

# SSS and AAS Congruence Theorems

## SSS = Side Side

### Postulate



Side Side Postulate: If the 3 sides of one triangle are congruent to another triangle, both triangles are considered congruent.

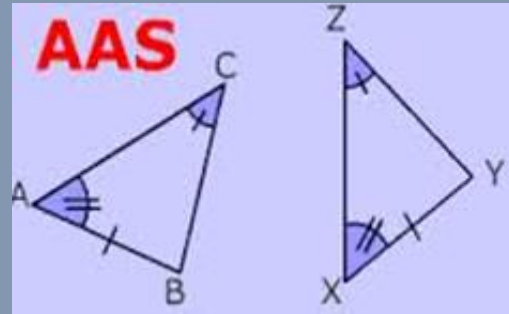
$$\triangle ABC \cong \triangle XYZ$$

All 3 sides are congruent

- $ZX = CA$  (side)
- $XY = AB$  (side)
- $YZ = BC$  (side)

So, by the Side Side Side postulate, the triangles are congruent.

## AAS = Angle Angle Side



### Angle Angle Side

Postulate: If the two angles and the different angle are congruent to other triangle, both triangles are considered congruent.

$$\triangle ABC \cong \triangle XYZ$$

- Two angles and a non-included side are congruent
  - $\angle A \cong \angle X$  (angle)
  - $\angle C \cong \angle Z$  (angle)
  - $AB \cong XY$  (side)
- Therefore, by the Angle Angle Side postulate (AAS), the triangles are congruent.