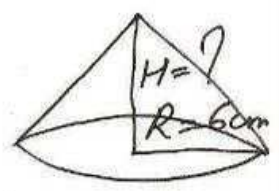
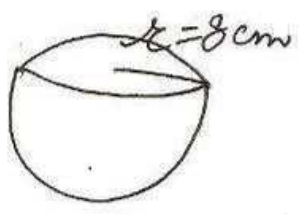


ex 12.4

NCERT Exemplar Solutions by (Dev Anoop)

1



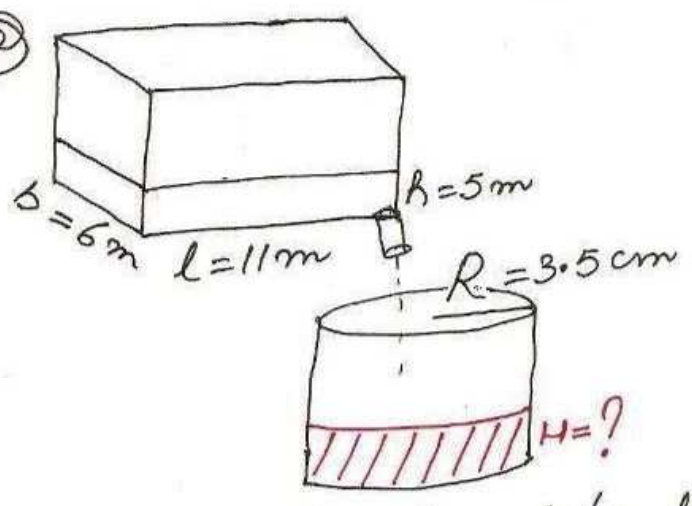
volume of cone = vol. of hemisphere

$$\frac{1}{3} \pi R^2 H = \frac{2}{3} \pi r^3$$

$$R^2 H = 2 r^3$$
$$6 \times 6 \times H = 2 \times 8 \times 8 \times 8$$
$$= \frac{256}{9}$$
$$= 28.44$$

∴ height = 28.44 cm

2

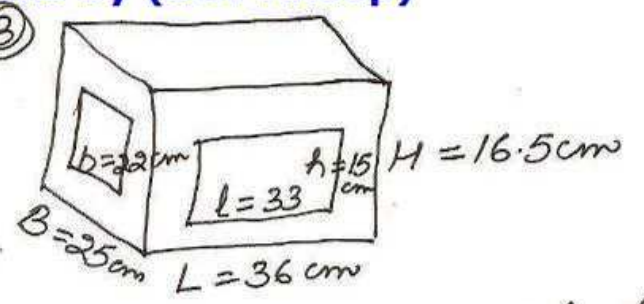


vol of water in cyl. tank = vol of water in cub. tank

$$\pi R^2 H = lbh$$

$$\frac{\pi}{72} \times 3.5 \times 3.5 \times H = H \times 6 \times 5$$
$$H = \frac{15 \times 2}{3.5} \quad | \quad H = 8 \frac{4}{7} \text{ cm}$$

3



volume of iron sheet

$$= LBH - lbh$$
$$= 36 \times 25 \times 16.5 - 33 \times 22 \times 15$$
$$= 14850 - 10890$$
$$= 3960 \text{ cm}^3$$

$$d = 7.5 \text{ g/cm}^3$$

$$\text{wt. (Mass)} = v \times d$$
$$= 3960 \times 7.5$$
$$= 29700 \text{ g}$$
$$= 29.7 \text{ kg}$$