

Name: _____

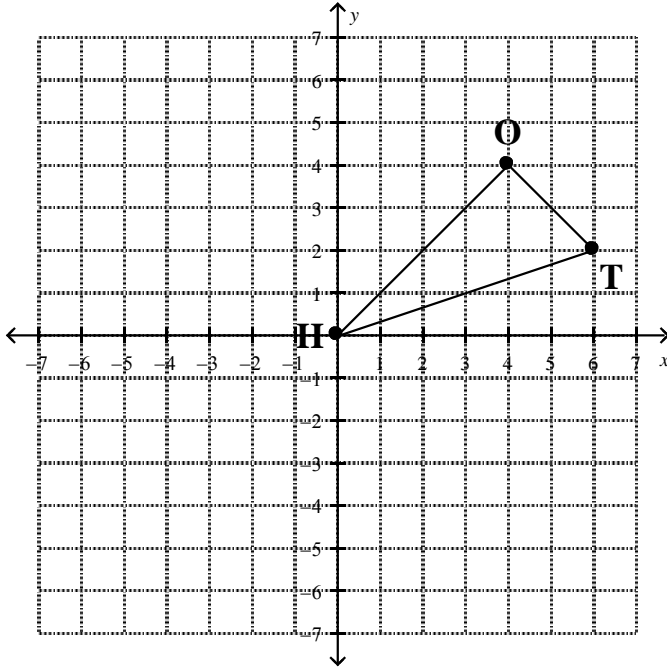
Date: _____

M8-U3: HW #2 – Reflections

Class: _____

1. Find the reflection of the triangle HOT over the x -axis.

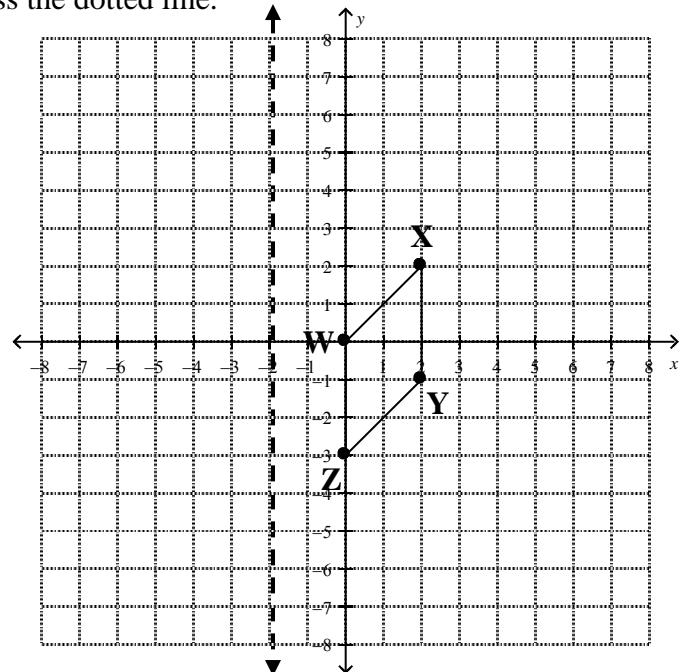
Write the coordinates of $H'O'T'$. Is the image similar or congruent? How do you know?



2. Find the reflection of the quadrilateral $WXYZ$ across the dotted line.

What is the equation of the dotted line?

Label the image $W'X'Y'Z'$.



3. The table below shows the coordinates of triangle PQR .

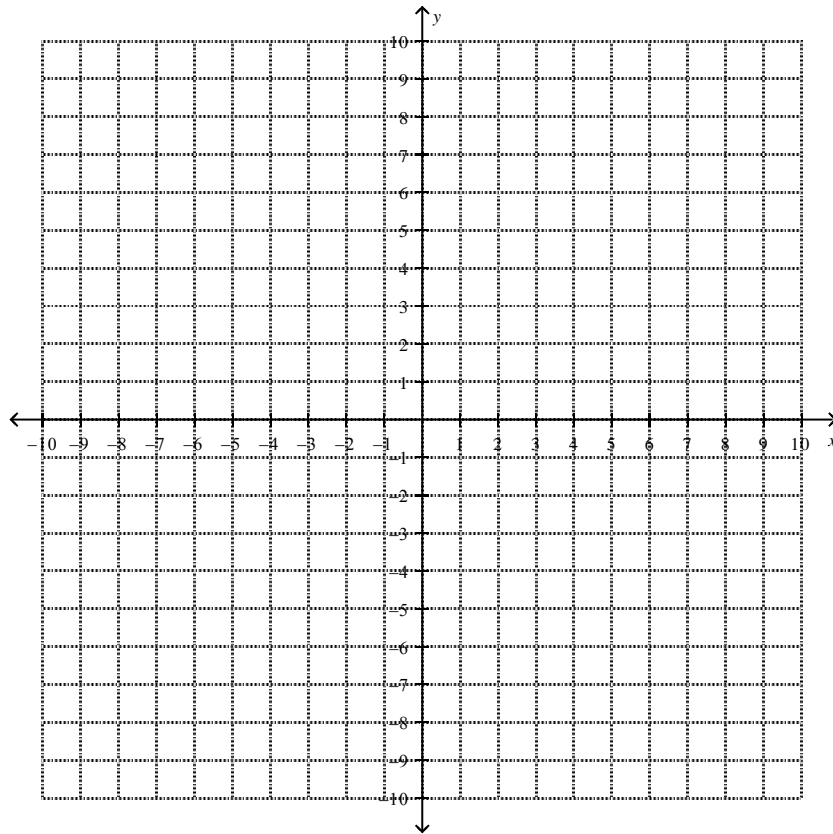
Triangle PQR		Triangle $P'Q'R'$	
P	$(-3, 2)$	P'	
Q	$(-3, 6)$	Q'	
R	$(-7, 7)$	R'	

Part A

Fill in the table above for the coordinates of P' , Q' , and R' after a reflection over the y -axis.

