

<b>Triangle</b>	A triangle is a figure formed by three segments joining three noncollinear points.
<b>Equilateral Triangle</b>	Equilateral Triangle: 3 congruent sides
<b>Isosceles Triangle</b>	Isosceles Triangle: Two or three congruent sides
<b>Scalene Triangle</b>	Scalene Triangle: No congruent sides
<b>Acute Triangle</b>	Acute Triangle: 3 acute angles
<b>Equiangular Triangle</b>	Equiangular Triangle: 3 congruent angles

<b>Right Triangle</b>	Right Triangle: 1 right angle
<b>Obtuse Triangle</b>	Obtuse Triangle: 1 obtuse angle
<b>Vertex</b>	Each of the three points joining the sides of a triangle is a vertex. The plural of vertex is "vertices."
<b>Adjacent Sides</b>	In a triangle, two sides sharing a common vertex are adjacent sides.
<b>Legs</b>	In a right triangle, the sides that form a right angle are called legs.
<b>Hypotenuse</b>	In a right triangle, the side opposite the right angle is the hypotenuse.

<b>Base</b>	When an isosceles triangle has only two congruent sides, they are known as the legs and the third side is called the base.
<b>Exterior Angles</b>	Exterior angles that are adjacent to the interior angles when the sides of a triangle are extended.
<b>Triangle Sum Theorem</b>	The sum of the measures of the interior angles of a triangle is $180^\circ$ .
<b>Exterior Angle Theorem</b>	The measure of the exterior angle of a triangle is equal to the sum of the two nonadjacent interior angles.
<b>Corollary</b>	A corollary to a theorem is a statement that can be proved easily using the theorem.
<b>Corollary to the Triangle Sum Theorem</b>	The acute angles of a right triangle are complementary.

<p><b>Two geometric figures are congruent if...?</b></p>	<p>Two geometric figures are congruent if they have the same size and shape.</p>
<p><b>When two figures are congruent, there is a correspondence between their angles and sides such that...?</b></p>	<p>When two figures are congruent, there is a correspondence between their angles and sides such that corresponding angles are congruent and corresponding sides are congruent.</p>
<p><b>Third Angles Theorem</b></p>	<p>If two angles of one triangle are congruent to two angles of another triangle, then the third angles are also congruent.</p>
<p><b>Properties of Congruent Triangles</b></p>	<p>Reflexive Property: Every triangle is congruent to itself.  Symmetric Property: If <math>\triangle ABC \cong \triangle DEF</math>, then <math>\triangle DEF \cong \triangle ABC</math>.  Transitive Property: If <math>\triangle ABC \cong \triangle DEF</math> and <math>\triangle DEF \cong \triangle JKL</math>, then <math>\triangle ABC \cong \triangle JKL</math>.</p>
<p><b>Side-Side-Side (SSS) Congruence Postulate</b></p>	<p>If three sides of a triangle are congruent to three sides of another triangle, then the two triangles are congruent.</p>
<p><b>Side-Angle-Side (SAS) Congruence Postulate</b></p>	<p>If two sides and the included angle of one triangle are congruent to two sides and the included angle of another triangle, then the two triangles are congruent.</p>

<b>Angle-Angle-Side (AAS) Congruence Theorem</b>	If two angles and a nonincluded side of one triangle are congruent to two angles and the corresponding nonincluded side of another triangle, then the two triangles are congruent.
<b>Base Angles</b>	In an isosceles triangle, the two angles adjacent to the base are called the base angles.
<b>Vertex Angle</b>	The angle opposite the base is the vertex angle.
<b>Base Angles Theorem</b>	If two sides of a triangle are congruent, then the angles opposite them are congruent.
<b>Converse of the Base Angles Theorem</b>	If two angles of a triangle are congruent, then the sides opposite them are congruent.
<b>Corollaries</b>	If a triangle is equilateral, then it is equiangular. If a triangle is equiangular, then it is equilateral.

**Hypotenuse-Leg (HL)  
Congruence Theorem**

If the hypotenuse and a leg of a right triangle are congruent to the hypotenuse and leg of another right triangle, then the two triangles are congruent.