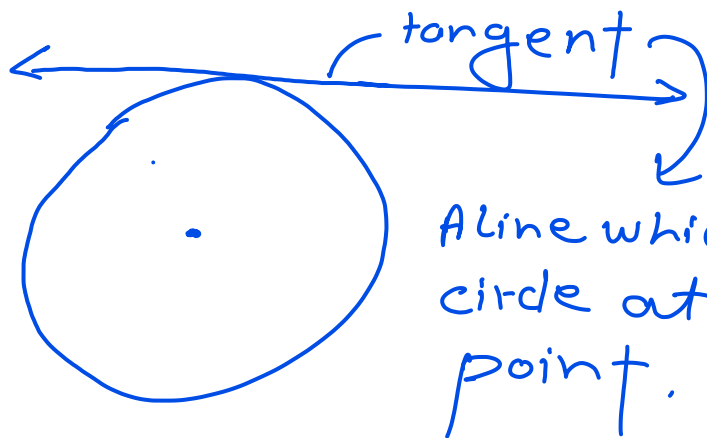
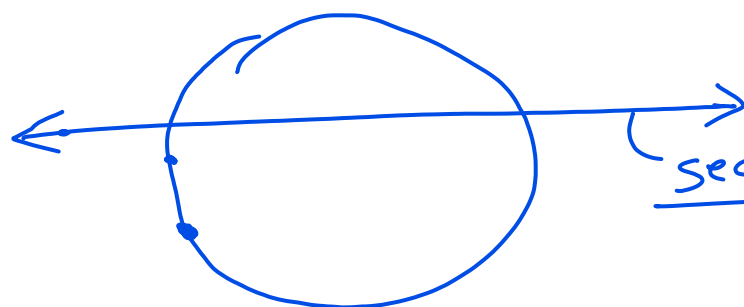


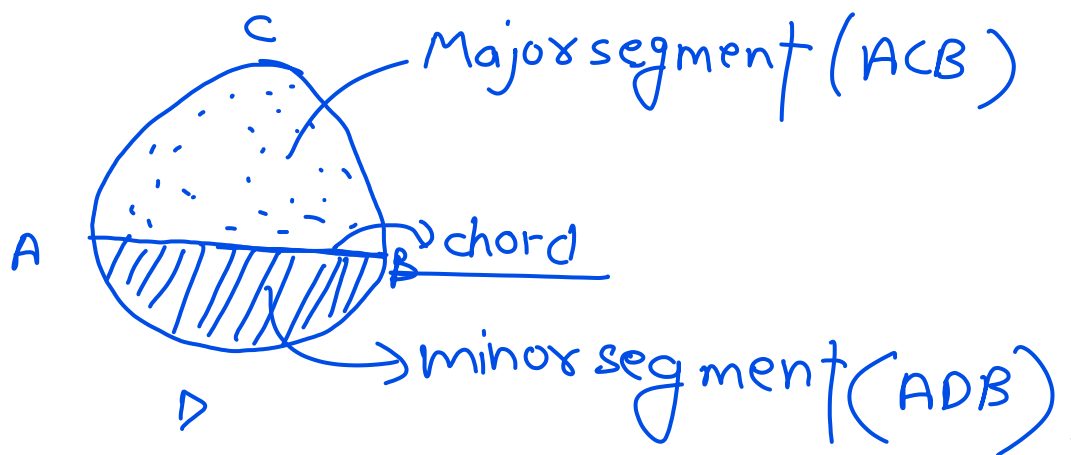
# Chapter 10 • Circle



A line which cut the circle at one point.



