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Subject: Maths

Class: 10

Topic: Ch.15 Circumference & Area of Circle

Watch video #16 and solve the following exercise:

EXERCISE 15.2

- In a circle of radius 7 cm, an arc subtends an 1. angle of 60° at the centre. Find the length of the arc.
- A sector of a circle of radius 10.5 cm contains an 2. angle of 45°. Find the area of the minor sector.

$$\left(\pi = \frac{22}{7}\right)$$

- 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:
 - The length of the arc.
 - (ii) Area of the sector formed by the arc.
 - (iii) Area of the segment formed by the corresponding chord.
- 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. $\left(\pi = \frac{22}{7}\right)$
- 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. $\left(\pi = \frac{22}{7}\right)$
- 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. $\left(\pi = \frac{22}{7}\right)$

