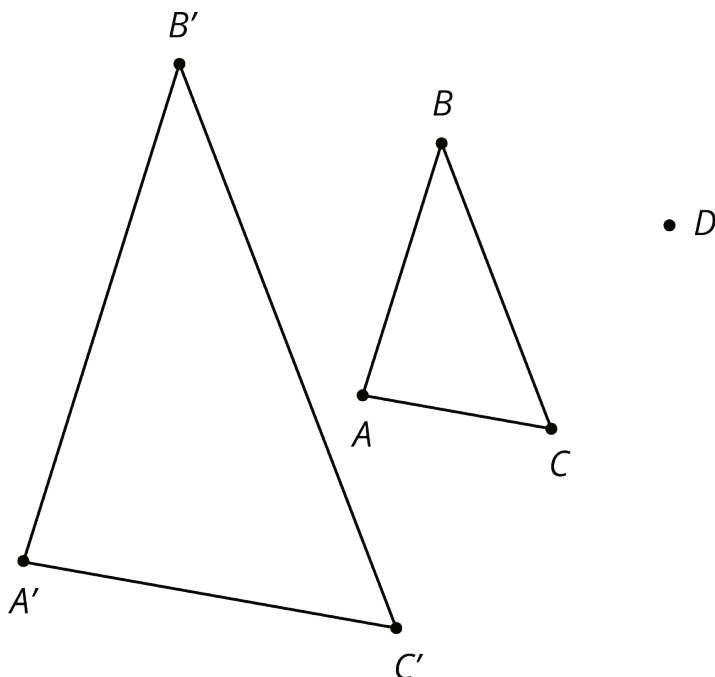# Lesson 10 Practice Problems

1. Triangle ABC is dilated using D as the center of dilation with scale factor 2.

The image is triangle $A'B'C'$. Clare says the two triangles are congruent, because their angle measures are the same. Do you agree? Explain how you know.
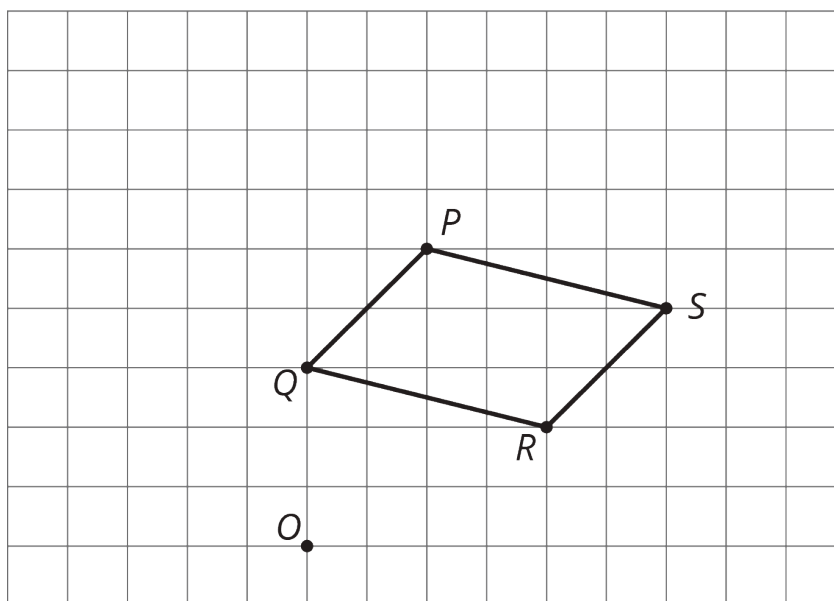
2. On graph paper, sketch the image of quadrilateral PQRS under the following dilations:
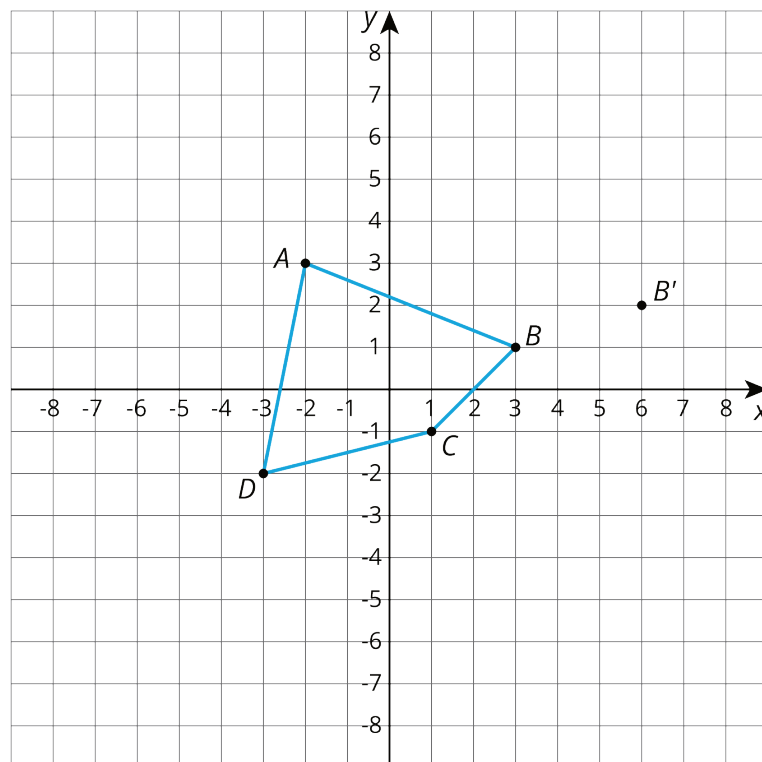
   a. The dilation centered at R with scale factor 2.

