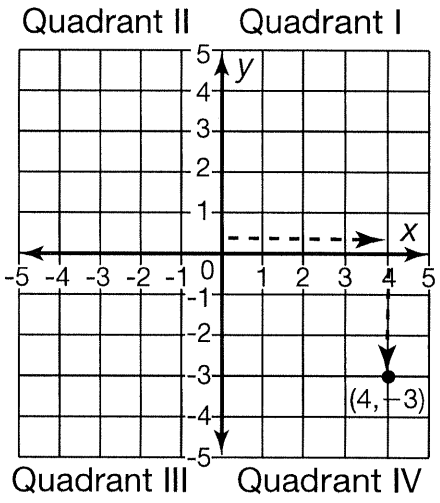
Name _____

Reteaching
8-1

Integers on the Coordinate Plane

Parts of a coordinate plane:

***x*-axis:** a horizontal number line
***y*-axis:** a vertical number line
origin: the place where the two number lines meet
quadrants: the four sections created by the two number lines

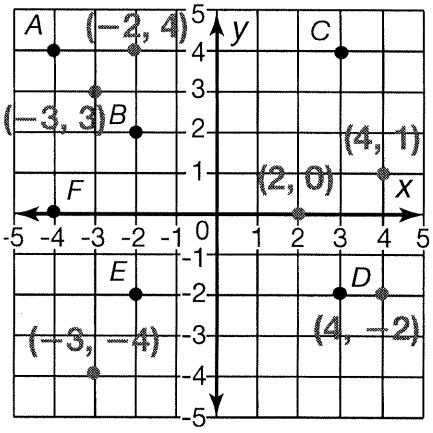


A point in a coordinate plane is represented by an **ordered pair.** (4, −3)

x-coordinate *y*-coordinate

To locate point (4, −3), start at the origin.
Move to 4 on the *x*-axis. Then move to −3 on the *y*-axis.

Graph and label these points on the coordinate plane.



1. (4, 1)
2. (−3, 3)
3. (2, 0)
4. (4, −2)
5. (−2, 4)
6. (−3, −4)

Write the ordered pair for each point.

7. *A* **(−4, 4)**
8. *B* **(−2, 2)**
9. *D* **(3, −2)**
10. *E* **(−2, −2)**

11. **Writing to Explain** How would you plot the point (−8, 10) on the coordinate plane?

Sample answer: Start at the origin. Move to the left 8 spaces. Then move up 10 spaces and place a point.

12. **Reasoning** In what quadrant will a point with a negative *x*-coordinate and a positive *y*-coordinate (negative number, positive number) be located?

Quadrant II

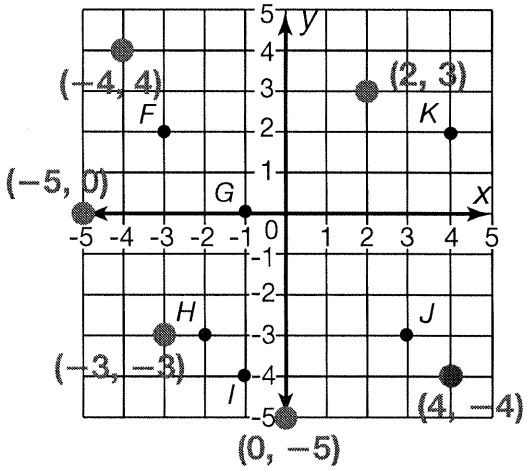
Name _____

Practice
8-1

Integers on the Coordinate Plane

Write the ordered pair for each point.

1. F (−3, 2)
2. G (−1, 0)
3. H (−2, −3)
4. I (−1, −4)
5. J (3, −3)
6. K (4, 2)



Plot and label each ordered pair on the coordinate grid.

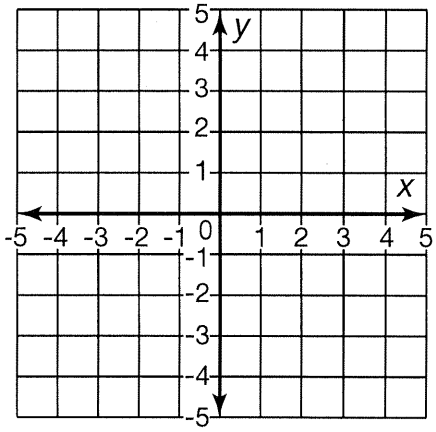
7. (2, 3)
8. (4, −4)
9. (0, −5)
10. (−3, −3)
11. (−4, 4)
12. (−5, 0)

13. **Writing to Explain** A point is located in Quadrant IV. What do you know about the signs of the coordinates for the point? Explain.

Quadrant IV is the lower right quadrant. If a point is in Quadrant IV, the x-coordinate is positive and the y-coordinate is negative $(x, -y)$.

14. **Critical Thinking** Draw three lines that are parallel to the x-axis. Read the ordered pairs for points on each line. What generalization can you make about the ordered pairs for lines parallel to the x-axis?

The y-coordinate is the same for all points on a line parallel to the x-axis.



15. **Geometry** Which ordered pair is located in Quadrant III?

(A) (−1, −1)

B (−4, 0)

C (−2, 2)

D (0, 5)

Name _____

Enrichment
8-1

Polygon Orders

Visual Thinking

For each exercise, draw the figure required and write the ordered pair for each vertex. Draw the figures on the coordinate plane below.

Sample answers

1. In Quadrant I, draw a triangle with one side that is 4 units long.

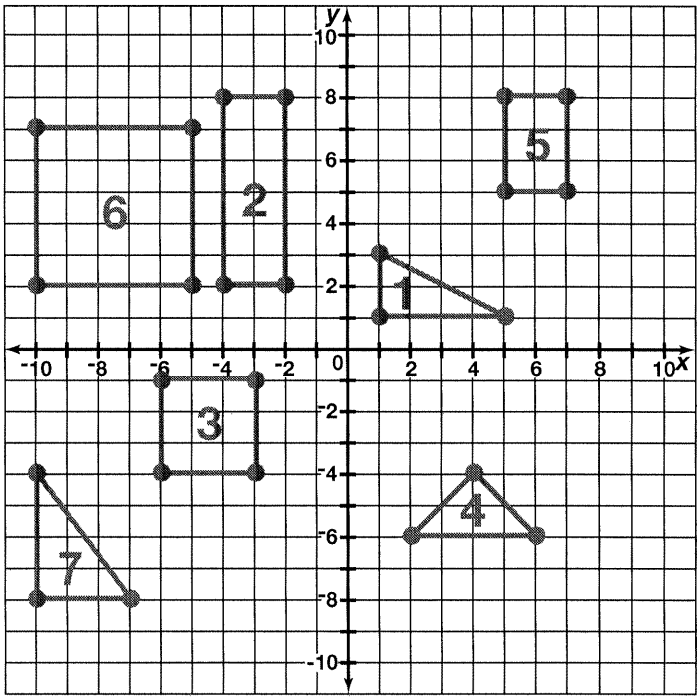
   for 1-7 and graph:

