Name_____ Date_____

Reflections on the Plane

Individually:

Draw a quadrilateral as an initial shape. Place it fully in the first quadrant of the coordinate plane.

Reflect the shape into each of the other quadrants of the plane using the *x*-axis and *y*-axis as lines of reflection. After each reflection, record the coordinates of the vertices of the image. Note how the original coordinates changed.

As a group:

Take turns showing each other your initial shape.

Try to predict what the coordinates of the vertices of the image will be for your group members' reflections.

- What patterns do you notice as you reflect the shapes in the *x*-axis and *y*-axis?
- Why do you think these patterns exist?
- Can you create any general rules about reflections in the *x*-axis and *y*-axis?

Reflections on the Plane (cont'd)