

1)

$\angle CED \cong \angle FEG$
Vertical

$\angle C \cong \angle G$
 $\angle D \cong \angle F$

Alternate Interior

$\triangle CDE \sim \triangle GFE$ by AA~

2)

$\angle L \cong \angle L$
Reflexive

$\angle N \cong \angle P$
 $\angle M \cong \angle Q$
Corresponding

$\triangle LQP \cong \triangle LMN$ by AA~

3)

$\triangle S Y E$ and $\triangle H W C$

$\angle S = 51^\circ$, $\angle E = 39^\circ$

$\angle H = 39^\circ$, $\angle W = 51^\circ$

$180 - 90 - 39 = 51^\circ$

4)

$\triangle A B D$ and $\triangle E F G$

$\angle A = 68^\circ$, $\angle D = 54^\circ$

$\angle F = 68^\circ$, $\angle G = 63^\circ$

5)

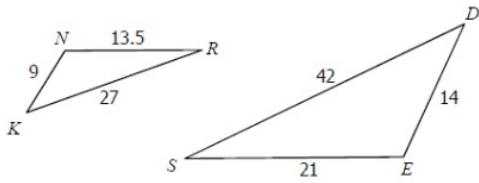
$\triangle L M N$ and $\triangle L B N$

$\angle L = 25^\circ$, $\angle M = 91^\circ$, $\angle N = 67^\circ$

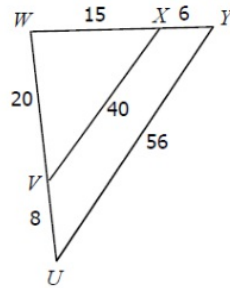
6)

$\triangle P X Q$ and $\triangle Y X Z$

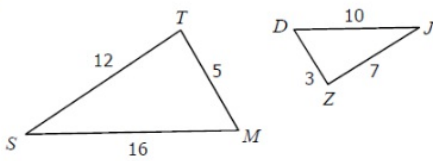
7)



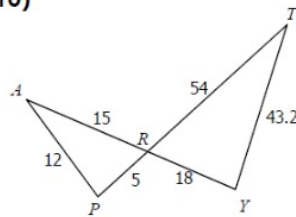
8)



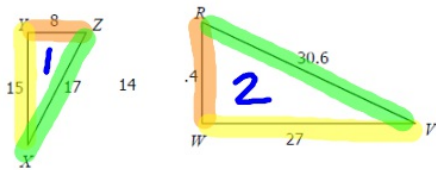
9)



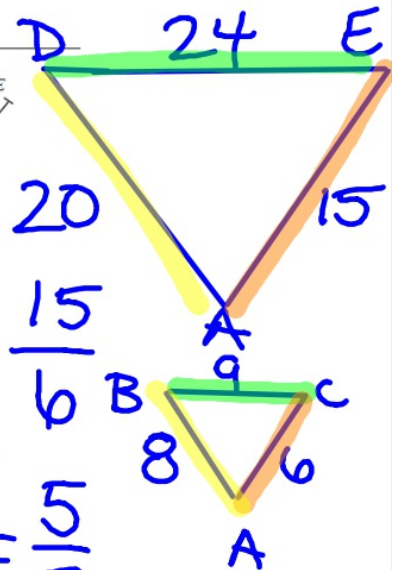
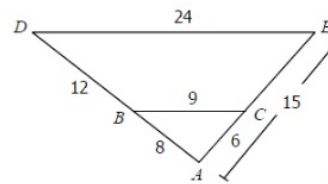
10)



11)



12)



$$\frac{8}{4} = \frac{17}{30.6} = \frac{15}{27}$$

$$\frac{20}{8} = \frac{24}{9} = \frac{15}{6}$$

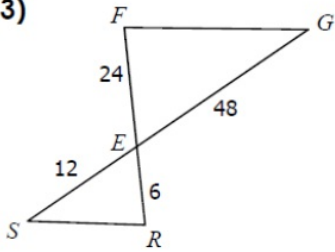
Not equal ratios

$\triangle YZX \not\sim \triangle WRV$

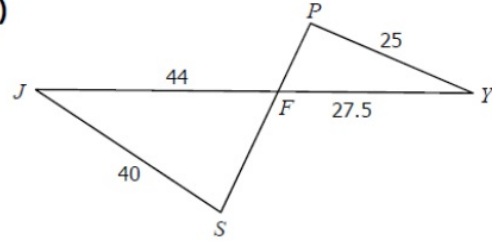
~~$$\frac{5}{2} = \frac{8}{8} = \frac{5}{2}$$~~

$\triangle ADE \not\sim \triangle ABC$

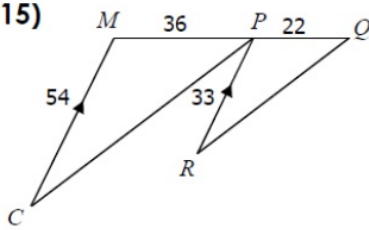
13)



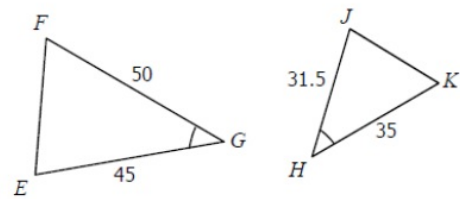
14)



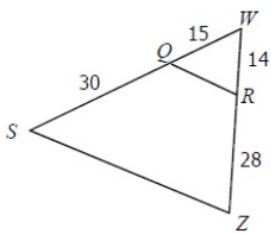
15)



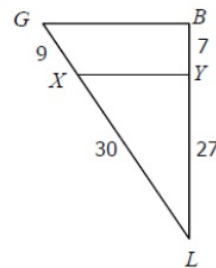
16)



17)



18)



$$\angle L \cong \angle L$$

$$\frac{39}{30} \stackrel{?}{=} \frac{34}{27}$$

$$\frac{13}{10} \stackrel{?}{=} \frac{34}{27}$$

$$\triangle XYL \not\sim \triangle GBL$$

