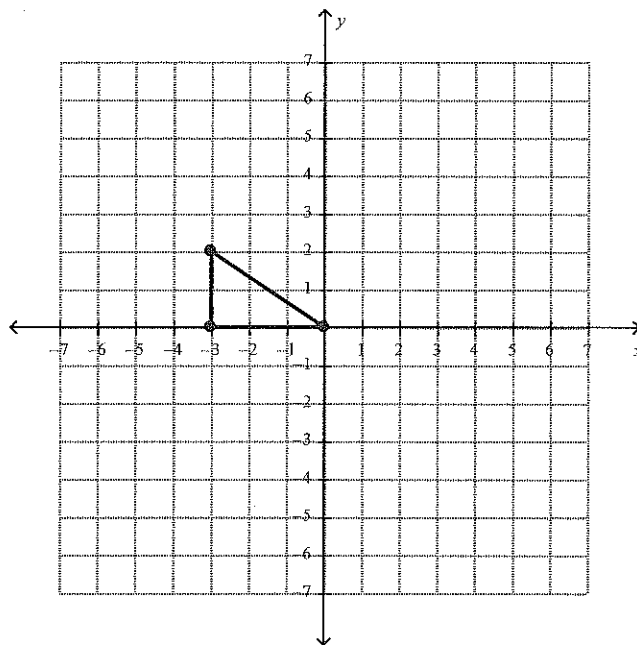


# Sequencing Transformations

1. Apply the sequence of transformation listed below, sketching a new image after each. Apply each transformation to the most recent image, not the original pre-image.

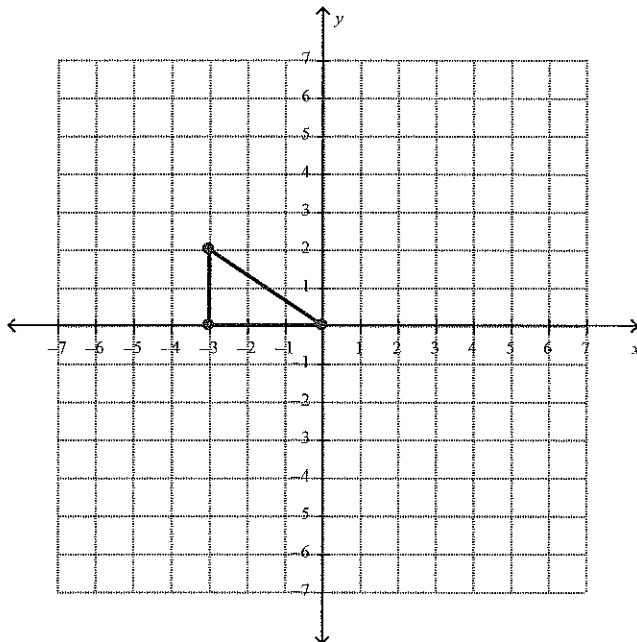
- Reflect it over the  $y$ -axis.
- $(x, y) \rightarrow (x, y - 5)$
- Rotate it  $90^\circ$  counter clockwise.
- $(x, y) \rightarrow (x - 6, y)$



1. Apply the sequence of transformation listed below, sketching a new image after each. Apply each transformation to the most recent image, not the original pre-image.

- Rotate  $180^\circ$ .
- Reflect over the  $y$ -axis.
- Reflect over the  $x$ -axis.

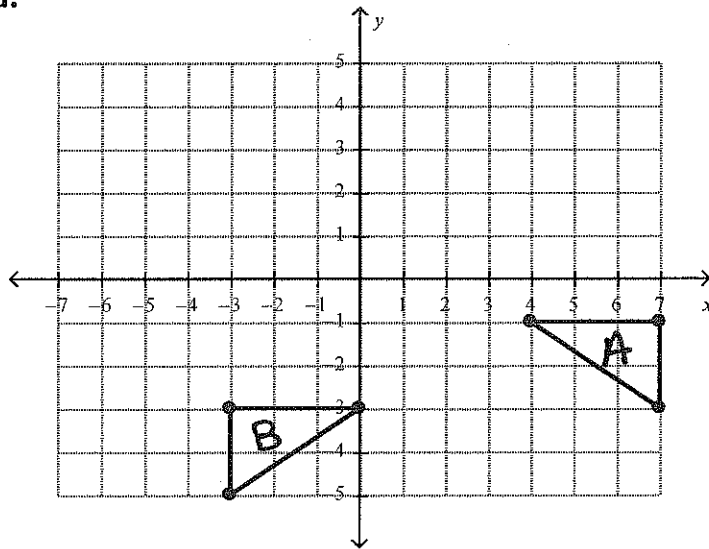
What do you notice about the location of the triangle right now? Why might this be?



