

## Chapter 1, Assessment 1

Solve.

$$\begin{array}{r} 1. \quad 39,083 \\ + 86,140 \\ \hline 125,223 \end{array}$$

$$\begin{array}{r} 2. \quad 499,516 \\ + 572,895 \\ \hline 1,072,411 \end{array}$$

$$\begin{array}{r} 3. \quad 1,483 \\ 5,946 \\ + 3,197 \\ \hline 10,626 \end{array}$$

$$\begin{array}{r} 4. \quad 38,700 \\ - 19,750 \\ \hline 18,950 \end{array}$$

$$\begin{array}{r} 5. \quad 401,387 \\ - 155,208 \\ \hline 246,179 \end{array}$$

$$\begin{array}{r} 6. \quad 800,000 \\ - 124,501 \\ \hline 675,499 \end{array}$$

Write the answer using **7,103,698,425**.

7. In which place is the 7? the Billions place

8. What digit is in the Ten Thousands place? 9

9. Write the value of 6 in *word form*.

six hundred thousand

10. Write the value of the Millions Period in *standard form*. 103,000,000

11. Round the number to the nearest one million.

7,104,000,000

12. Write the number in *expanded form*.

7,000,000,000 + 100,000,000 + 3,000,000 +  
600,000 + 90,000 + 8,000 + 400 + 20 + 5

Solve.

13. Round each number to the greatest place to find the estimate for  $814,399 - 163,957$ .

800,000 - 200,000 = 600,000

14. Estimate the sum of 64,983 and 29,456 using front-end estimation.

64,000 + 29,000 = 93,000

15. The students collected 918 pounds of canned meat, 1,005 pounds of canned fruit, and 1,570 pounds of canned vegetables for the local emergency shelter. How many pounds of food were collected?

918 + 1,005 + 1,570 = 3,493 pounds

## Chapter 1, Assessment 2

Solve.

$$\begin{array}{r} 1. \quad 170.06 \\ + 49.8 \\ \hline 219.86 \end{array}$$

$$\begin{array}{r} 2. \quad \$39.95 \\ + \$16.90 \\ \hline \$56.85 \end{array}$$

$$\begin{array}{r} 3. \quad \$50.00 \\ - \$17.84 \\ \hline \$32.16 \end{array}$$

$$\begin{array}{r} 4. \quad 6.935 \\ - 0.844 \\ \hline 6.091 \end{array}$$

Match.

D 5. 3.009

A 6. 3.096

B 7. 3.906

C 8. 3.96

A. three and ninety-six thousandths

B.  $(3 \times 1) + (9 \times 0.1) + (6 \times 0.001)$

C. 6 in the Hundredths place

D. the number with the least value

Complete the comparison sentence using  $>$ ,  $<$ , or  $=$ .

9.  $10.48 > 10.411$

10.  $\frac{3}{10} = 0.3$

11.  $-10 < 0$

12.  $43,899 < 43,900$

Write the numbers from *least to greatest*.

13. 

432,768	432,786	432,867	432,678
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432,678   432,768   432,786   432,867

14. 

19.015	19.105	19.1	19.051
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19.015   19.051   19.1   19.105

Solve.

15. Complete the part-whole model using 12.8 and 24.12. Write an equation to find the value of  $n$ .

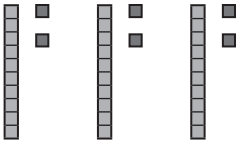
$12.8 + 24.12 = 36.92$

$n$	
12.8	24.12

## Chapter 2, Assessment 1

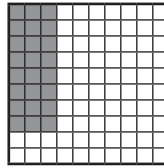
Write a multiplication equation for the picture. Solve.

1.



$$3 \times 12 = 36$$

2.



$$8 \times 3 = 24$$

3.

$n$					
7	7	7	7	7	7

$$6 \times 7 = 42$$

Solve.

4.  $9 \times 6 = \underline{54}$

5.  $3^2 \times 8 = \underline{72}$

6.  $12 \times 5 = \underline{60}$

Write the factor pairs for the composite number.

7. 24:  $1 \times 24; 2 \times 12; 3 \times 8; 4 \times 6$

8. 36:  $1 \times 36; 2 \times 18; 3 \times 12; 4 \times 9; 6 \times 6$

Match the multiplication property to the equation.

B 9.  $12 \times a = a \times 12$

C 10.  $65 \times 20 = (60 \times 20) + (5 \times 20)$

E 11.  $17 \times b = 0$

A 12.  $(7 \times 5) \times 12 = 7 \times (5 \times 12)$

D 13.  $49 \times c = 49$

- A. Associative Property
- B. Commutative Property
- C. Distributive Property
- D. Identity Property
- E. Zero Property

Use the Distributive Property to solve. *Steps may vary.*

14.  $60 \times 85$

$$\begin{aligned} &60 \times (80 + 5) = \\ &(60 \times 80) + (60 \times 5) = \\ &4,800 + 300 = 5,100 \end{aligned}$$

15.  $14 \times 900$

$$\begin{aligned} &(10 + 4) \times 900 = \\ &(10 \times 900) + (4 \times 900) = \\ &9,000 + 3,600 = 12,600 \end{aligned}$$

16.  $30 \times 297$

$$\begin{aligned} &30 \times (200 + 90 + 7) = \\ &(30 \times 200) + (30 \times 90) + (30 \times 7) = \\ &6,000 + 2,700 + 210 = 8,910 \end{aligned}$$

## Chapter 2, Assessment 2

Write the numbers that match the description.  
Each number is used only once.

- |                                     |           |            |
|-------------------------------------|-----------|------------|
| 1. numbers that are prime           | <u>61</u> | <u>79</u>  |
| 2. numbers that are multiples of 12 | <u>48</u> | <u>120</u> |
| 3. numbers that have a factor of 9  | <u>18</u> | <u>63</u>  |
| 4. numbers that are perfect squares | <u>25</u> | <u>100</u> |

18	25	48	61
63	79	100	120

Solve.

$$\begin{array}{r} 5. \quad 7,903 \\ \times \quad 6 \\ \hline 47,418 \end{array}$$

$$\begin{array}{r} 6. \quad \$18.42 \\ \times \quad 4 \\ \hline \$73.68 \end{array}$$

$$\begin{array}{r} 7. \quad 641 \\ \times \quad 29 \\ \hline 5769 \\ + 12820 \\ \hline 18,589 \end{array}$$

$$\begin{array}{r} 8. \quad 718 \\ \times 306 \\ \hline 4308 \\ + 215400 \\ \hline 219,708 \end{array}$$

Use mental math to solve.

$$9. \quad 57 \times 100 = \underline{5,700}$$

$$10. \quad 0.851 \times 10 = \underline{8.51}$$

$$11. \quad 1.309 \times 10^2 = \underline{130.9}$$

Solve.

12. Round each factor to the greatest place to estimate the product of  $33 \times 4,861$ .

$$\underline{30 \times 5,000 = 150,000}$$

13. Use front-end estimation to estimate the product of  $8 \times 17,395$ .

$$\underline{8 \times 17,000 = 136,000}$$

14. Jeremy biked the Swamp Rabbit Tram Trail 3 times this week. If the trail is 13.55 miles long, how many miles did Jeremy bike?

$$\underline{3 \times 13.55 = 40.65 \text{ miles}}$$

15. Braden bought 4 gallons of gas for the lawn mower. How much did he spend if gas costs \$2.84 per gallon?

$$\underline{4 \times \$2.84 = \$11.36}$$

## Chapter 3, Assessment 1

Circle the divisors that the given number is divisible by.

1. 240 is divisible by \_\_\_\_.

4	5	6	10
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2. 1,172 is divisible by \_\_\_\_.

2	3	4	6
---	---	---	---

3. 10,755 is divisible by \_\_\_\_.

2	3	5	10
---	---	---	----

Find the quotient.

$$\begin{array}{r} 2,056 \text{ r}6 \\ 7 \overline{)14,398} \\ \underline{-14} \phantom{00} \\ 039 \phantom{00} \\ \underline{-35} \phantom{00} \\ 48 \phantom{00} \\ \underline{-42} \phantom{00} \\ 6 \end{array}$$

$$\begin{array}{r} 26 \text{ r}20 \\ 21 \overline{)566} \\ \underline{-42} \phantom{00} \\ 146 \phantom{00} \\ \underline{-126} \phantom{00} \\ 20 \end{array}$$

$$\begin{array}{r} 203 \\ 43 \overline{)8,729} \\ \underline{-86} \phantom{00} \\ 129 \phantom{00} \\ \underline{-129} \phantom{00} \\ 0 \end{array}$$

Solve.

7. Each passenger van can hold 15 passengers. How many vans are needed to transport 173 rescue workers for a training exercise?

$$173 \div 15 = 11 \text{ r}8; 12 \text{ vans are needed.}$$

8. The rescue training site is 360 miles away. How many hours will the trip take if the driver's average speed is 60 miles per hour?

$$360 \div 60 = 6 \text{ hours}$$

9. Use the part-whole model to write a division equation in which the quotient indicates the number in each set.

$$240 \div 4 = 60$$

240			
60	60	60	60

10. Use mental math to solve  $48,000 \div 600$ . 80

11. The divisor is 40.

The dividend is 3,520.

The quotient is 88.