   (1, 1), (1, 3), (5, 1)

2. In Quadrant II, draw a rectangle with the longer sides having a length of 6 units.

   (−2, 2), (−4, 2)

   (−4, 8), (−2, 8)



3. In Quadrant III, draw a square with sides that are 3 units long.

   (−3, −1), (−6, −1), (−6, −4), (−3, −4)

4. In Quadrant IV, draw an isosceles triangle with a base of 4 units.

   (4, −4), (2, −6), (6, −6)

5. In Quadrant I, draw a rectangle with two sides that are 2 units long.

   (5, 5), (7, 5), (7, 8), (5, 8)

6. In Quadrant II, draw a square with sides that are 5 units long.

   (−5, 2), (−10, 2), (−10, 7), (−5, 7)

7. In Quadrant III, draw a right triangle with a base of 3 units and a height of 4 units.

   (−10, −4), (−7, −8), (−10, −8)

Name _____

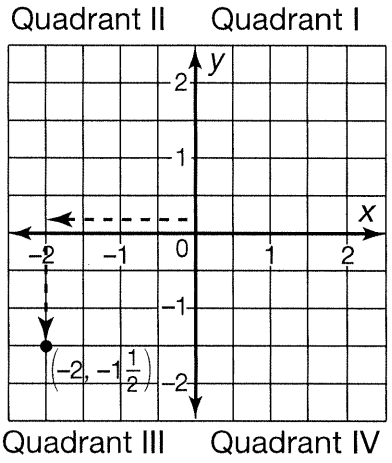
Reteaching
8-2

Rational Numbers on the Coordinate Plane

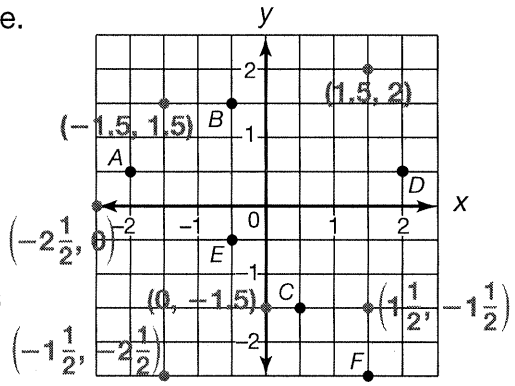
The coordinate grid has an ***x*-axis,** a ***y*-axis,** an **origin (0, 0),** and four **quadrants.**

Ordered pairs of rational numbers can be plotted just like ordered pairs of integers. Plot $(-2, -1\frac{1}{2})$ on the grid.

To locate point $(-2, -1\frac{1}{2})$, start at the origin. Move 2 units to the left on the *x*-axis. Then move down $1\frac{1}{2}$ units on the *y*-axis.



Graph and label these points on the coordinate plane.



1. $(-1.5, 1.5)$
2. $(0, -1.5)$
3. $(1\frac{1}{2}, -1\frac{1}{2})$
4. $(-2\frac{1}{2}, 0)$
5. $(1.5, 2)$
6. $(-1\frac{1}{2}, -2\frac{1}{2})$

Write the ordered pair for each point, using fractions or decimals.

7. *A* **$(-2, \frac{1}{2}$ or 0.5)**
8. *B* **$(-0.5$ or $-\frac{1}{2}$, 1.5 or $1\frac{1}{2})$**
9. *C* **$(\frac{1}{2}$ or 0.5, $-1\frac{1}{2}$ or $-1.5)$**
10. *D* **$(2, 0.5$ or $\frac{1}{2})$**
11. *E* **$(-0.5$ or $-\frac{1}{2}$, -0.5 or $-\frac{1}{2})$**
12. *F* **$(1.5$ or $1\frac{1}{2}$, -2.5 or $-2\frac{1}{2})$**

13. **Reasoning** In which quadrant will both the *x*-coordinate and *y*-coordinate of a point be negative?

Quadrant III

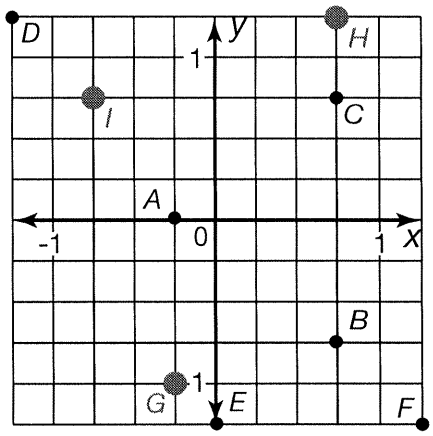
Name _____

Practice
8-2

Rational Numbers on the Coordinate Plane

Write the ordered pair for each point.

1. A $(-\frac{1}{4}, 0)$
2. B $(\frac{3}{4}, -\frac{3}{4})$
3. C $(0.75, 0.75)$
4. D $(-1.25, 1.25)$
5. E $(0, -1\frac{1}{4})$
6. F $(1\frac{1}{4}, -1\frac{1}{4})$



For **7** through **9**, plot the ordered pairs.

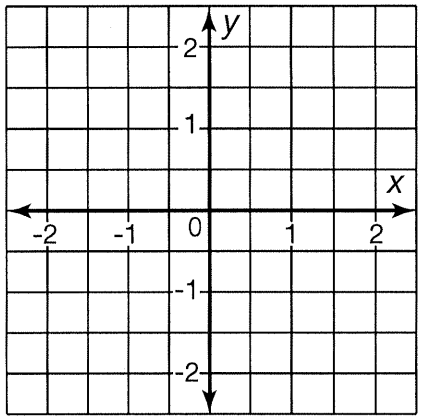
7. G $(-0.25, -1)$
8. H $(\frac{3}{4}, 1\frac{1}{4})$
9. I $(-0.75, 0.75)$

10. **Writing to Explain** A point is located in Quadrant II. What do you know about the signs of the coordinates for the point? Explain.

