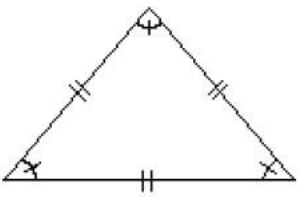
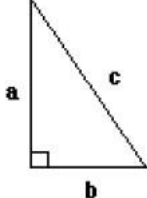
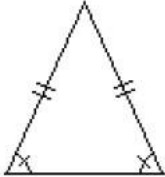
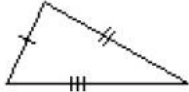


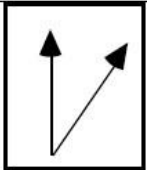
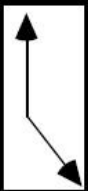
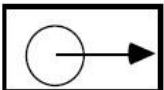
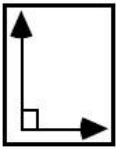
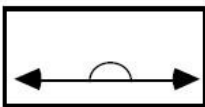
Triangles, Angles and Parallel Lines

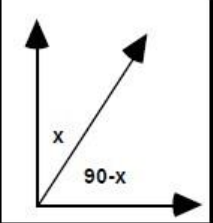
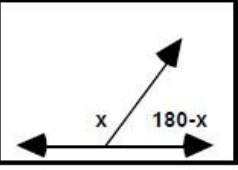
Types of Triangles

 <p><u>Equilateral or Equiangular</u></p> <p>a) all sides are the same length b) all inside angles have the same measure</p>	 <p><u>Right</u></p> <p>a) one of the angles measures 90° b) Pythagorean Thm: $a^2 + b^2 = c^2$</p>	 <p><u>Isosceles</u></p> <p>a) two sides are equal b) two angles have the same measure</p>	 <p><u>Scalene</u></p> <p>a) all three sides have different lengths b) all interior angles have different measure</p>
--	---	---	---

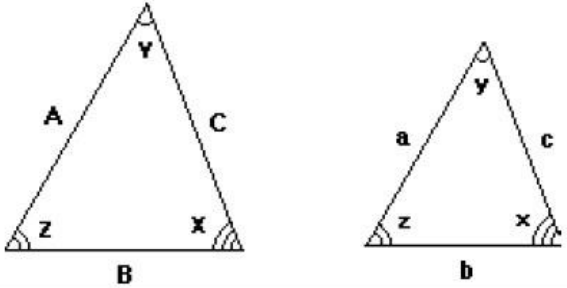
Rule for all triangles the sum of the interior angles is always 180 degrees

Types of angles

 <p><u>Acute</u> measures less than 90°</p>	 <p><u>Obtuse</u> measures more than 90° and less than 180°</p>	 <p><u>Circular</u> measures 360°</p>	 <p><u>Right</u> measures 90°</p>	 <p><u>Straight</u> measures 180°</p>
--	--	---	---	---

 <p><u>Complementary</u> two complementary angles have a sum of 90°</p>	 <p><u>Supplementary</u> two supplementary angles have a sum of 180°</p>
---	---

Similar Triangles



If two triangles are similar, the following ratios hold:

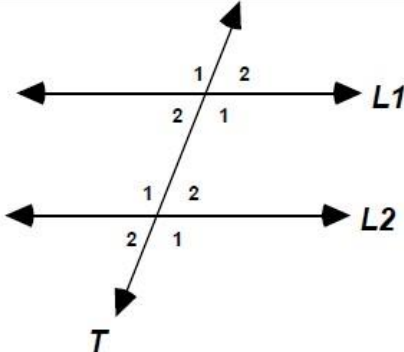
$$\frac{a}{A} = \frac{b}{B} = \frac{c}{C} \quad \text{or} \quad \frac{A}{a} = \frac{B}{b} = \frac{C}{c}$$

For similar triangles, corresponding angles have equal measure:

$$m\angle x = m\angle X, \quad m\angle y = m\angle Y, \quad m\angle z = m\angle Z$$

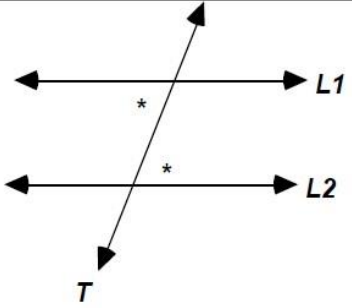
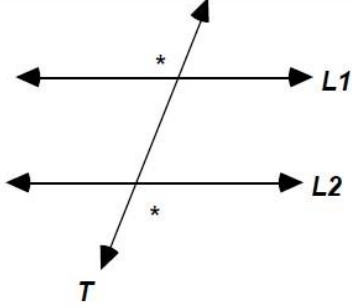
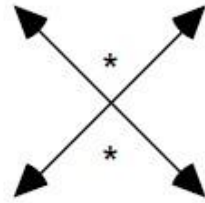
(Note: "m∠" means "measure of angle")

Parallel lines cut by a transversal



- I. All angles (#1's) have the same measure.
- II. All angles (#2's) have the same measure.
- III. Any angle 1 added to any angle 2 equals 180° (supplementary angles)

Types of Angles that are congruent (i.e. have equal measure)

 <p>"Alternate Interior" Angles</p>	 <p>"Alternate Exterior" Angles</p>	 <p>"Vertical" Angles</p>
---	--	---