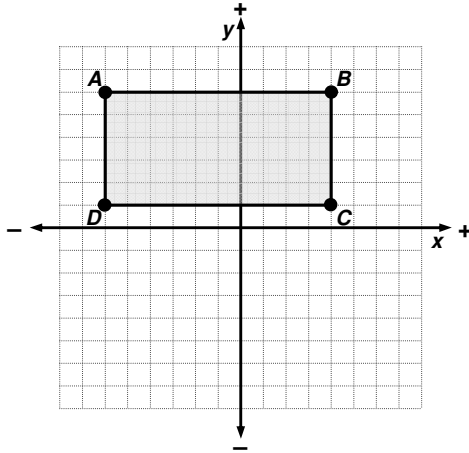


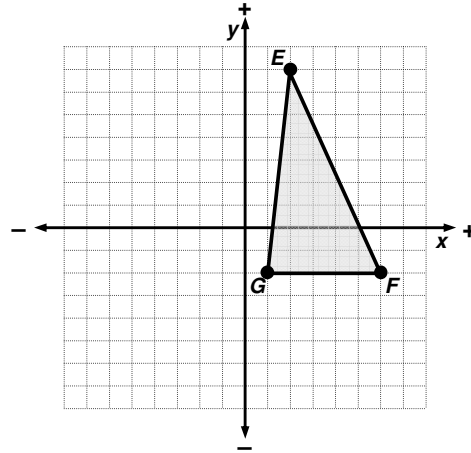
Drawing Reflections: Classwork

1. Draw the following reflections (you may use tracing paper). Label the points on your image!

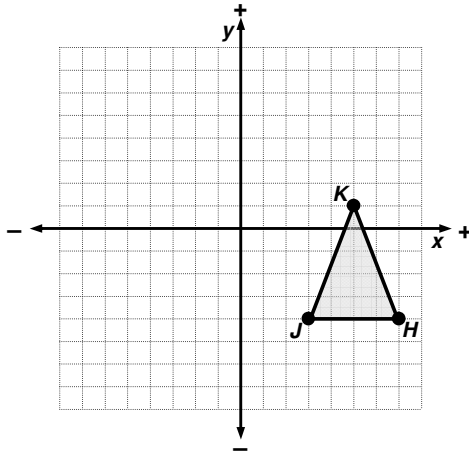
a. Reflect the rectangle across the x -axis.



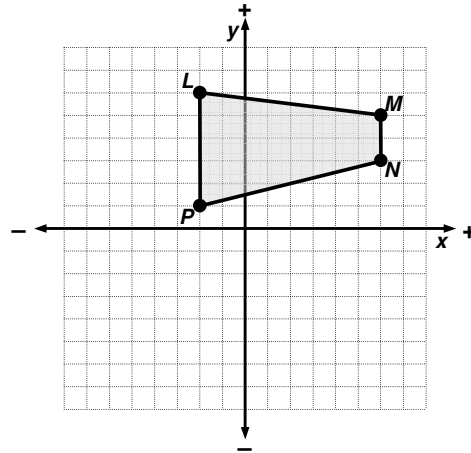
b. Reflect the triangle across the y -axis.



c. Reflect the triangle across the x -axis.

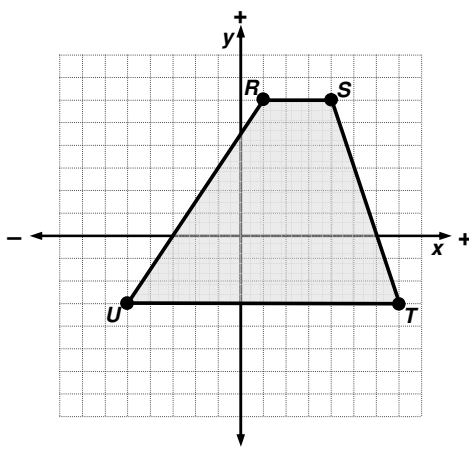


d. Reflect the trapezoid across the y -axis.

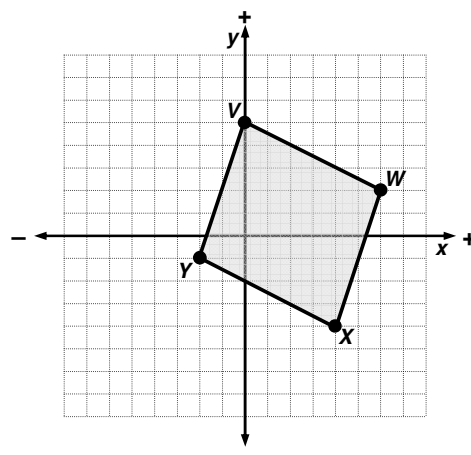


2. Draw the following reflections without tracing paper. Label the points on your image!

a. Reflect the trapezoid across the x -axis.



