# A review from grade 6: Volume of rectangular prisms

The measurement of "Volume" means the quantity that you can put in a 3-D shape. It is measured in unit$^3$ (cubed).
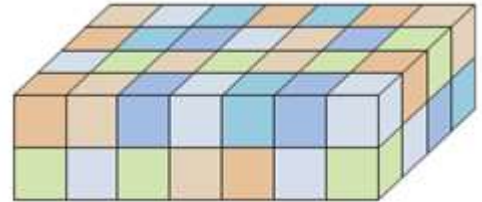
**Formula :**

Volume = Area of the base x height

      = A Base x height

**Example 1** Find the volume of this shape.

ABase = length x width

Volume = (Area of the base) x height

      =  length x width x height

**Example 2**

The area of the base of a small box is 100cm$^3$.   The height of the box is 9cm.  Find the volume of the box.

h =9cm

A base = 100cm$^2$

  Volume = (Area of the base) x height

      =  100 x 9
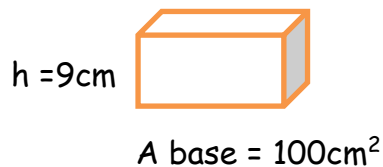
      = 900 cm$^3$

**Example 3   - Find the volume    (when the area isn't given)**

Volume = (Area of the base) x height

      =  length x width x height
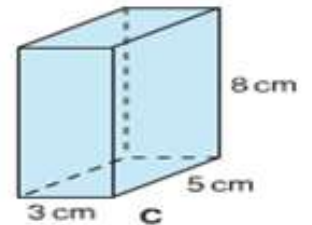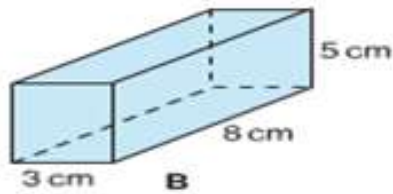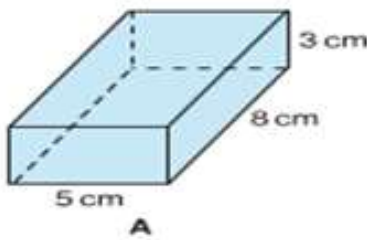
      = 3.2 x 7.5 x 4

      = 96cm$^3$

4.0 cm

3.2 cm

7.5 cm
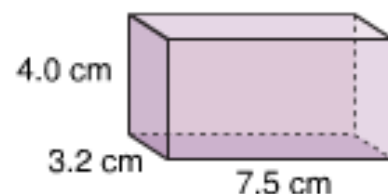
## Practise - volume

1. Find the volume of the rectangular prisms when the area of the base is given.
SHOW your work.  $V$ = *Abase x height*

a)

3 cm

$A = 40$ cm²

b)

9 cm

$A = 81$ cm²
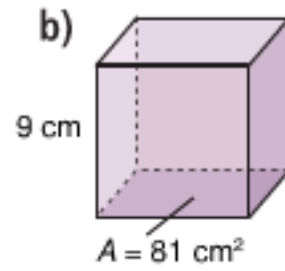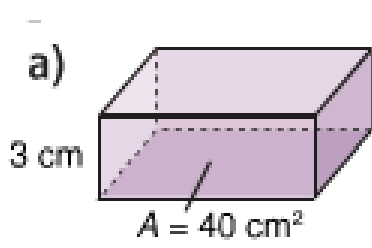
2. Find the volume of the rectangular and SHOW your work.  $V = l \times w \times h$

3 cm
8 cm
5 cm
**A**

5 cm
8 cm
3 cm   **B**

8 cm
5 cm
3 cm   **C**

3. The area of the base of a fish tank is 2013 cm².
The height of the tank is 30 cm.
Find the volume of the fish tank.

30 cm

$A = 2013$ cm²

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