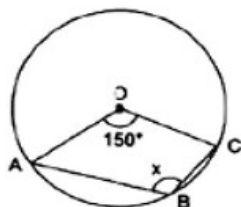


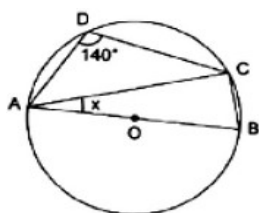
1. In the figure, O is the centre of the circle. What is the value of  $x$ ?

1

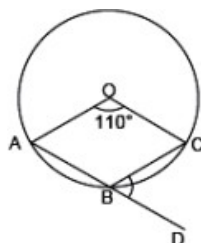
(i)  $125^\circ$ (ii)  $105^\circ$ (iii)  $95^\circ$ (iv)  $85^\circ$ 

2. In the figure, O is the centre of the circle. If  $\angle ADC = 140^\circ$ , then what is the value of  $x$ ?

1

(i)  $45^\circ$ (ii)  $50^\circ$ (iii)  $60^\circ$ (iv)  $45^\circ$ 

3. Assertion (A): If O is the centre of the circle as shown in figure, then  $\angle CBD = 55^\circ$ .



Reason (R): Exterior angle of cyclic quadrilateral is equal to interior opposite angle.

1

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

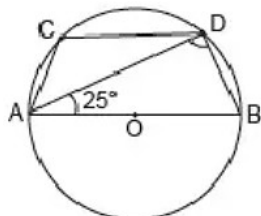
(d) A is false but R is true.

5. If BC is a diameter of a circle of centre O and OD is perpendicular to the chord AB of a circle, show that  $CA = 2OD$ .

2

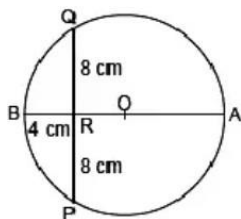
6. In the given figure, AB is diameter of the circle with centre O and  $CD \parallel AB$ . If  $\angle DAB = 25^\circ$ , then find the measure of  $\angle CAD$ .

2

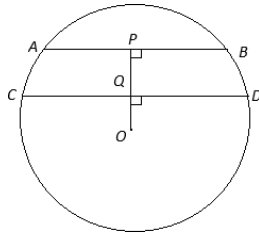


7. In the given figure, diameter AB of circle with centre O bisects the chord PQ. If  $PR = QR = 8$  cm and  $RB = 4$  cm, find the radius of the circle.

3



8. In the given figure, AB and CD are two parallel chords of a circle with centre O and radius 5cm such that  $AB = 6\text{cm}$  and  $CD = 8\text{cm}$ . If  $OP \perp AB$  and  $OQ \perp CD$ , determine the length of PQ. 3



9. Four Friends Rima, Mohan, Sohan and Sita are sitting on the circumference of a circular park full of water. Their locations are marked by points A, P, Q and R such that the APQR is a quadrilateral with greenery. Rohit joins them and sits at the centre of the circular park, so he is equidistant from all the other friends. His position is marked as O. They are sitting in such a way that  $\angle PQR = 110^\circ$ .

- (i) What is measure of reflex  $\angle POR$ ? (1)
- (ii) What is the measure of  $\angle PAR$ ? (2)
- (ii) Find  $\angle OPR$ ? (2)

