CIRCLES

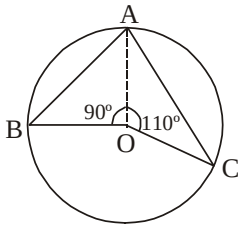
ANGLE SUBTENDED BY A CHORD AT A POINT

EXERCISE

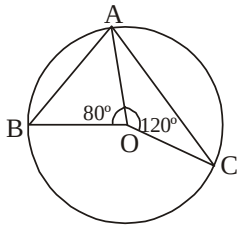
Q.1 The radius of a circle is 13 cm and the length of one of its chords is 10 cm. Find the distance of the chord from the center.

Q.2 Find the length of a chord which is at a distance of 5 cm from the center of a circle of radius 13 cm.

Q.3 In figure A, B, and C are three points on a circle such that the angles subtended by the chords AB and AC at the center O are 90º and 110º, respectively. Determine ∠BAC.



Q.4 In figure A, B, C are three points on a circle such that the angles subtended by the chord AB and AC at the center O are 80º and 120º respectively. Determine BAC.



Q.5 A chord of length 16 cm is drawn in a circle of radius 10 cm. Calculate the distance of the chord from the center of the circle.

Q.6 A circle of radius 2.5 cm has a chord of length 4.8 cm. Find the distance of the chord from the center of the circle.

Q.7 The radius of a circle is 40 cm and the length of perpendicular drawn from its center to chord is 24 cm. Find the length of the chord.

Q.8 A chord of length 48 cm is drawn at a distance of 7 cm from the center of a circle. Calculate the radius of the circle.

Q.9 A chord of length 16 cm is at a distance of 15 cm from the center of the circle. Find the length of the chord of the same circle which is at a distance of 8 cm from the center.

ANSWER KEY

1. 12 cm

2. 24cm

3. 80º

4. 80º

5. 6 cm

6. 0.7 cm

7. 64 cm

8. 25 cm

9. 30 cm