

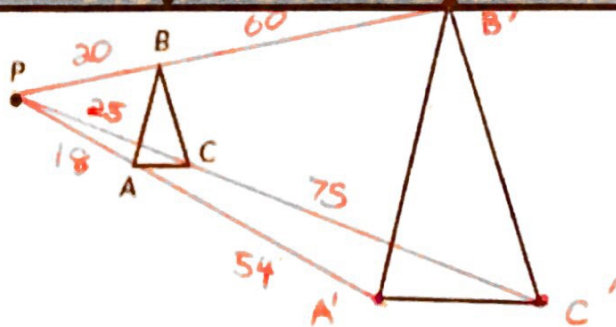
Module 1: Topic 2 Lesson 1 Assignment—Pinch-Zoom Geometry

VOCABULARY—For questions 1-4, complete the following sentences with the correct term. Use your book to help you.

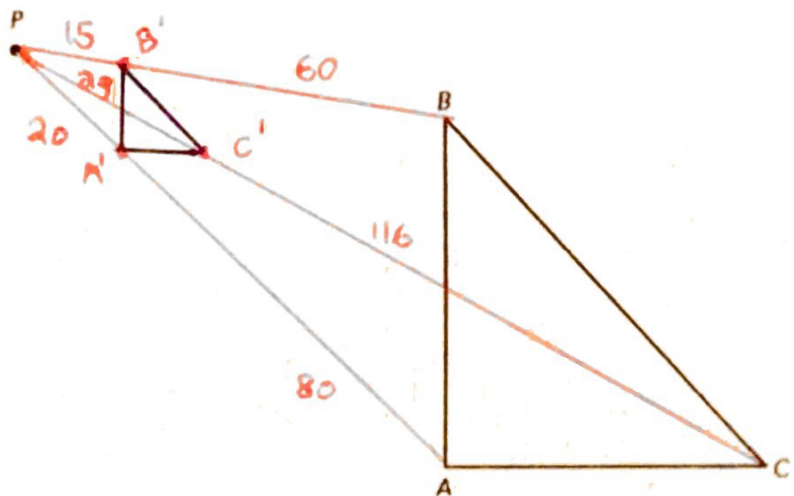
1. A DILATION is a transformation that produces a figure that is the same shape as the original figure, but not necessarily the same size. (page M1-112)
2. The scale factor is the ratio of the distance of the new figure from the center of dilation to the distance of the original figure. (page M1-112)
3. When a scale factor is greater than 1, the new figure is called an enlargement. (page M1-112)
4. When a scale factor is less than 1, the new figure is called a reduction. (page M1-114)
5. When you dilate a figure, you create a similar figure. When two figures are similar, the ratios of their corresponding side lengths are equal. (page M1-117)

PRACTICE—For questions 6 & 7, dilate each triangle with P as the center of dilation and the given scale factor.

6. Scale factor of 3.

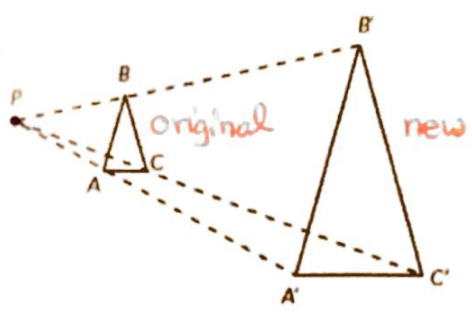


7. Scale factor of $\frac{1}{4}$.



8. The triangles in each pair are similar. Identify the congruent corresponding angles and the corresponding proportional side lengths.

a. Triangle ABC is similar to Triangle A' B' C' .



<u>Corresponding Angle Pairs</u>	<u>Corresponding Side Lengths</u>
$\angle B \cong \angle B'$	$\frac{A'B'}{AB} = \frac{B'C'}{BC} = \frac{C'A'}{CA}$ <i>new</i> <i>original</i>
$\angle C \cong \angle C'$	
$\angle A \cong \angle A'$	

9. Triangle DEF is similar to Triangle D' E' F' .

a. Using 3 different colored highlighters, show the corresponding side lengths of TRIANGLE DEF and TRIANGLE D' E' F' .

b. Is this dilation a/an: (circle one)

ENLARGEMENT or **REDUCTION**

How do you know? The new figure is smaller than the original

c. What is the scale factor of the dilation. (show measurements and ratio).

k = 1/2

$$\frac{PF'}{PF} = \frac{35}{70}$$

$$\frac{PE'}{PE} = \frac{22}{44} \quad \frac{PD'}{PD} = \frac{17}{34} = \frac{1}{2}$$

