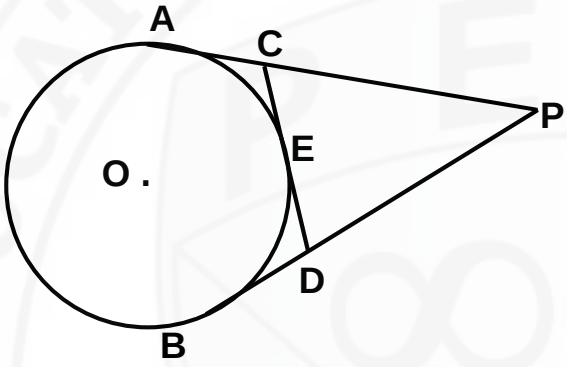
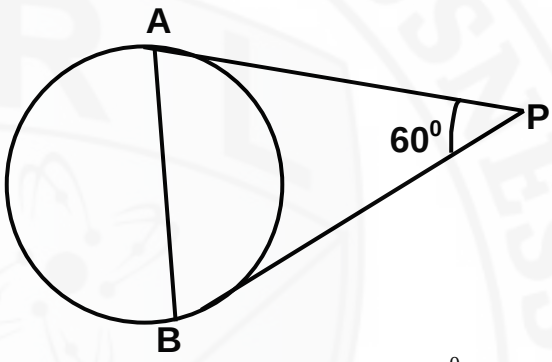
MCQ WORKSHEET-I
CIRCLES

1. Find the length of tangent drawn to a circle with radius 7 cm from a point 25 cm away from the centre.
(a) 24 cm (b) 27 cm (c) 26 cm (d) 25 cm

2. A point P is 26 cm away from the centre of a circle and the length of the tangent drawn from P to the circle is 24 cm. Find the radius of the circle.
(a) 11 cm (b) 10 cm (c) 16 cm (d) 15 cm

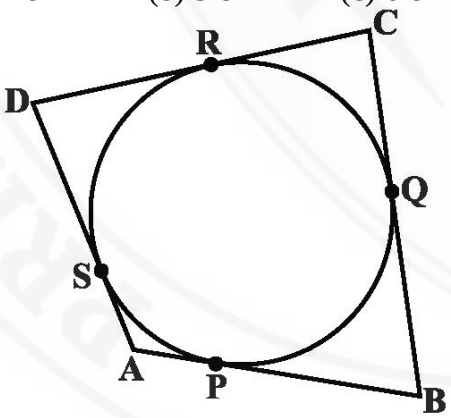
3. From an external point P, tangents PA and PB are drawn to a circle with centre O. If CD is the tangent to the circle at a point E and PA = 14 cm, find the perimeter of the ΔPCD.
(a) 28 cm (b) 27 cm (c) 26 cm (d) 25 cm

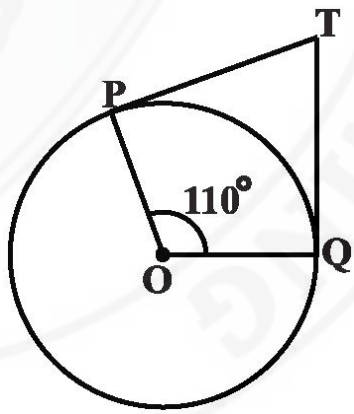




4. In the above sided figure, PA and PB are tangents such that PA = 9cm and ∠APB = 60^0. Find the length of the chord AB.
(a) 4 cm (b) 7 cm (c) 6 cm (d) 9 cm

5. In the below figure the circle touches all the sides of a quadrilateral ABCD whose three sides are AB = 6 cm, BC = 7 cm, CD = 4 cm. Find AD.
(a) 4 cm (b) 3 cm (c) 6 cm (d) 9 cm





6. In the above sided Fig., if TP and TQ are the two tangents to a circle with centre O so that ∠POQ = 110°, then ∠PTQ is equal to
(a) 60^0 (b) 70^0 (c) 80^0 (d) 90^0

7. If tangents PA and PB from a point P to a circle with centre O are inclined to each other at angle of 80°, then ∠POA is equal to
(a) 60^0 (b) 70^0 (c) 80^0 (d) 50^0

8. The length of a tangent from a point A at distance 5 cm from the centre of the circle is 4 cm. Find the radius of the circle.

