

DILATIONS DILATIONS DILATIONS DILATIONS

A **dilation** is a transformation that produces an image that is the same shape as the original, but is a different size (_____ figures). Each point of an object is moved along a straight line. The straight line is drawn from a fixed point called the **center of dilation**.

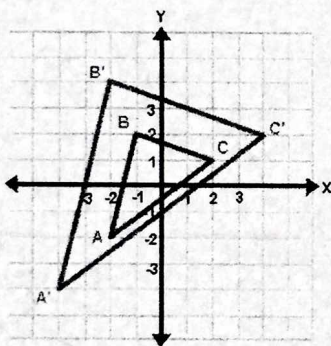
The distance the points move depends on the **scale factor** which tells you how much larger or smaller the figure will be.

$$\text{Scale factor} = \frac{\text{image}}{\text{original}}$$

If the scale factor is greater than 1, the image created is a(n) _____.

If the scale factor is between 0 and 1, the image created is a(n) _____.

1.



What is the scale factor of the dilation (with center at the origin) shown at the left?

Under a dilation, triangle $A(0,0)$, $B(0,4)$, $C(6,0)$ becomes triangle $A'(0,0)$, $B'(0,10)$, $C'(15,0)$. What is the scale factor for this dilation?

Triangle XYZ is shown on the coordinate plane. Draw a similar triangle with a dilation factor of 2.

