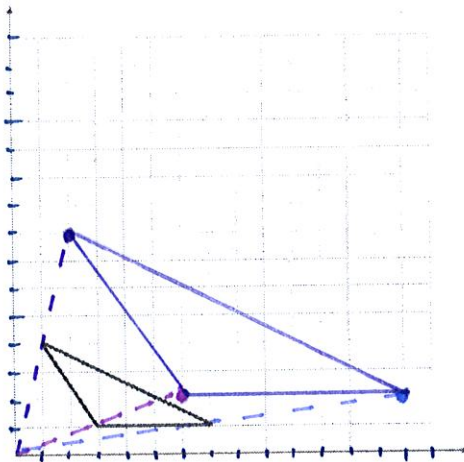Dilations of Figures on the Coordinate Plane

Big Idea: **Dilations** are transformations that produce images that are the same shape as the original image, but not the same size. Each point on the original figure is moved along a straight line that is drawn from a fixed point, known as the **center of dilation**.

Steps:
1. Analyze the problem.
2. Draw lines from the center of dilation to each vertex of the figure.
3. Scale the lines the proportion asked for. (you can use slope triangles)
4. Place the point of the dilated figure.
5. Connect the points to create the new figure and check if proportional.

Examples:

Dilate the triangle using the origin as the center of dilation and a scale factor of 2.

Dilate the triangle using point (2, 2) as the center of dilation and a scale factor of $\frac{1}{2}$