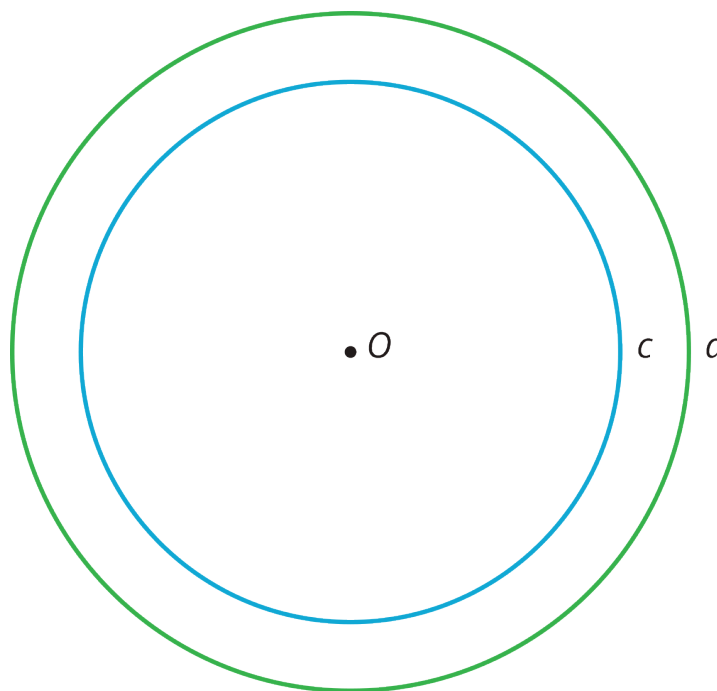


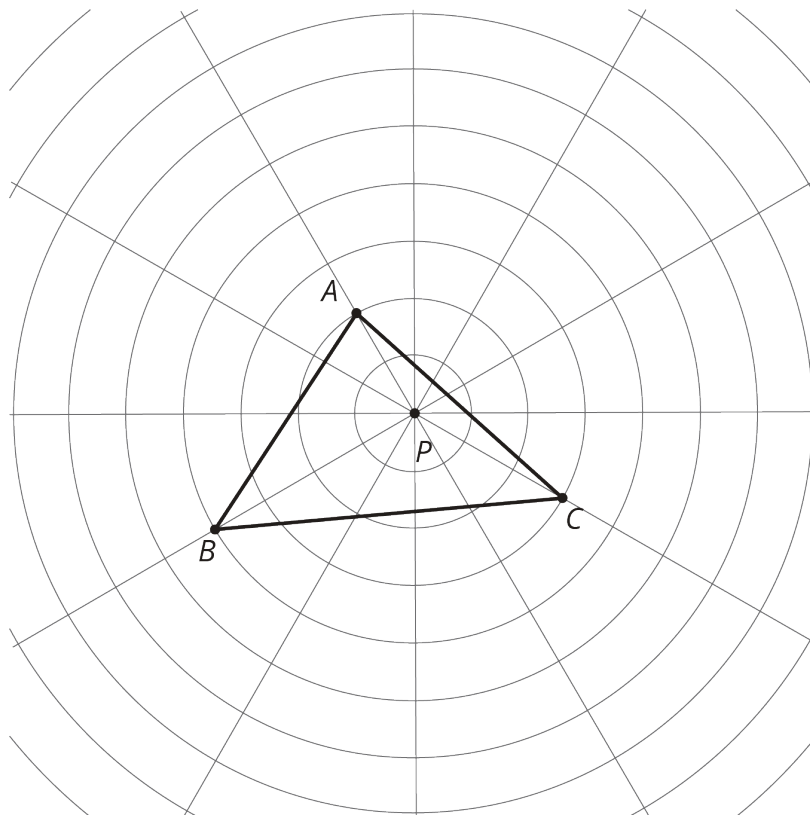
## Lesson 2 Practice Problems

1. Here are Circles  $c$  and  $d$ . Point  $O$  is the center of dilation, and the dilation takes Circle  $c$  to Circle  $d$ .



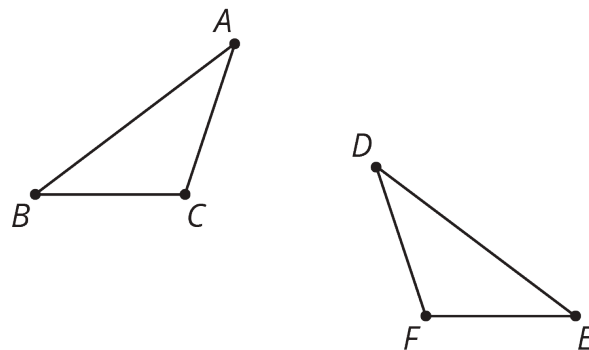
- Plot a point on Circle  $c$ . Label the point  $P$ . Plot where  $P$  goes when the dilation is applied.
- Plot a point on Circle  $d$ . Label the point  $Q$ . Plot a point that the dilation takes to  $Q$ .

2. Here is triangle  $ABC$ .



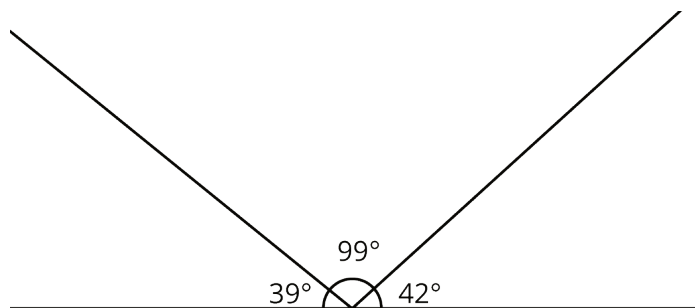
- Dilate each vertex of triangle  $ABC$  using  $P$  as the center of dilation and a scale factor of 2. Draw the triangle connecting the three new points.
- Dilate each vertex of triangle  $ABC$  using  $P$  as the center of dilation and a scale factor of  $\frac{1}{2}$ . Draw the triangle connecting the three new points.
- Measure the longest side of each of the three triangles. What do you notice?
- Measure the angles of each triangle. What do you notice?

3. Describe a rigid transformation that you could use to show the polygons are congruent.



(From Unit 1, Lesson 12.)

4. The line has been partitioned into three angles.



Is there a triangle with these three angle measures? Explain.

(From Unit 1, Lesson 15.)