

Volume of cuboids

MODULE 4 · MEASURES — LENGTH, MASS, CAPACITY, AREA, VOLUME

NUMBER

Volume is the space inside a 3D shape. For a cuboid: $\text{Volume} = \text{length} \times \text{width} \times \text{height}$. The unit is cubic — cm^3 , m^3 .

→ A $4 \times 3 \times 2$ cm box: $4 \times 3 \times 2 = 24 \text{ cm}^3$.

→ A $10 \times 10 \times 5$ cm tank: **500 cm^3** (or 0.5 litres).

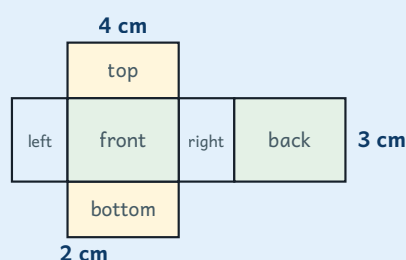
HOW TO ANSWER TODAY

- **Volume.** $\text{Volume} = \text{length} \times \text{width} \times \text{height}$. Answer in cubic units (cm^3 , m^3).

$$5 \times 4 \times 3 = 60 \text{ cm}^3$$

TRY IT ON THE LINE

For each cuboid, multiply $\text{length} \times \text{width} \times \text{height}$ to find the volume in cubic units.



1. Above: $4 \times 3 \times 2$ cm cuboid. $\text{Volume} = 4 \times 3 \times 2 = \underline{\hspace{2cm}} \text{ cm}^3$

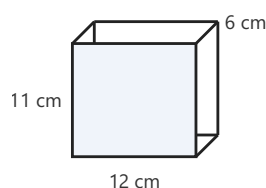
2. A $5 \times 5 \times 5$ cm cube. $\text{Volume} = \underline{\hspace{2cm}} \text{ cm}^3$

3. A $10 \times 4 \times 3$ cm cuboid. $\text{Volume} = \underline{\hspace{2cm}} \text{ cm}^3$

4. A $2 \text{ m} \times 1.5 \text{ m} \times 0.5 \text{ m}$ fish tank. $\text{Volume} = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ litres}$ ($1 \text{ m}^3 = 1000 \text{ L}$)

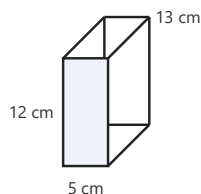
PRACTICE

1



At the after-school crafts club, Oisín builds a small cuboid storage box to hold the kite-making supplies. The box measures **12 cm** long, **6 cm** wide and **11 cm** high. What is the volume of the box?

2



5th class are building a wooden storage box to keep the giant chess pieces from the yard chess board. The box measures **5 cm** long, **13 cm** wide and **12 cm** high in the model the teacher shows them. What is the volume of the model box?