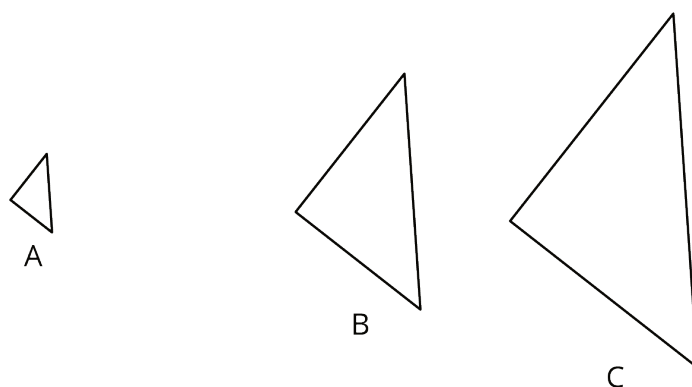   b. The dilation centered at O with scale factor $\frac{1}{2}$.

   c. The dilation centered at S with scale factor $\frac{1}{2}$.

Accelerated 7 Unit 2

Lesson 10

CC BY Open Up Resources. Adaptations CC BY IM.

1

3. Quadrilateral $ABCD$ is dilated with center $(0,0)$, taking B to B'. Draw $A'B'C'D'$.

4. Triangles B and C have been built by dilating Triangle A.

a. Find the center of dilation.

b. Triangle B is a dilation of A with approximately what scale factor?

c. Triangle A is a dilation of B with approximately what scale factor?

d. Triangle B is a dilation of C with approximately what scale factor?

Accelerated 7 Unit 2
Lesson 10

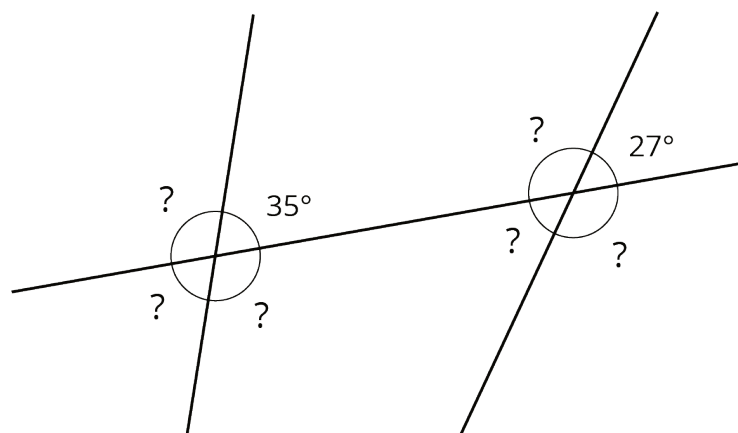CC BY Open Up Resources. Adaptations CC BY IM.

2

5. Here is a triangle.

   a. Draw the dilation of triangle ABC, with center $(0,0)$, and scale factor 2. Label this triangle $A'B'C'$.

   b. Draw the dilation of triangle ABC, with center $(0,0)$, and scale factor $\frac{1}{2}$. Label this triangle $A''B''C''$.

   c. Is $A''B''C''$ a dilation of triangle $A'B'C'$? If yes, what are the center of dilation and the scale factor?
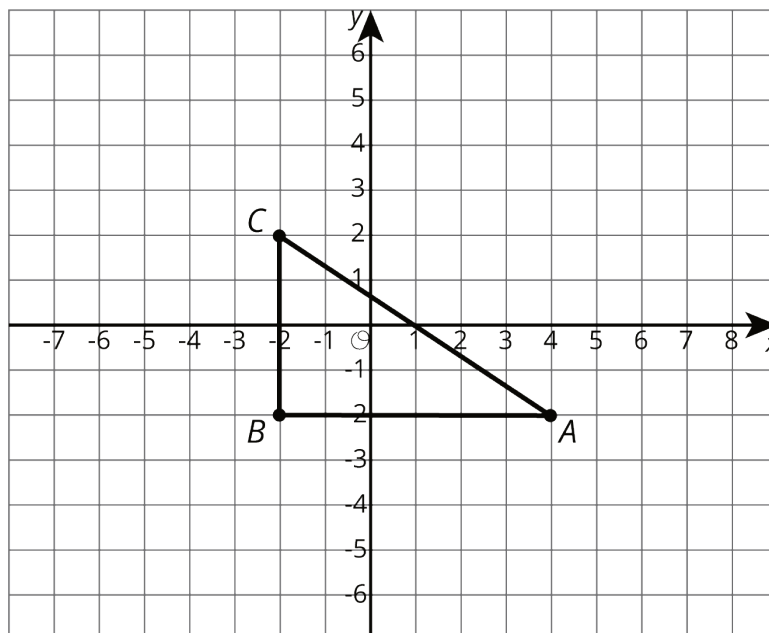
6. The diagram shows three lines with some marked angle measures.

Find the missing angle measures marked with question marks.

(From Unit 1, Lesson 12.)

Accelerated 7 Unit 2
Lesson 10

CC BY Open Up Resources. Adaptations CC BY IM.

3