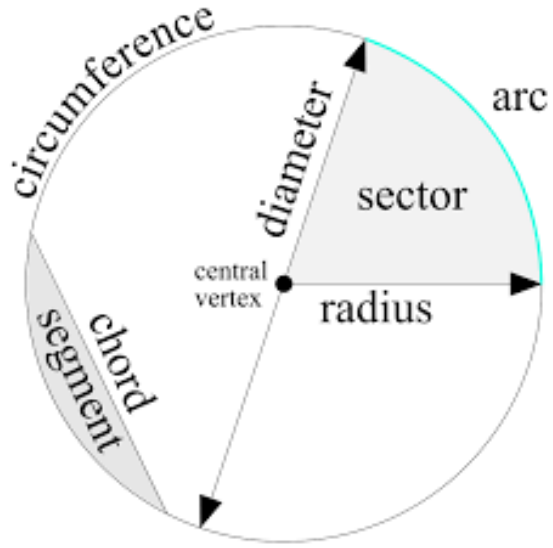
CLASS	**VI**
SUBJECT	**MATHEMATICS**
TOPIC	**BASIC GEOMETRICAL IDEAS**
SUB TOPIC	**CIRCLES**
NO OF SESSIONS	**1**



Definition:

CIRCLE is a simple closed curve. It is a set of all the points in a plane whose distance from a fixed point remains unchanged or constant.

CIRCLE is also defined as a path of a point in a plane which remains at the same distant from a fixed point.

Parts of a Circle:

CENTRE: It is a fixed point in the interior of the circle. All the points on the boundary of a circle are at the same distance from this point. This fixed point is known as the CENTRE of the circle.

CIRCUMFERENCE: The boundary of a circle is known as circumference of a circle.

ARC: Portion or part of the circumference of circle is called an ARC.

RADIUS: Distance between any point on the circumference and centre is known as RADIUS of a circle.

RADII: It is the plural of Radius

DIAMETER: A line segment with end points on the circumference of a circle which passes through the centre is known as DIAMETER of the circle. Diameter is double of the radius.

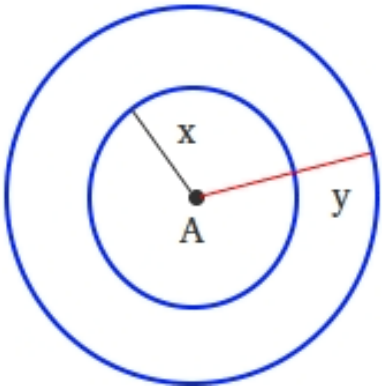
CHORD: Line segment with end points on the circumference of a circle. Diameter is the longest chord which passes through the centre of the circle.

SECTOR: Part of a circle enclosed by a pair of radii and an arc is known as sector of a circle.

SEGMENT: Part of a circle consists of chord and an arc is known as segment of a circle.

Note: Semicircle is a special case which is a SECTOR as well as SEGMENT of a circle

INTERIOR OF A CIRCLE: Part of a plane inside the boundary of the circle is called the interior region of a circle.



CONCENTRIC CIRCLES: Two or more circles with same Center are called Concentric Circles. In above figure, two Circles are concentric with radius x and y with common center A.

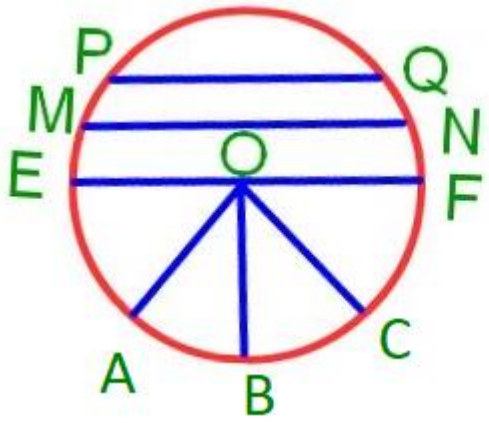
Assignment:

1. Fill in the blanks:
    i. The diameter of a circle is _____ times its radius.
    ii. The diameter of a circle is the _____ chord of the circle.
    iii. The diameter of a circle passes through _____.
    iv. A chord of a circle is the line segments with its end points on the _____.
    v. A radius of a circle is a line segment with one end point at _____ and the other end point at _____.
    vi. If we join any two points on the circle with line segment, we obtain _____ of the circle.
    vii. Two or more circles with the same centre are called _____ circles.
    viii. All the radii of a circle are _____.

ix. The diameter of a circle is _____ of the radius

x. The total number of a diameter in a circle are _____

2. Refer to the below figure to answer the questions:



i. O is …….. of the Circle

ii. OF, OE, OA, OB, OC are …….. of the circle

iii. EF is ……. of the circle

iv. Mention all the chords in the above diagram

v. Portion enclosed by radii OA, OB and arc AB is known as …….

vi. Portion enclosed by chord MN and arc MN is known as ……

vii. EF = OE + ……. = 2 x ……..

Homework : EX-4.6