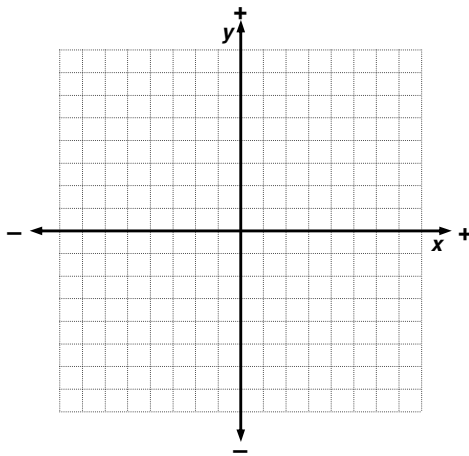
b. Reflect the parallelogram across the y -axis.



3. Explain your technique for drawing a reflection without having to use tracing paper.

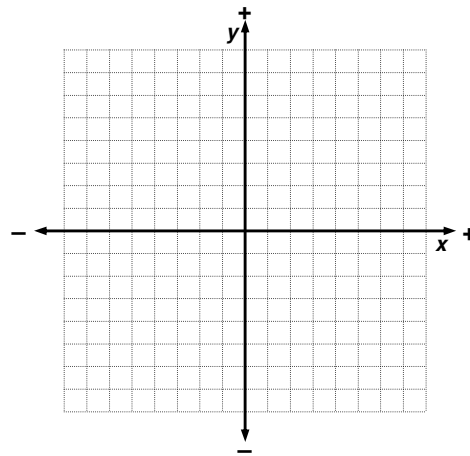
4. a. The points $L(4, -3)$, $M(1, -7)$, $N(-4, -7)$, and $P(-7, -3)$ form a trapezoid. Draw the trapezoid.

Now reflect the trapezoid across the x -axis. Label the points.



- b. The points $Q(-1, 1)$, $R(-3, 3)$, $S(-7, 3)$, $T(-7, -1)$, and $U(-3, -1)$ form a pentagon. Draw the pentagon.

Now reflect the pentagon across the y -axis. Label the points.



5. In #4a, you reflected four points across the x -axis.

- a. Complete the table for the coordinates of each point's image.
 b. Based on the table, explain the rule for finding the coordinates of a point reflected across the x -axis.

Original Points	Image Points
$L(4, -3)$	
$M(1, -7)$	
$N(-4, -7)$	
$P(-7, -3)$	

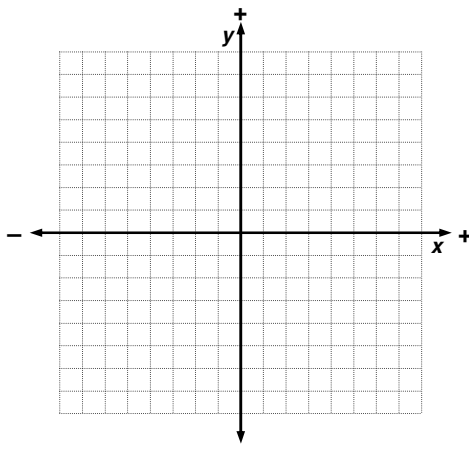
6. In #4b, you reflected five points across the y -axis.

- a. Complete the table for the coordinates of each point's image.
 b. Based on the table, explain the rule for finding the coordinates of a point reflected across the y -axis.

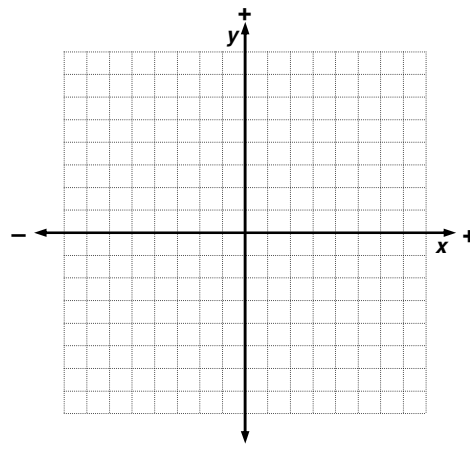
Original Points	Image Points
$Q(-1, 1)$	
$R(-3, 3)$	
$S(-7, 3)$	
$T(-7, -1)$	
$U(-3, -1)$	

7. Test out your coordinate rules below.

- a. The points $A(1, 1)$, $B(6, 1)$, $C(3, 8)$, and $D(-2, 8)$ form a parallelogram. Draw the parallelogram and its reflection across the x -axis.



