

Class : IXTH

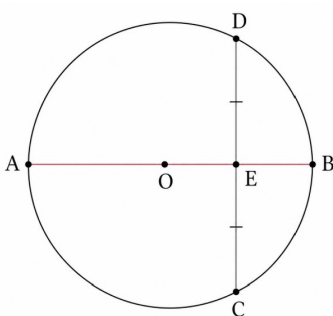
Date :

Subject : MATHS

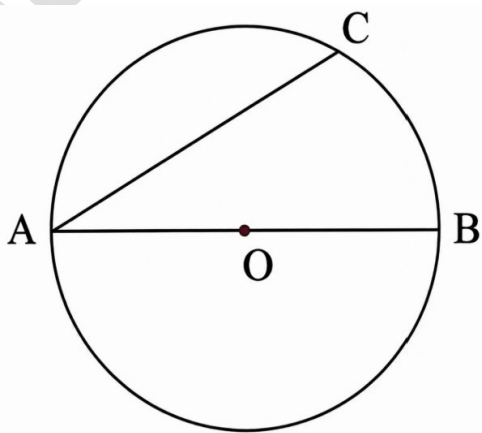
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I'M UP & DOWN, & ROUND & ROUND

- Q 1. In the given figure, O is the centre of a circle and diameter AB bisects the chord CD at a point E such that $CE = ED = 8$ cm and $EB = 4$ cm. The radius of the circle is:
- (a) 10 cm (b) 12 cm (c) 6 cm (d) 8 cm

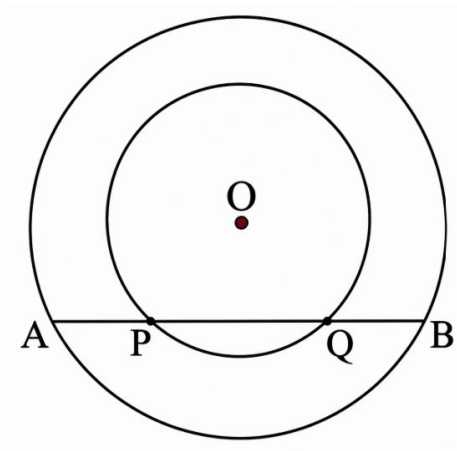


- Q 2. In the figure given, AB is a diameter of a circle and AC is a chord. If $AB = 34$ cm, $AC = 30$ cm, the distance of AC from the centre of the circle is:
- (a) 17 cm (b) 15 cm (c) 4 cm (d) 8 cm

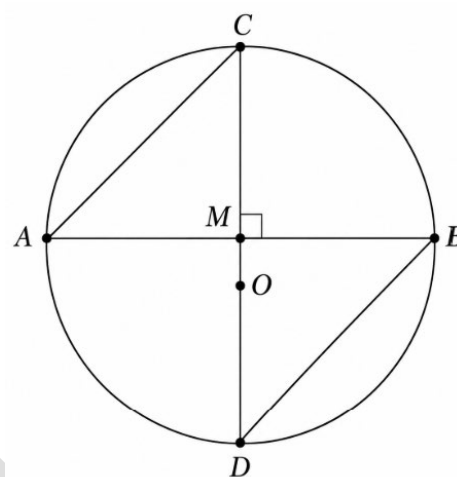


- Q3. In the figure, O is the centre and a straight line $APQB$ is drawn to cut two concentric circles, then
- (a) $AP > BQ$ (b) $AP = BQ$ (c) $AP < BQ$ (d) $AQ > PB$

