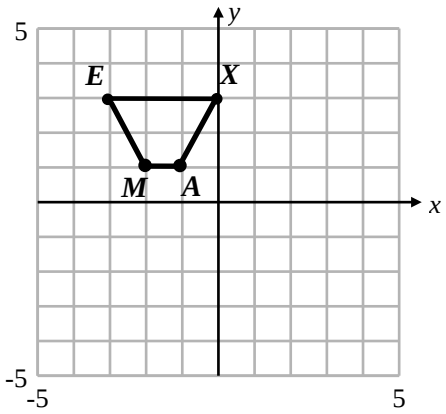
Name _____ Period_____ Date_____

Composition of Transformations #2

1. Sketch the graph *E′X′A′M′* and *E″X″A″M″* of each of the following series of transformations below using the Figure *EXAM*.

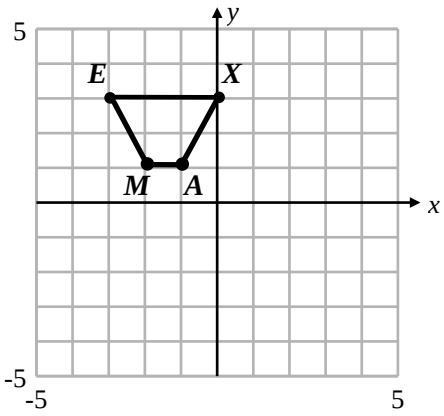
A. Reflect figure *EXAM* over the *x*-axis; then rotate it 90º counter clockwise about the origin.



*E′*_____*X′*_____*A′*_____ *M′*_____

*E″*_____*X″*_____*A″*_____ *M″*_____

B. Reflect figure *EXAM* over the *y*-axis; then reflect it over the *x*-axis.

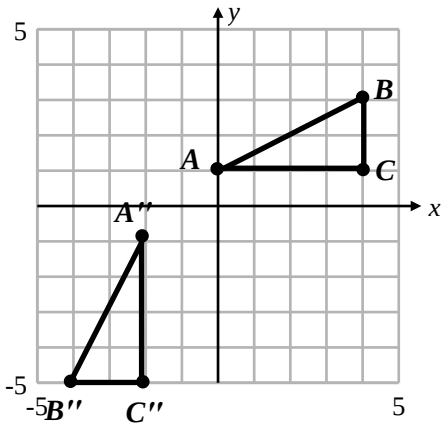


*E′*_____*X′*_____*A′*_____ *M′*_____

*E″*_____*X″*_____*A″*_____ *M″*_____

2. In the grids below determine the series of transformations that was performed on each pre-image to obtain each image. BE SPECIFIC. FOR EXAMPLE, IF THE PRE-IMAGE WAS ROTATED YOU MUST INCLUDE THE DEGREES AND THE DIRECTION. IF THE PRE-IMAGE WAS REFLECTED YOU MUST SAY OVER WHICH AXIS AND/OR EXPLAIN THE MOVEMENT BETWEEN QUADRANTS.

A.



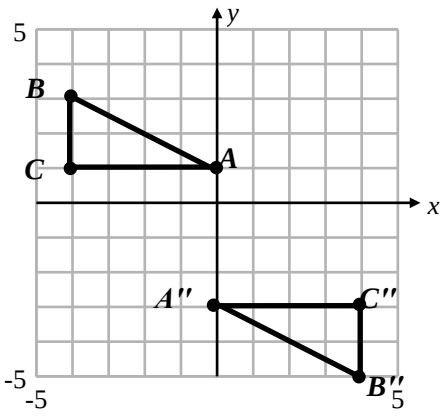
Transformation List:

_____

_____

_____

B.



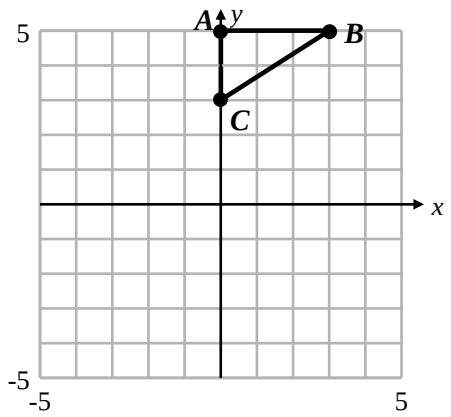
Transformation List:

_____

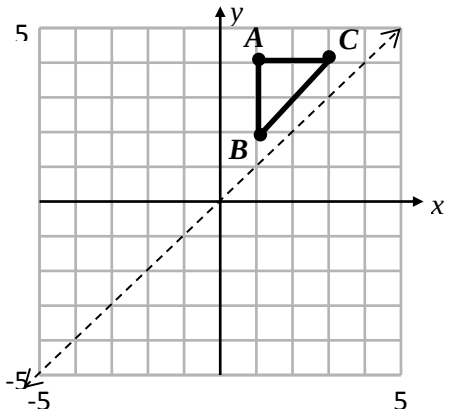
_____

_____

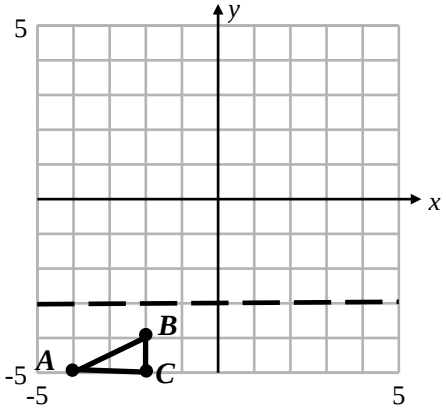
3. Graph the line $y = x + 2$ then reflect the triangle over the line. List the coordinates of your final answer.



4. Reflect triangle *ABC* over the dashed line; then reflect it over the *x*-axis. List the coordinates of your final answer.



5a. Reflect triangle *ABC* over the dashed line, and then reflect it over the *x*-axis.



5b. Instead of doing two separate transformations, what one transformation could have been done to go directly from triangle *ABC* to triangle *A″B″C″*?