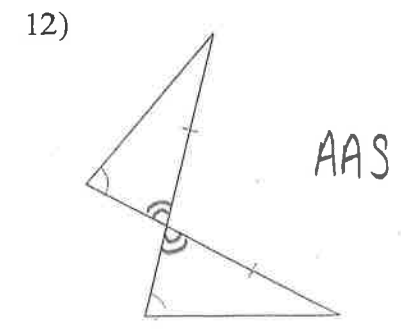
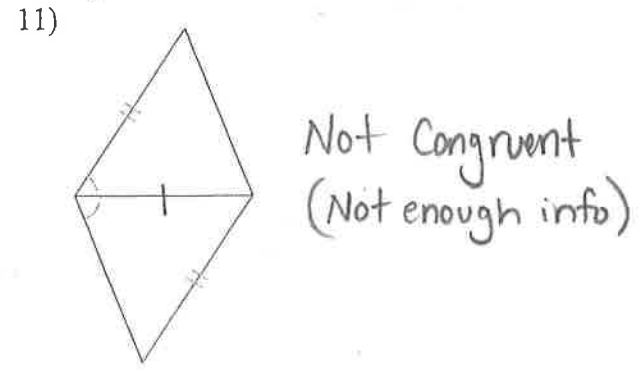
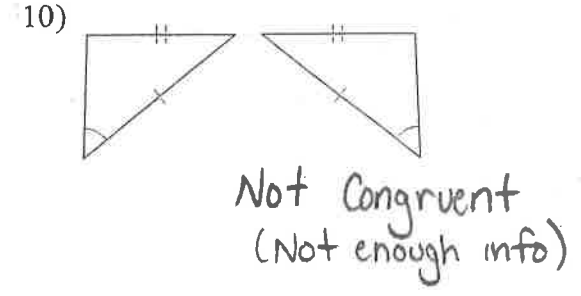
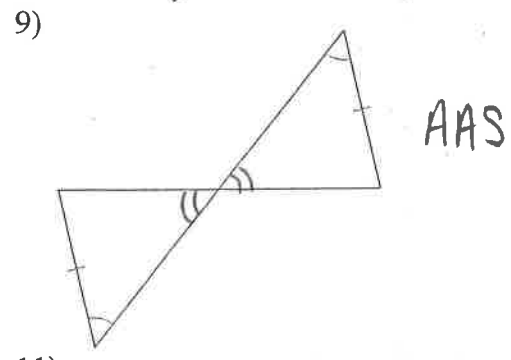
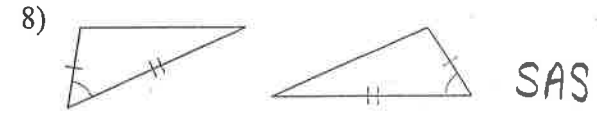
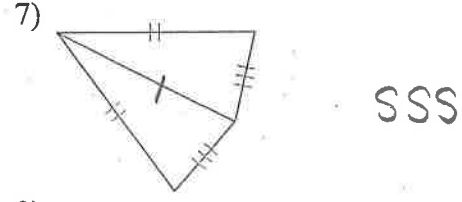
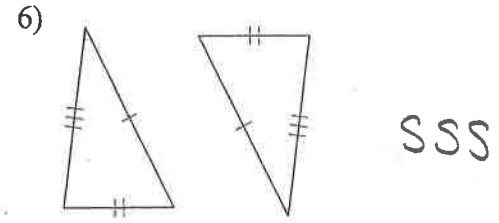
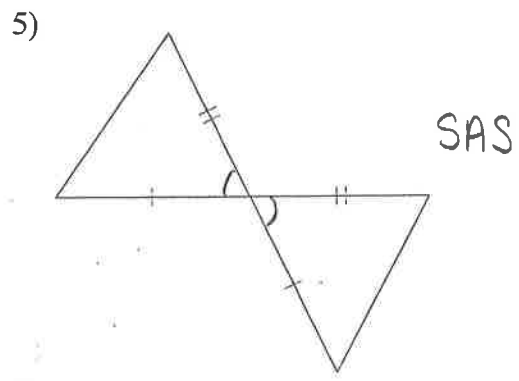
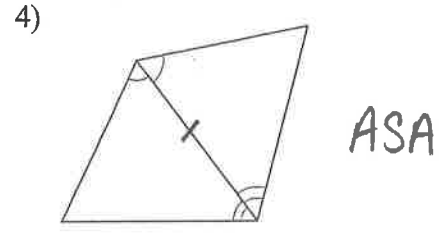
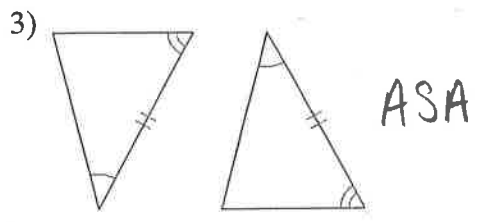
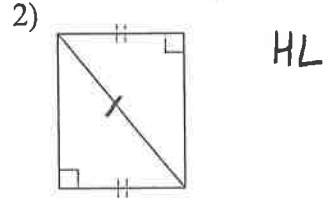
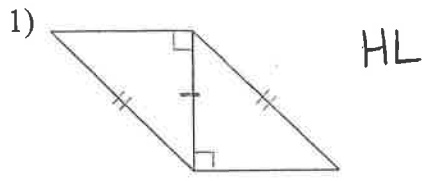


