

Name: _____

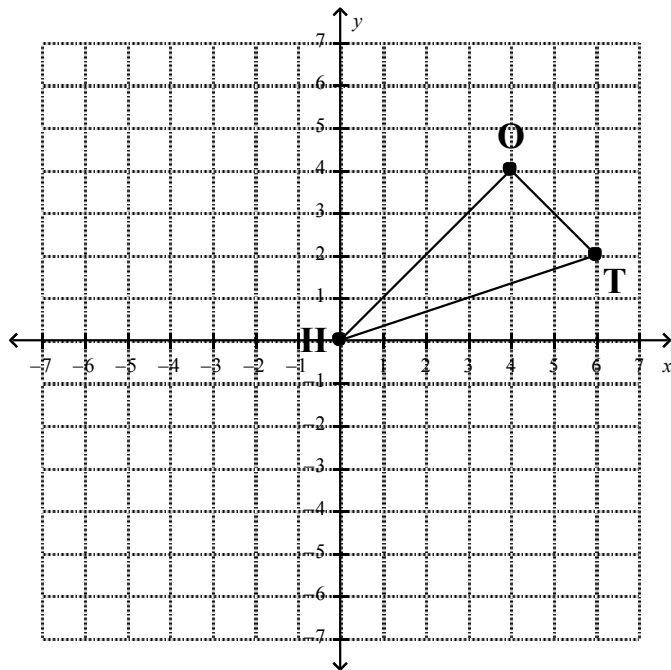
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M8-U3: HW #2 – Reflections

Class: _____

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

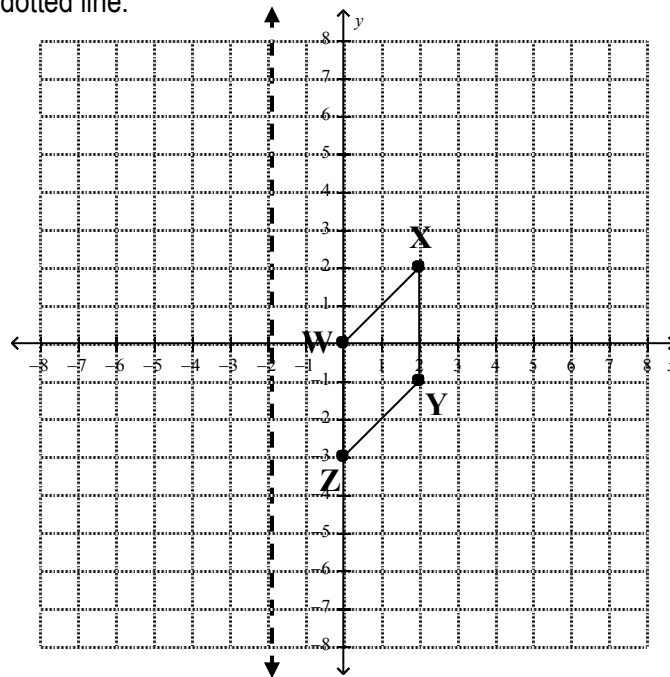
Write the coordinates of $H'O'T'$. Is the image similar or congruent? How do you know?



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

What is the equation of the dotted line?

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



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

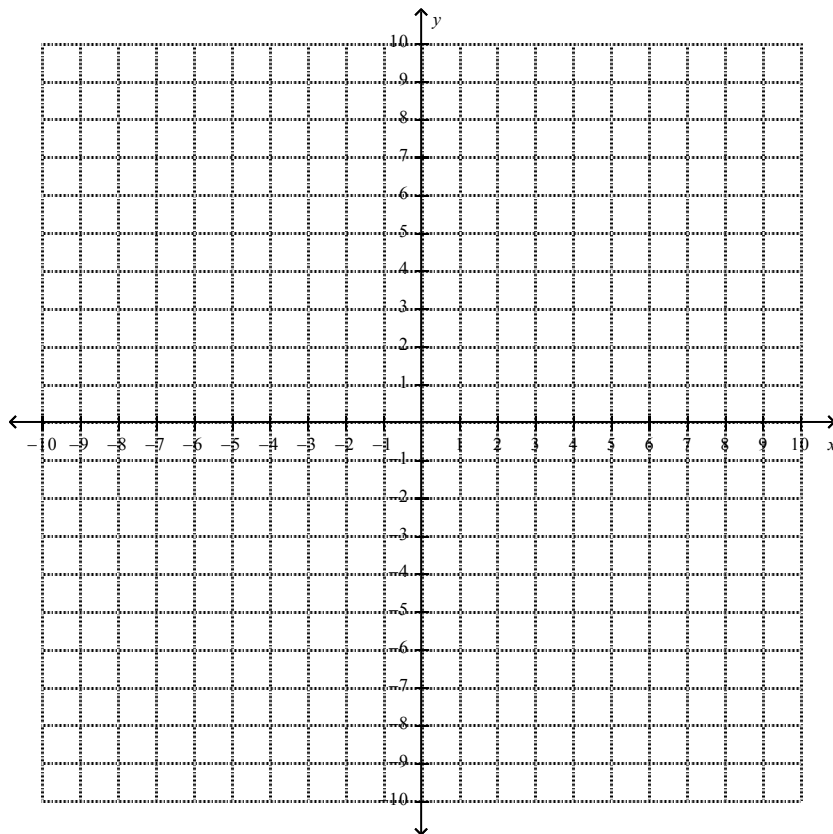
Triangle PQR		Triangle $P'Q'R'$	
P	$(-3, 2)$	P'	
Q	$(-3, 6)$	Q'	
R	$(-7, 7)$	R'	

