**Activity 1.6.2 Other Symmetry**

1. Graph a parallelogram with these vertices: *A*(6,4), *B*(-2, 4), *C*(-6,-4), and *D*(2, -4). How do you know that your polygon is a parallelogram?



Now rotate your parallelogram 90° counter-clockwise about the origin. What observations can you make about the new image?

Now rotate the image of the parallelogram another 90° counter-clockwise about the origin. What degree rotation is this from your original figure? What observations can you make about this image?

Without performing the rotation, can you predict what the image under a rotation of 270° counter-clockwise will look like?

1. Other shapes exhibit rotational symmetry as well, such as a rectangle. How many degrees would a non-square rectangle have to be rotated to exhibit symmetry? Explain your reasoning.
2. Predict what kind of rotational symmetry a square will exhibit. Explain how you arrived at your prediction.
3. Other shapes such as kites also exhibit symmetry. What kind of symmetry does a kite have? Be specific.