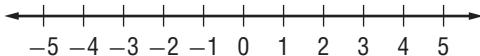
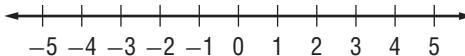


**1-1****Homework Practice****Graph the integers on a number line.**

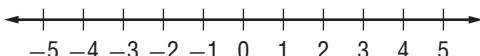
- 1 Graph the integers between  $-3$  and  $5$ .



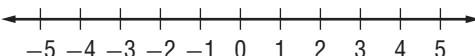
- 2 Graph the positive integers less than  $4$ .



- 3 Graph the integers  $-5$ ,  $-2$  and  $4$ .



- 4 Graph the negative integers greater than  $-4$ .

**Write the integers from least to greatest.**

- 5  $-15, 9, -21, -16, 12$  \_\_\_\_\_

- 6  $45, -53, 47, -45, 54$  \_\_\_\_\_

**Write the integers from greatest to least.**

- 7  $72, -65, -74, -27, 67$  \_\_\_\_\_

- 8  $-34, 43, 41, 46, -43$  \_\_\_\_\_

**Write an integer to represent each statement.**

- 9 A diver is  $41$  feet below sea level.  
\_\_\_\_\_

- 10 Alisa's puppy gained  $5$  pounds.  
\_\_\_\_\_

- 11 Marco earned  $\$28$  babysitting.  
\_\_\_\_\_

- 12 A company reported a loss of  $\$300$  this quarter. \_\_\_\_\_

**Solve.**

- 13 **STOCK MARKET** The stock market had a very good day yesterday. It improved by  $271$  points. What integer represents yesterday's change in the stock market?  
\_\_\_\_\_

- 14 **BANKING** Sook withdrew  $\$500$  from his savings account this morning. What integer represents the change in Sook's bank account from this transaction?  
\_\_\_\_\_

**Write the vocabulary word(s) that completes the sentence.**

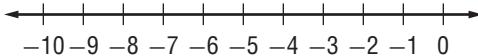
- 15 Integers that are greater than zero are called \_\_\_\_\_.

- 16 \_\_\_\_\_ are the whole numbers and their opposites.

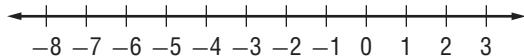
# Homework Practice

**Find each sum. Use the number line.**

1  $-3 + (-5) = \underline{\hspace{2cm}}$



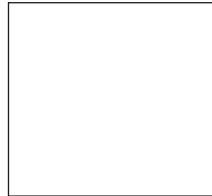
2  $2 + (-6) = \underline{\hspace{2cm}}$

**Find each sum. Use algebra tiles.**

3  $4 + (-7) = \underline{\hspace{2cm}}$



4  $3 + (-9) = \underline{\hspace{2cm}}$

**What is the opposite of each number? Use it to show the Identity Property of Addition.**

5  $-3 = \underline{\hspace{2cm}}$

6  $4 = \underline{\hspace{2cm}}$

7  $5 = \underline{\hspace{2cm}}$

8  $-11 = \underline{\hspace{2cm}}$

**Find each sum.**

9  $12 + (-9) = \underline{\hspace{2cm}}$

10  $-2 + (-8) = \underline{\hspace{2cm}}$

11  $6 + (-10) = \underline{\hspace{2cm}}$

12  $-3 + 3 = \underline{\hspace{2cm}}$

**Solve.**

- 13 **BUS STOPS** There were 15 riders on a bus. At the first stop, 3 people got off and 5 people got on. At the next stop, 7 people got off and 1 person got on. How many riders were now on the bus?

 $\underline{\hspace{10cm}}$ 

- 14 **GAMES** Corey moved 5 spaces forward on his first turn. He then moved 2 spaces forward on his next turn, but drew a card that said to move backward 3 spaces. How far had Corey advanced from the start?

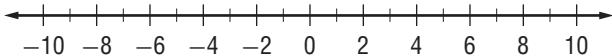
 $\underline{\hspace{10cm}}$ **Write the vocabulary word that completes the sentence.**

- 15 The \_\_\_\_\_ states that for any number, the sum of that number and its opposite is zero.

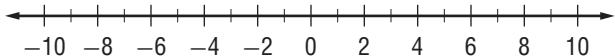
- 16 The \_\_\_\_\_ states that the order in which two numbers are added does not change the sum.

**1-3****Homework Practice****Find each difference. Use the number line.**

1  $-4 - 3 =$  \_\_\_\_\_



2  $1 - (-6) =$  \_\_\_\_\_

**Find each difference. Use algebra tiles.**

3  $-8 - 2 =$  \_\_\_\_\_



4  $-3 + 5 =$  \_\_\_\_\_

**Which number has the greater absolute value?**

5  $-3$  or  $2$  \_\_\_\_\_

6  $4$  or  $-4$  \_\_\_\_\_

7  $-6$  or  $-9$  \_\_\_\_\_

8  $8$  or  $1$  \_\_\_\_\_

**Find each difference.**

9  $6 - (-3) =$  \_\_\_\_\_

10  $-7 - 1 =$  \_\_\_\_\_

11  $-12 - (-8) =$  \_\_\_\_\_

12  $4 - 5 =$  \_\_\_\_\_

**Solve.**

- 13 **WEATHER** On the first day of February in upstate New York, the high temperature was  $3^{\circ}$  F at 2:00 PM. Over the next 5 hours, the temperature dropped 10 degrees. What was the temperature at 7:00 P.M.? \_\_\_\_\_

- 14 **GEOGRAPHY** Taborri was at camp in Oregon where the elevation is 3,400 feet above sea level. Her mother was on a trip in California where the elevation was 200 feet below sea level. What is the difference in elevations? \_\_\_\_\_

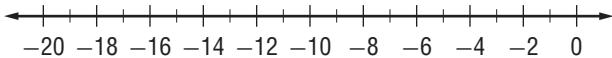
**Write the vocabulary word that completes each sentence.**

- 15 Numbers that are the same distance from zero in opposite directions are called \_\_\_\_\_.

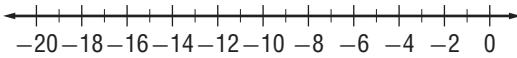
- 16 The \_\_\_\_\_ of a number is the distance between the number and zero on a number line.

**Find each product. Use a number line.**

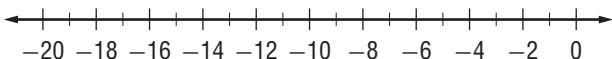
1  $1 \cdot (-9) =$  \_\_\_\_\_



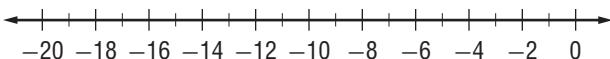
2  $4 \cdot (-4) =$  \_\_\_\_\_



3  $3 \cdot (-3) =$  \_\_\_\_\_



4  $2 \cdot (-7) =$  \_\_\_\_\_



**Find each product.**

5  $9 \cdot (-7) =$  \_\_\_\_\_

6  $15 \cdot 2 =$  \_\_\_\_\_

7  $-4 \cdot 8 =$  \_\_\_\_\_

8  $6 \cdot (-7) =$  \_\_\_\_\_

9  $-12 \cdot (-3) =$  \_\_\_\_\_

10  $-8 \cdot 11 =$  \_\_\_\_\_

11  $4 \cdot (-5) =$  \_\_\_\_\_

12  $-2 \cdot (-9) =$  \_\_\_\_\_

**Find the missing number. Name the multiplication property.**

13  $-3 \cdot 1 =$  \_\_\_\_\_

Copyright © Glencoe/McGraw-Hill, a division of The McGraw-Hill Companies, Inc.

14  $-2 \cdot 6 =$  \_\_\_\_\_  $\cdot (-2)$  \_\_\_\_\_

15  $-8 \cdot 0 =$  \_\_\_\_\_

16  $-2 \cdot [4 \cdot (-8)] = (-2 \cdot \text{_____}) \cdot (-8)$  \_\_\_\_\_

**Solve.**

- 17 **WEATHER** The daily high temperature has dropped  $2^\circ$  F each day for the past 7 days. What has the change in temperature been for the past week? \_\_\_\_\_

- 18 **GOLF** On Saturday, Leon shot  $-1$  (1 under par) for each of the first 3 holes. What is Leon's score after the first 3 holes? \_\_\_\_\_

**Write the vocabulary word that completes each sentence.**

- 19 A \_\_\_\_\_ is a number that divides into a whole number evenly.

- 20 The answer or result of a multiplication problem is the \_\_\_\_\_.

# Homework Practice

**Find each quotient.**

1  $-5 \div (-1)$  \_\_\_\_\_

2  $-5 \div 1$  \_\_\_\_\_

3  $5 \div (-1)$  \_\_\_\_\_

4  $5 \div 1$  \_\_\_\_\_

5 
$$\begin{array}{r} 6 \\ \hline -2 \end{array}$$
 \_\_\_\_\_

6  $-18 \div (-3)$  \_\_\_\_\_

7  $-35 \div (-7)$  \_\_\_\_\_

8  $44 \div 11$  \_\_\_\_\_

9 
$$\begin{array}{r} -54 \\ 6 \end{array}$$
 \_\_\_\_\_

10  $50 \div (-2)$  \_\_\_\_\_

11  $-25 \div (-5)$  \_\_\_\_\_

12 
$$\begin{array}{r} -70 \\ -10 \end{array}$$
 \_\_\_\_\_

**Solve.**

- 13 **MONEY** A group of 6 friends earned \$90 doing yard work. They want to divide the money equally. How much money does each person get?  
\_\_\_\_\_

- 14 **TRANSPORTATION** A submarine descends 600 feet in 2 minutes. How far does the submarine descend in 1 second?  
\_\_\_\_\_

**Write the vocabulary word that completes each sentence.**

- 15 A \_\_\_\_\_ is a number that is being divided.

- 16 A \_\_\_\_\_ is the number by which the dividend is being divided.

- 17 The \_\_\_\_\_ is the answer to a division problem.