Part B

On the grid below, draw triangle PQR and triangle $P'Q'R'$.

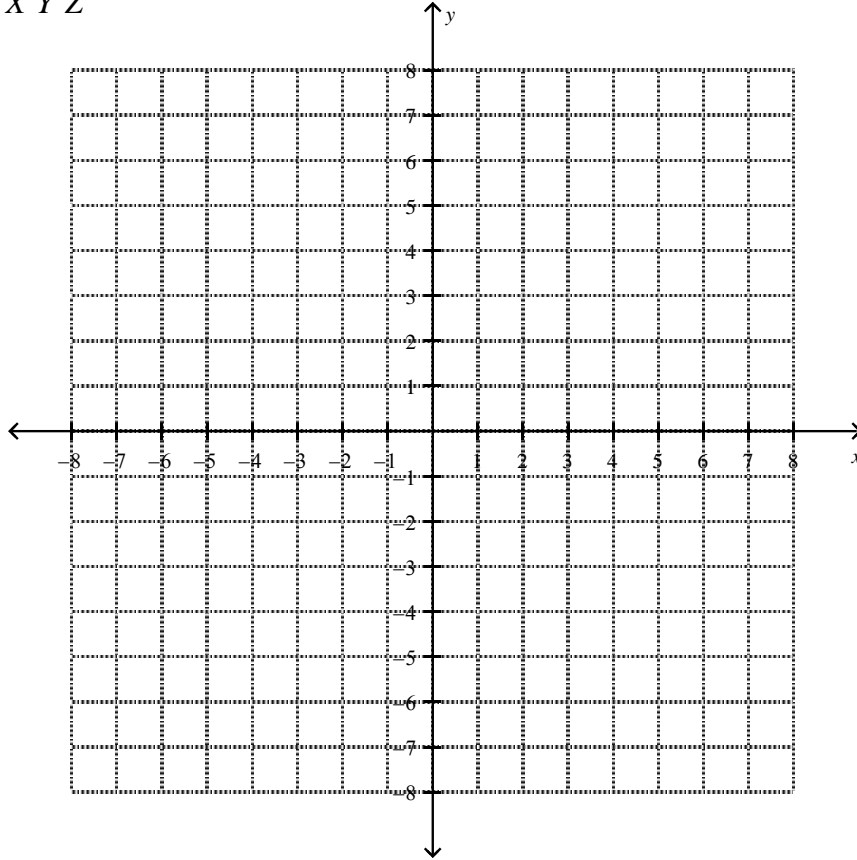


Part C

On the lines below, explain how you determined the location of R' .

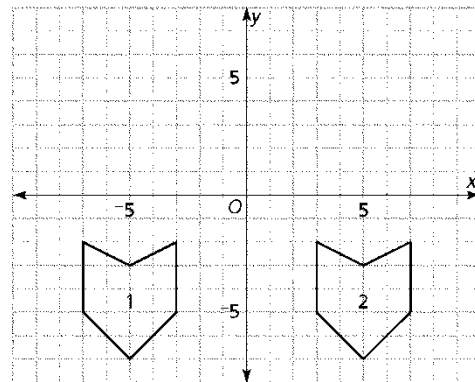
4. Triangle XYZ has vertices $X(2, 1)$, $Y(6, 1)$, and $Z(4, 4)$.

On the graph, draw the image of triangle XYZ after a translation two to the left. Label the image $X'Y'Z'$

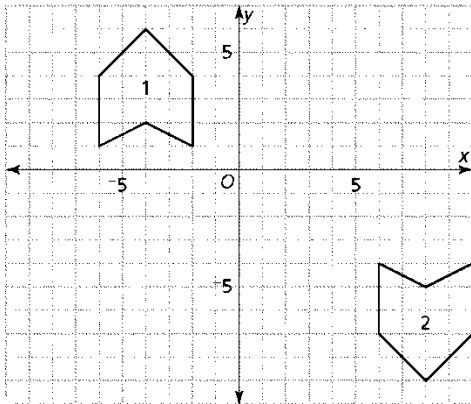


Now create triangle $X''Y''Z''$ by reflecting triangle $X'Y'Z'$ over the x -axis. What will be the coordinates of triangle $X''Y''Z''$? Is the new image similar or congruent?

5. Describe a reflection that would move shape 1 to match shape 2.



6. Refer to the grid below:



- a) Describe how you could move shape 1 to exactly match shape 2 by using one translation and one reflection.
- b) Are there other sequences of transformations that would move shape 1 to exactly match shape 2? If so, describe the steps you would perform.

Spiral:

7. Solve and check: $-2(m - 30) = -6m$
8. Solve: $8z - 22 = 3(3z + 11) - z$