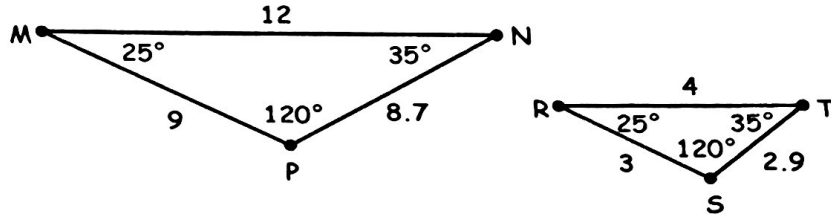


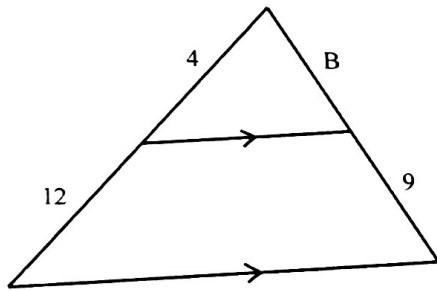
1. Show why the following triangles are similar, state the similarity statement and give the common ratio.



Are the triangles similar? yes

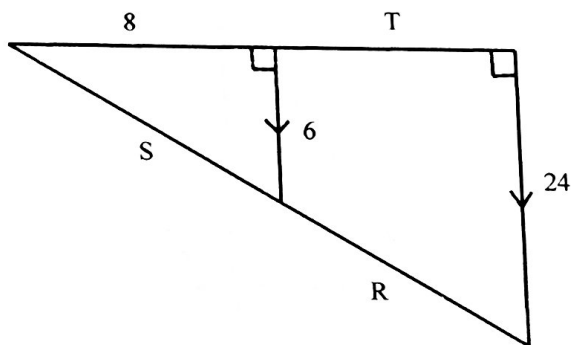
Similarity Statement  $\triangle MNP \sim \triangle RTS$

2. Given two lines are parallel find the missing values.



B = 3

3. Find the length of the missing sides. S = 10



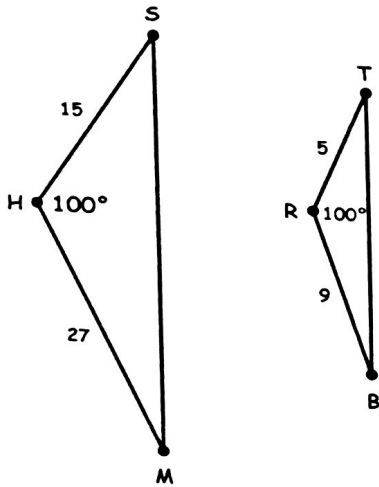
T = 24      R = 30

State if the triangles are similar. If so, state how you know, complete the similarity statement and give all common ratios used.

4. Circle one: Yes or No

If yes, postulate or theorem: SAS~

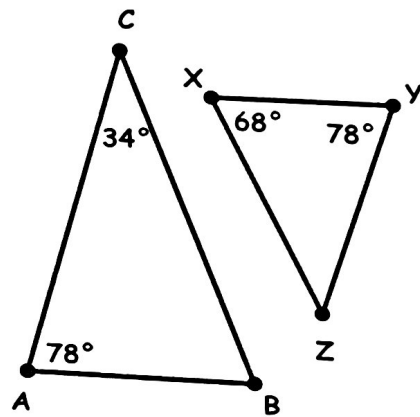
$\triangle SHM \sim \triangle TRB$



5. Circle one: Yes or No

If yes, postulate or theorem: AA~

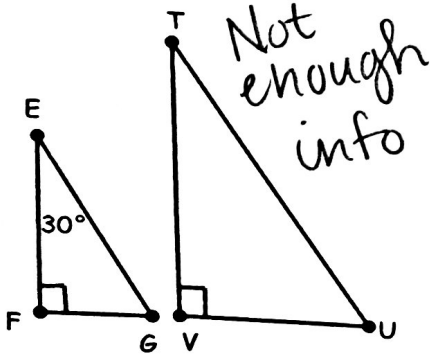
$\triangle CAB \sim \triangle ZYX$



6. Circle one: Yes or No

If yes, postulate or theorem: \_\_\_\_\_

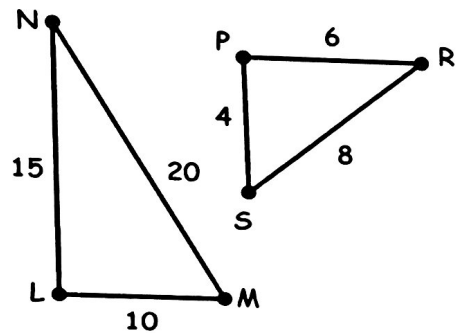
$\triangle EFG \sim \triangle$  \_\_\_\_\_



