

## Geometry Important theorems and results:

- The triangles  $ABC$  and  $PQR$  are similar can be written as  $\Delta ABC \sim \Delta PQR$
- A pair of equiangular triangles is similar.
- If two triangles are similar, then they are equiangular.
- If we change exactly one of the four given lengths, then we can make these triangles similar.
- If  $C_1, C_2, \dots$  are points on the circle, then all the triangles  $\Delta BAC_1, \Delta BAC_2, \dots$  are with same base and the same vertical angle .
- In a right angled triangle, the side opposite to  $90^\circ$  (the right angle) is called the hypotenuse.
- The other two sides are called legs of the right angled triangle.
- The hypotenuse will be the longest side of the triangle.
- In India, Pythagoras Theorem is also referred as “Baudhyana Theorem”.
- The word “tangent” comes from the Latin word “tangere” which means “to touch” and was introduced by Danish mathematician, ‘Thomas Fineko’ in 1583.
- If a line touches the given circle at only one point, then it is called **tangent to the circle.**