NCERT Mathematics Class 10 Exemplar Ch 9 Circles Part 3

EXERCISE 9.2

1. If a chord AB subtends an angle of 60° at the centre of a circle, then angle between the tangents at A and B is also 60°.

Answer: False

2. The length of tangent from an external point on a circle is always greater than the radius of the circle.

Answer: False

3. The length of tangent from an external point P on a circle with centre O is always less than OP.

Answer: True

4. The angle between two tangents to a circle may be 0°.

Answer: True

5. If angle between two tangents drawn from a point P to a circle of radius a and centre O is 90°, then $OP = a\sqrt{2}$.

Answer: True

6. If angle between two tangents drawn from a point P to a circle of radius a and centre O is 60° , then $OP = a\sqrt{3}$.

Answer: False

7. The tangent to the circumcircle of an isosceles triangle ABC at A, in which $AB = AC$, is parallel to BC.

Answer: True

8. If a number of circles touch a given line segment PQ at a point A, then their centres lie on the perpendicular bisector of PQ.

Answer: False

9. If a number of circles pass through the end points P and Q of a line segment PQ, then their centres lie on the perpendicular bisector of PQ.

Answer: True

10. AB is a diameter of a circle and AC is its chord such that $\angle BAC = 30^\circ$. If the tangent at C intersects AB extended at D, then $BC = BD$.

Answer: True