS

1. 12
2. 9
3.  $4b$
4.  $18r$
5. 24
6. B



# 5-Minute Check

*(over Lesson 5-3)*

**Write each fraction in simplest form.**

1.  $\frac{8}{20}$

2.  $\frac{12}{21}$

3.  $\frac{11}{121}$

**Write two fractions that are equivalent to each fraction.**

4.  $\frac{5}{7}$

5.  $\frac{3}{11}$

6. **Standardized Test Practice** Which fraction is *not* equivalent to the other fractions?

**A**  $\frac{32}{48}$

**B**  $\frac{14}{37}$

**C**  $\frac{38}{57}$

**D**  $\frac{18}{27}$

## ANSWERS

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

3.  $\frac{1}{11}$

5.  $\frac{6}{22}$ ;  $\frac{9}{33}$

2.  $\frac{4}{7}$

4.  $\frac{10}{14}$ ;  $\frac{15}{21}$

6. B



# 5-Minute Check

(over Lesson 5-4)

**Write each repeating decimal using bar notation.**

1. 1.22222
2. 0.15151515

**Write each fraction or mixed number as a decimal. Use bar notation if the decimal is a repeating decimal.**

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

4.  $\frac{5}{8}$

5.  $\frac{1}{9}$

6. **Standardized Test Practice** Write 2.65 as a fraction in simplest form.

## ANSWERS

1.  $1.\overline{2}$

2.  $0.\overline{15}$

3. 2.6

4. 0.625

5.  $0.\overline{1}$

6.  $2\frac{13}{20}$



# 5-Minute Check (over Lesson 5-5)

**Write each ratio as a percent.**

1.  $\frac{67}{100}$
2. 32 per 100

**Write each fraction as a percent.**

3.  $\frac{2}{8}$
4.  $\frac{17}{20}$
5. Write 55% as a fraction in simplest form.
6. **Standardized Test Practice** There are 200 people in the audience of a game show. Fifty are chosen to participate. What percent of the audience will be chosen to participate?

## ANSWERS

1. 67%
2. 32%
3. 25%
4. 85%
5.  $\frac{11}{20}$
6. 25%



# 5-Minute Check

(over Lesson 5-6)

**Write each percent as a decimal.**

1. 13.7%

2.  $7\frac{1}{4}\%$

**Write each decimal as a percent.**

3. 0.183

4. 0.07

5. Assuming every student placed a vote, if 0.83 of the student body voted for Afsheen and 0.17 voted for Neal, what percent of the student body voted for Neal?

6. **Standardized Test Practice** What is  $32\frac{1}{2}\%$  written as a decimal?

(A) 0.32

(B) 3.2

(C)  $0.32\frac{1}{2}$

(D) 0.325

## ANSWERS

1. 0.137

2. 0.725

3. 18.3%

4. 7%

5. 17%

6. D



# 5-Minute Check (over Lesson 5-7)

**Find the LCM of each set of numbers.**

1. 4, 12

2. 3, 13

3. 12, 15

4. 4, 6, 8

5. Find the LCM of  $4^2 \times 2$  and  $2^2 \times 4$ .

6. **Standardized Test Practice** Find the LCM of 54 and 90.

A 54

B 90

C 270

D 540

## ANSWERS

1. 12

2. 39

3. 60

4. 24

5. 32

6. C



# 5-Minute Check (over Chapter 5)

**Solve.**

1. Find the prime factorization of 63.
2. Find the GCF of  $81x^3y$  and  $63x^2y$ .
3. Write  $\frac{40}{256}$  in simplest form.
4. Find the LCM of 9 and 14.
5. Find the LCD for  $\frac{1}{3}$  and  $\frac{2}{5}$ .
6. **Standardized Test Practice** Which of the following is *not* equal to 45%?  
 A 0.45       B  $\frac{1}{45}$        C  $\frac{9}{20}$        D  $\frac{45}{100}$

**ANSWERS**

1.  $7 \times 3^2$
2.  $9x^2y$
3.  $\frac{5}{32}$
4. 126
5. 15
6. B

# 5-Minute Check (over Lesson 6-1)

## Estimate.

1.  $\frac{1}{5} + \frac{4}{9}$

2.  $3\frac{2}{3} \div \frac{12}{13}$

3.  $\frac{1}{5} \times 19$

4.  $6\frac{1}{9} - 2\frac{5}{6}$

5. Estimate the sum of  $2\frac{6}{13}$ ,  $\frac{5}{8}$ , and  $9\frac{9}{10}$ .

6. **Standardized Test Practice** If Bill's boat gets  $7\frac{1}{3}$  miles per gallon, about how many miles can he travel on  $3\frac{3}{4}$  gallons?

(A) 21

(B)  $24\frac{1}{2}$

(C) 28

(D) 30

## ANSWERS

1.  $0 + \frac{1}{2} = \frac{1}{2}$

2.  $4 \div 1 = 4$

3.  $\frac{1}{5} \times 20 = 4$

4.  $6 - 3 = 3$

5.  $2\frac{1}{2} + \frac{1}{2} + 10 = 13$

6.  $7 \times 4 = 28$ , C

# 5-Minute Check (over Lesson 6-2)

**Add or subtract. Write in simplest form.**

$$1. \quad \begin{array}{r} \frac{3}{10} \\ + \frac{2}{10} \\ \hline \end{array}$$

$$2. \quad \begin{array}{r} \frac{9}{21} \\ - \frac{6}{21} \\ \hline \end{array}$$

**Evaluate each expression if  $r = \frac{2}{3}$  and  $s = \frac{3}{5}$ .**

$$3. \quad \frac{1}{10} + s$$

$$4. \quad 1 - r$$

5. Jared and his friend Andre ordered a pizza. Jared ate  $\frac{2}{5}$  of the pizza and Andre ate  $\frac{1}{3}$  of the pizza. How much more of the pizza did Jared eat?

6. **Standardized Test Practice** Ethan has  $\frac{3}{4}$  of a jar of jelly. After he makes some peanut butter and jelly sandwiches,  $\frac{2}{5}$  of the jar of jelly is left. How much jelly did Ethan use?

## ANSWERS

$$1. \quad \frac{1}{2}$$

$$3. \quad \frac{7}{10}$$

5. Jared ate  $\frac{1}{15}$  more of the pizza.

$$2. \quad \frac{1}{7}$$

$$4. \quad \frac{1}{3}$$

6.  $\frac{7}{20}$  of the jar of jelly

# 5-Minute Check (over Lesson 6-3)

**Add or subtract. Write in simplest form.**

$$1. \quad \begin{array}{r} 5\frac{4}{9} \\ + 2\frac{2}{9} \\ \hline \end{array}$$

$$2. \quad \begin{array}{r} 9\frac{4}{13} \\ - 7\frac{7}{13} \\ \hline \end{array}$$

$$3. \quad 5\frac{2}{3} + 2\frac{1}{6}$$

$$4. \quad 8\frac{2}{9} - 4\frac{3}{18}$$

5. Yesterday Michael ran  $3\frac{1}{4}$  miles. Today Michael ran  $4\frac{3}{8}$  miles. How many more miles did Michael run today than yesterday?

6. **Standardized Test Practice** In January, the town water tower was  $\frac{7}{8}$  full. In April, it was  $\frac{3}{5}$  full. By what fraction did the water level decrease?

(A)  $\frac{11}{40}$

(B)  $\frac{10}{13}$

(C)  $1\frac{1}{3}$

(D)  $1\frac{19}{40}$

## ANSWERS

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

2.  $1\frac{10}{13}$

3.  $7\frac{5}{6}$

4.  $4\frac{1}{18}$

5.  $1\frac{1}{8}$  miles

6. A



# 5-Minute Check

*(over Lesson 6-4)***Multiply. Write in simplest form.**

1.  $\frac{4}{5} \times \frac{7}{9}$

2.  $\frac{3}{13} \times 5$

3.  $\frac{1}{9} \times \frac{3}{6}$

4.  $5\frac{1}{6} \times 2\frac{3}{7}$

5. Jeffrey owns 230 books. Of those books,  $\frac{2}{5}$  of them are novels. How many novels does Jeffrey own?

6. **Standardized Test Practice** At the school dance,  $\frac{3}{4}$  of the students wore the school colors;  $\frac{2}{5}$  of them were in the 6th grade. What fraction of the students at the school dance that wore the school colors were in the 6th grade?

**(A)**  $\frac{1}{4}$

**(B)**  $\frac{3}{10}$

**(C)**  $\frac{7}{20}$

**(D)**  $1\frac{3}{20}$

**ANSWERS**

1.  $\frac{28}{45}$

2.  $1\frac{2}{13}$

3.  $\frac{1}{18}$

4.  $12\frac{23}{42}$

5. 92 novels

6. B

# 5-Minute Check (over Lesson 6-5)

**Find the multiplicative inverse of each number.**

1.  $\frac{7}{9}$

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

**Solve each equation. Check your solution.**

3.  $\frac{n}{4} = 6$

4.  $\frac{3}{4}y = -\frac{7}{12}$

5. For art class, each student is going to make a piñata using  $\frac{3}{5}$  pound of paste. The art teacher bought 20 pounds of paste. Use the equation  $\frac{3}{5}s = 20$  to determine the number of students who can make piñatas.

