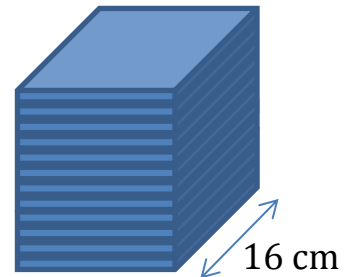


### Weekly Question (13 Feb)

Each side of a square tile measures 16 cm. A pile of 12 tiles has a volume of 4608 cm<sup>3</sup>. What is the thickness of each tile?



### Solution:

Each tile has a square base.

Area of square base (Length × Breadth) → 16 cm × 16 cm = 256 cm<sup>2</sup>

$$\underbrace{\text{Volume}}_{4608 \text{ cm}^3} = \underbrace{\text{Length} \times \text{Breadth}}_{256 \text{ cm}^2} \times \text{Height}$$

$$\text{Height of the pile of 12 tiles} \rightarrow \frac{\text{Volume}}{\text{Length} \times \text{Breadth}} = \frac{4608 \text{ cm}^3}{256 \text{ cm}^2} = 18 \text{ cm}$$

12 tiles (total thickness) → 18 cm

1 tile → 18 ÷ 12 = 1.5 cm

**Ans: 1.5 cm**