

## In Geometry some results on circles and tangents:-

1. A tangent at any point on a circle and the radius through the point are perpendicular to each other.
2. (a) No tangent can be drawn from an interior point of the circle.  
(b) Only one tangent can be drawn at any point on a circle.  
(c) Two tangents can be drawn from any exterior point of a circle.
3. The lengths of the two tangents drawn from an exterior point to a circle are equal.
4. If two circles touch externally the distance between their centers is equal to the sum of their radii.
5. If two circles touch internally, the distance between their centers is equal to the difference of their radii.
6. The two direct common tangents drawn to the circles are equal in length.
7. If a line touches a circle and from the point of contact a chord is drawn, the angles between the tangent and the chord are respectively equal to the angles in the corresponding alternate segments.

