

Geometry Test 9-10 Review

1. Solve for x.

a) $\frac{x}{4} = \frac{42}{12}$

b) $\frac{x+3}{14} = \frac{24}{16}$

2. Solve for x.

a) $\frac{8}{x} = \frac{x}{18}$

b) $\frac{2x-3}{3} = \frac{x+7}{2}$

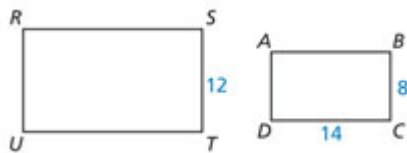
3. If $\triangle GUN \sim \triangle POW$, complete the proportion:

$$\frac{GN}{\quad} = \frac{\quad}{OW}$$

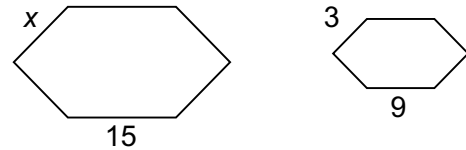
4. The large sculpture of Sam Houston in Hunstville, Texas was constructed on a scale of 1:10. If Sam Houston was 2 m tall, how tall is the statue?

5. The scale factor of two similar polygons is 2:5. The perimeter of the larger polygon is 25 feet. What is the perimeter of the smaller polygon?

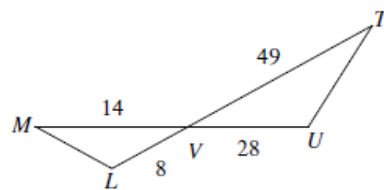
6. If $RSTU \sim ABCD$, find the ratio of their perimeters.



7. If the two polygons below are similar, find the length of the missing side.

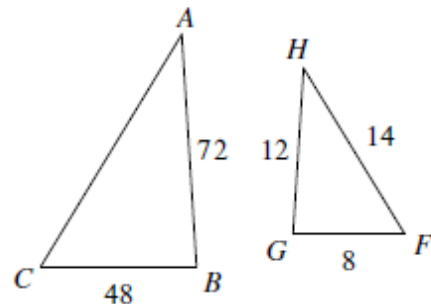


8. $\triangle TUV \sim \triangle MLV$ by _____.

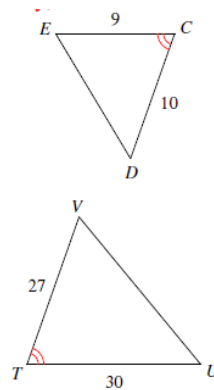


- A) AA~
- B) SSS~
- C) SAS~
- D) Not similar

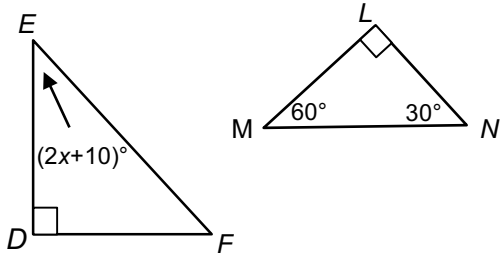
9. What should AC be in order for the triangles to be similar by SSS~?



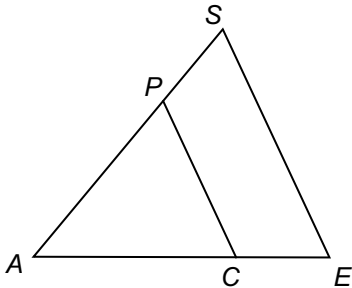
10. If $ED = 12$, what is the length of VU ?



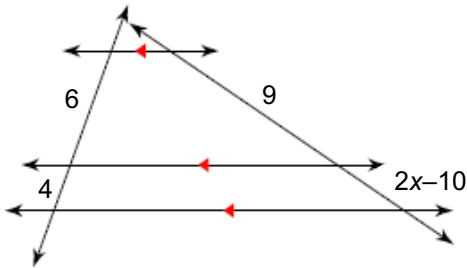
11. Find the value of x that would make $\triangle DEF \sim \triangle LMN$ by AA~.



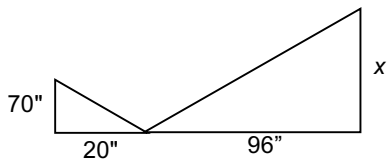
12. In the diagram of $\triangle SAE$, $\overline{PC} \parallel \overline{SE}$, $SA = 28$, $SP = 8$, $CE = 10$. Find AC .



13. In the figure below, find the value of x .



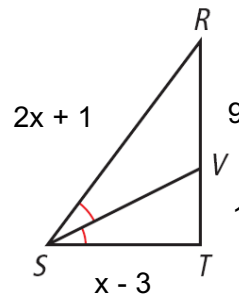
14. Sean used a mirror and a yard stick to find the height of the downtown Christmas tree. His eyes are 70" above the ground; he spotted the top of the tree in the mirror when he was 20" away from the mirror and the mirror was 8 feet away from the tree. How tall is the tree in feet?



15. Beth was curious how tall a billboard was, so she measured her shadow and compared it to the billboard's shadow. Her shadow was 24" long at the same time the billboard's shadow was 108". If her height is 5'4", what is the height of the billboard?

16. Ms. Miller is bringing her astronomy class cookie cakes. If each cookie cake costs \$15.50, including tax, and feeds 6 students, about how much money will she need to buy enough to feed 29 students?

17. Find x and SR .



18. Mr. Ho rests a ladder against the top of his house. Mr. Ho is 6 feet tall and just touches the ladder. He is 10 feet from the wall and 4 feet from the foot of the ladder. Find the height of the roof.

