

CIRCLES

1. The centre of a circle lies in _____ of the circle.
(a) exterior (b) interior (c) boundary (d) none of these
2. A point, whose distance from the centre of a circle is greater than its radius lies in of the circle.
(a) exterior (b) interior (c) boundary (d) none of these
3. The longest chord of a circle is a _____ of the circle.
(a) diameter (b) semicircle (c) chord (d) sector
4. Segment of a circle is the region between an arc and _____ of the circle.
(a) diameter (b) semicircle (c) chord (d) sector
5. A circle divides the plane, on which it lies, in parts.
(a) two (b) three (c) four (d) five
6. *Equal chords of a circle subtend _____ angles at the centre.*
(a) half (b) one third (c) one fourth (d) equal
7. *If the angles subtended by the chords of a circle at the centre are equal, then the chords are _____.*
(a) half (b) one third (c) one fourth (d) equal
8. *The perpendicular from the centre of a circle to a chord _____ the chord.*
(a) trisect (b) bisect (c) coincide (d) none of these.
9. *The line drawn through the centre of a circle to _____ a chord is perpendicular to the chord.*
(a) trisect (b) bisect (c) coincide (d) none of these.
10. *There is one and only one circle passing through _____ given non-collinear points.*
(a) two (b) three (c) four (d) five
11. *Chords equidistant from the centre of a circle are _____ in length.*
(a) half (b) one third (c) one fourth (d) equal
12. *The angle subtended by an arc at the centre is _____ the angle subtended by it at any point on the remaining part of the circle.*
(a) half (b) double (c) triple (d) equal
13. *Angles in the same segment of a circle are equal.*
(a) half (b) double (c) triple (d) equal
14. *The sum of either pair of opposite angles of a cyclic quadrilateral is _____.*
(a) 180° . (b) 360° (c) 90° (d) none of these
15. *If the sum of a pair of opposite angles of a quadrilateral is _____, the quadrilateral is cyclic.*
(a) 180° . (b) 360° (c) 90° (d) none of these

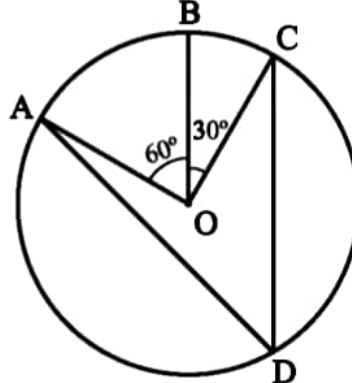
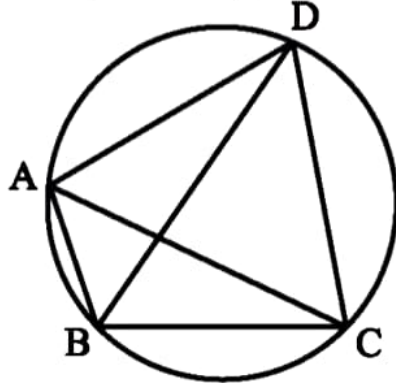
CIRCLES

1. The length of a chord of circle of radius 10 cm is 12 cm. Determine the distance of the chord from the centre
(a) 8 cm (b) 7 cm (c) 6 cm (d) 5 cm
2. The length of a chord of circle is 4 cm. If its perpendicular distance from the centre is 1.5 cm, determine the radius of the circle.
(a) 2.5 cm (b) 1.5 cm (c) 6 cm (d) 5 cm
3. The radius of the circle is 5 cm and distance of the chord from the centre of the circle is 4 cm. Find the length of the chord.
(a) 8 cm (b) 7 cm (c) 6 cm (d) 5 cm
4. Find the length of a chord, which is at a distance of 24 cm from the centre of a circle whose diameter is 50 cm.
(a) 12 cm (b) 14 cm (c) 16 cm (d) 15 cm
5. Two points A and B are 16 cm apart. A circle with radius 17 cm is drawn to pass through these points. Find the distance of AB from the centre of the circle.
(a) 12 cm (b) 14 cm (c) 16 cm (d) 15 cm
6. If the length of a chord of a circle at a distance of 5 cm from the centre of the circle is 24 cm, find the radius of the circle.
(a) 13 cm (b) 14 cm (c) 16 cm (d) 15 cm
7. A chord 6 cm long is drawn in a circle with a diameter equal to 10 cm. Find its perpendicular distance from the centre.
(a) 4 cm (b) 7 cm (c) 6 cm (d) 5 cm
8. If the length of a chord of a circle at a distance of 24 cm from the centre of the circle is 36 cm, find the length of the greatest chord of the circle.
(a) 80 cm (b) 70 cm (c) 60 cm (d) 50 cm
9. AB is a chord of the circle with centre O and radius 13 cm. If $OM \perp AB$ and $OM = 5$ cm, find the length of the chord AB.
(a) 24 cm (b) 27 cm (c) 26 cm (d) 25 cm
10. A chord of a circle of radius 7.5 cm with centre O is of length 9 cm. Find the its distance from the centre.
(a) 4 cm (b) 7 cm (c) 6 cm (d) 5 cm
11. 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.
(a) 4 cm (b) 7 cm (c) 6 cm (d) 5 cm
12. In a circle of radius 25 cm, AB and AC are two chords, such that $AB = AC = 30$ cm . Find the length of the chord.
(a) 40 cm (b) 48 cm (c) 60 cm (d) 50 cm

CIRCLES

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

(a) 80° (b) 60° (c) 90° (d) none of these



2. In above sided Fig, A, B and C are three points on a circle with centre O such that $\angle BOC = 30^\circ$ and $\angle AOB = 60^\circ$. If D is a point on the circle other than the arc ABC, find $\angle ADC$.