12. Circle the estimate range for  $1,658 \div 3$ .

a. 400–500

b. 500–600

c. 600–700

13. Circle the best estimate for  $42,689 \div 68$ .

a. 600

b. 700

c. 7,000

14. Use multiplication and addition to show that  $148 \div 13 = 11 \text{ r}5$  is correct.

$$\begin{array}{r} 13 \\ \times 11 \\ \hline 13 \\ + 130 \\ \hline 143 \\ + 5 \\ \hline 148 \end{array}$$

## Chapter 3, Assessment 2

Solve. Annex zeros as needed to find a decimal quotient.

$$\begin{array}{r} 2.45 \\ 4 \overline{)9.80} \\ \underline{-8} \phantom{0} \\ 18 \phantom{0} \\ \underline{-16} \phantom{0} \\ 20 \phantom{0} \\ \underline{-20} \\ 0 \end{array}$$

$$\begin{array}{r} 0.75 \\ 8 \overline{)6.00} \\ \underline{-56} \phantom{0} \\ 40 \phantom{0} \\ \underline{-40} \\ 0 \end{array}$$

$$\begin{array}{r} 0.223 \\ 47 \overline{)10.481} \\ \underline{-94} \phantom{0} \\ 108 \phantom{0} \\ \underline{-94} \phantom{0} \\ 141 \phantom{0} \\ \underline{-141} \\ 0 \end{array}$$

Solve. Round to the nearest hundredth.

$$\begin{array}{r} 1.428 \approx 1.43 \\ 7 \overline{)10.000} \\ \underline{-7} \phantom{000} \\ 30 \phantom{00} \\ \underline{-28} \phantom{00} \\ 20 \phantom{00} \\ \underline{-14} \phantom{00} \\ 60 \phantom{00} \\ \underline{-56} \phantom{00} \\ 4 \end{array}$$

$$\begin{array}{r} 6.191 \approx 6.20 \text{ or } 6.2 \\ 51 \overline{)315.970} \\ \underline{-306} \phantom{00} \\ 99 \phantom{00} \\ \underline{-51} \phantom{00} \\ 487 \phantom{00} \\ \underline{-459} \phantom{00} \\ 280 \phantom{00} \\ \underline{-255} \phantom{00} \\ 25 \end{array}$$

$$\begin{array}{r} 1.157 \approx 1.16 \\ 39 \overline{)45.150} \\ \underline{-39} \phantom{00} \\ 61 \phantom{00} \\ \underline{-39} \phantom{00} \\ 225 \phantom{00} \\ \underline{-195} \phantom{00} \\ 300 \phantom{00} \\ \underline{-273} \phantom{00} \\ 27 \end{array}$$

Solve.

7. Circle the estimated quotient of  $788.6 \div 21$ .

4	40	400
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8. Circle the estimated range for  $329.49 \div 41$ .

4-5	6-7	8-9
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9. Write the equivalent decimal for  $\frac{3}{5}$ .

$$\begin{array}{r} 0.6 \\ 5 \overline{)3.0} \\ \underline{-30} \\ 0 \end{array}$$

$\frac{3}{5} = \frac{6}{10} = 0.6 \text{ or } 0.6$

10. Mom made 5 ham sandwiches for an after-school snack. If she divides them equally among her 4 children, how many sandwiches will each child eat? (Write the remainder as a fraction.)

$$5 \div 4 = 1 \frac{1}{4} \text{ sandwiches}$$

11. Use mental math to solve  $173.156 \div 10$ .

$$17.3156$$

Simplify.

12.  $140 \div (2 \times 3.5)$

$$140 \div 7 = 20$$

13.  $16.4 \div 2^2$

$$16.4 \div 4 = 4.1$$

14.  $12 + 30 \times 3$

$$12 + 90 = 102$$

# Chapter 4, Assessment 1

Write the answer.

1. List all factors of 24. 24: 1, 2, 3, 4, 6, 8, 12, 24

2. List all factors of 20. 20: 1, 2, 4, 5, 10, 20

3. What is the greatest common factor of 20 and 24? 4

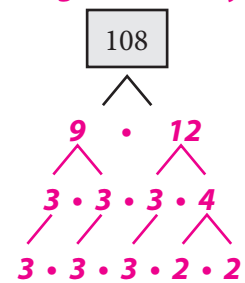
4. List the prime factors of 36 from *least* to *greatest*. 36 = 2 · 2 · 3 · 3

5. List the prime factors of 48 from *least* to *greatest*. 48 = 2 · 2 · 2 · 2 · 3

6. Write an equation using the prime factors to show the least common multiple of 36 and 48. 2 · 2 · 2 · 2 · 3 · 3 = 144

7. Make a factor tree for 108. Write the prime factorization using exponents.  
108 = 2<sup>2</sup> · 3<sup>3</sup>

*Beginning factors may vary.*



Match.

B 8.

E 9.

A 10.  $\frac{2}{16}$

D 11.  $1 + \frac{5}{8}$

C 12.

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

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

C.  $\frac{7}{8}$

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

E.  $1\frac{7}{8}$

Rename an improper fraction as a mixed number in lowest terms.  
Rename the mixed number as an improper fraction.

13.  $\frac{22}{4}$   $5\frac{2}{4} = 5\frac{1}{2}$

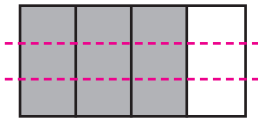
14.  $\frac{30}{7}$   $4\frac{2}{7}$

15.  $3\frac{2}{3}$   $\frac{11}{3}$

## Chapter 4, Assessment 2

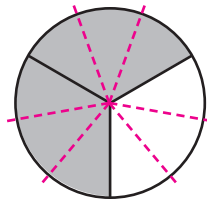
Repartition the figure to find the equivalent fraction in higher terms.  
Complete the equivalent fraction.

1.



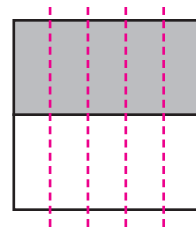
$$\frac{3}{4} = \frac{9}{12}$$

2.



$$\frac{2}{3} = \frac{6}{9}$$

3.



$$\frac{1}{2} = \frac{5}{10}$$

Write the fraction in lowest terms.

Show your work. *Steps to lowest terms may vary.*

4.  $\frac{4}{30} = \frac{2}{15}$

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

6.  $\frac{20}{12} = 1\frac{8}{12} = 1\frac{2}{3}$

Complete the comparison sentence using  $>$ ,  $<$ , or  $=$ .

7.  $\frac{16}{32} \text{ } \textcircled{<} \text{ } \frac{3}{4}$

8.  $\frac{7}{8} \text{ } \textcircled{>} \text{ } \frac{5}{6}$

9.  $5\frac{3}{8} \text{ } \textcircled{<} \text{ } \frac{25}{4}$

10.  $2\frac{10}{12} \text{ } \textcircled{=} \text{ } 2\frac{5}{6}$

11.  $\frac{3}{7} \text{ } \textcircled{<} \text{ } \frac{7}{9}$

12.  $1\frac{1}{2} \text{ } \textcircled{>} \text{ } \frac{11}{8}$

Solve.

13. List the fractions in order from *least* to *greatest*.

$1\frac{2}{3}$	$\frac{9}{6}$	$1\frac{7}{12}$
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$\frac{9}{6}$        $1\frac{7}{12}$        $1\frac{2}{3}$

14. Write the prime factorization of the numerator and the denominator. Use cancellation to rename the fraction to lowest terms.

$$\frac{60}{72} = \frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{3} \cdot 5}{\cancel{2} \cdot \cancel{2} \cdot 2 \cdot \cancel{3} \cdot 3} = \frac{5}{6}$$



## Chapter 5, Assessment 1

Estimate the sum or the difference by rounding to the nearest  $\frac{1}{2}$  or the nearest whole number.

$$1. \frac{5}{12} + 4\frac{7}{8}$$

$$\underline{\frac{1}{2} + 5 = 5\frac{1}{2}}$$

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

$$\underline{7 - 2 = 5 \text{ or}}$$

$$7 - 2\frac{1}{2} = 4\frac{1}{2}$$

$$3. 1\frac{5}{7} - \frac{3}{8}$$

$$\underline{2 - \frac{1}{2} = 1\frac{1}{2}}$$

Add or subtract. Rename when necessary.  
Write the answer in lowest terms.

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

$$+ \frac{7}{9}$$

$$\underline{\frac{12}{9} = 1\frac{3}{9} = 1\frac{1}{3}}$$

$$5. 1\frac{3}{4} = 1\frac{9}{12}$$

$$+ 2\frac{2}{3} = 2\frac{8}{12}$$

$$\underline{3\frac{17}{12} = 4\frac{5}{12}}$$

$$6. 21\frac{5}{9} = 21\frac{10}{18}$$

$$+ 2\frac{5}{6} = 2\frac{15}{18}$$

$$\underline{23\frac{25}{18} = 24\frac{7}{18}}$$

$$7. \frac{7}{18} = \frac{7}{18}$$

$$- \frac{2}{9} = \frac{4}{18}$$

$$\underline{\frac{3}{18} = \frac{1}{6}}$$

$$8. 2\frac{3}{5} = 2\frac{6}{10}$$

$$- 1\frac{1}{10} = 1\frac{1}{10}$$

$$\underline{1\frac{5}{10} = 1\frac{1}{2}}$$

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

$$- 1\frac{2}{7}$$

$$\underline{3\frac{5}{7}}$$

$$10. 12\frac{1}{3} = 12\frac{4}{12}$$

$$- 5\frac{1}{4} = 5\frac{3}{12}$$

$$\underline{7\frac{1}{12}}$$

$$11. 6\frac{1}{4} = 6\frac{3}{12}$$

$$- 3\frac{5}{12} = 3\frac{5}{12}$$

$$\underline{2\frac{10}{12} = 2\frac{5}{6}}$$

$$12. 1\frac{1}{2} = 1\frac{2}{4}$$

$$- \frac{3}{4} = \frac{3}{4}$$

$$\underline{\frac{3}{4}}$$

Solve.

