

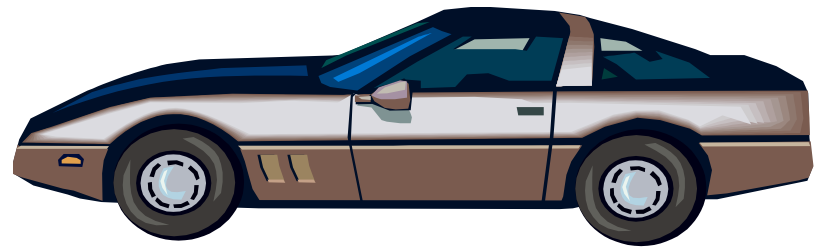
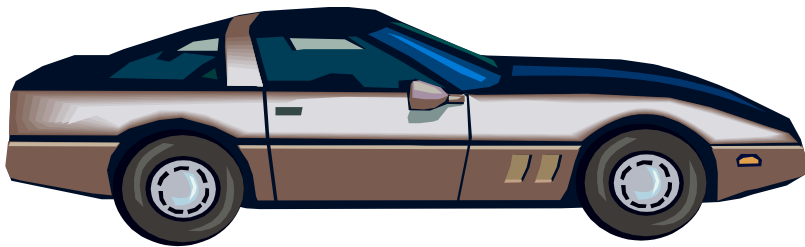
**9.3**

