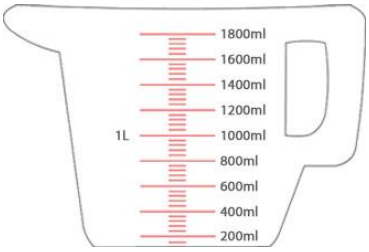
Capacity and Volume.

Previously we have investigated capacity- today we are going to investigate Volume.

What is the difference?

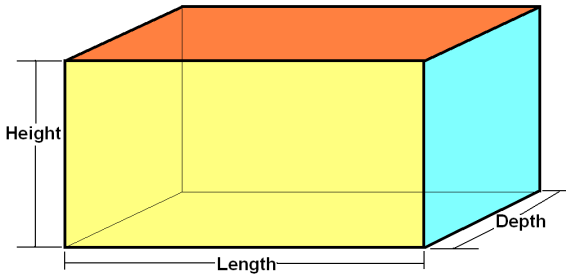
Capacity is how much liquid a 3D figure can hold. You looked at how much water you needed to fill various containers.

We measure capacity in **millilitres and litres**, you can see the units on a jug.



Volume is the amount of space inside a 3D figure.

A 3D figure has three measurements. It's height, its length and its width, sometimes this is also called its depth.



We measure volume in **cubic units**.

How do we find the volume of an item?

Let's investigate a problem to help us:

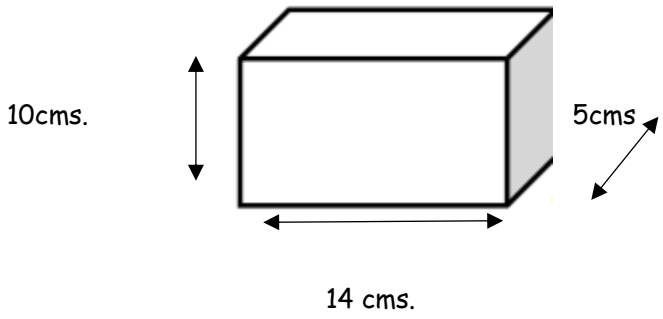
Max has a new fish tank. He wants to find out how much water the tank can hold.

There is a special formula he can use.

Volume = length x width x height'

Let's solve this problem:

Here is the fish tank with its measurements,



Using the formula, Volume = length x width x height

We can write a number sentence

V= 14cms x 5cms x 10cms =

Our calculation will be;

Step 1: length x width or depth

1 4x

5

_____

7 0

Step 2: The answer of this calculation x the height.

7 0 x

1 0

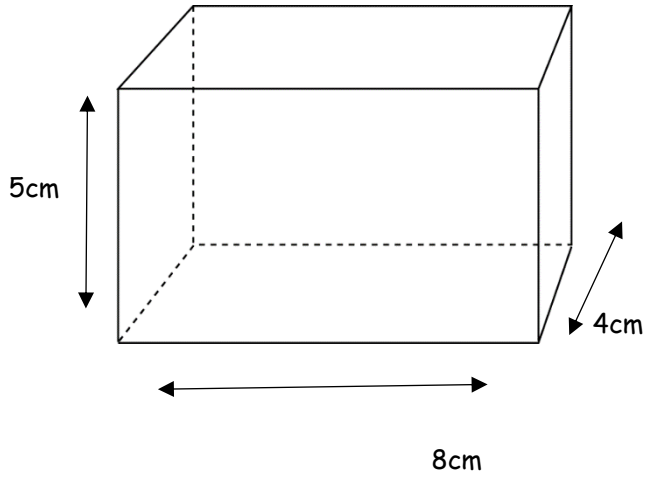
_____

7 0 0 cubic cms.

The answer to our problem is 700 cubic cms.

Now you try and solve these problems, remember to follow the 2 step pattern.

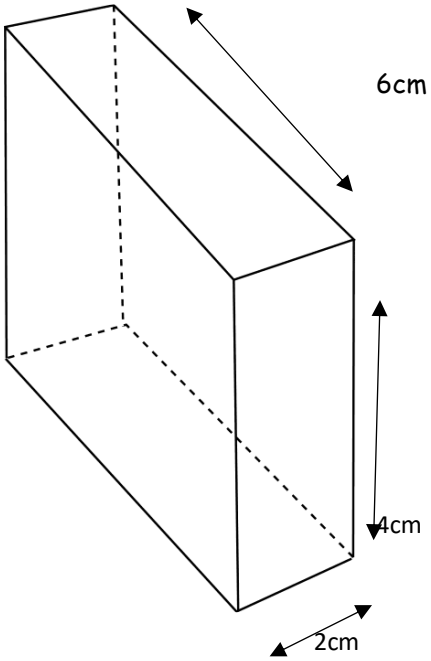
1. What is the volume of this cuboid?



Step 1: length x width or depth

Step 2: Answer x height

2. Find the volume of this cuboid.



Step 1: length x width or depth

Step 2: Answer x height

3. The length, width and height of a cuboid are: 5cm, 2cm and 3cm. What is its volume?

Step 1:

Step 2:

4. If you have a box of sweets that is 8 cm long, 5 cm wide, and 2 cm tall, how much space do you have for the sweets?

Step 1:

Step 2:

5. If you have a dresser that is 7 meters high, 2 meters wide, and 4 meters long, how much room do you have for your clothes?

Step 1:

Step 2:

Self-evaluation:

Easy

Tricky

Too hard

I think that because,