

INTERNATIONAL INDIAN SCHOOL

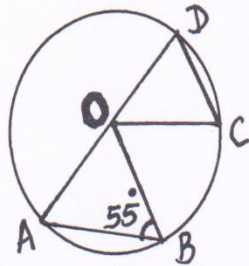
BURAIDAH

Worksheet For The Academic Year 2024-25

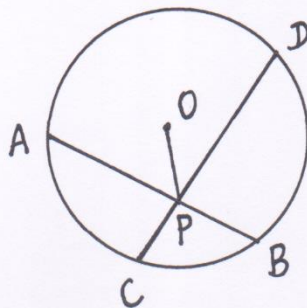
CLASS: IX SUBJECT: Mathematics DATE: 04/11/2024

Lesson-10      Circles

- 1) AB is a chord of a circle having centre O. If  $\angle AOB = 60^\circ$  then prove that AB is having radius length.
- 2) In the fig. AB and CD are equal . If  $\angle OBA = 55^\circ$  then find  $\angle COD$ .

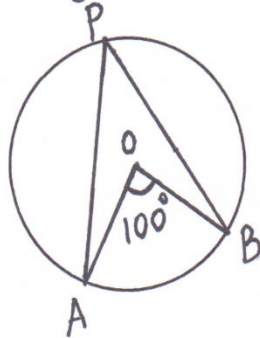


- 3) The radius of a circle is 13cm and the length of one of its chord is 10cm. Find the distance of the chord from the centre.
- 4) Two circles of radii 10cm and 8cm intersect and the length of the common chord is 12cm. Find the distance between their centres.
- 5) In the given fig. chord  $AB = CD$  and  $AP = 8\text{cm}$  ,  $PC = 3\text{cm}$  and radius  $OP = 4\text{cm}$ . Find the length of AB and CD.

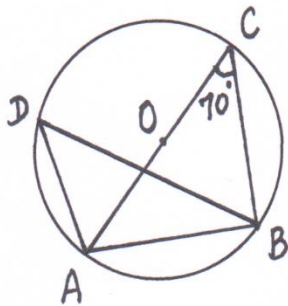


- 6) Two parallel chords of a circle whose diameter is 13cm are 5cm and 12cm respectively. Find the distance between the chords if they lie on opposite sides of the centre.

7) In the fig. if  $\angle AOB = 100^\circ$ , find  $\angle APB$ .

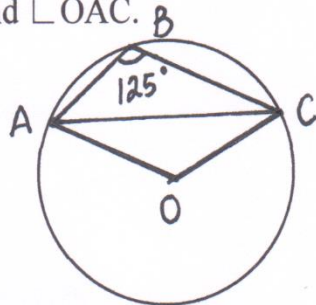


8) In the fig.  $\angle ACB = 70^\circ$  then find  $\angle ADB$ .

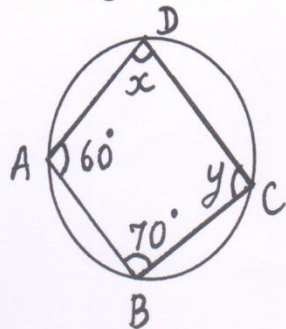


9) In the fig.  $\angle ABC = 125^\circ$  where A, B and C are points on a circle with centre

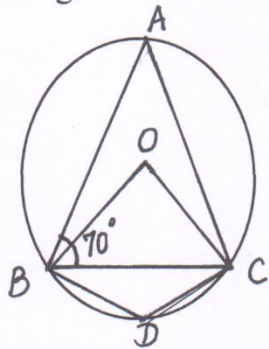
O. Find  $\angle OAC$ .



10) In the fig. Find the value of x and y.



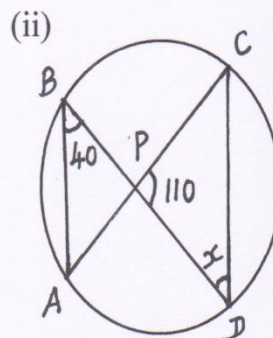
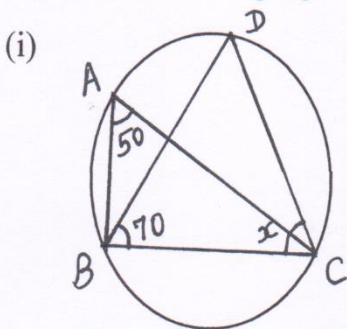
11) In the fig.  $\angle ABC = 70^\circ$  and  $BA = AC$ . Find  $\angle BOC$  and  $\angle BDC$ .



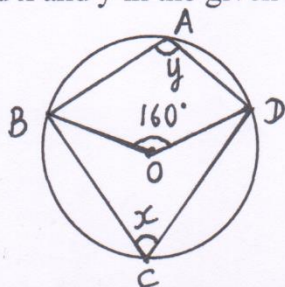
12) Prove that a cyclic rhombus is a square.

13) Three boys Rohit, Samir and Tarun are sitting at equal distance from each other on the boundary of a circular garden. The radius of the circular garden is 40cm. Find their distance from each other.

14) In the following figures find the value of x:



15) Find x and y in the given figure.



16) If two sides opposite to each other of a cyclic quadrilateral are equal, then prove that its diagonals are also equal.

17) Prove that 'The angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle'.

ANSWERS

2) $70^\circ$	8) $70^\circ$	13) $40\sqrt{3}$ cm
3) 12cm	9) $35^\circ$	14) (i) $60^\circ$
4) 13.29cm	10) $x = 110^\circ$	(ii) $30^\circ$
5) $AB = CD = 11$ cm	$y = 120^\circ$	15) $80^\circ$ , $100^\circ$
6) 8.5cm	11) $80^\circ$	
7) $50^\circ$	$140^\circ$	