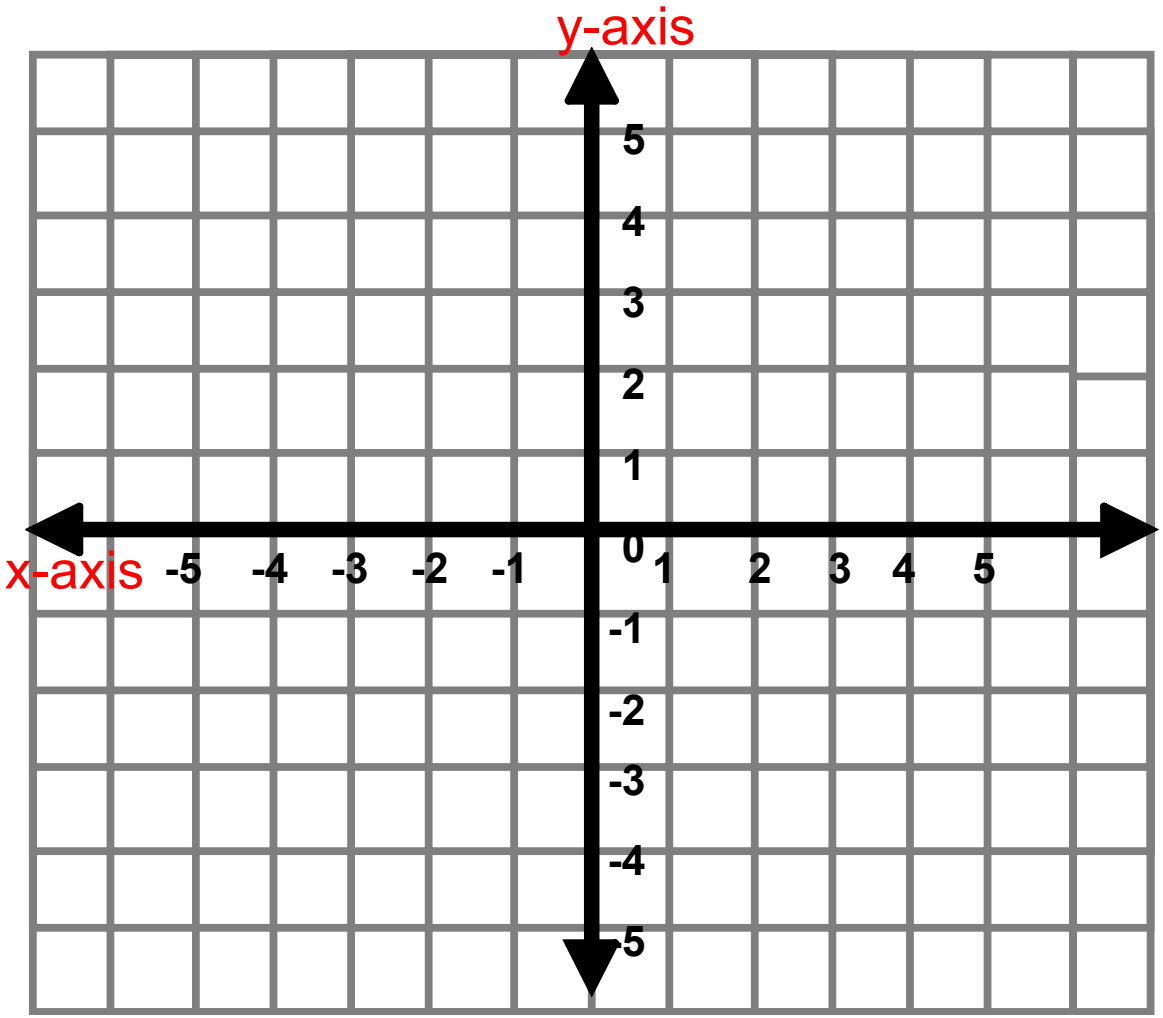
2.3

Reflections

REVIEW: Graphing Horizontal and Vertical Lines

1) $y = 4$

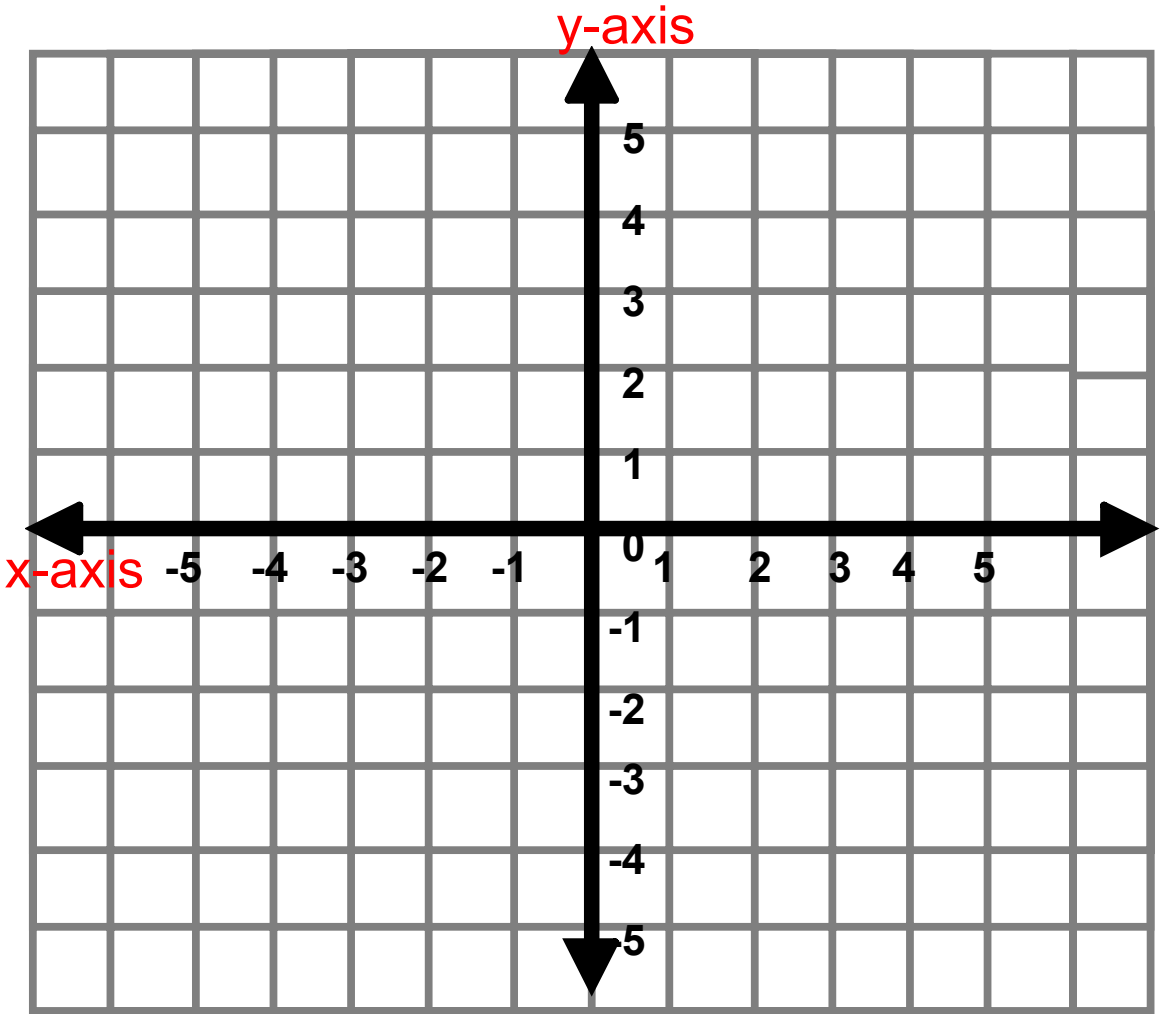