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' .

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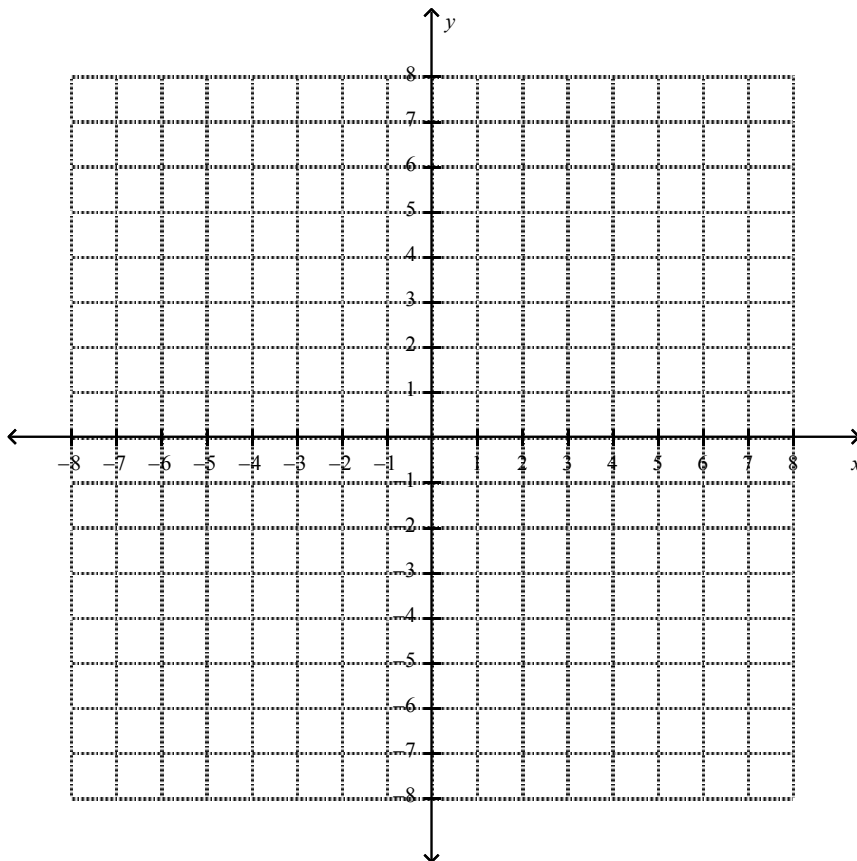
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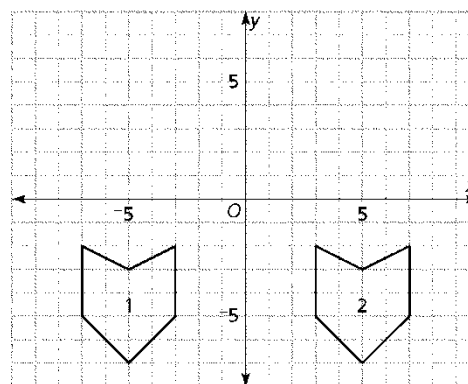
4. Triangle XYZ has vertices X (2, 1), Y (6,1), and Z (4, 4).

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.



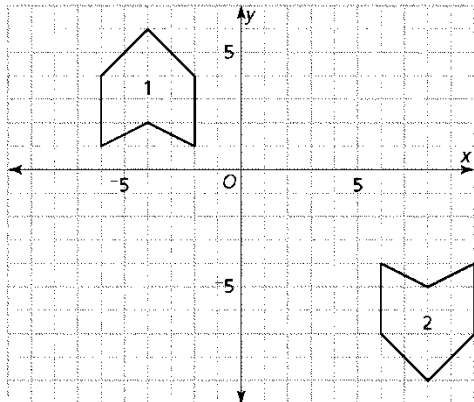
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6. Refer to the grid below:



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: $8z - 22 = 3(3z + 11) - z$