

Circle (Study Notes)

class - 10th
CBSE BOARD-2024

(1)

Syllabus

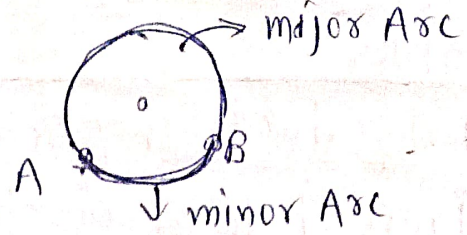
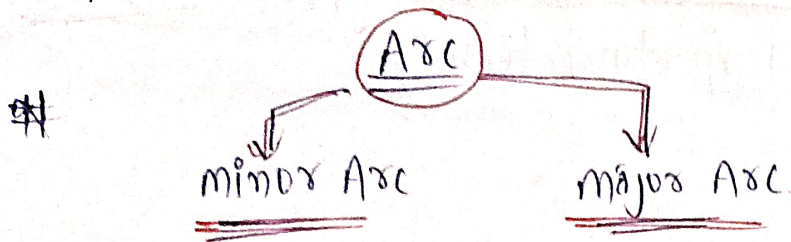
- # Introduction (some Important terms)
- # Tangent to a circle
- # properties of Tangents
- # Number of Tangents from a point on a circle.
- # Important Results Related to tangent to a circle.

Lecture-1.

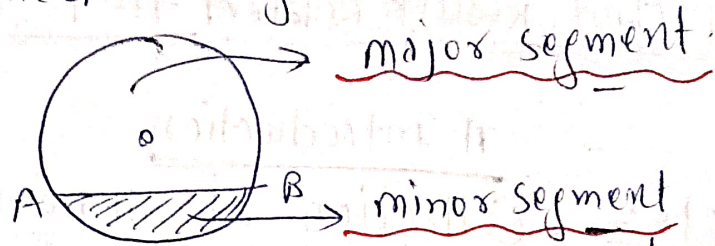
Introduction

- # circle:- Collection of all points in a plane which are at a constant distance from a fixed point is called circle.
- # centre:- The fixed point in a circle is called centre of the circle.
- # Radius:- The distance between centre of the circle to the boundary is called Radius.
Denoted by R.
- # Diameter:- Double the Radius is called diameter.
- # circumference:- total length of the boundary is called circumference.
- Circumference = $2\pi r$
- # chord:- A line segment joining any two points on the circumference of the circle is called chord.
⇒ Diameter is the longest chord of the circle.
- # Semi-circle:- Half of the circle is called semi-circle.

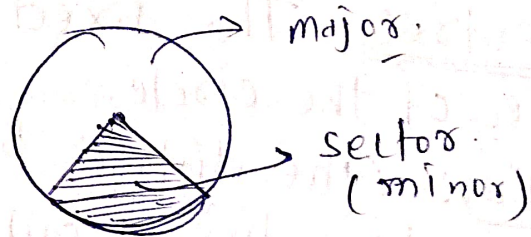
Arc:- A continuous piece of a circle between two points is called an arc.



Segment:- The region between a chord and either of its arcs is called a segment of the circular region.

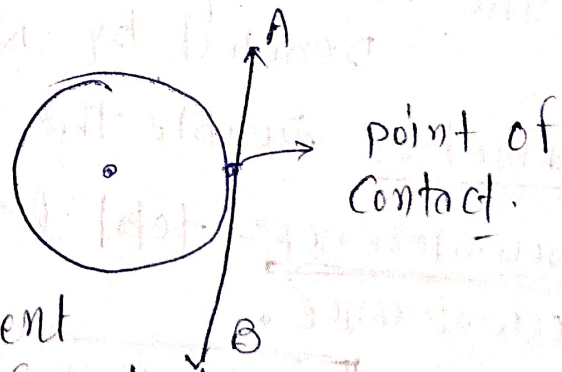


Sector:- The region between an arc and the two radii joining the ends of the arc to the centre is called sector.

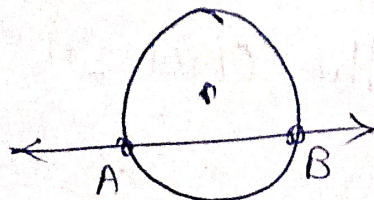


Tangent to a circle

⇒ A line 'AB' passes through one point of a circle is called tangent. At the point where tangent meet is called point of contact.



⇒ when a line to circle passes through two point on the circle, is called secant.



AB is secant