# Homework Practice

**Find a rule for each pattern.**

- 1 7, 21, 63, 189 \_\_\_\_\_
- 2 125, 100, 75, 50 \_\_\_\_\_
- 3 234, 245, 256, 267 \_\_\_\_\_

**In each sequence, find a rule. Then write the next three terms.**

- 4 189, 173, 157, 141

Rule: \_\_\_\_\_

Next terms: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

- 5 729, 243, 81, 27

Rule: \_\_\_\_\_

Next terms: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**Write the next three conversions in each pattern.**

6	<b>Number of Tricycles</b>	1	2	3	4
	<b>Number of Wheels</b>	3			

7	<b>Number Hours</b>	1	2	3	4
	<b>Number of Minutes</b>	60			

**Solve.**

- 8 **RACING** Lance is training for a bike race. Starting on Tuesday, each day he bikes 3 more miles than he did the day before. On Monday he bikes 3 miles. How many miles does he bike on Friday? \_\_\_\_\_

**Write the vocabulary word that completes each sentence.**

- 9 A \_\_\_\_\_ tells how numbers are related to each other.
- 10 A \_\_\_\_\_ is a sequence of numbers, figures, or symbols that follows a rule or design.
- 11 A list of numbers in a specific order is a \_\_\_\_\_.

# Homework Practice

**Write a function to represent each situation.**

- 1 There are 8 notes in every octave.
- 2 Frankie earns \$5 more per hour than Doris.
- 3 Nicole is 6 years younger than her sister.

---

---

---

**Write a function and make a function table.**

- 4 **SCIENCE** In an experiment, a scientist used 3 times as much water as solution. Let  $y$  = amount of water and let  $x$  = amount of solution.

$$y = \underline{\hspace{2cm}}$$

Amount of Solution, $x$	2	4	6	8	10
Amount of Water, $y$					

If 8 liters of solution are used, how many liters of water are used?

---

- 5 **AGE** Ahanu is 22 years younger than his mother. Let  $y$  = Ahanu's age and  $x$  = Ahanu's mother's age.

$$y = \underline{\hspace{2cm}}$$

Ahanu's Mother's Age, $x$	30	35	40	45	50
Ahanu's Age, $y$					

How old will Ahanu be when his mother is 45?

---

- 6 **CALORIES** Jordan is counting the number of calories he consumes in a day. Yesterday he consumed 1,800 calories plus he drank several 8-ounce glasses of milk. Each 8-ounce glass of milk provides 120 calories. Let  $y$  = the total number of calories he consumed and let  $x$  = the number of 8-ounce glasses of milk he drank.

$$y = \underline{\hspace{2cm}}$$

Number of 8-ounce Glasses of Milk, $x$	1	2	3	4	5
Total Number of Calories Consumed, $y$					

If Jordan drank five 8-ounce glasses of milk, how many calories did he consume that day?

---

**Write the vocabulary word that completes each sentence.**

- 7 A symbol used to represent a number is a \_\_\_\_\_.
- 8 A relationship is a \_\_\_\_\_ if for every  $x$ -value there is exactly one  $y$ -value.

# Homework Practice

**Name the ordered pair for each point.**

1 Z \_\_\_\_\_

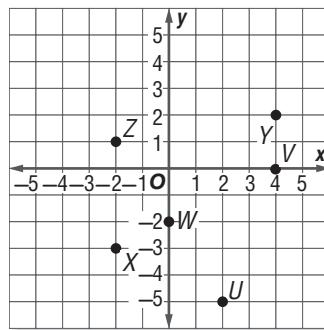
2 Y \_\_\_\_\_

3 X \_\_\_\_\_

4 W \_\_\_\_\_

5 V \_\_\_\_\_

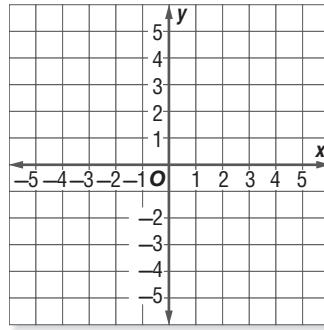
6 U \_\_\_\_\_



**Graph the ordered pairs.**

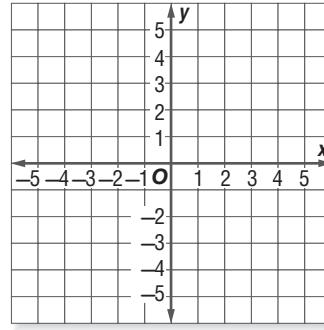
- 7 Graph the ordered pairs  $T(4, -1)$  and  $S(-1, -1)$ . Then connect the points.

$(4, -1)$  and  $(-1, -1)$  are on a line parallel to the  $x$ -axis because they have the same \_\_\_\_\_ -coordinate.



- 8 Graph the ordered pairs  $R(-1, 4)$  and  $Q(-1, 0)$ . Then connect the points.

$(-1, 4)$  and  $(-1, 0)$  are on a line parallel to the  $y$ -axis because they have the same \_\_\_\_\_ -coordinate.



**Write the vocabulary word that completes the sentence.**

- 9 A \_\_\_\_\_ is a grid in which a horizontal number line and a vertical number line intersect at their zero points.

**Solve.**

- 10 **GRAPHING SENSE** Graph the points  $(-2, 4)$  and  $(-2, -3)$  on the coordinate grid shown. What is the distance between these two points? Give two ways to find the distance.

---



---



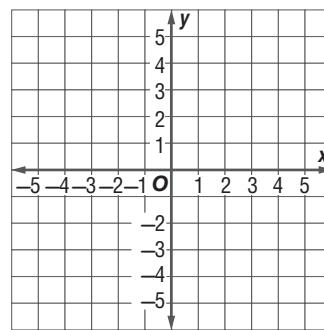
---



---



---



# Homework Practice

**Make a table for each equation.**

1  $y = \frac{x}{2} + 2$

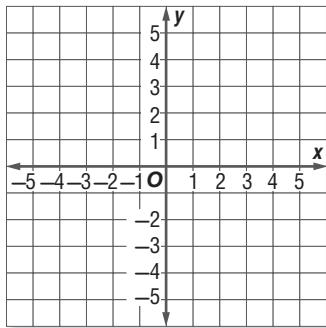
x	y
-4	
-2	
0	
2	
4	

2  $y = -2x - 1$

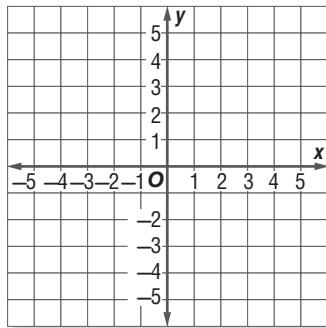
x	y
-2	
-1	
0	
1	
2	

**Graph each equation.**

- 3 Graph the equation from Exercise 1.



- 4 Graph the equation from Exercise 2.

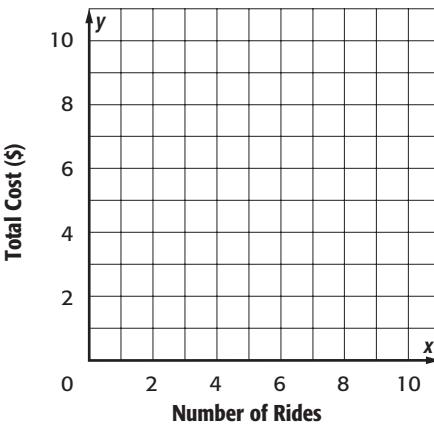


**Solve.**

- 5 The cost to go on rides at a fair is  $x + 5$ , where  $x$  is the total number of rides. Show the relationship between the number of rides and the total cost in a table and on a coordinate plane. How much money will it cost to go on 4 rides?

\_\_\_\_\_

x	$x + 5$	y	Ordered Pair
1			
2			
3			
4			
5			



**Write the vocabulary word(s) that completes the sentence.**

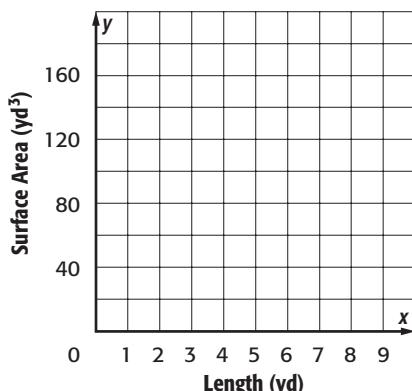
- 6 A pair of numbers that is the coordinates of a point in a coordinate plane or grid is called an \_\_\_\_\_.

**Homework Practice**

- I GEOMETRY** The surface area of a cube is 6 times the square of the length of one of its sides. What is the surface area of a cube with sides that are 4 yards long?

Make a function table using the rule  $y = \underline{\hspace{2cm}}$ .

Length, $x$	1	2	3	4	5
Surface Area, $y$					



Graph the ordered pairs. Evaluate the rate of change.  
Connect the points.

A cube with sides 4 yards long has area  $\underline{\hspace{2cm}}$ .

**Match each function with its function table and its graph.**

2  $y = -x^2 + 3$

function table  $\underline{\hspace{2cm}}$

graph  $\underline{\hspace{2cm}}$

4  $y = -x - 1$

function table  $\underline{\hspace{2cm}}$

graph  $\underline{\hspace{2cm}}$

3  $y = x + 1$

function table  $\underline{\hspace{2cm}}$

graph  $\underline{\hspace{2cm}}$

5  $y = -2x^2 - 1$

function table  $\underline{\hspace{2cm}}$

graph  $\underline{\hspace{2cm}}$

A

x	-2	-1	0	1	2
y	-9	-3	-1	-3	-9

B

x	-2	-1	0	1	2
y	1	0	-1	-2	-3

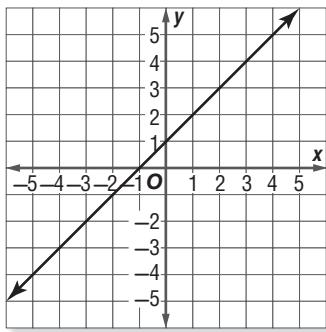
C

x	-2	-1	0	1	2
y	-1	2	3	2	-1

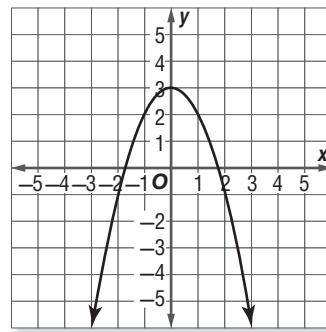
D

x	-2	-1	0	1	2
y	-1	0	1	2	3

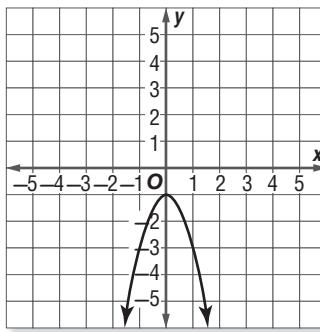
I



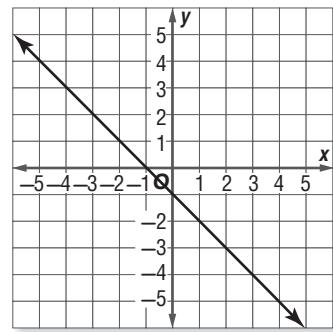
II



III



IV



**Write the vocabulary word(s) that completes the sentence.**

- 6 A  $\underline{\hspace{2cm}}$  is a function whose graph is not a straight line.