# **Reflections**

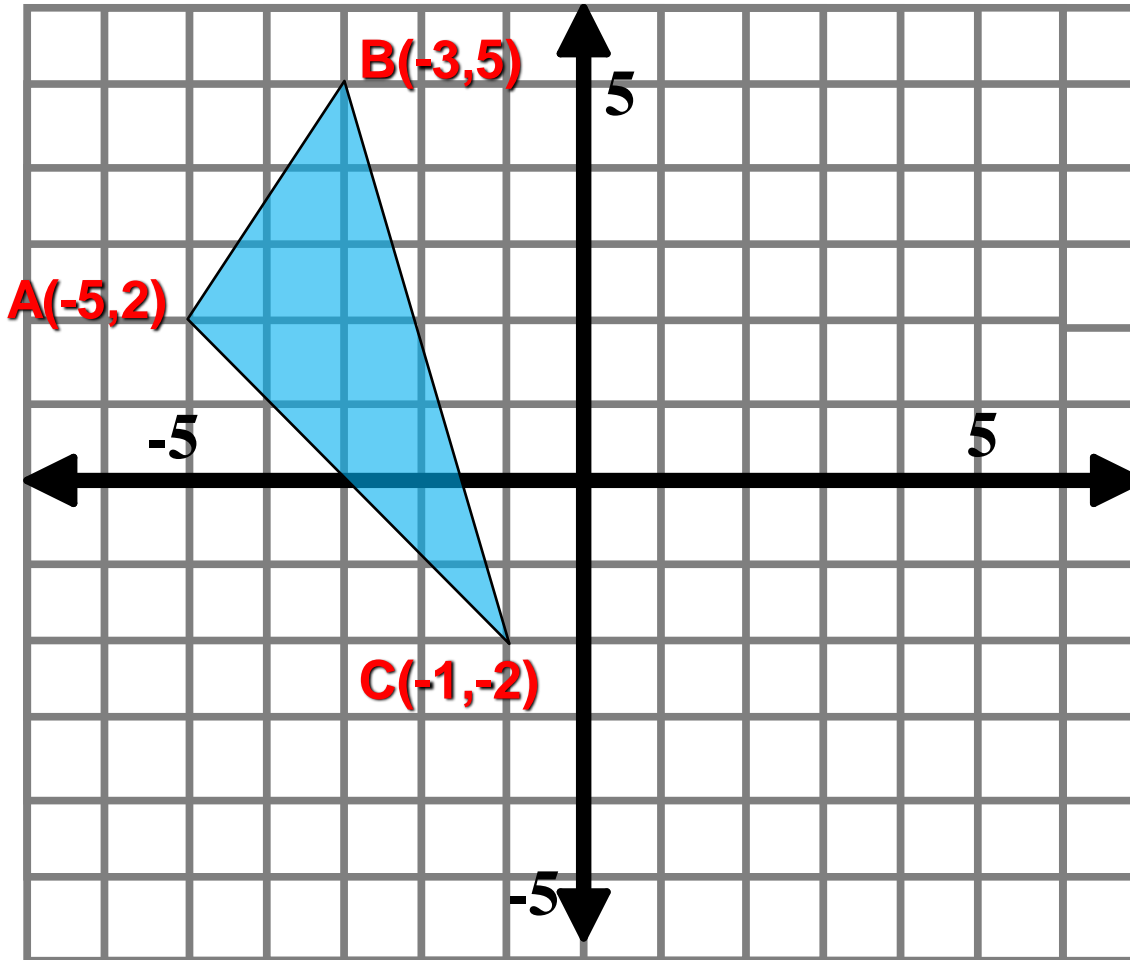
# Vocabulary

## Reflection

**Mirror image of an object across a line or a point**

