Exercise 13A

Question 4:

Length of plank = 5m =500 cm
Breadth of plank = 25 m
Height of plank = 10 cm
∴ Volume of plank = l x b x h
= (500 x 25 x 10) cm^3

Now,
Length of pit = 20 m = 2000 cm
Breadth of pit = 6m = 600cm
Height of pit = 80 cm
∴ Volume of one pit = (2000 x 600 800) cm^3

$$\therefore \text{Number of planks that can be stored} = \frac{\text{Volume of pit}}{\text{Volume of plank}}$$

$$= \frac{(2000 \times 600 \times 80)}{(500 \times 25 \times 10)} = 768$$

Question 5:

Length of wall = 8m = 800cm
Breadth of wall = 6m = 600 cm
Height of wall = 22.5 cm
∴ Volume of wall = l x b x h
= (800 x 600 x22.5) cm^3
Length of brick = 25cm
Breadth of brick = 11.25cm
Height of brick = 6cm
∴ Volume of brick = (25 x 11.25 x 6)cm^3

$$\therefore \text{Number of bricks required} = \frac{\text{Volume of the wall}}{\text{Volume of brick}}$$

$$= \frac{(800 \times 600 \times 22.5)}{(25 \times 11.25 \times 6)} = 6400$$

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