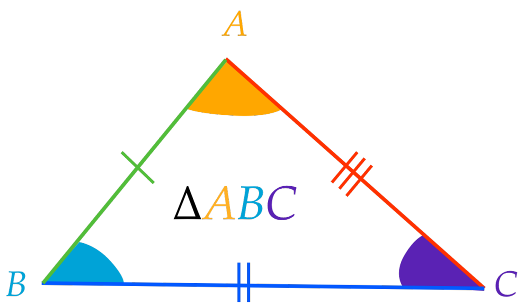
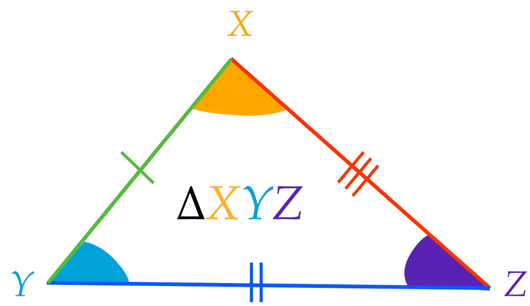
Side-Angle-Side (SAS) Postulate

Name ______________________

Date ____________ Period ______

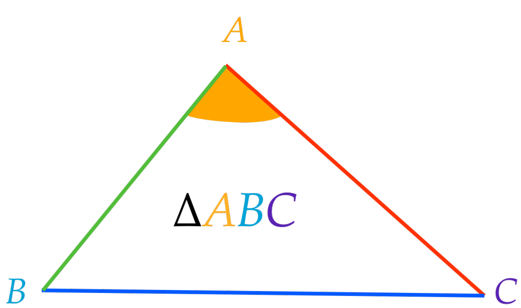
Two triangles are congruent if and only if
their corresponding angles and sides are congruent.

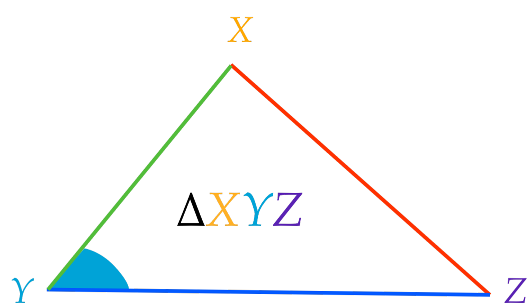




If $\angle A \cong \angle X$, $\angle B \cong \angle Y$, $\angle C \cong \angle Z$ and $\overline{AB} \cong \overline{XY}$, $\overline{BC} \cong \overline{YZ}$, $\overline{AC} \cong \overline{XZ}$ then $\Delta ABC \cong \Delta XYZ$

Included Angle - The angle formed by two sides of a triangle.

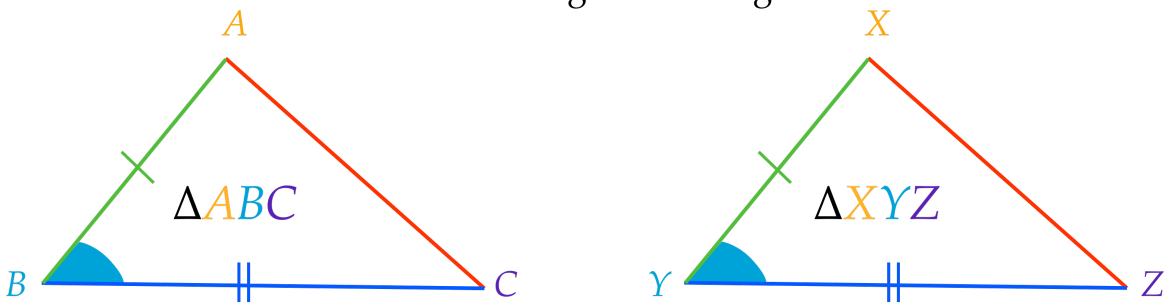




$\angle A$ is the included angle formed by $\overline{AB}$ and $\overline{AC}$

The included angle formed by $\overline{XY}$ and $\overline{YZ}$ is $\angle Y$

If two sides and the included angle of one triangle are congruent to
two sides and the included angle of another triangle,
then the two triangles are congruent.



