

# Unit #5 Fact Sheet

## Triangle Basics

### Triangles by Sides

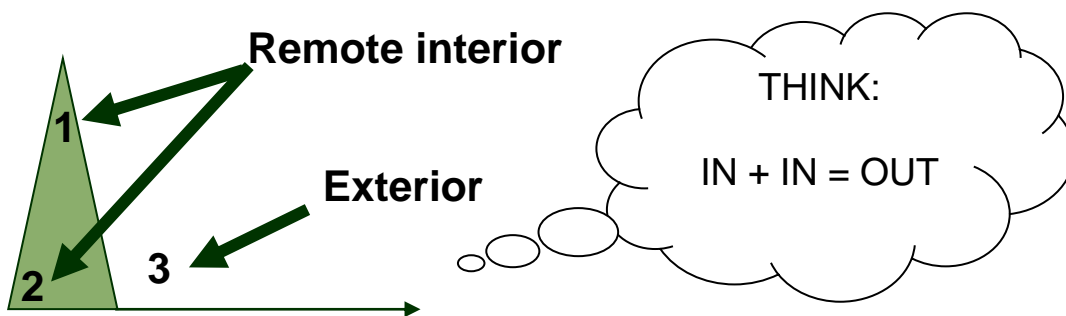
- Equilateral
- Isosceles
- Scalene

### Triangles by Angles

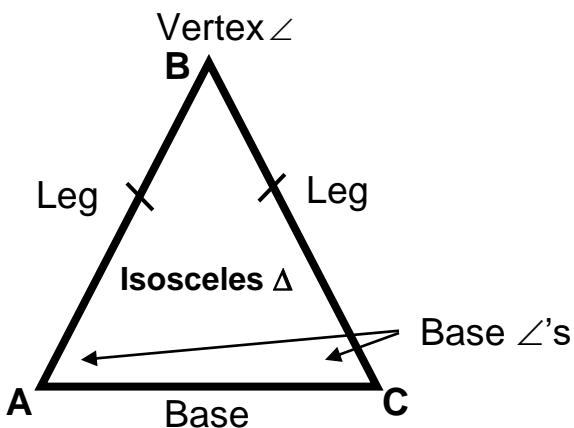
- Acute
- Right
- Obtuse
- Equiangular

### Triangle Theorems

- **Triangle Sum Theorem**: The sum of the measures of the angles of a triangle is  $180^\circ$ .
- **Exterior Angle Theorem**: The measure of an exterior angle of a triangle is equal to the sum of the measures of the two remote interior angles.



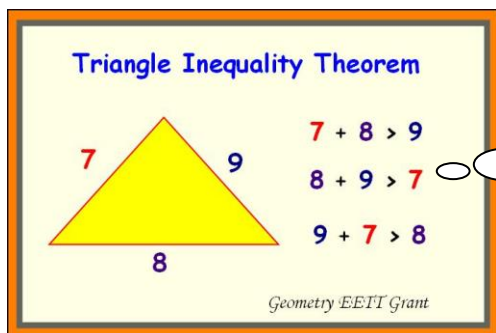
- **Isosceles  $\Delta$  Theorem**: If two sides of a  $\Delta$  are  $\cong$ , then the  $\angle$ 's opposite those sides are  $\cong$ .



If  $\overline{AB} \cong \overline{BC}$ , then  $\angle A \cong \angle C$   
If  $\angle A \cong \angle C$ , then  $\overline{AB} \cong \overline{BC}$

## Triangle Inequality Theorem:

Any side of a triangle is always shorter than the sum of the other two sides.



THINK:

short + short > LONG

## Other Triangle Facts

The largest side is opposite the *largest angle*, and the smallest side is opposite the *smallest angle*.

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## SPECIAL SEGMENTS IN TRIANGLES

<b>Angle Bisector</b>	
<b>Altitude</b>	
<b>Median</b>	
<b>Perpendicular Bisector</b>	