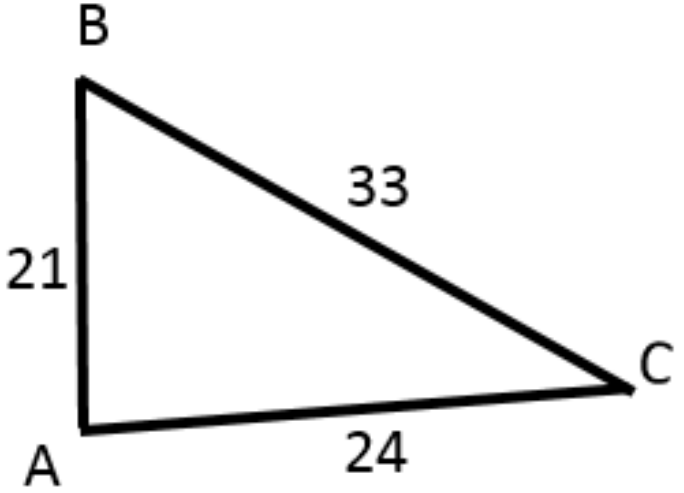
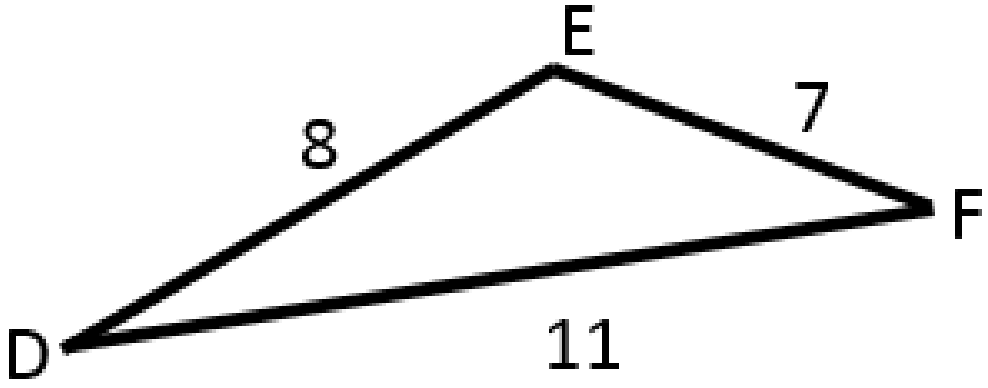
Determine if the triangles are similar, and if so write a similarity statement.

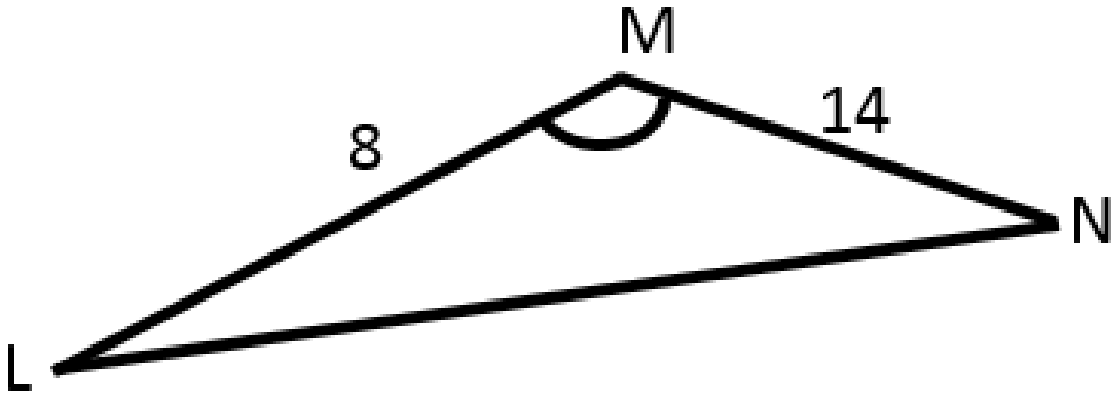
1.



