

5.5 Proving Triangles Congruent by SSS & HL CYU

Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

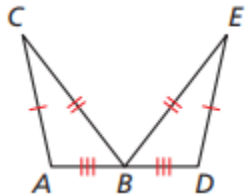
X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

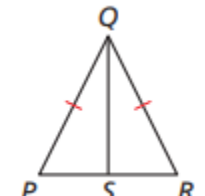
CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
SSS Congruence Theorem	1, 2	5 - 7	11
HL Congruence Theorem	3, 4		11
Proofs	8	9	10
Solving Triangles			12

Decide whether enough information is given to prove that triangles are congruent using the SSS Theorem or HL Theorem. Explain.

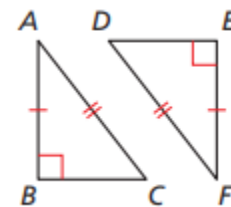
1. $\triangle ABC$ & $\triangle DBE$



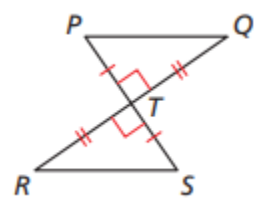
2. $\triangle PQS$ & $\triangle RQS$



3. $\triangle ABC$ & $\triangle FED$

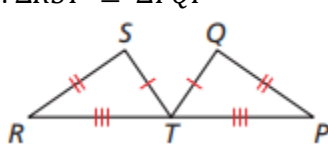


4. $\triangle PQT$ & $\triangle SRT$

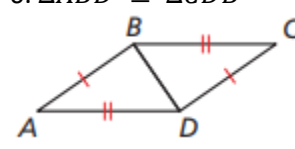


Decide whether the congruence statement is true. Explain your reasoning.

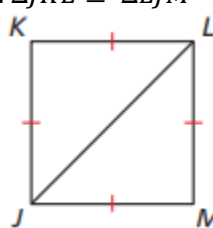
5. $\triangle RST \cong \triangle TQP$



6. $\triangle ABD \cong \triangle CDB$



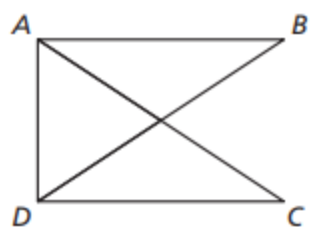
7. $\triangle JKL \cong \triangle LJM$



Redraw the triangles so they are side by side with corresponding parts in the same position. Then write a proof.

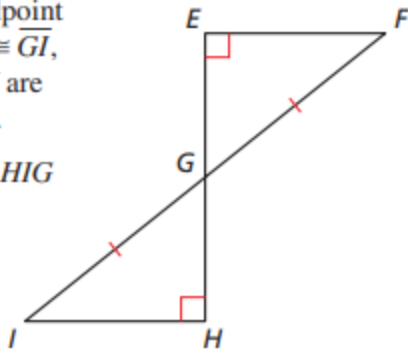
8. **Given** $\overline{AC} \cong \overline{BD}$,
 $\overline{AB} \perp \overline{AD}$,
 $\overline{CD} \perp \overline{AD}$

Prove $\triangle BAD \cong \triangle CDA$



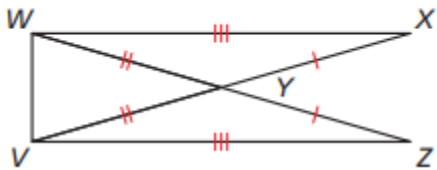
9. **Given** G is the midpoint of \overline{EH} , $\overline{FG} \cong \overline{GI}$, $\angle E$ and $\angle H$ are right angles.

Prove $\triangle EFG \cong \triangle HIG$

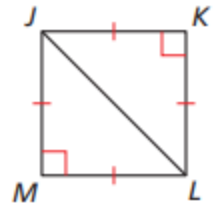


10. **Given** $\overline{WX} \cong \overline{VZ}$, $\overline{WY} \cong \overline{VY}$, $\overline{YZ} \cong \overline{YX}$

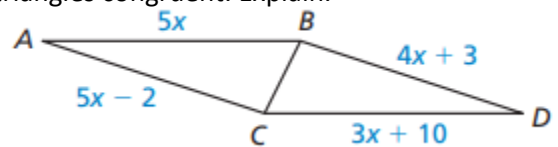
Prove $\triangle VWX \cong \triangle WVZ$



11. **MAKING AN ARGUMENT** Your cousin says that $\triangle JKL$ is congruent to $\triangle LMJ$ by SSS Congruence Theorem. Your friend says that $\triangle JKL$ is congruent to $\triangle LMJ$ by HL Congruence Theorem. Who is correct? Explain your reasoning.



12. **MATHEMATICAL CONNECTIONS** Find all values of x that make the triangles congruent. Explain.



CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

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1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!

