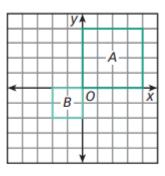
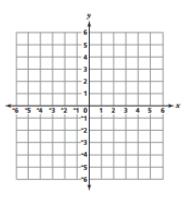
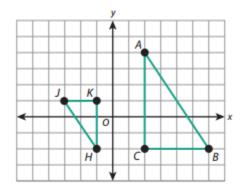
**4** Describe at least two different transformations or sequences of transformations that transform square A to square B.



Sketch a trapezoid on a coordinate plane, then choose two dilations with different scale factors. Draw the image of the trapezoid after each dilation. Are the sides of the trapezoid that are parallel in the original figure parallel in each image? Do you think that your result will be true for any dilation? Explain why or why not.



## Describe the series of transformations

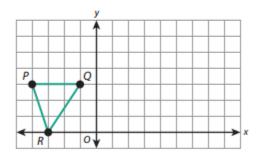


## **INDEPENDENT PRACTICE**

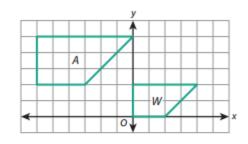
3 The coordinates of the vertices of Polygon *RSTV* are *R*(2, 4), *S*(6, 4), *T*(6, 0), and *V*(2, 0). The Polygon is dilated with scale factor of <sup>3</sup>/<sub>2</sub> and center (0, 0). Explain how you can find the coordinates of the vertices of Polygon *R'S'T'V'* from the coordinates of the vertices of the Polygon *RSTV*.

4 Triangle PQR is shown at the right.

- a. Reflect △PQR across the y-axis and then dilate it about center O with a scale factor of 2. Sketch the final image.
- **b.** Compare the coordinates of the corresponding vertices of the final image and  $\triangle PQR$ .



5 In the diagram at the right, Polygon A is similar to Polygon W. What sequence of transformations transformed Polygon A to Polygon W?



Tracy dilates a figure with a scale factor of <sup>3</sup>/<sub>4</sub> and center O and then dilates the image with a scale factor of 2 and center O. Carrie says that she can get the same final image using just one dilation. Is she correct? If so, how can she do that? If not, why not?