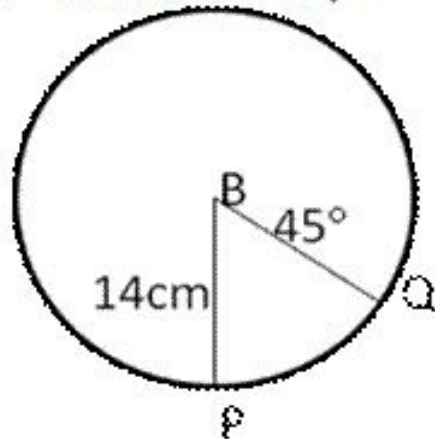




Question 58:

$$\text{Area of the sector of circle} = \frac{\pi r^2 \theta}{360^\circ}$$

$$r = 14 \text{ cm and } \theta = 45^\circ$$



$$\begin{aligned} \therefore \text{Area of sector} &= \left(\frac{\pi \times 14 \times 14 \times 45}{360} \right) \text{cm}^2 \\ &= (24.5\pi) \text{cm}^2 \\ &= \left(24.5 \times \frac{22}{7} \right) \text{cm}^2 = 77 \text{ cm}^2 \end{aligned}$$

Question 59:

$$\text{Length of the arc} = \frac{2\pi r \theta}{360}, r = 21 \text{ cm}, \theta = 150^\circ$$

$$= \left(\frac{2\pi \times 21 \times 150}{360} \right) \text{cm} = (17.5\pi) \text{cm}$$

$$\text{Length of arc} = \left(17.5 \times \frac{22}{7} \right) \text{cm} = 55 \text{ cm}$$

$$\begin{aligned} \text{Area of the sector} &= \frac{\pi r^2 \theta}{360} = \left(\frac{\pi \times 21 \times 21 \times 150}{360} \right) \text{cm}^2 \\ &= \left(\frac{22}{7} \times 183.75 \right) \text{cm}^2 = 577.5 \text{ cm}^2 \end{aligned}$$

Question 60:

Length of arc of circle = 44 cm

Radius of circle = 17.5 cm

$$\frac{1}{2}lr = \left(\frac{1}{2} \times 44 \times 17.5 \right) \text{cm}^2$$

Area of sector =

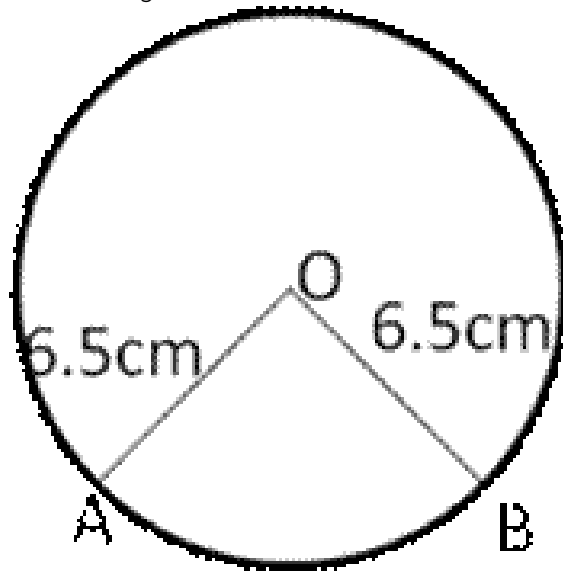
$$= (22 \times 17.5) \text{ cm}^2 = 385 \text{ cm}^2$$

Question 61:

Let sector of circle is OAB

Perimeter of a sector of circle = 31 cm

OA + OB + length of arc AB = 31 cm



$$6.5 + 6.5 + \text{arc AB} = 31 \text{ cm}$$

$$\text{arc AB} = 31 - 13$$

$$= 18 \text{ cm}$$

$$\text{Area of circle} = \frac{1}{2}lr$$

$$= \frac{1}{2} \times 18 \times 6.5 = 58.5 \text{ cm}^2$$

***** END *****