

## 4.1

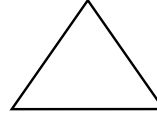
### Classifying Triangles

#### All Triangles

- 3 Sides
- 3 Corners (Vertices)
- 3 Angles (always Sum 180)

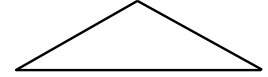
#### *Triangles that are classified by their ANGLES*

##### Acute



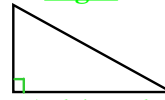
- All 3 Angles are less than 90.

##### Obtuse



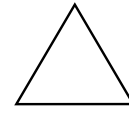
- One Angle is larger than 90.

##### Right



- One Angle is equal to 90

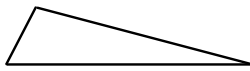
##### Equiangular



- "Equal Angles"  
- All Angles are 60

#### *Triangles that are classified by their SIDES*

##### Scalene



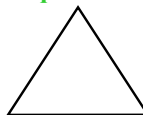
- all sides have different lengths

##### Isosceles



- At least two sides have the same length

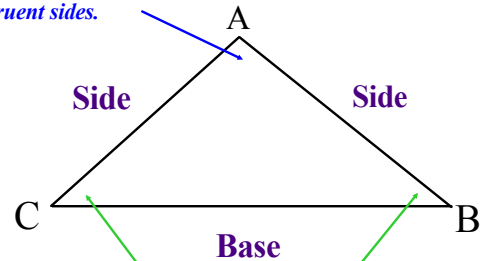
##### Equilateral



- All sides have the same length

### Isosceles Triangle

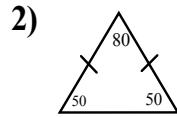
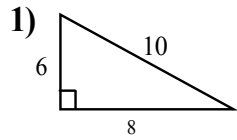
Vertex Angle (Angle A)  
The angle formed by the congruent sides.



Base Angle (Angles B & C)  
The two angles formed along the base

**Example 1**

Classify the following triangles by their angles and sides.



**Example 2**

Solve for  $x$ , then find the measure of  $TS$ .

