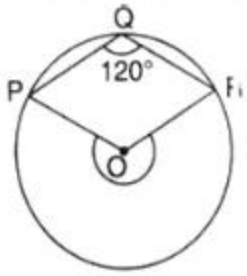
CBSE Test Paper 01
CH-10 Circles

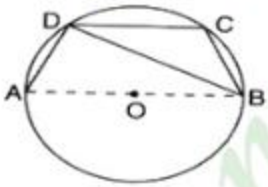
1. What fraction of the whole circle is minor arc RP in the given figure?



   a. $\frac{1}{4}$ of the circle
   b. $\frac{1}{5}$ of the circle
   c. $\frac{1}{3}$ of the circle
   d. $\frac{1}{2}$ of the circle

2. Circle having same centre are said to be
   a. secant
   b. chord
   c. Concentric
   d. circle

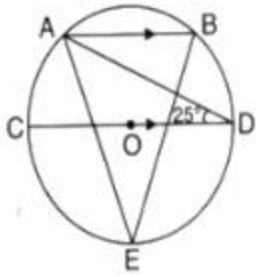
3. In the given figure, if $\angle ADC = 118^o$, then the measure of $\angle BDC$ is



   a. 32^o
   b. 38^o
   c. 28^o
   d. 22^o

4. If a chord of a circle is equal to its radius, then the angle subtended by this chord in major segment is
   a. 30^o
   b. 90^o
   c. 45^o
   d. 60^o

5. In the given figure, AB $\|$ CD and O is the centre of the circle. If $\angle ADC = 25^o$, then the measure of $\angle AEB$ is

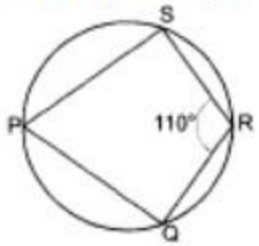


a. 40^o
b. 80^o
c. 25^o
d. 80^o

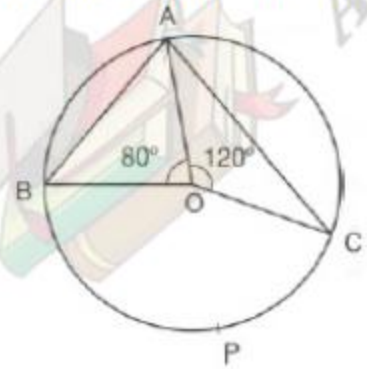
6. Fill in the blanks:

The region between an arc and the two radii, joining the centre to the ends of the arc is called _____.

7. In the given figure, PQRS is a cyclic quadrilateral. If ∠QRS = 110°, then find ∠SPQ.

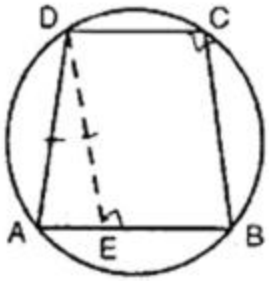


8. In the figure, A, B, C are three points on a circle such that the angles subtended by the chords AB and AC at the centre O are 80° and 120° respectively. Determine ∠BAC and the degree measure of arc BPC.



9. AB = DC and diagonal AC and BD intersect at P in cyclic quadrilateral Prove that $\Delta PAB \cong \Delta PDC$

10. If the non-parallel sides of a trapezium are equal, prove that it is cyclic.



11. Prove that the centre of the circle through A, B, C, D is the Point intersection of its diagonals.

12. 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.

13. In the given, $\triangle ABC$ is equilateral. Find $\angle BDC$ and $\angle BEC$

14. Two circles with centre O and O' intersect at two points A and B. A line PQ is drawn parallel to OO' through B intersecting the circles at P and Q. Prove that PQ = 2OO'.

15. In the adjoining figure, O is the centre of a circle. If AB and AC are chords of the circle such that AB = AC, OP $\perp$ AB and OQ $\perp$ AC, then prove that PB = QC.