

Triangle Information

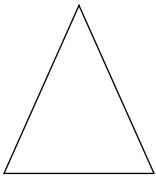
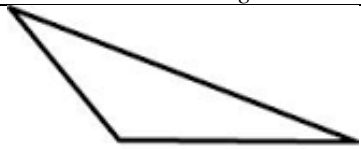
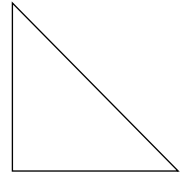
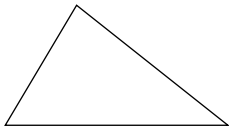
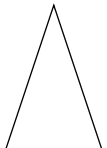
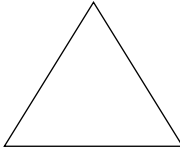
- **Triangle Side Lengths**

RULE: In order to form a triangle, the sum of the two shorter sides ALWAYS needs to be greater than the length of the long side.

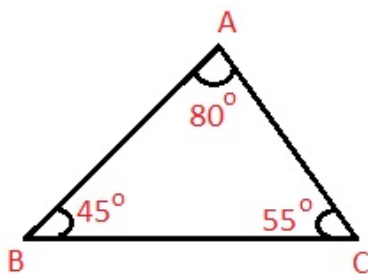
- **Triangle Angle Measures**

Classifying Triangles & Solving for Missing Angles

Triangles can be classified (ordered) by their angles and/or their sides.

Classified by Angle	Acute Triangle	Obtuse Triangle	Right Triangle
	<i>All acute angles</i>	<i>One obtuse angles</i>	<i>One right angle</i>
			
Classified by Side length	Scalene Triangle	Isosceles Triangle	Equilateral Triangle
	<i>No congruent sides</i>	<i>At least two sides are congruent</i>	<i>All sides are congruent</i>
			

Rule: The sum of the measures of the angles of a triangle is always 180° .

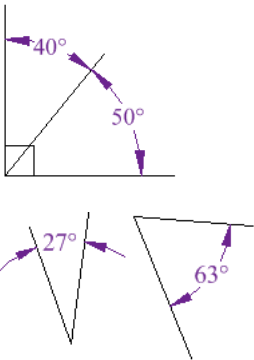
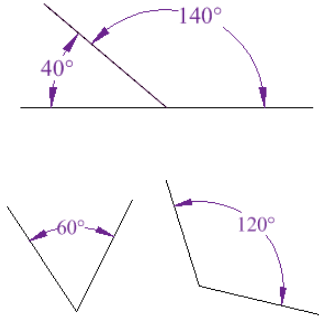
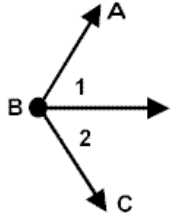
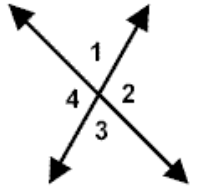


$$\angle A + \angle B + \angle C = 180$$

We can use this rule to solve for missing angles in a triangle. We do so by writing an algebraic equation and solving it out!

$$\underline{\underline{45 + 80 + 55 = 180}}$$

Types of Angles

Type of Angle	Definition	Examples
<p style="text-align: center;">Complementary Angles</p>	<p>Two angles that add up to 90 degrees</p> <ul style="list-style-type: none"> You can remember it by "C" for Corner 	
<p style="text-align: center;">Supplementary Angles</p>	<p>Two angles that add up to 180 degrees</p> <ul style="list-style-type: none"> You can remember it by "S" for Straight Line 	
<p style="text-align: center;">Adjacent Angles</p>	<p>Two angles are adjacent when they have a common side and a common point (corner point) and don't overlap.</p>	 <p style="text-align: center;">Angles 1 and 2 are adjacent</p>
<p style="text-align: center;">Vertical Angles</p>	<p>Vertical Angles are the angles opposite each other when two lines cross</p> <p>Vertical angles are always equal to each other</p>	 <p>Angles 1 and 3 are vertical angles Angles 2 and 4 are vertical angles</p>