Quadrant II is the upper left quadrant. If a point is in Quadrant II, the *x*-coordinate is negative and the *y*-coordinate is positive (−*x*, +*y*).

11. **Critical Thinking** Draw three lines that are parallel to the *y*-axis. Read the ordered pairs for points on each line. What generalization can you make about the ordered pairs for lines parallel to the *y*-axis?

The *x*-coordinate is the same for all points on a line parallel to the *y*-axis.



12. **Reason** In which quadrants do the *x*-coordinate and the *y*-coordinate of a point have the same sign? Explain.

Quadrants I and III; Sample explanation: In Quadrant I they are both positive, in Quadrant III they are both negative.

Name _____

Enrichment
8-2

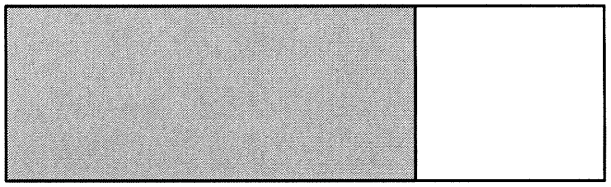
Benchmark Ads

Estimation

Benchmark fractions are used in many situations where an exact amount is not needed. Use benchmark fractions to help create advertising slogans using the data in the graphs.

Example:

Dentists' Preferences



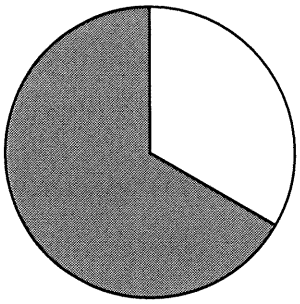
Dentists who recommend True Clean toothpaste

Dentists who recommend other toothpastes

More than $\frac{2}{3}$ of dentists recommend True Clean toothpaste!

Sample answers are given

1. **Shoppers' Preferences**

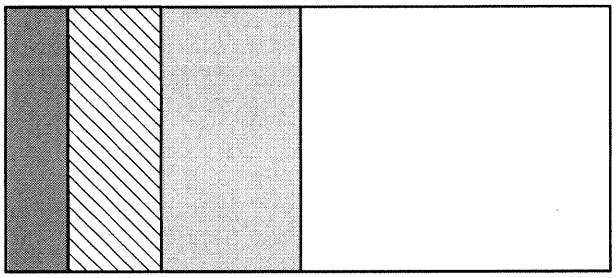


Customers who shop at Big Bargain Land

Customers who shop at other stores

About $\frac{2}{3}$ of customers shop at Big Bargain Land!

2. **Cereal Preferences**



People who prefer Toasty Squares cereal

People who prefer Fun O's cereal

People who prefer Tasty Flakes cereal

People who prefer Wheat Nuggets cereal

Wheat Nuggets are the choice of $\frac{1}{2}$ of people tested

Name _____

Reteaching
8-3

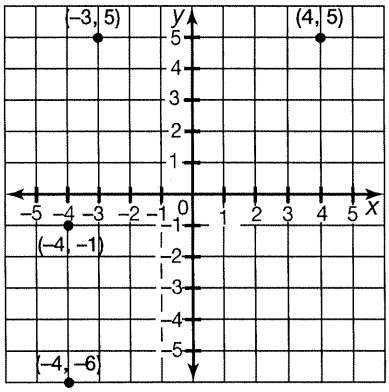
Distance on the Coordinate Plane

Find the distance between (−3, 5) and (4, 5).

Use absolute value. Look at the *x*-coordinates. Since the points are in different quadrants, add the absolute values.

$|-3| + |4| = 3 + 4 = 7$.

The points are 7 units apart.



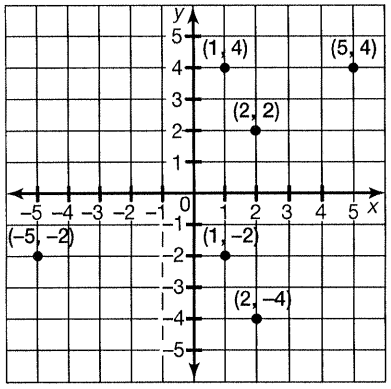
Find the distance between (−4, −1) and (−4, −6).

Use absolute value. Look at the *y*-coordinates. Since the points are in the same quadrant, subtract the absolute values.

$|-6| + |-1| = 6 - 1 = 5$.

The points are 5 units apart.

Use the coordinate plane for **1** through **3.**



1. What is the distance between (1, 4) and (5, 4)?

A 1 unit

B 3 units

C 4 units

D 6 units

2. Find the distance between (2, 2) and (2, −4).

6 units

3. Writing to Explain How can you find the distance between (−5, −2) and (1, −2)?

Sample answer: First look at the *x*-coordinates. The points are in different quadrants, so add the absolute values. $|-5| + |1| = 5 + 1 = 6$. The points are 6 units apart.

Name _____

Practice
8-3

Distance on the Coordinate Plane

For **1** through **12,** find the distance between the ordered pairs. You can use a coordinate plane to help.

1. (−1, 7), (5, 7) 6 units

2. (−3, −9), (−3, −1) 8 units

3. (−2, −6), (−2, 0) 6 units

4. (12, −2), (12, 12) 14 units

5. (2, −9), (−3, −9) 5 units

6. (−1, 5), (5, 5) 6 units

7. (0, −1), (0, 16) 17 units

8. (15, −9), (15, −6) 3 units

9. (−8, −4), (3, −4) 11 units

10. (−7, −9), (−7, 8) 17 units

11. (13, −3), (−3, −3) 16 units

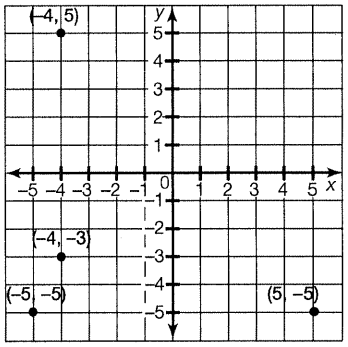
12. (−16, −9), (−16, −11) 2 units

13. On a map, a museum is located at (15, 17). A library is located at (15, −2). How many units away is the museum from the library?

