

RD SHARMA

Solutions

Class 6 Maths

Chapter 14

Ex 14.1

Solution-01:-

(i) Circle:-

A circle is the set of all those points in a plane whose distance from a fixed point remains constant.

(ii) Radius:-

The constant distance is known as the Radius of the circle

→ it is denoted by 'r'

(iii) Centre:-

→ It is a fixed point inside the circle

→ It is denoted by C (or) O etc.

(iv) Diameter:-

A line segment passing through the centre of a circle, and having its end points on the circle, is called diameter of the circle.

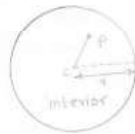
(v) Chord:-

A line segment with its end-points lying on a circle is called a chord of the circle.

(vi) Interior of a circle:-

A point P lies inside a circle if and only if its distance from the centre of the circle is less than the radius of the circle.

In the adjoining figure, $CP < r$, so P lies inside a circle with centre C and radius r.



The set of all points P of the plane such that $CP < r$ from the interior of the circle.

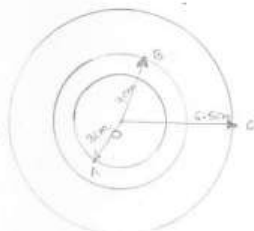
Solution-02.

we have,

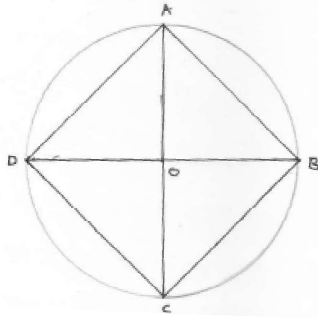
$$OA = 3 \text{ cm}$$

$$OB = 4 \text{ cm}$$

$$\text{and } OC = 6.5 \text{ cm.}$$



Solution - 03.



Solution-04:-

(i) $OQ < 5\text{ cm}$

(ii) $OP = 5\text{ cm}$

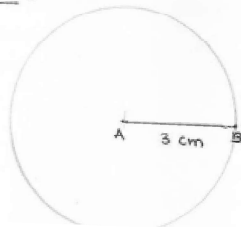
(iii) $OR > 5\text{ cm}$

[Q Lies interior]

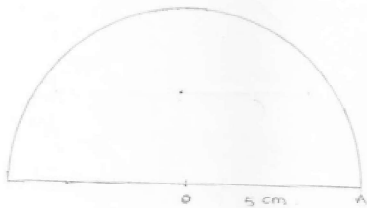
[P Lies on the circle]

[R Lies exterior of
the circle]

Solution-05:-



Solution-06:-



Radius $OA = 5\text{ cm}$

→ No, The diameter determines the semicircle, apart
of the semicircle.

Solution-07:-

we have,

Diameter of a circle = 14cm

we know that,

$$\text{Diameter} = 2 \times \text{Radius}$$

$$\text{Radius} = \frac{D}{2}$$

$$= \frac{14}{2}$$

$$\therefore \text{Radius} = 7\text{cm.}$$

Solution-08:-

we have.

$$\text{Radius} = 2.5\text{cm}$$

Length of the Longest chord of the circle

$$= 2 \times \text{radius}$$

$$= 5\text{cm}$$

[\because Diameter is the Longest chord of the circle and Diameter = $2 \times$ Radius].

Solution-09:-

- (i) Two
- (ii) Longest
- (iii) its centre
- (iv) circle
- (v) chord
- (vi) centre, circle
- (vii) equal
- (viii) concurrent
- (ix) infinite
- (x) equidistant
- (xi) two
- (xii) chord
- (xiii) same centre

Solution-10:-

- (i) True
- (ii) False
- (iii) False
- (iv) False
- (v) True
- (vi) True
- (vii) False
- (viii) False
- (ix) True.