6. **Standardized Test Practice** What is the solution to

$$10 = \frac{2}{3}d?$$

(A)  $\frac{1}{15}$

(B)  $\frac{3}{20}$

(C)  $6\frac{2}{3}$

(D) 15

## ANSWERS

1.  $\frac{9}{7}$  or  $1\frac{2}{7}$

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

3. 24

4.  $-\frac{7}{9}$

5. 33 students

6. D



# 5-Minute Check

*(over Lesson 6-6)***Divide. Write in simplest form.**

1.  $\frac{1}{4} \div \frac{5}{6}$

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

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

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

5. Joe and his roommates have three cats. The cats eat  $\frac{3}{4}$  pound of food each day. How long would a 30-pound bag of cat food last?

6. **Standardized Test Practice** Ariel has  $4\frac{1}{3}$  pounds of baking chocolate for cookies. If each recipe calls for  $\frac{1}{5}$  pound of baking chocolate, how many full recipes will she be able to make?

**(A)** 16**(B)** 17**(C)** 18**(D)** 21**ANSWERS**

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

2.  $1\frac{7}{15}$

3.  $1\frac{19}{35}$

4.  $\frac{7}{24}$

5. 40 days

6. D



# 5-Minute Check

(over Lesson 6-7)

**Complete.**

- 21 ft = \_\_\_\_\_ yd
- 160 oz = \_\_\_\_\_ lb
- $1\frac{1}{4}$  mi = \_\_\_\_\_ ft
- 2 c = \_\_\_\_\_ fluid oz
- Stella lives 2 miles from school. How many feet from the school does Stella live?
- Standardized Test Practice** If 1,760 yards = 1 mile, then 4 miles = ? yards.  
 A  $\frac{1}{4}$        B 4       C 440       D 7,040

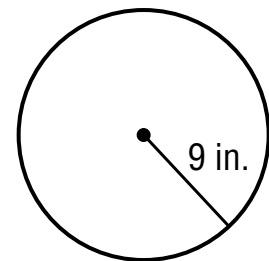
**ANSWERS**

- 7
- 10
- 6,600
- 16
- 10,560 feet
- D

# 5-Minute Check (over Chapter 6)

**Solve.**

1. Estimate  $3\frac{4}{5} + 2\frac{1}{3}$ .
2. Subtract  $7\frac{2}{6} - 4\frac{1}{8}$ .
3. Solve. Check your solution.  $\frac{n}{4} = 6$
4. Complete.  $1\frac{1}{4}$  c = \_\_\_ fluid oz
5. Find the circumference of the circle.  
Use 3.14 or  $\frac{22}{7}$  for  $\pi$ . Round to the nearest tenth if necessary.



6. **Standardized Test Practice** Guy purchased a one-gallon container of ether for a science experiment. When he was finished,  $\frac{1}{16}$  of the container was full. How many fluid ounces of ether did Guy use?

(A) 8                      (B) 12                      (C) 64                      (D) 120

**ANSWERS**

1. 6

2.  $3\frac{5}{24}$ 

3. 24

4. 10

5. 56.5 in.

6. D

# 5-Minute Check (over Lesson 7-1)

**Write each ratio as a fraction in simplest form.**

- 36 to 21
- 16 to 64
- 22 meters to 180 meters

**Determine whether the ratios are equivalent. Explain.**

- 4:6 and 52:78
- 8:17 and 32:64
- Standardized Test Practice** Among the staff at Roosevelt Elementary, 68 teachers prefer coffee and 20 prefer tea. Which ratio shows the relationship of coffee drinkers to tea drinkers in simplest form?

(A) 10:34      (B) 17:5      (C) 5:17      (D) 34:10

## ANSWERS

1.  $\frac{12}{7}$                       2.  $\frac{1}{4}$                       3.  $\frac{11}{90}$

4. Yes;  $4:6 = \frac{2}{3}$  and  $52:78 = \frac{2}{3}$

5. No;  $8:17 = \frac{8}{17}$ ,  $32:64 = \frac{1}{2}$ , and  $\frac{8}{17} \neq \frac{1}{2}$

6. B



# 5-Minute Check

(over Lesson 7-2)

**Find each unit rate. Round to the nearest hundredth if necessary.**

- \$3.99 for 16 ounces
- 730 miles in 14 hours
- \$28 for 15 cassettes
- Which is the better unit price: \$1.99 for a 3-ounce bottle or \$2.49 for a 4-ounce bottle?

**Determine whether the following statement is *sometimes*, *always*, or *never* true. Explain by giving an example or a counterexample.**

- The denominator of a unit rate can be a decimal.
- Standardized Test Practice** Cassandra leaves college to go home for the summer. She lives 424 miles away and arrives in 8 hours. Which ratio shows her rate of travel in simplest form?

Ⓐ 53:1      Ⓑ 53      Ⓒ 1:53      Ⓓ 212:4

## ANSWERS

- \$0.25 per ounce
- 52.14 miles per hour
- \$1.87 per cassette
- \$2.49 for a 4-ounce bottle
- Never; A unit rate is a rate that is simplified so that it has a denominator of 1 unit. For example, the unit rate  $\frac{50 \text{ words}}{1 \text{ minute}}$  is read 50 words per minute.
- A



# 5-Minute Check (over Lesson 7-3)

**Determine whether each pair of ratios forms a proportion.**

1.  $\frac{2}{12}$  and  $\frac{8}{48}$

2.  $\frac{1}{9}$  and  $\frac{3}{36}$

3.  $\frac{3}{4}$  and  $\frac{4}{5}$

**Solve each proportion.**

4.  $\frac{3}{7} = \frac{x}{21}$

5.  $\frac{6}{15} = \frac{18}{x}$

6. **Standardized Test Practice** The ratio of native Spanish speakers to native English speakers in a local high school is 3 to 8. If there are 254 students at the school that are native English speakers, how many students are native Spanish speakers?

(A) 32

(B) 36

(C) 96

(D) 682

## ANSWERS

1. yes

2. no

3. no

4. 9

5. 45

6. C

# 5-Minute Check (over Lesson 7-4)

**Suppose you are making a scale drawing. Find the length of each object on the scale drawing with the given scale. Then find the scale factor.**

- a subway car 34 feet long; 1 inch = 5 feet
- a table 1.5 meters long; 3 centimeters = 0.25 meters
- a football field that is 120 yards; 1 foot = 30 yards

**Solve.**

- The distance between New York City and Washington, D.C. is 3.75 inches on a map of the United States. If the scale on the map is 1 inch to 90 miles, how far is Washington, D.C. from New York City?
- Standardized Test Practice** Which ratio accurately shows the relationship between the actual distance from Atlanta to New Hope and the scale distance if the actual distance is 425 miles and the scale distance is  $6\frac{2}{3}$  inches?

(A)  $6\frac{2}{3}:425$

(B)  $1:63\frac{3}{4}$

(C)  $63\frac{3}{4}:1$

(D) 70.8:1

## ANSWERS

1.  $6\frac{4}{5}$  in.;  $\frac{1}{60}$

2. 18 cm;  $\frac{3}{25}$

3. 4 ft;  $\frac{1}{90}$

4. 337.5 mi

5. C



# 5-Minute Check

(over Lesson 7-5)

**Write each percent as a fraction in simplest form.**

1. 8%
2. 56%
3. 32%

**Write each fraction as a percent. Round to the nearest hundredth if necessary.**

4.  $\frac{8}{17}$

5.  $\frac{3}{14}$

6. **Standardized Test Practice** Three out of every 7 car owners keep a flashlight in their glove compartment. What percent of car owners is this? Round to the nearest integer if necessary.

A 3%     B 33%     C 43%     D 57%

## ANSWERS

1.  $\frac{2}{25}$

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

5. 21.43%

2.  $\frac{14}{25}$

4. 47.06%

6. C



# 5-Minute Check

(over Lesson 7-6)

**Write each percent as a decimal and as a mixed number or fraction in simplest form.**

- 230%
- 33%
- 0.20%
- Write  $7\frac{2}{5}$  as a percent.
- There are 4 history books per every 136 books at the public library. What percent of the books at the public library are history books? Round to the nearest hundredth if necessary.
- Standardized Test Practice** Which number does not have the same value as the other three?

(A) 4.25      (B) 4.25%      (C)  $4\frac{1}{4}$       (D)  $\frac{425}{100}$

## ANSWERS

- 2.3;  $2\frac{3}{10}$
- 0.33;  $\frac{33}{100}$
- 0.002;  $\frac{1}{500}$
- 740%
- 2.94%
- B



# 5-Minute Check

(over Lesson 7-7)

**Find each number. Round to the nearest tenth if necessary.**

1. What is 165% of 60?
2. What number is 233% of 75?
3. 48% of 90 is what number?
4. Find 20% of \$365.
5. What number is 165% of 105?
6. **Standardized Test Practice** Tanya earns a perfect score 25% of the time when she performs her gymnastics routine in front of a panel of judges. If she performs 44 times in a season, how many times will she *not* receive a perfect score?

(A) 11

(B) 25

(C) 33

(D) 44

## ANSWERS

1. 99

2. 174.75

3. 43.2

4. \$73

5. 173.25

6. C



# 5-Minute Check (over Chapter 7)

**Solve.**

1. Write the ratio *35 meters to 1000 centimeters* as a fraction in simplest form.
2. One box of cereal costs \$3.98 and weighs 18 ounces, and another box costs \$3.39 and weighs 16 ounces. What are the unit prices for each box of cereal? Which is the better deal?
3. If you were making a scale drawing of a building that is 500 feet tall, how large would the drawing be with a scale of 1 inch = 35 feet? Write the answer as a fraction.
4. Write 240% as a decimal and a mixed number or fraction in simplest form.
5. Find 64% of 130.
6. **Standardized Test Practice** Choose the term which describes a ratio where the denominator must be 1 when it is in simplest form.