A 2 units **C** 17 units

B 13 units **D** 19 units

Use the coordinate plane for **14** and **15.**



14. What is the distance from (5, −5) to (−5, −5)?

10 units

15. Kendra walks from a park located at (−4, −3) to her house at (−4, 5). How far did she walk?

8 units

16. Reason On a map, Jorge is standing at (11, −11). His friend Leslie is standing at (1, −11). If Jorge walks 10 units to the right, will he be standing with Leslie? Explain.

No; sample explanation: If Jorge walks 10 units to the right, he will be at (21, −11), not (1, −11).

Name _____

Enrichment
8-3

Box Mixes

Number Sense

Fill in the boxes with missing fractions to make each subtraction sentence true, both going across and down. Then write the final difference for each exercise in the circle in the lower right-hand corner. Write all fractions in simplest form.

1.

$7\frac{1}{4}$	$-$	$5\frac{1}{2}$	$= 1\frac{3}{4}$
$-$		$-$	$-$
$3\frac{1}{12}$	$-$	$2\frac{3}{4}$	$= \frac{1}{3}$
$=$		$=$	$=$
$4\frac{1}{6}$	$-$	$2\frac{3}{4}$	$= 1\frac{5}{12}$

2.

$12\frac{5}{8}$	$-$	$7\frac{3}{8}$	$= 5\frac{1}{4}$
$-$		$-$	$-$
$4\frac{5}{12}$	$-$	$1\frac{47}{48}$	$= 2\frac{7}{16}$
$=$		$=$	$=$
$8\frac{5}{24}$	$-$	$5\frac{19}{48}$	$= 2\frac{13}{16}$

3.

$6\frac{1}{3}$	$-$	$2\frac{1}{6}$	$= 4\frac{1}{6}$
$-$		$-$	$-$
$3\frac{5}{9}$	$-$	$2\frac{1}{9}$	$= 1\frac{4}{9}$
$=$		$=$	$=$
$2\frac{7}{9}$	$-$	$\frac{1}{18}$	$= 2\frac{13}{18}$

4.

$5\frac{3}{5}$	$-$	$4\frac{1}{10}$	$= 1\frac{1}{2}$
$-$		$-$	$-$
$2\frac{1}{3}$	$-$	$2\frac{2}{15}$	$= \frac{1}{5}$
$=$		$=$	$=$
$3\frac{4}{15}$	$-$	$1\frac{29}{30}$	$= 1\frac{3}{10}$

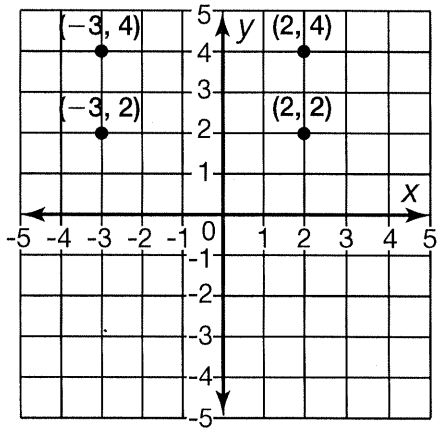
Name _____

Reteaching
8-4

Polygons on the Coordinate Plane

How can you find the perimeter of a polygon on the coordinate plane?

Remember, perimeter is the distance around a figure. So, find the distance between each pair of points by counting or using absolute value.



Top side: (−3, 4) to (2, 4): 5 units

Right side: (2, 4) to (2, 2): 2 units

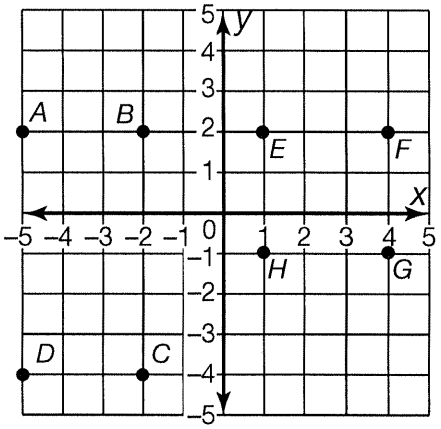
Bottom side: (2, 2) to (−3, 2): 5 units

Left side: (−3, 2) to (−3, 4): 2 units

5 + 2 + 5 + 2 = 14.

So, the perimeter is 14 units.

In **1** through **4**, list the coordinates of each point.



1. *A* (−5, 2)
2. *B* (−2, 2)
3. *C* (−2, −4)
4. *D* (−5, −4)

5. Find the length of each side of the polygon. What is the perimeter of rectangle *ABCD*?

   18 units

In **6** through **10**, list the coordinates of each point.

6. *E* (1, 2)
7. *F* (4, 2)
8. *G* (4, −1)
9. *H* (1, −1)

10. Find the length of each side. What is the perimeter of polygon *EFGH*?

    12 units

11. **Geometry** What type of quadrilateral is polygon *EFGH*? Be as specific as possible.

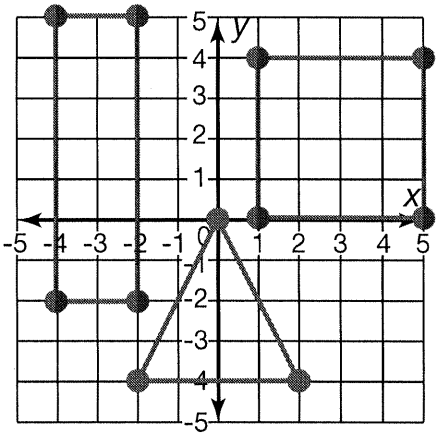
    Square

Name _____

Practice
8-4

Polygons on the Coordinate Plane

For **1** through **3**, graph the ordered pairs. Connect the points in order and identify the polygon you drew.



1. (1,0), (5,0), (5, 4), (1,4)

Square

2. (0, 0), (2,−4), (−2, −4)

Isosceles triangle

3. (−4, −2), (−2, −2), (−2, 5), (−4, 5)

Rectangle

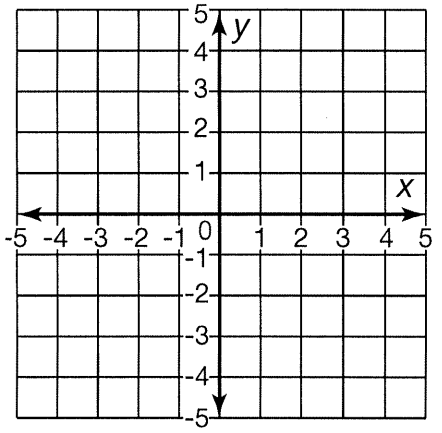
4. What is the perimeter of the polygon you drew in **1** above?