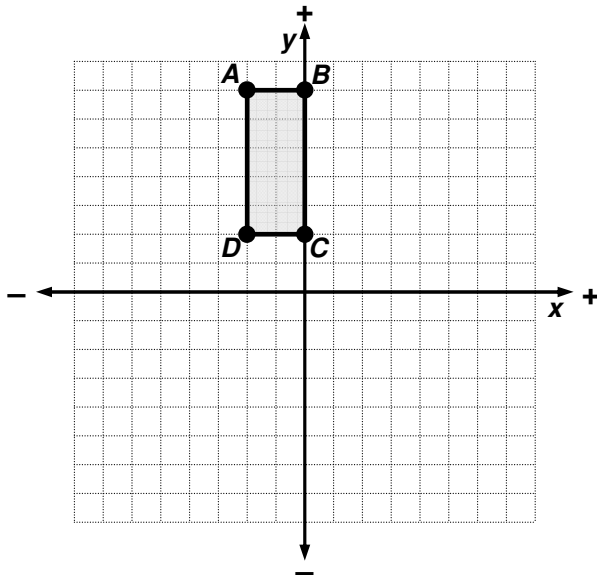
- b. The points $E(3, 7)$, $F(5, 7)$, $G(7, 3)$, $H(5, -1)$, $J(3, -1)$, and $K(1, 3)$ form a hexagon. Draw the hexagon and its reflection across the y -axis.



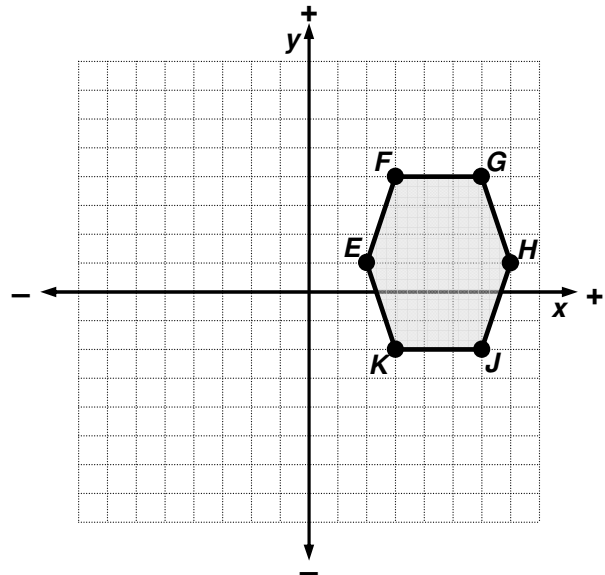
Drawing Reflections: Homework

8. Draw the following transformations. Be sure to label the points on your image!

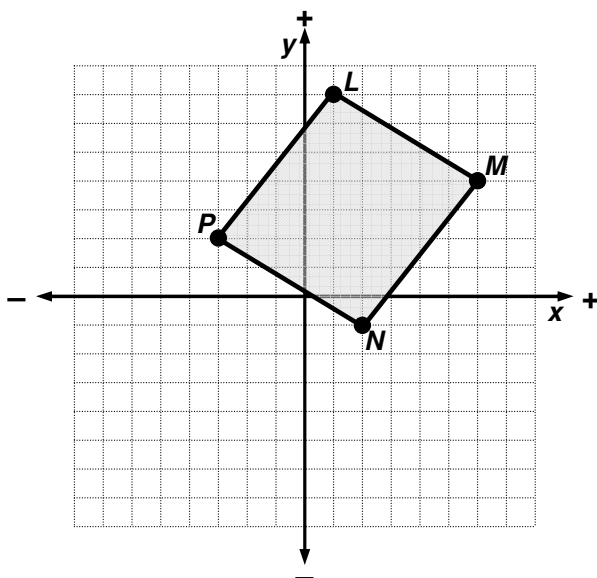
a. Reflect the rectangle across the x -axis.



b. Reflect the hexagon across the y -axis.



c. Reflect the parallelogram across the x -axis.



d. Reflect the hexagon across the y -axis.