**3-1****Homework Practice****Name the step that should be performed first in each expression.**

**1**  $7 + 9 - 2 + 4 \cdot 4^2$   
\_\_\_\_\_

**2**  $3 \cdot 18 + (9 - 2) + 3^3 \div 3$   
\_\_\_\_\_

**3**  $(9 + 4 \cdot 2) - 12 \div 3 + 8$   
\_\_\_\_\_

**4**  $20 \div 4 \cdot 2 - 9 \cdot 2 + 5$   
\_\_\_\_\_

**Find the value of each expression.**

**5**  $4^2 + 13 + (9 \div 3^2) \cdot 2$   
\_\_\_\_\_

**6**  $15 \div (2^2 + 1^2) - 3 \cdot 1$   
\_\_\_\_\_

**7**  $11 + 3 \cdot 2 + 8 - 8 \div 2$   
\_\_\_\_\_

**8**  $(3 + 8 \cdot 2 - 18 + 3^2) \div 5$   
\_\_\_\_\_

**Solve.**

- 9 SNACKS**
- Marla bought 4 boxes of granola bars. Each box contains 6 granola bars. Marla ate 3 granola bars, and she gave her brother 4 granola bars. Marla then bought 2 more boxes of granola bars. How many granola bars does Marla have now?
- 
- \_\_\_\_\_

- 10 BOOKS**
- Daniel has 65 books on a book shelf. He divides the books equally among 5 shelves. He then moves 5 books on the top shelf to the bottom shelf. He also buys 3 new books and puts them on the top shelf. How many books are on the top shelf?
- 
- \_\_\_\_\_

**3-2****Homework Practice****Evaluate each expression when  $\square = 2$ .**

1  $\square + 17$  \_\_\_\_\_

2  $\square - 1$  \_\_\_\_\_

3  $74 \div \square$  \_\_\_\_\_

4  $26 \cdot \square$  \_\_\_\_\_

5  $47 - \square$  \_\_\_\_\_

6  $\square + 139$  \_\_\_\_\_

7  $\square \cdot 56$  \_\_\_\_\_

8  $46 \div \square$  \_\_\_\_\_

**Evaluate each expression when  $x = 8$  and  $y = 9$ .**

9  $x^2 + 3 - 10 + y^2$  \_\_\_\_\_

10  $5y - (x \cdot 2) + 15$  \_\_\_\_\_

11  $7x + (3 \cdot y)$  \_\_\_\_\_

12  $20 - y + 5x$  \_\_\_\_\_

13  $(6 + y^2 + 12) \cdot (y - x)$  \_\_\_\_\_

14  $15 + (x + y) + y \cdot 10$  \_\_\_\_\_

15  $(y + 2)^2 + 4x$  \_\_\_\_\_

16  $4y \div 6 + x^2 - (y - x)^2$  \_\_\_\_\_

**Solve.**

- 17 **MUSIC** Jade likes to burn songs onto CDs. A CD can hold about 80 minutes of music. The expression  $\frac{80}{s}$  represents how many minutes each song,  $s$ , can be to fit on the CD. Jade wants to put 20 songs on a CD. Evaluate the expression to determine how long each song can be. \_\_\_\_\_

- 18 **BAKING** Oya needs 10 minutes to set up and 40 minutes to bake each batch of bread. The expression  $10b + 40b$  represents the time it takes for  $b$  batches of bread. Oya wants to make 5 batches of bread tomorrow. How many minutes will it take him? \_\_\_\_\_

**Write the vocabulary word(s) that completes each sentence.**

- 19 A(n) \_\_\_\_\_ is a combination of numbers, variables, and operation symbols.

- 20 The \_\_\_\_\_ is a set of rules that tells what order to follow in evaluating an expression.

# Homework Practice

Find the value of each variable by modeling the equation.

1  $2 \cdot \square = 12$

$\square =$  \_\_\_\_\_



2  $\frac{w}{4} = 3$

$w =$  \_\_\_\_\_



Find the value of each variable in each equation.

3  $4 \cdot \square = 48$

$\square =$  \_\_\_\_\_

4  $2z + 5 = 17$

$z =$  \_\_\_\_\_

5  $\frac{a}{5} - 2 = 3$

$a =$  \_\_\_\_\_

6  $16 - \square = 5$

$\square =$  \_\_\_\_\_

## Solve.

- 7 **TIRES** Reba bought 2 new tires for her bicycle. Each tire cost \$15. She also bought a basket for her bike. Reba spent \$38 in all. How much did the basket cost?  
\_\_\_\_\_
- 8 **FIELD TRIP** Thirty-four students and adults went on a field trip to a museum. Eight adults went on the trip. How many students went?  
\_\_\_\_\_
- 9 **EQUATIONS** Mrs. Ortega wrote the following equation on the board:  
 $6 \cdot r = 42$ . Jonah said the  $r = 36$ . Was Jonah correct? Explain.  
\_\_\_\_\_  
\_\_\_\_\_

Write the vocabulary word(s) that completes each sentence.

- 10 In the equation  $4x + 6 = 14$ ,  $x$  is called the \_\_\_\_\_.  
11 Subtraction is the \_\_\_\_\_ of addition.

# Homework Practice

**Find the value of  $c$ , when  $a = 3$  and  $n = 24$ .**

1  $n = c + a$        $c = \underline{\hspace{2cm}}$

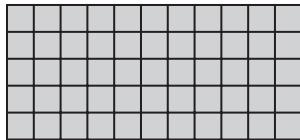
2  $a = c - n$        $c = \underline{\hspace{2cm}}$

3  $n = c \cdot a$        $c = \underline{\hspace{2cm}}$

4  $a = n + c$        $c = \underline{\hspace{2cm}}$

**Use the formula  $A = \ell \cdot w$  to solve for  $\ell$ , length.**

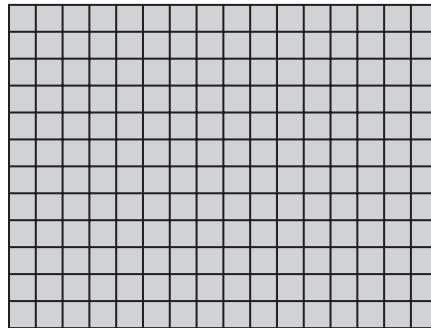
- 5 The area of the rectangle is 55 square meters. Its width is 5 meters. What is the length of the rectangle?



---

---

- 6 The area of the rectangle is 192 square feet. Its width is 12 feet. What is the length of the rectangle?



---

---

**Use the formula  $d = r \cdot t$  to solve for  $t$ , time.**

- 7 Mr. Mason is driving his car at a rate of 58 miles per hour. How long will it take him to travel 232 miles?

---

---

- 8 Megan is biking at a rate of 14 miles per hour. How long will it take her to bike 98 miles?

---

---

**Use the formula  $d = r \cdot t$  to solve for the missing variable.**

- 9 **EXERCISE** Kevin is training to run in a marathon. He just finished running 9 miles. It took him  $1\frac{1}{2}$  hours. What was his rate of speed?

---

---

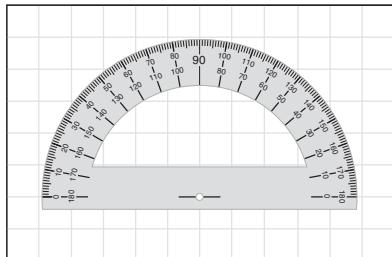
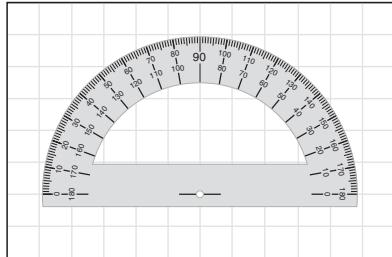
**Write the vocabulary word that completes each sentence.**

- 10 A ratio comparing two quantities with different kinds of units is called a(n) \_\_\_\_\_.

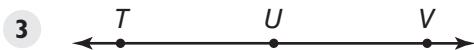
- 11  $A = \ell \cdot w$ , an equation that shows a relationship among quantities, is an example of a(n) \_\_\_\_\_.

# Homework Practice

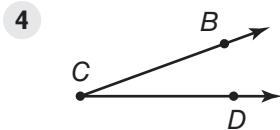
Draw an angle with the given measurement.

1  $70^\circ$ 2  $125^\circ$ 

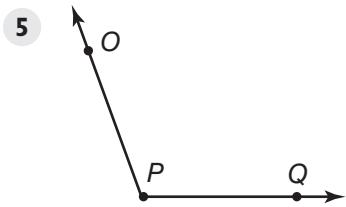
Measure and identify the angle.



$\angle TUV$  measures \_\_\_\_\_.  $\angle TUV$  is a(n) \_\_\_\_\_ angle.



$\angle BCD$  measures \_\_\_\_\_.  $\angle BCD$  is a(n) \_\_\_\_\_ angle.



$\angle OPQ$  measures \_\_\_\_\_.  $\angle OPQ$  is a(n) \_\_\_\_\_ angle.

Solve.

- 6 **CLOCKS** Sarah had piano lessons at 2:30 PM. What type of angle is formed by the hands of the clock at this time?

\_\_\_\_\_

- 7 **CARS** Mr. Johnson was cleaning his car. He moved the back of the driver's seat forward to a  $45^\circ$  angle. What type of angle was formed?

\_\_\_\_\_

Write the vocabulary word that completes each sentence.

- 8 An angle that measures between  $90^\circ$  and  $180^\circ$  is a(n) \_\_\_\_\_ angle.
- 9 An angle that measures  $180^\circ$  is a \_\_\_\_\_ angle.

# Homework Practice

Identify each angle as acute, obtuse, or right.