13. Circle the fractions that could be rounded to  $\frac{1}{2}$ .

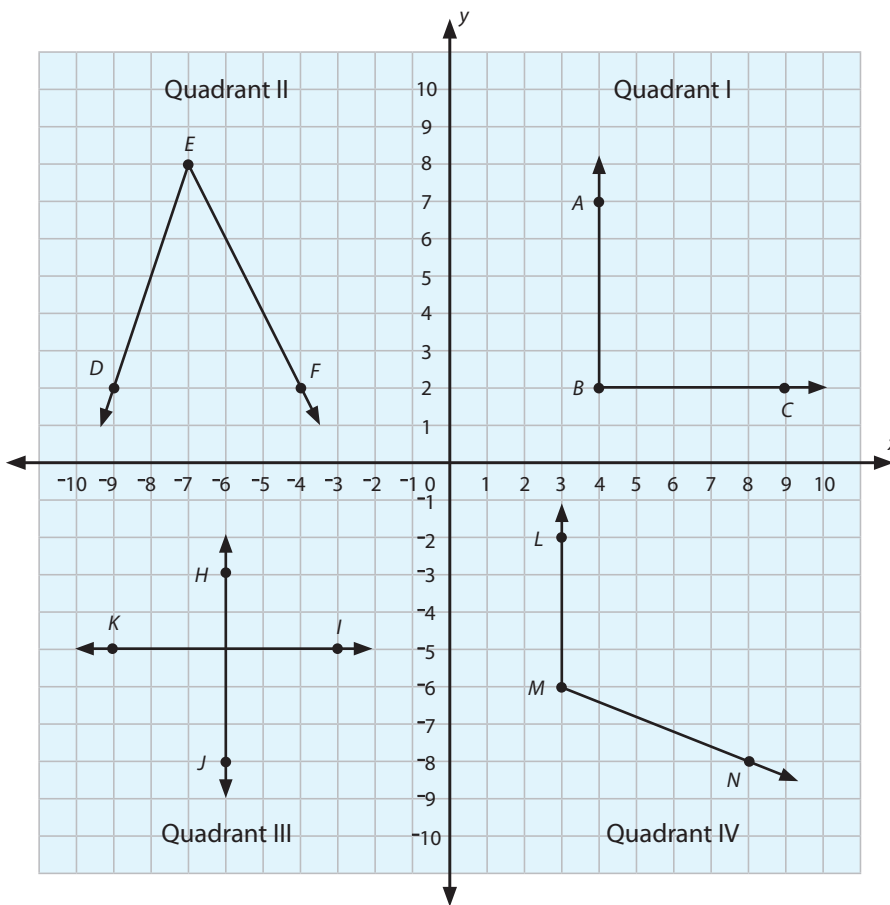
$\frac{5}{8}$	$\frac{3}{12}$	$\frac{6}{9}$	$\frac{10}{21}$	$\frac{7}{15}$
---------------	----------------	---------------	-----------------	----------------

14. Mom's fresh berry pie recipe calls for  $1\frac{1}{4}$  cups of strawberries,  $1\frac{3}{4}$  cups of raspberries, and  $1\frac{1}{2}$  cups of blueberries. How many cups of fresh berries are needed for her pie?

$$\underline{1\frac{1}{4} + 1\frac{3}{4} + 1\frac{1}{2} = 4\frac{1}{2} \text{ cups of berries}}$$

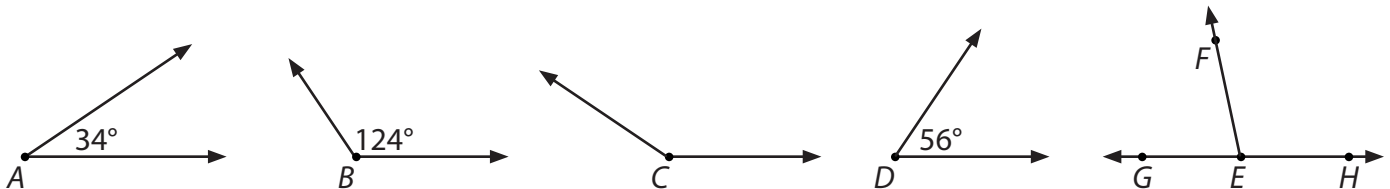
## Chapter 6, Assessment 1

Use the coordinate plane to find the answer.



- What type of angle is  $\angle ABC$ ?  
right angle
- What type of lines form the figure in Quadrant III? perpendicular lines
- The acute angle is in which quadrant?  
Quadrant II
- Which 2 rays form the obtuse angle?  
 $\overrightarrow{ML}$  and  $\overrightarrow{MN}$
- Write the point located at (3, -2).  
L
- Write the ordered pair for the vertex of the figure in Quadrant II. (-7, 8)
- Write the measure of  $\angle ABC$  without using a protractor.  $90^\circ$
- Use a protractor to measure the following angles.  
 $\angle DEF$   $45^\circ$        $\angle LMN$   $110^\circ$

Use the figures to find the answer. *Equations may vary.*

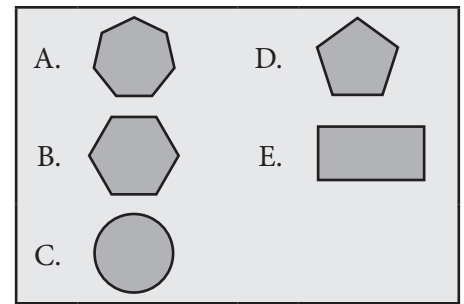


- $\angle A$  and  $\angle D$  are complementary angles.
- The sum of  $\angle A$  and  $\angle C$  is  $180^\circ$ . Write an equation to find the measure of  $\angle C$ .  
 $34^\circ + n = 180^\circ$   
 $n = 180^\circ - 34^\circ$   
 $n = 146^\circ$
- $\angle D$  and  $\angle B$  are supplementary angles.
- $\angle GEH$  is a straight angle. If  $\angle FEG$  is  $78^\circ$ , find the measure of  $\angle FEH$ . Label the measure of  $\angle FEH$  as acute or obtuse.  
 $78^\circ + n = 180^\circ$   
 $n = 180^\circ - 78^\circ$   
 $n = 102^\circ$ ; obtuse

## Chapter 6, Assessment 2

Match.

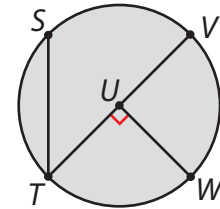
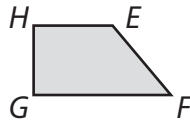
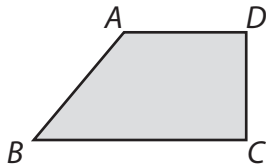
- C   1. not a polygon        E   4. irregular quadrilateral
- A   2. heptagon        B   5. six interior angles
- D   3. pentagon



Circle the answer that completes the statement.

6. An equilateral triangle has \_\_\_\_.
- A. no congruent sides  
B. 2 congruent sides  
C. 3 congruent sides
7. A scalene triangle has \_\_\_\_.
- A. no congruent sides  
B. 2 congruent sides  
C. 3 congruent sides
8. A quadrilateral with 4 congruent sides and 4 right angles is \_\_\_\_.
- A. a rectangle  
B. a trapezoid  
C. a square

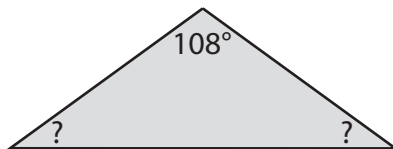
Use the figures to complete the statement.



9.  $\angle B \cong \angle$    F        10.  $\overline{CD} \sim \overline{GH}$       11.  $\angle TUW$  measures   90°  .
12. If  $\overline{UT} = 6.8$  cm, then  $\overline{VT} =$    13.6   cm.

Use the figure to find the answer.

13.

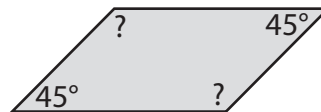


The unknown interior angles of the isosceles triangle are congruent. Find the measure of each angle.

$$180^\circ - 108^\circ = 72^\circ$$

$$72^\circ \div 2 = 36^\circ$$

14.

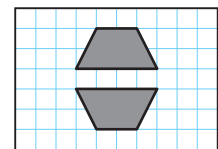


The unknown opposite angles of the parallelogram are congruent. Find the measure of each angle.

$$360^\circ - 90^\circ = 270^\circ$$

$$270^\circ \div 2 = 135^\circ$$

15.



Identify the type of transformation shown.

  reflection

# Chapter 7, Assessment 1

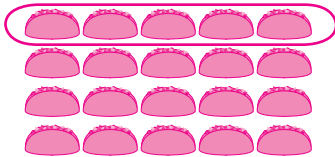
Solve.

1. Write an addition equation to solve  $7 \times \frac{3}{4}$ . Write the solution in lowest terms.

$$\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} = \frac{21}{4} = 5 \frac{1}{4}$$

2. Martin ate  $\frac{1}{4}$  of the 20 tacos that Mom had prepared for supper. How many tacos did Martin eat? Write the solution in lowest terms. Draw a picture of the solution.

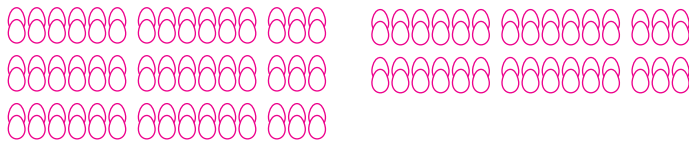
$$\frac{1}{4} \times 20 = \frac{20}{4} = 5 \text{ tacos}$$



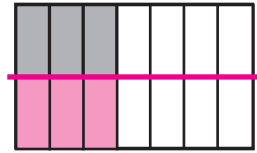
3. Gina sold  $2 \frac{1}{2}$  dozen eggs to each of 5 customers. How many dozen eggs did she sell? Write the answer in lowest terms. Draw a picture to show the solution.

$$5 \times 2 \frac{1}{2} =$$

$$5 \times \frac{5}{2} = \frac{25}{2} = 12 \frac{1}{2} \text{ dozen}$$



4. Complete the picture to show the product of  $\frac{1}{2} \times \frac{3}{7}$ .



$$\frac{1}{2} \times \frac{3}{7} = \frac{3}{14}$$

5. Use the Distributive Property to solve  $4 \times 6 \frac{2}{3}$ .

$$4 \times (6 + \frac{2}{3}) =$$

$$(4 \times 6) + (4 \times \frac{2}{3}) =$$

$$24 + \frac{8}{3} =$$

$$24 + 2 \frac{2}{3} = 26 \frac{2}{3}$$

6. Estimate the product of  $9.6 \times 14.09$ .

$$10 \times 14 = 140$$

7. Use mental math to solve  $25.1 \times 10^2$ .

$$25.1 \times 100 = 2,510$$

Multiply. Use cancellation if possible.  
Write the answer in lowest terms.

