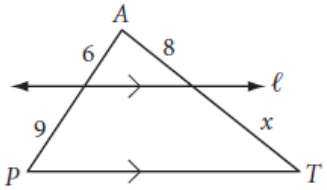
Geometry (G-SRT.4, 5)
Unit 2: Applying Similarity Practice (IC/HW12)

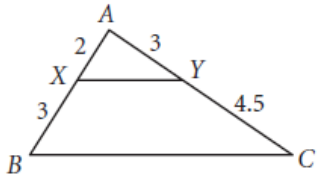
Name: _____
Date: _____ Period: _____

For #1-6, determine whether there are similar triangles. If there are, give the criteria (AA~, SAS~, SSS~). Then, solve for the requested measures. Make sure to show your work (proportions).

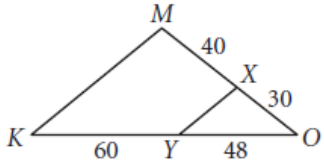
1. $x =$ _____



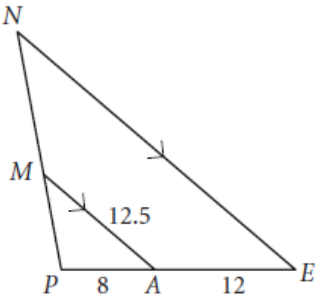
2. Is $\overline{XY} \parallel \overline{BC}$?



3. Is $\overline{XY} \parallel \overline{MK}$?



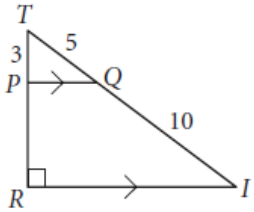
4. $NE =$ _____



5. $PR =$ _____

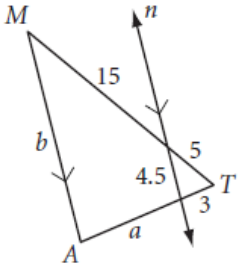
$PQ =$ _____

$RI =$ _____

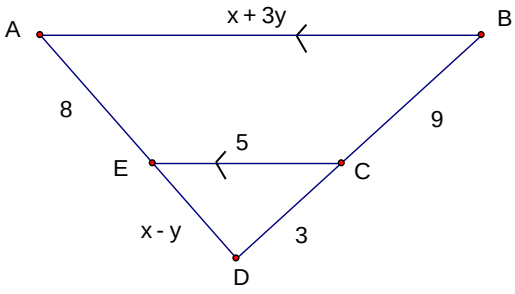


6. $a =$ _____

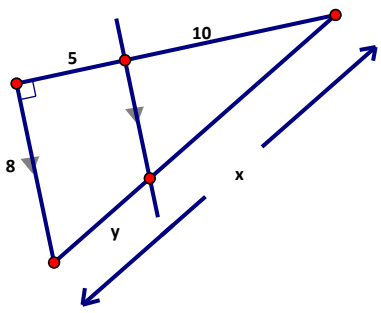
$b =$ _____



7.

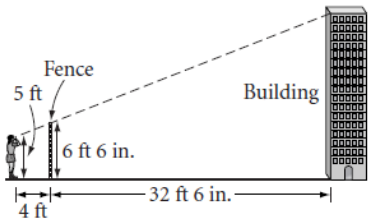


8.



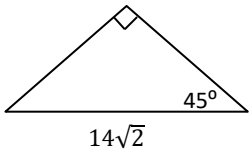
9. At a certain time of day, a 6 ft man casts a 4 ft shadow. At the same time of day, how tall is a tree that casts an 18 ft shadow?

10. Marta is standing 4 ft behind a fence 6 ft 6 in. tall. When she looks over the fence, she can just see the top edge of a building. She knows that the building is 32 ft 6 in. behind the fence. Her eyes are 5 ft from the ground. How tall is the building? Give your answer to the nearest half foot.

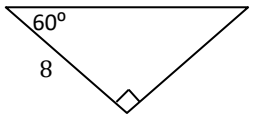


11. Solve for all missing sides of the triangles.

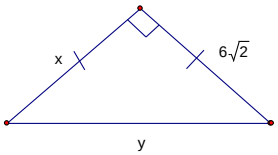
a.



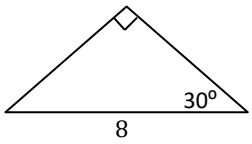
b.



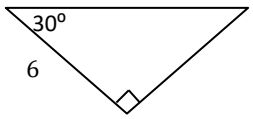
c.



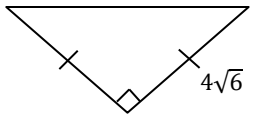
d.



e.



f.



12. Find the length of the diagonal of a square with sides 10 inches long.

13. Find the length of a side of a square whose diagonal is 4cm.