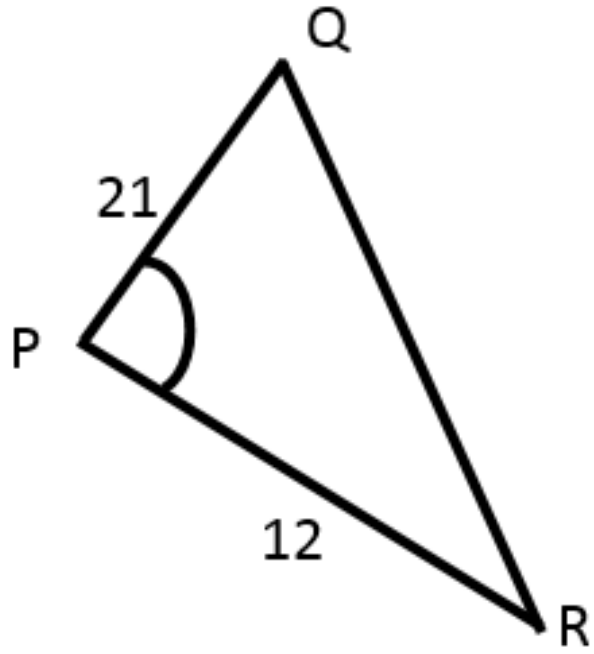
2.



3.



4.