$$8. \frac{7}{8} \times \frac{2}{9} \frac{7}{36}$$

$$9. \frac{1}{12} \times \frac{1}{10} \frac{1}{8}$$

$$10. 7 \frac{4}{11} \times \frac{7}{15}$$

$$\frac{27}{11} \times \frac{7}{15} = \frac{189}{55} = 3 \frac{24}{55}$$

$$11. 1 \frac{1}{2} \times 3 \frac{2}{3}$$

$$\frac{3}{2} \times \frac{11}{3} = \frac{11}{2} = 5 \frac{1}{2}$$

Solve.

$$12. \begin{array}{r} 1.613 \\ \times 4 \\ \hline 6.452 \end{array}$$

$$13. \begin{array}{r} 4.172 \\ \times 19 \\ \hline 37548 \\ + 41720 \\ \hline 79.268 \end{array}$$

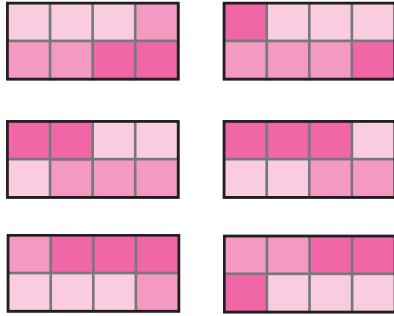
$$14. \begin{array}{r} 3.11 \\ \times 0.08 \\ \hline 0.2488 \end{array}$$

$$15. \begin{array}{r} 5.08 \\ \times 1.6 \\ \hline 3048 \\ + 5080 \\ \hline 8.128 \end{array}$$

## Chapter 8, Assessment 1

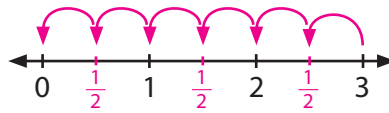
Complete the picture to solve.

1. How many sets of  $\frac{3}{8}$  are in 6?



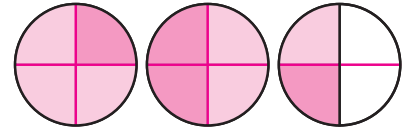
$$6 \div \frac{3}{8} = \underline{16}$$

2. How many sets of  $\frac{1}{2}$  are in 3?



$$3 \div \frac{1}{2} = \underline{6}$$

3. How many sets of  $\frac{3}{4}$  are in  $2\frac{1}{2}$ ?



$$2\frac{1}{2} \div \frac{3}{4} = \underline{3\frac{1}{3}}$$

Rename fractions using a common denominator.

Draw a picture or a number line if needed to help you solve.

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

$$\frac{2}{6} \div \frac{1}{6} = 2$$

5.  $\frac{3}{5} \div \frac{3}{10}$

$$\frac{6}{10} \div \frac{3}{10} = 2$$

6.  $\frac{1}{2} \div \frac{1}{8}$

$$\frac{4}{8} \div \frac{1}{8} = 4$$

Find the quotient by multiplying by the reciprocal.

Write the answer in lowest terms.

Rename mixed numbers as improper fractions.

7.  $\frac{3}{4} \div \frac{1}{3}$

$$\frac{3}{4} \times \frac{3}{1} = \frac{9}{4} = 2\frac{1}{4}$$

8.  $\frac{5}{7} \div \frac{1}{2}$

$$\frac{5}{7} \times \frac{2}{1} = \frac{10}{7} = 1\frac{3}{7}$$

9.  $\frac{3}{4} \div 2$

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

10.  $3 \div \frac{1}{4}$

$$3 \times \frac{4}{1} = 12$$

11.  $1\frac{7}{8} \div \frac{5}{12}$

$$\frac{15}{8} \times \frac{12}{5} = \frac{9}{2} = 4\frac{1}{2}$$

12.  $2\frac{1}{2} \div 1\frac{3}{8}$

$$\frac{5}{2} \times \frac{8}{11} = \frac{20}{11} = 1\frac{9}{11}$$

Solve.

13. Grandmother has  $6\frac{3}{4}$  cups of flour. Her cookie recipe calls for  $2\frac{1}{4}$  cups of flour. How many batches of cookies can she make?

$$6\frac{3}{4} \div 2\frac{1}{4} = \frac{27}{4} \times \frac{4}{9} = 3 \text{ batches}$$

14. Katrina spent  $1\frac{1}{2}$  hours training her puppy and cleaning her room. If she spent the same amount of time on each project, how long did she work with her puppy?

$$1\frac{1}{2} \div 2 = \frac{3}{2} \times \frac{1}{2} = \frac{3}{4} \text{ of an hour}$$

## Chapter 9, Assessment 1

Solve. Annex zeros as needed.

$$\begin{array}{r} 0.8 \\ 5 \overline{)4.0} \\ -40 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 4.075 \\ 4 \overline{)16.300} \\ -16 \\ \hline 030 \\ -28 \\ \hline 20 \\ -20 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 3.3 \\ 12 \overline{)39.6} \\ -36 \\ \hline 36 \\ -36 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 0.671 \\ 32 \overline{)21.472} \\ -192 \\ \hline 227 \\ -224 \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 0.635 \\ 44 \overline{)27.940} \\ -264 \\ \hline 154 \\ -132 \\ \hline 220 \\ -220 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 0.841 \\ 8 \overline{)6.728} \\ -64 \\ \hline 32 \\ -32 \\ \hline 08 \\ -8 \\ \hline 0 \end{array}$$

Solve. Mark the repeating digits with a bar (—).

$$\begin{array}{r} 0.\overline{81} \\ 11 \overline{)9.000} \\ -88 \\ \hline 20 \\ -11 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 2.\overline{5} \\ 18 \overline{)46.00} \\ -36 \\ \hline 100 \\ -90 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 0.\overline{83} \\ 24 \overline{)20.000} \\ -192 \\ \hline 80 \\ -72 \\ \hline 80 \end{array}$$

Solve.

10. Use mental math to find the quotient of  $389.61 \div 10$ .

38.961

11. Round the dividend to the greatest place. Circle the best estimate.

$19.76 \div 8$	<u>2</u>	4	6
$49.98 \div 12$	3	<u>4</u>	5
$568.75 \div 20$	10	20	<u>30</u>

12. Mr. Kappel ordered 15 new trees to plant for Arbor Day. The order totaled \$138.96. What is the average cost of each tree? (Round to the nearest cent.)

\$138.96 \div 15 \approx \\$9.26

13. Solve  $15.08 \div 2$ . Check the solution using multiplication.

$$\begin{array}{r} 7.54 \\ 2 \overline{)15.08} \\ -14 \\ \hline 10 \\ -10 \\ \hline 08 \\ -8 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 7.54 \\ \times 2 \\ \hline 15.08 \end{array}$$

## Chapter 9, Assessment 2

Solve. Mark the repeating digits with a bar (—).

$$\begin{array}{r} 2.628 \\ 2.5 \overline{) 6.5700} \\ \underline{\phantom{0}50} \phantom{00} \\ 157 \phantom{00} \\ \underline{\phantom{0}150} \phantom{00} \\ 70 \phantom{00} \\ \underline{\phantom{0}50} \phantom{00} \\ 200 \phantom{00} \\ \underline{\phantom{0}200} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 57.\overline{7} \\ 0.09 \overline{) 5.2000} \\ \underline{\phantom{0}45} \phantom{000} \\ 70 \phantom{00} \\ \underline{\phantom{0}63} \phantom{00} \\ 70 \phantom{00} \\ \underline{\phantom{0}63} \phantom{00} \\ 70 \end{array}$$

$$\begin{array}{r} 195.5 \\ 0.2 \overline{) 39.10} \\ \underline{\phantom{0}2} \phantom{00} \\ 19 \phantom{00} \\ \underline{\phantom{0}18} \phantom{00} \\ 11 \phantom{00} \\ \underline{\phantom{0}10} \phantom{00} \\ 10 \phantom{00} \\ \underline{\phantom{0}10} \phantom{00} \\ 0 \end{array}$$

Divide. Write the fraction as a decimal.

Mark the repeating digits with a bar (—).

Round the non-repeating decimal quotient to the nearest thousandth.

$$4. \frac{5}{12} = \underline{0.41\overline{6}}$$

$$5. \frac{7}{16} = \underline{0.4385}$$

$$6. \frac{3}{8} = \underline{0.375}$$

$$7. \frac{1}{5} = \underline{0.2}$$

$$8. \frac{2}{3} = \underline{0.\overline{6}}$$

$$9. \frac{9}{14} \approx \underline{0.643}$$

Complete the comparison sentence using  $>$  or  $<$ .

$$10. \frac{3}{20} \text{ } \textcircled{<} \text{ } 0.2$$

$$11. 0.\overline{6} \text{ } \textcircled{>} \text{ } \frac{60}{100}$$

$$12. \frac{1}{2} \text{ } \textcircled{>} \text{ } \frac{11}{100}$$

$$13. \frac{1}{8} \text{ } \textcircled{<} \text{ } 0.1\overline{6}$$

Solve.

14. Hudson spent \$15.00 on finishing nails for the bookshelf he built. If each nail cost \$0.12, how many nails did he purchase?

$$\underline{\$15.00 \div \$0.12 = 125 \text{ nails}}$$

$$\begin{array}{r} 125 \\ \$0.12 \overline{) \$15.00} \\ \underline{\phantom{0}12} \phantom{00} \\ 30 \phantom{00} \\ \underline{\phantom{0}24} \phantom{00} \\ 60 \phantom{00} \\ \underline{\phantom{0}60} \phantom{00} \\ 0 \end{array}$$

15. Maribeth has 131 ounces of sandwich meat. How many sandwiches can she make if she puts 2.5 ounces of meat on each sandwich?

$$\underline{131 \div 2.5 = 52.4; 52 \text{ sandwiches}}$$

$$\begin{array}{r} 52.4 \\ 2.5 \overline{) 131.00} \\ \underline{\phantom{0}125} \phantom{00} \\ 60 \phantom{00} \\ \underline{\phantom{0}50} \phantom{00} \\ 100 \phantom{00} \\ \underline{\phantom{0}100} \phantom{00} \\ 0 \end{array}$$

## Chapter 10, Assessment 1

Evaluate the expression. Let  $n = 3$ .