(a) 4 cm (b) 3 cm (c) 6 cm (d) 5 cm

9. From a point P, 10 cm away from the centre of a circle, a tangent PT of length 8 cm is drawn. Find the radius of the circle.

(a) 4 cm (b) 7 cm (c) 6 cm (d) 5 cm

10. PT is tangent to a circle with centre O, OT = 56 cm, TP = 90 cm, find OP

(a) 104 cm (b) 107 cm (c) 106 cm (d) 105 cm

11. TP and TQ are the two tangents to a circle with center O so that angle $\angle POQ = 130^0$. Find $\angle PTQ$.

(a) 50^0 (b) 70^0 (c) 80^0 (d) none of these

12. From a point Q, the length of the tangent to a circle is 40 cm and the distance of Q from the centre is 41 cm. Find the radius of the circle.

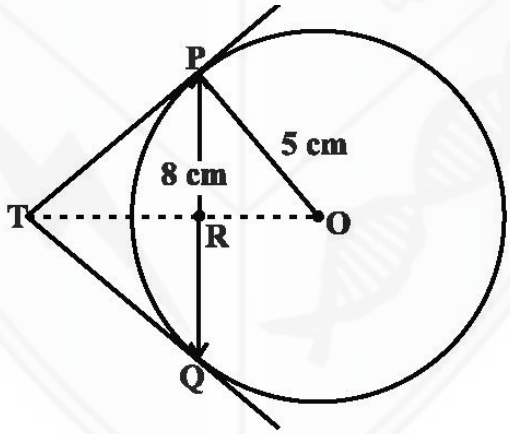
(a) 4 cm (b) 3 cm (c) 6 cm (d) 9 cm

13. The common point of a tangent to a circle with the circle is called _____

(a) centre (b) point of contact (c) end point (d) none of these.

14. PQ is a chord of length 8 cm of a circle of radius 5 cm. The tangents at P and Q intersect at a point T (see below figure). Find the length TP.

(a) $\frac{20}{3}$ cm (b) $\frac{10}{3}$ cm (c) $\frac{40}{3}$ cm (d) none of these



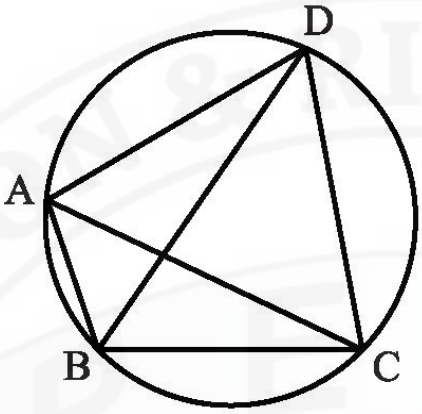
15. *The lengths of tangents drawn from an external point to a circle are equal.*

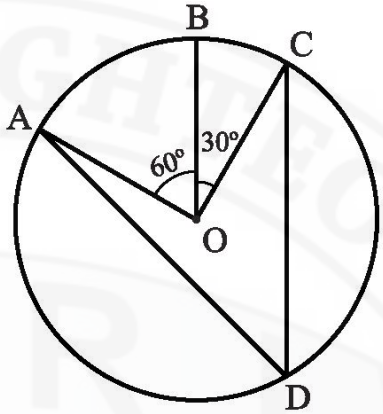
(a) half (b) one third (c) one fourth (d) equal

MCQ WORKSHEET-II
CIRCLES

1. In below Fig, ABCD is a cyclic quadrilateral in which AC and BD are its diagonals. If ∠ DBC = 55° and ∠BAC = 45°, find ∠BCD.