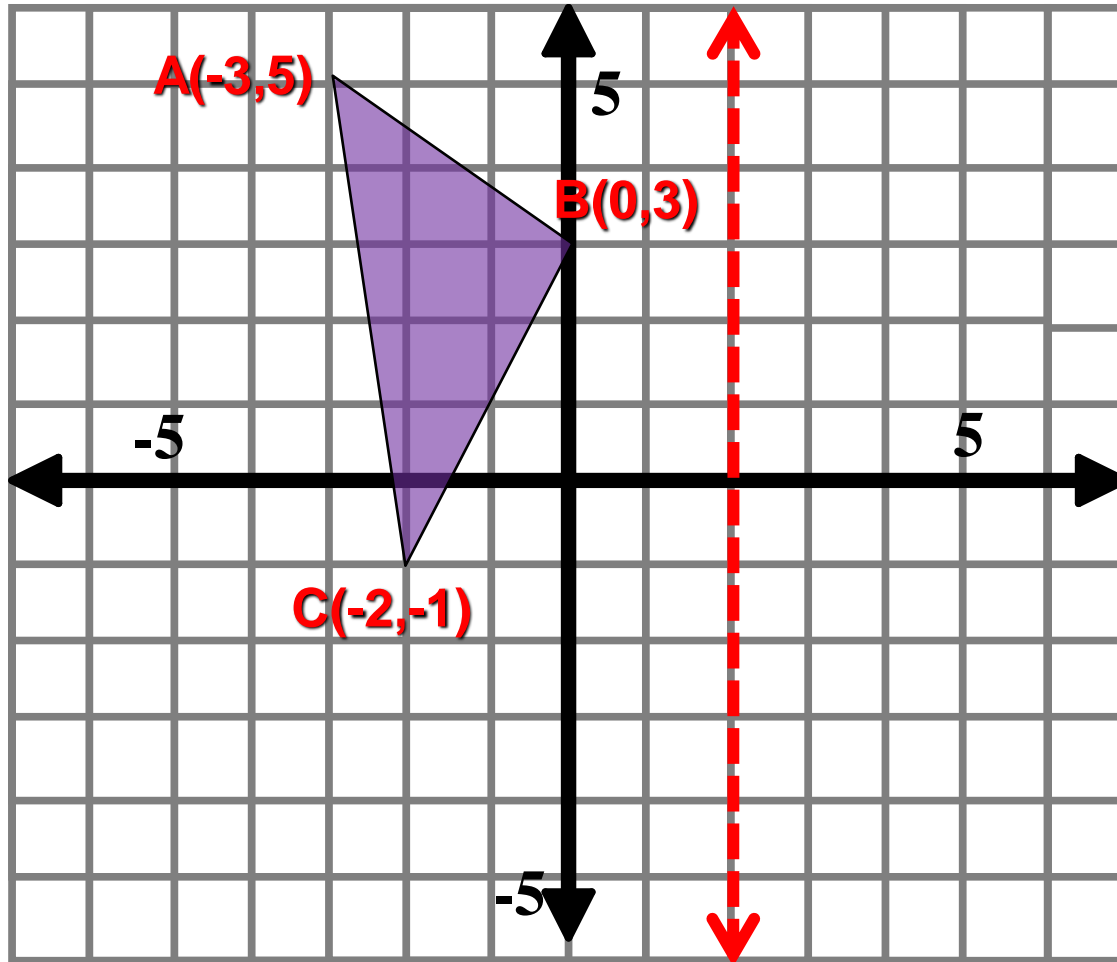


# Reflections on a Coordinate Plane



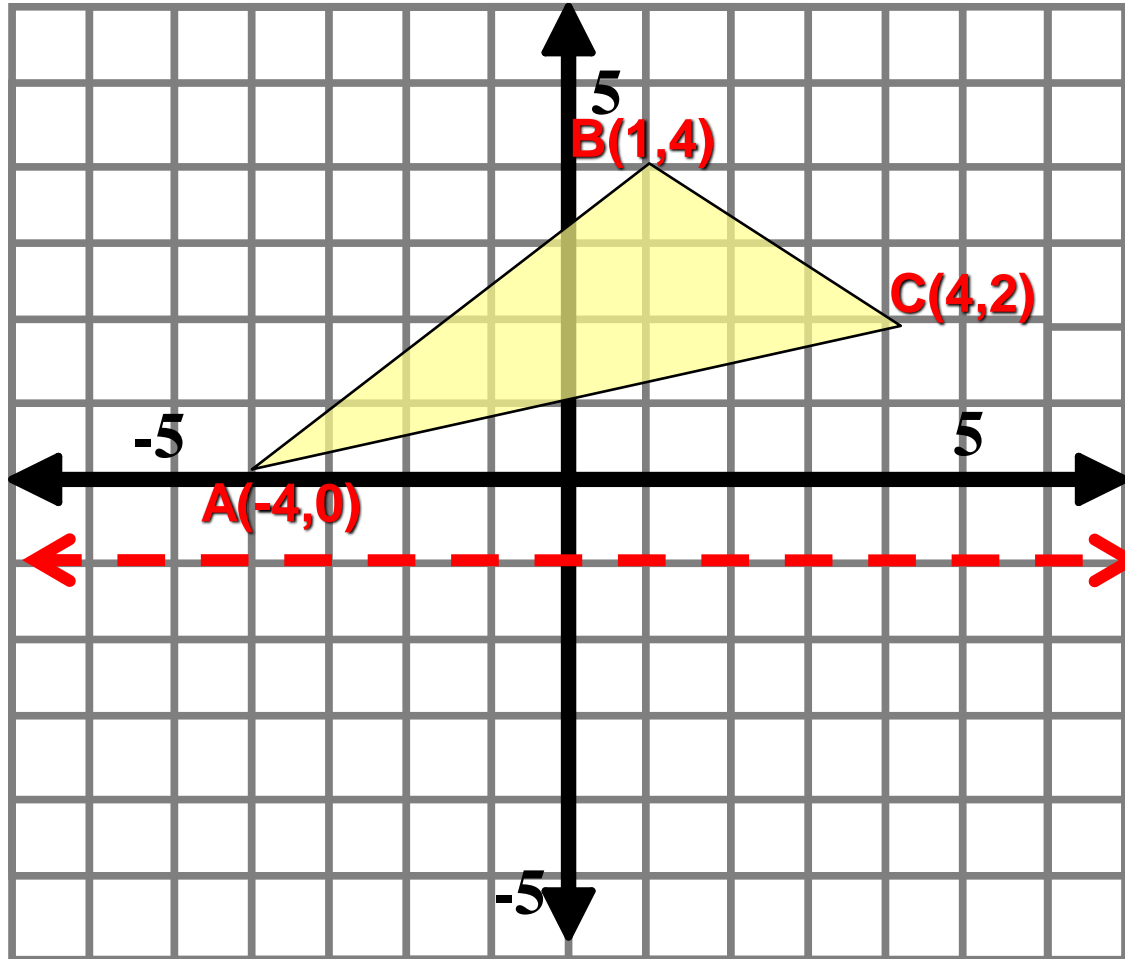
**Rule:**  
**Reflect across**  
**the y-axis**