A rate     B scale     C unit rate     D base

**ANSWERS**

1.  $3\frac{1}{2}$
2. \$0.22 per ounce; \$0.21 per ounce; \$3.39 for 16 ounces is the better deal.
3.  $14\frac{2}{7}$  in.
4. 2.4;  $2\frac{2}{5}$
5. 83.2
6. C



# 5-Minute Check (over Lesson 8-1)

**Estimate by using fractions.**

1. 48% of 30
2. 8.5% of 278

**Estimate by using 10%.**

3. 112% of 49
4. 83% of 79
5. Twenty-two percent of the seventh-grade class at Santa Ana Middle School have blue eyes. If the seventh-grade class has 139 students, about how many have blue eyes?
6. **Standardized Test Practice** Estimate 128% of 179.

(A) 18      (B) 23      (C) 128      (D) 234

**ANSWERS**

1. 15
2. 28
3. 55
4. 64
5. 28
6. D



# 5-Minute Check

(over Lesson 8-2)

**Write an equation for each problem. Then solve. Round to the nearest tenth if necessary.**

- 38 is what percent of 320?
- 24% of what number is 72?
- Find 43% of 128.
- What percent of 28 is 9?
- Thirteen percent of the profits from Kendall's business are donated to charities. Write and solve an equation to find out how much Kendall donates if her profits are \$1,292.42.
- Standardized Test Practice** 17 is what percent of 104?

## ANSWERS

- $38 = n \cdot 320$ ; 11.9%
- $0.24 \cdot n = 72$ ; 300
- $0.43 \cdot 128 = n$ ; 55
- $n \cdot 28 = 9$ ; 32.1%
- $0.13 \cdot 1,292.42 = n$ ; \$168.01
- 16.3%



# 5-Minute Check

(over Lesson 8-3)

## Solve.

1. A survey of high school students said that 63% planned on taking college courses after graduation. Predict how many of the 837 students surveyed are planning on taking college courses?
2. According to a survey, 73% of adults 21–30 years old own at least one car. For a city with about 24,600 adults age 21–30 years, predict how many own a car.
3. 832 families were asked if they ate dinner together at least 4 nights of the week. If 62% of the families said yes, predict how many families eat dinner together at least 4 nights of the week?
4. **Standardized Test Practice** In a lumberyard, about 13% of their total stored wood is lost to water damage each year. If the lumberyard stores 250 tons of wood each year, predict how much is lost to water damage?  

<input type="radio"/> A 31 tons	<input type="radio"/> B 31.5 tons
<input type="radio"/> C 32.5 tons	<input type="radio"/> D 33.5 tons

## ANSWERS

1. 527
2. 17,958
3. 516
4. C



# 5-Minute Check

(over Lesson 8-4)

**Find each percent of change. Round to the nearest whole percent if necessary. State whether the percent of change is an *increase* or *decrease*.**

- original: 50  
new: 80
- original: 138  
new: 200
- original: \$21.50  
new: \$16.25
- original: 17  
new: 143
- Natalie's kitten weighed 2.7 pounds when she bought it. Now it weighs 4.2 pounds. What is the percent of increase in the kitten's weight?
- Standardized Test Practice** If the first movie released by a film company this year made \$20.4 million dollars at the box office, and the second movie made \$13.2 million, what was the percent of change in the film company's revenues?
  - 35% increase
  - 35% decrease
  - 7.2% increase
  - 7.2% decrease

## ANSWERS

- 60% increase
- 45% increase
- 24% decrease
- 741% increase
- 56%
- B



# 5-Minute Check (over Lesson 8-5)

**Find the total cost or sale price to the nearest cent.**

- \$120 jacket; 30% discount
- \$12,300 car; 5% sales tax
- \$12 book; 8.5% sales tax
- Find the percent of discount to the nearest percent.  
regular priced meal: \$32.50  
employee meal: \$13
- A shirt at the store is advertised “Buy 2, Get 1 Free.”  
If the original price of the shirt is \$12.99 and you take advantage of the special offer, what is the price you would pay per shirt, and what percent is the discount from the original price?
- Standardized Test Practice** A hotel room costs \$155 per night. What is the total cost with a 30% discount and 5.5% sales tax?

(A) \$46.50

(B) \$108.50

(C) \$114.47

(D) \$190.42

## ANSWERS

1. \$84

2. \$12,915

3. \$13.02

4. 60%

5. \$8.66 per shirt; 33% discount

6. C



# 5-Minute Check (over Chapter 8)

**Solve.**

1. Estimate 23% of 188.
2. Write an equation for the problem. Then solve. Round to the nearest tenth if necessary.  
34% of what number is 49.3?
3. In a survey of band students, 28% answered that they played the clarinet. If the entire band has 342 students, predict how many play the clarinet.
4. Find the percent of change. If necessary, round to the nearest whole percent. State whether the percent of change is an *increase* or a *decrease*.  
original: 130  
new: 245
5. A calculator priced at \$146 goes on sale for 40% off. If sales tax is 5%, how much is the calculator?
6. **Standardized Test Practice** Find the interest earned on \$350 at 7% for 6 years.

A \$24.50

B \$147.00

C \$245.00

D \$245.50

**ANSWERS**

1. 38

2.  $0.34 \cdot n = 49.3$ ; 145

3. 96

4. 88% increase

5. \$91.98

6. B



# 5-Minute Check

(over Lesson 9-1)

**A 12-sided number die shows the numbers 1 through 12, with one number showing each time the die is rolled. Find the probability of each event. Write as a fraction in simplest form.**

1.  $P(7)$
2.  $P(\text{multiple of } 4)$
3.  $P(\text{not a prime number})$
4. **Standardized Test Practice** A box of cookies contains 5 chocolate chip cookies, 5 peanut butter, and 5 sugar. When choosing a cookie at random, which answer does *not* show the probability of getting a peanut butter cookie?

A  $\frac{1}{3}$

B  $0.3\bar{3}$

C  $\frac{1}{15}$

D  $33\frac{1}{3}\%$

## ANSWERS

1.  $\frac{1}{12}$

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

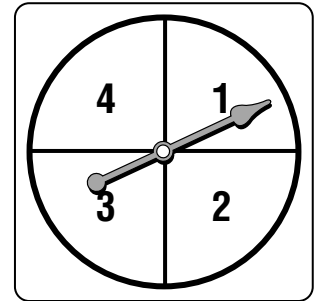
3.  $\frac{7}{12}$

4. C

# 5-Minute Check (over Lesson 9-2)

**For each situation, make a tree diagram to show the sample space. Then give the total number of outcomes.**

- picking a cat or dog and choosing the colors black, brown, or spotted
- Using the spinner, what is the probability of spinning two odd numbers in two spins?



- Standardized Test Practice** How many styles of sneakers are possible if Jared can choose from high-top, low-top, shoelaces or Velcro, and the colors black, white, and red?

(A) 3

(B) 6

(C) 12

(D) 24

## ANSWERS

1. **Animal**                      **Color**                      **Sample Space; 6**
- |     |         |             |
|-----|---------|-------------|
| cat | black   | black cat   |
|     | brown   | brown cat   |
|     | spotted | spotted cat |
| dog | black   | black dog   |
|     | brown   | brown dog   |
|     | spotted | spotted dog |

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

3. C



# 5-Minute Check

(over Lesson 9-3)

**Use the Fundamental Counting Principle to find the total number of outcomes in each situation.**

1. choosing North, South, East, or West and one of the 50 states
2. picking a day of the week and a month of the year
3. choosing vanilla, strawberry, chocolate, or mint chip ice cream with fudge, butterscotch, strawberry, or whipped topping, in a cone or a cup
4. plain, barbeque, sour cream and onion, or salt and vinegar potato chips, rippled or regular, in a small or large bag
5. Margarita wants to wear a different outfit to school each day using her new clothes. Margarita bought 5 pairs of pants, 9 shirts, and 4 pairs of shoes. How many days of school does Margarita expect to have?
6. **Standardized Test Practice** Ryan has a business screenprinting T-shirts. Ryan offers 12 color options, 3 T-shirt styles, and printing in 1, 2, 3, 4, or 5 colors. How many different styles of shirt does Ryan's business offer?

(A) 36

(B) 64

(C) 144

(D) 180

## ANSWERS

1. 200    2. 84    3. 32    4. 16    5. 180    6. D



# 5-Minute Check

(over Lesson 9-4)

**Find the value of each expression.**

1.  $4!$

2.  $6!$

3.  $11!$

4.  $6! \cdot 4!$

5.  $3! \cdot 5!$

6. **Standardized Test Practice** In how many ways can a football coach arrange the first five players in a lineup of eleven players.

A 120

B 55,440

C 332,640

D 39,916,800

## ANSWERS

1. 24

2. 720

3. 39,916,800

4. 17,280

5. 720

6. B



# 5-Minute Check

(over Lesson 9-5)

**Tell whether each problem represents a permutation or a combination. Then solve the problem.**

1. How many ways can you arrange the 7 natural notes in a musical scale for a three-note arrangement without repeating a note?
2. There are 10 people in a club. In how many ways can a committee of 5 be chosen from the 10 people?

