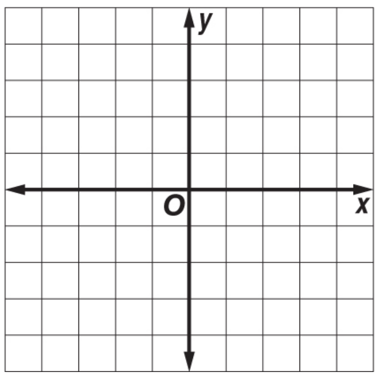
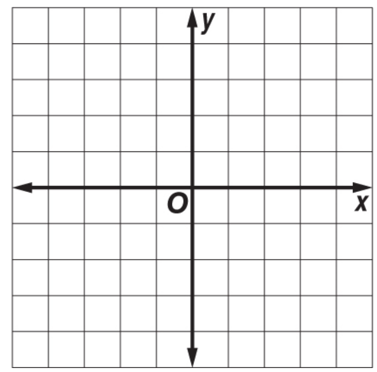
Geometry Unit 1 Review NAME: ______________________________Per___

Show ALL WORK for credit. This assignment is worth one point per completed problem.

1. Quadrilateral *ABCD* with vertices *A*(–3, 3), *B*(1, 4), *C*(4, 0), and *D*(–3, –3). Then rotate it 180 degrees.



2. Graph △*FGH* with vertices *F*(–3, –1), *G*(0, 4) and *H*(3, –1) and translate it 5 units up and 2 units to the right.



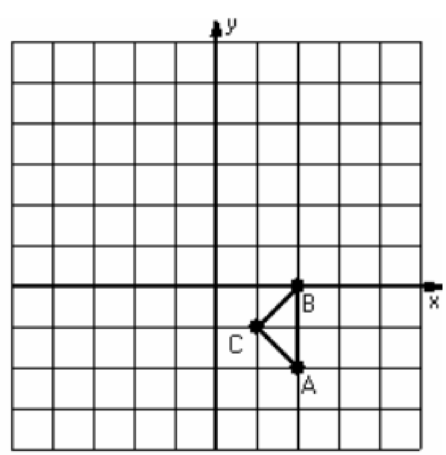
3. Using the △*FGH* with vertices *F*(–3, –1), *G*(0, 4) and *H*(3, –1):

Lacy performs the translation (*x*, *y*) → (*x* + 5, *y* + 3) to an object in the coordinate plane.
Kyle performs the translation (*x*, *y*) → (*x* – 4, *y* + 2) to the same object after Lacy.

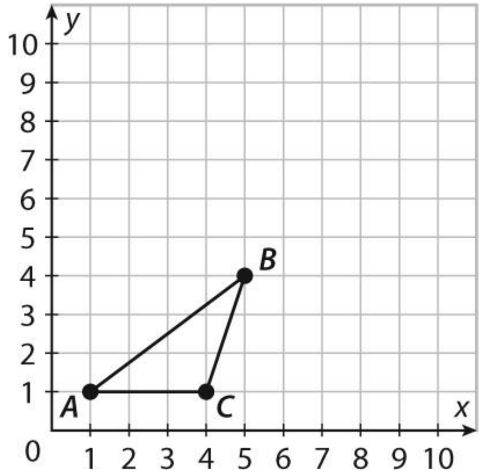
What single translation could have been done to achieve the same effect as Lacy and Kyle's combined translations? Would the result have been different if Kyle did his translation first? EXPLAIN.

4. Rotate triangle ABC 90 degrees counterclockwise about the origin. Graph this triangle in the coordinate plane below and label it triangle A'B'C'.

Then reflect triangle A'B'C' over the line $y = -x$. Graph this new triangle in the coordinate plane below and label it triangle A''B''C''.



For 5-6, use triangle ABC.