x	y



REVIEW: Graphing Horizontal and Vertical Lines

2) $x = 3$

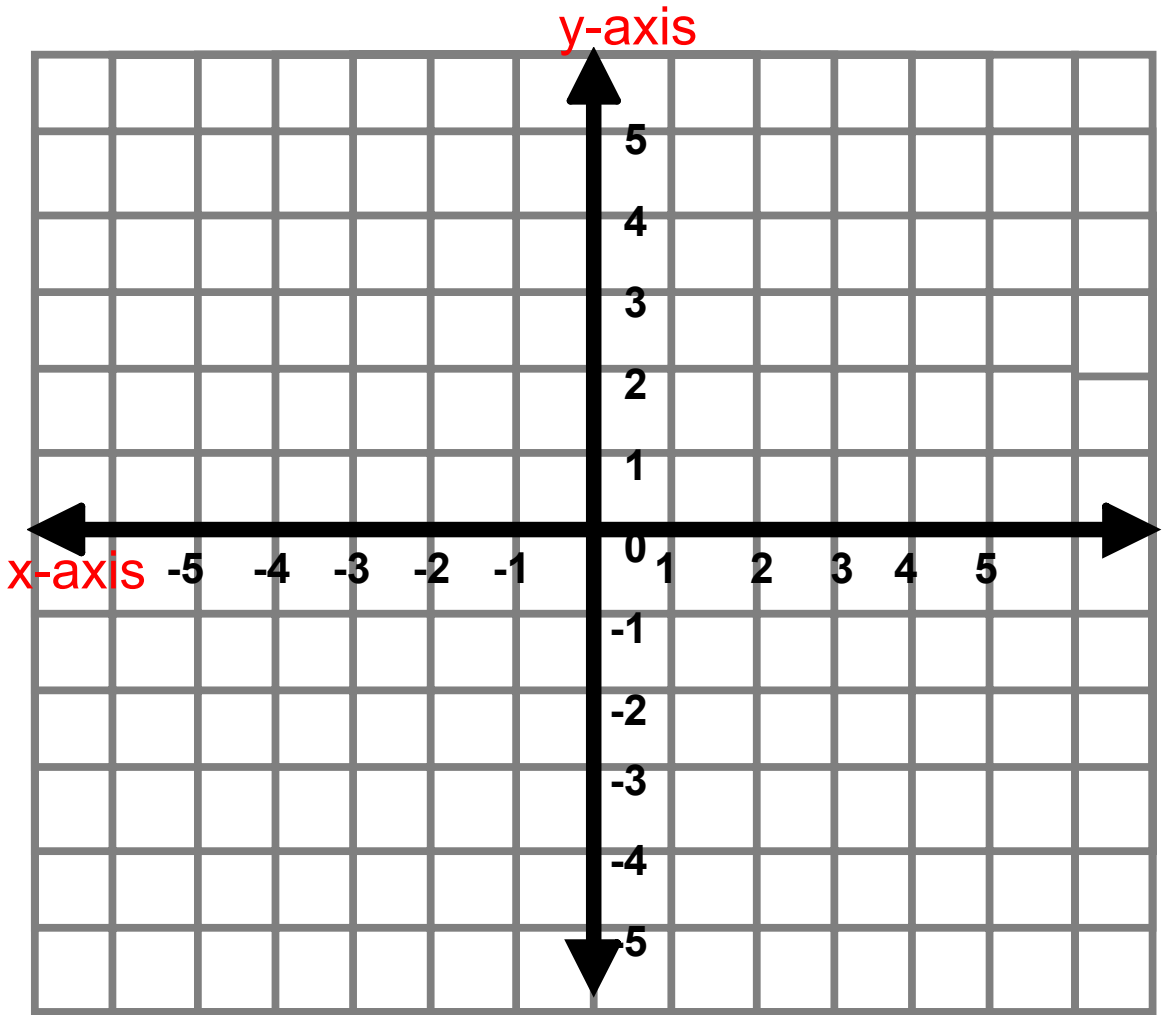
x	y



REVIEW: Graphing Horizontal and Vertical Lines