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





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

(a) 45º (b) 60º (c) 90º (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

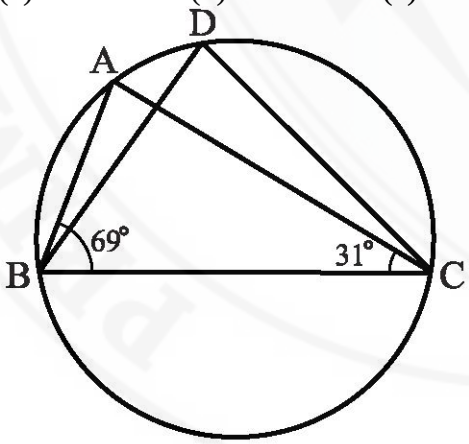
(a) 150^0 (b) 30º (c) 60º (d) none of these

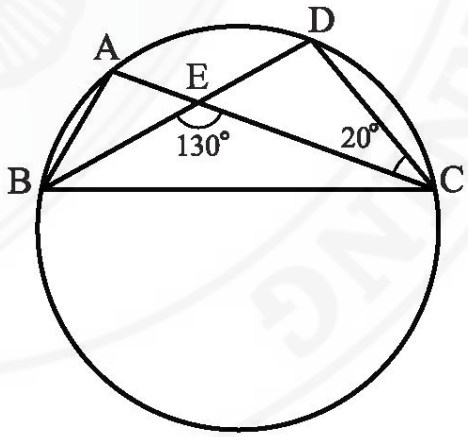
4. A chord of a circle is equal to the radius of the circle. Find the angle subtended by the chord at a point on the major arc.

(a) 150^0 (b) 30º (c) 60º (d) none of these

5. In the below Fig., ∠ABC = 69°, ∠ACB = 31°, find ∠BDC.

(a) 80º (b) 60º (c) 90º (d) 100^0





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 ∠BEC = 130° and ∠ECD = 20°. Find ∠BAC.

(a) 110º (b) 150º (c) 90º (d) 100^0

7. ABCD is a cyclic quadrilateral whose diagonals intersect at a point E. If ∠DBC = 70°, ∠BAC is 30°, find ∠BCD.

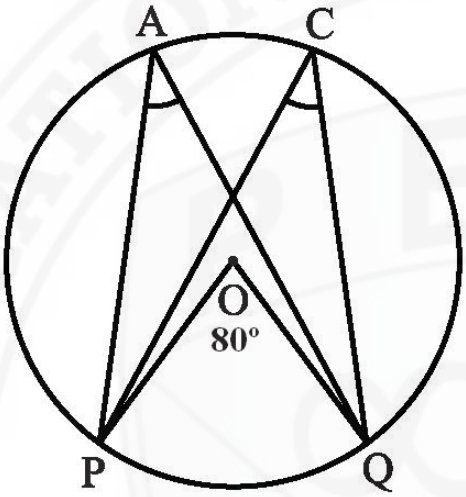
(a) 80º (b) 60º (c) 90º (d) 100^0

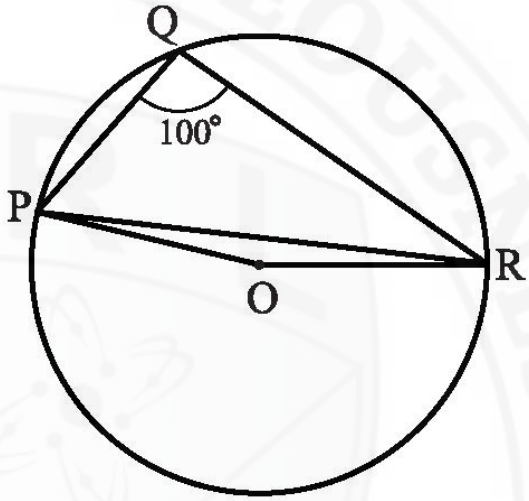
8. ABCD is a cyclic quadrilateral. If ∠BCD = 100°, ∠ABD is 30°, find ∠ABD.
(a) 80º (b) 60º (c) 90º (d) 70^0

