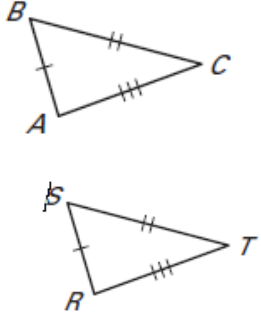




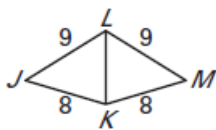
- I can prove triangles congruent using SSS Postulate.

<p>Side-Side-Side Congruence Postulate (SSS)</p> <p>If three sides of one triangle are congruent to three sides of a second triangle, then the two triangles are congruent.</p>	<p>Example:</p> <p>If Side $\overline{AB} \cong$ _____, Side $\overline{BC} \cong$ _____, and Side $\overline{CA} \cong$ _____, then $\triangle ABC \cong$ _____.</p> 
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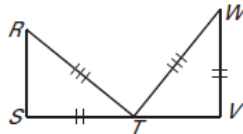
EXAMPLE 1 – Use the SSS Congruence Postulate

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

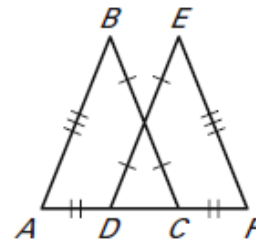
a) $\triangle JKL \cong \triangle MKL$



b) $\triangle RST \cong \triangle TVW$



c) $\triangle ABC \cong \triangle FED$



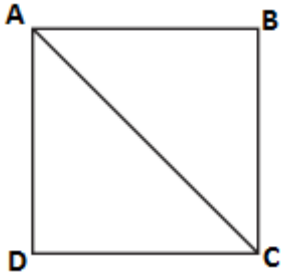
Reasons to prove sides are congruent in triangle proofs:

- _____
- _____
- _____

Example 2 – Use the SSS Congruence Postulate to write a proof.

a. **Given:** $\overline{AB} \cong \overline{CD}, \overline{DA} \cong \overline{CB}$

Prove: $\triangle ABC \cong \triangle CDA$

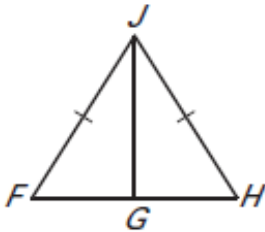


Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.

b. **Given:** $\overline{FJ} \cong \overline{HJ}$

G is the midpoint of \overline{FH}

Prove: $\triangle FGJ \cong \triangle HGJ$



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Example 3 – Congruent Triangles in the Coordinate Plane

a) Determine whether $\triangle PQR$ is congruent to the other triangles shown at the right.

Use distance formula to find the lengths of the sides:

PQ = _____

VW = _____

RS = _____

QR = _____

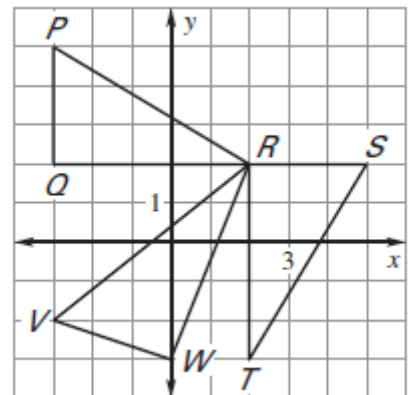
WR = _____

RT = _____

PR = _____

VR = _____

ST = _____



CONCLUSIONS:

