chapter 4

Sessions
40/41

4.1. Exploring volume

Let's investigate.

How could you find out how much space there is inside this shoe box?

The amount of space inside the box can be measured by its **volume**.

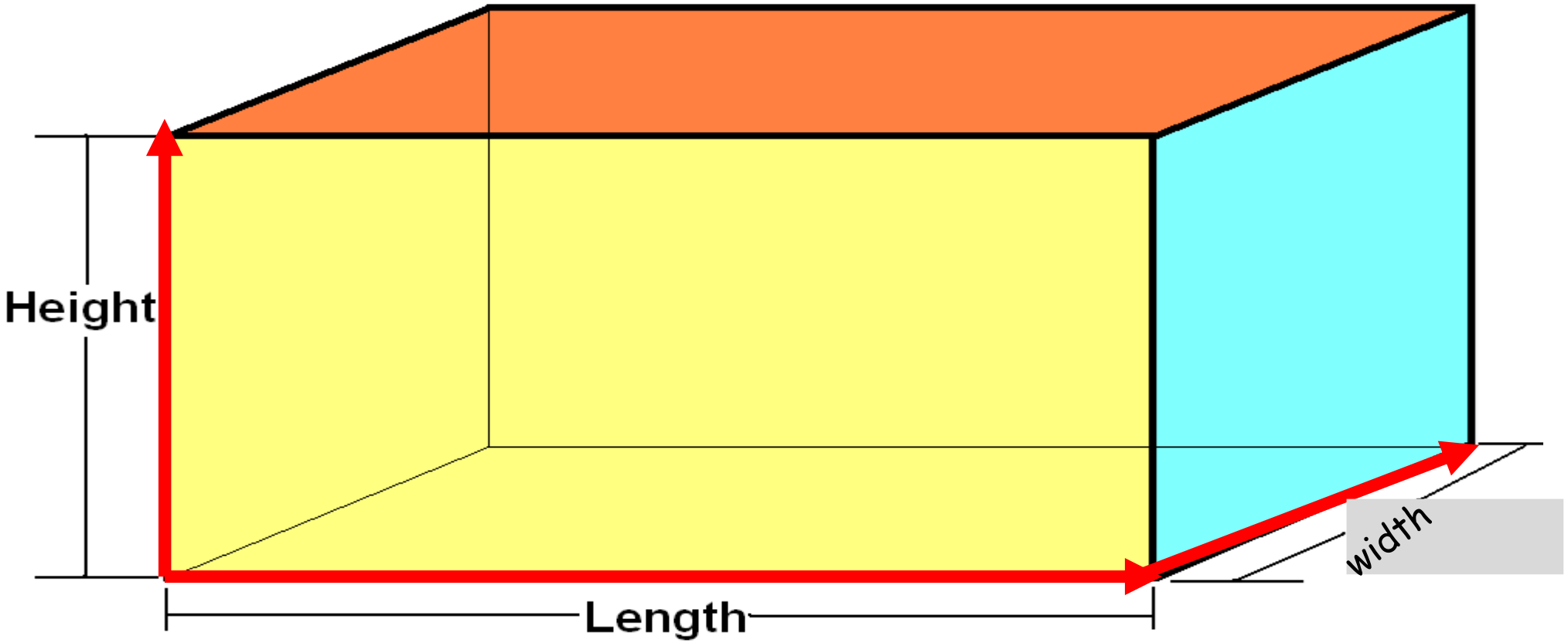
What is volume?

The amount of space
that is inside a container.

Volume can be measured only for
3D (3 dimensional) shapes.

What is volume?

Volume is measured in cm^3 (=cubic centimetre) .



How to measure volume:

fill

container

measure

How to measure volume:

Fill in the container with identical(similar) items, then count them.

