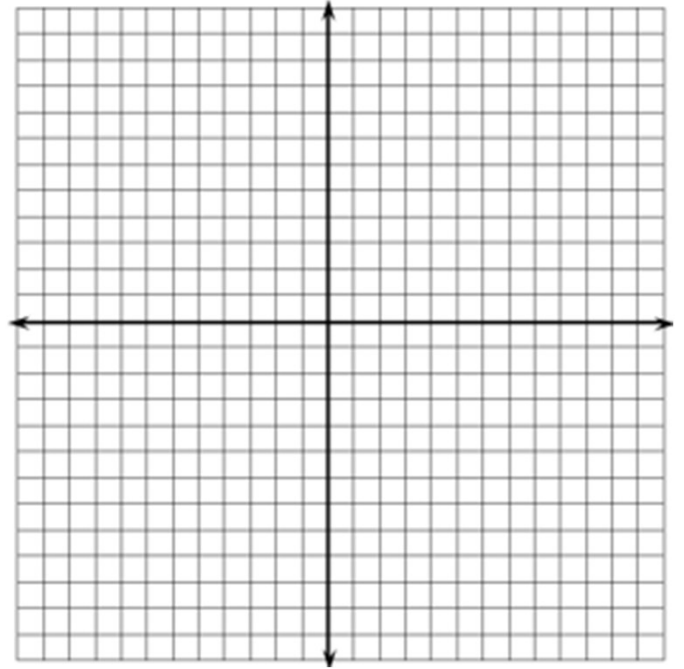# Coordinate Geometry Worksheets

1. Locate and label the point A (5, -3) in the coordinate plane.

a. Reflect point A over an axis so that its image is in Quadrant III. Label the image B, and write its ordered pair next to it. Which axis did you reflect over? What is the only difference in the ordered pairs of points A and B?

b. Reflect point B over an axis so that its image is in Quadrant II. Label the image C, and write its ordered pair next to it. Which axis did you reflect over? What is the only difference in the ordered pairs of points B and C? How does the ordered pair of point C relate to the ordered pair of point A?

c. Reflect point C over an axis so that its image is in Quadrant I. Label the image D, and write its ordered pair next to it. Which axis did you reflect over? How does the ordered pair for point D compare to the ordered pair for point C? How does the ordered pair for point D compare to points A and B?
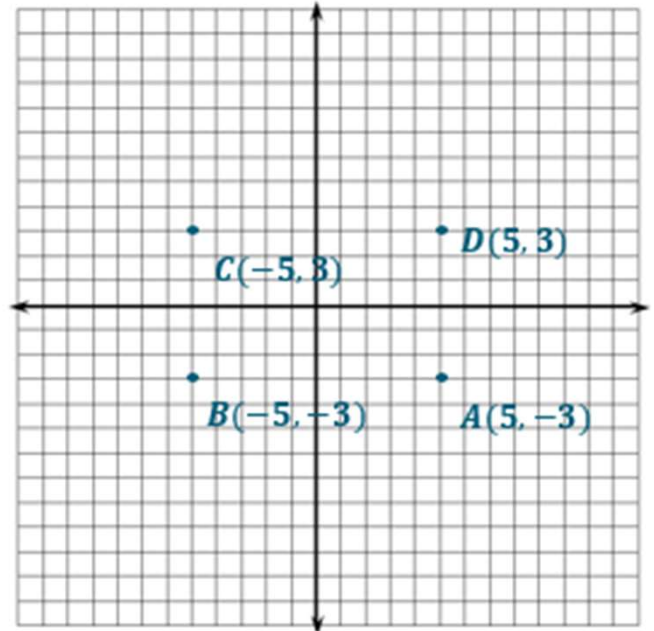
Coordinate Geometry Worksheets

1. Locate and label the point A (5, -3) in the coordinate plane.

a. Reflect point A over an axis so that its image is in Quadrant III. Label the image B, and write its ordered pair next to it. Which axis did you reflect over? What is the only difference in the ordered pairs of points A and B?

$B(-5,-3)$; reflected over the y-axis

The ordered pairs differ only by the sign of their x-coordinates: $A(5,-3)$ and $B(-5,-3)$.

C(-5, 3)   *D(5, 3)*

B(-5, -3)   *A(5, -3)*

b. Reflect point B over an axis so that its image is in Quadrant II. Label the image C, and write its ordered pair next to it. Which axis did you reflect over? What is the only difference in the ordered pairs of points B and C? How does the ordered pair of point C relate to the ordered pair of point A?

$C(-5,3)$; reflected over the x-axis

The ordered pairs differ only by the signs of their y-coordinates: $B(-5,-3)$ and $C(-5,3)$.

The ordered pair for point C differs from the ordered pair for point A by the signs of both coordinates: $A(5,-3)$ and $C(-5,3)$.

c. Reflect point C over an axis so that its image is in Quadrant I. Label the image D, and write its ordered pair next to it. Which axis did you reflect over? How does the ordered pair for point D compare to the ordered pair for point C? How does the ordered pair for point D compare to points A and B?

$D(5,3)$; reflected over the y-axis again

Point D differs from point C by only the sign of its x-coordinate: $D(5,3)$ and $C(-5,3)$.

Point D differs from point B by the signs of both coordinates: $D(5,3)$ and $B(-5,-3)$.

Point D differs from point A by only the sign of the y-coordinate: $D(5,3)$ and $A(5,-3)$.