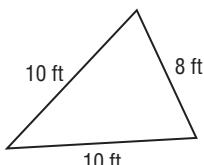
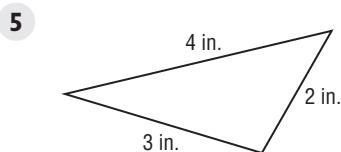
1  $56^\circ$  \_\_\_\_\_

3  $92^\circ$  \_\_\_\_\_

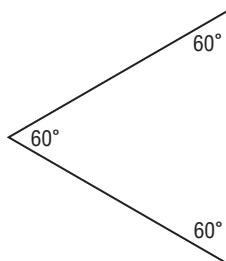
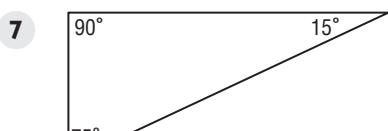
2  $157^\circ$  \_\_\_\_\_

4  $90^\circ$  \_\_\_\_\_

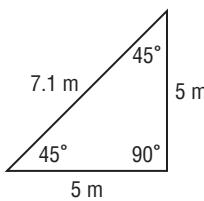
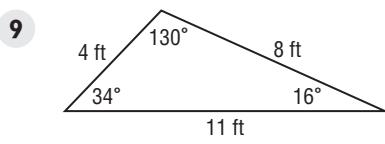
Classify each triangle by the lengths of its sides.



Classify each triangle by the measures of its angles.



Classify each triangle by the lengths of its sides and the measures of its angles.



Solve.

- 11 ART Katrina is making a triangular frame for an art project. The measures of the angles of her frame are  $30^\circ$ ,  $30^\circ$ , and  $120^\circ$ . Classify Katrina's frame by the measures of its angles.

Write the vocabulary word that completes each sentence.

- 12 A triangle with one obtuse angle is a(n) \_\_\_\_\_ triangle.

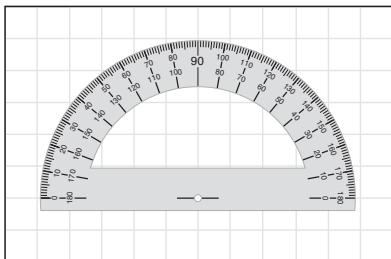
- 13 A triangle with all three angles less than  $90^\circ$  is a(n) \_\_\_\_\_ triangle.

- 14 A triangle with one  $90^\circ$  angle is a(n) \_\_\_\_\_ triangle.

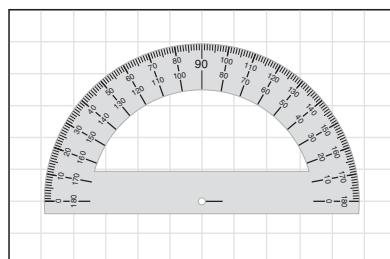
# Homework Practice

**Sketch each type of angle given.**

- 1 Sketch supplementary angles.

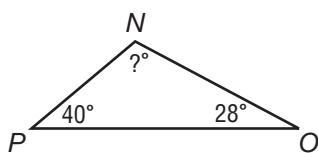


- 2 Sketch complementary angles.



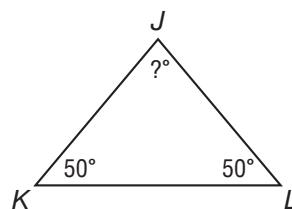
**Find the measure of each missing angle.**

3



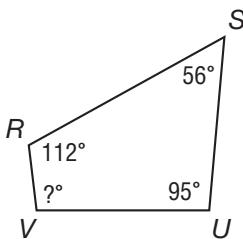
The measure of the missing angle is \_\_\_\_\_.  
\_\_\_\_\_

4



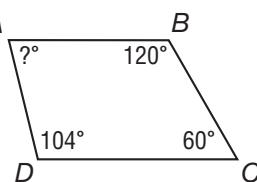
The measure of the missing angle is \_\_\_\_\_.  
\_\_\_\_\_

5



The measure of the missing angle is \_\_\_\_\_.  
\_\_\_\_\_

6

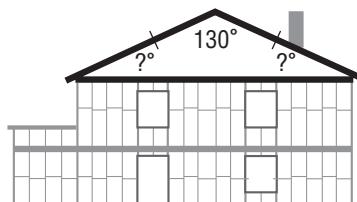


The measure of the missing angle is \_\_\_\_\_.  
\_\_\_\_\_

**Solve.**

7

- ROOF** The roof of a house is an isosceles triangle. What is the measure of each of the missing roof angles?



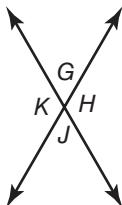
**Write the measurement that completes the sentence.**

- 8 Complementary angles are two angles that have measures with a sum of \_\_\_\_\_.  
\_\_\_\_\_
- 9 Supplementary angles are two angles that have measures with a sum of \_\_\_\_\_.  
\_\_\_\_\_

**Homework Practice**

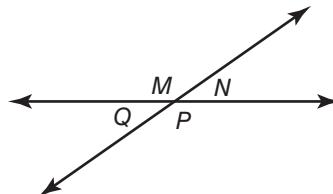
**Identify the measure of each angle indicated.**

1



$$m\angle H = 120^\circ, \text{ so } m\angle G = \underline{\hspace{2cm}}$$

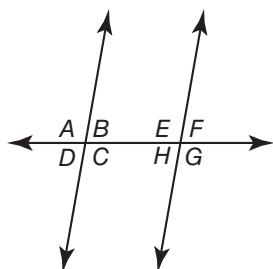
2



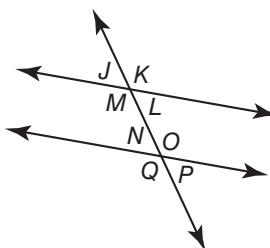
$$m\angle N = 35^\circ, \text{ so } m\angle Q = \underline{\hspace{2cm}}$$

**Name the alternate interior angles.**

3

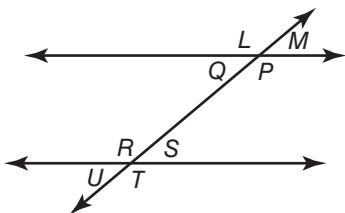


4

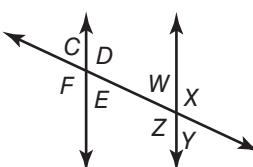


**Name the alternate exterior angles.**

5

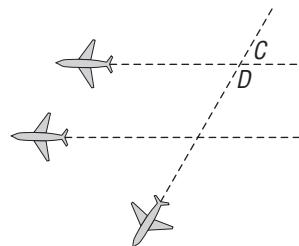


6



**Solve.**

- 7 **AIRPLANES** A pair of jet airplanes were leaving two contrails that ran parallel to each other in the sky. Another jet airplane's contrail crossed the two parallel contrails. In the figure, angle C measures  $60^\circ$ . What is the measure of angle D?



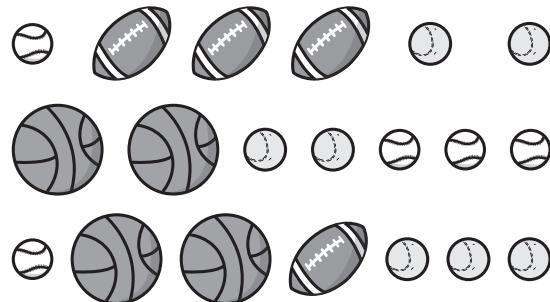
**Write the vocabulary word(s) that completes the sentence.**

- 8 Exterior angles that lie on opposite sides of the transversal are called \_\_\_\_\_.

**5-1****Homework Practice**

**Use the diagram to write each ratio as a fraction in simplest form.**

- 1 baseballs and tennis balls to the total number of balls \_\_\_\_\_
- 2 footballs and basketballs to tennis balls and baseballs \_\_\_\_\_
- 3 balls that are *not* tennis balls to the total number of balls \_\_\_\_\_
- 4 footballs to basketballs \_\_\_\_\_



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

- 5 Michele ran 3 out of 7 days this week. Write the ratio of days she ran to days she did *not* run. \_\_\_\_\_
- 6 A bowl of fruit contains 8 apples and 4 oranges. Write the ratio of apples to oranges. \_\_\_\_\_

**Solve.**

- 7 **SWIMMING** The dimensions of a rectangular swimming pool are 44 feet long by 20 feet wide. What is the ratio of the pool's width to its length?



width = 20 ft

length = 44 ft

\_\_\_\_\_

**Write the vocabulary word(s) that completes each sentence.**

- 8 A \_\_\_\_\_ is a comparison of two numbers by division.
- 9 The greatest number that divides evenly into two or more numbers is called the \_\_\_\_\_.

# Homework Practice

**Write each rate as a fraction. Find each unit rate.**

- 1 110 miles in 2 hours \_\_\_\_\_
- 2 36 points scored in 3 games \_\_\_\_\_
- 3 90 customers served in 4.5 hours \_\_\_\_\_
- 4 12 pencils in 2 packs \_\_\_\_\_

**Find each unit rate. Use the unit rate to find the unknown amount.**

- 5 12 gallons in 5 minutes;  gallons in 7 minutes  
\_\_\_\_\_

- 6 140 heartbeats in 2 minutes;  heartbeats in 5 minutes  
\_\_\_\_\_

**Which product has the lower unit cost?**

- 7 a 6-pack of juice for \$1.86 or a 12-pack of juice for \$4.20 \_\_\_\_\_
- 8 2 pounds of granola for \$2.50 or 5 pounds of granola for \$6.30 \_\_\_\_\_
- 9 a box of 30 CDs for \$10.80 or a box of 100 CDs for \$34.00 \_\_\_\_\_

**Solve.**

- 10 **TRANSPORTATION** A car travels 144 miles on 6 gallons of gasoline.  
How many miles can the car travel on 15 gallons of gasoline? \_\_\_\_\_

**Write the vocabulary word(s) that completes each sentence.**

- 11 The \_\_\_\_\_ is the cost of a single item or unit.
- 12 A(n) \_\_\_\_\_ is a comparison of two numbers by division.
- 13 A(n) \_\_\_\_\_ is a ratio comparing two quantities with different kinds of units.
- 14 A(n) \_\_\_\_\_ is a rate that has a denominator of 1.

**5-3****Homework Practice**

Determine whether each pair of ratios is proportional. Write  $=$  or  $\neq$  in each circle.

1  $\frac{6}{10} \bigcirc \frac{39}{62}$

2  $\frac{4}{16} \bigcirc \frac{16}{64}$

3  $\frac{6}{8} \bigcirc \frac{15}{20}$

4  $\frac{8}{14} \bigcirc \frac{28}{49}$

5  $\frac{8}{18} \bigcirc \frac{36}{72}$

6  $\frac{4}{9} \bigcirc \frac{72}{32}$

Solve each proportion.