1.  $45 - 5n =$

$$45 - (5 \cdot 3) =$$

$$45 - 15 = 30$$

2.  $(n + 6.8) \cdot 10 =$

$$(3 + 6.8) \cdot 10 =$$

$$9.8 \cdot 10 = 98$$

3.  $(25 - n) \div 11 =$

$$(25 - 3) \div 11 =$$

$$22 \div 11 = 2$$

4.  $n^2 + 6 =$

$$3 \cdot 3 + 6 =$$

$$9 + 6 = 15$$

5.  $n(5 + 8) =$

$$3(5 + 8) =$$

$$3(13) = 39$$

6.  $(21 \div n) \cdot 7 =$

$$(21 \div 3) \cdot 7 =$$

$$7 \cdot 7 = 49$$

Simplify the expression.

7.  $n + n + n + 6$

$$3n + 6$$

8.  $3y + y$

$$4y$$

9.  $6x + 7 + 3x$

$$9x + 7$$

Solve.

10. Write an algebraic expression to show that 4 roses were added to a vase of flowers.

$$v + 4$$

11. Write an equation to show a number decreased by 100 is 107.

$$n - 100 = 107$$

12. What inverse operation would be used to solve the equation  $3y = 48$ ? Solve the equation.

division

$$\frac{3y}{3} = \frac{48}{3}$$

$$y = 16$$

13. If  $y < -4$ , can  $y = 7$ ? Explain your answer.

No, 7 is greater than -4.

14. Draw a number line to illustrate  $x > -2$ .



15. Simplify  $2(9 + b)$  using the Distributive Property.

$$(2 \cdot 9) + (2 \cdot b) =$$

$$18 + 2b$$



# Chapter 11, Assessment 1

Write the term for the definition.

1. Perimeter is the distance around a figure.

2. Area is the space within a figure that is measured in square units.

3. Circumference is the distance around a circle.

Area    Circumference    Perimeter

Match.

B 4. area of a rectangle

A 6. circumference

D 5. area of a parallelogram

C 7. perimeter

A.  $2\pi r$     C.  $(2 \cdot l) + (2 \cdot w)$

B.  $l \cdot w$     D.  $b \cdot h$

Find the perimeter or the circumference of the figure.

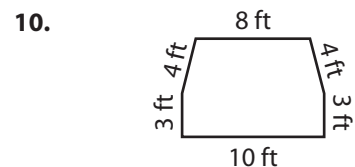
Use 3.14 for  $\pi$ . **Equations may vary.**



$$\begin{aligned} P &= (2 \cdot l) + (2 \cdot w) \\ P &= (2 \cdot 12 \text{ mm}) + (2 \cdot 4.5 \text{ mm}) \\ P &= 24 \text{ mm} + 9 \text{ mm} \\ P &= 33 \text{ mm} \end{aligned}$$

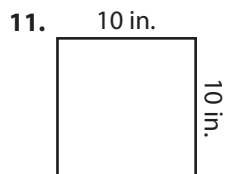


$$\begin{aligned} C &= \pi d \\ C &= 3.14 \cdot 6 \text{ cm} \\ C &= 18.84 \text{ cm} \end{aligned}$$

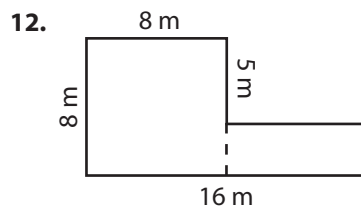


$$\begin{aligned} P &= s + s + s + s + s + s \\ P &= 8 \text{ ft} + (2 \cdot 4 \text{ ft}) + (2 \cdot 3 \text{ ft}) + 10 \text{ ft} \\ P &= 8 \text{ ft} + 8 \text{ ft} + 6 \text{ ft} + 10 \text{ ft} \\ P &= 32 \text{ ft} \end{aligned}$$

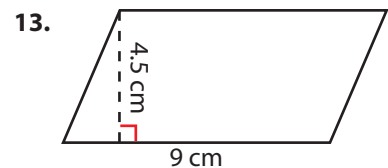
Find the area of the figure.



$$\begin{aligned} A &= l \cdot w \\ A &= 10 \text{ in.} \cdot 10 \text{ in.} \\ A &= 100 \text{ in.}^2 \end{aligned}$$



$$\begin{aligned} A &= (l \cdot w) + (l \cdot w) \\ A &= (8 \text{ m} \cdot 8 \text{ m}) + (8 \text{ m} \cdot 3 \text{ m}) \\ A &= 64 \text{ m}^2 + 24 \text{ m}^2 \\ A &= 88 \text{ m}^2 \end{aligned}$$



$$\begin{aligned} A &= b \cdot h \\ A &= 9 \text{ cm} \cdot 4.5 \text{ cm} \\ A &= 40.5 \text{ cm}^2 \end{aligned}$$

Solve.

14. A rectangle has an area of  $112 \text{ m}^2$ . Circle the possible measures of the length and width.

33 m  $\times$  4 m    16 m  $\times$  7 m    24 m  $\times$  13 m

## Chapter 11, Assessment 2

Match the formula.

C 1.  $\frac{1}{2}(b \cdot h)$

A 4.  $\pi r^2$

D 2.  $l \cdot w$

F 5.  $(2 \cdot l) + (2 \cdot w)$

B 3.  $b \cdot h$

E 6.  $s^2$

A. area of a circle

D. area of a rectangle

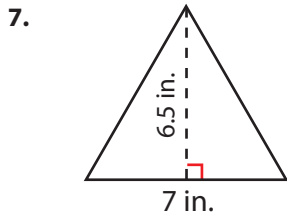
B. area of a square

E. area of a parallelogram

C. area of a triangle

F. perimeter of a rectangle

Find the area of the figure. Use 3.14 for  $\pi$ .

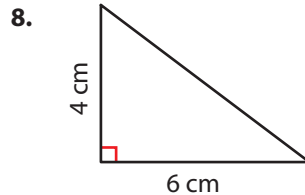


$$A = \frac{1}{2}(b \cdot h)$$

$$A = \frac{1}{2}(7 \text{ in.} \cdot 6.5 \text{ in.})$$

$$A = \frac{1}{2}(45.5 \text{ in.}^2)$$

$$A = 22.75 \text{ in.}^2$$

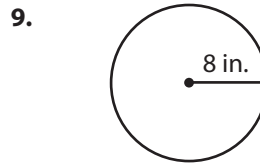


$$A = \frac{1}{2}(b \cdot h)$$

$$A = \frac{1}{2}(6 \text{ cm} \cdot 4 \text{ cm})$$

$$A = \frac{1}{2}(24 \text{ cm}^2)$$

$$A = 12 \text{ cm}^2$$

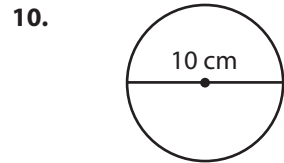


$$A = \pi r^2$$

$$A = 3.14 \cdot (8 \text{ in.})^2$$

$$A = 3.14 \cdot 64 \text{ in.}^2$$

$$A = 200.96 \text{ in.}^2$$



$$A = \pi r^2$$

$$A = 3.14 \times (5 \text{ cm})^2$$

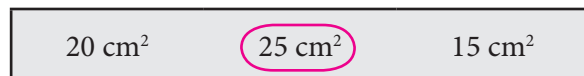
$$A = 3.14 \times 25 \text{ cm}^2$$

$$A = 78.5 \text{ cm}^2$$

Use the figure to find the answer.

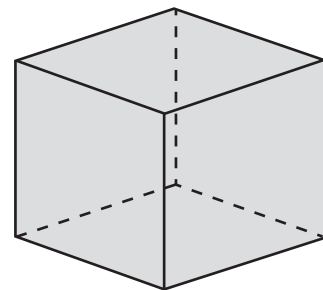
11. How many faces does the cube (square prism) have? 6

12. Circle the measurement that could describe the area of one face of the cube.

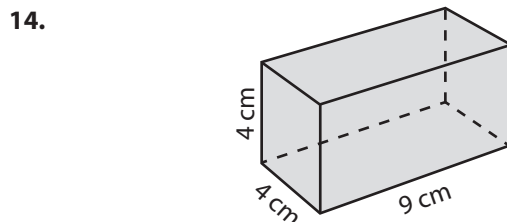


13. If one face of the cube has an area of  $36 \text{ cm}^2$ , write an equation to show the total surface area of the cube.

$$6 \times 36 \text{ cm}^2 = 216 \text{ cm}^2$$



Find the surface area of the prism.

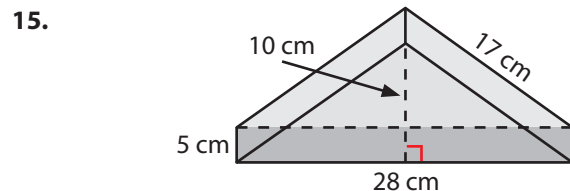


$$S = 2(4 \text{ cm} \times 4 \text{ cm}) + 4(4 \text{ cm} \times 9 \text{ cm})$$

$$S = (2 \times 16 \text{ cm}^2) + (4 \times 36 \text{ cm}^2)$$

$$S = 32 \text{ cm}^2 + 144 \text{ cm}^2$$

$$S = 176 \text{ cm}^2$$



$$S = 2\left[\frac{1}{2}(10 \text{ cm} \times 28 \text{ cm})\right] + (5 \text{ cm} \times 28 \text{ cm}) + 2(5 \text{ cm} \times 17 \text{ cm})$$

$$S = 280 \text{ cm}^2 + 140 \text{ cm}^2 + 170 \text{ cm}^2$$

$$S = 590 \text{ cm}^2$$

# Chapter 12, Assessment 1

Match.

D 1.  $V = s^3$

B 3.  $V = (\frac{1}{2}bh_1)h_2$

A 2.  $V = (l \cdot w) \cdot h$

C 4.  $V = (\pi r^2)h$

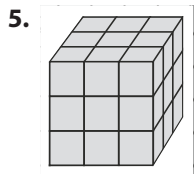
A. volume of a rectangular prism

B. volume of a triangular prism

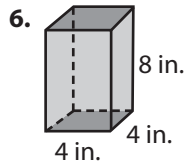
C. volume of a cylinder

D. volume of a cube

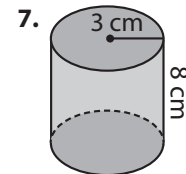
Write the formula used to find the volume of the figure.  
Find the volume of the figure.



