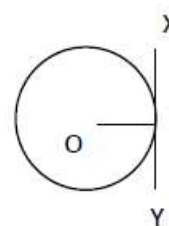


UNIT-7: CIRCLES

1. The line segment that intersects the circle at only one point is _____

OR

In figure O is the centre of circle, XY is _____



2. The angle between, the radius drawn at the point of contact & the tangent is _____

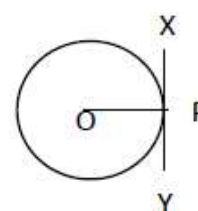
OR

The measure of angle between the tangent and the radius drawn at the point of contact is _____

OR

In figure O is the centre of the circle,

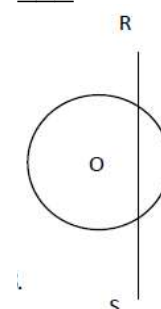
XY is the tangent then $\angle OPX =$ _____



3. The line segment that intersects the circle at two distinct points is _____

OR

In figure O is the centre of the circle, RS is _____



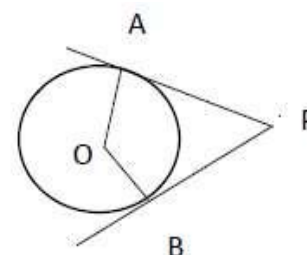
4. The length of the tangents drawn from an external point are _____

OR

PA and PB are the tangents drawn to a circle of centre O, then PA and PB are _____

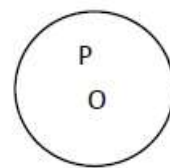
OR

In the figure PA and PB are the tangents drawn from an external point P, O is the centre of the circle, then PA and PB are _____



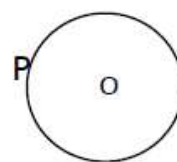
5. The maximum number of tangents that can be drawn to a circle from a point inside the circle is ____ OR

In figure 'o' is the centre of the circle, the maximum number of tangents that can be drawn from the point 'P' is ____



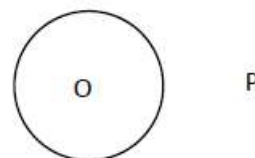
6. The maximum number of tangents that can be drawn to a circle from a point on the circle is ____ OR

In figure O is the centre of the circle, the maximum number of tangents that can be drawn from P is ____



7. The maximum number of tangents that can be drawn from an external point to a circle is ____ OR

In figure O is the centre of the circle, the maximum number of tangents that can be drawn from P is ____



8. Prove that, the angle between the two tangents drawn from an external point to a circle is supplementary to the angle subtended by the line segment joining the points of contact at the centre.

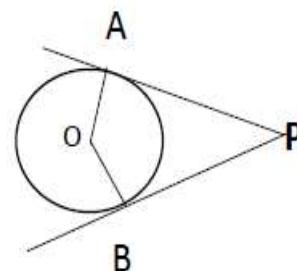
OR

Prove that, the sum of the angle between the two tangents drawn from an external point to a circle and the angle subtended by the line segment joining the points of contact at the centre is 180° .

OR

In figure 'o' is the centre of the circle, PA and PB are the tangents drawn from an external point P.

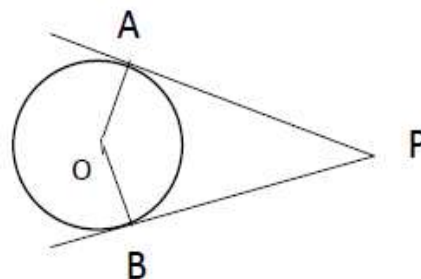
Prove that $\angle APB + \angle AOB = 180^\circ$



9. Prove that the tangents drawn from an external point are equal.

OR

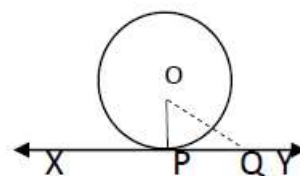
In the adjoining figure O is the centre of the circle, P is an external point. Prove that $PA = PB$.



10. Prove that the radius drawn at the point of contact is perpendicular to the tangent. OR

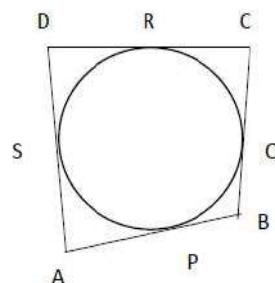
Prove that the radius is the shortest distance from the centre to a tangent. OR

In figure O is the centre of the circle, P is the point of contact, XY is the tangent. Prove that $OP \perp XY$.



11. A quadrilateral ABCD is drawn to circumscribe a circle. Prove that $AB + CD = AD + BC$. OR

If a quadrilateral is drawn to circumscribe a circle, then prove that the sum of its opposite sides are equal.



12. Prove that in two concentric circles, the chord of the larger circle, which touches the smaller circle, is bisected at the point of contact. OR

In figure 'O' is the centre of the circle. Prove that $PA = PB$

