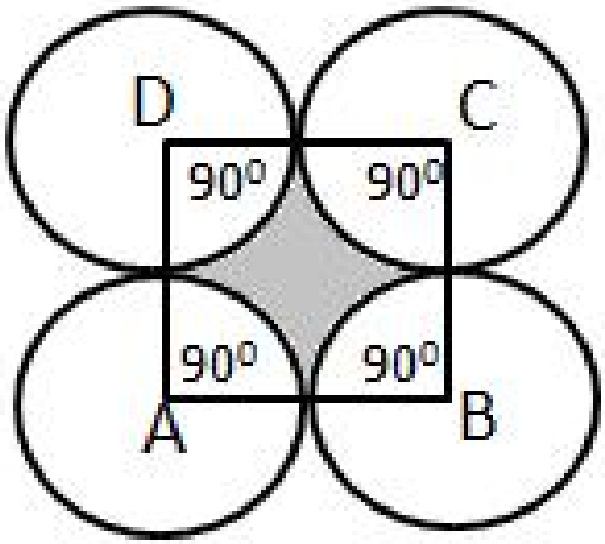
Question 32:



Each side of the square is 14 cm

Then, area of square = (14 × 14) 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, θ= 90°)

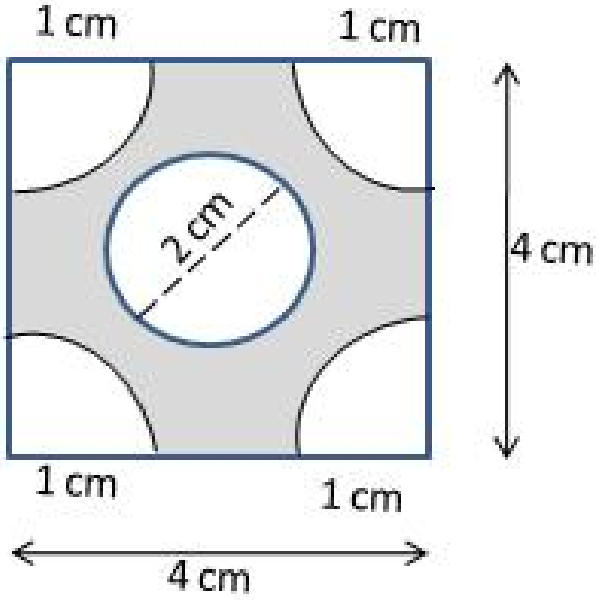
$$= \left[196 - 4 \times \frac{22}{7} \times 7 \times 7 \times \frac{90}{360}\right] cm^2$$

$$= [196 - 154] cm^2$$

$$= 42\ cm^2$$

Area of the shaded region = 42 cm^2

Question 33:



Area of square = (4 × 4) cm^2
= 16 cm^2
Area of four quadrant corners

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

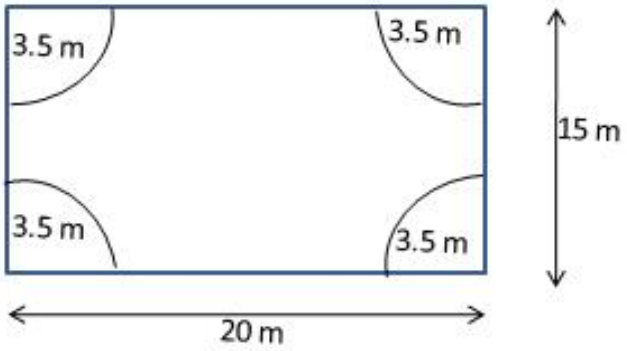
$$= \pi r^2$$

$$= (\pi \times 1 \times 1)\,cm^2$$

$$= 3.14\ cm^2$$

Radius of inner circle = 2/2 = 1 cm
Area of circle at the center = πr^2 = (3.14 × 1 × 1) 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] cm^2 = 9.72 cm^2

Question 34:



Area of rectangle = (20 × 15) m^2 = 300 m^2
Area of 4 corners as quadrants of circle

$$= 4 \times \left(\frac{1}{4}\pi r^2\right)$$

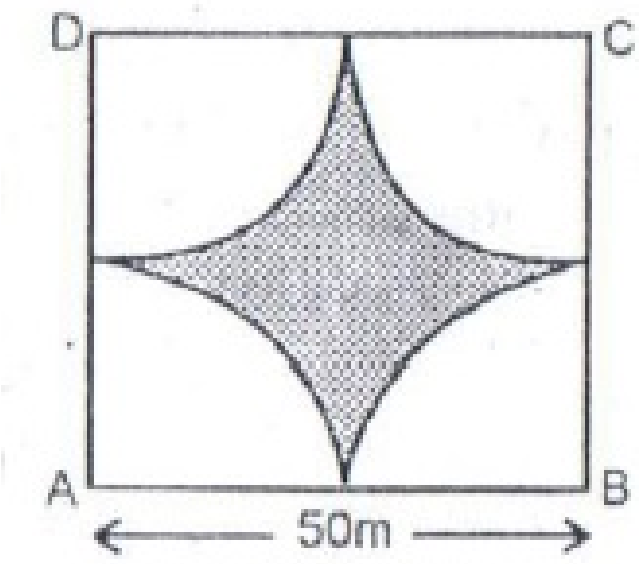
$$= \left[\frac{22}{7} \times 3.5 \times 3.5\right] m^2$$

$$= 38.5\ m^2$$

Area of remaining part = (area of rectangle - area of four quadrants of circles)

= (300 - 38.5) m^2 = 261.5 m^2

Question 35:



Ungrazed area

= shaded area

$$= \left[(50 \times 50) - \frac{4 \times \pi \times (25)^2 \times 90}{360}\right] m^2$$

$$= [2500 - 3.14 \times 25 \times 25] m^2$$

$$= [2500 - 1962.5] m^2$$

$$= 537.5\ m^2$$

********** END **********