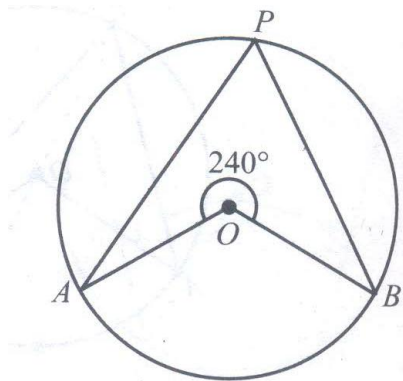
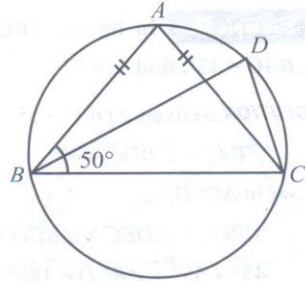


Class: 9
Subject: Mathematics
Topic: Circles
No. of Questions: 20

- Q1. Equal chord of a circle subtend equal angles at the centre.
- Q2. If the angles subtended by the chords of a circle at the centre are equal, then the chords are equal.
- Q3. The perpendicular from the centre of a circle to a chord bisects the chord.
- Q4. The line joining the centre of a circle to the mid-point of a chord is perpendicular to the chord.
- Q5. Perpendicular distance of a line from a point is the shortest distance of the line from the point.
- Q6. Equal chord of a circle of a circle (or of congruent circles) are equidistance from the centre.
- Q7. The angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle.
- Q8. In the given figure, the reflex, the reflex $\angle AOB = 240^\circ$. Find the angle $\angle APB$.

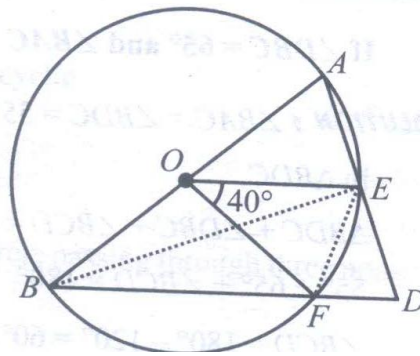


Q9. In the given figure, ABC is an isosceles triangle in which $AB = AC$ and $\angle ABC = 50^\circ$, find $\angle BDC$.

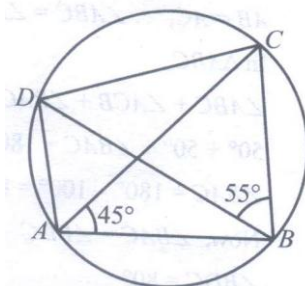


Q10. Two chords AB and CD of lengths 6 cm, 12 cm respectively of a circle are parallel. If the \perp distance between AB and CD is 3 cm. Find the radius of the circle

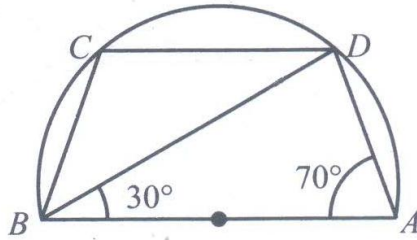
Q11. In the given figure, O is the centre of a circle and AB is a diameter. If $\angle EOF = 40^\circ$, Find $\angle EDF$.



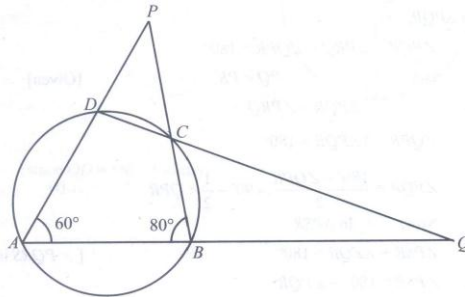
Q12. In figure, $ABCD$ is a cyclic quadrilateral in which AC and BD are its diagonals. If $\angle DBC = 55^\circ$ and $\angle BAC = 45^\circ$, find $\angle BCD$.



Q13. In the given figure AB is the diameter, $\angle BAD = 70^\circ$ and $\angle DBC = 30^\circ$. Find $\angle BDC$.



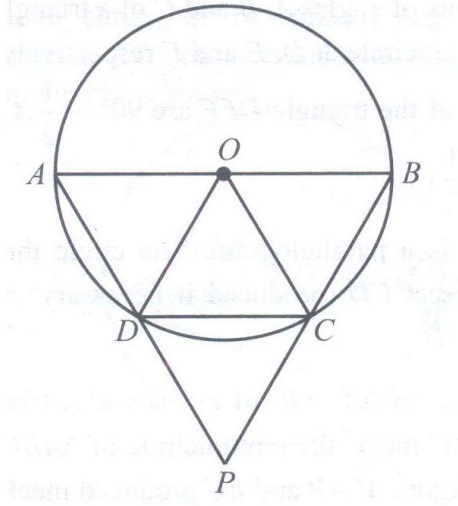
Q14. In the given figure, $\angle A = 60^\circ$ and $\angle ABC = 80^\circ$, find $\angle DPC$ and $\angle BQC$.



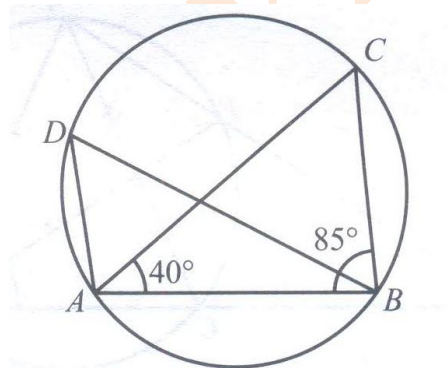
Q15. A chord of a circle is equal to its radius. Find the angle subtended by this chord at a point in major segment.

Q16. A quadrilateral ABCD is inscribed in a circle such that AB is a diameter and $\angle ADC = 130^\circ$. Find $\angle BAC$

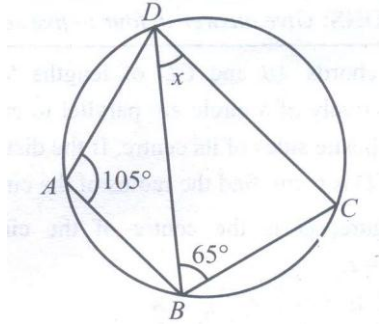
- Q17. AB is a diameter of the circle with centre O and chord CD is equal to radius OC. AD and BC produced, which meet at P. Prove that $\angle CPD = 60^\circ$



- Q18. In the given figure, points A, B, C and D lie on a circle. If $\angle CAB = 40^\circ$ and $\angle ABC = 85^\circ$ then find $\angle ADB$.



- Q19. In the given figure, ABCD is a cyclic quadrilateral. If $\angle BAD = 105^\circ$ and $\angle CBD = 65^\circ$ then find the value of x .



- Q20. Suppose you are given a circle. Give a construction to find its centre.

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