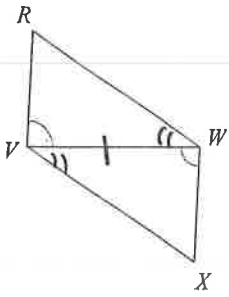
WS 4.4-4.5 Triangle Congruence Shortcuts

State if the two triangles are congruent. If they are, state how you know.



State what additional information is required in order to know that the triangles are congruent for the reason given.

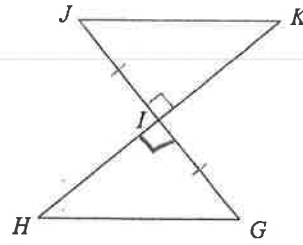
13) ASA



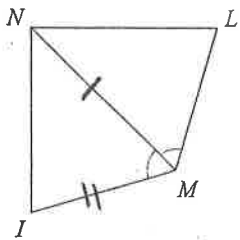
$\angle RWV \cong \angle XVW$

14) HL

$\overline{JK} \cong \overline{HG}$

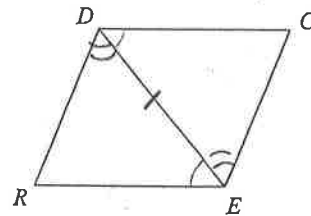


15) SAS



$\overline{IM} \cong \overline{LM}$

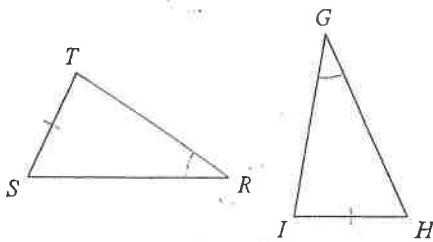
16) ASA



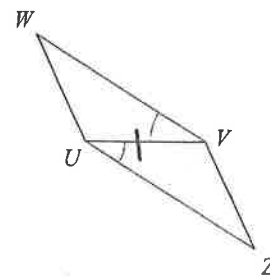
$\angle RDE \cong \angle CED$

17) AAS

$\angle T \cong \angle I$ or $\angle S \cong \angle H$

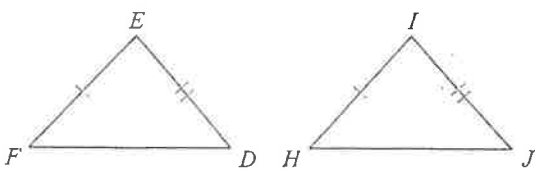


18) AAS



$\angle W \cong \angle Z$

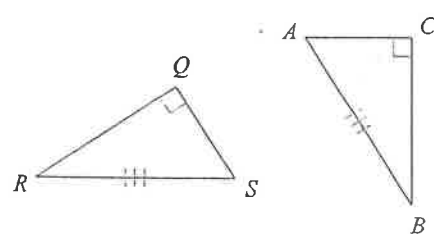
19) SSS



$\overline{FD} \cong \overline{IJ}$

20) HL

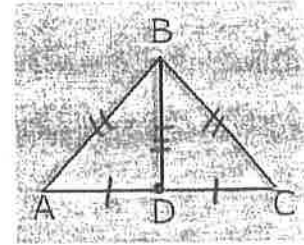
$\overline{QS} \cong \overline{AC}$ OR $\overline{RQ} \cong \overline{BC}$



