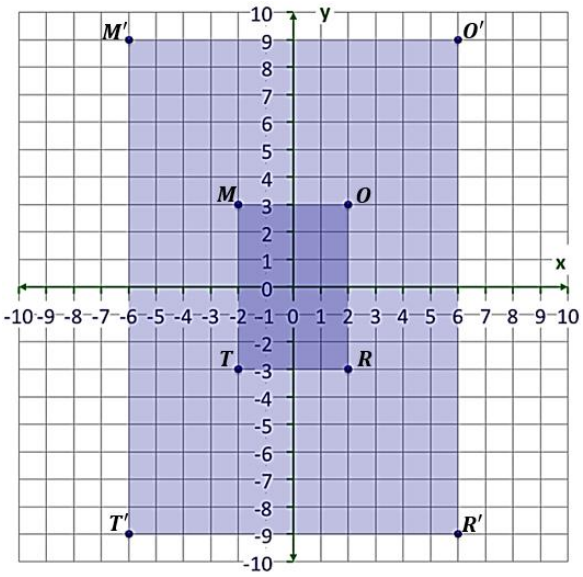
Integrated Math 2
Key Concept 6 REVIEW

Name: _____

Period: _____

Target 6A: Understand similarity in terms of transformations in the coordinate plane.

1. Determine the scale factor from $MORT$ to $M'O'R'T'$. (1 point)



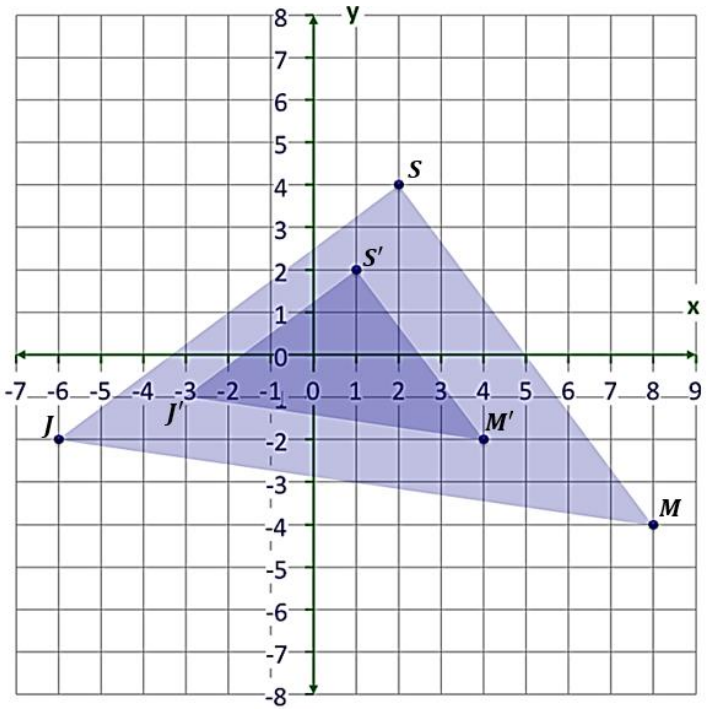
Use the following information to answer questions #2 – 3. In the coordinate plane shown, ΔJSM has vertices $J\ (-6,-2)$, $(2,4)$, and $M\ (8,-4)$. The figure transforms from ΔJSM to $\Delta J'S'M'$.

2. Determine the center of dilation: (1 point)

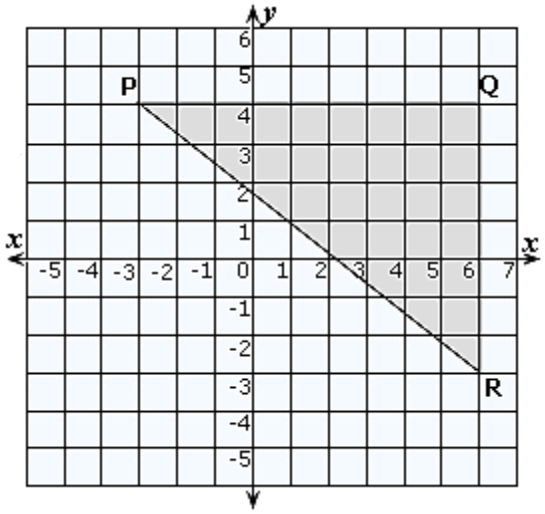
   Center of dilation: _____

3. Determine the scale factor: (1 point)

   Scale factor: _____



4. Graph the image of $\Delta P'Q'R'$ after dilation with scale factor of $\frac{1}{2}$, centered at (0,0). Write the coordinates of the image in the space provided. (3 points)