7  $\frac{18}{21} = \frac{g}{28}$   $g =$  \_\_\_\_\_

8  $\frac{6}{k} = \frac{36}{42}$   $k =$  \_\_\_\_\_

9  $\frac{10}{25} = \frac{14}{r}$   $r =$  \_\_\_\_\_

10  $\frac{12}{16} = \frac{l}{36}$   $l =$  \_\_\_\_\_

11  $\frac{t}{4} = \frac{30}{60}$   $t =$  \_\_\_\_\_

12  $\frac{6}{8} = \frac{15}{a}$   $a =$  \_\_\_\_\_

13  $\frac{4}{y} = \frac{32}{56}$   $y =$  \_\_\_\_\_

14  $\frac{z}{10} = \frac{4}{20}$   $z =$  \_\_\_\_\_

**Solve.**

- 15 **FURNITURE** Lazaro is building chairs. He uses 4 legs and 6 supports for each chair. How many legs are used when 72 supports are used?  
\_\_\_\_\_

- 16 **PAINTING** Latasha is painting a room in her house. The directions on the paint say that she needs 3 pints of paint for every  $500 \text{ ft}^2$ . How many pints of paint does Latasha need to paint  $2,500 \text{ ft}^2$ ?  
\_\_\_\_\_

**Write the vocabulary word(s) that completes each sentence.**

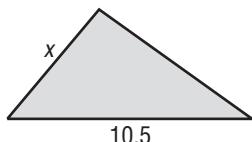
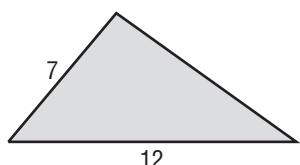
- 17 An equation that states that two ratios are equivalent is a \_\_\_\_\_.

- 18 In the proportion  $\frac{2}{7} = \frac{12}{42}$ ,  $2 \cdot 42$  is called a \_\_\_\_\_.

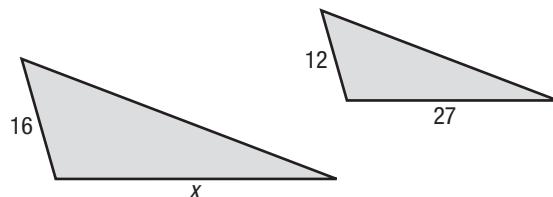
**5-4****Homework Practice**

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

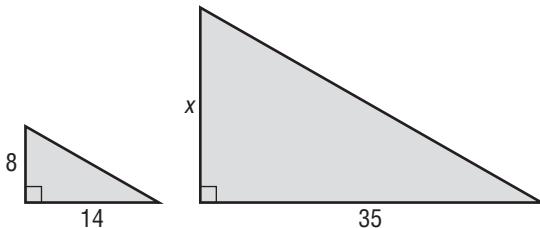
1  $x =$  \_\_\_\_\_



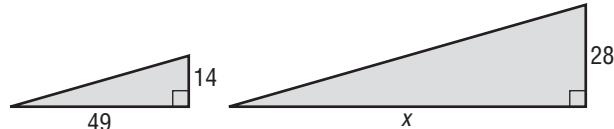
2  $x =$  \_\_\_\_\_



3  $x =$  \_\_\_\_\_



4  $x =$  \_\_\_\_\_



**Use a proportion to solve.**

- 5 Six kiwis cost a total of \$3.30. What is the total cost of 11 kiwis? \_\_\_\_\_

- 6 The Min family uses 7 gallons of milk in 2 weeks. How many gallons of milk does the Min family use in 7 weeks? \_\_\_\_\_

**Solve.**

- 7 **LAUNDRY** Rosa needs  $1\frac{1}{2}$  hours to do 2 loads of laundry. She has 3 loads this week. How long will it take Rosa to do her laundry this week? \_\_\_\_\_

- 8 **PHOTOGRAPHS** Paco has \$6.00 to buy prints from his digital camera. The store offers 6 prints for \$1.25. How many prints can Paco buy? \_\_\_\_\_

**Write the vocabulary word(s) that completes each sentence.**

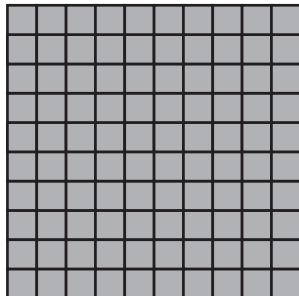
- 9 The lengths of the corresponding sides of similar triangles can be used to write a \_\_\_\_\_.

- 10 The corresponding angles of \_\_\_\_\_ are congruent.

**6-1****Homework Practice**

**Write an equation using exponents to represent each model.**

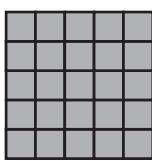
1 \_\_\_\_\_



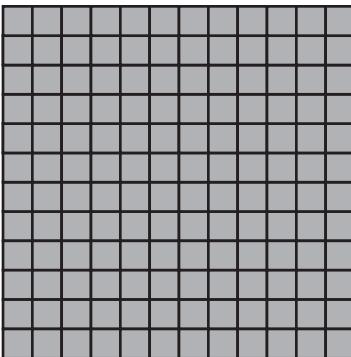
2 \_\_\_\_\_



3 \_\_\_\_\_



4 \_\_\_\_\_



**Evaluate each expression.**

5  $12^2$  \_\_\_\_\_

6  $10^2$  \_\_\_\_\_

7  $3^2$  \_\_\_\_\_

8  $6^2$  \_\_\_\_\_

9  $2^2$  \_\_\_\_\_

10  $7^2$  \_\_\_\_\_

11  $11^2$  \_\_\_\_\_

12  $9^2$  \_\_\_\_\_

13  $5^2$  \_\_\_\_\_

14  $8^2$  \_\_\_\_\_

15  $1^2$  \_\_\_\_\_

16  $4^2$  \_\_\_\_\_

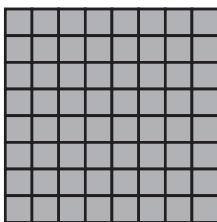
**Solve.**

- 17 **SCHOOL** Mr. Hatano's classroom has the same number of desks in each row. There is the same number of rows as there are desks in each row. There are 5 rows. How many desks are in Mr. Hatano's classroom?

# Homework Practice

Find the positive square root using an area model.

1



$\sqrt{64} = \underline{\hspace{2cm}}$

2



$\sqrt{4} = \underline{\hspace{2cm}}$

Find the positive square root of each number.

3 16

Write the expression.

\_\_\_\_\_

Name the factor pairs.

\_\_\_\_\_

Replace 16 with the set of identical factor pairs.

\_\_\_\_\_

$\sqrt{16} = \underline{\hspace{2cm}}$

4 4

Write the expression.

\_\_\_\_\_

Name the factor pairs.

\_\_\_\_\_

Replace 4 with the set of identical factor pairs.

\_\_\_\_\_

$\sqrt{4} = \underline{\hspace{2cm}}$

5 36

Write the expression.

\_\_\_\_\_

Name the factor pairs.

\_\_\_\_\_

Replace 36 with the set of identical factor pairs.

\_\_\_\_\_

$\sqrt{36} = \underline{\hspace{2cm}}$

Write the vocabulary word that completes each sentence.

6 A \_\_\_\_\_ is a number that is multiplied by another number.

7 The product of a number multiplied by itself is the \_\_\_\_\_.

8 Operations that undo each other are called \_\_\_\_\_.

# Homework Practice

**Write an inequality using common square roots.**

1  $\sqrt{\underline{\hspace{1cm}}} < \sqrt{29} < \sqrt{\underline{\hspace{1cm}}}$

2  $\sqrt{\underline{\hspace{1cm}}} < \sqrt{84} < \sqrt{\underline{\hspace{1cm}}}$

3  $\sqrt{\underline{\hspace{1cm}}} < \sqrt{62} < \sqrt{\underline{\hspace{1cm}}}$

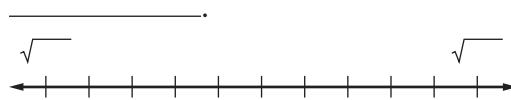
4  $\sqrt{\underline{\hspace{1cm}}} < \sqrt{12} < \sqrt{\underline{\hspace{1cm}}}$

**Estimate each square root to the nearest whole number. Plot each value on a number line.**

5  $\sqrt{23}$  is close to the whole number



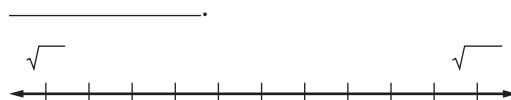
6  $\sqrt{148}$  is close to the whole number



7  $\sqrt{53}$  is close to the whole number



8  $\sqrt{86}$  is close to the whole number



**Choose a reasonable estimate for each square root.**

9  $\sqrt{2}$

- 1.0    1.4    1.8

10  $\sqrt{29}$

- 4.8    5.1    5.4

11  $\sqrt{175}$

- 13.2    13.6    13.9

12  $\sqrt{78}$

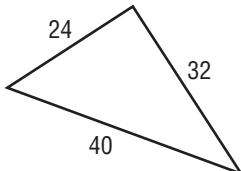
- 7.6    8.8    9.2

- 13 **CALENDAR** Julie's square calendar has area 7 square inches. She estimated the length and width to be between 3 and 4 inches. Is she correct? Explain.
-

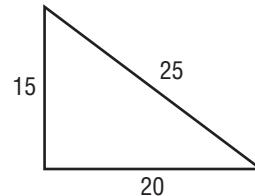
# Homework Practice

Determine if each triangle is a right triangle, using the Pythagorean Theorem.

1

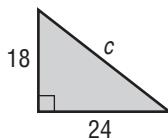


2



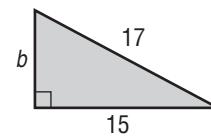
Find the length of the leg or hypotenuse of each right triangle.

3



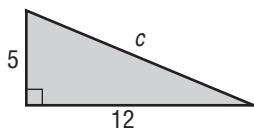
$$c = \underline{\hspace{2cm}} \text{ units}$$

4



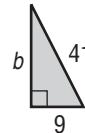
$$b = \underline{\hspace{2cm}} \text{ units}$$

5



$$c = \underline{\hspace{2cm}} \text{ units}$$

6



$$b = \underline{\hspace{2cm}} \text{ units}$$

Solve.

- 7 **TELEVISION** Mr. Patel is buying a new television. He wants to figure out the biggest size television he can get. His cabinet has an opening that is 30 inches tall and 40 inches wide. What is the largest diagonal length of a television Mr. Patel can buy?

---

---

- 8 **MAPS** Carisa is making a treasure map. The path from the starting point to the treasure is 28 paces forward then 21 paces to the left. How many paces would it be to go directly from the starting point to the treasure?