3) $y = -3$

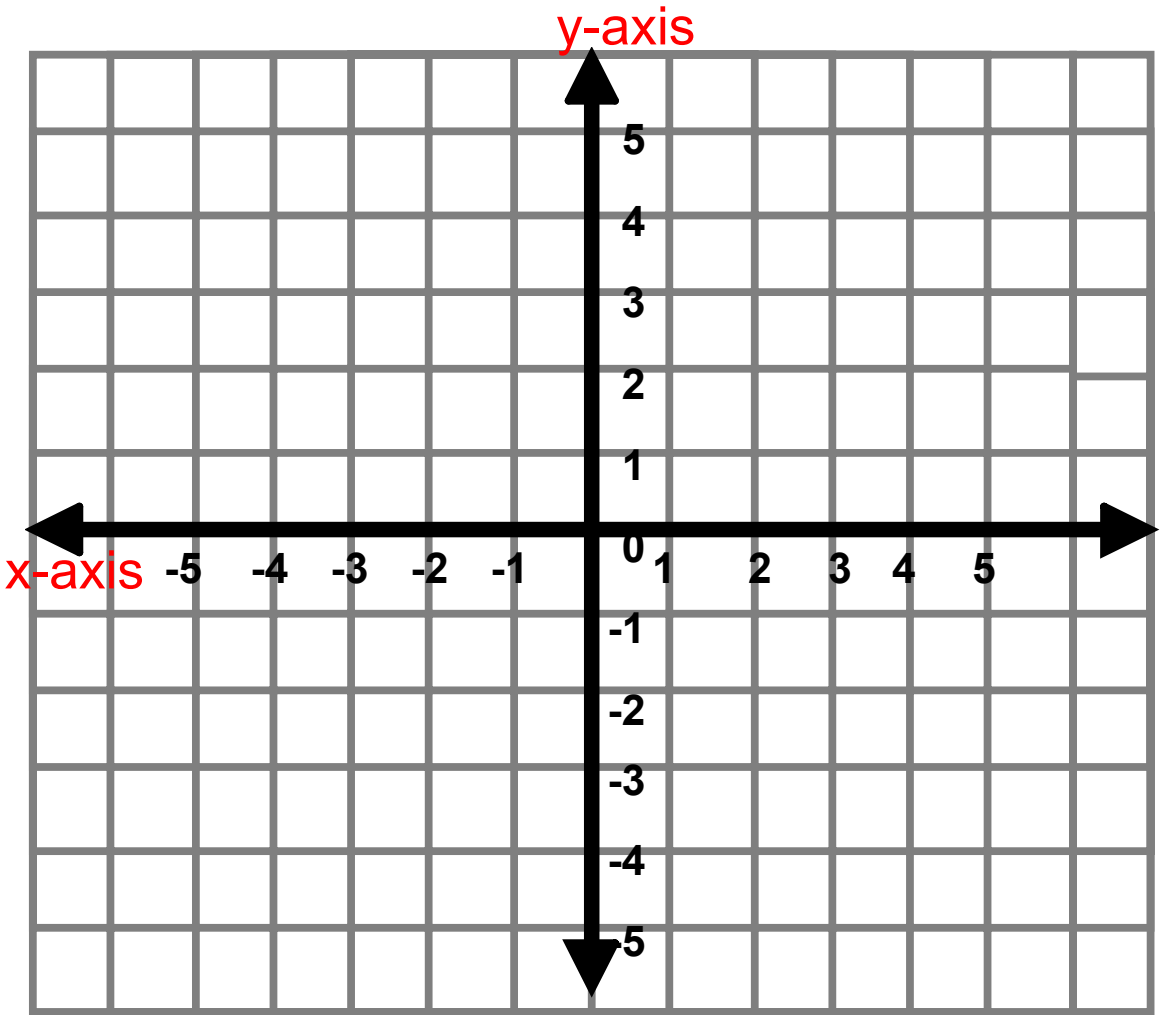
x	y



REVIEW: Graphing Horizontal and Vertical Lines

4) $x = -5$

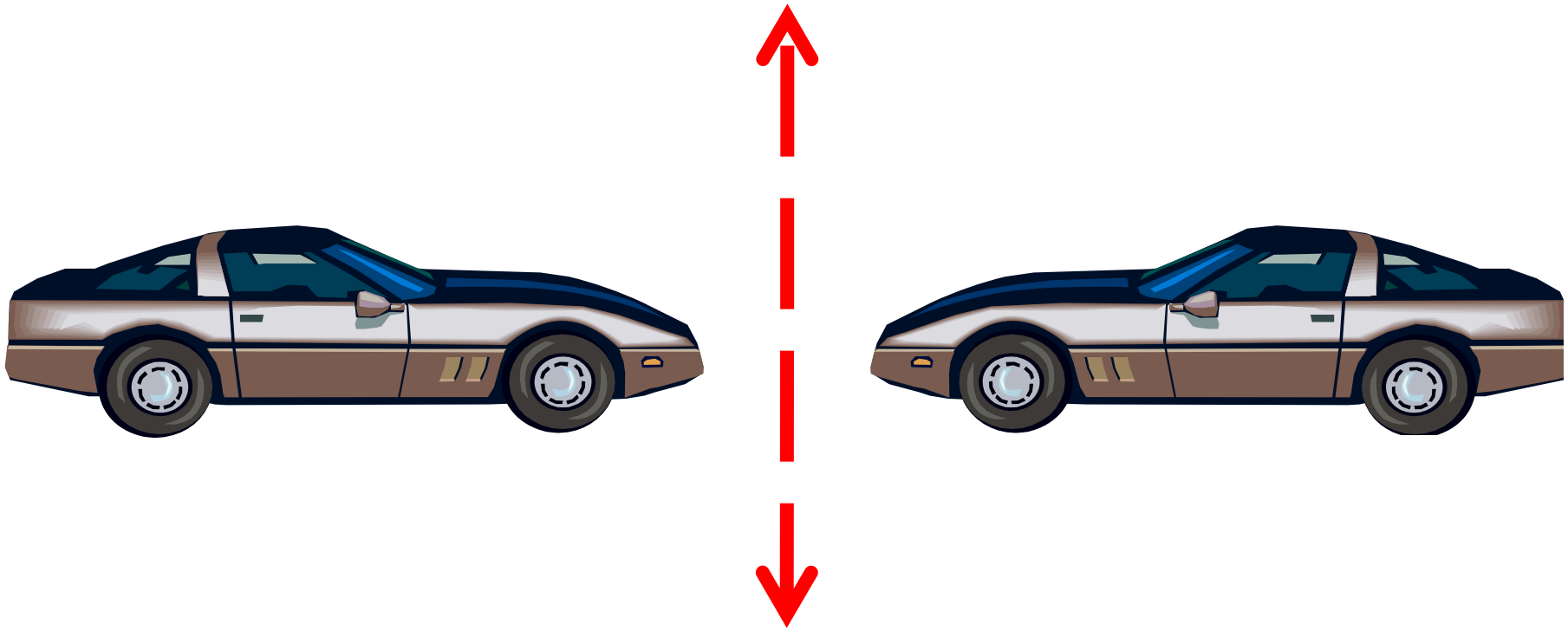
