


**Spring 2: Week 2.**

**Mrs Brown's Group: Monday  
Volume.**

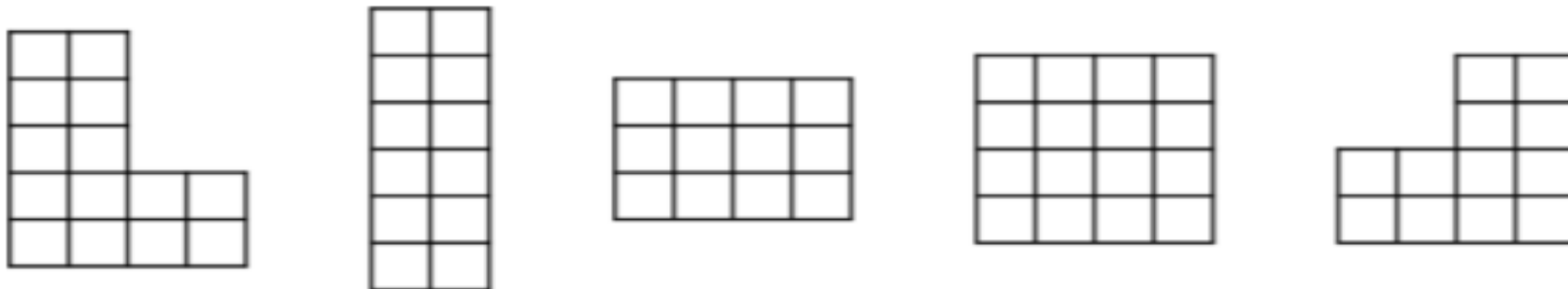
You do ...



Do these in your book before you put the date:

 Sort the shapes into the Carroll diagram.

	Quadrilateral	Not a quadrilateral
Area of 12 cm <sup>2</sup>		
Area of 16 cm <sup>2</sup>		




Now draw another shape in each section of the diagram.

## You do ...



Do these in your book before you put the date:

 How many rectangles can you draw with an area of  $24 \text{ cm}^2$  where the side lengths are integers?

What do you notice about the side lengths?

Using integer side lengths, draw as many rectangles as possible that give the following areas:

$$17 \text{ cm}^2$$

$$25 \text{ cm}^2$$

$$32 \text{ cm}^2$$

Date: Week 2.  
Title: **Volume.**



Title: To construct and interpret Pie charts.	Ingredients
<b>Volume.</b>	<ul style="list-style-type: none"><li>▪ Formula</li><li>▪ <math>L \times W \times H = V^3</math></li><li>▪ 3 Dimensional</li><li>▪ Capacity</li></ul>

- **Key words/terminology:** Formula,  $L \times W \times H = V^3$ , 3 Dimensional

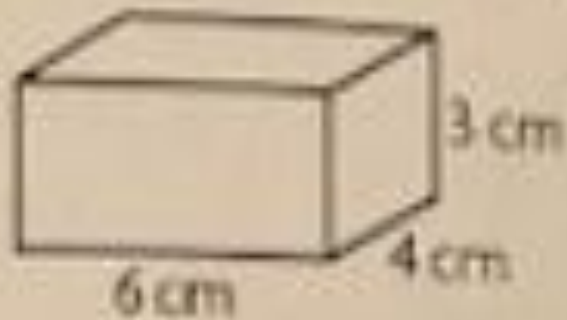
# **Volume**

**To compare volumes of cubes and cuboids.**



Volume is measured in cubic units.

Volume of a cuboid = length  $\times$  breadth  $\times$  height ( $V = lbi$ )



$$\begin{aligned}\text{Volume} &= (6 \times 4 \times 3) \text{ cm}^3 \\ &= 72 \text{ cm}^3\end{aligned}$$

You do ...

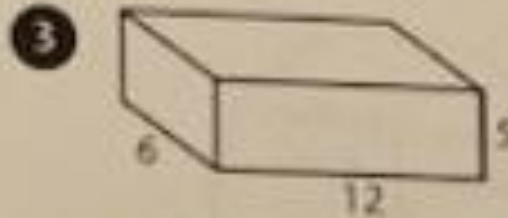


Show your calculations in your book.

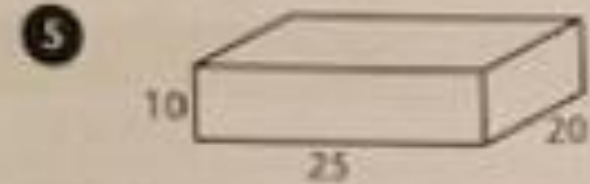
Find the volume of each cuboid. All lengths are in centimetres.



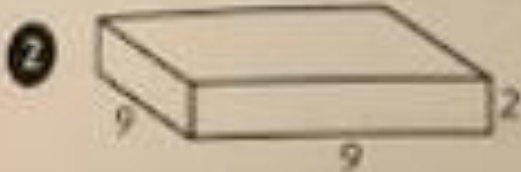
Volume = .....  $\text{cm}^3$



Volume = .....  $\text{cm}^3$



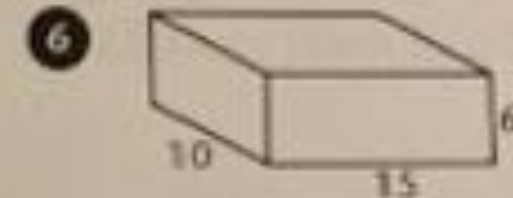
Volume = .....  $\text{cm}^3$



Volume = .....  $\text{cm}^3$



Volume = .....  $\text{cm}^3$



Volume = .....  $\text{cm}^3$

You do ...



Show your calculations in your book.

7 Complete the table.

LENGTH	BREADTH	HEIGHT	VOLUME
10 cm	6 cm		$360 \text{ cm}^3$
40 cm		20 cm	$20\,000 \text{ cm}^3$
12 cm	9 cm		$432 \text{ cm}^3$
	14 cm	5 cm	$1540 \text{ cm}^3$
	12 cm	12 cm	$2880 \text{ cm}^3$
24 cm		10 cm	$3600 \text{ cm}^3$



You do ...



Show your calculations in your book.

