

## Properties of Triangles

### 1. Sum of Angles

- a. The sum of the angles of a triangle always equal  $180^\circ$ , therefore students should be able to find a missing measure when given the other 2 angle measurements.

### 2. Relationship Between Side Lengths and Angle Measures

- a. The angle opposite the longest side is the largest.
  - i. Also, the side opposite the largest angle is the longest.
- b. The angle opposite the shortest side is the smallest.
  - i. Also, the side opposite the smallest angle is the shortest.
- c. If two sides are congruent, the two angles are congruent as well.
  - i. If two angles are congruent, the two sides are congruent.

### 3. Lengths That Form a Triangle

- a. The sum of any 2 side lengths MUST be larger than the third side length in order to be a triangle.