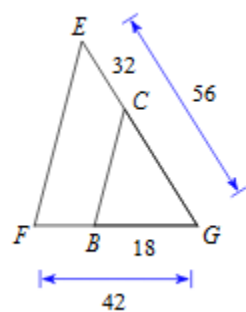
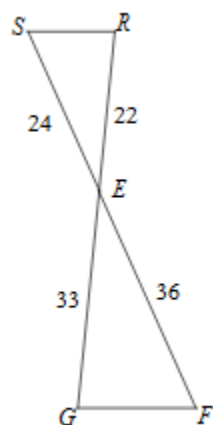


See ANSWERS below on PAGE 4.

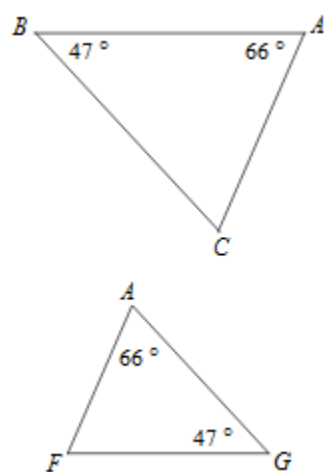
1.



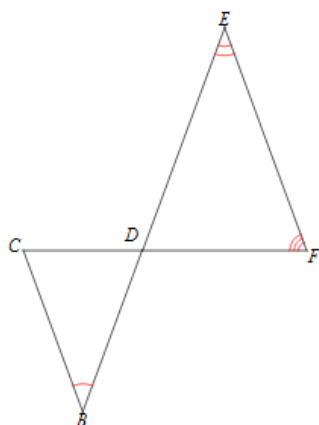
2.



3.

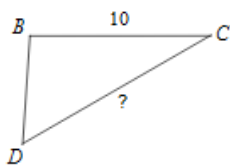
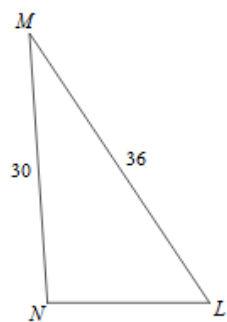


4.

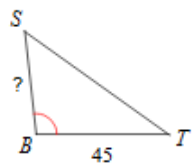
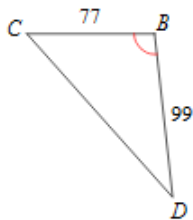


Find the missing length for each problem.

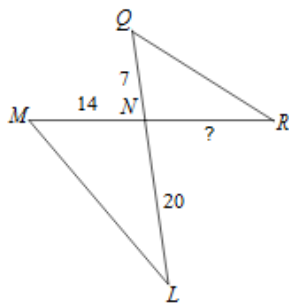
5. $\triangle NML \sim \triangle BCD$



6. $\triangle BCD \sim \triangle BST$

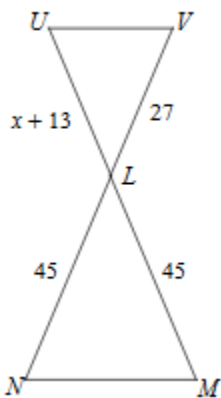


7. $\triangle NML \sim \triangle NQR$



The triangles in each pair are similar. Solve for x .

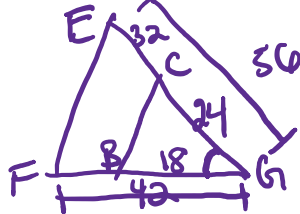
8. $\triangle LMN \sim \triangle LUV$



9. A tree 24 feet tall casts a shadow 12 feet long. Brad is 6 feet tall. How long is Brad's shadow?

Answers:

1. similar; SAS; $\triangle GFE \sim \triangle GBC$

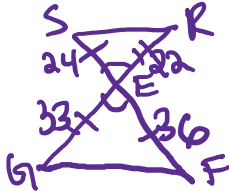


$$\frac{42}{18} = \frac{56}{24} \quad ?$$

$$\frac{7}{3} = \frac{7}{3} \checkmark$$

$\triangle GFE \sim \triangle GBC$
similar SAS

2. similar; SAS; $\triangle EFG \sim \triangle ESR$

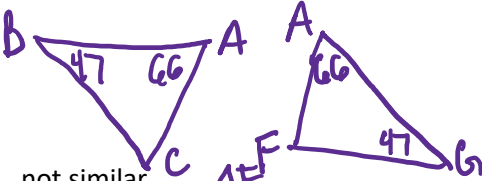


$$\frac{24}{36} = \frac{22}{33} \quad ?$$

$$\frac{2}{3} = \frac{2}{3} \checkmark$$

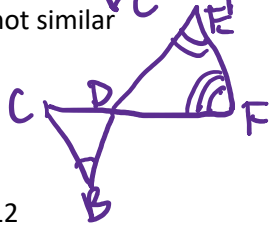
Similar, SAS
 $\triangle EFG \sim \triangle ESR$

3. similar; AA; $\triangle ABC \sim \triangle AGF$



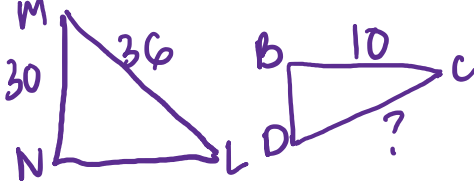
Similar AA
 $\triangle ABC \sim \triangle AGF$

4. not similar



not similar
need more information

5. 12



$\triangle MNL \sim \triangle BCD$

$NM \sim BC$

$$\frac{30}{36} = \frac{10}{?}$$

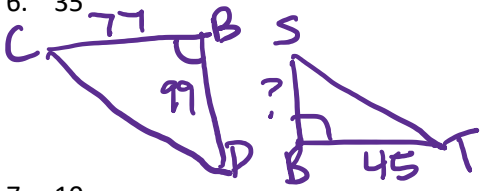
$$x = \frac{1}{3}$$

$$ML \sim CD$$

$$36 \left(\frac{1}{3} \right) = ?$$

$$? = 12$$

6. 35



$\triangle CBD \sim \triangle BST$

$BD \sim BT$

$$\frac{77}{45} = \frac{?}{77}$$

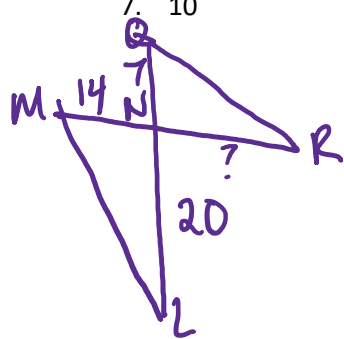
$$x = \frac{5}{11}$$

$BC \sim BS$

$$77 \left(\frac{5}{11} \right) = ?$$

$$? = 35$$

7. 10



$\triangle MNL \sim \triangle NQR$

$NQ \sim NM$

$$\frac{7}{20} = \frac{14}{?}$$

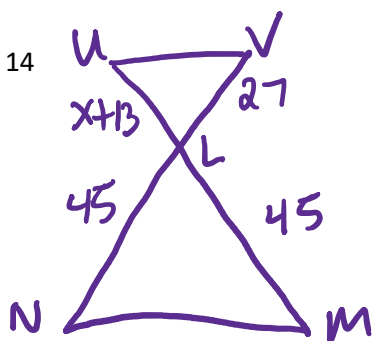
$$x = 2$$

$NL \sim NR$

$$\frac{2}{?} = \frac{20}{2}$$

$$? = 10$$

8. 14



$$\triangle LMN \sim \triangle LUV$$

$$LM \sim LV$$

$$\frac{45}{45} = \frac{x+13}{27}$$

$$x = \frac{3}{5}$$

$$45\left(\frac{3}{5}\right) = x+13$$

$$27 = x+13$$

$$\begin{array}{r} 27 \\ -13 \\ \hline \end{array}$$

$$\boxed{14 = x}$$

9. 3 ft