"  
A line which cut the circle in two point"  
✓



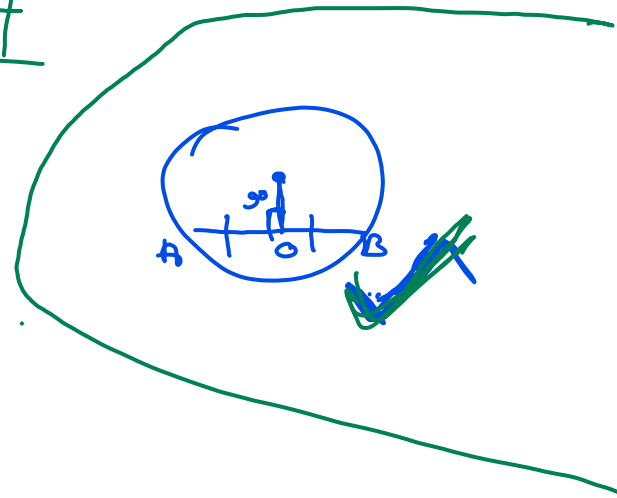
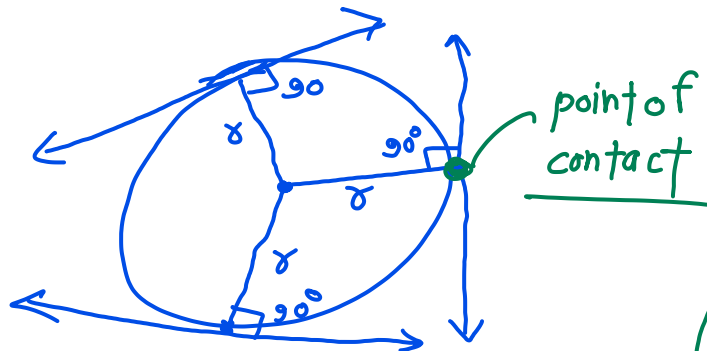


$ACB$  - Minor arc.

$AQB \rightarrow$  Major arc.

\_\_\_\_\_ X

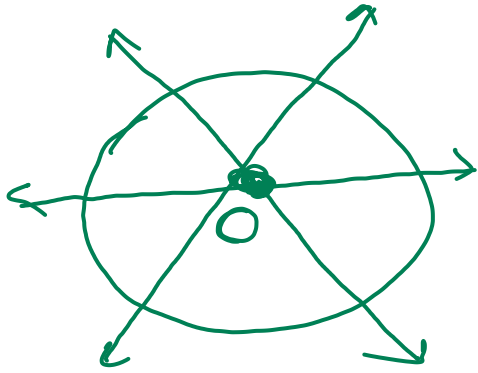
Thrm<sup>o</sup> 1  $\rightarrow$



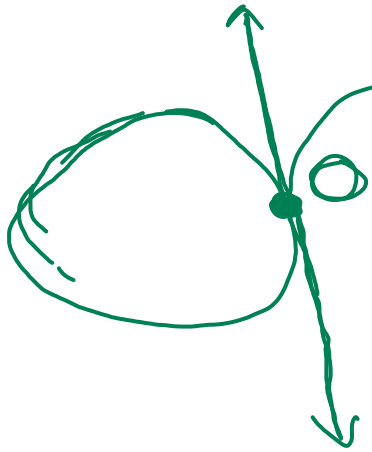
"The tangent at any point of a circle is perpendicular to the radius of a circle."

