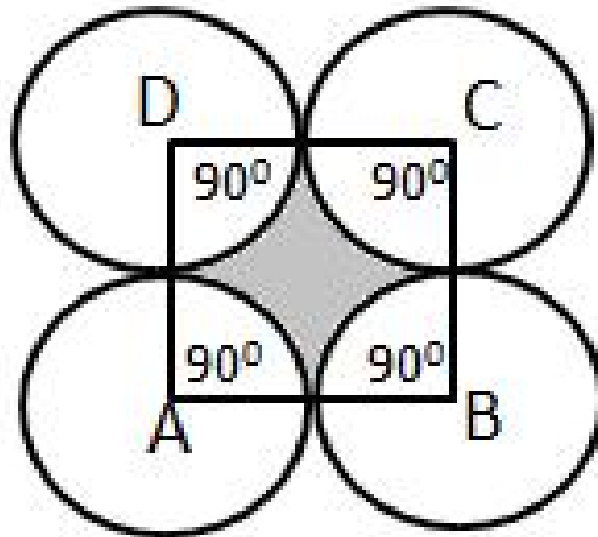




Question 32:



Each side of the square is 14 cm

Then, area of square = $(14 \times 14) \text{ cm}^2$

= 196 cm^2

Thus, radius of each circle 7 cm

Required area = area of square ABCD - 4 (area of sector with $r = 7$ cm, $\theta = 90^\circ$)

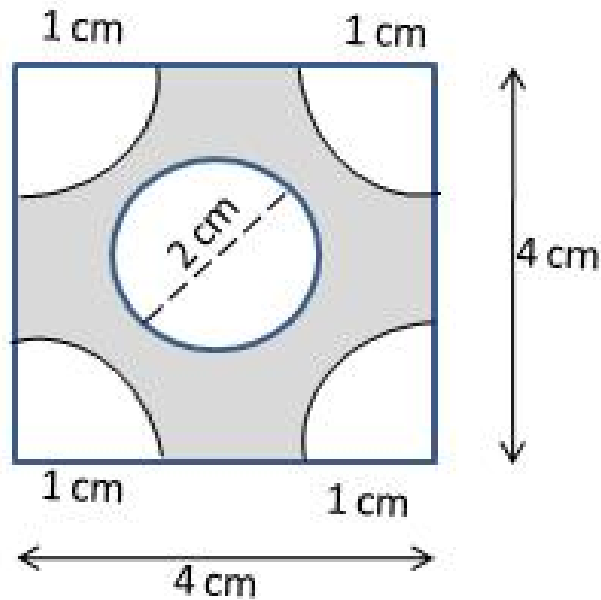
$$= \left[196 - 4 \times \frac{22}{7} \times 7 \times 7 \times \frac{90}{360} \right] \text{cm}^2$$

$$= [196 - 154] \text{cm}^2$$

$$= 42 \text{ cm}^2$$

Area of the shaded region = 42 cm^2

Question 33:



Area of square = $(4 \times 4) \text{ cm}^2$

= 16 cm^2

Area of four quadrant corners

$$= 4 \left[\frac{1}{4} \pi r^2 \right]$$

$$= \pi r^2$$

$$= (\pi \times 1 \times 1) \text{ cm}^2$$

$$= 3.14 \text{ cm}^2$$

Radius of inner circle = $2/2 = 1 \text{ cm}$

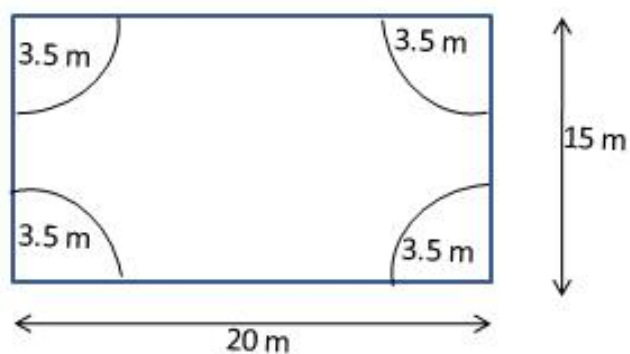
Area of circle at the center = $\pi r^2 = (3.14 \times 1 \times 1) \text{ cm}^2$

= 3.14 cm^2

Area of shaded region = [area of square - area of four corner quadrants - area of circle at the centre]

= $[16 - 3.14 - 3.14] \text{ cm}^2 = 9.72 \text{ cm}^2$

Question 34:



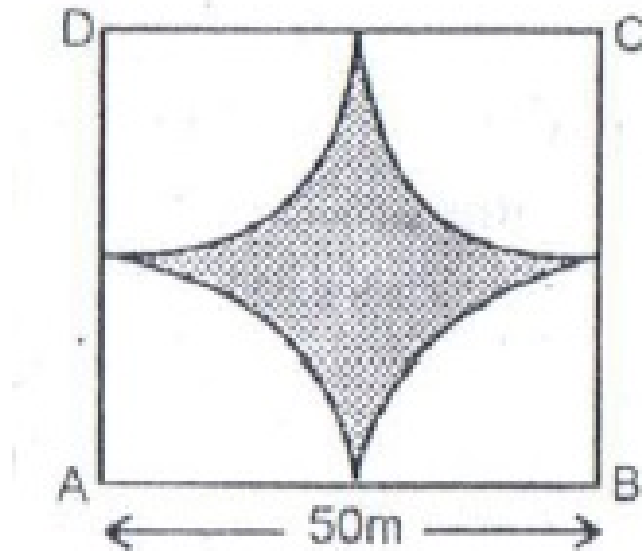
Area of rectangle = $(20 \times 15) \text{ m}^2 = 300 \text{ m}^2$

Area of 4 corners as quadrants of circle

$$\begin{aligned}
 &= 4 \times \left(\frac{1}{4} \pi r^2 \right) \\
 &= \left[\frac{22}{7} \times 3.5 \times 3.5 \right] \text{m}^2 \\
 &= 38.5 \text{ m}^2
 \end{aligned}$$

Area of remaining part = (area of rectangle - area of four quadrants of circles)
 $= (300 - 38.5) \text{ m}^2 = 261.5 \text{ m}^2$

Question 35:



Ungrazed area

= shaded area

$$\begin{aligned}
 &= \left[(50 \times 50) - \frac{4 \times \pi \times (25)^2 \times 90}{360} \right] \text{m}^2 \\
 &= [2500 - 3.14 \times 25 \times 25] \text{m}^2 \\
 &= [2500 - 1962.5] \text{m}^2 \\
 &= 537.5 \text{ m}^2
 \end{aligned}$$

***** END *****