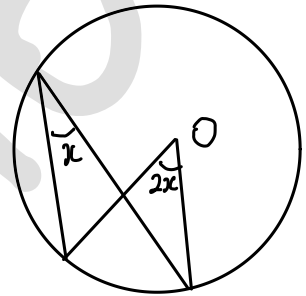
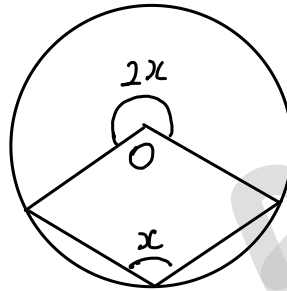
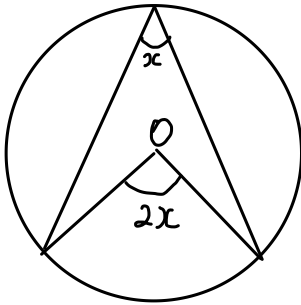


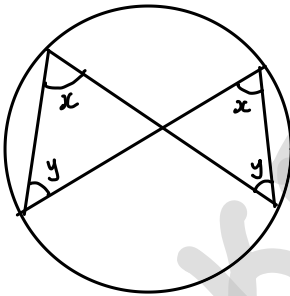
Properties of Circles

1) \angle at centre = $2\angle$ at circumference

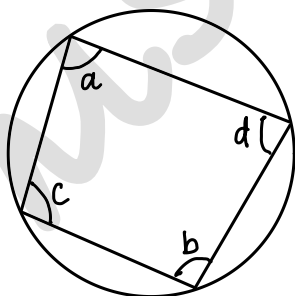


O is centre of circle.

2) \angle s in the same segment

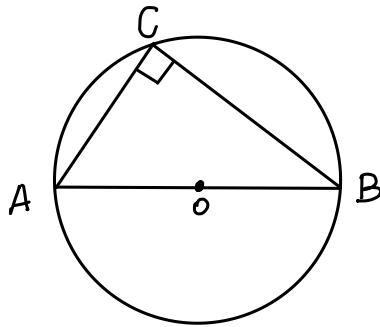


3) \angle s in the opp. segment

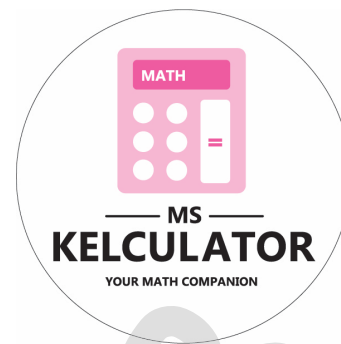


$$\angle a + \angle b = 180^\circ$$
$$\angle c + \angle d = 180^\circ$$

4) Right \angle in semicircle

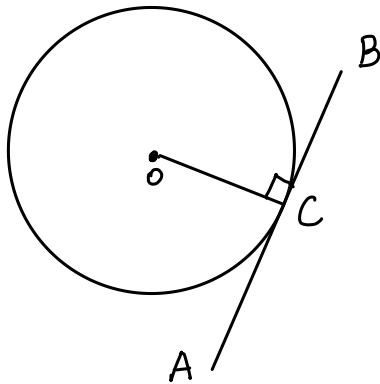


$$\angle ACB = 90^\circ$$



O is the centre of circle.
AB is the diameter of circle.

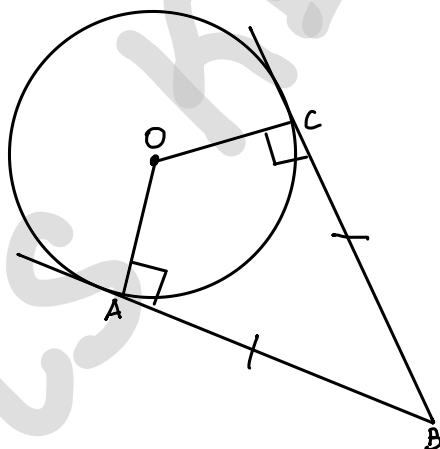
5) Tangent \perp Radius



$$\angle OCB = 90^\circ$$

O is the centre of circle.
AB is the tangent of circle.

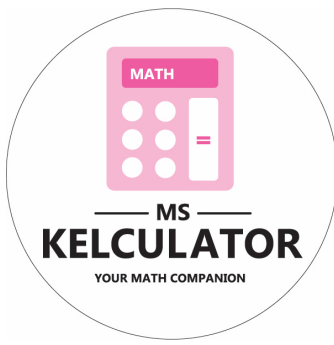
6) Equal tangent from external point



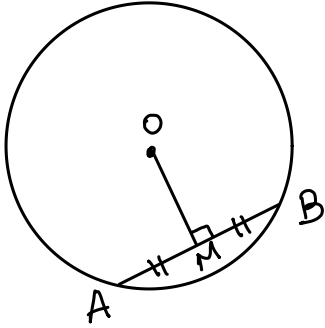
$$AB = BC$$

$$\angle OAB = \angle OCB = 90^\circ$$

O is the centre of circle.
AB and BC are the tangent of circle.



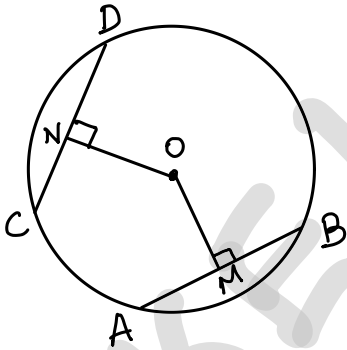
7) \perp bisector of chord



O is the centre of circle.
AB is the chord.

- If $AM = MB$, then $\angle OBM = 90^\circ$
- If $\angle OBM = 90^\circ$, then $AM = MB$.

8) Equal Chords



O is the centre of circle.
AB is the chord.
CD is the chord.

Equal Chord

• If $AB = CD$, then $OM = ON$.

• If $OM = ON$, then $AB = CD$.

Equal Chord