P	(___, ____)
Q	(___, ____)
R	(___, ____)

P'	(___, ____)
Q'	(___, ____)
R'	(___, ____)

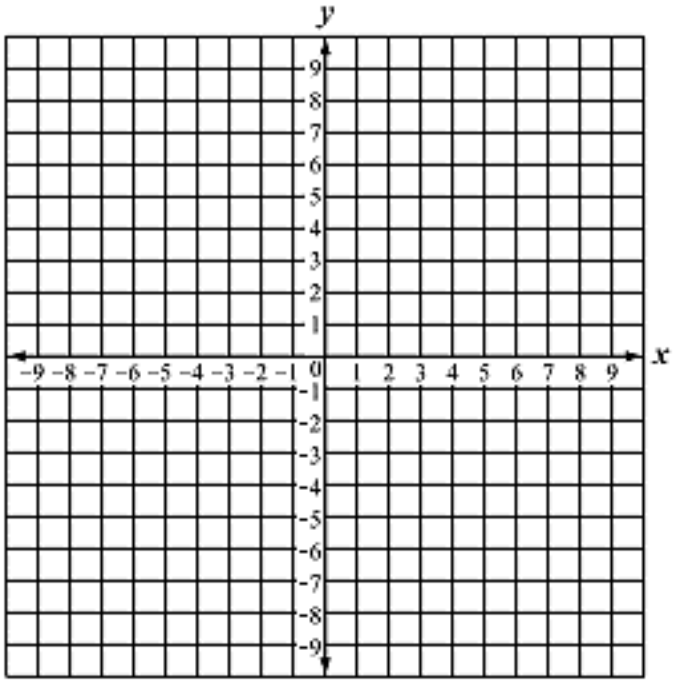
5. Complete a), b) and c) using the coordinate plane below (3 points):

a) Graph ΔLAT with vertices at:
$L\ (-4, 2), A\ (6, 0)$, and $T\ (-2, -4)$.

b) Transform (dilate from origin) ΔLAT by a scale factor of $\frac{3}{2}$.

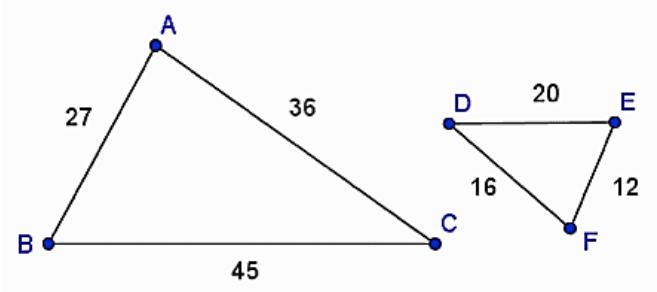
L'	(___, ____)
A'	(___, ____)
T'	(___, ____)

c) Graph $\Delta L'A'T'$.

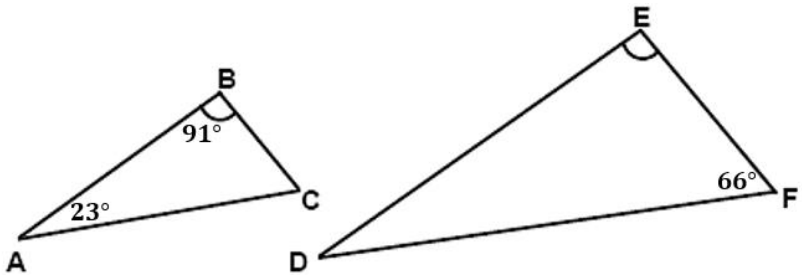


Target 6B: Determine that two figures are similar using AA, SSS, and SAS similarity by verifying that angle measure is preserved and corresponding sides are proportional and use to make conclusions.

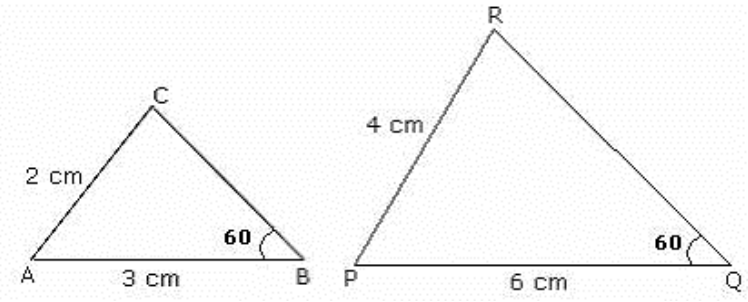
6. Determine if the triangles are similar. If they are not similar, select "Not Possible." (1 point)