**Solve.**

3. You are a judge in a battle of the bands. There are 6 bands. You must choose 1st, 2nd, and 3rd place. How many different results can you choose?
4. What is the difference between a permutation and a combination?
5. **Standardized Test Practice** How many ways can a coach select 4 members of a 12-person team to go to the State Competition?

(A) 24

(B) 495

(C) 11,880

(D) 479,001,600

## ANSWERS

1. permutation; 210      2. combination; 252      3. 120  
4. In a combination, order is not important.      5. B



# 5-Minute Check

(over Lesson 9-6)

**For Exercises 1–4, a number cube is tossed 24 times and lands on 1 three times and on 2 four times.**

1. Find the experimental probability of landing on 1.
2. Find the theoretical probability of *not* landing on 1.
3. Find the theoretical probability of landing on 2.
4. Find the experimental probability of *not* landing on 2.
5. State the difference between theoretical and experimental probabilities.
6. **Standardized Test Practice** In one afternoon, 24 restaurant customers order steak, 18 order sandwiches, and 20 order salads. Based on this, what is the probability that the next patron will order a salad?

(A)  $\frac{9}{31}$

(B)  $\frac{10}{31}$

(C)  $\frac{12}{31}$

(D)  $\frac{21}{31}$

## ANSWERS

1.  $\frac{1}{8}$

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

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

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

5. An experimental probability is based on information gained by an experiment or game, while a theoretical probability is made without referring to any data.

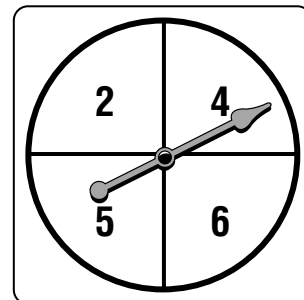
6. B

# 5-Minute Check (over Chapter 9)

## Solve.

- There are 12 balls in a hat and 3 are red. What is the probability of drawing a red ball?
- Use the Fundamental Counting Principle to find the total number of outcomes when choosing an outfit from 3 pairs of pants, 5 shirts, and 4 jackets.
- Find the value of  $6!$
- A coin is tossed 14 times. It lands on heads 8 times and on tails 6 times. What is the theoretical probability of landing on tails? What is the experimental probability of the coin landing on tails?

5. **Standardized Test Practice** A number cube is rolled and the spinner at the right is spun. What is the probability of rolling an even number and spinning an odd number?



(A)  $\frac{1}{12}$

(B)  $\frac{1}{8}$

(C)  $\frac{1}{4}$

(D)  $\frac{1}{2}$

## ANSWERS

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

2. 60

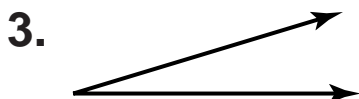
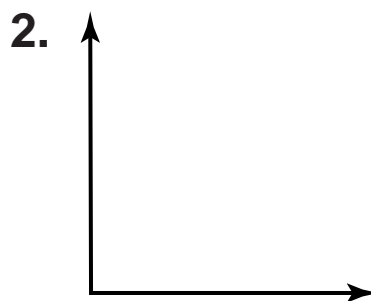
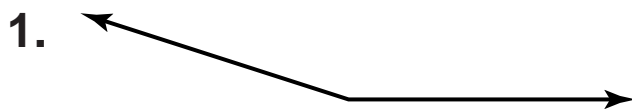
3. 720

4.  $\frac{1}{2}$ ;  $\frac{3}{7}$

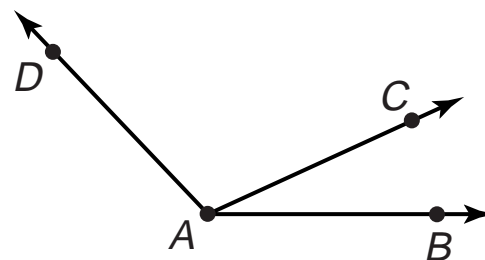
5. B

# 5-Minute Check (over Lesson 10-1)

Classify each angle as *acute*, *obtuse*, *right*, or *straight*.



For Exercises 4 and 5, use the figure at the right.



4. Name the obtuse angle.

5. Identify 2 adjacent angles.

6. **Standardized Test Practice** Which angle measure is between  $90^\circ$  and  $180^\circ$ ?

(A) acute

(B) obtuse

(C) right

(D) straight

## ANSWERS

1. obtuse

2. right

3. acute

4.  $\angle DAB$  or  $\angle BAD$

5.  $\angle DAC$  or  $\angle CAD$  and  $\angle CAB$  or  $\angle BAC$

6. B

# 5-Minute Check (over Lesson 10-2)

**For Exercise 1, make a circle graph of the data in the table.**

1. **Time Felicia Spent on Homework**

Subject	Percent
Math	30%
English	20%
Chemistry	35%
Social Studies	15%

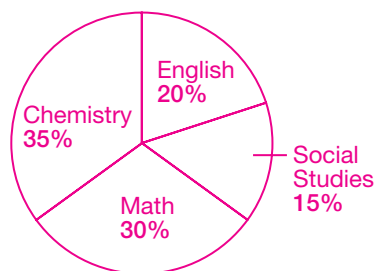
2. **Standardized Test Practice** Using the table, what percent of 7th graders who play sports are on the track and field team?

- (A) 12.5%
- (B) 18.75%
- (C) 31.25%
- (D) 37.5%

7th Graders Who Play Sports	
Team	Number
Basketball	5
Baseball	3
Track & Field	6
Soccer	2

## ANSWERS

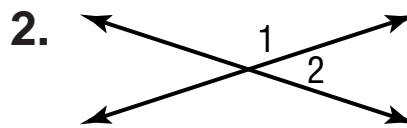
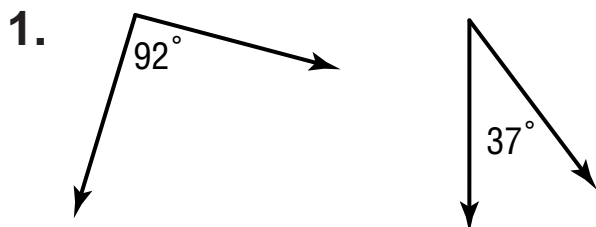
1. Time Felicia Spent on Homework



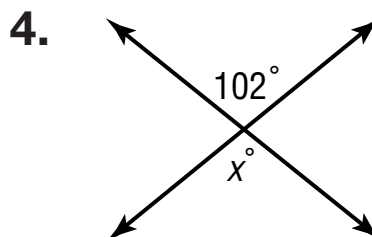
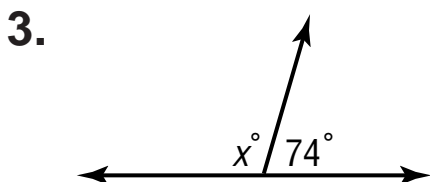
2. D

# 5-Minute Check (over Lesson 10-3)

**Classify each pair of angles as *complementary*, *supplementary*, or *neither*.**



**Find the value of  $x$  in each figure.**



5. Tell whether the following statement is *true* or *false*.  
Angles are complementary if the sum of their measures is  $180^\circ$ .
6. **Standardized Test Practice** If  $\angle 1$  and  $\angle 2$  are complementary angles, and  $m\angle 1$  is  $57^\circ$ , what is the measure of  $\angle 2$ ?

## ANSWERS

1. neither

3. 106

5. false

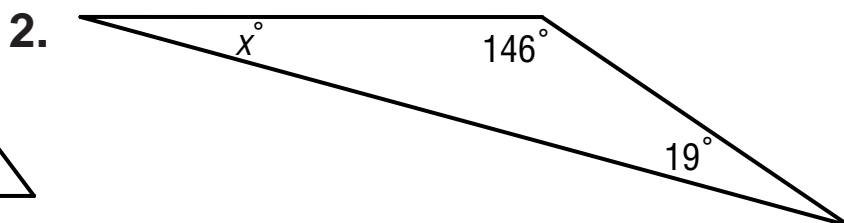
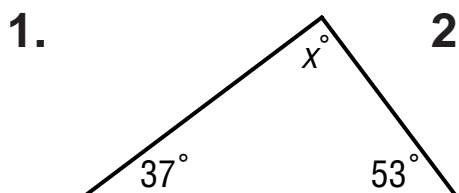
2. supplementary

4. 102

6.  $33^\circ$

# 5-Minute Check (over Lesson 10-4)

Find the missing measure in each triangle. Then classify the triangle as *acute*, *right*, or *obtuse*.



**Solve.**

- Three sides of a triangle measure 3 centimeters, 4 centimeters, and 5 centimeters. Classify the triangle by its sides.
- Two angles of a triangle measure  $25^\circ$  and  $45^\circ$ . Classify the triangle by its angles.
- All three angles of a triangle measure  $60^\circ$ . Can you classify the triangle by its sides? Explain.
- Standardized Test Practice** Which of the following triangles could *not* be classified as isosceles?

