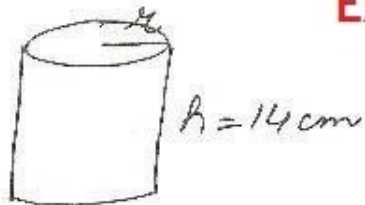


NCERT Maths Solutions by Dev Anoop (Bathinda)



Ex 13.2

①



$$C.S.A. = 88 \text{ cm}^2$$

$$2\pi r h = 88$$

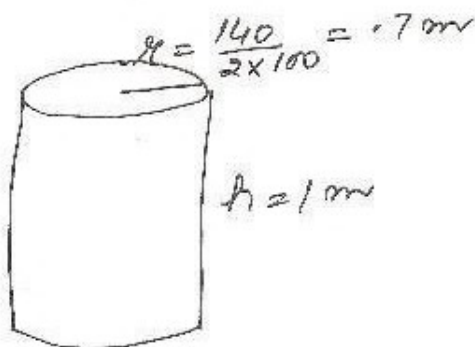
$$2 \times \frac{22}{7} \times r \times 14 = 88$$

$$\Rightarrow r = \frac{88 \times 7}{2 \times 22 \times 14}$$

$$\Rightarrow r = 1 \text{ cm}$$

$$\therefore \text{diam.} = 2r = 2 \text{ cm}$$

②



area of sheet reqd.

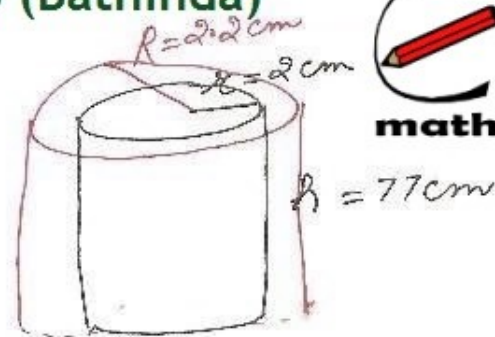
$$= 2\pi r (r + h)$$

$$= 2 \times \frac{22}{7} \times 0.7 (0.7 + 1)$$

$$= \frac{44}{10} \times 1.7$$

$$= 7.48 \text{ m}^2$$

③



$$\begin{aligned} \text{inner C.S.A.} &= 2\pi r h \\ &= 2 \times \frac{22}{7} \times 2 \times 77 \\ &= 968 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{outer C.S.A.} &= 2\pi R h \\ &= 2 \times \frac{22}{7} \times 2.2 \times 77 \\ &= 1064.8 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{t.S.A.} &= \text{inner CSA} + \text{outer CSA} + \text{area of 2 rings} \\ &= 968 + 1064.8 + 2\pi (R^2 - r^2) \\ &= 2032.8 + 2 \times \frac{22}{7} (2.2^2 - 2^2) \\ &= 2032.8 + \frac{44}{7} \times (2.2 - 2)(2.2 + 2) \\ &= 2032.8 + \frac{44}{7} \times 0.2 \times 4.2 \\ &= 2032.8 + 5.28 \\ &= 2038.08 \text{ cm}^2 \end{aligned}$$