

Subject: Maths

Class: 10

Topic: Ch.15 Circumference & Area of Circle

Watch video #16 and solve the following exercise:

EXERCISE 15.2

1. In a circle of radius 7 cm, an arc subtends an angle of 60° at the centre. Find the length of the arc.
2. A sector of a circle of radius 10.5 cm contains an angle of 45° . Find the area of the minor sector.
 $(\pi = \frac{22}{7})$
3. The length of an arc of a circle of radius 7 cm is 12 cm. Find the area of the minor sector.
4. In a circle of radius 21 cm, an arc subtends an angle of 60° at the centre. Find :
 - (i) The length of the arc.
 - (ii) Area of the sector formed by the arc.
 - (iii) Area of the segment formed by the corresponding chord.
5. The length of the minute hand of a clock is 10.5 cm. Find area of the sector formed by the minute hand in 10 minutes. $(\pi = \frac{22}{7})$
6. A chord of a circle of radius 3.5 cm subtends an angle of 90° at the centre. Find the area of the minor segment of the circle. $(\pi = \frac{22}{7})$
7. Find the area of a quadrant of a circle whose circumference is 22 cm.
8. The hour hand of a clock is 5 cm long. Find the area of the sector formed by the hour hand in 7 minutes.
9. In fig. 15.09, $ABCD$ is a rectangle. The side $AB = 10$ cm and $BC = 7$ cm. From each vertex

of the rectangle, arcs of radii 3.5 cm are drawn.

Find the shaded region. ($\pi = \frac{22}{7}$)

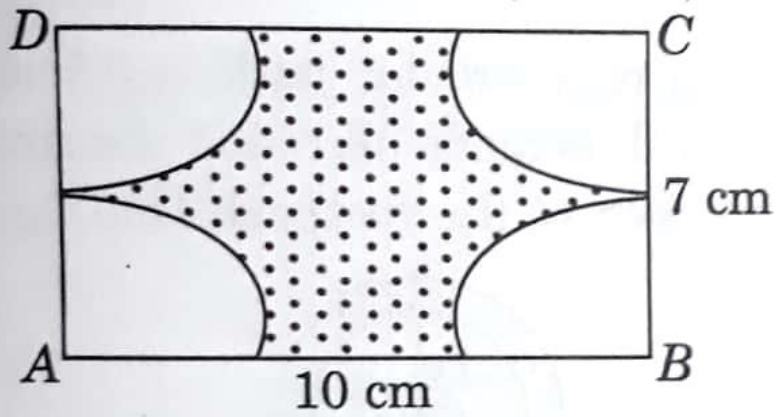


Fig. 15.09