

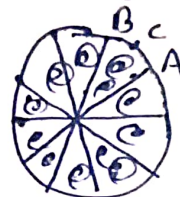
1. One such brooch is made with silver wire in the form of a circle with diameter 35mm. The wire is also used in making 5 diameter which divides the circle into 10 equal sectors

(i) find the central angle of each sector

(ii) find the length of the arc ACB

(iii) (i) find the area of each sector of the brooch

(ii) find the total length ^{or} of the silver wire used



(CBSE-2025)

2. The length of the hour hand of a clock is 10m. find the area of the minor sector swept by the hour hand of the clock b/w 5 a.m to 8 a.m. Also, find the area of the major sector (CBSE-2025)

3. In the given figure, three sector of a circle radius 5cm making angle 35° , 50° and 95° at the centre are shaded. find the area of the shaded region $[\pi = \frac{22}{7}]$



(CBSE-2025)

4. The olympic symbol comprising five interlocking rings represent the union of the five continents of the world and the meeting of athletes from all over the world at the olympic games. In order to spread awareness about olympic games, class-X student took part in various activities organised by the school. One such group of student made 5 circular rings in the school lawn with the help of ropes. Each ~~circular~~ circular ring required 4m of rope. It given that $\triangle OAB$ is an equilateral triangle and all unshaded region are congruent



(i) find the radius of each circular ring

(CBSE-2025)

(ii) what is the measure of $\angle AOB$

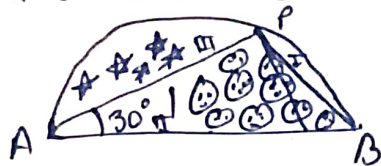
(iii) (a) find area of shaded region R_1

or

(b) find the length of rope round the unshaded regions

5. Anurag purchased a farmhouse which is the form of a semi-circle of diameter 70m. He divides it into three parts by taking a point P on the semi-circle in such a way that $\angle PAB = 30^\circ$ as shown in the following figure, where O is the centre of S-circle.

In Part I he planted saplings of mango tree.



In Part III, he grew mango orange.

(cbse-2025)

- (i) what is the measure of $\angle POA$
- (ii) find the length of wire needed to fence entire piece of land
- (iii) (a) find the area of I and III Part

6. An arc of a circle of radius 21cm subtends an angle of 60° at the centre find (i) the length of arc (cbse-2024)
(ii) the area of the minor segment of the circle made by the corresponding chord.

7. The Perimeter of a certain sector of a circle of radius 5.6m is 20.0 m. find the area of sector (cbse-2024)

8. The minute hand of a clock is 14cm long. find the area on the face of the clock described, after by the minute hand in 5 min (cbse-2024)

9. find the length of the arc of a circle which subtends an angle of 60° at the centre of the circle of radius 42cm (cbse-2024)

10. An arc of a circle of radius 10cm subtends a right angle at the centre of the circle. find the area of the corresponding major sector ($\pi = 3.14$) (cbse-2024)

11. A chord of a circle of radius 14cm subtends an angle of 60° at the centre. find the area of the corresponding minor segment of the circle. Also, find the area of the major segment (cbse-2023)

12. A horse is tied to a peg at one corner of a square shaped grass field of side 15m by means of a 5m long rope. find the area of that part of the field in which the horse can graze. Also, find the increase in grazing area if length of rope is increased to 10cm ($\pi = 3.14$) (cbse-2023)