---

---

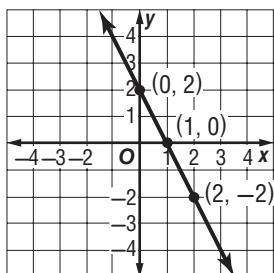
Write the vocabulary word(s) that completes the sentence.

- 9 The                  of a right triangle are the two sides that form the right angle.
- 10 The                  is the side opposite the right angle in a right triangle.

**6-5****Homework Practice**

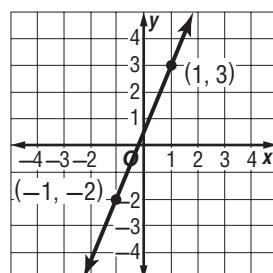
**Find the slope of each line.**

1



$$\frac{\text{rise}}{\text{run}} = \frac{\boxed{-4}}{\boxed{2}} = -2$$

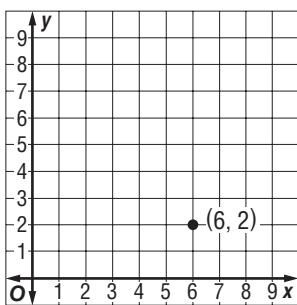
2



$$\frac{\text{rise}}{\text{run}} = \frac{\boxed{5}}{\boxed{2}} = \frac{5}{2}$$

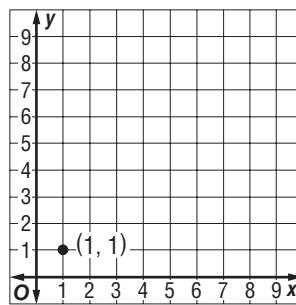
**Graph another point on each line, given one point on the line and the slope.**

3



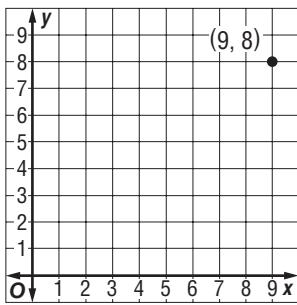
The slope is  $-\frac{4}{3}$ .

4



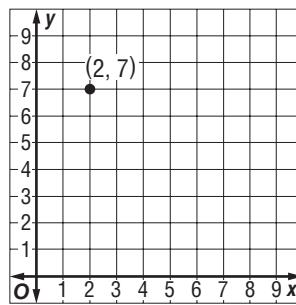
The slope is 2.

5



The slope is  $\frac{3}{5}$ .

6



The slope is  $-\frac{1}{2}$ .

**Solve.**

- 7 **STAIRS** Each step on a flight of stairs has a height of 6 inches and a width of 9 inches. What is the slope of the stairs?

\_\_\_\_\_

- 8 **LADDERS** A ladder is leaning against the side of a house. The bottom of the ladder is 12 feet away from the house and the top of the ladder is 15 feet above the ground. What is the slope of the ladder?

\_\_\_\_\_

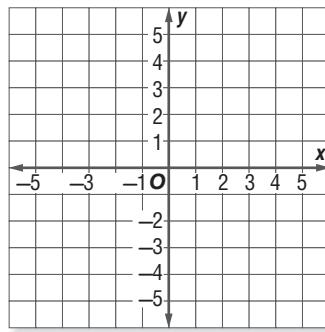
# Homework Practice

**Graph each equation and determine its slope.**

1  $y = 2x + 1$

<b>x</b>	-3	-2	-1
<b>y</b>			

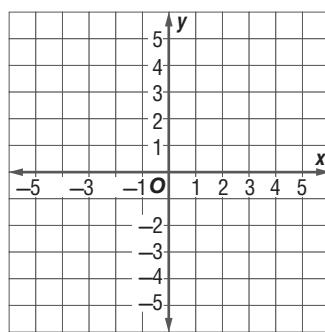
The slope is \_\_\_\_\_.



2  $y = -\frac{4}{5}x$

<b>x</b>	-5	0	5
<b>y</b>			

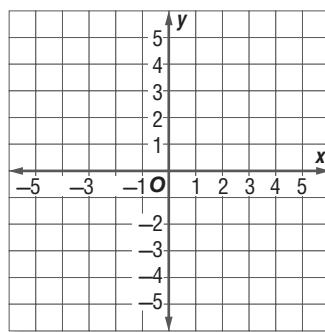
The slope is \_\_\_\_\_.



3  $y = \frac{2}{3}x + 2$

<b>x</b>	-3	0	3
<b>y</b>			

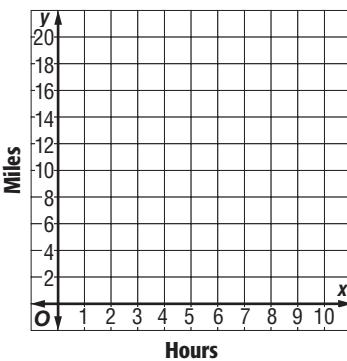
The slope is \_\_\_\_\_.



- 4 **ANIMALS** A pig can run at approximately 10 miles per hour. Graph an equation to represent how far a pig can run in  $x$  hours.

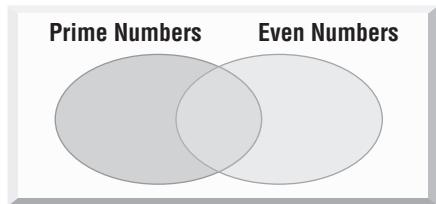
Write an equation. Let  $x$  represent the number of hours and  $y$  represent the number of miles.

The slope is \_\_\_\_\_.



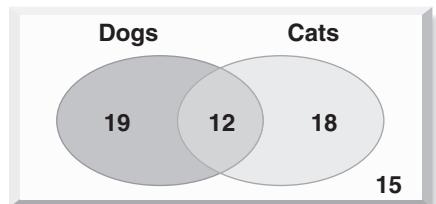
**7-1****Homework Practice****List the numbers in each category.****1, 2, 3, 4, 5, 6, 7, 8, 9, 10****1** multiples of 5:  
\_\_\_\_\_**2** even numbers:  
\_\_\_\_\_**3** both:  
\_\_\_\_\_**4** neither:  
\_\_\_\_\_**5** Create a Venn diagram to sort the numbers. Classify them as prime numbers or even numbers.**2, 3, 8, 9, 17, 21, 25, 37, 41**

Prime Numbers	Even Numbers	Neither
_____	_____	_____

**Solve.**

- 6 SURVEY** Malcolm took a survey to find out how many students have dogs, cats, or both pets. Malcolm surveyed 64 students and recorded his results in the Venn diagram shown below. Of the students surveyed, how many do not have a dog as a pet?

\_\_\_\_\_

**Write the vocabulary word that completes each sentence.**

- 7** To put together items that have something in common is to \_\_\_\_\_.
- 8** A \_\_\_\_\_ uses overlapping circles to show common elements.

# Homework Practice

**Find the mode for each given set of data.**

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

- 2 7, 8, 5, 8, 4

\_\_\_\_\_

\_\_\_\_\_

**Find the median for each given set of data.**

- 3 Barb counted the glasses in nine different kitchen cabinets.

$$11, 12, 4, 7, 9, 5, 13, 8, 12$$

Arrange the numbers in order:

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

The median is \_\_\_\_\_.

- 4 Juan asked 13 students how many books they read over the summer.

$$0, 5, 15, 2, 11, 17, 8, 6, 5, 2, 0, 3, 2$$

Arrange the numbers in order:

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

The median is \_\_\_\_\_.

**Find the range for each given set of data.**

- 5 11, 12, 4, 7, 9, 5, 13, 8, 12

The range of glasses in Exercise 3 is \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_.

- 6 0, 5, 15, 2, 11, 17, 8, 6, 5, 2, 0, 3, 2

The range of books in Exercise 4 is \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_.

**Solve.**

- 7 **PAY** Julius kept track of the number of hours he worked per week for 15 weeks. The results are shown below. Find the mode, median, and range of the number of hours.

$$19, 16, 32, 30, 20, 40, 37, 10, 8, 0, 35, 40, 36, 12, 15$$

\_\_\_\_\_

**Write the vocabulary word that completes the sentence.**

- 8 Information gathered for statistical purposes is called \_\_\_\_\_.

**7-3****Homework Practice****Find the mean of each data set.**

1 60, 72, 56, 42, 80  
\_\_\_\_\_

2 11, 16, 12  
\_\_\_\_\_

3 5, 14, 25, 17, 14  
\_\_\_\_\_

4 6.2, 3.8, 4.5, 5.5  
\_\_\_\_\_

**Find the mean of each set of data. Convert the remainder into a fraction or a decimal.**

5 2, 7, 9, 4  
\_\_\_\_\_

6 6.1, 8.2, 9.3, 7.6  
\_\_\_\_\_

7 16, 30, 26, 14, 18  
\_\_\_\_\_

8 2, 1, 9, 4, 0, 6  
\_\_\_\_\_

**Find one missing number from a data set when the mean is given.**

9 Mean: 6 Data set: 2, 3, 10, \_\_\_\_\_

10 Mean: 7 Data set: 6.2, 5.2, 9.7, \_\_\_\_\_

11 Mean: 14.6 Data set: 19, 12, 10, 15, \_\_\_\_\_

12 Mean: 6 Data set: 4, 6, 3, 6, \_\_\_\_\_

- 13
- TEMPERATURE**
- Mark recorded the high temperature every day for five days. The temperatures were 52°F, 64°F, 57°F, 61°F, and 70°F. What was the mean high temperature for the week? \_\_\_\_\_

**Write the vocabulary word that completes each sentence.**

- 14 The numbers that are often used to describe the center of a set of data are called the \_\_\_\_\_.
- 
- 15 Another name for the mean of a set of data is the \_\_\_\_\_.

# Homework Practice

**Use the double-bar graph “Quiz Grades” to compare data.**

- 1 How many students earned A's?
- 

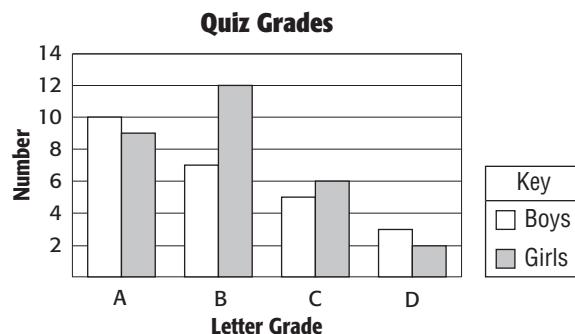
- 2 How many more boys earned B's than D's?
- 

- 3 How many girls earned A's or B's?
- 

- 4 A total of 11 students earned what grade?
- 

- 5 How many students took the quiz?
- 

- 6 How many more girls than boys earned a C?
- 



**Use the bar graph “Favorite Ride” to compare data.**

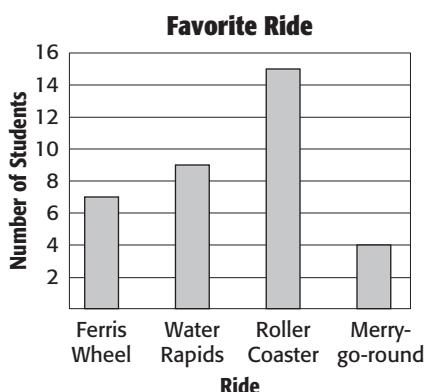
- 7 How many students were surveyed?
- 

- 8 How many students prefer the water rapids to the merry-go-round?
- 

- 9 How many students chose the Ferris wheel or the roller coaster as their favorite ride?
- 

- 10 What is the least favorite ride?
- 

- 11 How many more students prefer the roller coaster than the water rapids? \_\_\_\_\_



**7-5****Homework Practice**

**Use the data in the table to plan a bar graph.**

- 1 What is a good title for the graph?

\_\_\_\_\_

- 2 What are the two main categories?

\_\_\_\_\_

\_\_\_\_\_

- 3 What interval could be used for the scale?

\_\_\_\_\_

4 What will the height of each bar represent?

\_\_\_\_\_

Education of 8 <sup>th</sup> Graders' Parents	
Educational Level Attained	Number of Students
High School Diploma	17
Some College	29
College Degree	66
Graduate Level Degree	34

**Use the data in the table to create a bar graph.**

- 5 The table shows the favorite snack of students in summer school.

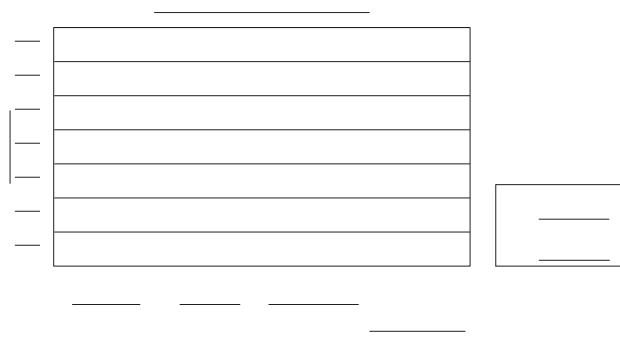
Favorite Snack	
Snack	Number of Students
Cookies	8
Veggies	15
Chips	9
Fruit	6
Milk	4



**Use the data in the table to create a double-bar graph.**

- 6 The table shows how many juniors and seniors prefer each location for their prom.

Preferred Location for Prom		
Location	Juniors	Seniors
School	10	6
Hotel	26	30
Museum	22	25
Railroad Station	15	19



**7-6****Homework Practice**

**Use the line graph “Time to Finish Race” to compare data.**

- 1 About how much faster was the time in 2008 than in 2002?

\_\_\_\_\_

- 2 In what year was the winning time the fastest?

\_\_\_\_\_

- 3 Describe the trend of the graph. Do the times increase, decrease, or show no change?

\_\_\_\_\_

- 4 If this trend continues, predict the time in 2010.

\_\_\_\_\_



**Use the double-line graph “Members of Spanish Club” to compare data.**

- 5 How many more girls than boys were in Spanish Club in 2002?

\_\_\_\_\_

- 6 What percent of girls were in Spanish Club in 2004?

\_\_\_\_\_

- 7 What percent of boys were in Spanish Club in 2007?

\_\_\_\_\_

- 8 In what years was there a higher percentage of in Spanish Club?

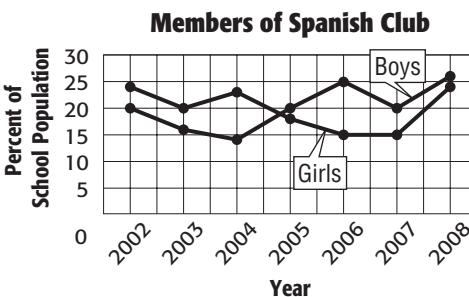
\_\_\_\_\_

- 9 What is the scale and what does it represent?

\_\_\_\_\_

- 10 In which years are the percents of boys and girls the closest to each other?

\_\_\_\_\_



# Homework Practice

Use the data in the table to plan a line graph.

- 1 What is a good title for the graph?

\_\_\_\_\_

- 2 What are the two main categories?

\_\_\_\_\_

- 3 What interval could be used for the scale?

\_\_\_\_\_

Amount Spent on Groceries	
Week	Amount
1	\$68
2	\$86
3	\$135
4	\$74
5	\$91
6	\$83

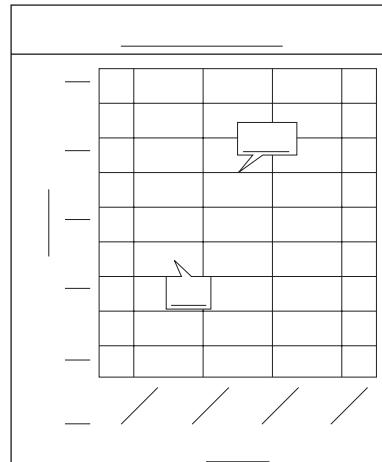
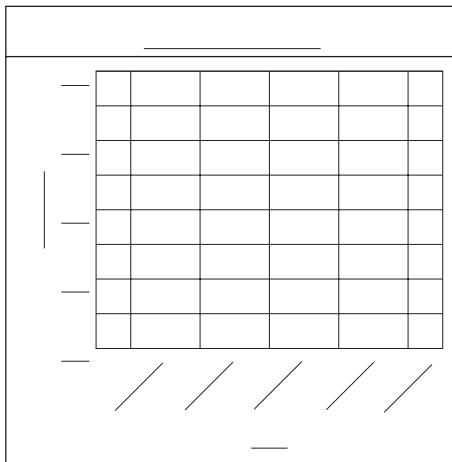
Use the data in the table to create a line or double-line graph.

- 4 A scientist records the amount of rain that fell in a city each day.

Amount of Rain	
Day of Week	Inches
Monday	0.25
Tuesday	0.10
Wednesday	0.00
Thursday	1.30
Friday	0.75

- 5 Ben and Betty's mother would like her children to keep track of how much money they save each month.

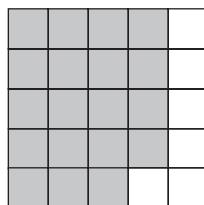
Amount Saved		
Month	Ben	Betty
January	\$10	\$15
February	\$12	\$22
March	\$15	\$13
April	\$19	\$11



# Homework Practice

Identify each percent that is modeled.

1



fraction: \_\_\_\_\_

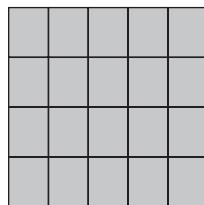
fraction with denominator of 100: \_\_\_\_\_

$$\frac{\bullet}{\bullet} = \frac{\bullet}{100}$$

decimal: \_\_\_\_\_

percent: \_\_\_\_\_

2



fraction: \_\_\_\_\_

fraction with denominator of 100: \_\_\_\_\_

$$\frac{\bullet}{\bullet} = \frac{\bullet}{100}$$

decimal: \_\_\_\_\_

percent: \_\_\_\_\_

Find the missing value.

- 3 What is 68% of 300?

$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

- 5 What is 75% of 48?

$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

- 4 What is 3% of 50?

$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

- 6 What is 15% of 60?

$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

Solve.

- 7 **PARKING** In section A of the mall parking lot, there are a total of 100 vehicles, of which 54 are minivans. In section B, there are 150 vehicles, of which 90 are minivans. Which section has the greater percentage of minivans?  
\_\_\_\_\_

- 8 **SAVINGS** Marcos and Rosita each deposit 12% of their earnings into a savings account. One week, Marcos earned \$80 and Rosita earned \$115. Who deposited the greater amount into their savings account? Explain.  
\_\_\_\_\_

Write the vocabulary word that completes each sentence.

- 9 A \_\_\_\_\_ is a comparison of two numbers by division.

- 10 A \_\_\_\_\_ is a ratio that compares a number to 100.

# Homework Practice

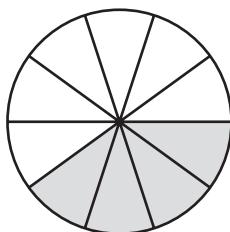
**Use combinations to find the degrees needed to show each sector in a circle graph.**

1  $60\% \quad + \quad = 60\%$   
 $\underline{\quad} + \underline{\quad} = \underline{\quad}$

2  $15\% \quad + \quad = 15\%$   
 $\underline{\quad} + \underline{\quad} = \underline{\quad}$

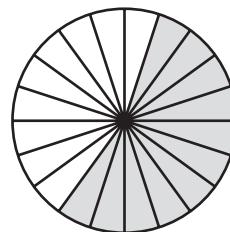
**Name the fraction and the percent of the circle that is shaded.**

3



fraction:  $\frac{\underline{\quad}}{\underline{\quad}}$   
 $\underline{\quad} \cdot \underline{\quad} = \frac{\underline{\quad}}{100} = \underline{\quad}$

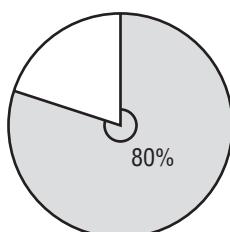
4



fraction:  $\frac{\underline{\quad}}{\underline{\quad}}$   
 $\underline{\quad} \cdot \underline{\quad} = \frac{\underline{\quad}}{100} = \underline{\quad}$

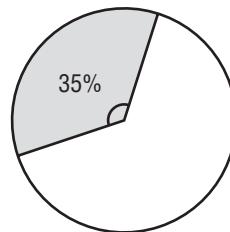
**Find the degrees needed to show each sector in a circle graph.**

5



$80\% = \frac{\underline{\quad}}{100} \cdot \frac{\underline{\quad}}{\underline{\quad}} = \frac{\underline{\quad}}{\underline{\quad}} = \underline{\quad}$   
 $\underline{\quad} \cdot \frac{\underline{\quad}}{\underline{\quad}} = \frac{\underline{\quad}}{\underline{\quad}} = \underline{\quad}$

6



$35\% = \frac{\underline{\quad}}{100} \cdot \frac{\underline{\quad}}{\underline{\quad}} = \frac{\underline{\quad}}{\underline{\quad}} = \underline{\quad}$   
 $\underline{\quad} \cdot \frac{\underline{\quad}}{\underline{\quad}} = \frac{\underline{\quad}}{\underline{\quad}} = \underline{\quad}$

- 7 **PETS** Randy surveyed the students in his homeroom about the type of pet they have. Of his classmates, 20% have a dog, 30% have a cat, 10% have a fish, and 40% do not have a pet. He wants to make a circle graph to show this data. What is the degree measure of each sector?