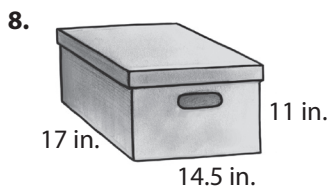
$V = s^3$  or  $V = (l \cdot w) \cdot h$   
 $V = (3 \text{ units} \cdot 3 \text{ units}) \cdot 3 \text{ units}$   
 $V = 27 \text{ units}^3$



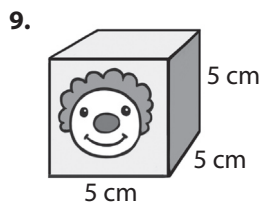
$V = (l \cdot w) \cdot h$   
 $V = (4 \text{ in.} \cdot 4 \text{ in.}) \cdot 8 \text{ in.}$   
 $V = 128 \text{ in.}^3$



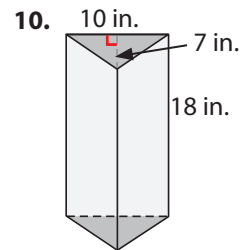
$V = (\pi r^2)h$   
 $V = 3.14 \cdot (3 \text{ cm})^2 \cdot 8 \text{ cm}$   
 $V = 3.14 \cdot 9 \text{ cm}^2 \cdot 8 \text{ cm}$   
 $V = 226.08 \text{ cm}^3$



$V = (l \cdot w) \cdot h$   
 $V = (17 \text{ in.} \cdot 14.5 \text{ in.}) \cdot 11 \text{ in.}$   
 $V = 2,711.5 \text{ in.}^3$



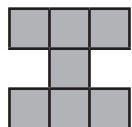
$V = s^3$   
 $V = (5 \text{ cm})^3$   
 $V = 125 \text{ cm}^3$



$V = \frac{1}{2}(l \cdot w) \cdot h$  or  $(\frac{1}{2}bh_1)h_2$   
 $V = \frac{1}{2}(10 \text{ in.} \cdot 7 \text{ in.}) \cdot 18 \text{ in.}$   
 $V = \frac{1}{2}(70 \text{ in.}^2) \cdot 18 \text{ in.}$   
 $V = 35 \text{ in.}^2 \cdot 18 \text{ in.}$   
 $V = 630 \text{ in.}^3$

Use the figure to solve. *Steps to solve may vary.*

11. Count the squares to find the area of the base. Find the volume of the prism that could be built if the height is 10 centimeters.



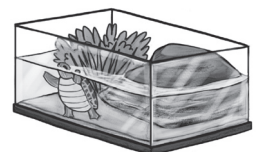
$B = 8 \text{ cm}^2$   
 $V = 8 \text{ cm}^2 \times 10 \text{ cm} = 80 \text{ cm}^3$

13. Circle the dimensions that could belong to an aquarium with a volume of 6,480 in.<sup>3</sup>

30 in.  $\times$  30 in.  $\times$  12 in.

24 in.  $\times$  15 in.  $\times$  18 in.

30 in.  $\times$  20 in.  $\times$  5 in.



12. The volume of the rectangular prism is 504 cm<sup>3</sup>. What is the height of the prism if  $B = 84 \text{ cm}^2$ ?



$504 \text{ cm}^3 \div 84 \text{ cm}^2 = 6 \text{ cm}$

## Chapter 13, Assessment 1

Use the information to find the answer.

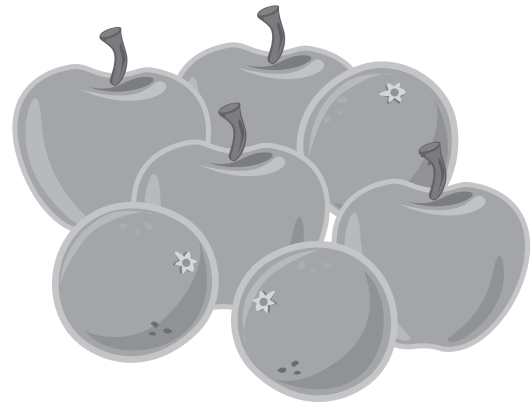
The bowl of fruit on the table has 6 oranges and 8 apples.

1. Write the ratio of oranges to apples in *ratio form*, *word form*, and *fraction form*.

**6 : 8; 6 to 8;  $\frac{6}{8}$**

2. Circle the ratio that is equivalent to  $\frac{\text{oranges}}{\text{apples}}$  in the fruit bowl.

$\frac{12}{14}$	$\frac{12}{16}$	$\frac{18}{12}$
-----------------	-----------------	-----------------



3. Write the ratio of apples to fruit in the bowl in *fraction form*.

**$\frac{8}{14}$  or  $\frac{4}{7}$**

Solve the proportion. **Proportion may be solved in various ways.**

4.  $\frac{14}{7} = \frac{52}{n}$   
 **$n = 26$**

5.  $\frac{n}{9} = \frac{27}{81}$   
 **$n = 3$**

6.  $\frac{16}{20} = \frac{n}{5}$   
 **$n = 4$**

Solve.

7. What is the cost of each apple if a bag of 8 apples is \$3.99? (Round to the nearest hundredth.)

**$\$3.99 \div 8 \approx \$0.50$**

8. The evangelistic team is traveling to minister at a youth camp. Use the key to determine the number of miles the team will travel if the distance on the map measures  $5\frac{1}{2}$  inches.

<b>Key</b>	1 inch = 50 miles
------------	-------------------

**$5\frac{1}{2} \times 50 = 275 \text{ mi}$**

9. The evangelistic team traveled 225 miles in 4 hours. At this rate how far will they travel in 8 hours?

**$\frac{225}{4} = \frac{n}{8}; n = 450 \text{ mi}$**

10. Gabriella is paid \$8.50 per hour when she baby-sits. How much will she earn for 4 hours?

**$4 \times \$8.50 = \$34.00$  or  $\frac{\$8.50}{1 \text{ hr}} = \frac{n}{4}; n = \$34.00$**

11. Complete the ratio table.

<b>package</b>	1	2	<b>3</b>	4	5	6
<b>balloons</b>	12	24	36	<b>48</b>	<b>60</b>	<b>72</b>

12. Circle the ratio that could be included in the ratio table in problem 8.

$\frac{10}{100}$	$\frac{10}{140}$	$\frac{12}{144}$
------------------	------------------	------------------

## Chapter 13, Assessment 2

Write the equivalent percent for the fraction or the decimal.

5%      15%      20%      50%

1.  $\frac{15}{100} = \underline{15\%}$

3.  $0.5 = \underline{50\%}$

2.  $\frac{10}{50} = \underline{20\%}$

4.  $0.05 = \underline{5\%}$

Find the percent of the number. *Answer may be found in various ways.*

5. 28% of 80 = 22.4

6. 65% of 90 = 58.5

7. 50% of 70 = 35

Solve.

8. The fan for Evan's room cost \$12.00. What was the purchase total after 6% sales tax was added to the cost?  $\$12.00 + (0.06 \times \$12.00) =$   
 $\$12.00 + \$0.72 = \$12.72$

9. The original cost of the baseball glove that Mike wants is \$58.00. How much will he save if he buys it while it is 30% off? What will be the sale price of the glove?  $\frac{30}{100} \times \$58.00 = \$17.40$ ;  
 $\$58.00 - \$17.40 = \$40.60$

10. There were 50 facts on the math fact quiz. Shelton correctly answered 47 of them. Write his score using a percent.

$$\frac{47}{50} \times \frac{2}{2} = \frac{94}{100} = 94\%$$

11. Write  $\frac{3}{20}$  as a percent.

$$\frac{3}{20} \times \frac{5}{5} = \frac{15}{100} = 15\%$$

Steven graphed his after-school time. Use his circle graph to write the answer.

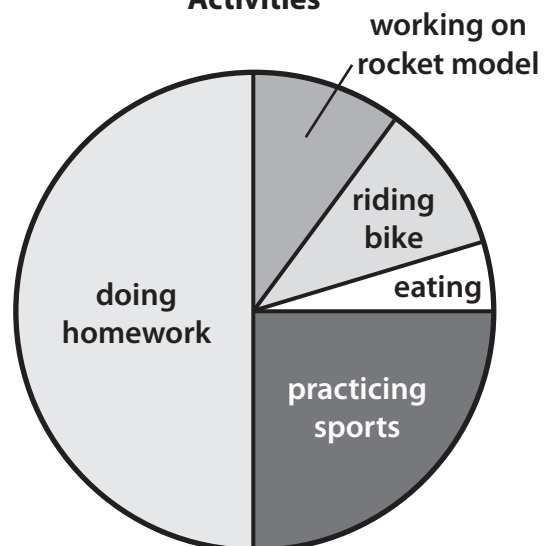
12. 50% of his time is spent doing homework.

13. 5% of his time is spent eating.

14. 25% of his time is spent practicing sports.

15. What percentage of time is spent working on his rocket and riding his bike? 20%

After-School Activities



# Chapter 14, Assessment 1

Complete the measurement fact.

4 qt	2,000 lb	1000 g	5,280 ft	10 mm	100 cm	12 in.	36 in.
------	----------	--------	----------	-------	--------	--------	--------

1. 1 ft = 12 in.

5. 1 yd = 36 in.

2. 1 tn = 2,000 lb

6. 1 kg = 1000 g

3. 1 gal = 4 qt

7. 1 cm = 10 mm

4. 1 mi = 5,280 ft

8. 1 m = 100 cm

Rename to the given unit of measurement.

9. 6 yd = 18 ft

10. 300 cm = 3 m

11. 1.3 m = 130 cm

$6 \times 3 = 18$

$300 \div 100 = 3$

$1.3 \times 100 = 130$

Solve.

