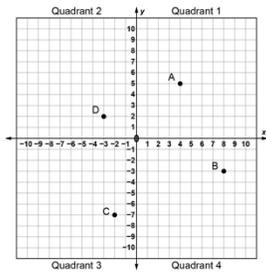


# Activity 4 Assessment

## Translating Polygons on a Cartesian Plane

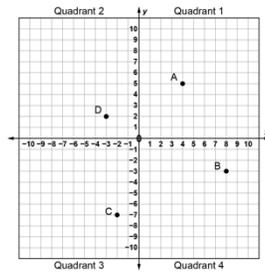
### Location and Transformations in the Cartesian Plane

Reads and interprets the Cartesian plane.



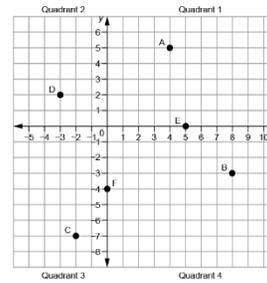
“The x-axis looks like a horizontal number line and the y-axis looks like a vertical number line, and the two number lines intersect.”

Locates points on a Cartesian plane using ordered pairs.



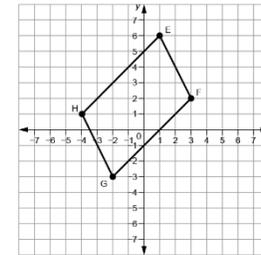
“Point A is at (4, 5), Point B is at (8, -3), Point C is at (-2, -7), and Point D is at (-3, 2).”

Uses coordinates to plot points on a Cartesian plane.



“I plotted Point E(5, 0) and Point F(0, -4).”

Models and describes the location of the vertices of a polygon in the Cartesian plane using coordinates.



“I drew a parallelogram. Its vertices are at E(1, 6), F(3, 2), G(-2, -3), and H(-4, 1).”

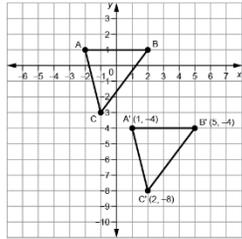
### Observations/Documentation

# Activity 4 Assessment

## Translating Polygons on a Cartesian Plane

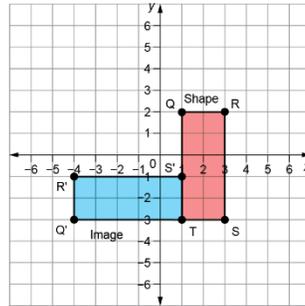
### Location and Transformations in the Cartesian Plane (cont'd)

Describes and performs transformations of polygons on a Cartesian plane.



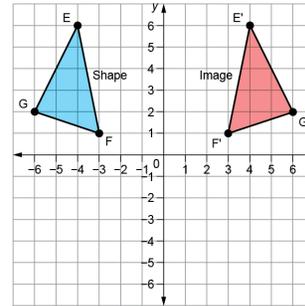
"I translated  $\triangle ABC$  right 3 squares and down 5 squares to get  $\triangle A'B'C'$ ."

Identifies transformation used to move a polygon on a Cartesian plane.



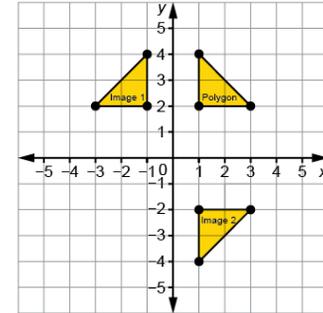
"The shape was rotated  $90^\circ$  counterclockwise about T to get the image. The shape and its image are congruent but have different orientations."

Relates the coordinates of a polygon and its image after a translation, reflection, or rotation.



"After a reflection in the  $y$ -axis, the  $x$ -coordinates of the vertices change sign, and the  $y$ -coordinates stay the same."

Flexibly visualizes and predicts where the image of a polygon will be after a transformation.



"I can picture the Polygon's reflection, Image 1, on the other side of the  $y$ -axis, and the Polygon's reflection, Image 2, on the other side of the  $x$ -axis. Each time, matching vertices will be the same distance from the line of reflection and the polygon, and its image will have opposite orientations."

### Observations/Documentation