

8-3 • Guided Problem Solving

GPS Student Page 267, Exercise 12:

Graph $\triangle JKL$ with vertices $J(1, -3)$, $K(6, -2)$, and $L(6, -4)$. Graph the three images formed by rotating the triangle 90° , 180° , and 270° about the origin. Give the coordinates of the vertices of each image.

Understand

1. What are you asked to do?

2. Around what point will the triangle be rotated?

Plan and Carry Out

3. Graph the triangle. _____

4. What is a rotation?

5. What direction does the figure rotate?

6. Rotate the figure 90° and mark each vertex.

7. Rotate the original figure 180° and mark each vertex.

8. Rotate the original figure 270° and mark each vertex.

Check

9. How can you check that your figures are rotated correctly?

Solve Another Problem

10. a. Graph $\triangle ABC$ with vertices $A(2, 2)$, $B(1, 1)$, and $C(1, 3)$.
 b. Draw the three images formed by rotating the triangle 90° , 180° , and 270° about the origin.