12. Write a comparison sentence using > to compare a 2.5 liter bottle of juice and a 3000 milliliter bottle of juice.  **$3000 \text{ mL} = 3 \text{ L}$ ;  $3000 \text{ mL} > 2.5 \text{ L}$**

14. Circle the metric unit that would be used to measure the distance between New York City and Orlando.

meter	<u>kilometer</u>	centimeter
-------	------------------	------------

13. On Monday Jon jogged  $1\frac{1}{2}$  miles, and Jacob jogged 7,500 feet. Explain who jogged the greater distance.

**$1\frac{1}{2} \times 5,280 \text{ ft} = \frac{3}{2} \times 5,280 = 7,920 \text{ ft}$ ; Jon jogged the greater distance.**

15. Mr. Barnett had  $\frac{3}{4}$  of a ton of flagstone delivered to his home. How many pounds were delivered?

**$\frac{3}{4} \times 2,000 \text{ lb} = 1,500 \text{ lb}$**

## Chapter 14, Assessment 2

Solve. Simplify the answer.

$$\begin{array}{r} 1. \quad 7 \text{ ft } 10 \text{ in.} \\ + 3 \text{ ft } 6 \text{ in.} \\ \hline 10 \text{ ft } 16 \text{ in.} = \\ 11 \text{ ft } 4 \text{ in.} \end{array}$$

$$\begin{array}{r} 2. \quad 3 \text{ gal } 1 \text{ qt} \\ + \quad \quad 3 \text{ qt} \\ \hline 3 \text{ gal } 4 \text{ qt} = \\ 4 \text{ gal} \end{array}$$

$$\begin{array}{r} 3. \quad 17 \text{ km} \\ + 24 \text{ km} \\ \hline 41 \text{ km} \end{array}$$

$$\begin{array}{r} 4. \quad 5500 \text{ mL} \\ - 3750 \text{ mL} \\ \hline 1750 \text{ mL} \end{array}$$

$$\begin{array}{r} 5. \quad \overset{9}{\cancel{10}} \text{ yd } \overset{4}{\cancel{1}} \text{ ft} \\ - 5 \text{ yd } 2 \text{ ft} \\ \hline 4 \text{ yd } 2 \text{ ft} \end{array}$$

$$\begin{array}{r} 6. \quad \overset{2}{\cancel{3}} \text{ qt } 2 \text{ pt} \\ - 1 \text{ qt } 1 \text{ pt} \\ \hline 1 \text{ qt } 1 \text{ pt} \end{array}$$

$$\begin{array}{l} 7. \quad 3 \times 400 \text{ mL} = \underline{1.2} \text{ L} \\ 3 \times 400 = 1200 \text{ mL} \\ 1200 \div 1000 = 1.2 \text{ L} \end{array}$$

$$\begin{array}{l} 8. \quad \frac{1}{4} \text{ of 1 mile} = \underline{1,320} \text{ ft} \\ \frac{1}{4} \times 5,280 \text{ ft} = 1,320 \text{ ft} \end{array}$$

$$\begin{array}{l} 9. \quad \frac{5}{8} \text{ of 1 ton} = \underline{1,250} \text{ lb} \\ \frac{5}{8} \times 2,000 \text{ lb} = 1,250 \text{ lb} \end{array}$$

Solve.

$$\begin{array}{l} 10. \text{ How many hours are in 1 week?} \\ 7 \times 24 \text{ hr} = 168 \text{ hours} \end{array}$$

$$\begin{array}{l} 13. \text{ How many days are represented by 36 hours?} \\ 36 \div 24 = 1 \frac{12}{24} = 1 \frac{1}{2} \text{ days} \end{array}$$

$$\begin{array}{l} 11. \text{ Sam left his home airport at 11:30 AM. He arrived} \\ \text{in Charleston at 1:47 PM. How long was his trip?} \\ 11:30 \text{ to } 1:30 \text{ is } 2 \text{ hr; } 1:30 \text{ to } 1:47 \text{ is } 17 \text{ min;} \\ \text{total trip is } 2 \text{ hr } 17 \text{ min} \end{array}$$

$$\begin{array}{l} 14. \text{ The sign in front of the bank displayed the noon} \\ \text{temperature as } 95^{\circ}\text{F. At 9:00 PM the sign displayed} \\ \text{a temperature of } 79^{\circ}\text{F. What was the change in} \\ \text{temperature?} \\ 95^{\circ} - 79^{\circ} = 16^{\circ} \text{ drop in temperature or } -16^{\circ} \end{array}$$

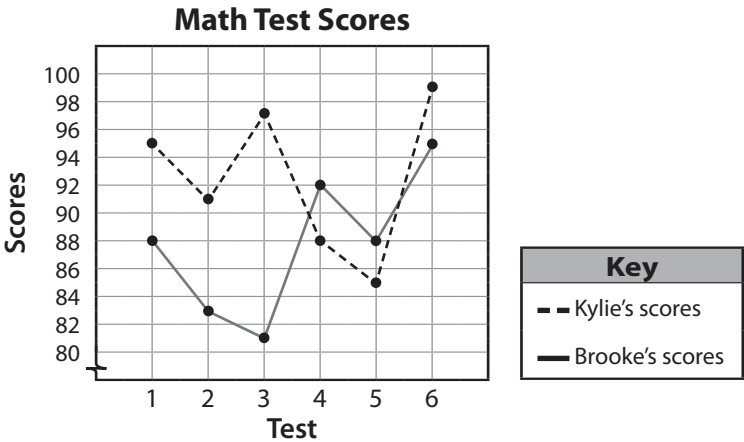
$$\begin{array}{l} 12. \text{ Cherith mixed 1 liter of pineapple juice, 950} \\ \text{milliliters of cranberry juice, and 1 liter of lemon-} \\ \text{lime soda. How many milliliters of punch were} \\ \text{made?} \\ 1 \text{ L} + 950 \text{ mL} + 1 \text{ L} = \\ 1000 \text{ mL} + 950 \text{ mL} + 1000 \text{ mL} = 2950 \text{ mL} \end{array}$$

$$\begin{array}{l} 15. \text{ Approximately how many centimeters are in 1 foot} \\ \text{if } 1 \text{ in.} \approx 2.5 \text{ cm? } 12 \times 2.5 \text{ cm} \approx 30 \text{ cm} \end{array}$$

Chapter 15, Assessment 1

Use the graph to find the answer.

- 1. What is the range of test scores for Kylie?  
**99 – 85 = 14 points**
- 2. What is the range of the scores for Brooke?  
**95 – 81 = 14 points**
- 3. On which test did the girls have the greatest point difference? **Test 3**
- 4. Between which 2 consecutive tests did Kylie's score improve the most?  
**Tests 5 and 6**



Complete the frequency table.  
Use the data to find the answers.

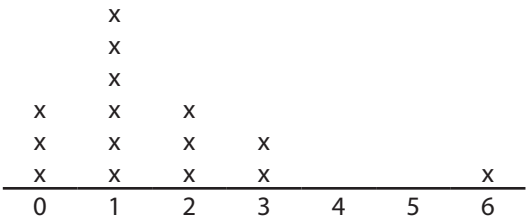
Age	Tally	Frequency
9		9
10		14
11		4
12		11

Mrs. Sandy's roping class is going on a Saturday trail ride.

- 5. How many students are attending the trail ride? **9 + 14 + 4 + 11 = 38 students**
- 6. What is the range in student ages? **12 – 9 = 3 years**
- 7. The mode is represented by which age group? **10 year olds**

Use the data to find the answer.

**Number of Pets in each Household**



- 8. How many households are represented?  
**15 households**
- 9. According to the graph, most households have how many pets? **1 pet**
- 10. What is the outlier? **6**
- 11. What is the mean? **24 ÷ 15 = 1.6 pets per household**

**Age of Students in CPR Class**

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

**Key** 3|0 = 30

- 12. What is the range of ages? **39 – 15 = 24 years**
- 13. What age is the median? **20 years old**
- 14. What is the mean? **336 ÷ 15 = 22.4 years old**
- 15. What is the mode? **20 years old**



## Chapter 15, Assessment 2

Use the data from the line graph to find the answer.

1. Which grade shows the greatest difference in the number of boys and girls?

**grade 5**

2. Which grades have a total of 25 students?

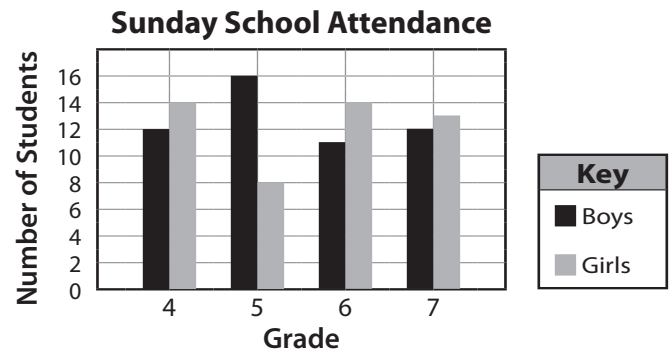
**grades 6 and 7**

3. Round to the nearest whole number to find the mean (average) number of girls attending Sunday school in grades 4 through 7.

**$49 \div 4 = 12.25$ ; 12 girls**

4. Round to the nearest whole number to find the mean (average) number of boys attending Sunday school in grades 4 through 7.

**$51 \div 4 = 12.75$ ; 13 boys**



Use the data from the histogram to find the answer.

5. Which interval shows the mode for this data?

**\$6 to \$10**

6. How many people donated \$16 to \$25?

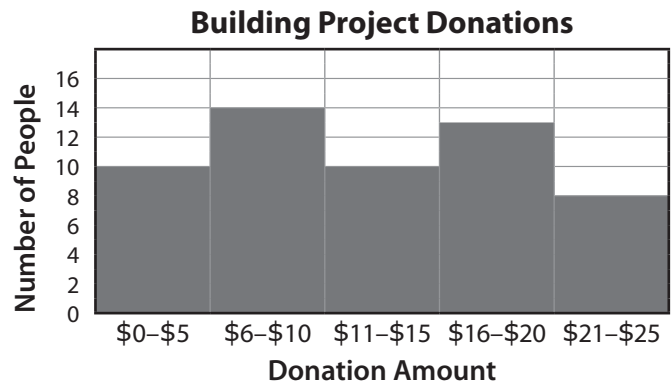
**21 people**

7. How many people donated \$15 or less?

**34 people**

8. What is the range of donations?

**$\$25 - \$0 = \$25$**



Use the data from the box and whisker plot to find the answer.

