



Exercise 13A

Question 2:

Length of Cistern = 8 m

Breadth of Cistern = 6 m

And Height (depth) of Cistern = 2.5 m

∴ Capacity of the Cistern = Volume of cistern

∴ Volume of Cistern = (l x b x h)

$$= (8 \times 6 \times 2.5) \text{ m}^3$$

$$= 120 \text{ m}^3$$

Area of the iron sheet required = Total surface area of the cistern.

∴ Total surface area = $2(lb + bh + lh)$

$$= 2(8 \times 6 + 6 \times 2.5 + 2.5 \times 8) \text{ m}^2$$

$$= 2(48 + 15 + 20) \text{ m}^2$$

$$= (2 \times 83) \text{ m}^2 = 166 \text{ m}^2$$

Question 3:

Length of a room = 9m,

Breadth of a room = 8m

And height of room = 6.5 m

∴ Area of 4 walls = Lateral surface area

$$= 2(l + b) \times h$$

$$= [2(9 + 8) \times 6.5] \text{ m}^2$$

$$= (2 \times 17 \times 6.5) \text{ m}^2$$

$$= 221 \text{ m}^2$$

∴ Area not to be whitewashed = (area of 1 door) + (area of 2 windows)

$$= (2 \times 1.5) \text{ m}^2 + (2 \times 1.5 \times 1) \text{ m}^2$$

$$= 3 \text{ m}^2 + 3 \text{ m}^2 = 6 \text{ m}^2$$

$$\therefore \text{Area to be whitewashed} = (221 - 6) \text{ m}^2 = 215 \text{ m}^2$$

∴ Cost of whitewashing the walls at the rate of Rs.6.40 per

Square meter = Rs. (6.40 x 215) = Rs. 1376

***** END *****