x	y



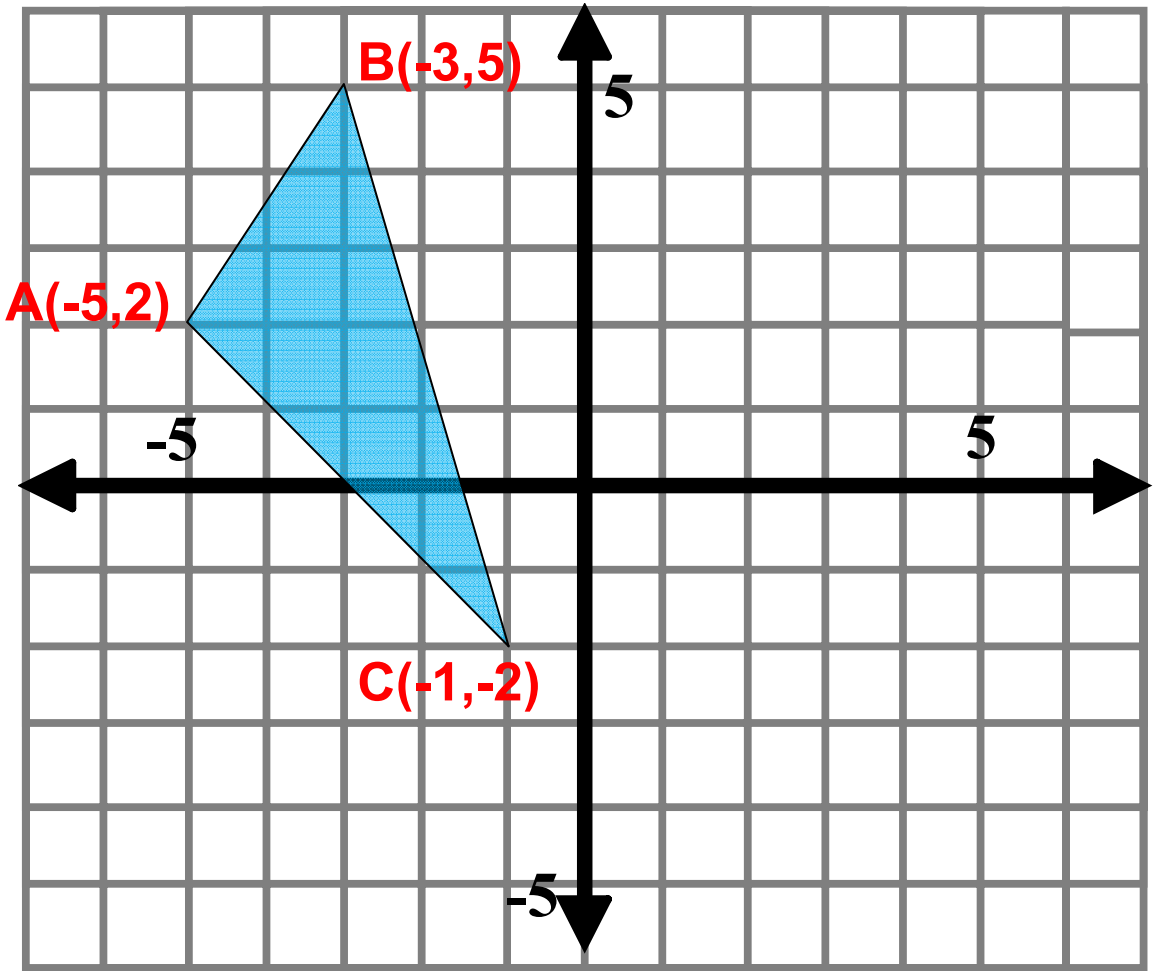
Vocabulary

Reflection

Mirror image of an object across a line or a point



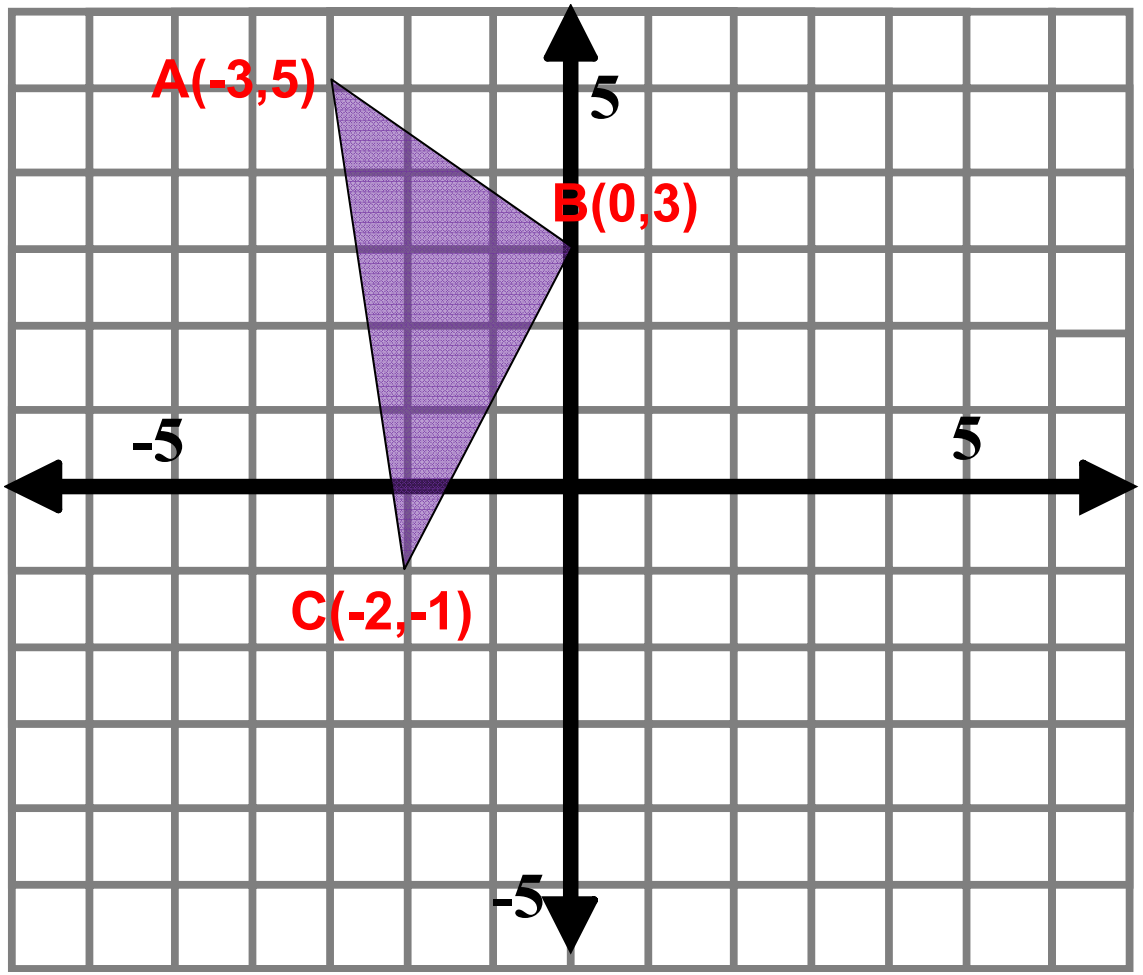