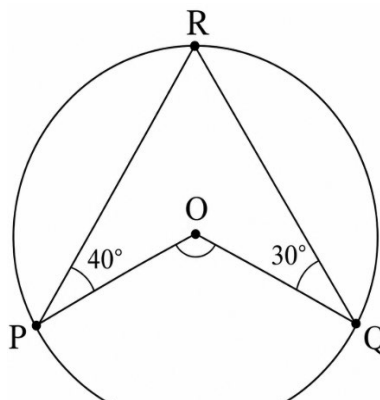




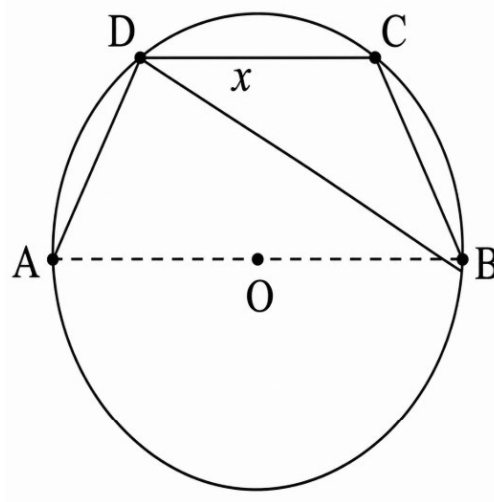
- Q 4. In the figure, chords AB and CD intersect at right angles. If $\angle BAC = 40^\circ$, then $\angle ABD$ is equal to:
- (a) 35° (b) 40° (c) 50° (d) 60°



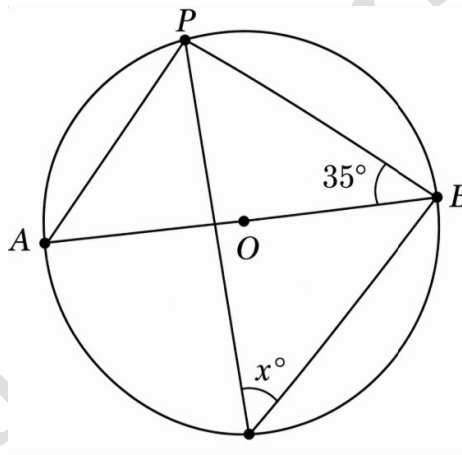
- Q 5. In the given figure, O is the centre of the circle. If $\angle OPR$ and $\angle OQR$ are 40° and 30° respectively, then the measure of $\angle POQ$ is:
- (a) 160° (b) 150° (c) 140° (d) 130°



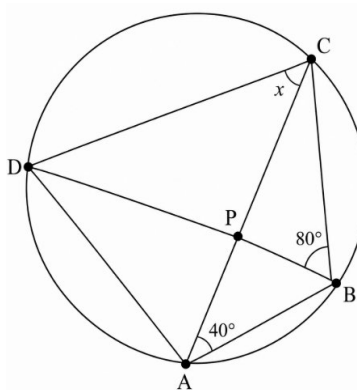
- Q 6. In the given figure, O is the centre of the circle. If $\angle ADC = 118^\circ$, then the value of x is:
 (a) 18° (b) 28° (c) 32° (d) 46°



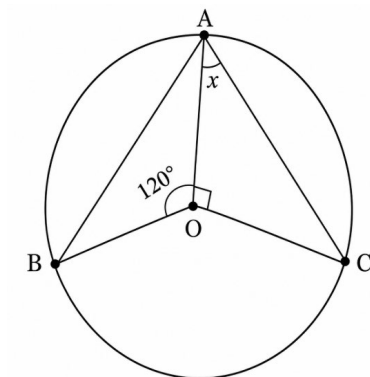
- Q 7. In the figure, O is the centre of a circle, then find the value of x .



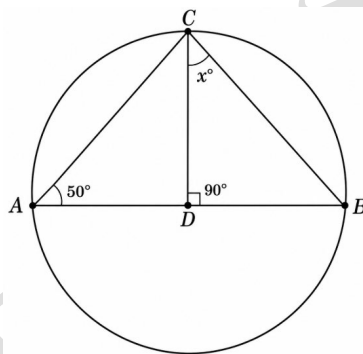
- Q8. In the figure, if $\angle CBD = 80^\circ$ and $\angle BAC = 40^\circ$ then find the value of x .



