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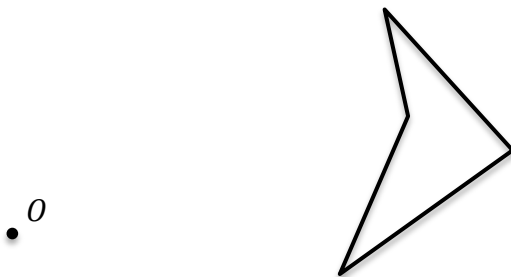
Math \_\_\_\_\_, Period \_\_\_\_\_

Mr. Rogove

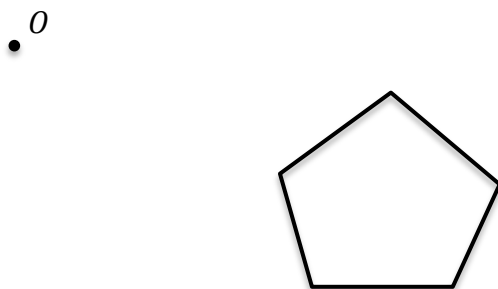
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**LEARNING OBJECTIVE:** We will review the properties of dilations and practice performing dilations (G8M3L6)

Use a compass and a ruler to dilate the shape below with center O for a scale factor of 2 **AND** a scale factor of  $\frac{1}{2}$ .



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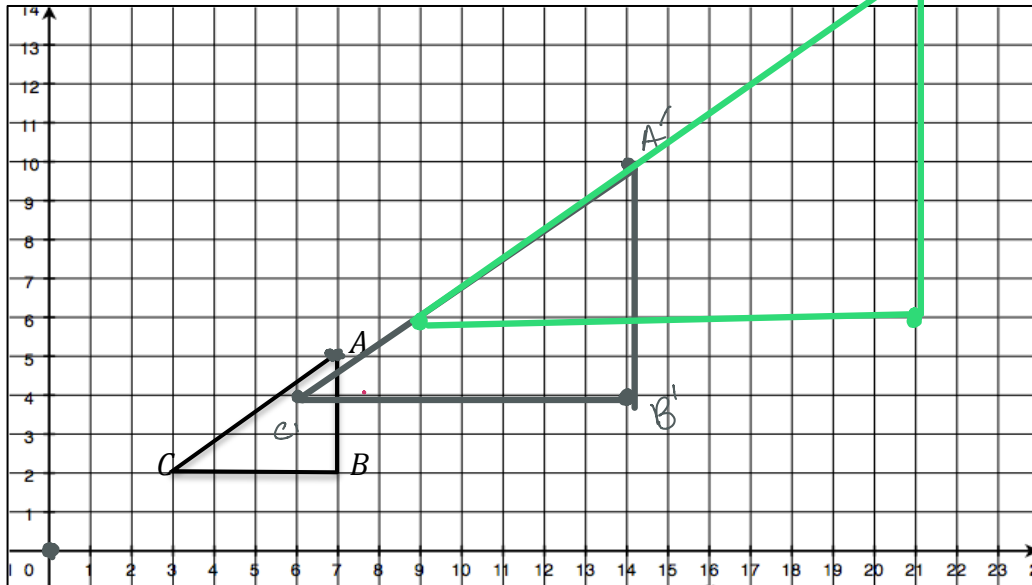
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Dilate the right triangle with a center at the origin for a scale factor of 2 and 3.  
Determine the lengths of each side of the every triangle.



