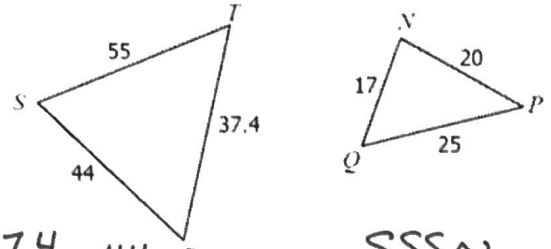
Key

Similar Triangle Practice:

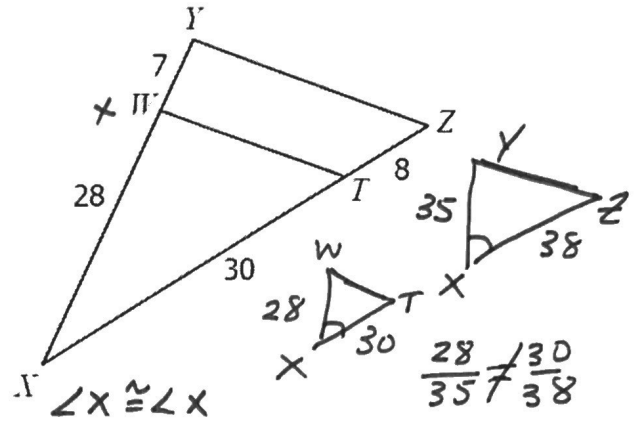
1. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.



$\frac{37.4}{17} = \frac{44}{20} = \frac{52}{25}$ SSS~

$2.2 = 2.2 = 2.2$ ✓

2. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.

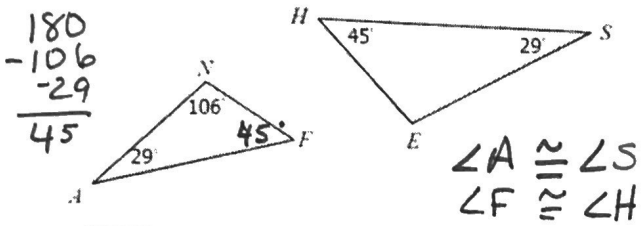


$\angle X \cong \angle X$

$\frac{28}{35} \neq \frac{30}{38}$

3. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.

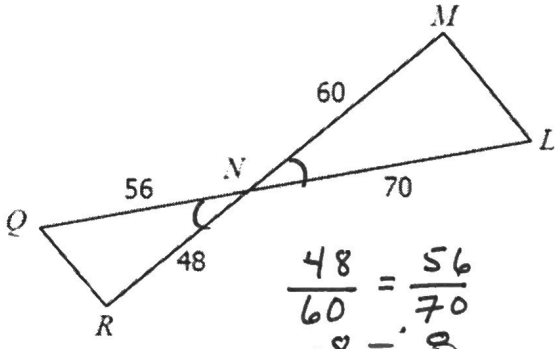
180
-106
-29
45



$\angle A \cong \angle S$
$\angle F \cong \angle H$

- (AA)
- SSS
- SAS
- no similar

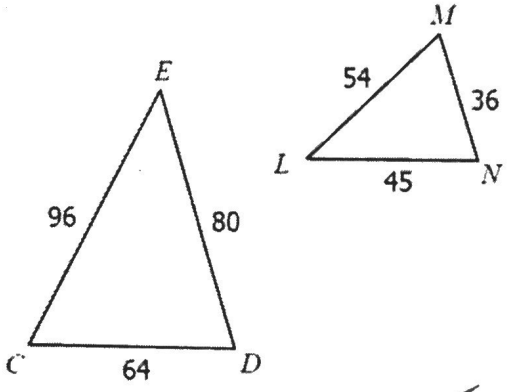
4. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.



$\frac{48}{60} = \frac{56}{70}$

$.8 = .8$

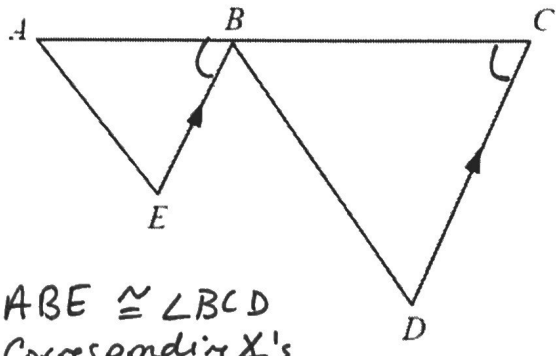
5. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.



$\frac{64}{36} = \frac{80}{45} = \frac{96}{54}$ ✓

$1.\overline{7} = 1.\overline{7} = 1.\overline{7}$

6. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.

