## Lesson 11 Practice Problems

1. Each diagram has a pair of figures, one larger than the other. For each pair, show that the two figures are similar by identifying a sequence of translations, rotations, reflections, and dilations that takes the smaller figure to the larger one.


2. Here are two similar polygons.

Measure the side lengths and angles of each polygon. What do you notice?

3. Each figure shows a pair of similar triangles, one contained in the other. For each pair, describe a point and a scale factor to use for a dilation moving the larger triangle to the smaller one. Use a measurement tool to find the scale factor.

4. Describe a sequence of translations, rotations, and reflections that takes Polygon $P$ to Polygon Q.

(From Unit 1, Lesson 3.)
5. a. Draw the translated image of $A B C D E$ so that vertex $C$ moves to $C^{\prime}$. Tracing paper may be useful.


$$
{ }^{\circ} C^{\prime}
$$

b. Draw the reflected image of Pentagon $A B C D E$ with line of reflection $\ell$. Tracing paper may be useful.

c. Draw the rotation of Pentagon $A B C D E$ around $C$ clockwise by an angle of 150 degrees. Tracing paper and a protractor may be useful.