16 units

5. What is the perimeter of the polygon you drew in **3** above?

18 units

6. Reasoning The two opposite vertices of a square are (−2, 2) and (1, −1). What are the other two vertices of the square? Use the coordinate grid to help you.



(1, 2) and (−2, −1)

7. Geometry Which set of ordered pairs can be connected in order to form a right triangle?

(A) (−1, 3), (−1, −1), (2, −1)

B (−4, 0), (0, 1), (1, −2)

C (2, 2), (2, −2), (−2, −2), (−2, 2)

D (0, 5), (−3, 3), (3, −3)

Name _____

Enrichment
8-4

Using Circles as Graphs

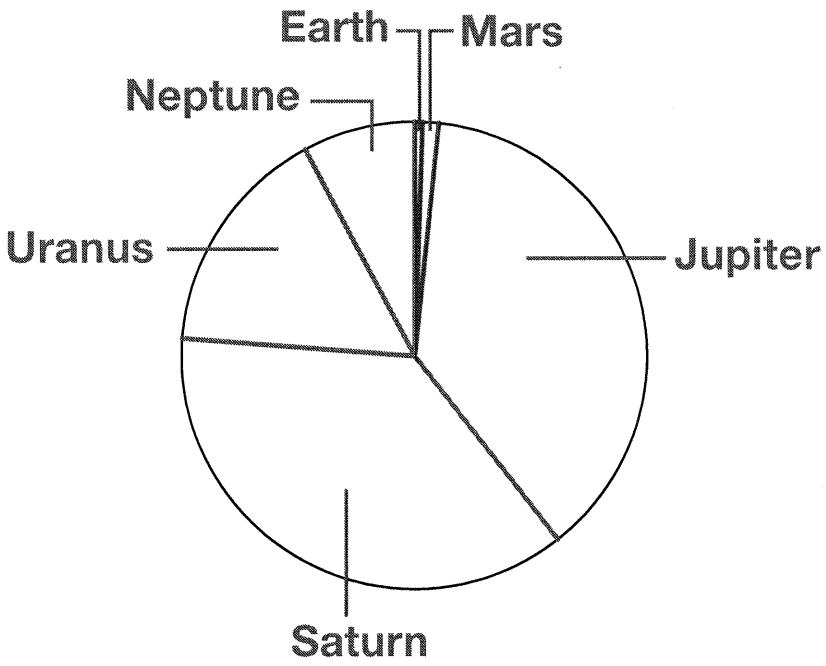
Data

Circles can be used to graph and organize information. Using the number of degrees in a circle, you can divide the circle to represent the data given.

1. There are 169 known moons that orbit the planets in our solar system. Mercury and Venus do not have moons, but each of the other six planets has at least 1 moon. Complete the table below. First find the percentage of total moons for each planet. Round each percentage to the nearest hundredth. Then multiply the percentage by 360° to find the measure to the nearest degree of each central angle.

Planet	Number of Moons	Percentage of 169 Moons (to nearest hundredth)	Measure of Central Angle (to nearest degree)
Earth	1	0.59%	2°
Mars	2	1.18%	4°
Jupiter	64	37.87%	136°
Saturn	62	36.69%	132°
Uranus	27	15.98%	58°
Neptune	13	7.69%	28°

2. Complete the circle graph to show the moon data from the table.



Name _____

Reteaching
8-5

Graphing Equations

How to graph equations:

Graph the equation $y = x - 3$.

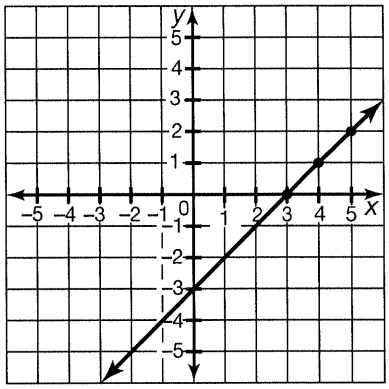
First make a T-table like the one at the right.

Use at least 3 values for x.

x	y
3	0
4	1
5	2

Graph each ordered pair onto the coordinate plane, then draw a line connecting the points. Every point on this line meets the condition that $y = x - 3$.

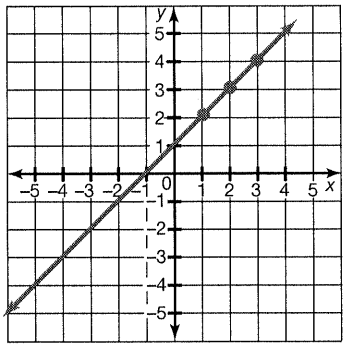
Because the graph of this equation is a straight line, it is called a linear equation.



Complete each T-table. Then graph each equation.

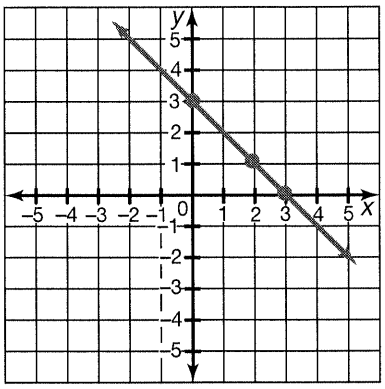
1. $y = x + 1$

x	y
1	2
2	3
3	4



2. $y = 3 - x$

x	y
0	3
2	1
3	0



Name _____

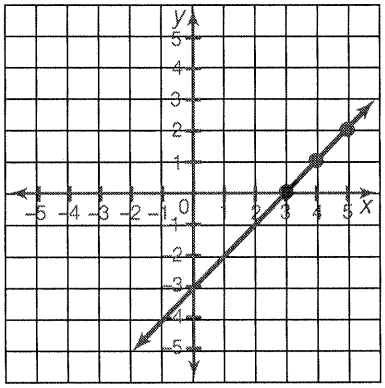
Practice
8-5

Graphing Equations

For **1** and **2,** make a T-table. Then graph each equation.