9. What is the range of the data?

**$98 - 70 = 28$  points**

10. What is the median of the data?

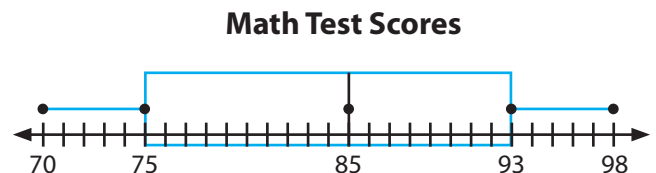
**85**

11. What is the lower quartile?

**75**

12. What is the upper quartile?

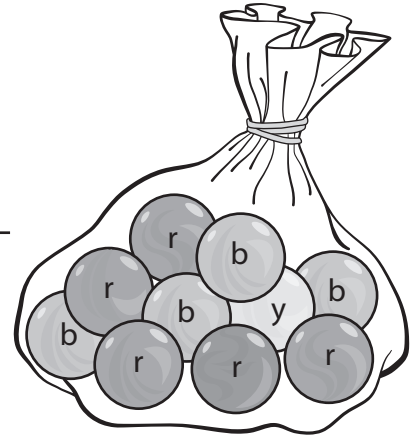
**93**



## Chapter 16, Assessment 1

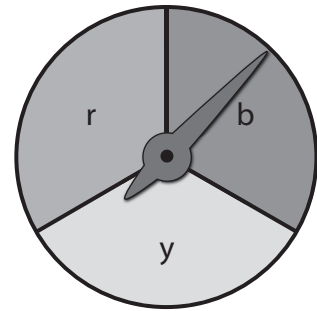
For the bag of marbles and the spinner,  $y$  = yellow,  $r$  = red, and  $b$  = blue.  
A marble is drawn from the pictured bag and then returned.  
Write the probability of the event as a fraction and as a percent.

1.  $P(\text{red}) = \frac{5}{10}$ ; **50%**
2.  $P(\text{blue}) = \frac{4}{10}$ ; **40%**
3.  $P(\text{yellow}) = \frac{1}{10}$ ; **10%**
4.  $P(\text{not yellow}) = \frac{9}{10}$ ; **90%**
5.  $P(\text{either red or blue}) = \frac{9}{10}$ ; **90%**
6.  $P(\text{not blue}) = \frac{6}{10}$ ; **60%**



Use the spinner to find the answer.

7. List the sample space for spinning the spinner 2 times.  
**{rr, rb, ry, br, bb, by, yr, yb, yy}**
8. According to the sample space, what is the probability of landing on the same color both times?  
 **$\frac{3}{9}$  or  $\frac{1}{3}$**
9. Write  $>$ ,  $<$ , or  $=$  to compare the probability statements.  
 $P(\text{different colors on 2 spins})$   **$>$**   $P(\text{same color on 2 spins})$



Write the probability of the event as a fraction.

Mr. Norton rewards students who complete all homework assignments for the week. Each prize is wrapped in the same size box so that students will not be able to distinguish their reward while choosing. The list below shows the contents of the reward box.

4 packages of gum  
4 packages of sour candy  
5 packages of mechanical pencils

10. The probability of choosing a box of sour candy is  $\frac{4}{13}$ .  
What is the probability of *not* choosing a box of sour candy?  
 **$\frac{13}{13} - \frac{4}{13} = \frac{9}{13}$**
11. What is the probability of choosing a food item?  
 **$\frac{4}{13} + \frac{4}{13} = \frac{8}{13}$**
12. If the first student's reward was gum, what is the probability of the next student choosing a package of gum?  
 **$\frac{3}{12}$  or  $\frac{1}{4}$**
13. After 1 package of gum and 1 package of pencils are chosen, what is the probability of a student choosing a package of pencils?  
 **$\frac{4}{11}$**

# Chapter 17, Assessment 1

Write an integer for the sentence.

1. The temperature is 8 below zero. -8

2. The road is 15 feet above sea level. 15

3. The stock market gained 40 points. 40

4. The state population increased by 300. 300

5. Newspaper subscriptions decreased by 75. -75

6. The quarterback lost 10 yards on 1 play. -10

Match.

B 7.  $|-12|$

C 8.  $-12$

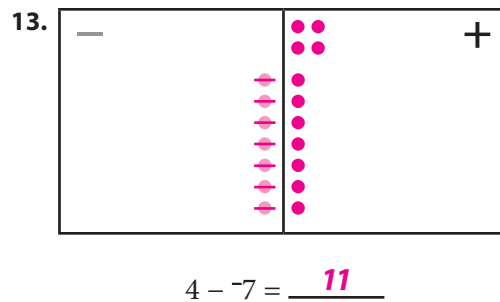
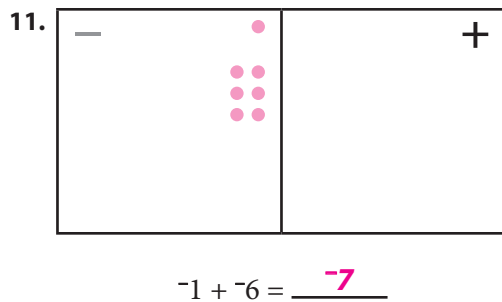
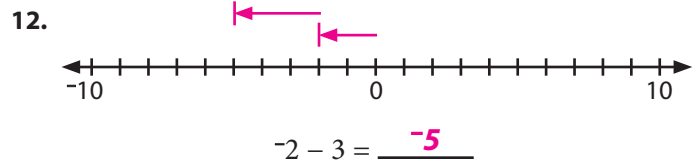
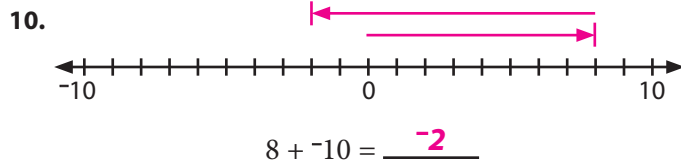
A 9. 12

A. The opposite of  $-12$ .

B. The absolute value is 12.

C. A number less than 0.

Solve. Show your work on the given number line or algebra mat.



Circle the addition equation that has the same value as the given expression.

14.  $5 - 10$      $-5 + 10 = 5$   
 $5 + 10 = 15$   
 $5 + -10 = -5$

15.  $3 - -3$      $-3 + 3 = 0$   
 $3 + 3 = 6$   
 $3 + -3 = 0$

## Chapter 17, Assessment 2

Solve.

1.  $-3 \times 8 = \underline{-24}$

4.  $-7 \times -6 = \underline{42}$

7.  $4 \times -5 = \underline{-20}$

2.  $35 \div -7 = \underline{-5}$

5.  $-72 \div 8 = \underline{-9}$

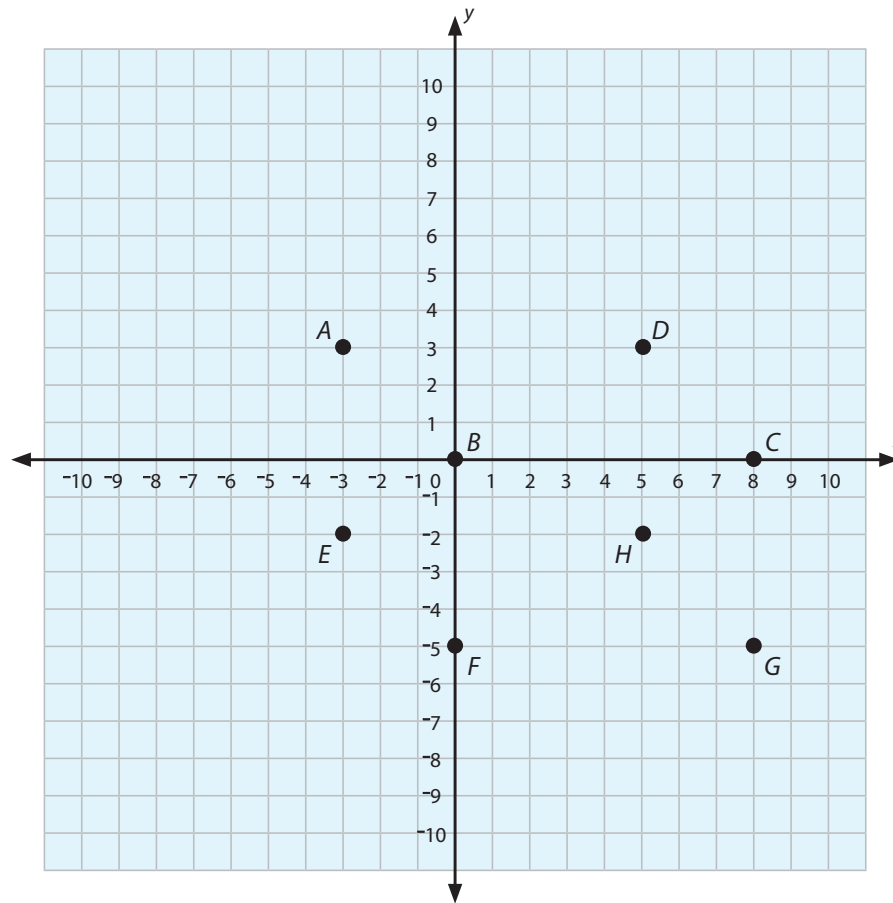
8.  $-60 \div -10 = \underline{6}$

3.  $5 + -3 = \underline{2}$

6.  $-6 + -4 = \underline{-10}$

9.  $0 - -9 = \underline{9}$

Use the coordinate plane to find the answer.



10. Name the ordered pair for point A.

$(-3, 3)$

13. Name the point that is located at  $(5, -2)$ .

Point H

11. Name the ordered pair for point G.

$(8, -5)$

14. Point C is located on which axis?

x-axis

12. What point is located at the origin,  $(0, 0)$ ?

Point B

15. Which point has both a negative  $x$  and  $y$  coordinate?

Point E