# Reflections on a Coordinate Plane



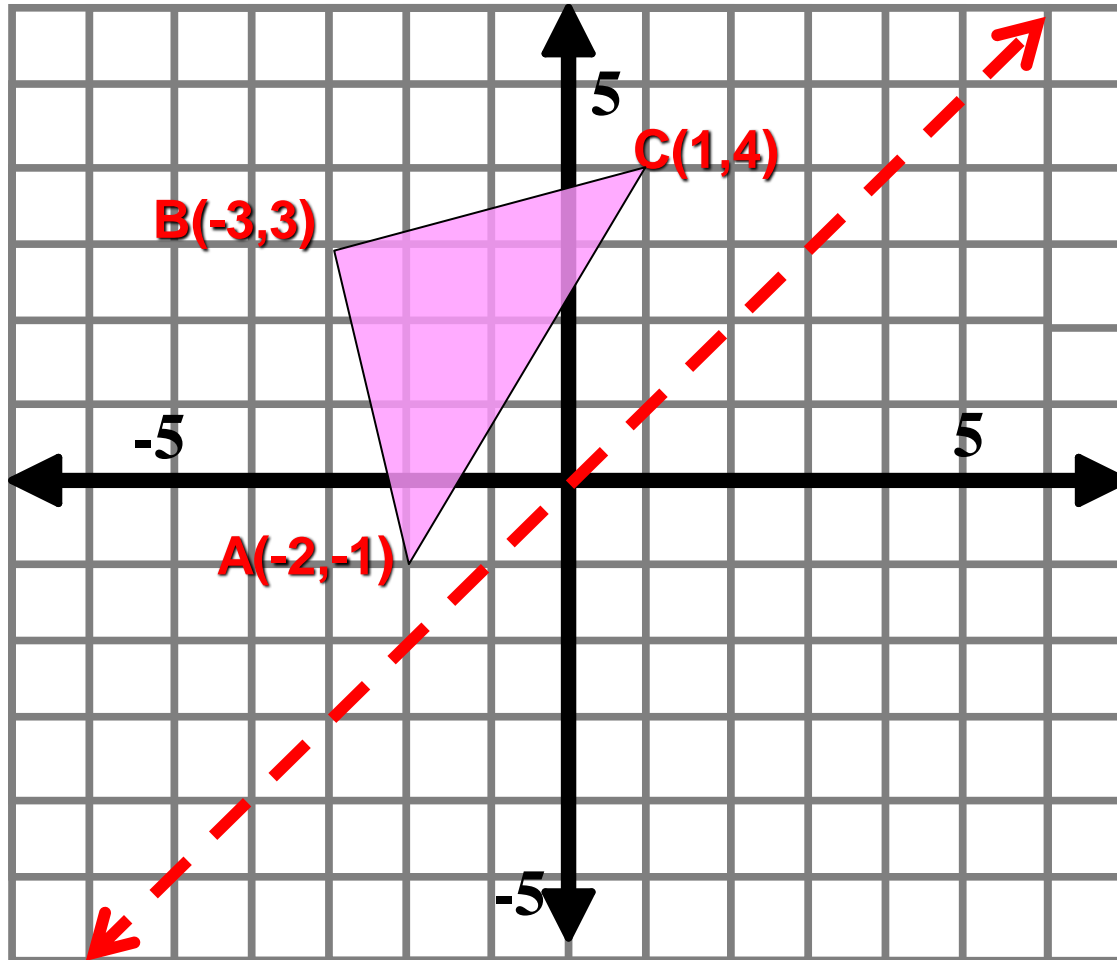
**Rule:**  
**Reflect**  
**across  $x=2$**