(A) equilateral

(B) scalene

(C) acute

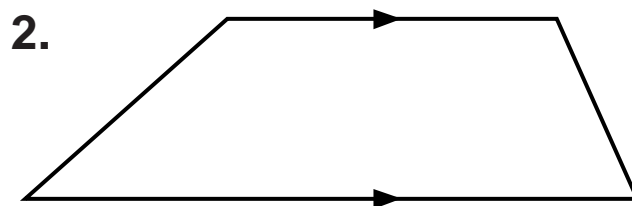
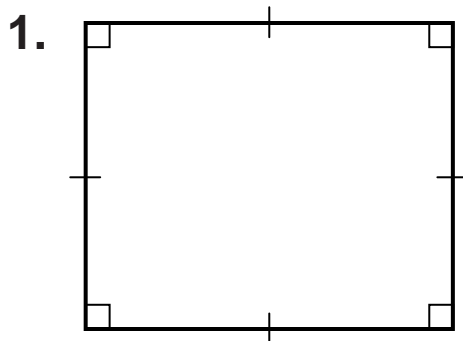
(D) right

## ANSWERS

1.  $90^\circ$ ; right    2.  $15^\circ$ ; obtuse    3. scalene    4. obtuse  
 5. Yes; if all three angles of a triangle are congruent, then all three sides are congruent, and the triangle is equilateral.    6. B

# 5-Minute Check (over Lesson 10-5)

**Classify the quadrilateral using the name that best describes it.**



**Determine whether each statement is *sometimes*, *always*, or *never* true. Explain.**

3. A square is a parallelogram.

4. A rhombus is a square.

5. **Standardized Test Practice** Which of the following is *not* a parallelogram?

(A) square

(B) quadrilateral

(C) trapezoid

(D) rhombus

## ANSWERS

1. square

2. trapezoid

3. Always; parallelograms are quadrilaterals with opposite sides parallel and opposite sides congruent.

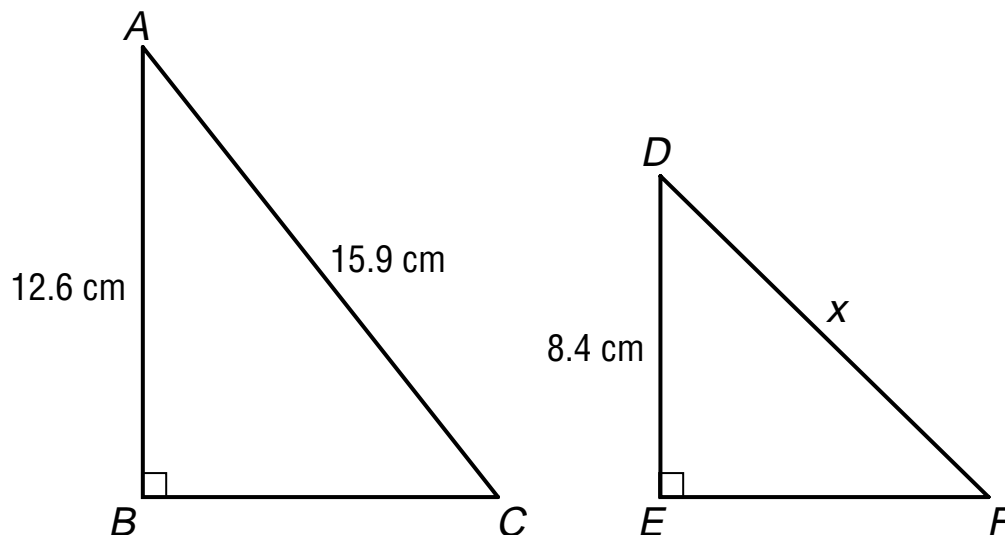
4. Sometimes; a rhombus is a parallelogram with 4 congruent sides. If a rhombus also has 4 right angles, it is a square.

5. C

# 5-Minute Check (over Lesson 10-6)

Find the value of  $x$  in the pair of similar figures.

1.



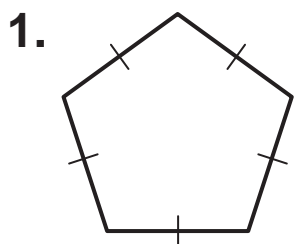
2. Caren's dollhouse furniture is made to scale of real furniture with a ratio of  $\frac{2}{5}$  inch to 1 foot. If a dollhouse table is 3.4 inches wide and 4.2 inches long, what are the dimensions of the "real" table from which it was modeled?
3. **Standardized Test Practice** True or false: All squares are similar.

## ANSWERS

1. 10.6 cm  
 2. 8.5 ft by 10.5 ft  
 3. true

# 5-Minute Check (over Lesson 10-7)

**Determine whether each figure is a polygon. If it is, classify the polygon and state whether it is regular. If it is *not* a polygon, explain why.**



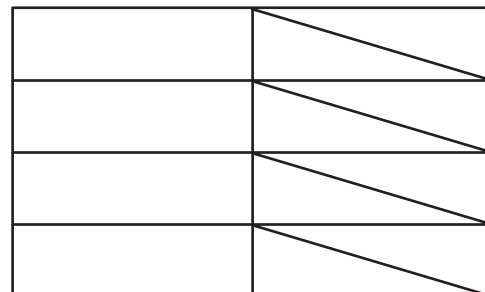
**Find the measure of an angle in each regular polygon. Round to the nearest tenth of a degree, if necessary.**

3. hexagon

4. 16-gon

5. What is the perimeter of a 13-gon with each side 3.2 inches long?

6. **Standardized Test Practice**  
Identify the polygons that are used to create the tessellation.



## ANSWERS

1. yes; pentagon; regular

2. yes; quadrilateral; not regular

3.  $120^\circ$

4.  $157.5^\circ$

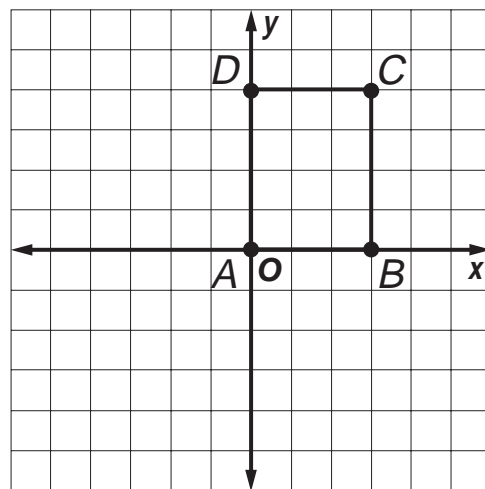
5. 41.6 in.

6. rectangle and triangle

# 5-Minute Check (over Lesson 10-8)

Rectangle  $ABCD$  has vertices  $A(0, 0)$ ,  $B(3, 0)$ ,  $C(3, 4)$ , and  $D(0, 4)$ . Find the vertices of  $A'B'C'D'$  after each translation.

- 2 units up
- 3 units down
- 4 units right, 3 units up
- 1 unit left, 4 units down
- 3 units right, 2 units down



6. **Standardized Test Practice**

Triangle  $XYZ$  has vertices  $X(1, 3)$ ,  $Y(2, 5)$ , and  $Z(2, 0)$ . If  $X'Y'Z'$  has vertices  $X'(3, 4)$ ,  $Y'(4, 6)$ , and  $Z'(4, 1)$ , describe the translation.

- |   |   |
|---|---|
| <input type="radio"/> (A) 2 units left,<br>1 unit up  | <input type="radio"/> (B) 1 unit left,<br>2 units up  |
| <input type="radio"/> (C) 2 units right,<br>1 unit up | <input type="radio"/> (D) 1 unit right,<br>2 units up |

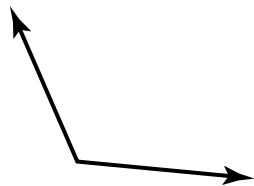
## ANSWERS

- $A'(0, 2)$ ,  $B'(3, 2)$ ,  $C'(3, 6)$ ,  $D'(0, 6)$
- $A'(0, -3)$ ,  $B'(3, -3)$ ,  $C'(3, 1)$ ,  $D'(0, 1)$
- $A'(4, 3)$ ,  $B'(7, 3)$ ,  $C'(7, 7)$ ,  $D'(4, 7)$
- $A'(-1, -4)$ ,  $B'(2, -4)$ ,  $C'(2, 0)$ ,  $D'(-1, 0)$
- $A'(3, -2)$ ,  $B'(6, -2)$ ,  $C'(6, 2)$ ,  $D'(3, 2)$
- C

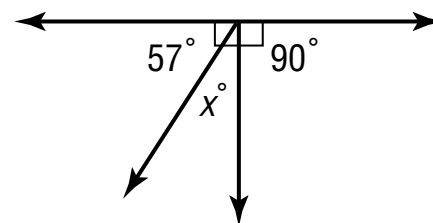
# 5-Minute Check (over Chapter 10)

## Solve.

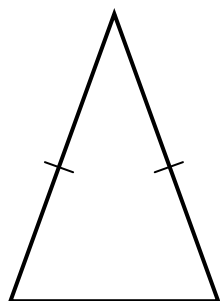
1. Identify the angle as *acute*, *obtuse*, *right*, or *straight*.



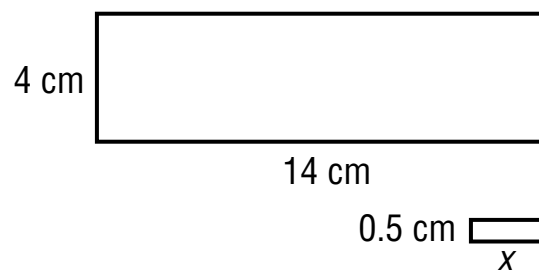
2. Find the value of  $x$  in the figure.



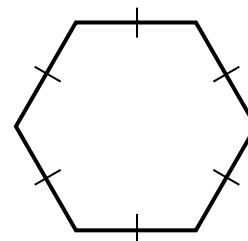
3. Classify the triangle by its angles and by its sides.



