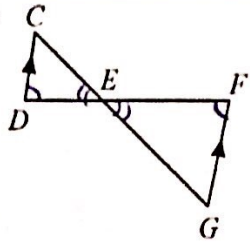


7.3 Similar Triangles

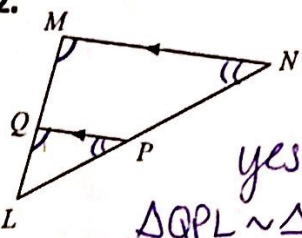
**AA~
(Angle-Angle
Similarity)**

2 matching
angles

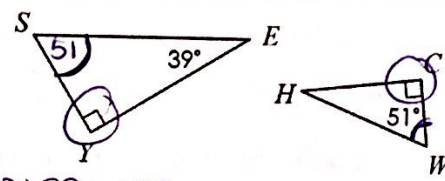
Directions: Determine whether the triangles are similar by Angle-Angle Similarity. If yes, write a similarity statement.

1. 

yes, $\triangle DEC \sim \triangle FEG$
by AA~

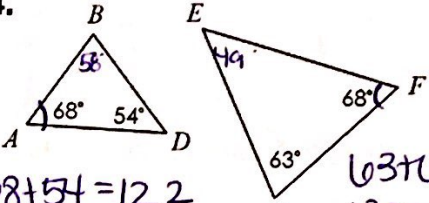
2. 

yes
 $\triangle QPL \sim \triangle MNL$
by AA~

3. 

$90 + 39 = 129$
 $180 - 129 = 51$

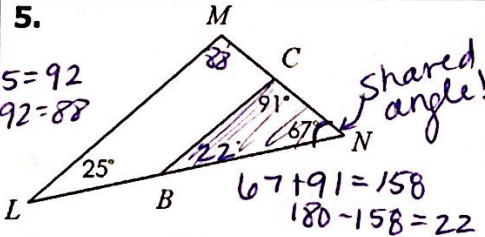
yes, $\triangle YES \sim \triangle CTW$
by AA~

4. 

$68 + 54 = 122$
 $180 - 122 = 58$

$63 + 68 = 131$
 $180 - 131 = 49$

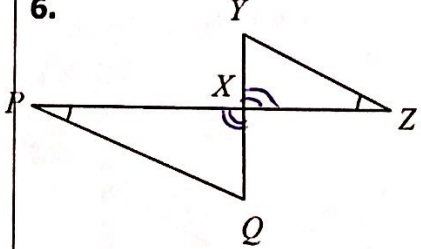
not similar

5. 

$67 + 25 = 92$
 $180 - 92 = 88$

$67 + 91 = 158$
 $180 - 158 = 22$

Not similar

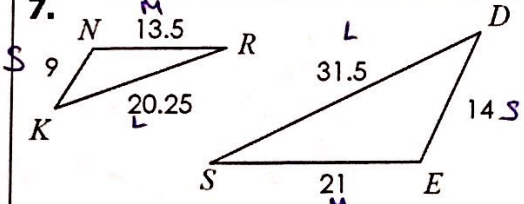
6. 

yes, $\triangle PXQ \sim \triangle ZXY$
by AA~

**SSS~
(Side-Side-Side
Similarity)**

3 ratios

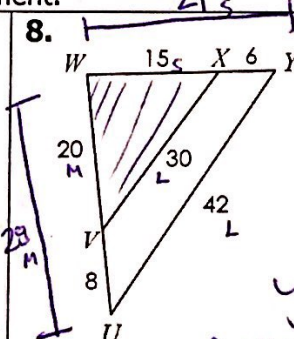
Directions: Determine whether the triangles are similar by Side-Side-Side Similarity. If yes, write a similarity statement.

7. 

$\frac{9}{21} = \frac{13.5}{31.5} = \frac{20.25}{47.25}$

$\frac{9}{21} = \frac{9}{7} = \frac{9}{7} \checkmark$

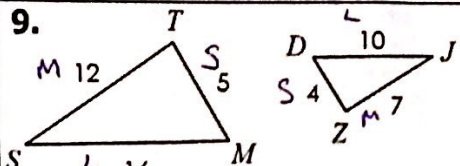
yes,
 $\triangle KNR \sim \triangle DES$
by SSS~

8. 

$\frac{15}{21} = \frac{20}{28} = \frac{30}{42}$

$\frac{5}{7} = \frac{5}{7} = \frac{5}{7} \checkmark$

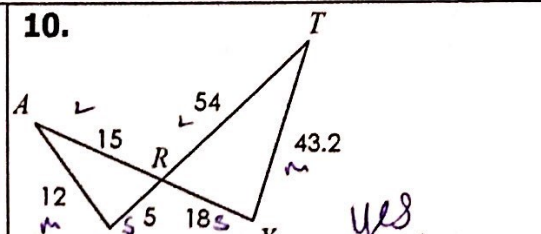
yes,
 $\triangle XWV \sim \triangle YWU$
by SSS~

9. 

