MATHEMATICS

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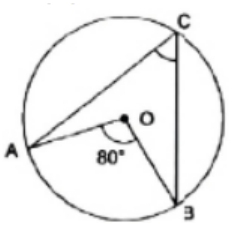
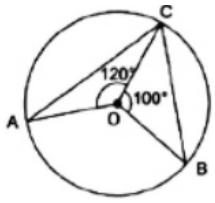
Board –ICSE	Class – IX	Topic – Circle

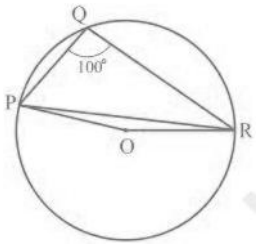
1. Prove: A straight line drawn from the centre of circle to bisect a chord, which is not a diameter, is at right angles to the chord.
2. Prove Equal chords of a circle are equidistant from the centre.
3. In the figure, if O is the centre of a circle, then the measure of ∠ACB is_____.
4. The angle subtended by the diameter of a semicircle is_____.



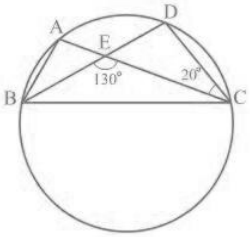
5. In the figure, O is the centre of the circle. What is the measure of ∠ACB?



6. Two circles of radii 5 cm and 3 cm intersect at two points and the distance between their centres is 4 cm. Find the length of the common chord.
7. In Fig. ∠PQR = 100°, where P, Q and R are points on a circle with centre O. Find ∠OPR.



8. In Fig , A, B, C and D are four points on a circle. AC and BD intersect at a point E such that ∠BEC = 130° and ∠ECD = 20°. Find ∠ BAC.



9. Prove that if chords of congruent circles subtend equal angles at their centres, then the chords are equal.
10. A chord of a circle is equal to the radius of the circle. Find the angle subtended by the chord at a point on the minor arc and also at a point on the major arc.

Answer

1. Proving
2. Proving
3. $\angle ACB = 40°$
4. $90°$
5. $70°$
6. Length of the cord $=6cm$
7. $10°$
8. $\angle BAC = 110°$
9. Proving
10. $30° \; and \; 150°$