# Reflections on a Coordinate Plane



**Rule:**  
**Reflect**  
**across  $y = -1$**

# Reflections on a Coordinate Plane

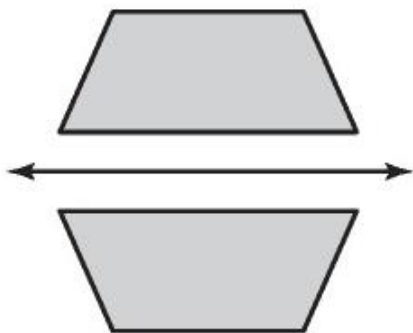


**Rule:**  
**Reflect**  
**across  $y=x$**

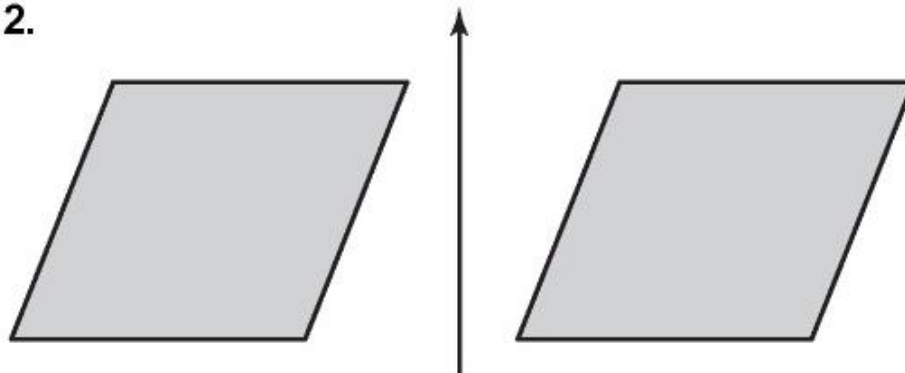
# Practice

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

1.

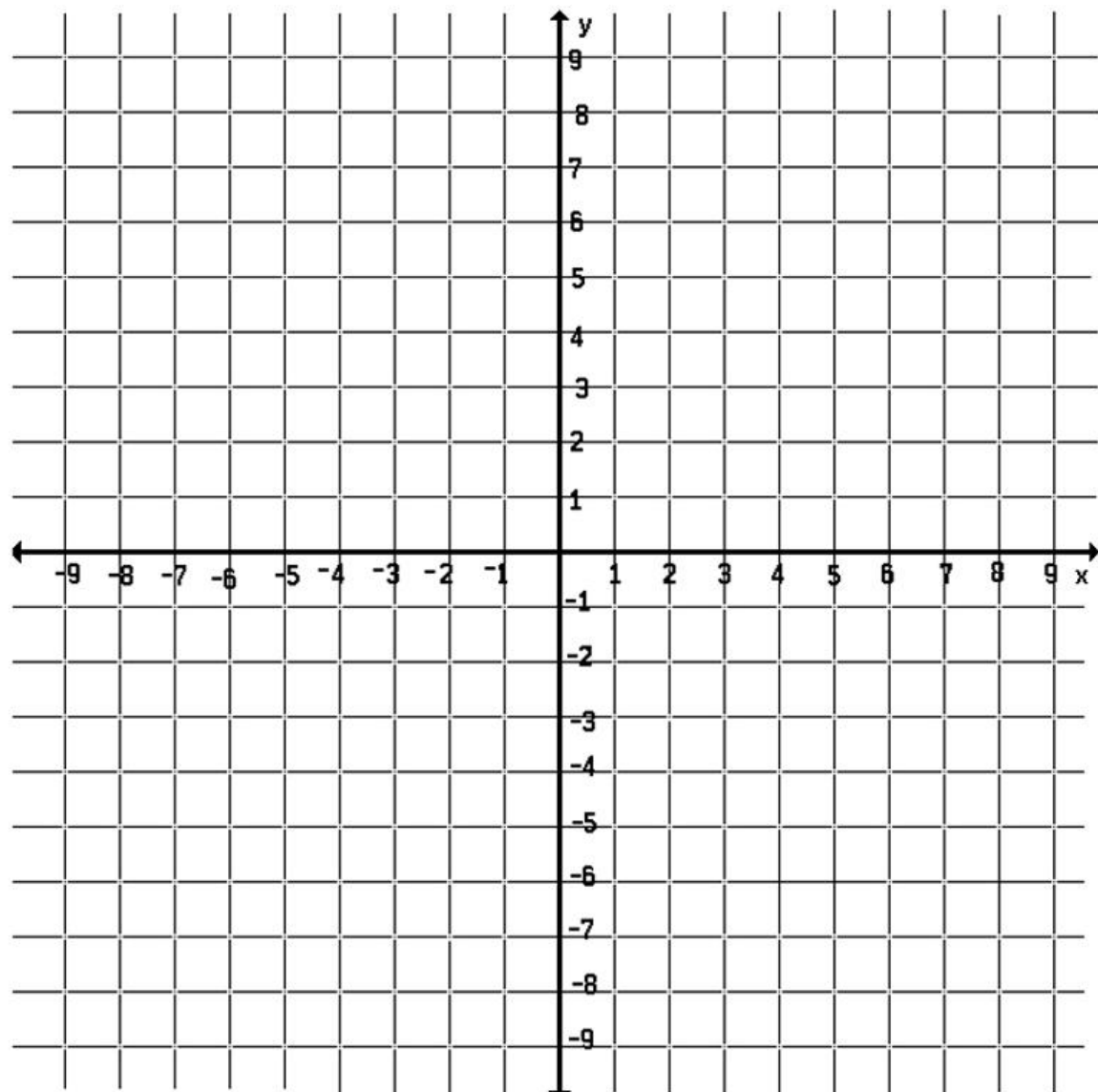


2.