8 A cube has 5 cm edges. What is its volume? .....

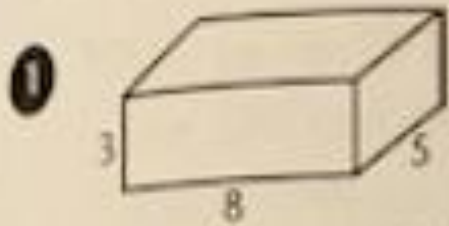
cm<sup>3</sup>

9 A cube has a volume of 27 000 cm<sup>3</sup>. How long are its edges? .....

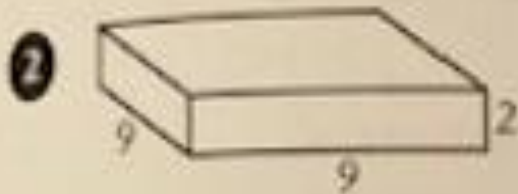
cm

10 A cuboid room has a base area of 54 m<sup>2</sup>. Its volume is 189 m<sup>3</sup>.  
What is its height? .....

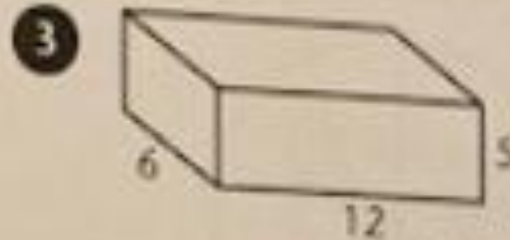
m



Volume = 120 cm<sup>3</sup>



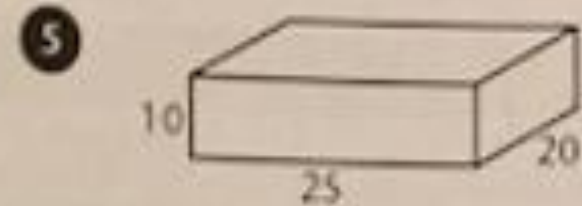
Volume = 162 cm<sup>3</sup>



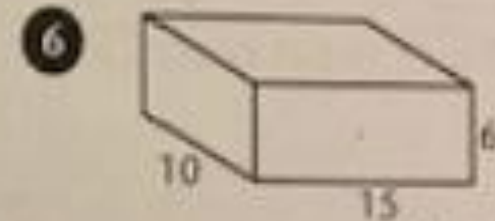
Volume = 360 cm<sup>3</sup>



Volume = 112 cm<sup>3</sup>



Volume = 5,000 cm<sup>3</sup>



Volume = 900 cm<sup>3</sup>



7 Complete the table.

LENGTH	BREADTH	HEIGHT	VOLUME
10 cm	6 cm	6 cm	$360 \text{ cm}^3$
40 cm	25 cm	20 cm	$20\,000 \text{ cm}^3$
12 cm	9 cm	4 cm	$432 \text{ cm}^3$
22 cm	14 cm	5 cm	$1540 \text{ cm}^3$
20 cm	12 cm	12 cm	$2880 \text{ cm}^3$
24 cm	15 cm	10 cm	$3600 \text{ cm}^3$

Write the answers only. Use a separate sheet for any workings out.

8 A cube has 5 cm edges. What is its volume?

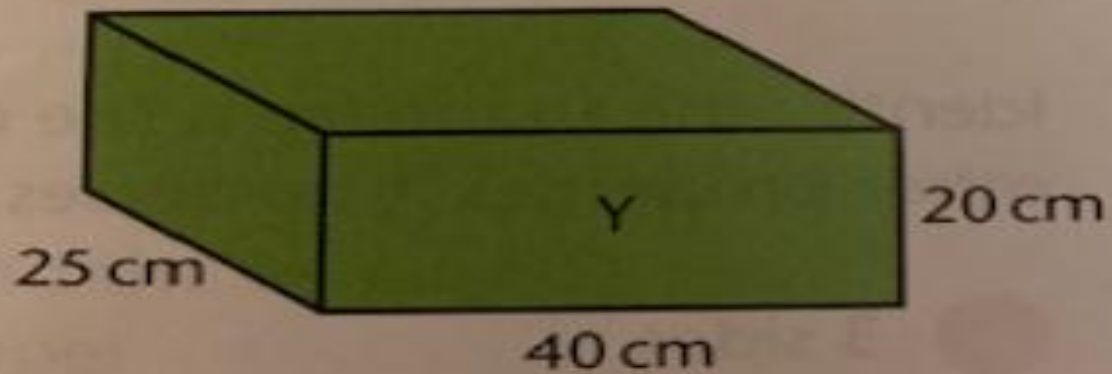
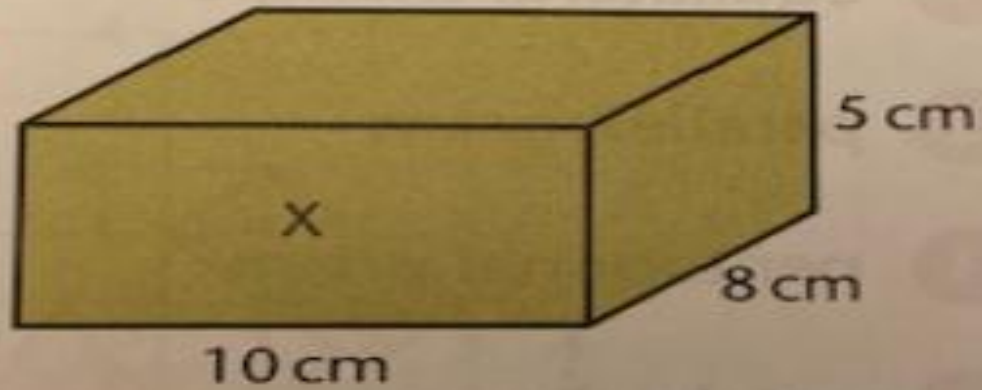
125  $\text{cm}^3$

9 A cube has a volume of  $27\,000 \text{ cm}^3$ . How long are its edges?

3,000 cm

10 A cuboid room has a base area of  $54 \text{ m}^2$ . Its volume is  $189 \text{ m}^3$ .  
What is its height?

3.5 m



How many of cuboid X  
would fit into cuboid Y?



50

**The End !!!!!**