Reflections on a Coordinate Plane



Rule:

Reflect over y-axis

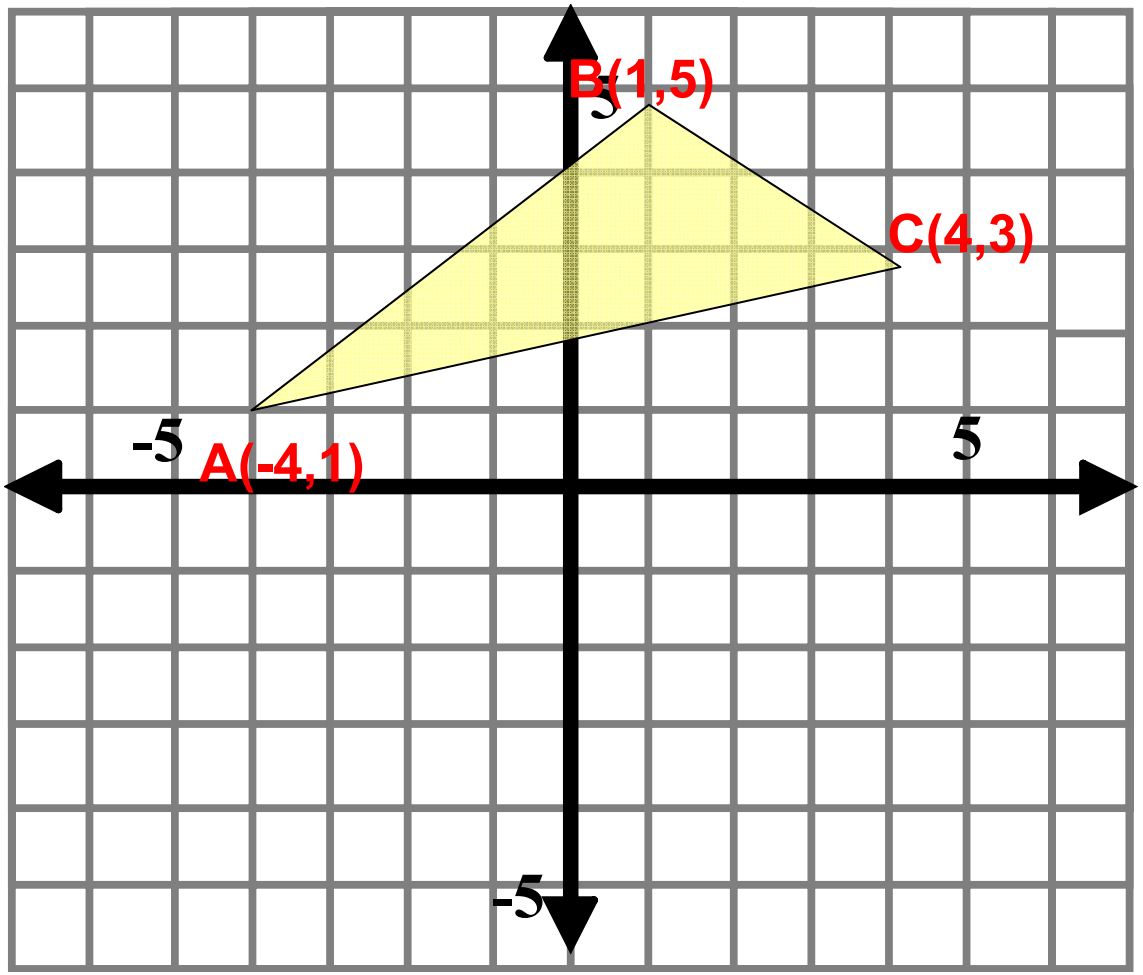
Reflections on a Coordinate Plane



Rule:

Reflect over x=2

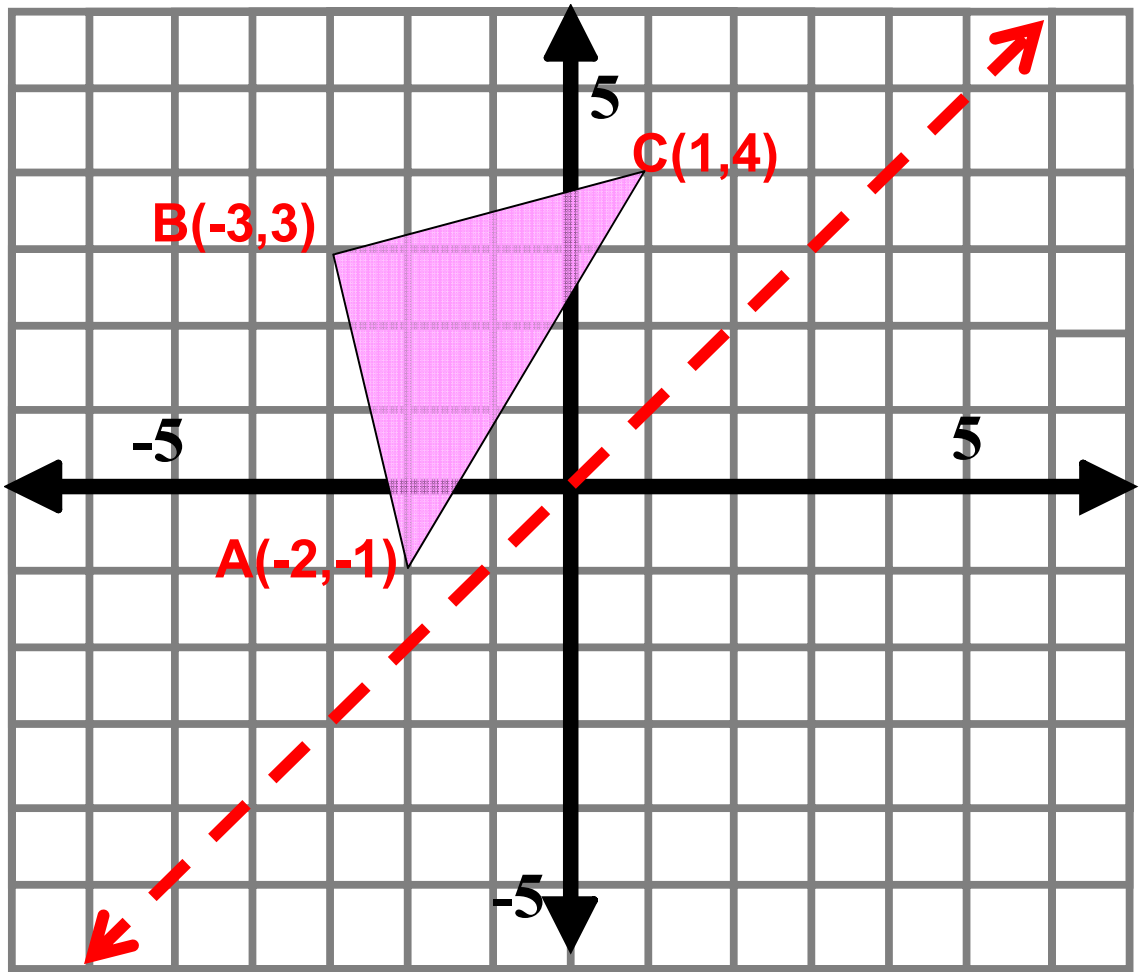
Reflections on a Coordinate Plane



Rule:

Reflect over x-axis

Reflections on a Coordinate Plane



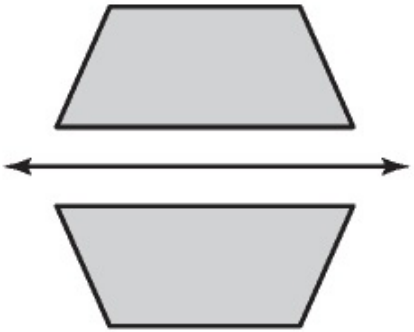
Rule:

Reflect over y=x

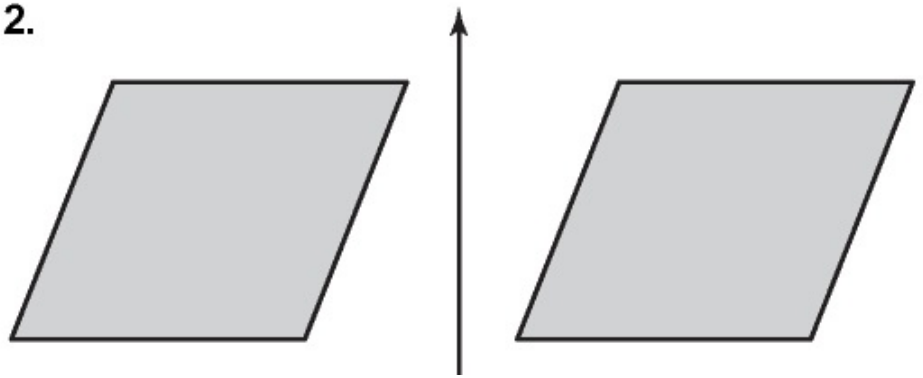
Practice

Tell whether one figure is a reflection of the other figure.

1.



2.