If $\overline{AB} \cong \overline{XY}$, $\overline{BC} \cong \overline{YZ}$, and $\angle B \cong \angle Y$, then $\Delta ABC \cong \Delta XYZ$

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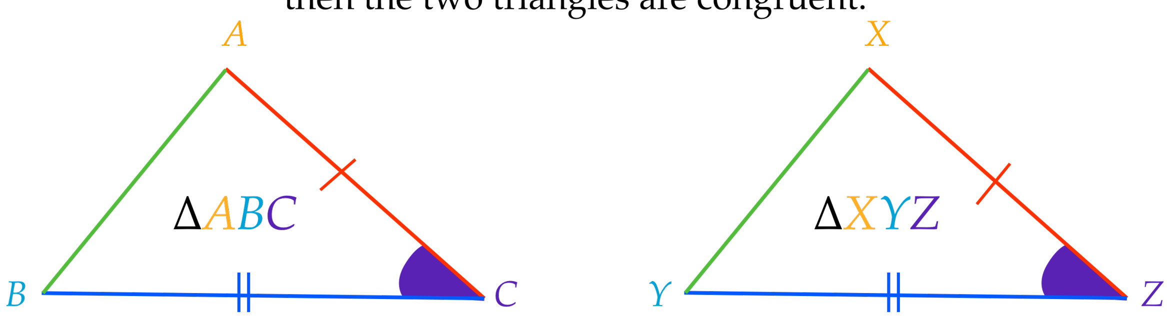


If $\overline{AC} \cong \overline{XZ}$, $\overline{BC} \cong \overline{YZ}$, and $\angle C \cong \angle Z$, then $\Delta ABC \cong \Delta XYZ$

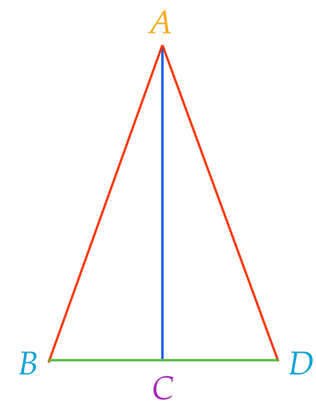
Side - Included Angle - Side

Statements	Reasons

Given: C is midpoint of $\overline{BD}$

$\overline{AC} \perp \overline{BD}$

Prove: $\Delta ABC \cong \Delta ADC$

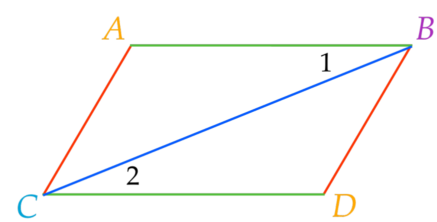


Statements	Reasons

Given: $\overline{AB} \cong \overline{CD}$

$\overline{AB} \parallel \overline{CD}$

Prove: $\Delta ABC \cong \Delta DCB$



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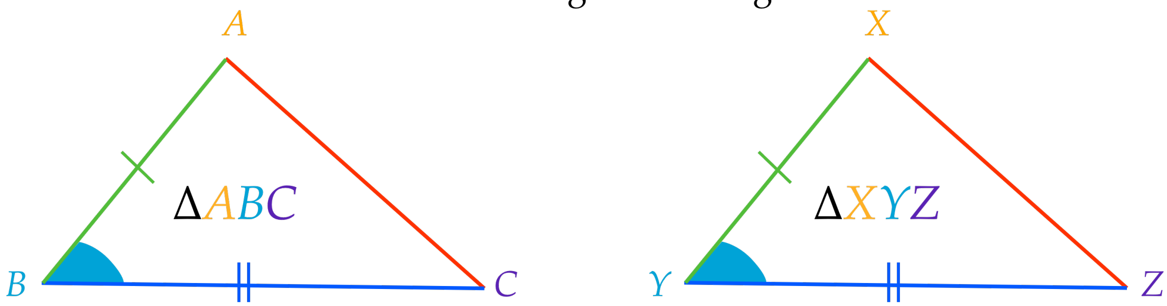

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