

Name \_\_\_\_\_ Date \_\_\_\_\_

### Check for Understanding

#### Represent Similarity with Proportions: Investigation 2

- Determine whether each statement is true or false. *Circle true or false.*
  - Congruent figures have the same shape, but not necessarily the same size.  
True      False
  - Congruent figures have a scale factor of 1.  
True      False
  - If rigid motion transformations and a dilation with any scale factor other than 1 map a pre-image to an image, then the figures are similar but not congruent.  
True      False
- After a dilation,  $\overline{Q'R'}$  is the image of  $\overline{QR}$ . Match each set of segment lengths with the appropriate scale factor.
 

A. $QR = 18$ units, $Q'R' = 6$ units	I. 2.5
B. $QR = 6$ units, $Q'R' = 24$ units	II. $3\frac{2}{3}$
C. $QR = 4$ units, $Q'R' = 10$ units	III. $\frac{1}{3}$
D. $QR = 3$ units, $Q'R' = 11$ units	IV. 4
- An equilateral triangle with sides of 8 centimeters is dilated in reference to the origin in order to form an equilateral triangle that has sides 4 centimeters in length. If  $(a, b)$  is a point on the original triangle, which are the coordinates of the corresponding point on the triangle that has been dilated?
 

A. $\left(-\frac{1}{2}a, -\frac{1}{2}b\right)$	B. $\left(\frac{1}{2}a, \frac{1}{2}b\right)$
C. $(2a, 2b)$	D. $(-2a, -2b)$
- Describe the relationship between two figures that are similar.  
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