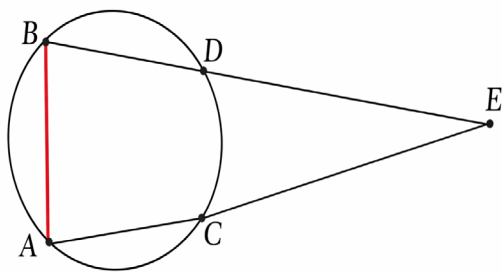
- Q9. In the figure, if O is the centre of a circle, $\angle AOB = 120^\circ$, $\angle AOC = 90^\circ$ and $\angle BAC = x$, then find the value of x .



- Q 10. In the figure, AB is a diameter of the circle and $\angle CAD = 50^\circ$, find the value of x .

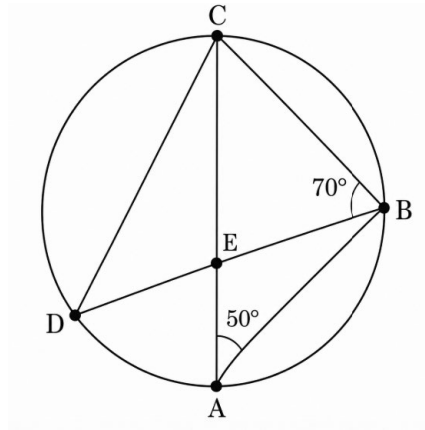


- Q11. In the figure, AB and CD are two parallel chords of a circle. If BDE and ACE are straight lines intersecting at E , prove that $\triangle AEB$ is isosceles.

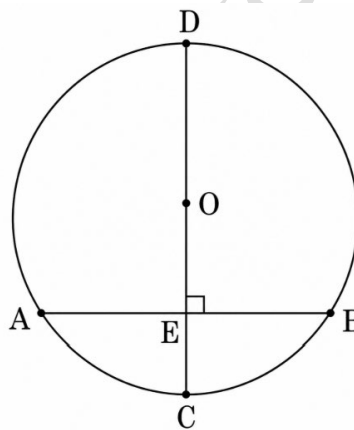


- Q 12. In the figure, $\angle DBC = 70^\circ$ and $\angle BAC = 50^\circ$.
 (i) Find the measure of $\angle BCD$.
 (ii) If $AB = BC$, then find the measure of $\angle ECD$.



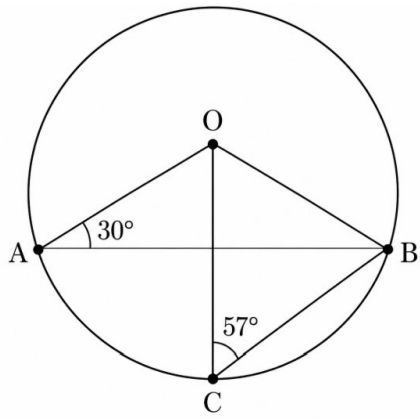


- Q 13. If two intersecting chords of a circle make equal angles with the diameter passing through their point of intersection, prove that the chords are equal in length.
- Q 14. Two circles with centres O and O' intersect at two points A and B . A line PQ is drawn parallel to OO' through A (or B) intersecting the circles at P and Q . Prove that $PQ = 2OO'$.
- Q15. In the given figure, the diameter CD of a circle with centre O is perpendicular to chord AB . If $AB = 12$ cm and $CE = 3$ cm, calculate the radius of the circle.



- Q16. In the figure, O is the centre of the circle, $\angle OAB = 30^\circ$ and $\angle OCB = 57^\circ$. Find $\angle BOC$ and $\angle AOC$.





ANSWER KEY

1. (a)
2. (d)
3. (b)
4. (c)
5. (c)
6. (b)
7. 55°
8. 60°
9. 75°
10. 50°
12. (i) 60°
(ii) 10°
15. 7.5 cm
16. $\angle BOC = 66^\circ, \angle AOC = 54^\circ$



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Web: www.smartachievers.online
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