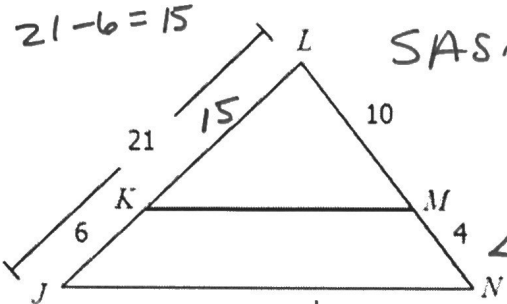


$\angle ABE \cong \angle BCD$
Corresponding ∠'s

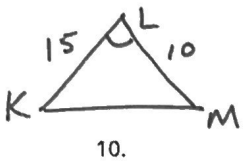
7. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.

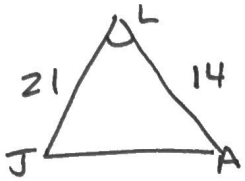
21 − 6 = 15

SAS~



$\angle L \cong \angle L$ ✓





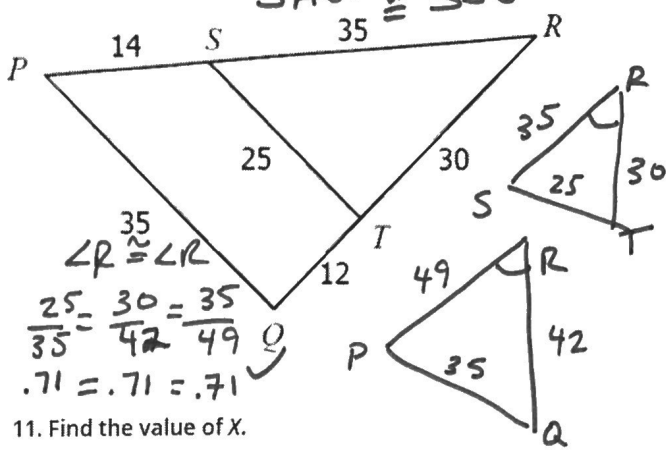
$\frac{15}{21} = \frac{10}{14}$ ✓

$210 = 210$

10.

8. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar. Select all that applies.

SAS~ OR SSS~



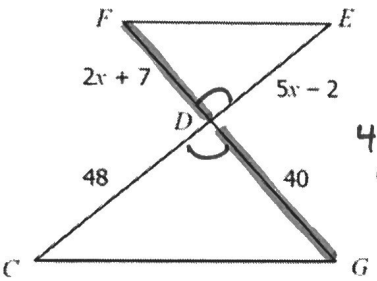
$\angle R \cong \angle R$

$\frac{25}{35} = \frac{30}{42} = \frac{35}{49}$

$.71 = .71 = .71$

11. Find the value of X.

If $\Delta CDG \sim \Delta EDF$, find the value of x.



$\frac{2x+7}{40} = \frac{5x-2}{48}$

$48(2x+7) = 40(5x-2)$

$96x + 336 = 200x - 80$

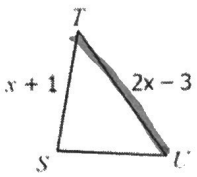
$+80 \quad -96x$

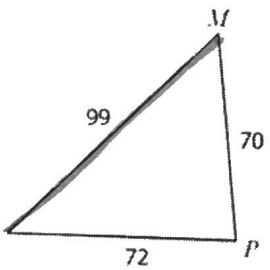
$416 = 104x$

$4 = x$

If $\Delta STU \sim \Delta PLM$, find the value of x.

$X = 7$



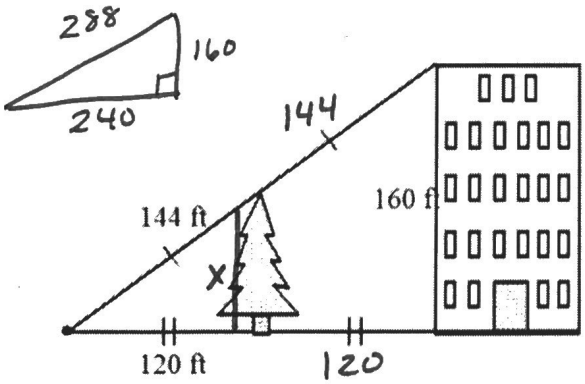


$\frac{x+1}{72} = \frac{2x-3}{99}$

$99(x+1) = 72(2x-3)$

$99x + 99 = 144x - 216$

14. Use the information in the diagram to determine the height of the tree.



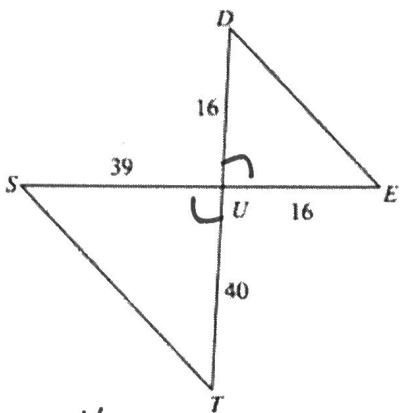
- ○ 80 feet
- ○ 320 feet
- ○ 40 feet
- ○ 160 feet

$\frac{120}{240} = \frac{x}{160}$

$19200 = 240x$

$80 = x$

15. Determine whether the triangles are similar by AA~, SSS~, SAS~, or not similar.



$\frac{16}{39} \neq \frac{16}{40}$