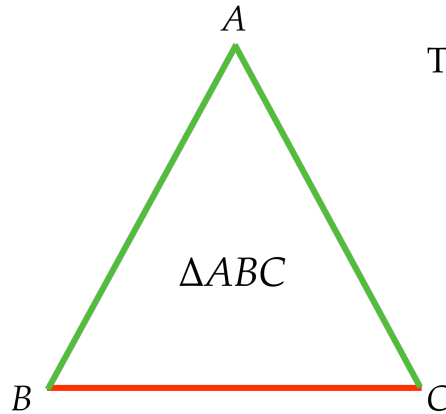


## Isosceles Triangle

A triangle with **two congruent sides**, called **legs**,  
and **two congruent angles**, called **base angles**.

The **legs** are the two  
congruent sides



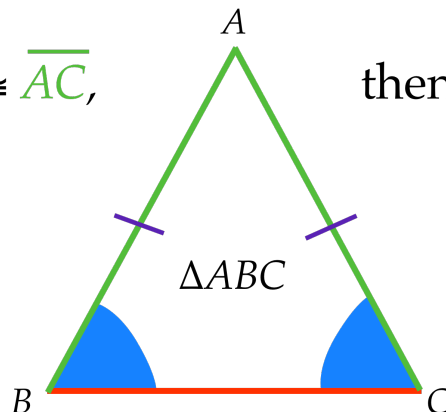
The **base angles** are the two  
congruent angles.

## Isosceles Triangle Theorem

If two sides of a triangle are congruent,  
then the angles opposite those sides are congruent.

If  $\overline{AB} \cong \overline{AC}$ ,

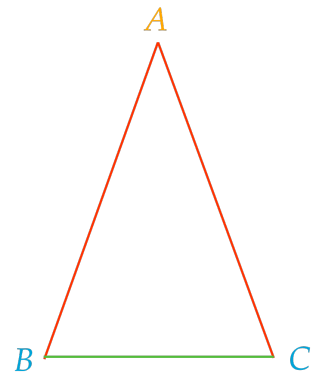
then  $\angle B \cong \angle C$



Statements	Reasons

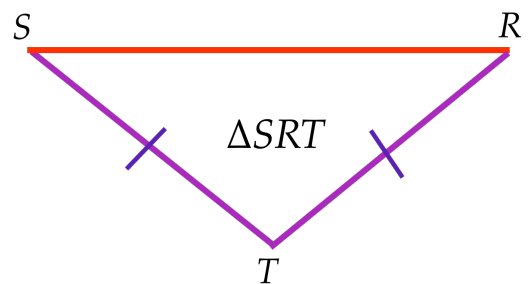
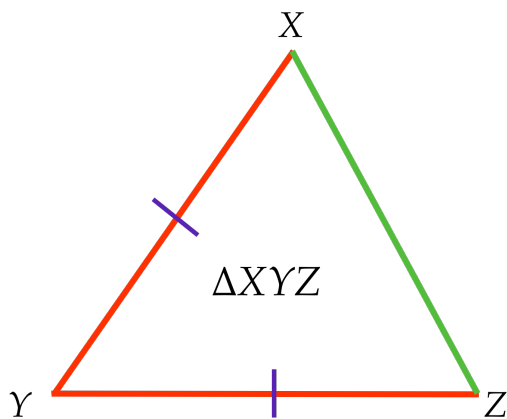
Given:  $\triangle ABC$   
 $\overline{AB} \cong \overline{AC}$

Prove:  $\angle B \cong \angle C$



## Isosceles Triangle Theorem

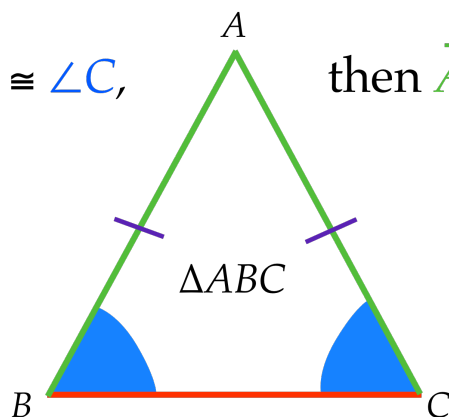
If two sides of a triangle are congruent,  
then the angles opposite those sides are congruent.



## Converse to Isosceles Triangle Theorem

If two angles of a triangle are congruent,  
then the sides opposite those angles are congruent.

If  $\angle B \cong \angle C$ , then  $\overline{AB} \cong \overline{AC}$

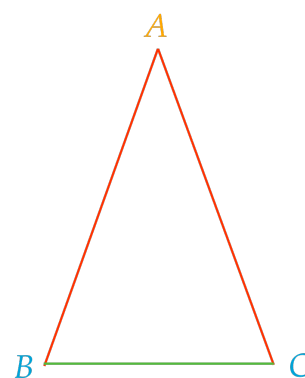


Statements	Reasons

Given:  $\triangle ABC$

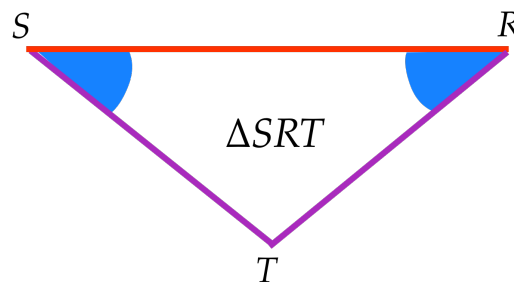
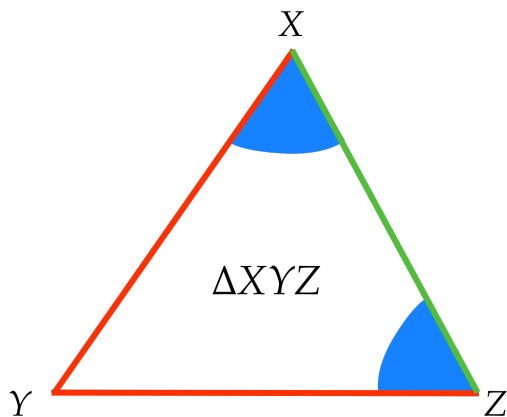
$\angle B \cong \angle C$

Prove:  $\overline{AB} \cong \overline{AC}$



## Converse to Isosceles Triangle Theorem

If two angles of a triangle are congruent,  
then the sides opposite those angles are congruent.



## Isosceles Triangle Theorem

If two sides of a triangle are congruent,  
then the angles opposite those sides are congruent.

If  $\overline{XY} \cong \overline{YZ}$ , then  $\angle X \cong \angle Z$

## Converse to Isosceles Triangle Theorem

If two angles of a triangle are congruent,  
then the sides opposite those angles are congruent.

If  $\angle X \cong \angle Z$ , then  $\overline{XY} \cong \overline{YZ}$