4. Find the value of  $x$  in the pair of similar figures.



5. Classify the polygon and state whether it is regular.



6. **Standardized Test Practice** Triangle  $NLR$  has vertices  $N(2, 2)$ ,  $L(1, 4)$ , and  $R(1, 2)$ . If Triangle  $N'L'R'$  has vertices  $N'(-2, 2)$ ,  $L'(-1, 4)$ , and  $R'(-1, 2)$ , what type of reflection was performed on triangle  $NLR$ ?

## ANSWERS

1. obtuse  
 2. 33  
 3. acute; isosceles  
 4.  $x = 1.75$  cm  
 5. hexagon; regular  
 6. Triangle  $NLR$  was reflected over the  $y$ -axis.



# 5-Minute Check (over Lesson 11-1)

**Find the square of each number.**

1. 7
2. 12
3. 13

**Find each square root.**

4.  $\sqrt{81}$
5.  $\sqrt{196}$

6. **Standardized Test Practice** Find  $\sqrt{36} \times (-2)^2 - (-4)$ .

(A) -128

(B) 28

(C) 96

(D) 136

## ANSWERS

1. 49
2. 144
3. 169
4. 9
5. 14
6. B



# 5-Minute Check

(over Lesson 11-2)

**Estimate each square root to the nearest whole number.**

1.  $\sqrt{137}$

2.  $\sqrt{209}$

3.  $\sqrt{59}$

**Use a calculator to find each square root to the nearest tenth.**

4.  $\sqrt{17}$

5.  $\sqrt{87}$

6. **Standardized Test Practice** Identify the number with the greatest value.

(A)  $(-2)^2$        (B)  $\frac{15}{4}$        (C)  $\sqrt{18}$        (D) 3.14

## ANSWERS

1. 12

2. 14

3. 8

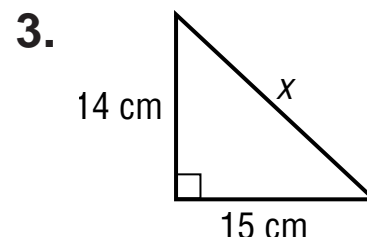
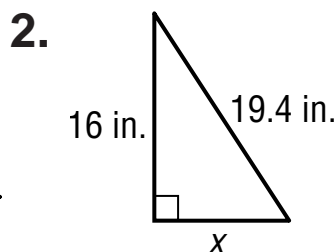
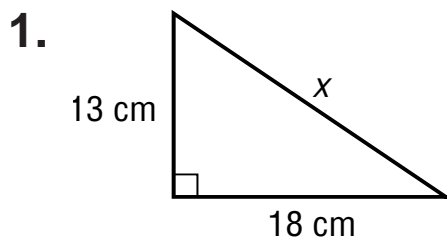
4. 4.1

5. 9.3

6. C

# 5-Minute Check (over Lesson 11-3)

Find the missing measure of each right triangle. Round to the nearest tenth if necessary.

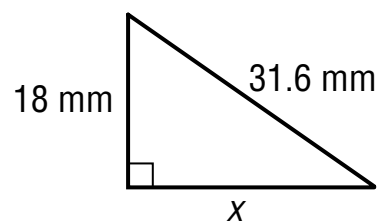


Determine whether a triangle with the given side lengths is a right triangle. Write *yes* or *no*.

4. 7 m, 10 m, 13.6 m

5. 8 ft, 15 ft, 17 ft

6. **Standardized Test Practice** Find the missing measure of the right triangle.



(A) 22 mm

(B) 24.4 mm

(C) 26 mm

(D) 30 mm

## ANSWERS

1. 22.2 cm

2. 11 in.

3. 20.5 cm

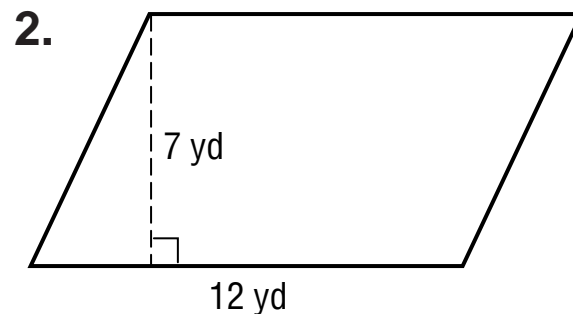
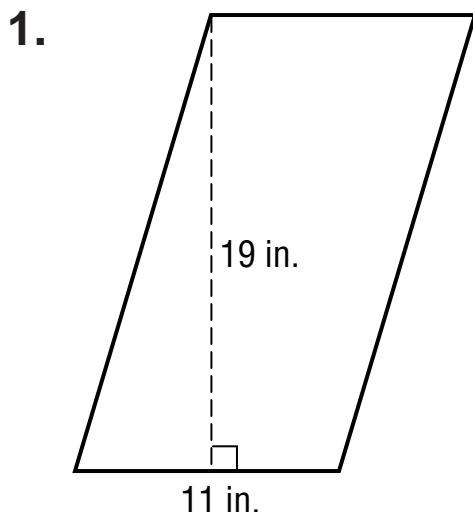
4. no

5. yes

6. C

# 5-Minute Check (over Lesson 11-4)

Find the area of each parallelogram. Round to the nearest tenth if necessary.



3. Determine whether the following statement is *true* or *false*. The height of a parallelogram is the distance from the base to the opposite side.
4. **Standardized Test Practice** What is the height of a parallelogram if the base is 24 centimeters and the area is 744 square centimeters?

(A) 28 cm

(B) 32 cm

(C) 31 cm

(D) 30.5 cm

## ANSWERS

1.  $99 \text{ in}^2$

2.  $84 \text{ yd}^2$

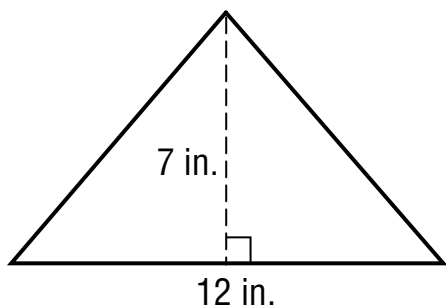
3. true

4. C

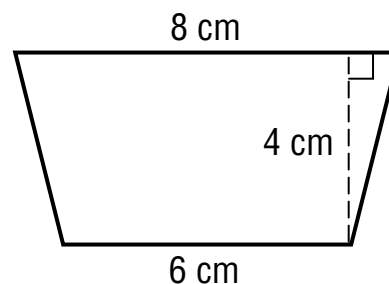
# 5-Minute Check (over Lesson 11-5)

Find the area of each figure. Round to the nearest tenth if necessary.

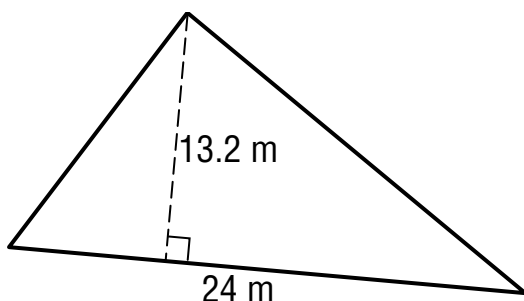
1.



2.



3.



4. triangle:

base = 15.75 yd

height = 10.25 yd

5. Bell has a triangular garden with a base of 20 feet and a height of 15 feet. Find the area of Bell's garden.

6. **Standardized Test Practice** A trapezoid has bases of 14.7 meters and 12.2 meters, and a height of 9 meters. What is the area of the trapezoid to the nearest tenth?

(A)  $132.3 \text{ m}^2$

(B)  $121.1 \text{ m}^2$

(C)  $144.6 \text{ m}^2$

(D)  $155.8 \text{ m}^2$

## ANSWERS

1.  $42 \text{ in}^2$

2.  $28 \text{ cm}^2$

3.  $158.4 \text{ m}^2$

4.  $80.7 \text{ yd}^2$

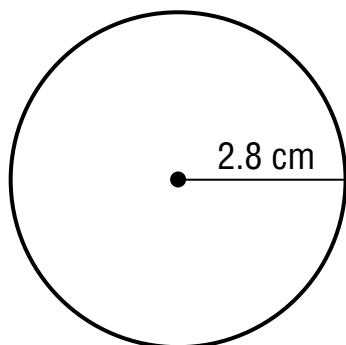
5.  $150 \text{ ft}^2$

6. B

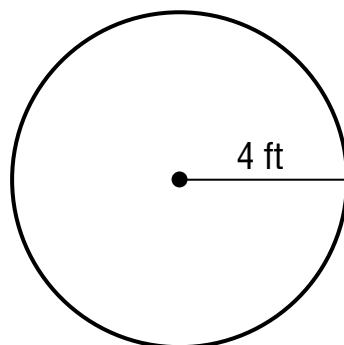
# 5-Minute Check (over Lesson 11-6)

Find the area of each circle. Round to the nearest tenth.

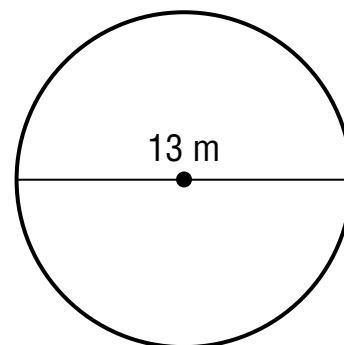
1.



2.

