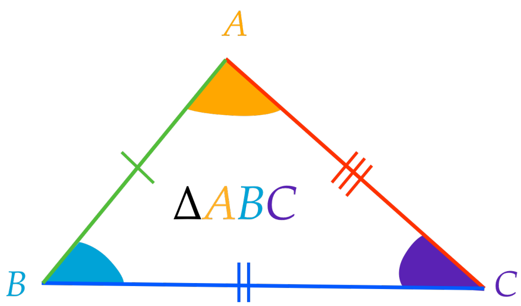
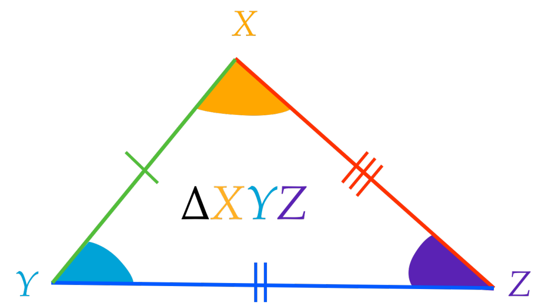
# Angle-Side-Angle (ASA) Postulate

Name ____________________________

Date ________________ Period ______

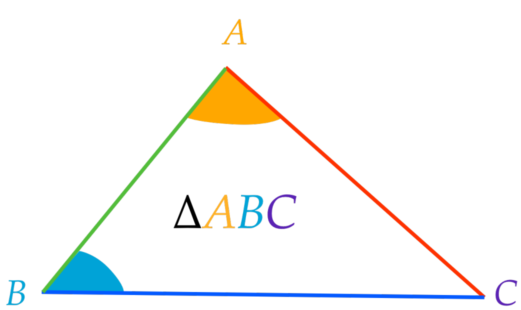
Two triangles are congruent if and only if
their corresponding angles and sides are congruent.

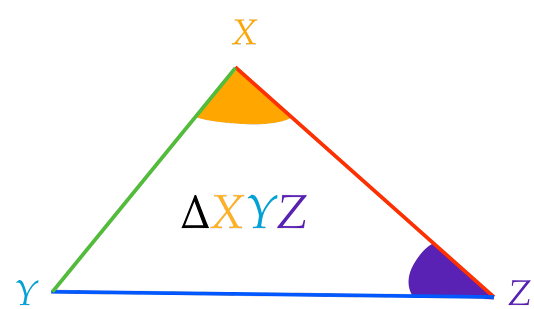



If $\angle A \cong \angle X$, $\angle B \cong \angle Y$, $\angle C \cong \angle Z$ and $\overline{AB} \cong \overline{XY}$, $\overline{BC} \cong \overline{YZ}$, $\overline{AC} \cong \overline{XZ}$ then $\Delta ABC \cong \Delta XYZ$

Included Side - The side of the triangle that is common to two angles.

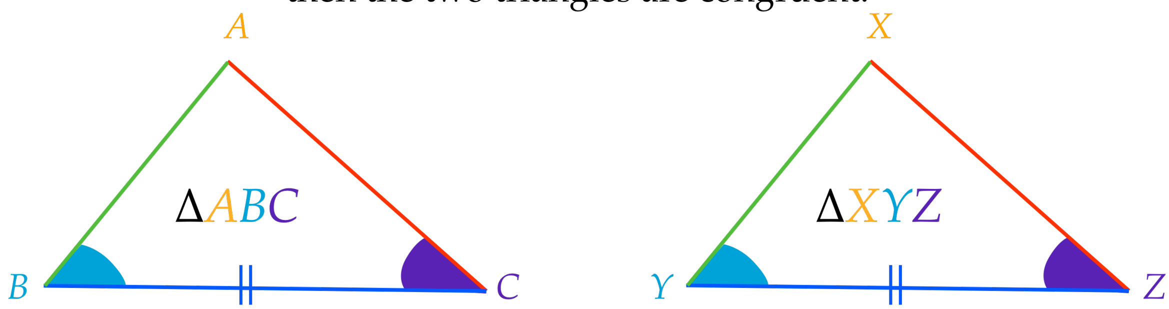



$\overline{AB}$ is the included side of $\angle A$ and $\angle B$.