**Write the vocabulary word that completes each sentence.**

- 8 A pie-shaped section in a circle is called a(n) \_\_\_\_\_.  
 9 The bottom number in a fraction is called the \_\_\_\_\_.

# Homework Practice

**MOVIES** Lee sorted his 200 movies into categories. The circle graph shows the percentage of each type. Use the circle graph to answer the questions below.

- 1 What is the title of the graph?

---

- 2 Which two types of movies does he have the same number?

---

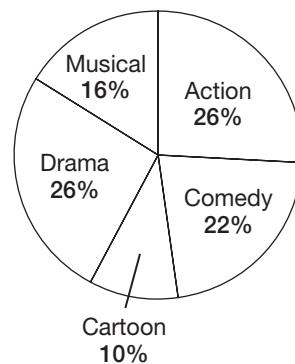
- 3 Which two types of movies total the same as the percentage of action movies?

---

- 5 How many more drama movies than comedy movies does Lee have?

---

**Lee's Movies**



- 4 How many cartoon movies does Lee have?

---

- 6 How many movies are not action movies?

---

**COIN COLLECTION** Reba's coin collection includes 200 coins of different types. The circle graph shows the percentage of each type of coin. Use the circle graph to answer the questions below.

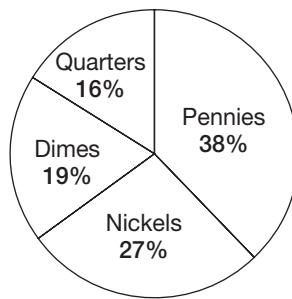
- 7 How many nickels has Reba collected?

---

- 8 How many coins are not pennies?

---

**Reba's Coins**



**Write the vocabulary word(s) that complete each sentence.**

- 9 A graph used to compare parts of a whole is called a \_\_\_\_\_.

- 10 Information, often numerical, which is gathered for statistical purposes, is called \_\_\_\_\_.

# Homework Practice

- 1 Complete the table to show the decimal value, the percent, and the degree measure for each type of house for sale.

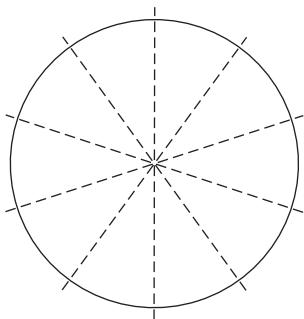
Number of Bedrooms	Number	Decimal Value	Percent	Degree Measure
Two	16			
Three	48			
Four	12			
Five	4			
<b>Total Check</b>	<b>80</b>	<b>1.00</b>	<b>100%</b>	<b>360°</b>

- 2 Complete the table to show the decimal value, the percent, and the degree measure for each type of transaction at a clothing store yesterday.

Transaction	Number	Decimal Value	Percent	Degree Measure
Cash	75			
Check	50			
Bank Credit Card	100			
Store Credit Card	150			
Debit Card	125			
<b>Total Check</b>	<b>500</b>	<b>1.00</b>	<b>100%</b>	<b>360°</b>

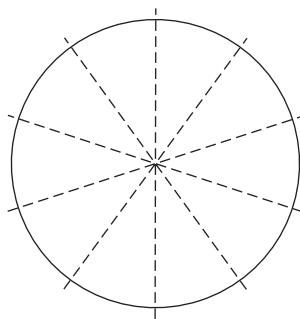
- 3 Use the table in Exercise 1 to create a circle graph.

Number of Bedrooms



- 4 Use the table in Exercise 2 to create a circle graph.

Transaction Types



**9-1****Homework Practice**

Determine which ordered pair below is a solution of each equation.

- (36, 4) (2, 14) (1, 10) (0, 4) (5, 16) (2, 9) (5, 2) (6, 54)

1  $y = 9x$  \_\_\_\_\_

2  $y = x + 12$  \_\_\_\_\_

3  $y = 2x - 8$  \_\_\_\_\_

4  $y = 3x + 1$  \_\_\_\_\_

Complete the table for each equation. Then find three solutions for each equation.

5  $y = 4x - 1$

x	$4x - 1$	y
1	$4(1) - 1$	
3	$4(\underline{\hspace{1cm}}) - 1$	
6	$4(\underline{\hspace{1cm}}) - 1$	

6  $y = 8x$

x	8x	y
1	$8(\underline{\hspace{1cm}})$	
2		
3		

7  $y = -x + 10$

x	$-x + 10$	y
1		
2		
3		

8  $y = 2x + 3$

x	$2x + 3$	y
0		
4		
7		

**Solve.**

- 9 **PHOTOGRAPHS** The equation  $y = 12x$  represents the number of wallet-sized pictures  $y$  that can be printed on  $x$  sheets of photo paper. Find three solutions when  $x = 2, 3$ , and  $6$ . Explain what the solutions mean.

---

---

---

Write the vocabulary word that completes the sentence.

- 10 The value of a variable that makes an equation true is called a \_\_\_\_\_.

# Homework Practice

**Solve.**

- 1 TEMPERATURE** Mr. Ramirez recorded the temperature for July 17 at different elevations. The table below shows the data. Create a scatter plot to find the relationship between the data sets.

Temperature (°F)	500	1,000	1,500	2,000	2,500	3,000	3,500
Elevation (ft)	78	60	56	50	50	42	39

Describe the relationship between elevation and temperature.

---

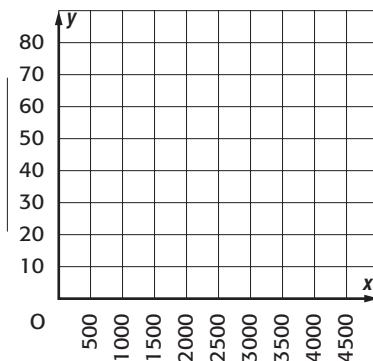
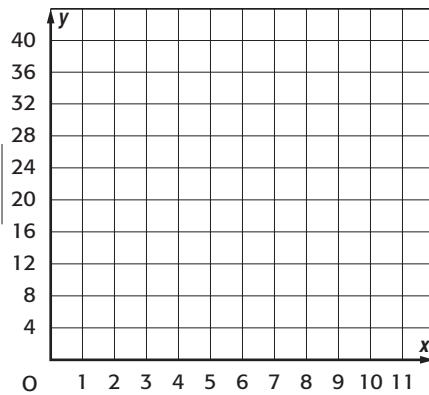
- 2 GASOLINE** Eric recorded his gas purchases over the last several months. The table below shows the data. Create a scatter plot to find the relationship between the data sets.

Gallons of Gasoline	2	3	4	5	5
Cost	\$7	\$11	\$16	\$17	\$18

Gallons of Gasoline	6	7	7	7	9
Cost	\$21	\$23	\$26	\$27	\$31

Describe the relationship between the gallons of gas purchased and the cost.

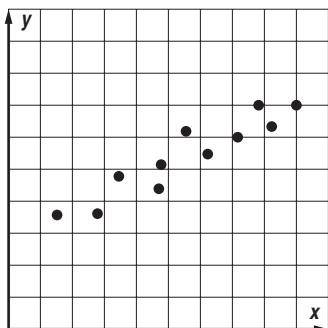
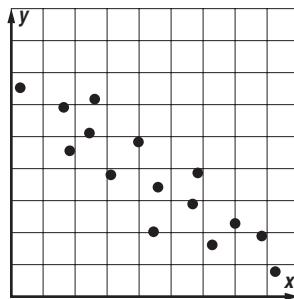
---

**Data for July 17****Eric's Gas Purchases****Write the vocabulary word(s) that completes each sentence.**

- 3** A(n) \_\_\_\_\_ is a graph in which two sets of data are plotted as ordered pairs in the coordinate plane.
- 4** A(n) \_\_\_\_\_ is a grid in which a horizontal number line and a vertical number line intersect at their zero points.
- 5** The horizontal line of the two perpendicular number lines in a coordinate grid is the \_\_\_\_\_.

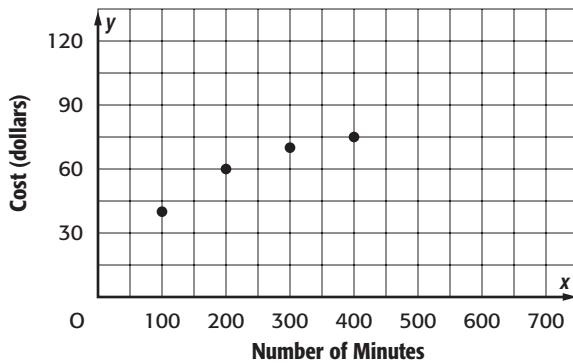
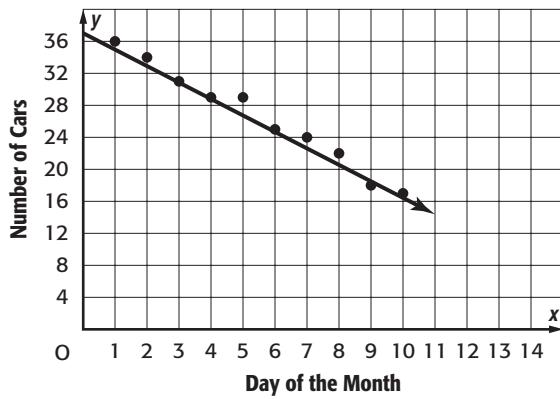
**9-3****Homework Practice**

**Draw a line of best fit. Then describe the slope of the line and the trend in the data.**

**1****2****Solve.**

- 3 CALLING PLANS** The scatter plot shows the cost of various cell phone calling plans. Draw a line of best fit. Then describe the slope of the line and the trend of the data.
- 
- 4** Use the line of best fit for Exercise 3 to predict the cost of a calling plan that includes 700 minutes.
- 

- 5 CAR SALES** The scatter plot shows the number of cars in a showroom for the first 10 days of the month. Use the line of best fit shown to predict how many cars will be in the showroom on the 14th day.
- 

**Flash Phones Calling Plans****Carson Cars' August Sales****Write the vocabulary word that completes the sentence.**

- 6** A line that is very close to most of the data points on a scatter plot is called a \_\_\_\_\_.