(a) 45° (b) 60° (c) 90° (d) none of these

3. 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

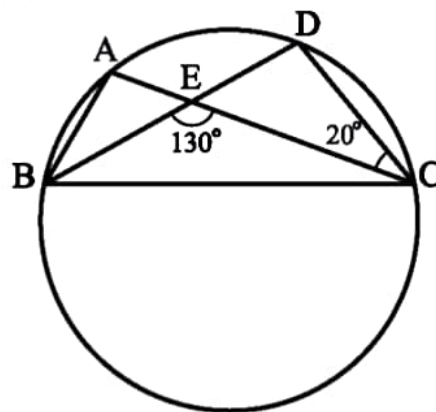
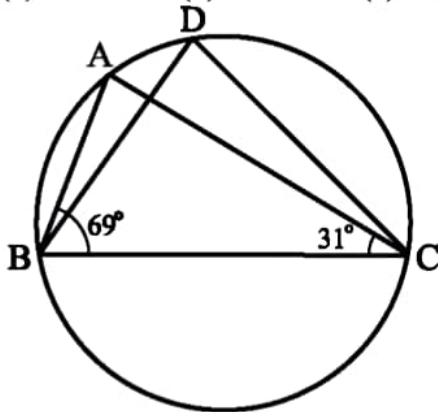
(a) 150° (b) 30° (c) 60° (d) none of these

4. 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 major arc.

(a) 150° (b) 30° (c) 60° (d) none of these

5. In the below Fig., $\angle ABC = 69^\circ$, $\angle ACB = 31^\circ$, find $\angle BDC$.

(a) 80° (b) 60° (c) 90° (d) 100°



6. In the above sided Fig., A, B, C and D are four points on a circle. AC and BD intersect at a point E such that $\angle BEC = 130^\circ$ and $\angle ECD = 20^\circ$. Find $\angle BAC$.

(a) 110° (b) 150° (c) 90° (d) 100°

7. ABCD is a cyclic quadrilateral whose diagonals intersect at a point E. If $\angle DBC = 70^\circ$, $\angle BAC$ is 30° , find $\angle BCD$.

(a) 80° (b) 60° (c) 90° (d) 100°

8. ABCD is a cyclic quadrilateral. If $\angle BCD = 100^\circ$, $\angle ABD$ is 30° , find $\angle ABD$.

- (a) 80° (b) 60° (c) 90° (d) 70°

9. ABCD is a cyclic quadrilateral. If $\angle DBC = 80^\circ$, $\angle BAC$ is 40° , find $\angle BCD$.

- (a) 80° (b) 60° (c) 90° (d) 70°

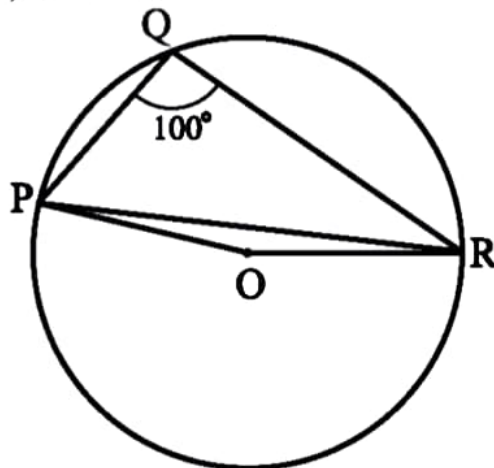
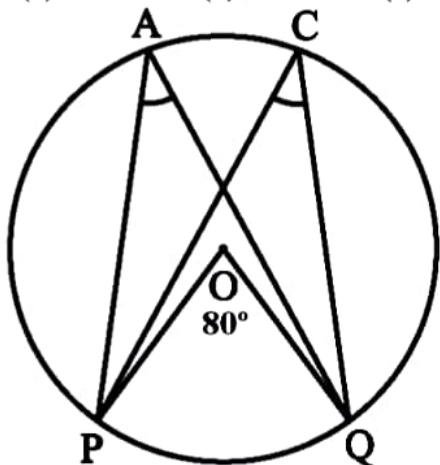
10. ABCD is a cyclic quadrilateral in which BC is parallel to AD, $\angle ADC = 110^\circ$ and $\angle BAC = 50^\circ$.

Find $\angle DAC$

- (a) 80° (b) 60° (c) 90° (d) 170°

11. In the below figure, $\angle POQ = 80^\circ$, find $\angle PAQ$

- (a) 80° (b) 40° (c) 100° (d) none of these



12. In the above figure, $\angle PQR = 100^\circ$, where P, Q and R are points on a circle with centre O. Find $\angle OPR$.

- (a) 80° (b) 40° (c) 10° (d) none of these