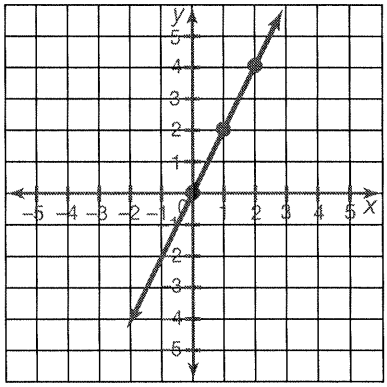
1. $y = x - 3$

x	y
3	0
4	1
5	2



2. $y = 2x$

x	y
0	0
1	2
2	4



3. Reasoning Is the point (5, 6) on the graph for the equation $y = 2x + 5$?

No

4. Which point is on the graph for the equation $y = x + 14$?

A (2, 17)

B (5, 20)

C (10, 24)

D (7, 23)

5. Writing to Explain Explain how making a T-table helps you graph an equation.

Sample answer: Using a T-table provides the coordinates needed to graph the equation.

Name _____

Enrichment
8-5

Ordered Pair Challenge

Visual Thinking

Circle the letter for the set of ordered pairs that would form each figure when connected. Then plot the points and draw the shape on the coordinate plane.

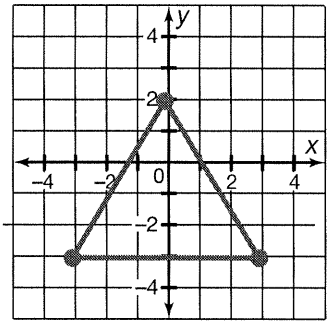
1. Triangle

A (−4, 5), (4, 2), (3, 2), (−1, −4)

B (0, 2), (3, −3), (−3, −3)

C (−3, 2), (−5, 2), (−4, 2)

D (1, 3), (1, 4), (1, 5)



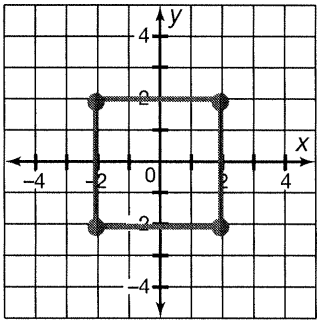
2. Square

A (0, 4), (2, 3), (3, 1)

B (0, 5), (2, 5), (2, 2), (0, 2)

C (2, 2), (2, −2), (−2, −2), (−2, 2)

D (0, 4), (0, 5), (0, 3), (0, 2)



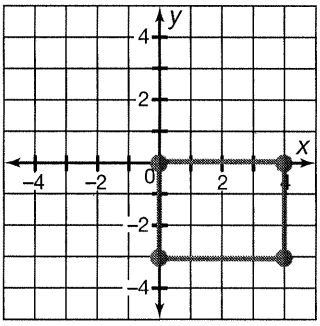
3. Rectangle

A (0, 0), (4, 0), (4, −3), (0, −3)

B (5, 2), (3, 5), (4, 3)

C (0, 0), (0, 4), (0, 3), (0, 5)

D (3, 3), (3, −3), (−3, −3), (−2, 2)



4. Without graphing, name four ordered pairs that, if connected, would form a square.

Sample anwer: (5, 5), (5, −5), (−5, −5), (−5, 5)

Name _____

Reteaching
8-6

More Graphing Equations

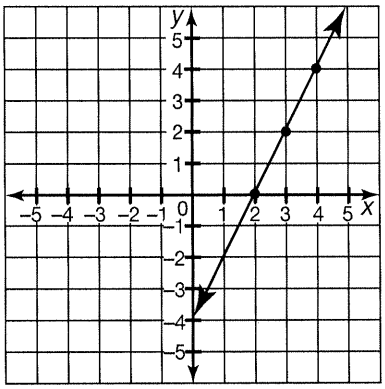
Use the same steps to graph an equation with more than one operation as you used to graph an equation with only one operation.
Graph $y = 2x - 4$.

Step 1: Make a T-table. Use at least three number pairs in the table.

x	y
2	0
3	2
4	4

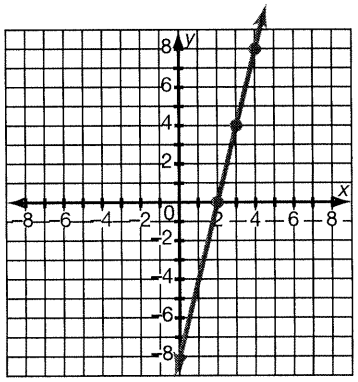
Ordered Pairs
→ (2, 0)
→ (3, 2)
→ (4, 4)

Step 2: Graph each ordered pair on a coordinate plane. Connect the points.

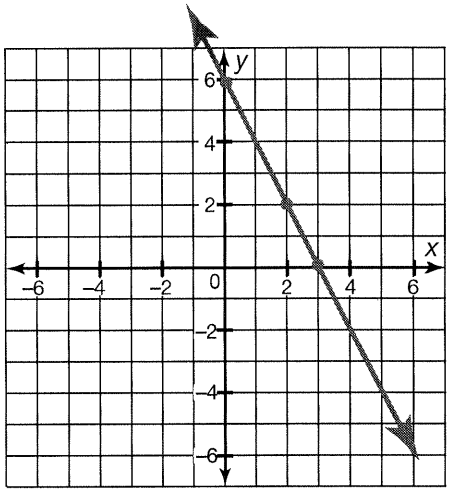


1. Complete the T-table and graph the equation. $y = 4x - 8$

x	y	Ordered Pairs
2	0	(2, 0)
3	4	(3, 4)
4	8	(4, 8)



Graph $y = 6 - 2x$ at the right. Use it to answer **2** through **4**.



2. At what point does the equation $y = 6 - 2x$ cross the y-axis? (0, 6)

3. If $x = 2$, what is the value of y? 2

4. Writing to Explain Plot point (0, 4) on the grid. Is (0, 4) a solution to $y = 6 - 2x$? Explain.

No, the point is not on the graph.

Name _____

Practice
8-6

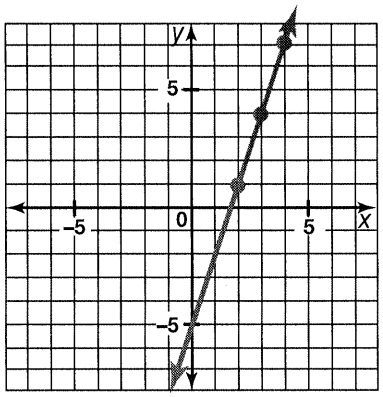
More Graphing Equations

For **1** and **2,** make a T-table and graph each equation.

