

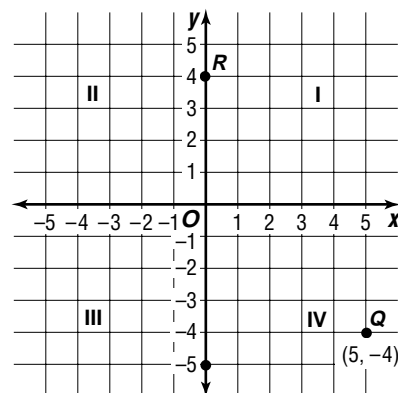
Study Guide

Student Edition
Pages 254–259

The Coordinate Plane

In the diagram at the right, the two perpendicular lines, called the x -axis and the y -axis, divide the coordinate plane into Quadrants I, II, III, and IV. The point where the two axes intersect is called the origin. The origin is represented by the ordered pair $(0, 0)$.

Every other point in the coordinate plane is also represented by an ordered pair of numbers. The ordered pair for point Q is $(5, -4)$. We say that 5 is the x -coordinate of Q and -4 is the y -coordinate of Q .



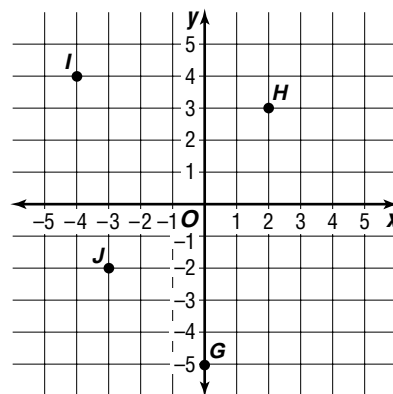
Example: Write the ordered pair for the point R above.

The x -coordinate is 0 and the y -coordinate is 4. Thus, the ordered pair for R is $(0, 4)$.

To graph any ordered pair (x, y) , begin at the origin. Move left or right x units. From there, move up or down y units. Draw a dot at that point.

Graph each point on the coordinate plane at the right.

- | | |
|----------------|---------------|
| 1. $A(0, 0)$ | 2. $B(5, 0)$ |
| 3. $C(-3, 4)$ | 4. $D(4, -5)$ |
| 5. $E(-2, -3)$ | 6. $F(2, -1)$ |



Write the ordered pair for each point shown at the right. Name the quadrant in which the point is located.

- | | | | |
|--------|--------|--------|---------|
| 7. G | 8. H | 9. I | 10. J |
|--------|--------|--------|---------|