Homework

1. Not similar

2. SSS~ ; $\triangle FGH$

3. SAS~ ; $\triangle VLM$

4. AA~ ; $\triangle TUV$

5. Not similar

6. Not similar

7. SSS~ ; $\triangle QRS$

8. Not similar

9. AA~ ; $\triangle HTS$

10. SAS~ ; $\triangle UVW$

11. SSS~ ; $\triangle FRS$

12. SAS~ ; $\triangle CDE$

13) 22

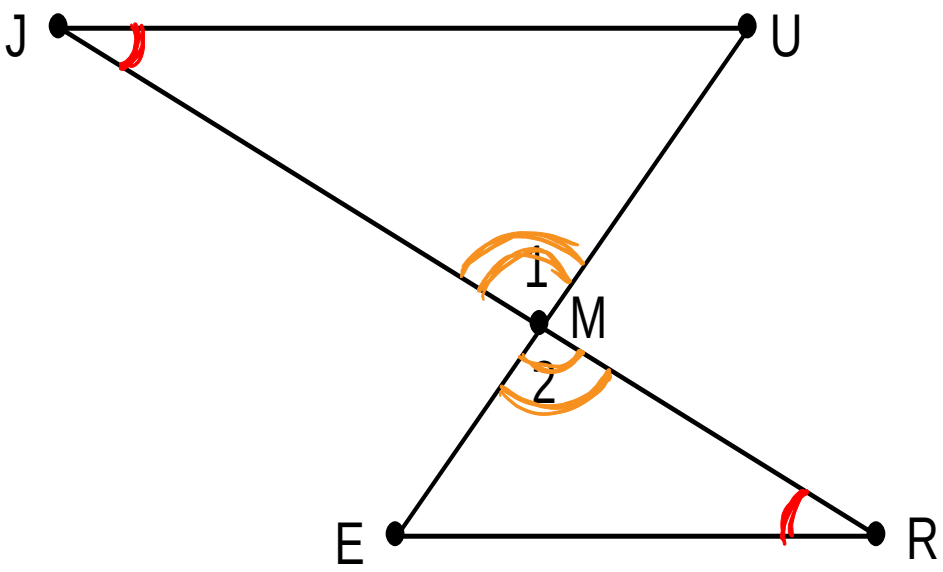
15) 9

16) 11

Notes

1) Given: $\angle J \cong \angle R$

Prove: $\frac{JU}{RE} = \frac{MU}{ME}$

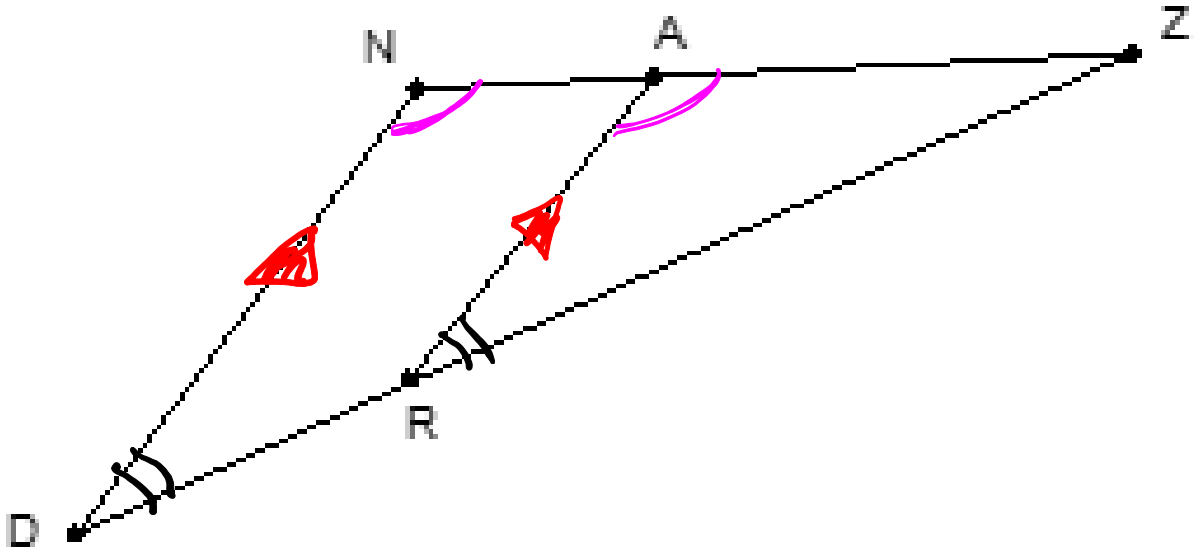


Statement	Justification
$\angle J \cong \angle R$	given
$\angle 1, \angle 2$ are vert $\angle$'s	or diagram Def of Vert $\angle$'s
$\angle 1 \cong \angle 2$	Vert $\angle$'s $\cong$
$\triangle JUM \sim \triangle REM$	AA
$\frac{JU}{RE} = \frac{MU}{ME}$	Def of $\sim \triangle$'s

Notes

2) Given: $\overline{ND} \parallel \overline{AR}$

Prove: $\Delta NDZ \sim \Delta ARZ$

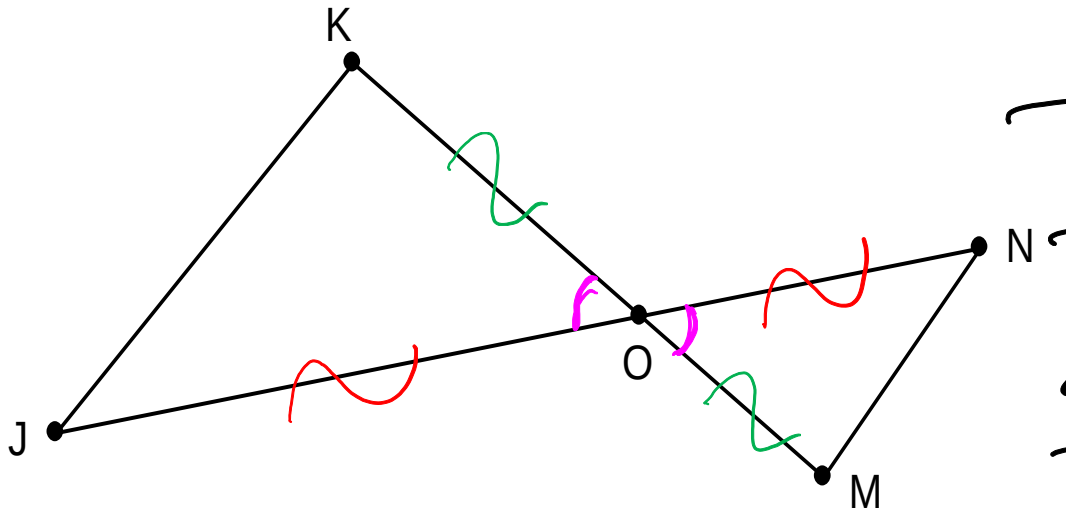


Statement	Justification
$\overline{ND} \parallel \overline{AR}$	Given
$\angle N, \angle RAZ$ corr $\angle$'s	observed
$\angle N \cong \angle RAZ$	corr $\angle$'s $\cong$
$\angle D, \angle ARZ$ corr $\angle$'s	observed
$\angle D \cong \angle ARZ$	corr $\angle$'s $\cong$ thm
$\Delta NDZ \sim \Delta ARZ$	AA