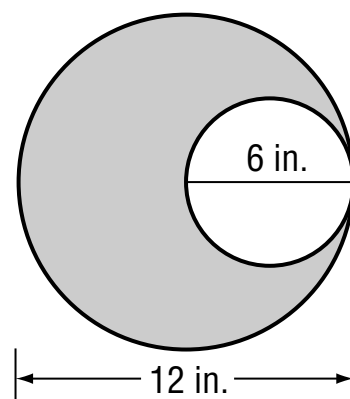


3.



4. diameter =  $17\frac{3}{4}$  yd

5. Find the area of the shaded region in the figure at the right. Round to the nearest tenth.



6. **Standardized Test Practice** What is the radius of a circle that has an area of 154 square millimeters?

(A) 49 mm

(B) 25 mm

(C) 8 mm

(D) 7 mm

## ANSWERS

1.  $24.6 \text{ cm}^2$

2.  $50.3 \text{ ft}^2$

3.  $132.7 \text{ m}^2$

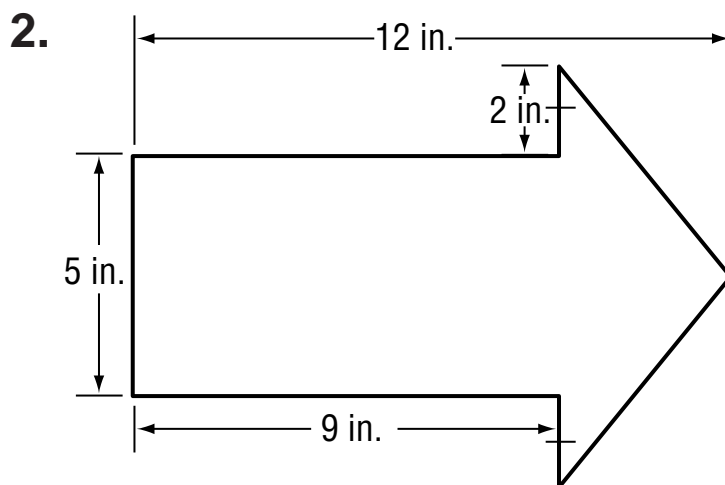
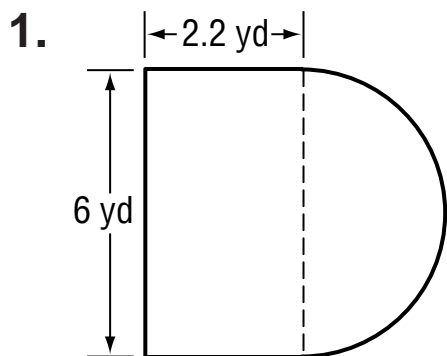
4.  $247.4 \text{ yd}^2$

5.  $84.8 \text{ in}^2$

6. D

# 5-Minute Check (over Lesson 11-7)

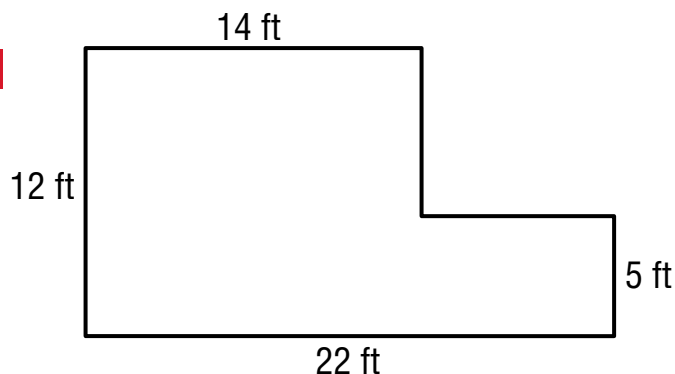
Find the area of each figure. Round to the nearest tenth if necessary.



3. India wants to carpet her bedroom and closet. If her bedroom is 10.5 feet by 11 feet and her closet is 4.5 feet by 3 feet, how much area does she need to carpet?

4. **Standardized Test Practice**

Find the area of the figure at the right.



## ANSWERS

1.  $27.3 \text{ yd}^2$

3.  $129 \text{ ft}^2$

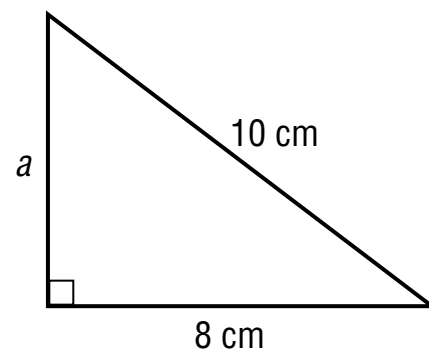
2.  $58.5 \text{ in}^2$

4.  $208 \text{ ft}^2$

# 5-Minute Check (over Chapter 11)

## Solve.

- Find  $\sqrt{81}$ .
- Find the missing length in the right triangle. Round to the nearest tenth if necessary.



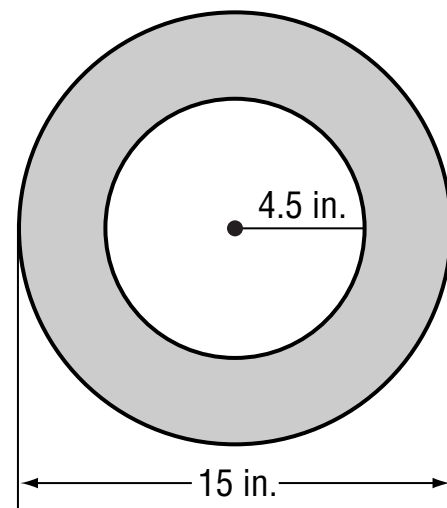
## Find the area of each figure. Round to the nearest tenth if necessary.

- a parallelogram with a base of 20 cm and a height of 15.5 cm
- a circle with a diameter of 18 inches
- 

## 6. **Standardized Test Practice**

Suppose a dart is equally likely to hit any point inside the larger circle shown at the right. Find the probability that a dart will hit the shaded area.

- |         |         |
|---------|---------|
| (A) 36% | (B) 40% |
| (C) 60% | (D) 64% |

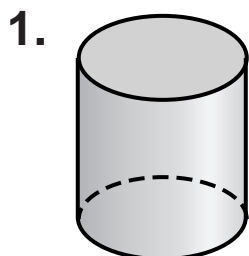


## ANSWERS

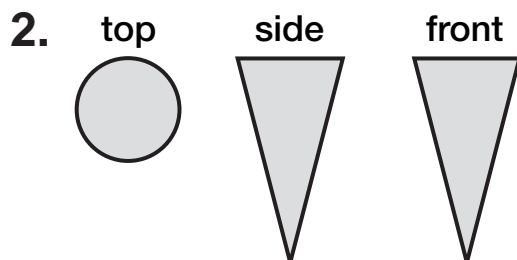
- |                         |                        |                       |
|-------------------------|------------------------|-----------------------|
| 1. 9                    | 2. 6 cm                | 3. $310 \text{ cm}^2$ |
| 4. $254.5 \text{ in}^2$ | 5. $42.8 \text{ yd}^2$ | 6. D                  |

# 5-Minute Check (over Lesson 12-1)

**Draw a top, a side, and a front view of the solid.**



**Draw the solid using the top, side, and front views shown. Use isometric dot paper.**



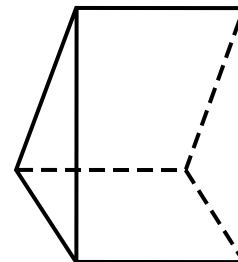
3. **Standardized Test Practice** What is the side view of the figure at the right?

A rectangle

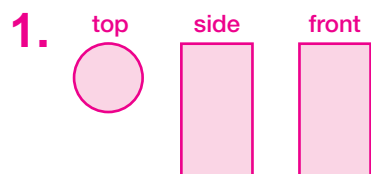
B square

C triangle

D parallelogram



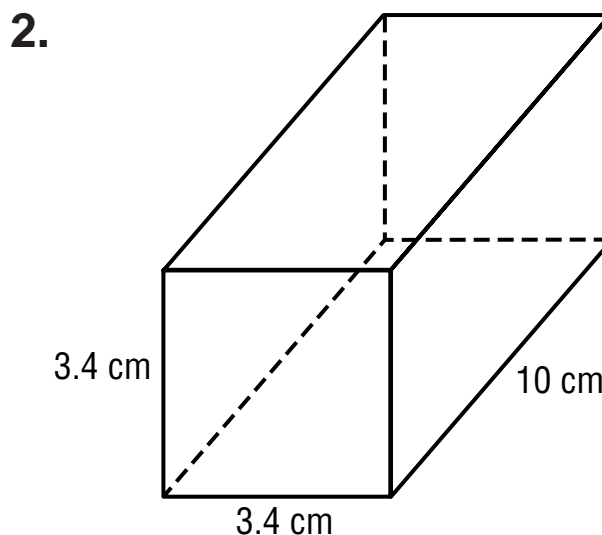
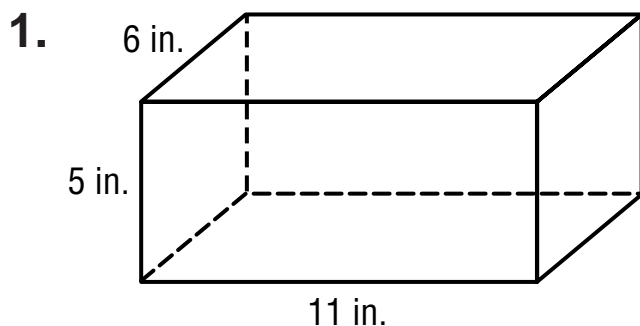
## ANSWERS