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

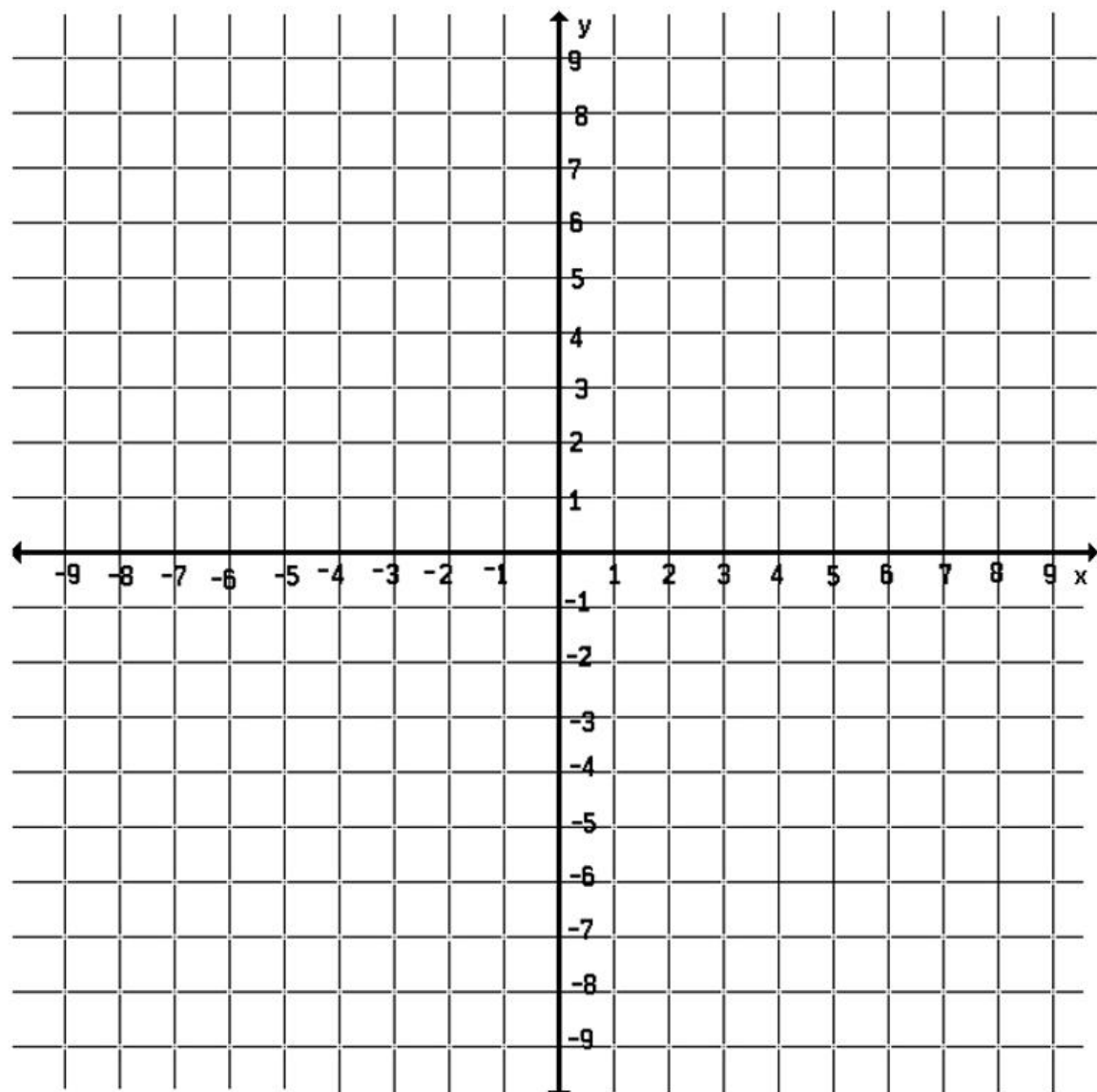
3.  $E(0, 2)$ ,  $F(3, 1)$ ,  $G(4, 3)$





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

