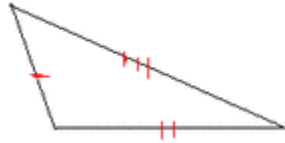


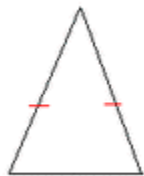
Types of triangles based on their sides

1. Scalene triangle



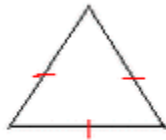
A scalene triangle is a triangle that has no equal sides. The following is a scalene triangle.

2. Isosceles triangle



An isosceles triangle is a triangle that has two equal sides. The following is an isosceles triangle.

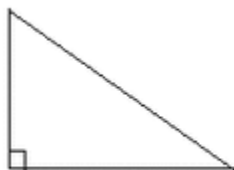
3. Equilateral triangle



An equilateral triangle is a triangle that has three equal sides. The following is an equilateral triangle.

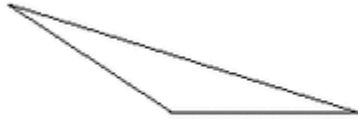
Triangles based on their angles

1. Right angle triangle



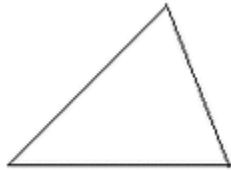
A right triangle has a 90 degrees angle. The following is a right triangle.

2. Obtuse angle triangle



An obtuse triangle has one angle that is bigger than 90 degrees (Obtuse angle). The following is an obtuse triangle.

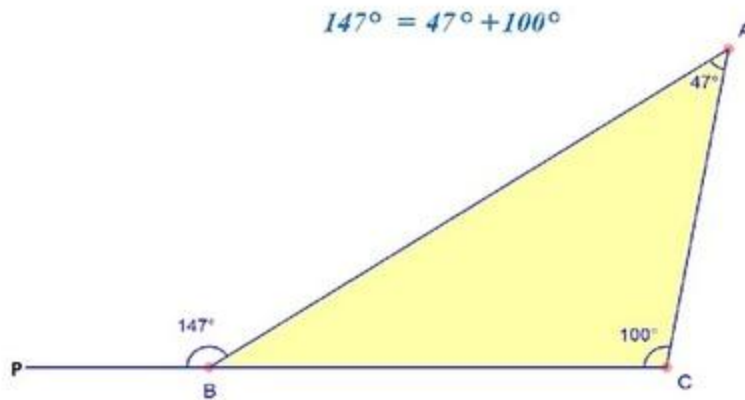
3. Acute angle triangle



In an acute triangle, all angle are less than 90 degrees, so all angles are acute angles. The following is an acute triangle.

Properties of a triangle

1. Exterior angle of a triangle and it's property



An exterior angle of a triangle is equal to the sum of the opposite interior angles. In the figure above the exterior angle $\angle ABP$ is equal to the sum of the angles $\angle BAC$ and $\angle ACB$.

Angle sum property

The sum of all the three angles of a triangles add up to 180 degrees.

Sum of lengths of 2 sides of a triangle

The sum of any 2 sides of a triangle must exceed the length of the the third side of the triangle.

Things to remember...

- The six elements of a triangle are its three angles and the three sides.
-
- An exterior angle of a triangle is formed when a side of a triangle is produced. At each vertex, you have two ways of forming an exterior angle.
-
- A property of exterior angles: The measure of any exterior angle of a triangle is equal to the sum of the measures of its interior opposite angles.
-
- The angle sum property of a triangle: The total measure of the three angles of a triangle is 180° .
-

- Property of the lengths of sides of a triangle: The sum of the lengths of any two sides of a triangle is greater than the length of the third side. The difference between the lengths of any two sides is smaller than the length of the third side.