3. C

# 5-Minute Check (over Lesson 12-2)

**Find the volume of each rectangular prism.  
Round to the nearest tenth if necessary.**



**Solve.**

3. A cube has 6-inch edges. Find its volume.
4. Kieran's greenhouse is 25 feet long, 13 feet wide, and 14 feet high. She needs to know how many humidifiers to buy for the greenhouse. If each humidifier serves  $1,000 \text{ ft}^3$ , how many humidifiers should she buy?
5. **Standardized Test Practice** What is the volume of a closet that is 6 feet wide, 4 feet deep, and 10 feet tall?
- (A)  $24 \text{ ft}^3$     (B)  $60 \text{ ft}^3$     (C)  $154 \text{ ft}^3$     (D)  $240 \text{ ft}^3$

## ANSWERS

1.  $330 \text{ in}^3$

2.  $115.6 \text{ cm}^3$

3.  $216 \text{ in}^3$

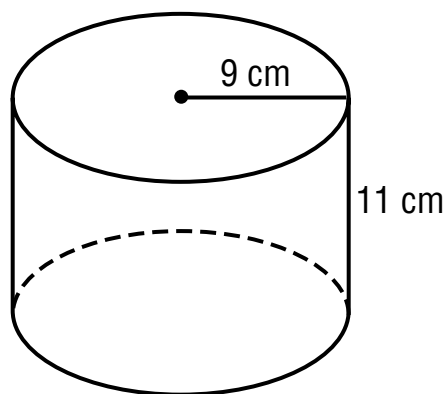
4. 5

5. D

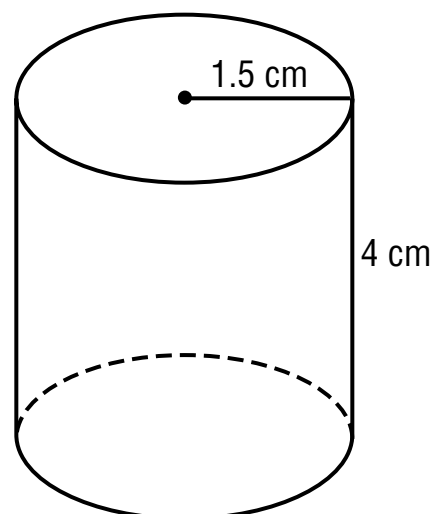
# 5-Minute Check (over Lesson 12-3)

Find the volume of each cylinder. Round to the nearest tenth.

1.



2.



3. a bucket with a radius of 5.5 inches and a height of 12 inches

4. a can of peas with a diameter of 6 inches and a height of 5 inches

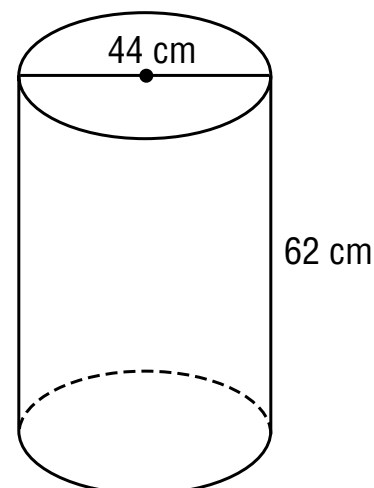
5. **Standardized Test Practice** Which is the best approximation for the volume of the fish tank shown at the right?

(A) 4,300 cm<sup>3</sup>

(B) 8,600 cm<sup>3</sup>

(C) 94,300 cm<sup>3</sup>

(D) 120,000 cm<sup>3</sup>



## ANSWERS

1. 2,799.2 cm<sup>3</sup>

2. 28.3 cm<sup>3</sup>

3. 1,140.4 in<sup>3</sup>

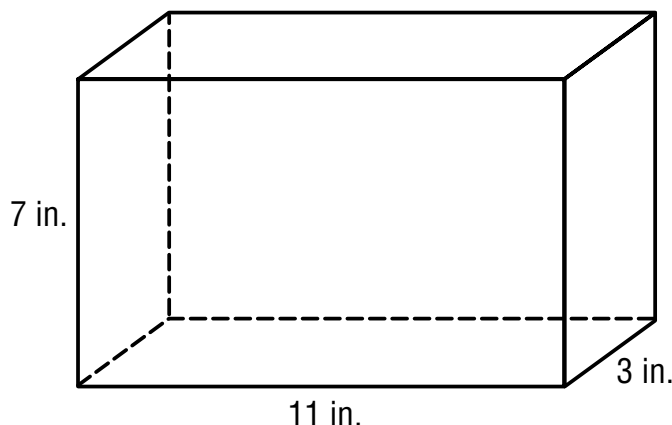
4. 141.4 in<sup>3</sup>

5. C

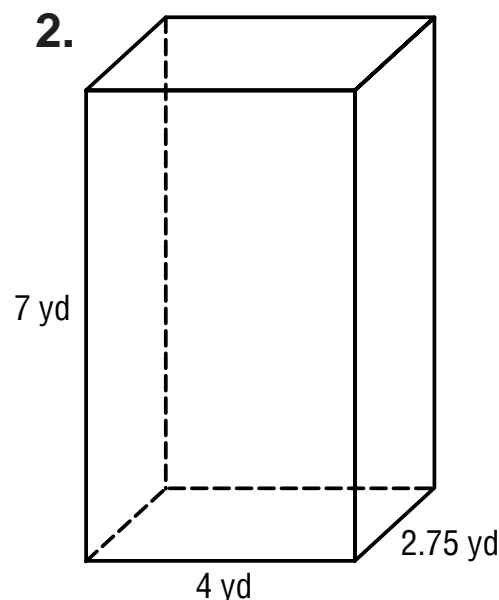
# 5-Minute Check (over Lesson 12-4)

Find the surface area of each rectangular prism. Round to the nearest tenth if necessary.

1.



2.



3. Find the surface area of a rectangular prism that has a length of 8 centimeters, a width of 6 centimeters, and a height of 8 centimeters.
4. **Standardized Test Practice** If the surface area of one face of a cube is  $49 \text{ cm}^2$ , what is the total surface area?

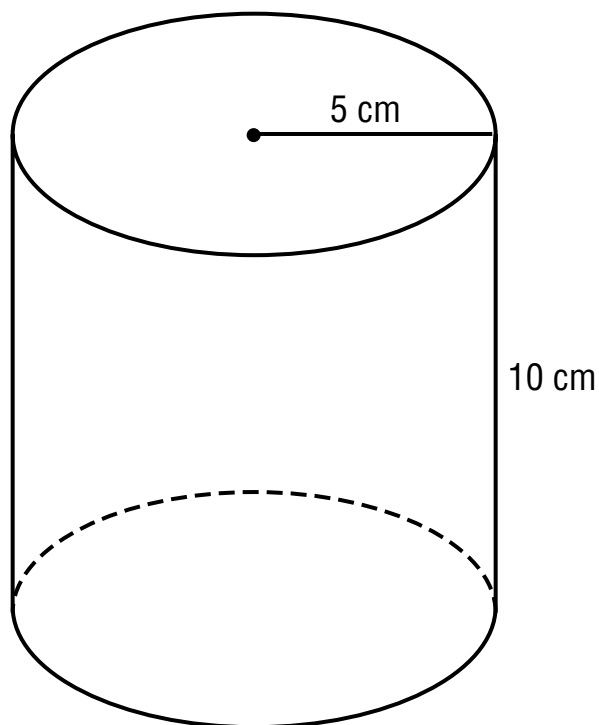
## ANSWERS

1.  $262 \text{ in}^2$   
2.  $116.5 \text{ yd}^2$   
3.  $320 \text{ cm}^2$   
4.  $294 \text{ cm}^2$

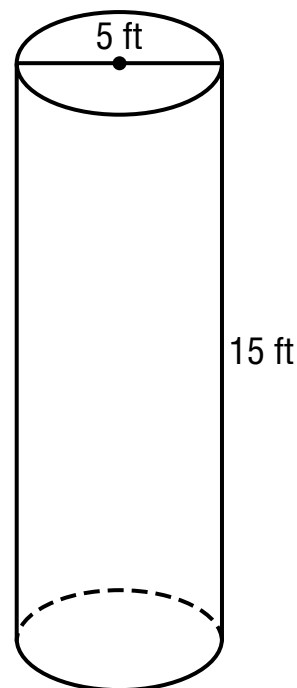
# 5-Minute Check (over Lesson 12-5)

Find the surface area of each cylinder. Round to the nearest tenth.

1.



2.



3. The height of a soup can is 6 inches and has a 2-inch radius. What is the surface area of the soup can?

4. **Standardized Test Practice** What is the surface area of a cylindrical water tank with a diameter of  $2\frac{1}{2}$  m and a height of  $4\frac{1}{2}$  m, rounded to the nearest tenth?

(A)  $43.2 \text{ m}^2$

(A)  $45.2 \text{ m}^2$

(C)  $86.4 \text{ m}^2$

(D)  $110.0 \text{ m}^2$

## ANSWERS

1.  $471.2 \text{ cm}^2$

2.  $274.9 \text{ ft}^2$

3.  $100.5 \text{ in}^2$

4. B