## Similar Triangles on the Coordinate Plane

1. Triangle *XYZ* is the image that resulted from the dilation of  $\triangle ABC$ .



**a.** Use the SSS Similarity Theorem to determine whether  $\Delta XYZ$  is similar to  $\Delta ABC$ .

- **b.** What scale factor was used?
- **c.** Is the dilation an enlargement or reduction? Explain your reasoning.
- 2. Dilate  $\Delta JKL$  shown using a scale factor of  $\frac{1}{2}$  and the origin as the center of dilation to form  $\Delta RST$ .



- **a.** What are the coordinates of the dilated image?
- **b.** How did you determine the coordinates of the dilated image?
- **c.** Is the dilation an enlargement or reduction? Explain your reasoning.
- **d.** Use the SSS Similarity Theorem to verify  $\Delta JKL$  is similar to triangle.  $\Delta RST$ .