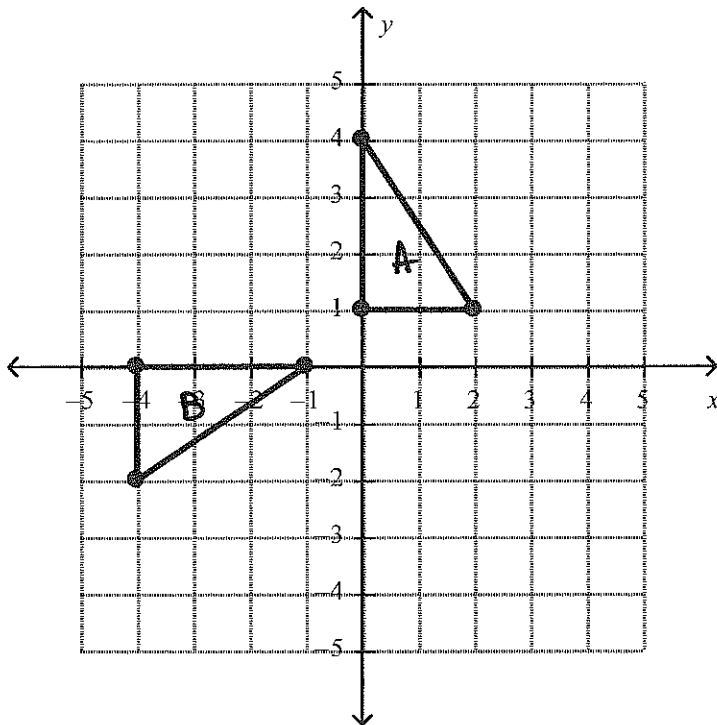
- Dilate by a scale factor of 2.
- $(x, y) \rightarrow (x + 7, y + 3)$
- Reflect over the line  $x = 1$ .
- Rotate  $180^\circ$ .

2. For each of the following identify a sequence of transformations that would translate triangle A to triangle B. The goal is to accomplish this in the least amount of steps possible.

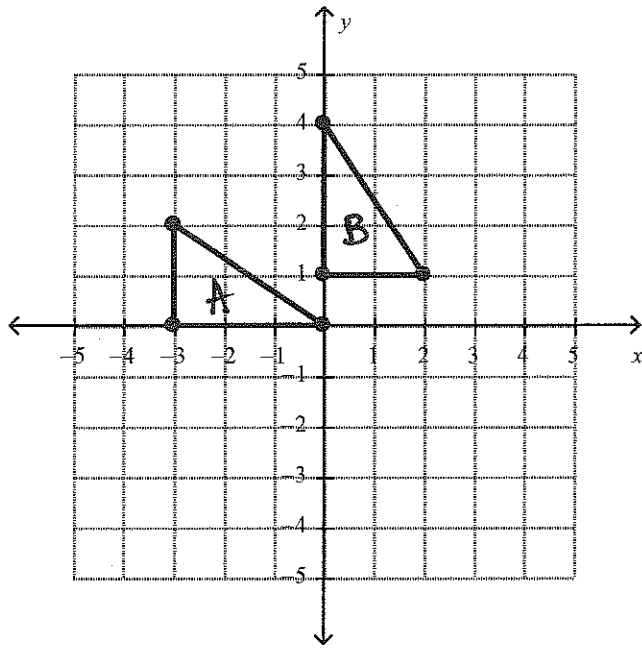
a.



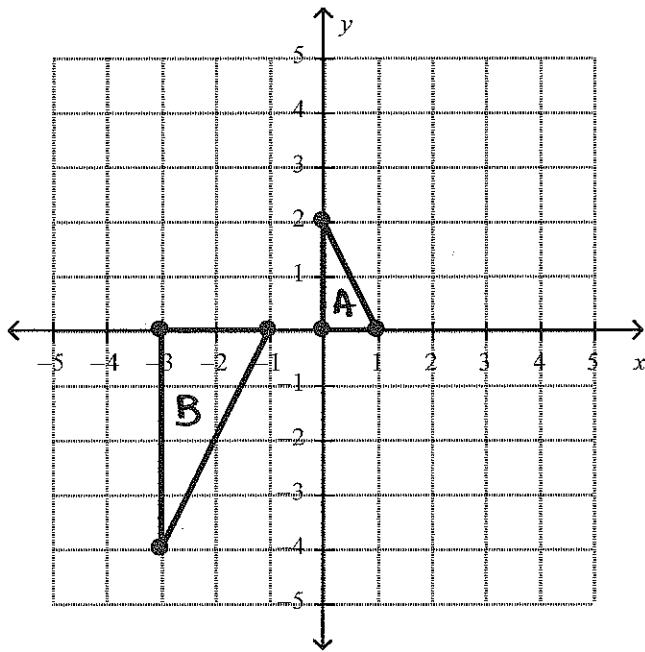
b.



c.



d.



e.