1. $y = 3x - 5$

x	y
2	1
3	4
4	7

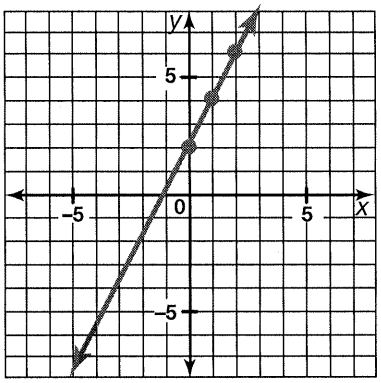
Sample answers in table.



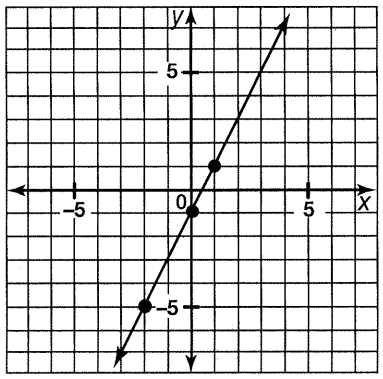
2. $y = 2x + 2$

x	y
0	2
1	4
2	6

Sample answers in table.



3. Which equation is shown by the graph?



(A) $y = 2x - 1$

B $y = x - 1$

C $y = 2x + 1$

D $y = x + 1$

4. Writing to Explain Carrie says that one solution to $y = 3x - 5$ is (4, 7). Describe two ways to check if her statement is true. Use at least one way to check her answer.

Sample answer: Solve the equation or graph the equation and check that the ordered pair is on the graph: $3 \times 4 - 5 = 12 - 5 = 7$. The point is also on the graph in Exercise 1. So it checks.

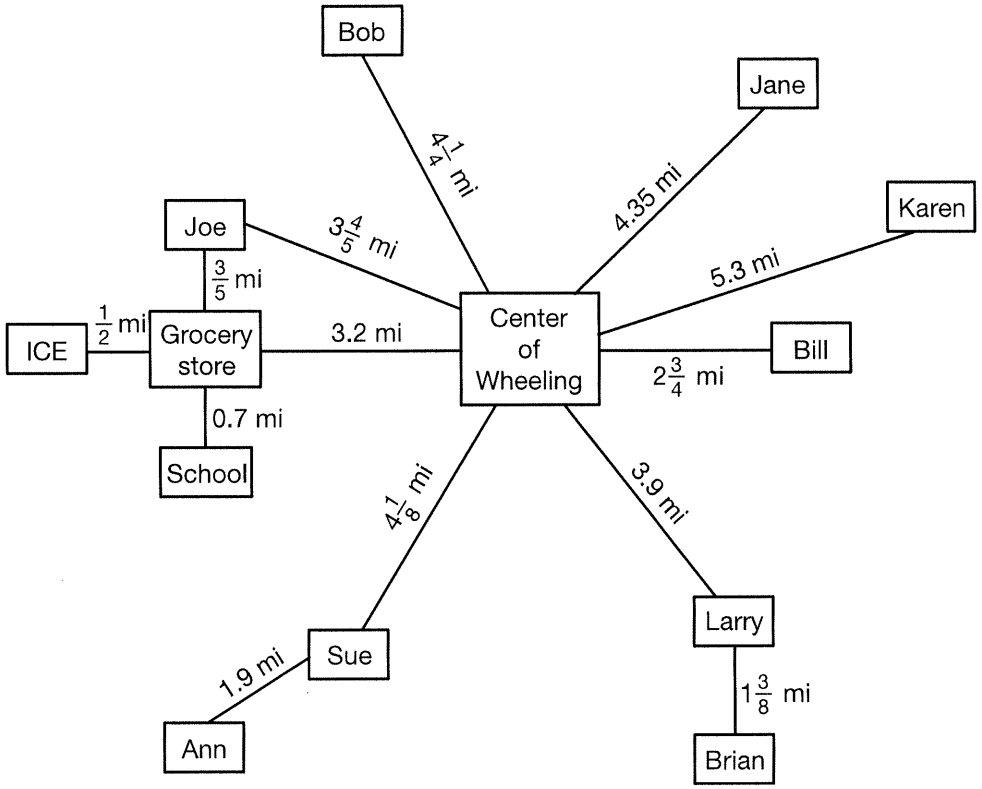
Name _____

Enrichment
8-6

Rational Orders

Number Sense

The members of a group of friends live in various locations around the town of Wheeling. They have been discussing who lives closer and who lives farther from school and from other places.



1. Who lives closer to the center of Wheeling, Joe or Larry? **Joe**

2. Joe went to the grocery store and then to the school. Which part of his trip was longer?
Trip from the grocery to the school

3. Who lives farther from the center of Wheeling, Jane or Sue?
Jane

4. Which is greater, the distance from Ann's house to Sue's or the distance from Brian's house to Larry's?
The distance from Ann's house to Sue's

5. Order the distances from the center of town to the homes of Bob, Sue, Karen, and Bill from greatest to least.
Karen, Bob, Sue, and Bill

Name _____

Reteaching
8-7

Problem Solving: Multiple-Step Problems

Some word problems have hidden questions that must be answered before you can solve the problem.

A paved trail is 8 miles long. Rita runs $\frac{3}{8}$ of the length of the trail and walks the rest of the way. How many miles of the trail does Rita walk?

What do you know?	Rita runs $\frac{3}{8}$ of an 8-mile trail.
What are you asked to find?	How many miles of the trail that Rita walks.
How can you find the distance that Rita walks?	Subtract the distance Rita ran from the length of the trail.
What is the hidden question? The hidden question will help you find data you need to solve the problem.	How many miles did Rita run? To answer, find $\frac{3}{8} \times 8 = 3$.

Use the data to solve: $8 - 3 = 5$, so Rita walked 5 of the 8 miles.

Write and answer the hidden question(s) in each problem. Then solve the problem.

1. April surfed for $\frac{1}{3}$ of the 6 hours she was at the beach. She spent the rest of the time building a sand castle. How many hours did she spend building the castle?

Hidden question: How many hours did April surf? $\frac{1}{3} \times 6 = 2$

Solution: $6 - 2 = 4$; 4 hours

2. Bill put gasoline in 2 of his 5-gallon cans and 4 of his 2-gallon cans. He filled all the cans to the exact capacity. How many gallons of gasoline did he buy?

