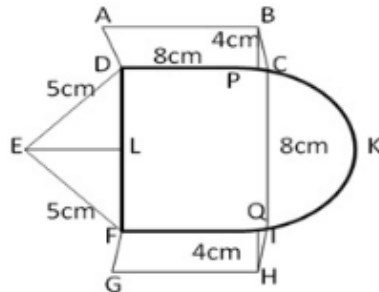




Question 46:



Given  $BP \perp CD$ ,  $HQ \perp FI$  and  $EL \perp DF$ ,  
 $DC=8$  cm,  $BP = HQ = 4$  cm and  $DE = EF = 5$  cm  
 Area of parallelogram  $ABCD = BP \times DC$

$$= 4 \times 8 = 32 \text{ cm}^2$$

Area of parallelogram  $FGHI = FI \times HQ$

$$= 8 \times 4 = 32 \text{ cm}^2$$

Area of semicircle  $CKI = \frac{1}{2} \pi r^2$

$$= \frac{1}{2} \times 3.14 \times (4)^2 = 25.12 \text{ cm}^2$$

Area of isosceles  $\triangle DEF = \frac{1}{4} b \sqrt{4a^2 - b^2}$

$$= \frac{1}{4} (8) \sqrt{4(5)^2 - (8)^2} = 2\sqrt{100 - 64}$$

$$= 2\sqrt{36} = 12 \text{ cm}^2$$

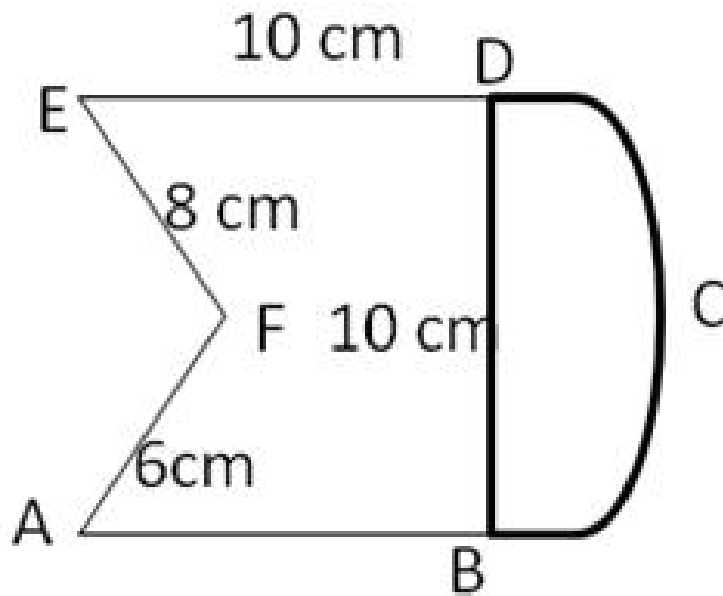
Area of square  $CDFI = (\text{side})^2 = (8)^2 = 64 \text{ cm}^2$

Area of whole figure = area of  $\square ABCD$  + area of  $\square FGHI$   
 + area of semi-circle  $CKI$  + area of  $\triangle DEF$   
 + area of square  $CDFI$

$$= (32+32+25.12+12+64) \text{ cm}^2$$

$$= 165.12 \text{ cm}^2$$

Question 47:

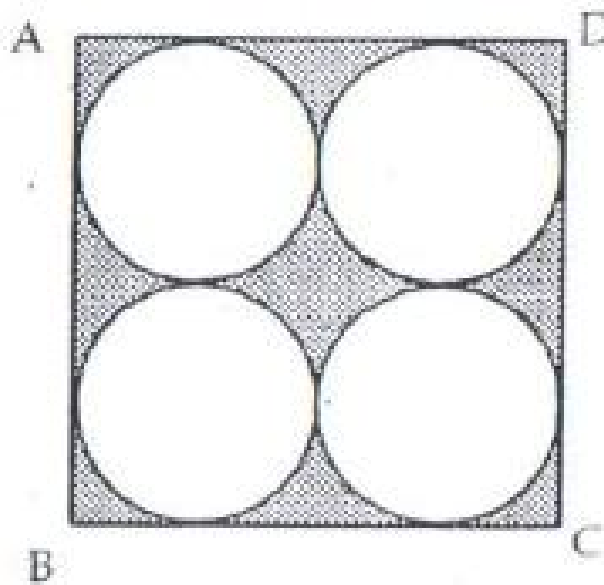


Area of region ABCDEFA = area of square ABDE + area of semi circle BCD - area of  $\triangle AFE$

$$= \left[ 10 \times 10 + \frac{1}{2} \times 3.14 \times 5 \times 5 - \frac{1}{2} \times 6 \times 8 \right] \text{cm}^2$$

$$= [100 + 39.25 - 24] \text{cm}^2 = 115.25 \text{ cm}^2$$

Question 48:



Side of the square ABCD = 14 cm

Area of square ABCD =  $14 \times 14 = 196 \text{ cm}^2$

Radius of each circle =  $14/4 = 3.5 \text{ cm}$

Area of the circles =  $4 \times \text{area of one circle}$

$$= 4 \times \pi (3.5)^2$$

$$= 4 \times \frac{22}{7} \times 3.5 \times 3.5$$

$$= 154 \text{ cm}^2$$

Area of shaded region = Area of square - area of 4 circles

$$= 196 - 154 = 42 \text{ cm}^2$$

\*\*\*\*\*END\*\*\*\*\*