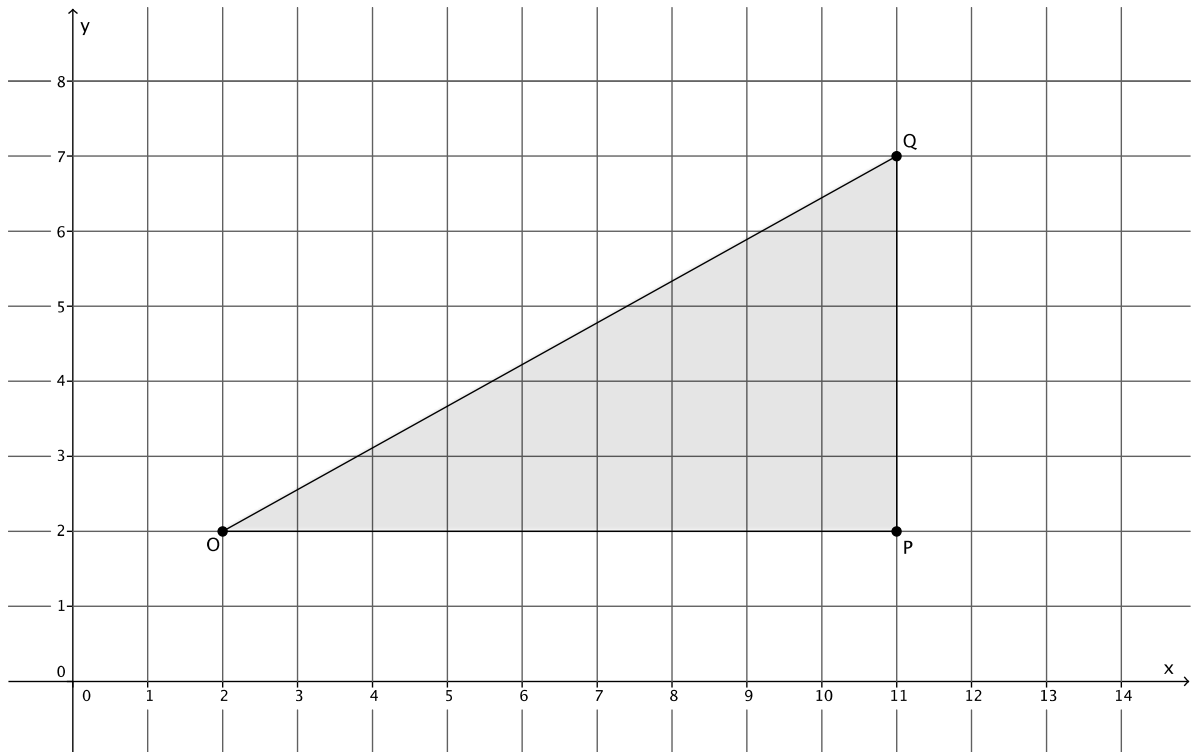


Grade 8 Module 3 End-of-Module Assessment 'A'

Name _____

Date _____

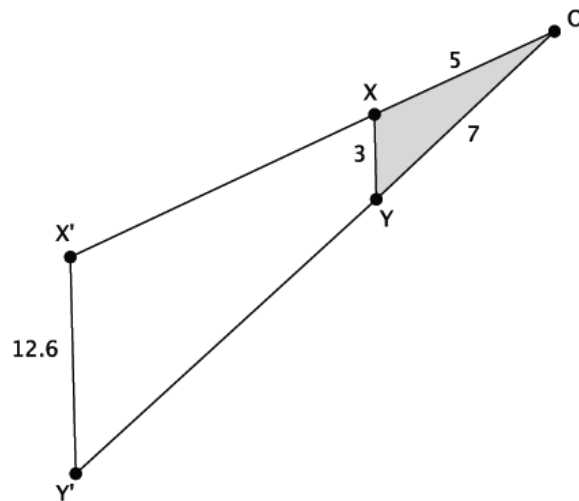
1. Use the diagram below to answer the questions that follow.



- a. Dilate triangle $\triangle OPQ$ from center O and scale factor $r = \frac{3}{9}$. Label the image $\triangle OP'Q'$.
- b. Find the coordinates of P' and Q' .

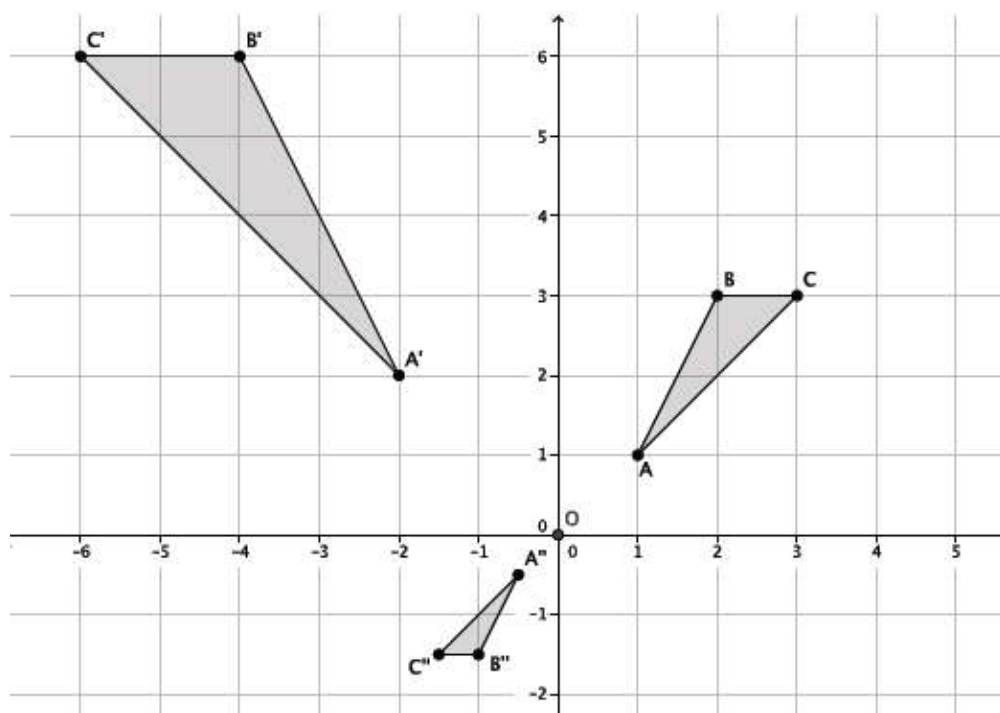
- c. Are $\angle OQP$ and $\angle OQ'P'$ equal in measure? Explain.
- d. What is the relationship between the lines PQ and $P'Q'$? Explain in terms of similar triangles.
- e. If the length of segment $|OQ| = 9.8$ units, what is the length of segment $|OQ'|$? Explain in terms of similar triangles.

2. Use the diagram below to answer the questions that follow. The length of each segment is as shown: segment OX is 5 units, segment OY is 7 units, segment XY is 3 units, and segment $X'Y'$ is 15.9 units.



- a. Suppose XY is parallel to $X'Y'$. Is triangle $\triangle OXY$ similar to triangle $\triangle OX'Y'$? Explain.
- b. What is the length of segment OX' ? Show your work.

3. Given $\triangle ABC \sim \triangle A'B'C'$ and $\triangle ABC \sim \triangle A''B''C''$ in the diagram below.



- a. Describe the sequence that shows the similarity for $\triangle ABC$ and $\triangle A''B''C''$.