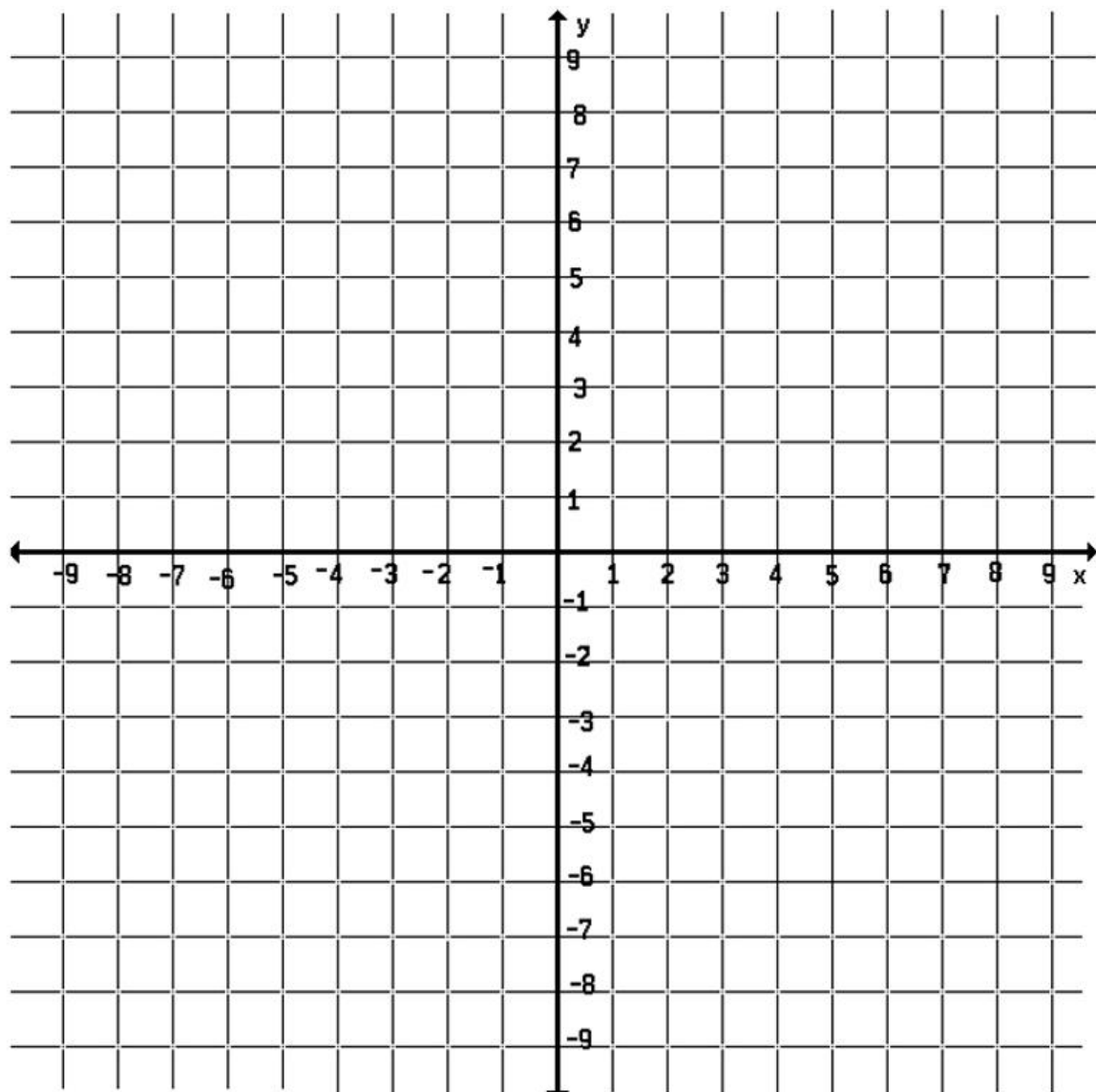
5.  $X(0, -1)$ ,  $Y(2, 3)$ ,  $Z(4, -2)$



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.