7. Circle one: Yes or No

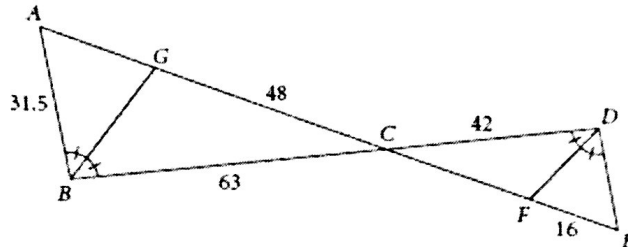
If yes, postulate or theorem: SSS~

$\triangle NLM \sim \triangle RPS$

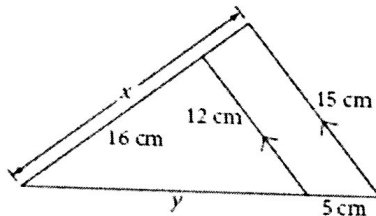


8.  $\triangle ABC \sim \triangle EDC$ . All measurements are in centimeters.

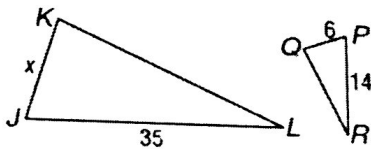
DE = 21  
AG = 24  
CF = 32



9.  $x = \frac{20}{20}$   
 $y = \frac{20}{20}$

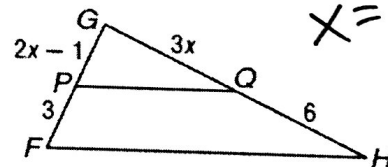


10. If  $\triangle JKL \sim \triangle PQR$ , find x.



$x = 15$

11. If  $\triangle GPQ \sim \triangle GFH$ , find x.



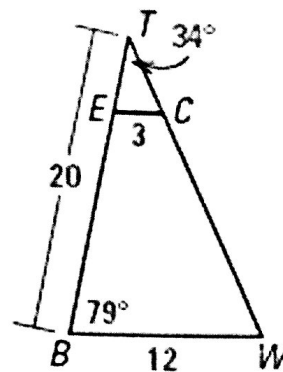
$x = 2$

12. In the diagram,  $\triangle BTW \sim \triangle ETC$ .

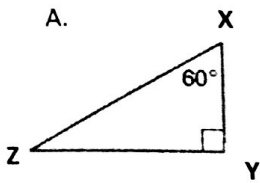
a. Find the  $m\angle TEC$ .  $79^\circ$

b. Find ET and BE.

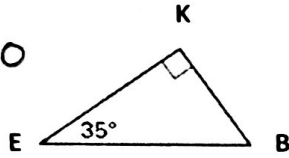
ET = 5  
BE = 15



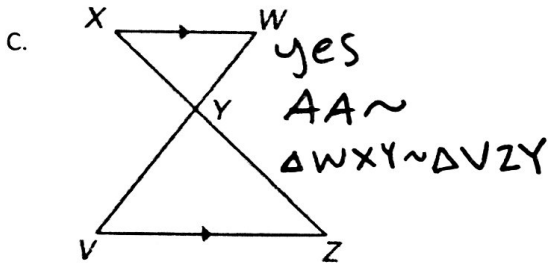
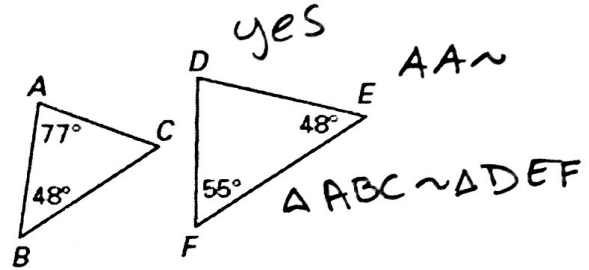
13. Determine if the triangles are similar. If possible, write a similarity statement.