$\overline{AB} = 3$

$\overline{BC} = 4$

$\overline{CA} = 5$

$\overline{A'B'} = 6$

$\overline{B'C'} = 8$

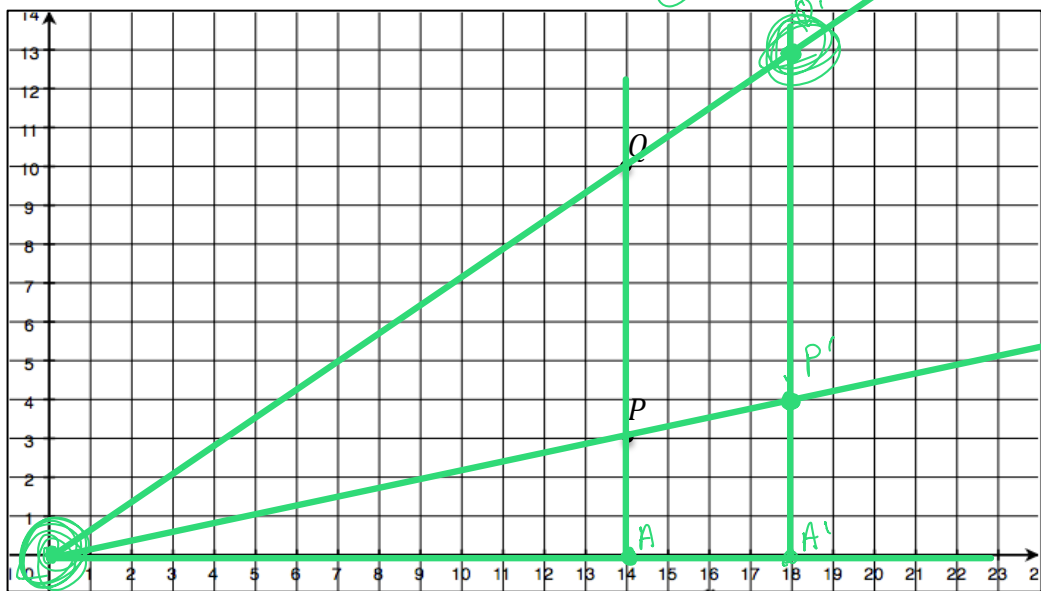
$\overline{C'A'} = 10$

$\overline{A''B''} = 9$

$\overline{B''C''} = 12$

$\overline{C''A''} = 15$

Dilate points from center at (0,0) for a scale factor of  $\frac{9}{7}$ . Find coordinates of P' and Q'



Q Q'

$18, 3 \times \frac{9}{7}$

$P' (18, \frac{27}{7})$

$Q' (18, \frac{90}{7})$

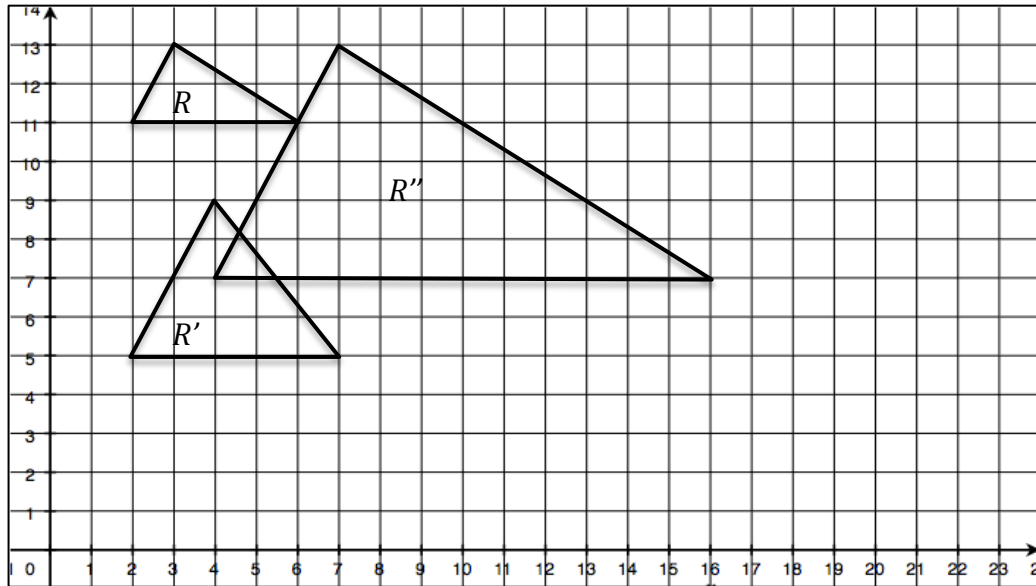
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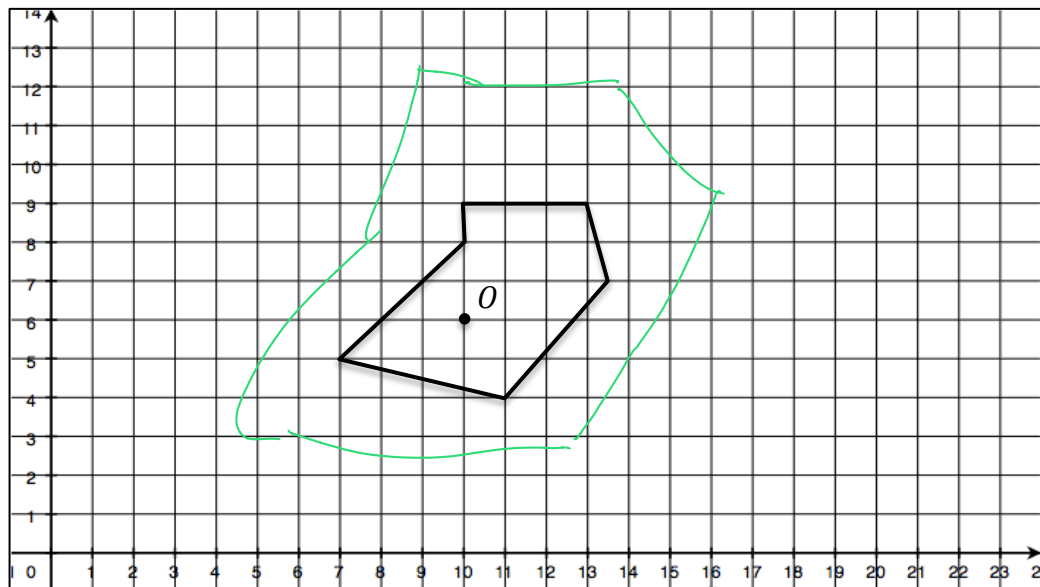
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Describe the possible dilation relationships between shapes  $R$ ,  $R'$ , and  $R''$ . If a dilation, state the point of dilation and the scale factor.



