The Coordinate Plane

MAIN IDEA

- Locate and graph ordered pairs on a coordinate plane.

BUILD YOUR VOCABULARY (page 262)

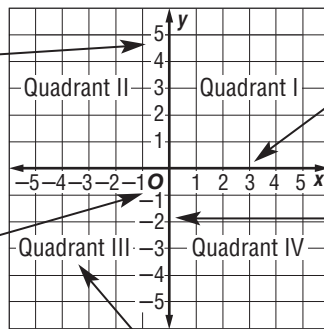The coordinate system, or coordinate plane, is a grid used to locate points.

The vertical number line is the *y*-axis.

The origin is at (0, 0). This is the point where the number lines intersect at their zero points.

The horizontal number line is the *x*-axis.

Numbers below and to the left of zero are negative.

Quadrant II · Quadrant I · Quadrant III · Quadrant IV
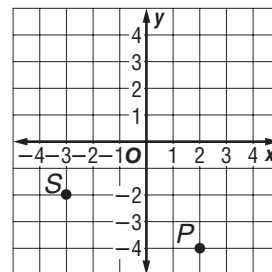
The *x*-axis and *y*-axis separate the coordinate system into four regions called **quadrants.**

EXAMPLES **Identify Ordered Pairs**

Identify the ordered pair that names each point. Then identify its quadrant.

1 **point *P***

Step 1 Start at the [   ]. Move

[   ] on the *x*-axis to find

the *x*-coordinate of point *P*,

which is [   ].

Step 2 Move down the *y*-axis to find the *y*-coordinate,

which is [   ].

Point *P* is named by [   ].

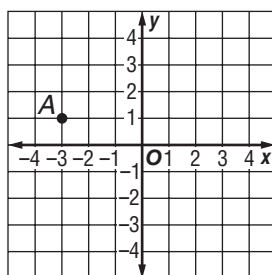Point *P* is in the [   ] quadrant.

2 **point S**

Step 1 Start at the origin. Move left on the *x*-axis

to find the *x*-coordinate of point *S*, which is [ ].

Step 2 Move down the *y*-axis to find the *y*-coordinate,

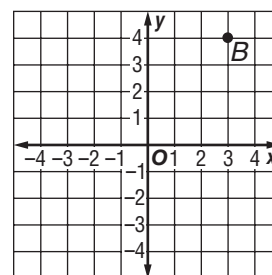which is [ ]. Point *S* is named by [ ].

Point *S* is in the [ ] quadrant.

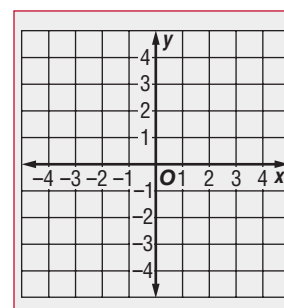**Check Your Progress** **Write the ordered pair that names each point. Then identify its quadrant.**
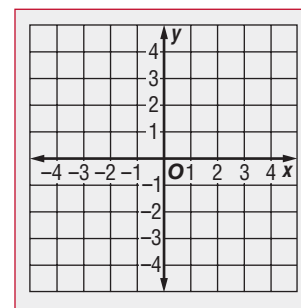
a. point *A*

b. point *B*

EXAMPLE **Graph Ordered Pairs**

3 **Graph point A at (−4, 3).**

Start at the [ ]. The *x*-coordinate

is [ ]. So, move 4 units to the [ ].

Next, since the *y*-coordinate is 3,

move [ ] units [ ]. Draw a dot.

Check Your Progress Graph
point *C* at (2, −4).

HOMEWORK ASSIGNMENT

Page(s): _____

Exercises: _____

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