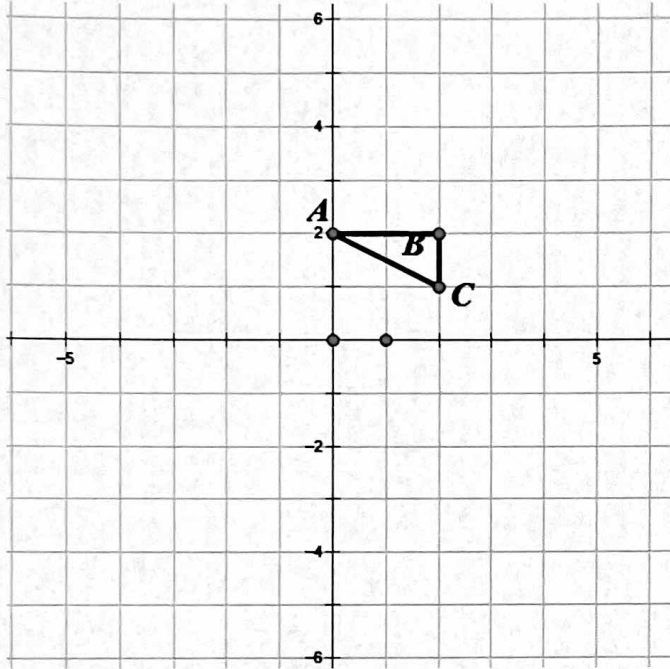


Transformations Continued – Dilations

Name: _____ Per: _____

1) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (2x, 2y)$

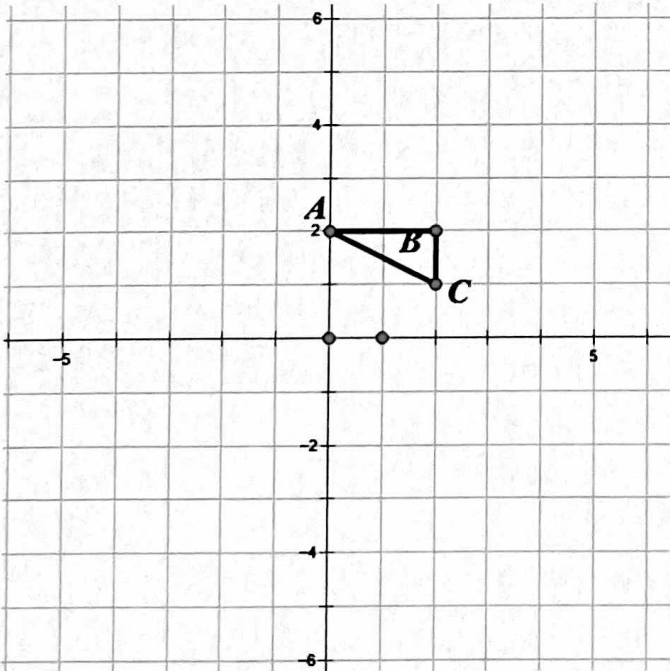


Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

What type of transformation is this? Explain.

2) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (3x, 3y)$

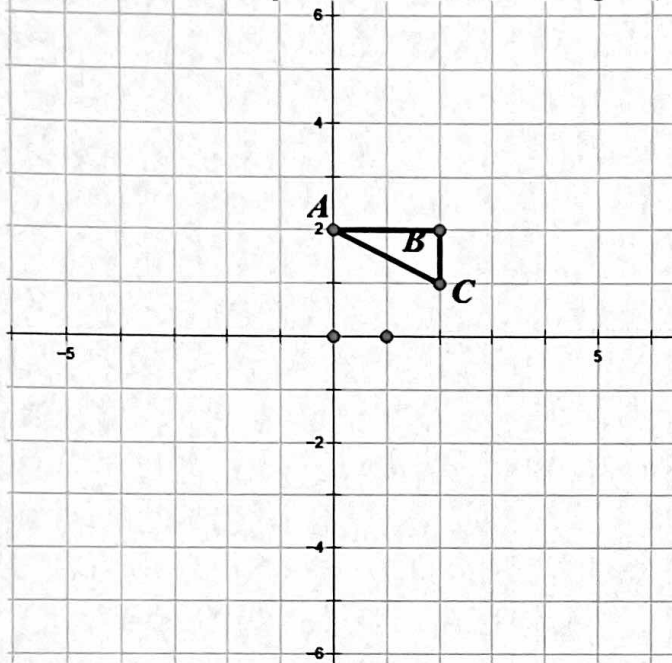


Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

What type of transformation is this? Explain.

3) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (1.5x, 1.5y)$

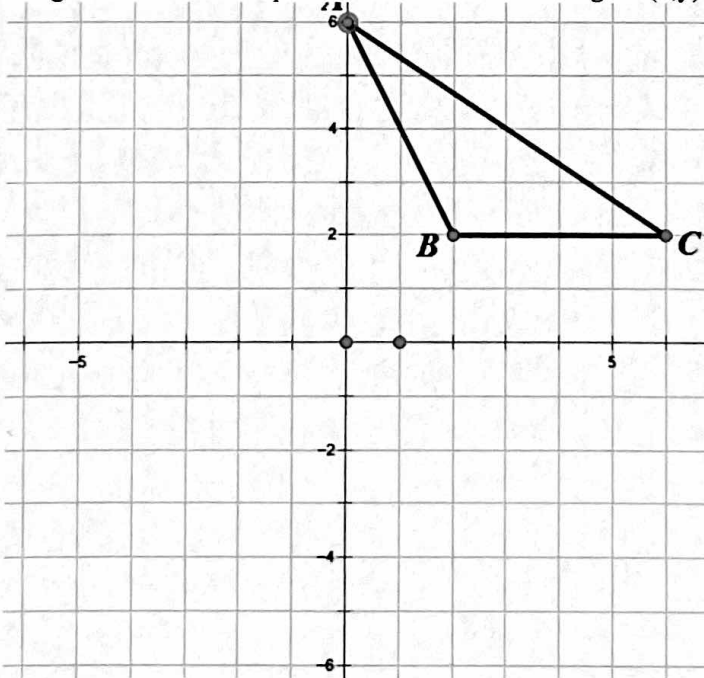


Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

What type of transformation is this? Explain.

4) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (0.5x, 0.5y)$



Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

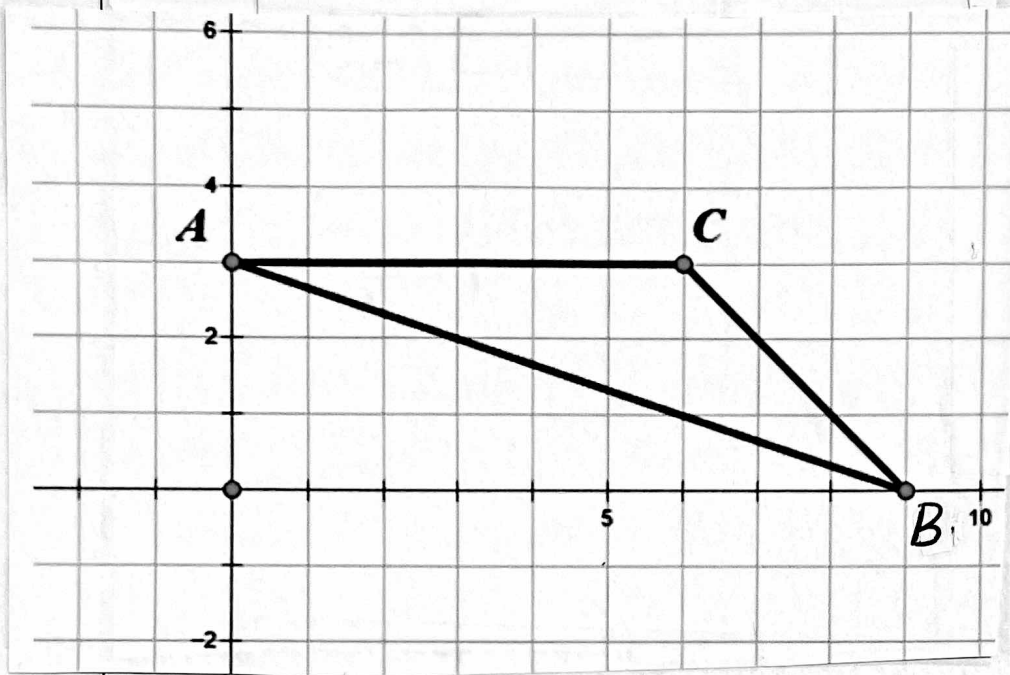
What type of transformation is this? Explain.

5) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (\frac{1}{3}x, \frac{1}{3}y)$

Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

What type of transformation is this? Explain.

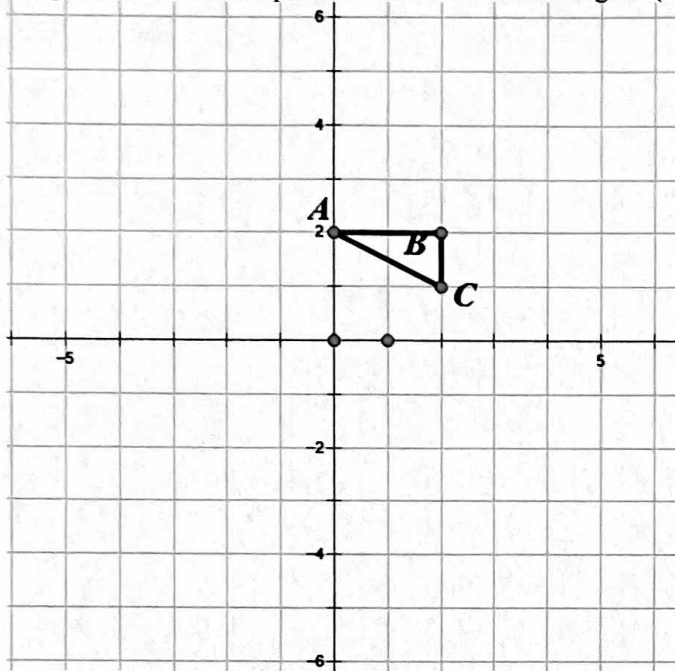


Summarizing your observations from the examples above, fill in the following:

A _____ is a transformation in which the image remains the same _____ as the preimage, but a different _____. The general format for a dilation rule with the center of dilation as the origin is: $(x,y) \rightarrow (kx, ky)$ where k is called the scale factor. If $|k|$ is between 0 and 1 ($0 < |k| < 1$), then the dilated image is _____ than the preimage. If $|k| > 1$, then the dilated image is _____ than the preimage. If $|k| = 1$, then the image is _____ to the preimage.

Now let's take it to the next level...

6) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (2x, 3y)$

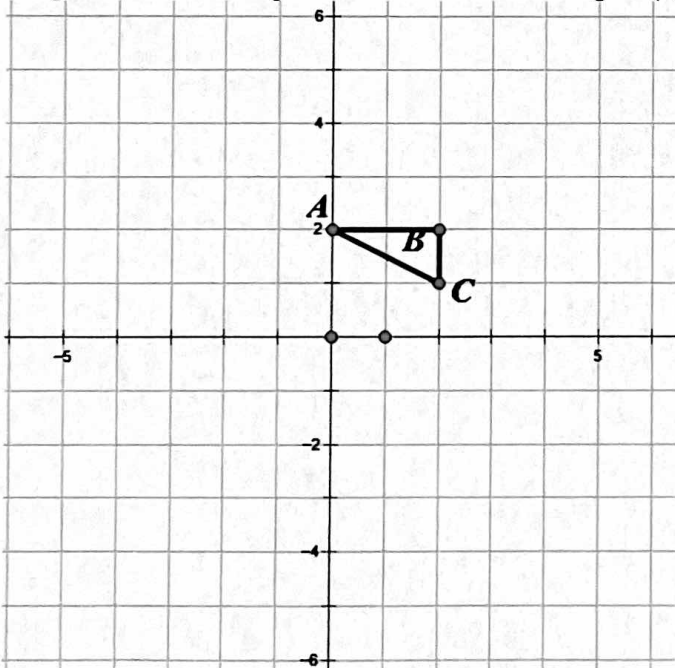


Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

What type of transformation is this? Explain.

7) Perform the following transformation rule on the triangle shown, graph the image and fill in the requested information on the right: $(x,y) \rightarrow (-2x, -2y)$



Write the coordinates of the preimage and the image.

A	A'
B	B'
C	C'

What type of transformation is this? Explain.