Hidden question 1: How many gallons are in two 5-gallon cans? $2 \times 5 = 10$

Hidden question 2: How many gallons are in four 2-gallon cans? $4 \times 2 = 8$

Solution: $10 + 8 = 18$; 18 gallons of gas

3. It costs Le Stor $20 to buy a shirt. The store sells the shirt for $2\frac{1}{2}$ times its cost. What is the profit for 100 of these shirts? Hint: Profit equals sales minus cost.

Hidden question 1: What is the selling price of the shirt? $2\frac{1}{2} \times \$20 = \$50$

Hidden question 2: What is the profit for one shirt? $\$50 - \$20 = \$30$

Solution: $100 \times \$30 = \$3{,}000$

Name _____

Practice
8-7

Problem Solving: Multiple-Step Problems

Write and answer the hidden question(s) in each problem. Then solve the problem.

1. Tiwa spent $1\frac{1}{2}$ hours setting up her computer. It took her 3 times as long to install the software. How long did it take Tiwa to set up the computer and install software?

Hidden question(s): How many hours did it take to install software? $3 \times 1\frac{1}{2} = 4\frac{1}{2}$

Solution: $1\frac{1}{2} + 4\frac{1}{2} = 6$; 6 hours

2. Lon bought 40 ounces of sliced ham. He used $\frac{3}{4}$ of the ham to make sandwiches for his friends and $\frac{1}{5}$ of the ham in an omelet. How many ounces of ham were left?

Hidden question(s): How many ounces of ham were used to make sandwiches? $3/4 \times 40 = 30$; How many ounces of ham were used in the omelet? $40 \times \frac{1}{5} = 8$

Solution: $40 - 30 - 8 = 2$; 2 ounces

3. Lionel cut off $\frac{1}{6}$ of a 48-inch piece of rope. Marsha cut off $\frac{1}{4}$ of a 36-inch piece of rope. They compared their cut pieces. Whose piece is longer? How much longer?

Hidden question(s): How long is Lionel's cut piece? $\frac{1}{6} \times 48 = 8$; How long is Marsha's cut piece? $\frac{1}{4} \times 36 = 9$

Solution: Marsha's rope is 1 inch longer: $9 - 8 = 1$.

4. Melanie bought 3 CDs. The country music CD cost $15. The rock music CD cost $\frac{2}{3}$ as much as the country music CD. The platinum edition CD cost twice as much as the rock CD. What was the cost of the three CDs?

Hidden question(s): How much did the rock CD cost? $\frac{2}{3} \times \$15 = \$10$; How much did the platinum CD cost? $2 \times \$10 = \$20$

Solution: $\$15 + \$10 + \$20 = \$45$

5. Writing to Explain Choose one of the problems above. Explain how you determined the hidden question and why it was necessary to answer that question in order to solve the problem.

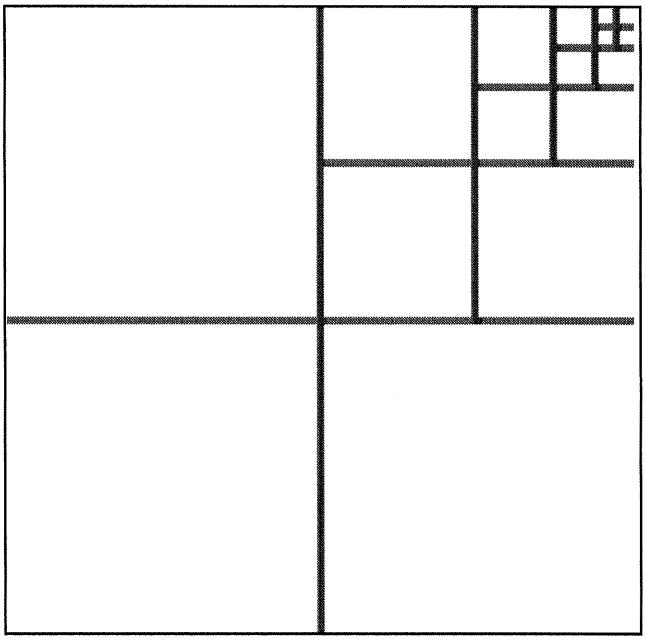
Sample answer: In Problem 1, the question asks for the time spent on two tasks, so I needed to add the two times to answer the question. Only the time for one task was given in the problem, so the hidden question had to be to find the other time.

Name _____

Enrichment
8-7

Fraction Figures

Divide the square into fourths.



1. How many fourths do you see?

   4

Divide one of the fourths into fourths.

2. How many total sections are there?

   7

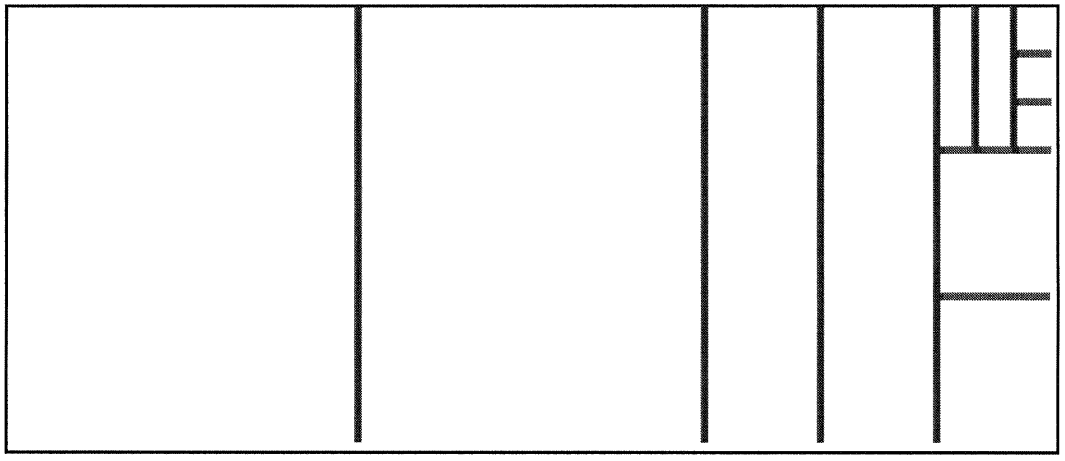
3. Continue the pattern three more times. Each time you divide a new section into fourths, tell how many total sections you have.

   10, 13, 16

4. What pattern do you see in the number of sections?

   Add 3

5. Divide the rectangle into thirds. Divide one of the thirds into thirds. Continue the pattern three more times.



6. What pattern do you see in the number of sections? Add 2

