

Answers

Base and Volume

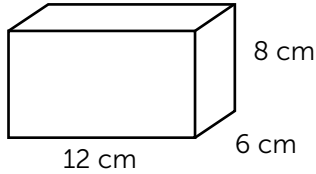
Sometimes the length and width have already been multiplied together for you. When this happens, it is called the **base**. When you know the value of the base, all you have to do is multiply the base times the height to find the volume of the object.

base = length x width

volume = base x height

Directions: Find the volume of each object using the base and height.

Example:

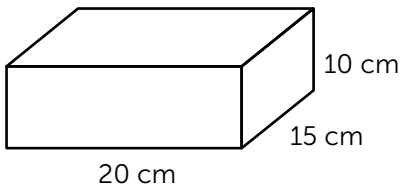


base = 12×6 , so the base is **72 cm^2**

To find the volume, multiply the base times the height.

$$V = \text{base} \times \text{height} \quad V = 72 \times 8 \quad V = \mathbf{576 \text{ cm}^3}$$

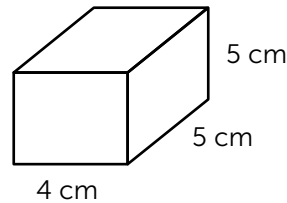
1.



$$\text{base} = 300 \text{ cm}^2$$

$$\frac{\mathbf{300}}{\text{(base)}} \times \frac{\mathbf{10}}{\text{(height)}} = \frac{\mathbf{3000 \text{ cm}^3}}{\text{(volume)}}$$

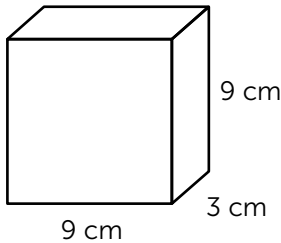
2.



$$\text{base} = 20 \text{ cm}^2$$

$$\frac{\mathbf{20}}{\text{(base)}} \times \frac{\mathbf{5}}{\text{(height)}} = \frac{\mathbf{100 \text{ cm}^3}}{\text{(volume)}}$$

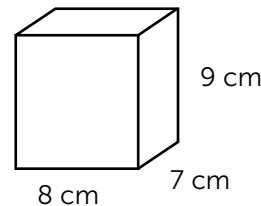
3.



$$\text{base} = 27 \text{ cm}^2$$

$$\frac{\mathbf{27}}{\text{(base)}} \times \frac{\mathbf{9}}{\text{(height)}} = \frac{\mathbf{243 \text{ cm}^3}}{\text{(volume)}}$$

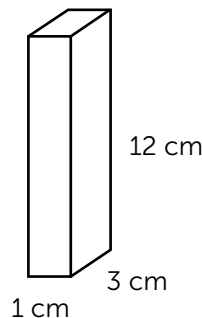
4.



$$\text{base} = 56 \text{ cm}^2$$

$$\frac{\mathbf{56}}{\text{(base)}} \times \frac{\mathbf{9}}{\text{(height)}} = \frac{\mathbf{504 \text{ cm}^3}}{\text{(volume)}}$$

5.



$$\text{base} = 3 \text{ cm}^2$$

$$\frac{\mathbf{3}}{\text{(base)}} \times \frac{\mathbf{12}}{\text{(height)}} = \frac{\mathbf{36 \text{ cm}^3}}{\text{(volume)}}$$