Practice

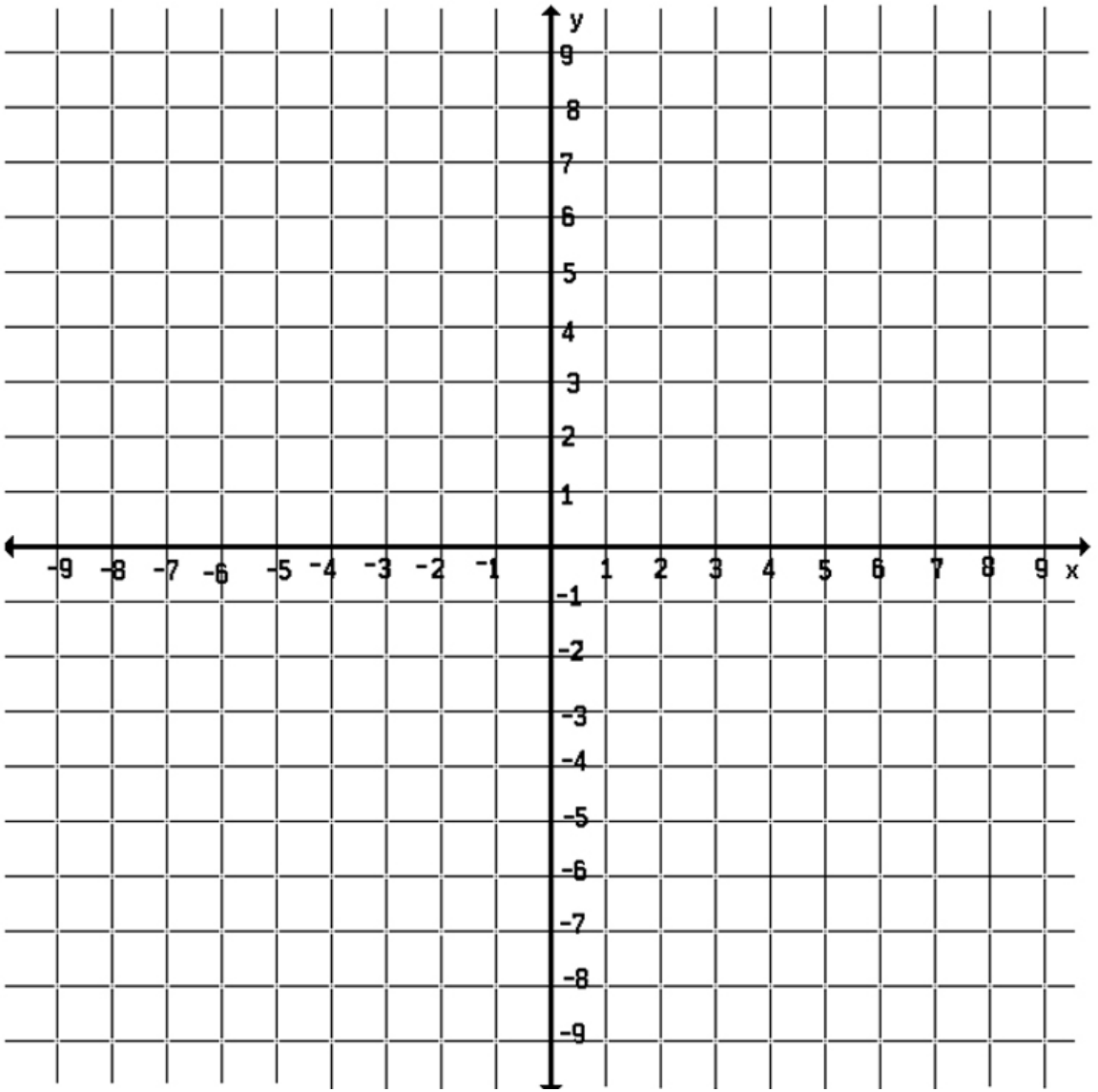
Draw the figure and its reflection in the *x*-axis. Identify the coordinates of the image.

3. $E(0, 2), F(3, 1), G(4, 3)$

4. $H(-3, 2), I(-1, 5), J(2, 1)$

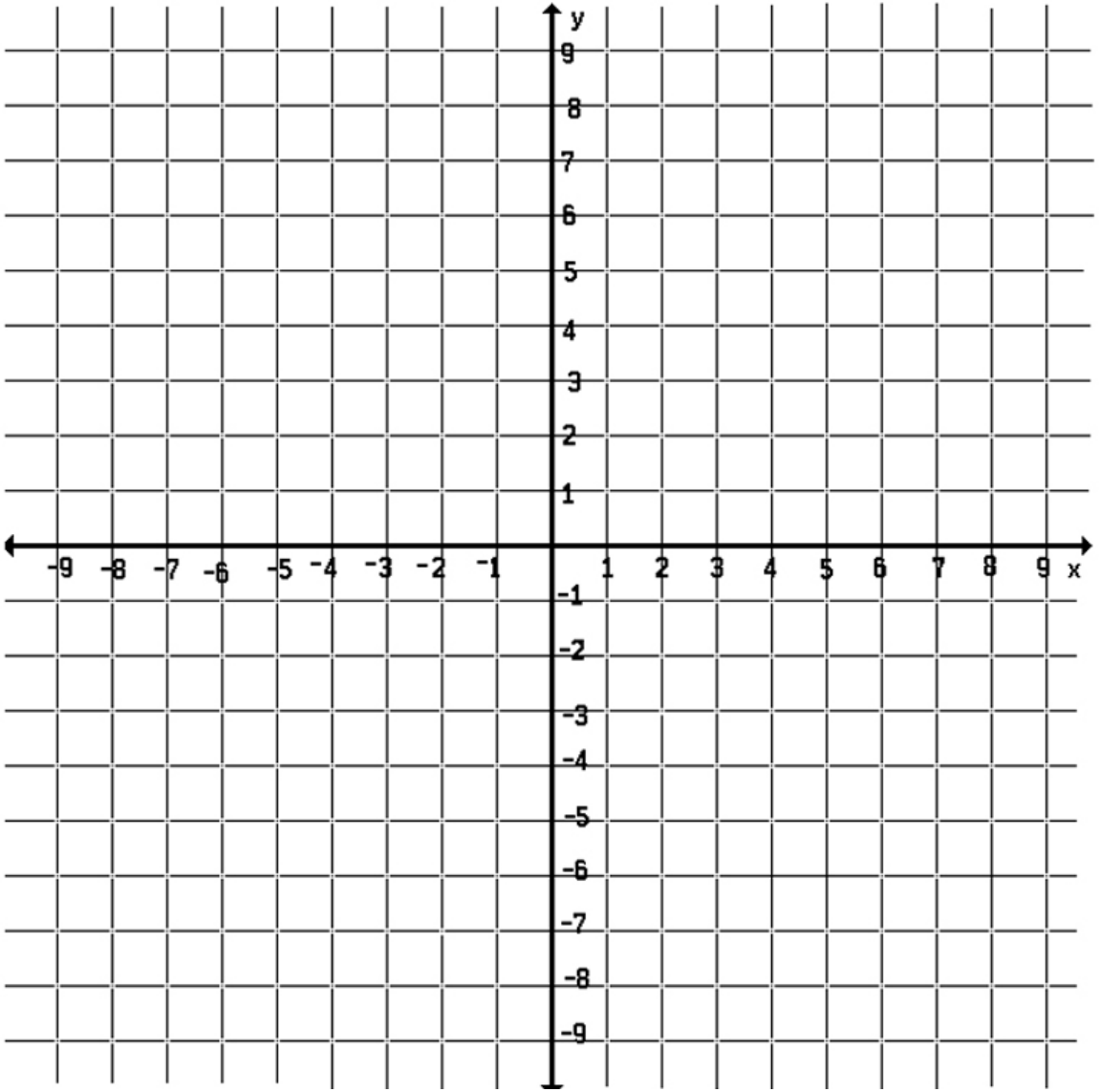
Draw the figure and its reflection in the *x*-axis. Identify the coordinates of the image.