# ⊛ Number of tangent from a point on a Circle

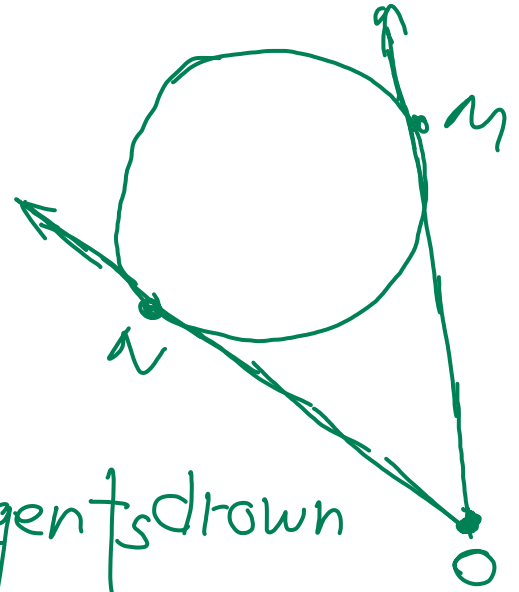
Case I : 0



Case II = 1



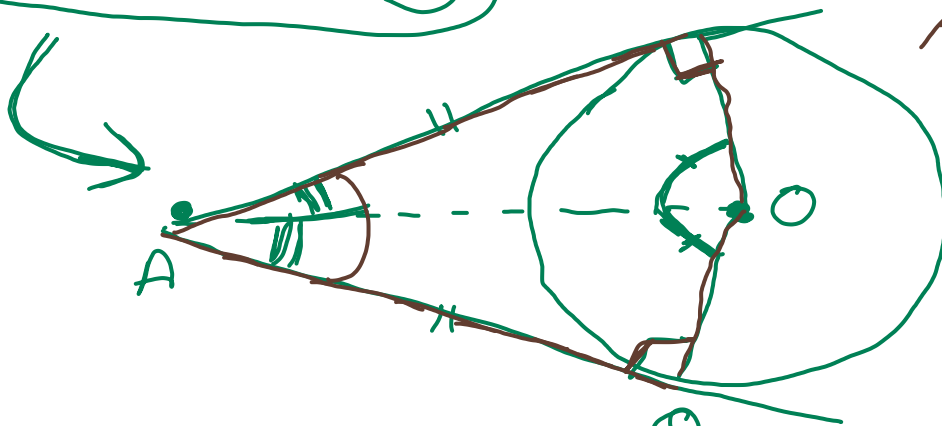
Case III =



Thm 2 → The length of tangents drawn from an external point of a circle are equal.

$\angle PAO = \angle QAO$

also  $\angle AOP = \angle AOQ$



$\boxed{AP = AQ}$   
(C.P.C.T)

$90 + 90 + \angle PAQ + \angle POQ = 360$   
 $\Rightarrow \angle PAQ + \angle POQ = 180^\circ$

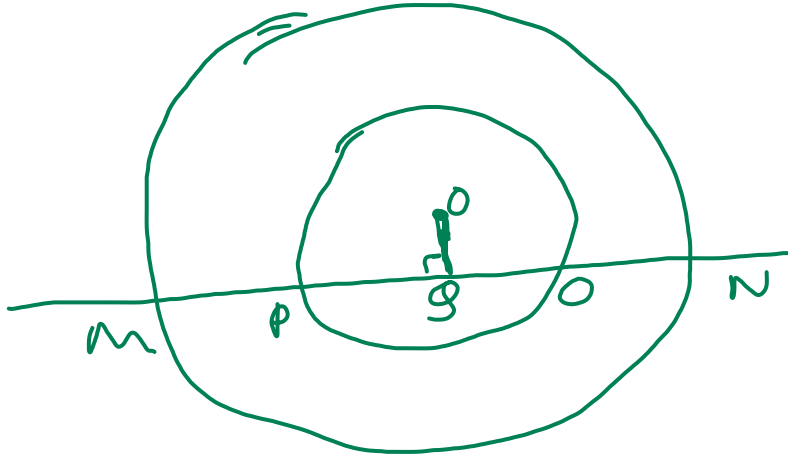
$\triangle PAO \cong \triangle PQO$

- $OP = OQ = r$
- $OA = OA = (\text{common})$
- $\angle APO = \angle AQO = 90^\circ$

$\Rightarrow$  by RHS

$\Rightarrow \boxed{\triangle PAO \cong \triangle PQO}$

# Concentric Circle



$$\Rightarrow MQ = QN \text{ (---)}$$

$$PQ = OQ \text{ (---)}$$

$$MQ - PQ = QN - OQ$$

$$\Rightarrow \boxed{MP = ON}$$