The included side of $\angle X$ and $\angle Z$ is $\overline{XZ}$.

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




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

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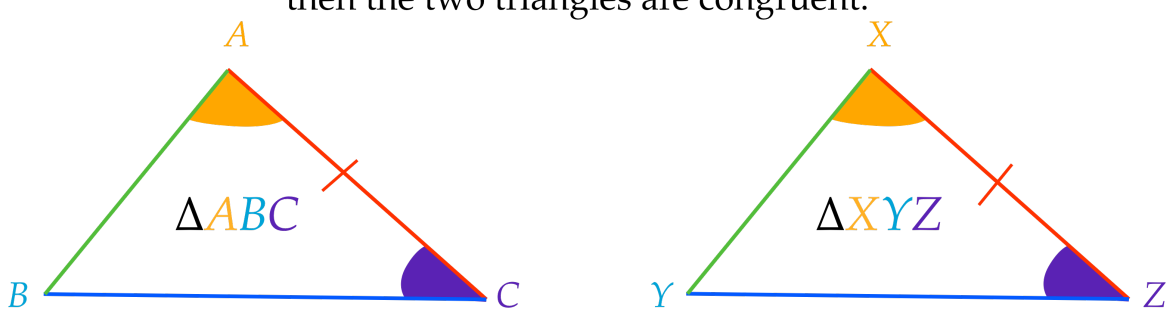



If $\angle C \cong \angle Z$, $\angle A \cong \angle X$, and $\overline{AC} \cong \overline{XZ}$, then $\Delta ABC \cong \Delta XYZ$

Angle - Included Side - Angle

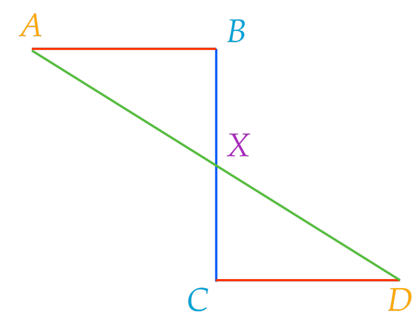
| Statements | Reasons |
| --- | --- |

Given: $X$ is midpoint of $\overline{BC}$

$\overline{BC} \perp \overline{AB}$

$\overline{BC} \perp \overline{CD}$

Prove: $\Delta ABX \cong \Delta DCX$

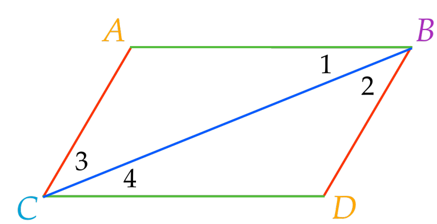



| Statements | Reasons |
| --- | --- |

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

$\overline{AC} \parallel \overline{BD}$

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



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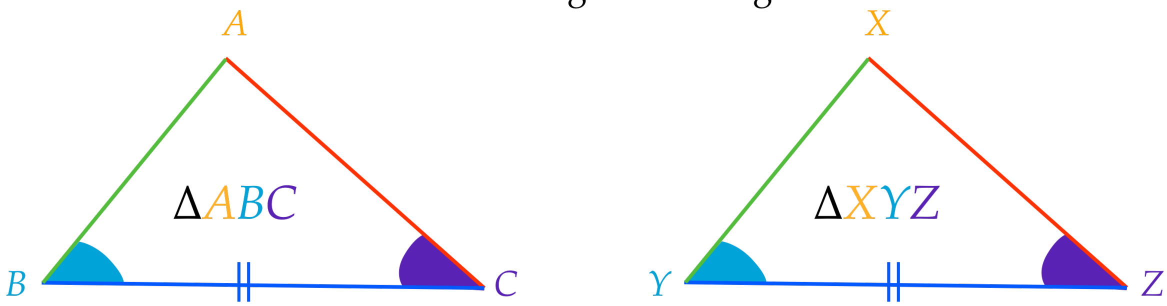


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