

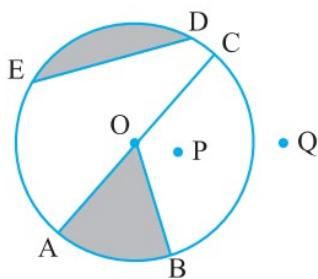


CLASS NOTES-ANSWERS

EXERCISE 4.6

1. From the figure, identify:

- | | |
|--------------------------------|-----------------------------|
| (a) the centre of circle | (b) three radii |
| (c) a diameter | (d) a chord |
| (e) two points in the interior | (f) a point in the exterior |
| (g) a sector | (h) a segment |



Answer:

- The centre of the circle is O.
 - The three radii of the circle are OC, OA and OB.
 - The diameter of the circle is AC.
 - The chord of the circle is ED.
 - Two points in the interior of the circle are O and P.
 - A point in the exterior of the circle is Q.
 - A sector in the circle is sector OBC.
 - A segment in the circle is ESDE.
2. (a) Is every diameter of a circle also a chord?
- (b) Is every chord of a circle also a diameter?



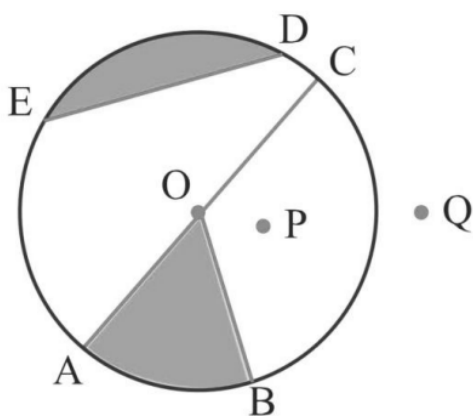
Answer:

- (a) Every diameter of a circle is also a chord. In fact, diameter is the longest chord of a circle.
- (b) No, every chord of a circle is not a diameter as every chord doesn't pass through the centre of a circle.

3. Draw any circle and mark

- | | |
|-----------------------------|-----------------------------|
| (a) its centre | (b) a radius |
| (c) a diameter | (d) a sector |
| (e) a segment | (f) a point in its interior |
| (g) a point in its exterior | (h) an arc |

Answer:



- (a) The centre of the circle is O.
- (b) The radius of the circle is OC.
- (c) The diameter of the circle is CA.
- (d) A sector of the circle is OBA.
- (e) A segment of the circle is DE.
- (f) A point in the interior of the circle is P.



- (g) A point in the exterior of the circle is Q.
(h) An arc of the circle is AB.

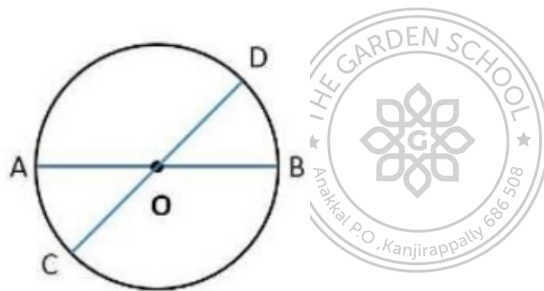
4. Say true or false:

- (a) Two diameters of a circle will necessarily intersect.
(b) The centre of a circle is always in its interior.

Answer:

- (a) This statement is true.

Two diameters of a circle will necessarily intersect is a true statement as shown in the figure below. Here CD and AB are diameters and intersect at point O.



- (b) This statement is true.

The centre of a circle is always in its interior is a true statement.