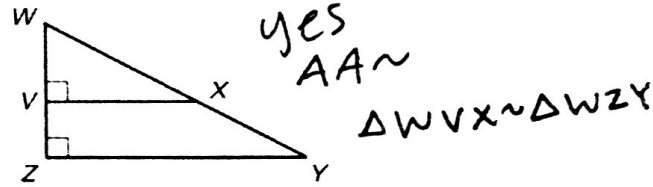
No



B.

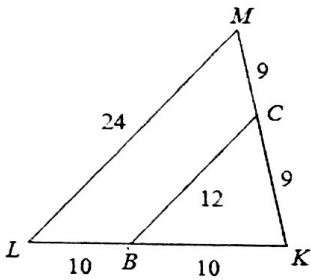


D.



14. Determine if the two triangles are similar. Then complete the similarity statement. Be sure to show all work and state which parts are congruent or proportional.

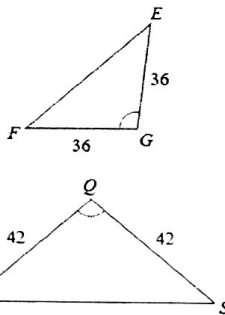
a.



yes  
SSS~

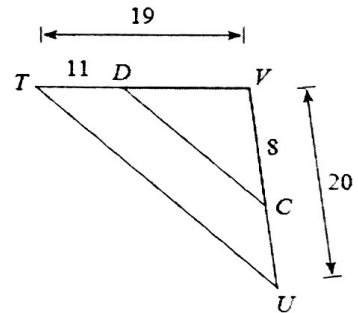
$\triangle KLM \sim \triangle KBC$

b.



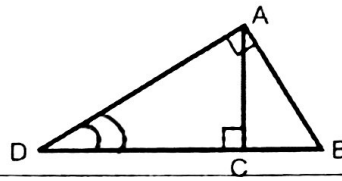
$\triangle QRS \sim \triangle GEF$

c.



$\triangle VUT \sim$  ~~not~~ No  
~~enough~~

15. Given  $\triangle DAB$  and  $\triangle DCA$  are right triangles  
Prove:  $\triangle DAB \sim \triangle DCA$

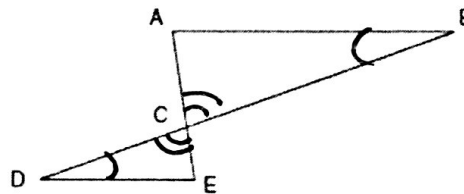


Statements	Reasons
$\triangle DAB$ & $\triangle DCA$ are right $\triangle$ s	Given
$\angle BAD$ and $\angle ACD$ are right $\angle$ s	Given (Picture)
$\angle BAD \cong \angle ACD$	Right angle $\cong$ Thm.
$\angle D \cong \angle D$	Reflexive Prop.
$\triangle DAB \sim \triangle DCA$	AA ~

16. In the diagram of  $\triangle ABC$  and  $\triangle EDC$  below,  $\overline{AE}$  and  $\overline{BD}$  intersect at C.

Given:  $\overline{AB} \parallel \overline{DE}$

Prove:  $\triangle ABC \sim \triangle EDC$

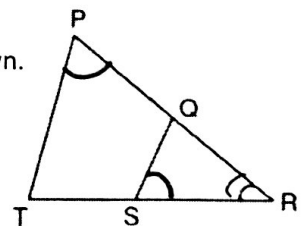


Statements	Reasons
$\overline{AB} \parallel \overline{DE}$	Given
$\angle B \cong \angle D$	Alt. int. $\angle$ s $\cong$ Conjecture
$\angle ACB \cong \angle DCE$	vertical $\angle$ s $\cong$ Thm
$\triangle ABC \sim \triangle EDC$	AA ~

17. In the diagram of  $\triangle PRT$ , Q is a point on  $\overline{PR}$ , S is a point on  $\overline{TR}$ , and  $\overline{QS}$  is drawn.

Given:  $\angle RPT \cong \angle RSQ$

Prove:  $\triangle RPT \sim \triangle RSQ$



Statements	Reasons
$\angle RPT \cong \angle RSQ$	Given
$\angle R \cong \angle R$	Reflexive Prop
$\triangle RPT \sim \triangle RSQ$	AA ~