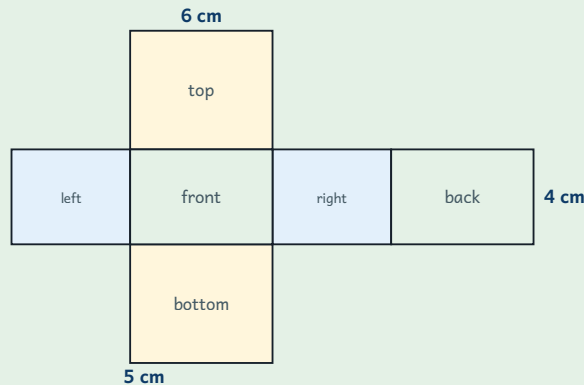


## VOLUME OF A MODEL BOX

- ① A building box measures 4 cm long, 3 cm wide and 2 cm high.
- ② Base layer holds  $4 \times 3 = 12$  unit cubes.
- ③ Stack 2 layers: volume =  $12 \times 2 = 24 \text{ cm}^3$ .

## WARM-UP

Examine the cuboid solid drawn on the page and record the volumes beside it.



1. Write the volume next to the solid for a  $3 \times 2 \times 2$  building box
2. Label the edges  $4 \times 4 \times 4$  and record that cube volume
3. Mark the volume of a  $6 \times 5 \times 4$  toolbox cuboid on the diagram

## PRACTICE

- ① You make a tiny storage box 7 cm long, 8 cm wide and 8 cm high from unit cubes. What is its volume? \_\_\_\_\_
- ② While building a model, you form a cuboid 9 cm by 7 cm by 8 cm. How many  $\text{cm}^3$  does it hold? \_\_\_\_\_
- ③ You stack cubes into a flat building block that is 4 cm long, 4 cm wide and 2 cm high. Find the volume. \_\_\_\_\_
- ④ You finish a big building crate that is 10 cm by 6 cm by 4 cm. What is the volume of the cuboid? \_\_\_\_\_

## ? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- |                                                                                                |                                                                                      |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| a. A cuboid 3 cm by 2 cm by 2 cm has a volume of $12 \text{ cm}^3$ <input type="text"/>        | c. A cube with edges of 4 cm has volume $64 \text{ cm}^3$ <input type="text"/>       |
| b. The volume of a cuboid is found by adding its length, width and height <input type="text"/> | d. Two cuboids with different edge lengths have the same volume <input type="text"/> |