3. $E(0, 2), F(3, 1), G(4, 3)$



Draw the figure and its reflection in the *y*-axis. Identify the coordinates of the image.

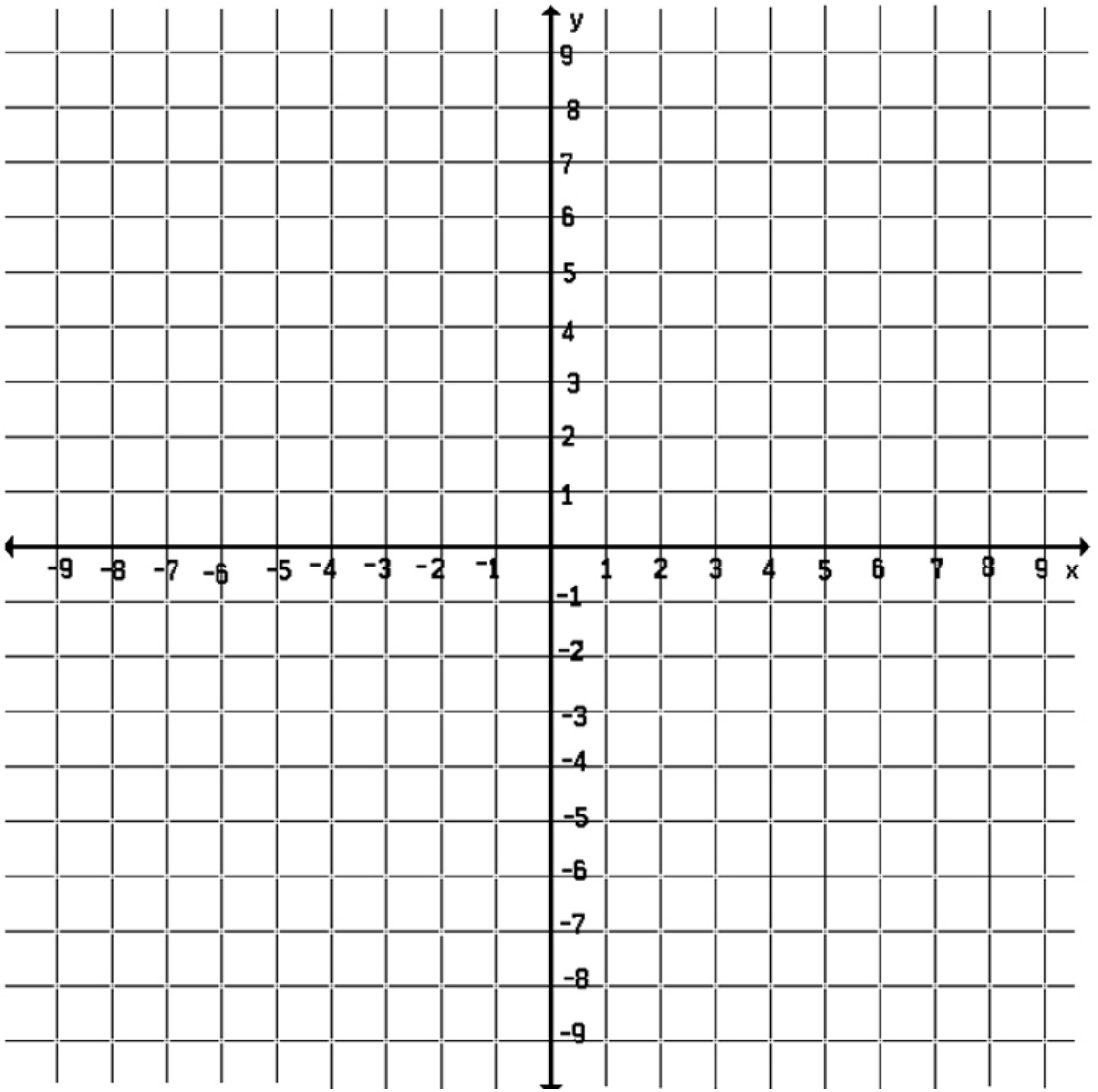
5. $X(0, -1), Y(2, 3), Z(4, -2)$



The coordinates of a point and its image are given. Is the reflection in the *x*-axis or *y*-axis?

8. $(-5, 2) \rightarrow (5, 2)$

9. $(4, 3) \rightarrow (4, -3)$



10. Translate the triangle 2 units left and 1 unit up. Then reflect the image in the x-axis. Graph the resulting triangle.