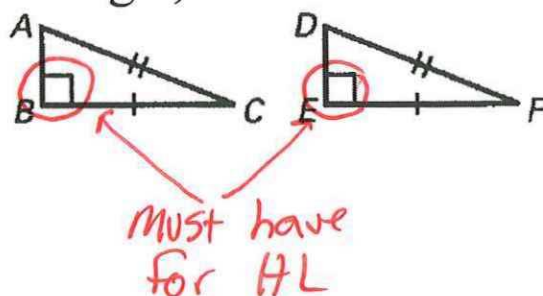
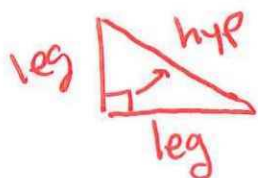


5-4 Hypotenuse-Leg Congruence Theorem: HL

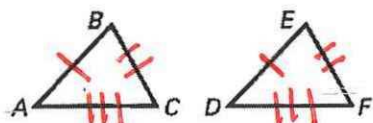
Objective: Use the HL Congruence Theorem and summarize congruence postulates and theorems

Hypotenuse-Leg Congruence Theorem (HL) If the hypotenuse and a leg of a right triangle are congruent to the hypotenuse and a leg of another right triangle, then the triangles are congruent



Follow-Up Mark the diagrams with the information needed to show $\triangle ABC \cong \triangle DEF$ using the congruence postulate or theorem.

SSS Side
Side
Side



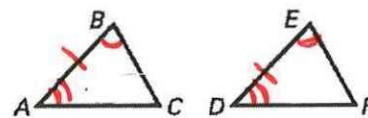
SAS Side
Angle
Side



AAS Angle
Angle
Side

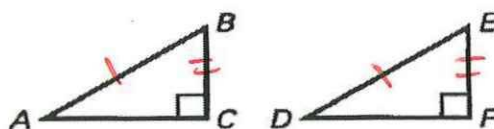


ASA Angle
Side
Angle



HL $\triangle ABC$ and $\triangle DEF$ are right triangles.

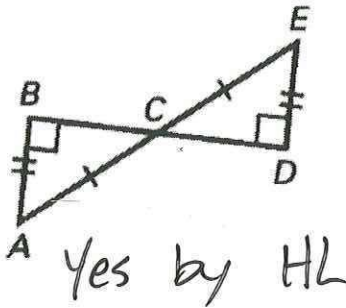
Hypotenu: $\overline{AB} \cong \overline{DE}$
Leg: $\overline{BC} \cong \overline{EF}$



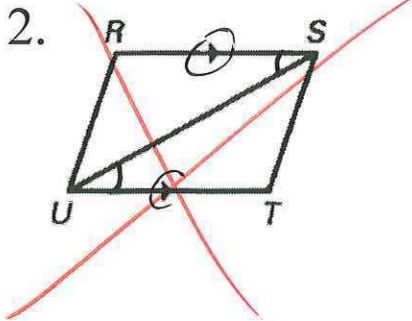
Examples:

Does the diagram give enough info to show that the Δ 's are congruent? If so, state the postulate/theorem you would use.

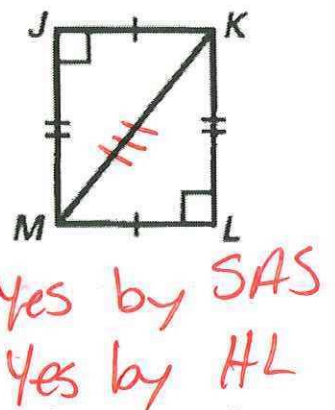
1.



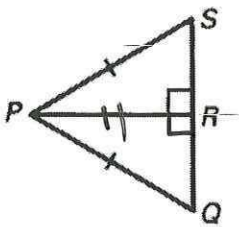
2.



3.



4. Use the information in the diagram to prove $\Delta PRQ \cong \Delta PRS$:



1. $\overline{PS} \cong \overline{PQ}$ | Given
2. $\angle PRQ = 90^\circ$ | Linear Pair
(shared side)
3. $\overline{PR} \cong \overline{RP}$ | Reflexive Prop \cong
4. $\Delta PSR \cong \Delta PQR$ | HL

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