**Circles**

A circle is such a closed curve whose every point is equidistant from a fixed point called its center.

**The symbol of circle is O**.

**Parts of a Circle:**

**(i) Center:**

The *center* of a circle is a fixed point within the circle from which all the points of the closing curve are equidistant.

**O** is the centre.

**(ii) Circumference:**

The curve which closes a circle is called its circumference. The length of the *circumference* is called the length of the circle.



**(iii) Radius:**

The distance from the centre to any point on the circumference of a circle is called the *radius* of the circle. The symbol of the radius is ***r***.

**(iv) Diameter:**

The line-segment passing through the centre and meeting the points on the circumference is called the diameter of the circle. Diameter is denoted by '***D***'.
***AB*** is a diameter of the circle.

***Diameter is twice the length of the radius concerned***.

Thus, **D = 2r** [**Diameter = 2radius**]

or

**r = D/2** [**Radius = Diameter/2**]

**(v) Arc:**

Any part of the circumference is called an arc of the circle.

**(vi) Chord:**

The line-segment joining the two ends of an arc is known as a chord. A diameter is the longest chord of a circle.
Here,

**O** is the *centre.*

**OP** is one *radius.*

**AB** is a *diameter.*

**MN** is a *chord .* (**line-segment**)

**OA** and OB are also *radii.*