Geometry HW 8/24
Practice With Transformations and Ordered Pair Rules

For \#1, translate the quadrilateral by the given vector.

1. $\langle-4,3\rangle$


For \#4 and \#6, reflect the each quadrilateral by the given ordered pair rule. Identify the line of reflection.
4. $(x, y) \rightarrow(x,-y)(h)$

6. $(x, y) \rightarrow(y, x)$


For \#8, transform the quadrilateral by the given ordered pair rule. Describe what type of transformation it is. Identify either a line of reflection or a center of rotation.
8. $(x, y) \rightarrow(-y, x)$


For \#12, transform the quadrilateral by the given ordered pair rule. Explain how this transformation is different than previous ones we've seen.
12. $(x, y) \rightarrow(3 x, 3 y)$


For \#20, describe the type of transformation. Then find the ordered pair rule that transformed the blue/green triangle $\triangle P Q R$ to the blue/green triangle $\Delta P^{\prime} Q^{\prime} R^{\prime}$.
20. $(x, y) \rightarrow(?, ?)$


## \#25.

Given $\triangle A B C$ with vertices: $A(2,-2), B(7,-4)$, $C(5,1)$. Transform $\triangle A B C$ by the ordered pair rule $(x, y) \rightarrow(-x, y)$ to create $\Delta A^{\prime} B^{\prime} C^{\prime}$. What are the coordinates of the vertices of $\Delta A^{\prime} B^{\prime} C^{\prime}$ ? What type of transformation is that? What is the ordered pair rule that transforms $\Delta A^{\prime} B^{\prime} C^{\prime}$ to $\triangle A B C$ ?

Hint: You can find the ordered pair rule by writing the coordinates for the original triangle and the transformed triangle, then comparing them to see how they changed