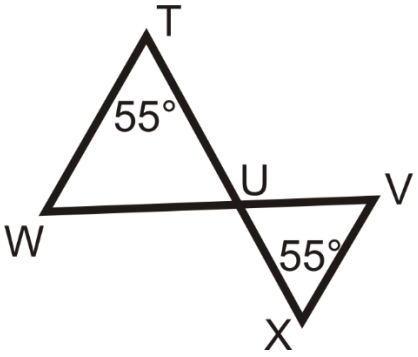
7. Determine if the triangles are similar. If they are not similar, select "Not Possible." (1 point)



8. Determine if the triangles are similar. If they are not similar, select "Not Possible." (1 point)



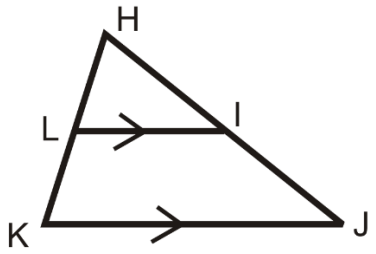
9. In the diagram below, are the two triangles similar? How do you know? Justify your reasoning. (3 points)



10. Fill in the blanks of the two column proof. (3 points)

Given: $\overline{LI} \parallel \overline{KJ}$

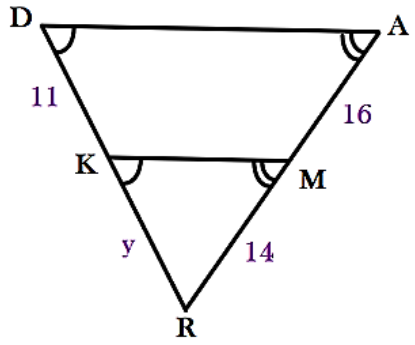
Prove: $\Delta HLI \sim \Delta HKJ$



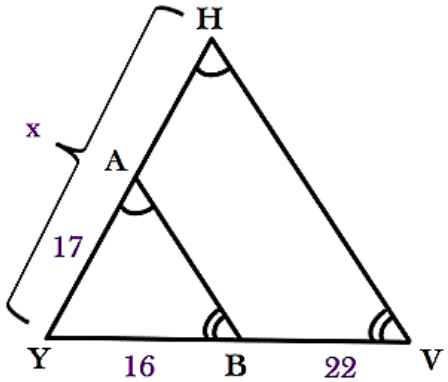
Statement	Reason
1. $\overline{LN} \parallel \overline{MK}$	1.
2.	2.
3. $\angle HIL \cong \angle HJK$	3.
4. $\Delta HLI \sim \Delta HKJ$	4.

Target 6C: Apply theorems, postulates, or definitions to find missing values.

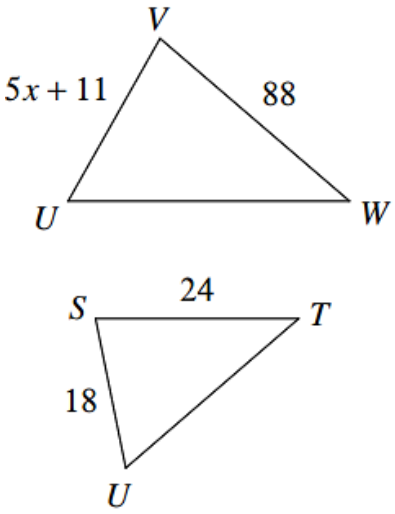
11. Find the value of y in the given diagram. (1 point)



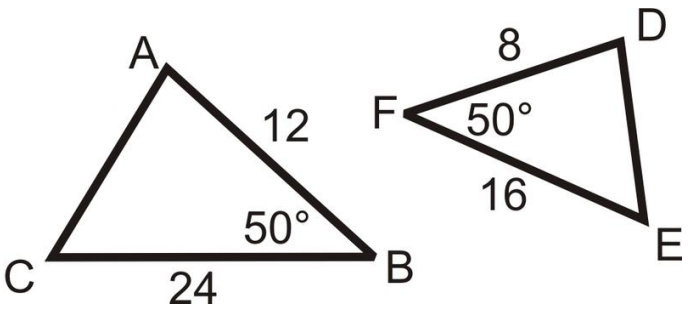
12. Find the value of x in the given diagram. (1 point)



13. Given $\Delta UVW \sim \Delta SUT$, solve for x. (1 point)



14. Cassie claims that ΔABC is not similar to ΔDFE due to the fact that the sides are not congruent. Is Cassie correct? How do you know? (3 points)



15. Taylor observed that a truck was casting a 7 foot shadow. A nearby 25 foot-high billboard was casting a 30 foot shadow. (3 points)

    a) Draw a diagram that models the situation.

    b) Set-up a proportion that models this situation. Determine the height of the truck.