Geometry - Triangle Congruence Proofs (SSS, SAS, ASA, AAS, HL)

21. Given: $\overline{AB} \cong \overline{BC}$, D is a midpoint of \overline{AC}

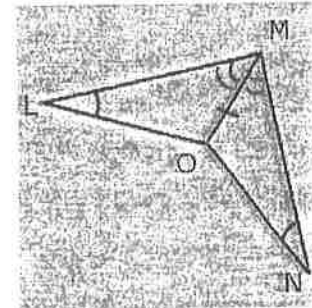
Prove: $\triangle ABD \cong \triangle CBD$



Statements	Reasons
1. $\overline{AB} \cong \overline{BC}$	Given
2. D mdpt of \overline{AC}	Given
3. $\overline{AD} \cong \overline{DC}$	Def. of mdpt
4. $\overline{BD} \cong \overline{BD}$	Reflexive
$\triangle ABD \cong \triangle CBD$	SSS

22. Given: $\angle L \cong \angle N$, \overline{OM} bisects $\angle LMN$

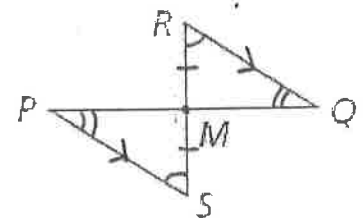
Prove: $\triangle LMO \cong \triangle NMO$



Statements	Reasons
1. $\angle L = \angle N$	Given
2. \overline{OM} bisects $\angle LMN$	Given
3. $\angle LMO \cong \angle NMO$	Def. of bisector
4. $\overline{OM} \cong \overline{OM}$	Reflexive
5. $\triangle LMO \cong \triangle NMO$	AAS

23. Given: ~~_____~~, M is the midpoint of RS. $\overline{RQ} \parallel \overline{PS}$

Prove: $\triangle SMP \cong \triangle RMQ$

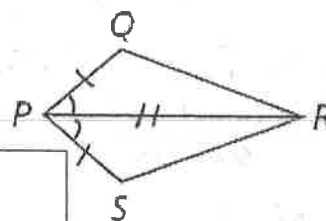


Statements	Reasons
1. M mdpt of \overline{RS}	Given
2. $\overline{RM} \cong \overline{MS}$	Def of midpoint
3. $\overline{RQ} \parallel \overline{PS}$	Given
4. $\angle R \cong \angle S$	Alt. Int \angle 's Thm
5. $\angle P \cong \angle Q$	Alt. Int \angle 's Thm
6. $\triangle SMP \cong \triangle RMQ$	AAS

* More than one way to do this proof

24. Given: $\overline{QP} \cong \overline{SP}$, \overline{RP} bisects $\angle QPS$

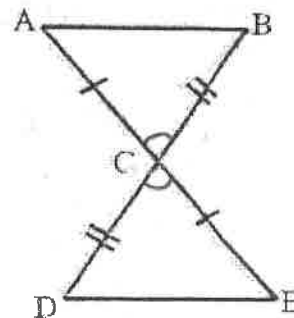
Prove: $\triangle QPR \cong \triangle SPR$



Statements	Reasons
1. $\overline{QP} \cong \overline{SP}$	Given
2. \overline{RP} bisects $\angle QPS$	Given
3. $\angle QPR \cong \angle SPR$	Def. of Bisector
4. $\overline{PR} \cong \overline{PR}$	Reflexive Prop
5. $\triangle QPR \cong \triangle SPR$	SAS

25. Given: $\overline{AC} \cong \overline{CE}$, $\overline{DC} \cong \overline{BC}$

Prove: $\triangle ACB \cong \triangle ECD$



Statements	Reasons
1. $\overline{AC} \cong \overline{CE}$	Given
2. $\overline{DC} \cong \overline{BC}$	Given
3. $\angle ACB \cong \angle ECD$	Vertical Angles Thm
4. $\triangle ACB \cong \triangle ECD$	SAS