Dilate from center at point  $O$  for a scale factor of 2

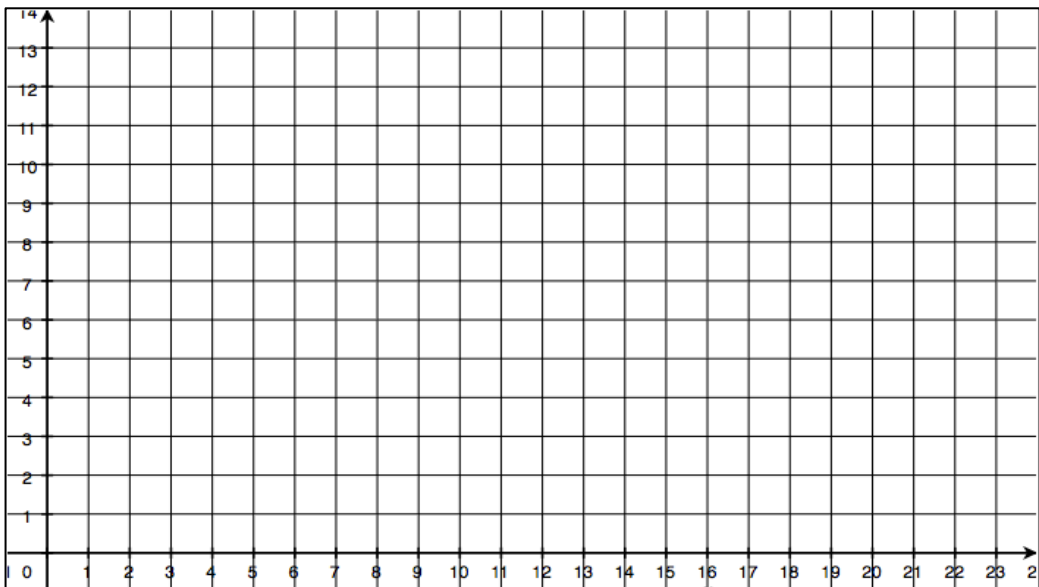
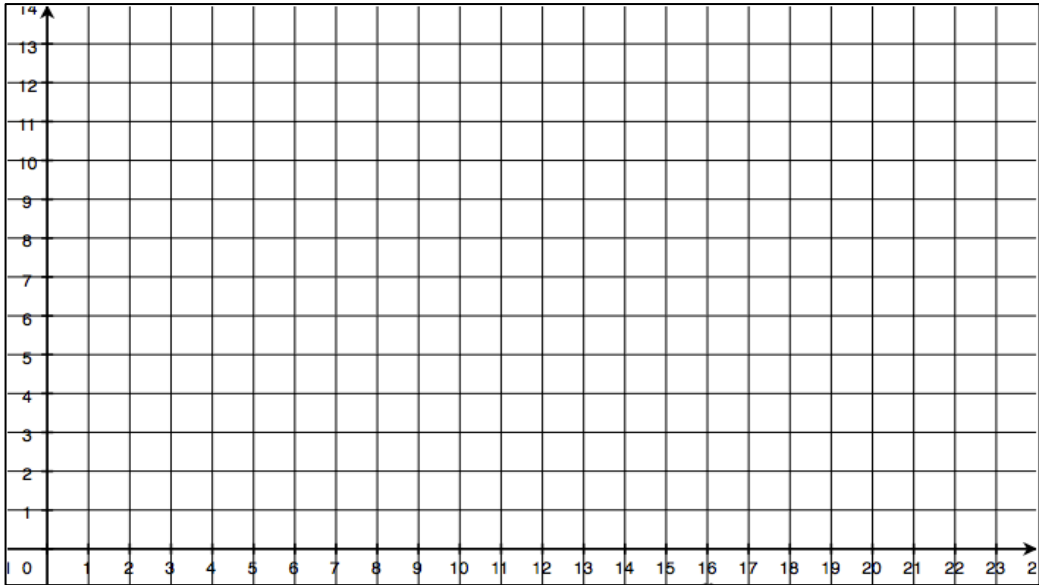


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**NOTES:**

**This lesson can be optional—depending on how comfortable everyone feels with dilations. Students should use page 4 to create their own problems that others will be asked to solve. If there is simply an end of module assessment, student created problems can be the basis for a study guide??**

**Also, do Visual Patterns #35**