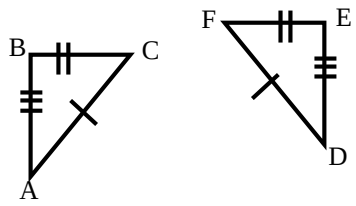
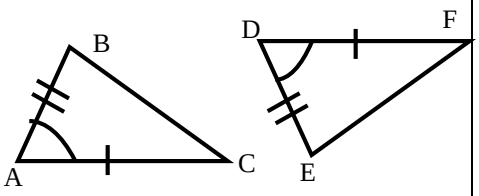
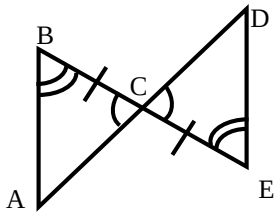
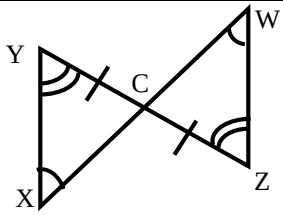
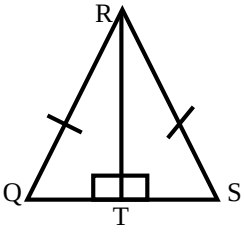
NOTES 5.3 – 5.6 A: Triangle Congruence Patterns

Objective: _____

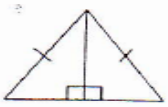
You can show that two triangles are congruent, if any of the following criteria are met:

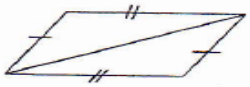
SSS	_____-_____-_____ If all 3 pairs of corresponding sides are congruent, then the 2 triangles are congruent.	
SAS	_____-_____-_____ If 2 pairs of corresponding sides and the included angles are congruent, then the 2 triangles are congruent.	
ASA	_____-_____-_____ If 2 pairs of corresponding angles and the included sides are congruent, then the 2 triangles are congruent.	
AAS	_____-_____-_____ If 2 pairs of corresponding angles and a non-included side are congruent, then the 2 triangles are congruent.	
HL	_____-_____ If a corresponding hypotenuse and a corresponding leg of 2 right triangles are congruent, then the 2 triangles are congruent.	

Name the postulate or theorem that would be used to prove the triangles congruent. You must use the marking shown. The only markings that can be added are shared sides or vertical angles.

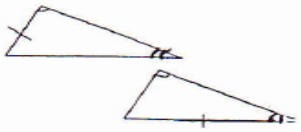
1.

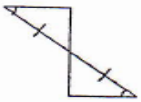
2.

3. 

4. 

5.

6. 

7. 

8.

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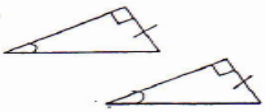
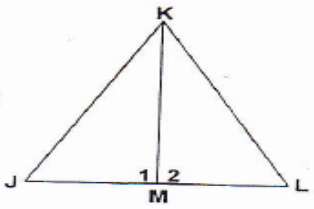
12. 

Name the pair of sides or angles needed to prove the triangles congruent by the given method.

$\Delta JKM \cong \Delta LKM$



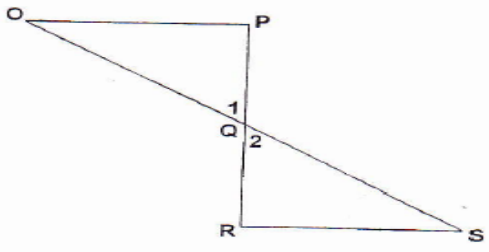
_____13. $\overline{JK} \cong \overline{LK}$; $\overline{JM} \cong \overline{LM}$ by SSS

_____14. $\angle 1 \cong \angle 2$; $\overline{KM} \cong \overline{KM}$ by AAS

_____15. $\angle J \cong \angle L$; $\angle 1 \cong \angle 2$ by ASA

_____16. $\overline{JK} \cong \overline{LK}$; $\angle J \cong \angle L$ by SAS

$\Delta OPQ \cong \Delta SRQ$



_____17. $\overline{OP} \cong \overline{SR}$; $\overline{PQ} \cong \overline{RQ}$ by SSS

_____18. $\angle O \cong \angle S$; $\angle 1 \cong \angle 2$ by ASA

_____19. $\overline{OQ} \cong \overline{SQ}$; $\overline{PQ} \cong \overline{RQ}$ by SAS

_____20. $\overline{PQ} \cong \overline{RQ}$; $\angle 1 \cong \angle 2$ by AAS