Notes

3) Given: $\frac{JO}{NO} = \frac{KO}{MO}$

Prove: $\angle J \cong \angle N$

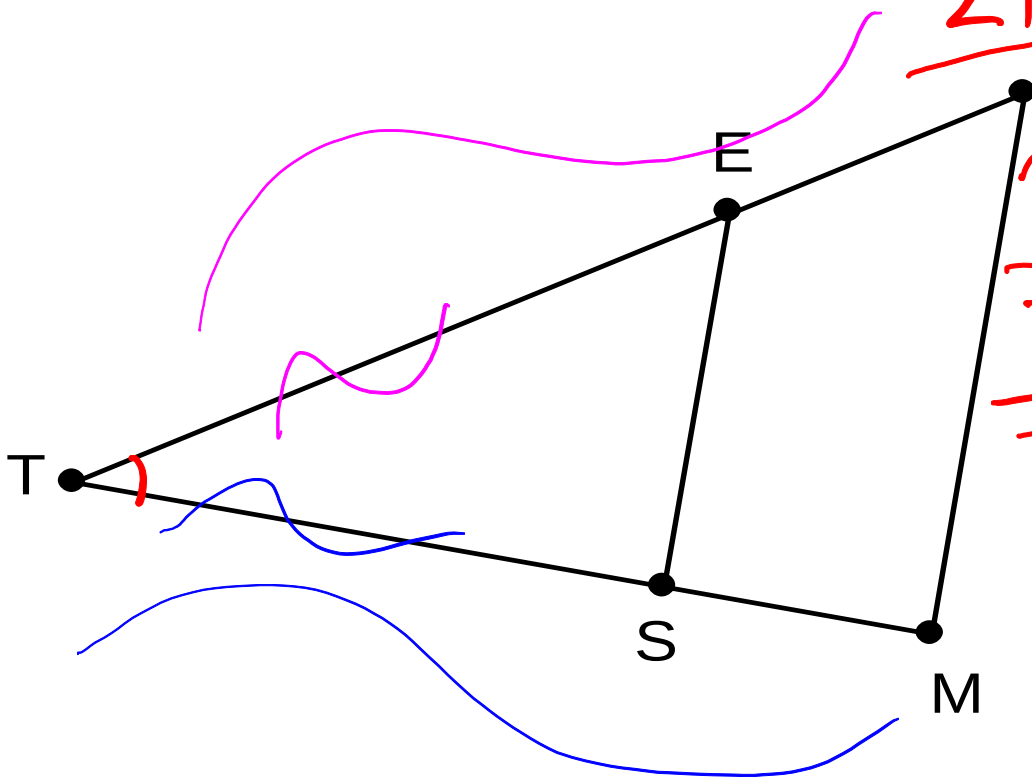


Statement	Justification
$\frac{JO}{NO} = \frac{KO}{MO}$	Given
$\angle KOJ$, $\angle NOM$ vertl's	Diagram
$\angle KOJ \cong \angle NOM$	Vert $\angle \cong$ thm
$\triangle KOJ \sim \triangle MON$	SAS
$\angle J \cong \angle N$	def of $\sim \triangle$

Notes

4) Given: $\frac{TE}{TA} = \frac{TS}{TM}$

Prove: $\frac{TE}{TA} = \frac{SE}{MA}$



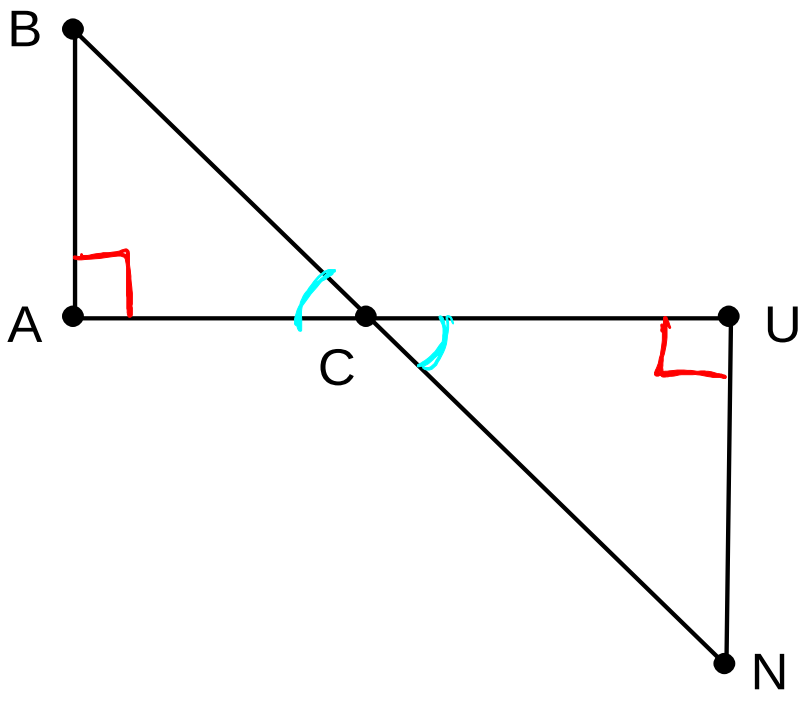
Statement	Justification
$\frac{TE}{TA} = \frac{TS}{TM}$	given
$\angle T \cong \angle T$	Reflexprop of $\cong$
$\triangle TAM \sim \triangle TES$	SAS
$\frac{TE}{TA} = \frac{SE}{MA}$	Def of $\sim \triangle$'s

