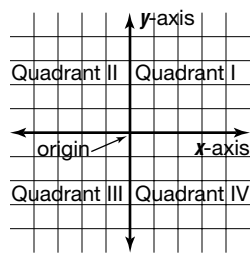


2-10

Name _____ Date _____

The Coordinate System (Pages 92–95)

You can locate a point precisely by using a **coordinate system** formed by two number lines that intersect to form right angles at their zero points. This intersection point is the **origin**. The horizontal number line is the **x-axis** and the vertical number line is the **y-axis**. The two axes separate the coordinate plane into four sections called **quadrants**.

Graphing a Point

You can name any point on the coordinate plane by using an ordered pair of numbers. The first number in the ordered pair is called the **x-coordinate**. The second number is the **y-coordinate**.

To graph a point:

- Start at the origin. Move right or left according to the number that is the x-coordinate.
- From that point, move up or down according to the number that is the y-coordinate.
- Draw a dot at that location.

Letters are often used to name points. The point $K(-3, 4)$ means the point that is 3 units to the left of the origin and 4 units up.

EXAMPLES

- A** Give the coordinates of the point that is 6 units to the right of the origin and 3 units down.

The coordinates of this point are $(6, -3)$.

- B** In which quadrant are points that have both coordinates negative?

All the points that have a negative x-coordinate and a negative y-coordinate are in Quadrant III.

Try These Together

1. Give the ordered pair for point K on the graph below.

HINT: How far is this point to the left of the origin?

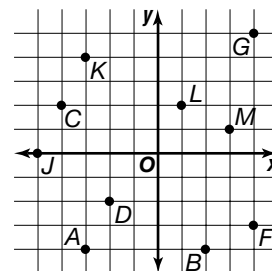
2. Give the ordered pair for point G on the graph below.

HINT: This point has two positive coordinates.

PRACTICE

Name the ordered pair for the coordinates of each point graphed on the coordinate plane.

3. C 4. L 5. J 6. M
7. D 8. F 9. A 10. B



- 11. Standardized Test Practice** Evaluate the expression $y = 2x + 4$ for $x = 4$.

A $y = 10$

B $y = 12$

C $y = 2$

D $y = 6$

Answers: 1. $(-3, 4)$ 2. $(4, 5)$ 3. $(-4, 2)$ 4. $(1, 2)$ 5. $(-5, 0)$ 6. $(3, 1)$ 7. $(-2, -2)$ 8. $(4, -3)$ 9. $(-3, -4)$ 10. $(2, -4)$ 11. B