# Triangles

- Two figures are congruent, If they are of same shape & size.

- Two circle of same radii & two square of same sides are congruent.

- If 2 $\triangle ABC$ & $\triangle PQR$ are congruent under the correspondence $A \leftrightarrow P$, $B \leftrightarrow Q$ & $C \leftrightarrow R$, then it expressed as $\triangle ABC \cong \triangle PQR$.

- If 2 sides and included angle of one triangle are equal to 2 sides & included angle of other triangle, then 2 triangles are congruent. (SAS).

- If 2 angle & included side of one triangle are equal to 2 angle & included side of other triangle, then 2 triangles are congruent (ASA).

- Angle [angle of triangle] opposite to equal sides of triangle are equal.

- Side opposite to equal angle of triangle are equal.

- Each angle of equilateral triangle is $60°$

- If 3 sides of one triangle are equal to 3 sides of other triangle, then 2 triangles are congruent.

(SSS Congruence rule).

- If 2 right angle triangle, hypotenuse & one side of triangle are equal to hypotenuse & other side of triangle then 2 triangles are congruent (RHS).

- In a triangle, angle opposite to longer side is larger.

In a triangle, side opposite to larger angle is longer.

- Sum of any 2 sides of triangle is greater than third side.