Notes

5) Given: $\overline{AB} \perp \overline{AC}$

$\overline{NU} \perp \overline{UC}$

Prove: $\frac{AC}{UC} = \frac{CB}{CN}$



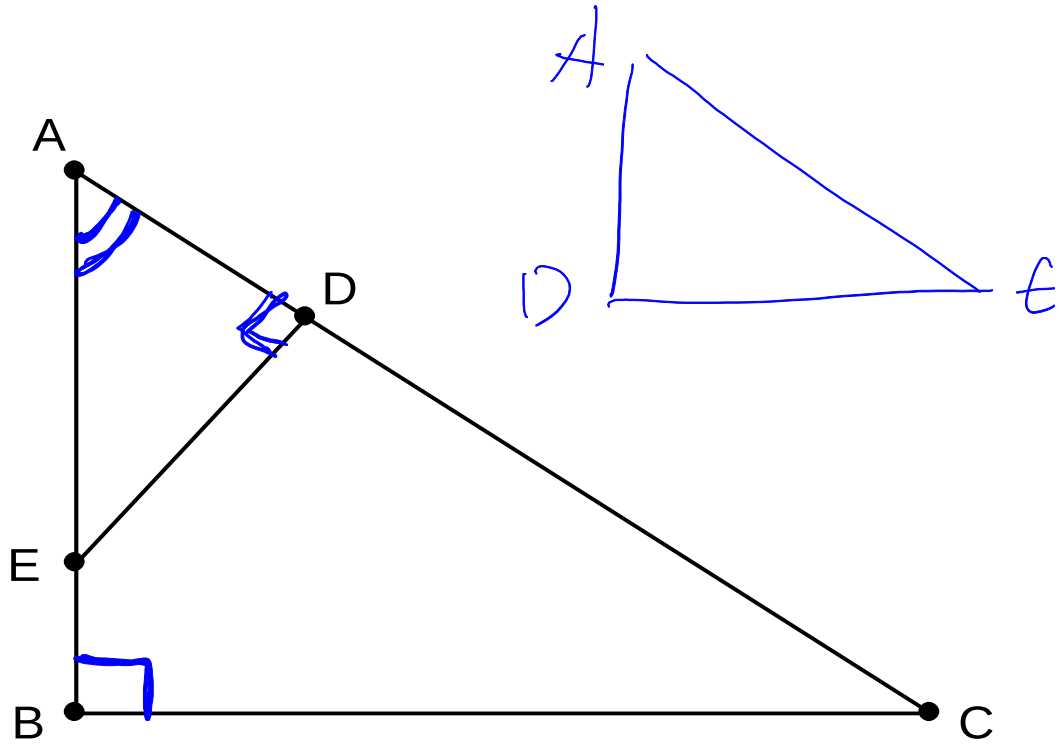
Statement	Justification
$\overline{AB} \perp \overline{AC}$, $\overline{NU} \perp \overline{UC}$	Given
$\angle BAC$ & $\angle NUC$ are right $\angle$s	Def of $\perp$
$\angle A \cong \angle U$	Right $\angle \cong$ thm
$\angle BCA, \angle NCU$ Vert $\angle$s	Def of vert $\angle$s
$\angle BCA \cong \angle NCU$	Vert $\angle \cong$ thm
$\triangle BAC \sim \triangle NUC$	AA
$\frac{AC}{UC} = \frac{CB}{CN}$	Def of $\sim \triangle$'s

Notes

6) Given: $\overline{ED} \perp \overline{AC}$

$\angle B$ is a right angle

Prove: $\Delta ADE \sim \Delta ABC$



Statement	Justification
$\overline{ED} \perp \overline{AC}$, $\angle B$ is right $\angle$	Given
$\angle ADE$ is right $\angle$	Def of $\perp$
$\angle B \cong \angle ADE$	Right $\angle \cong$ thm
$\angle A \cong \angle A$	Reflex Prop of $\cong$
$\Delta ADE \sim \Delta ABC$	AA

Your homework is 7-5.