$\frac{5}{4} = \frac{12}{7} = \frac{16}{10}$

$\frac{5}{4} = \frac{12}{7} = \frac{16}{10} \neq \frac{8}{5} \times$

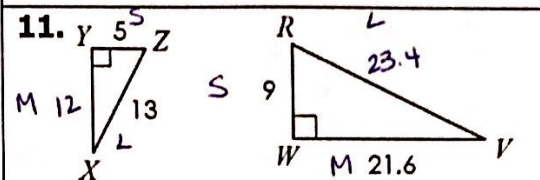
not similar

10. 

$\frac{5}{18} = \frac{12}{43.2} = \frac{15}{54}$

$\frac{5}{18} = \frac{5}{18} = \frac{5}{18}$

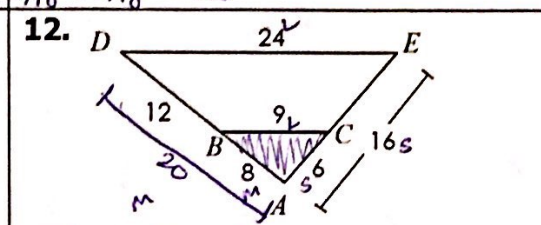
yes, $\Delta RPA \sim \Delta RYT$

11. 

$\frac{5}{9} = \frac{12}{21.6} = \frac{13}{23.4}$

$\frac{5}{9} = \frac{5}{9} = \frac{5}{9}$

yes, $\Delta ZYX \sim \Delta RWV$
by SSS~

12. 

$\frac{6}{16} = \frac{8}{20} = \frac{9}{24}$

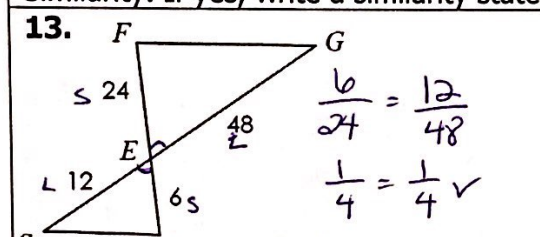
$\frac{3}{8} = \frac{2}{5} = \frac{3}{8} \times$

not similar!

SAS~
(Side-Angle-Side Similarity)

2 ratios (sides)
1 match (angle)
included

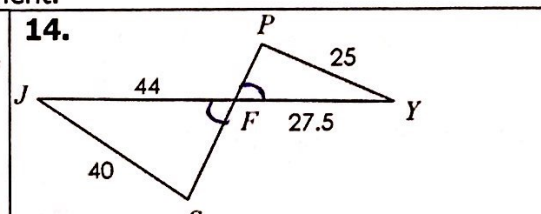
Directions: Determine whether the triangles are similar by Side-Angle-Side Similarity. If yes, write a similarity statement.

13. 

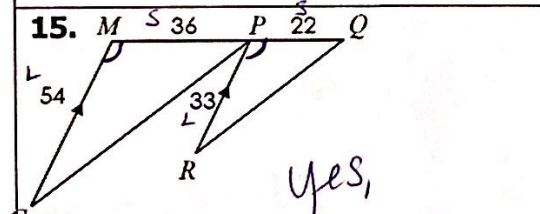
$\frac{6}{24} = \frac{12}{48}$

$\frac{1}{4} = \frac{1}{4} \checkmark$

yes, $\Delta GEF \sim \Delta SER$
by SAS~

14. 

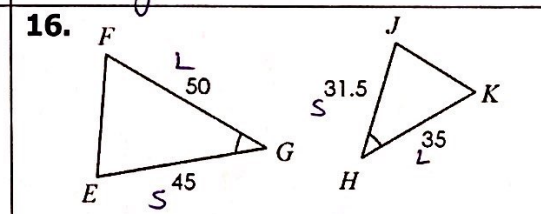
Not similar
angle is not between the given sides

15. 

$\frac{36}{22} = \frac{54}{33}$

$\frac{18}{11} = \frac{18}{11}$

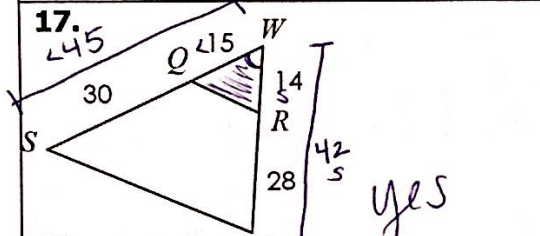
yes,
 $\Delta PMC \sim \Delta QPR$
by SAS~

16. 

$\frac{45}{31.5} = \frac{50}{35}$

$\frac{10}{7} = \frac{10}{7} \checkmark$

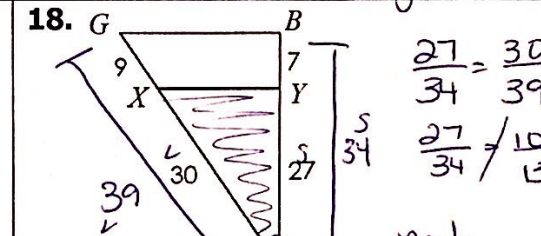
yes,
 $\Delta EGF \sim \Delta JHK$
by SAS~

17. 

$\frac{14}{42} = \frac{15}{45}$

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

yes
 $\Delta RWQ \sim \Delta ZWS$
by SAS~

18. 

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

$\frac{27}{34} \neq \frac{10}{13}$

Not similar!