9. ABCD is a cyclic quadrilateral. If ∠DBC= 80°, ∠BAC is 40°, find ∠BCD.
(a) 80º (b) 60º (c) 90º (d) 70^0

10. ABCD is a cyclic quadrilateral in which BC is parallel to AD, ∠ADC = 110^0 and ∠BAC = 50^0. Find ∠DAC
(a) 80º (b) 60º (c) 90º (d) 170^0

11. In the below figure, ∠POQ= 80^0, find ∠PAQ
(a) 80º (b) 40º (c) 100º (d) none of these





12. In the above figure, ∠PQR = 100°, where P, Q and R are points on a circle with centre O. Find ∠OPR.
(a) 80º (b) 40º (c) 10º (d) none of these

MCQ WORKSHEET-III
CIRCLES

1. Distance of chord AB from the centre is 12 cm and length of the chord is 10 cm. Then diameter of the circle is

A. 26 cm B. 13 cm C. $\sqrt{244}$ cm D. 20 cm

2. Two circles are drawn with side AB and AC of a triangle ABC as diameters. Circles intersect at a point D, Then

A. $\angle ADB$ and $\angle ADC$ are equal B. $\angle ADB$ and $\angle ADC$ are compementary

C. Points B, D, C are collinear D. none of these

3. The region between a chord and either of the arcs is called

A. an arc B. a sector C. a segment D. a semicircle

4. A circle divides the plane in which it lies, including circle in

A. 2 parts B. 3 parts C. 4 parts D. 5 parts

5. If diagonals of a cyclic quadrilateral are the diameters of a circle through the vertices of a quadrilateral, then quadrilateral is a

A. parallelogram B. square C. rectangle D. trapezium

6. Given three non collinear points, then the number of circles which can be drawn through these three points are

A. one B. zero C. two D. infinite

7. In a circle with centre O, AB and CD are two diameters perpendicular to each other. The length of chord AC is

A. 2 AB B. $\sqrt{2}$ AB C. $\frac{1}{2}$AB D. $\frac{1}{\sqrt{2}}$AB

8. If AB is a chord of a circle, P and Q are the two points on the circle different from A and B, then

A. $\angle APB = \angle AQB$

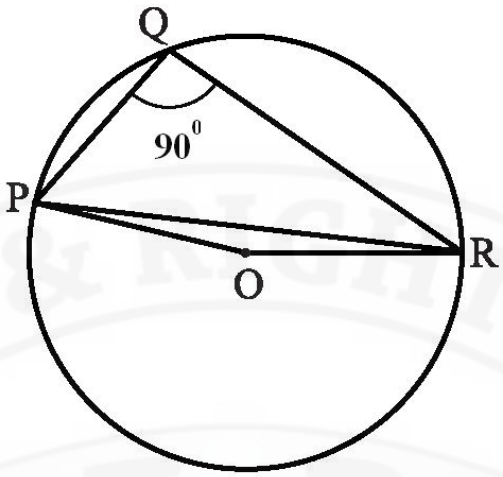
B. $\angle APB + \angle AQB = 180°$

C. $\angle APB + \angle AQB = 90°$

D. $\angle APB + \angle AQB = 180°$

9. In the above figure, ∠PQR = 90°, where P, Q and R are points on a circle with centre O. Find reflex∠POR.

(a) 180º (b) 140º (c) 45º (d) none of these



10. In below Fig, ABCD is a cyclic quadrilateral in which AC and BD are its diagonals. If ∠ DBC = 60° and ∠BAC = 30°, find ∠BCD.

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