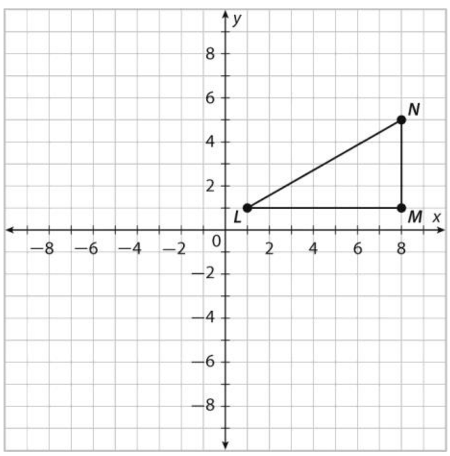
5. Triangle *ABC* will be translated 3 units right and 6 units up. Write a coordinate rule to describe the translation.

____

6. What will be the coordinates of the image of point *A*?

____

For 7-9, use triangle *LMN*.



7. What will be the coordinates of the image of point *M* after it is rotated 90° clockwise about the origin?

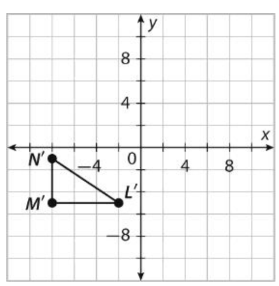
____

8. What counterclockwise rotation will create the same image as a 90° clockwise rotation about the origin?

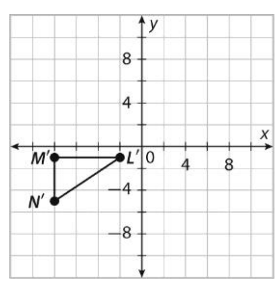
____

9. Which of these shows the image of triangle *LMN* after a 180° rotation about the origin?

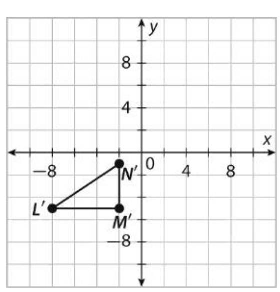
A



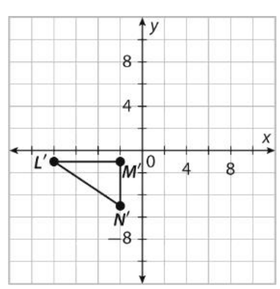
B



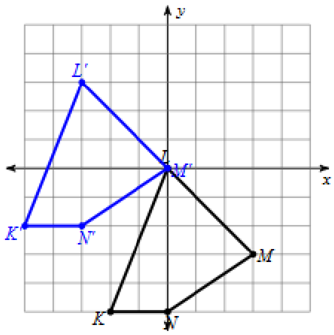
C

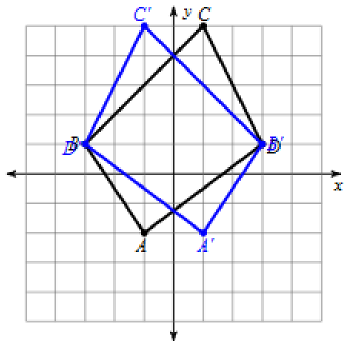


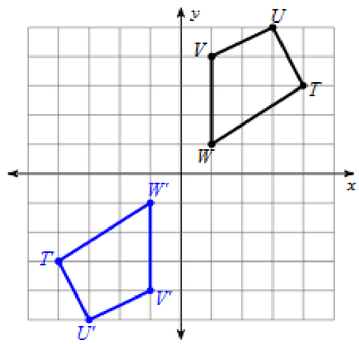
D

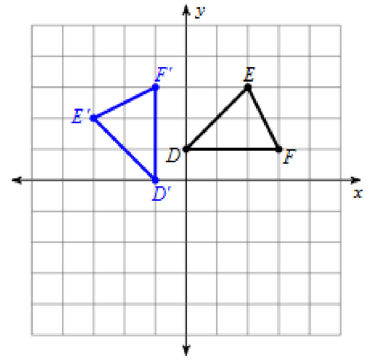


10. Write a coordinate rule to describe the each of the following transformations.









(x,y) → (___ , ___) (x,y) → (___ , ___) (x,y) → (___ , ___) (x,y) → (___ , ___)