Hands-on teaching

Taking some identical cubes/sticks to the class.
Putting them in a box and then saying the following target language:

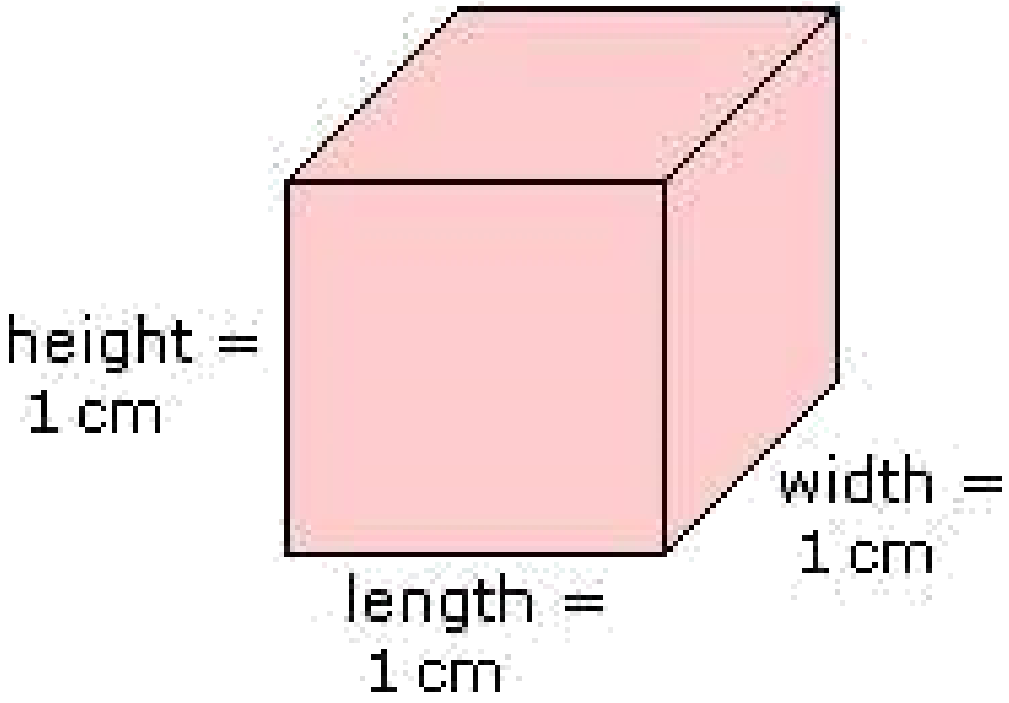
This box has got a volume of …. (number) cubes.
This box has got a volume of …. (number) sticks.
Doing this with different objects and boxes and asking
Ss to repeat the Target language after you.

This box has got a volume of (about) …. (number) apples.
This box has got a volume of (about) …. (number) bananas.
Tell them (about) is used because the items do NOT fill the box completely.

How to measure volume:

using cubic centimetre

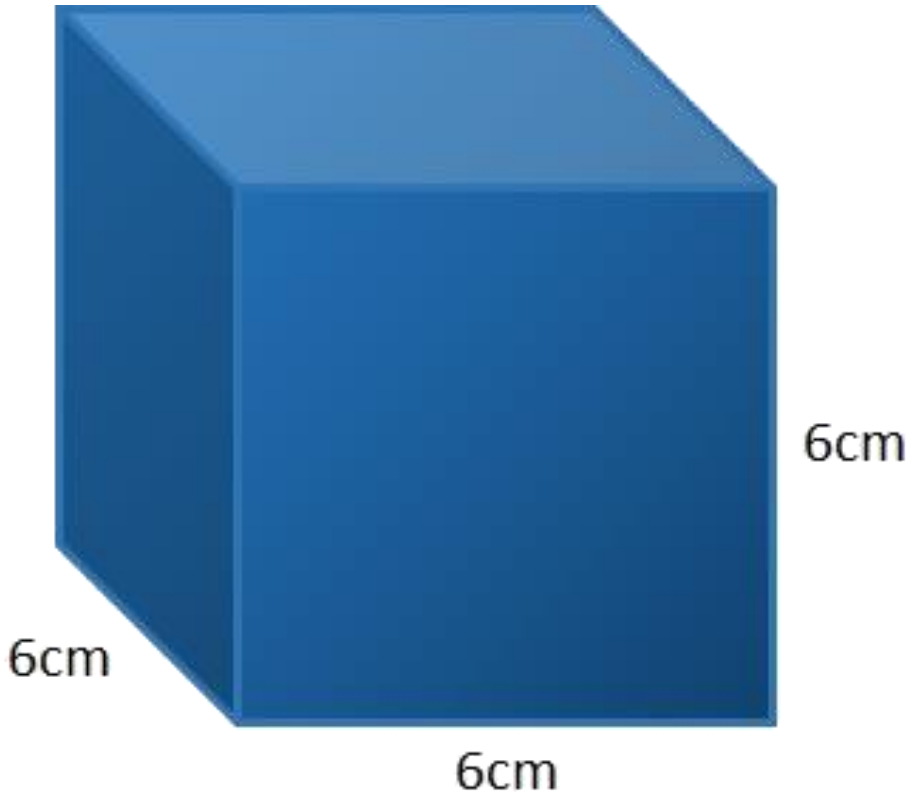
$$cm^3$$



1 * 1 * 1 = 1

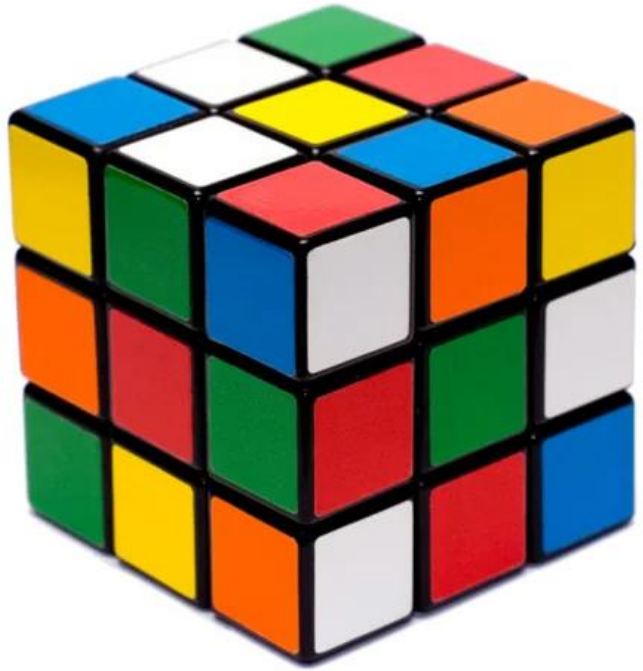
The volume of this shape is 1 cm^3

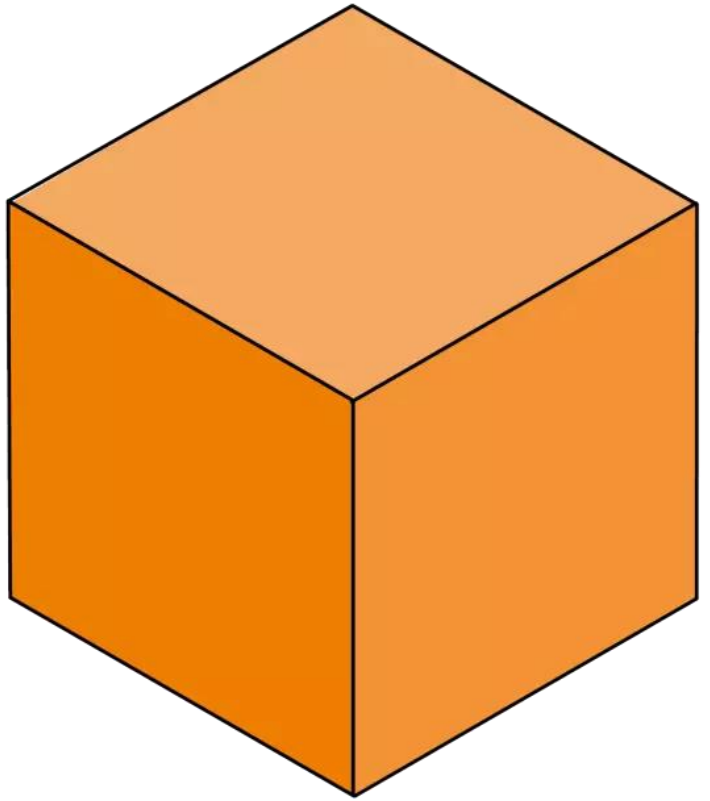
volume = height ✖ length ✖ width



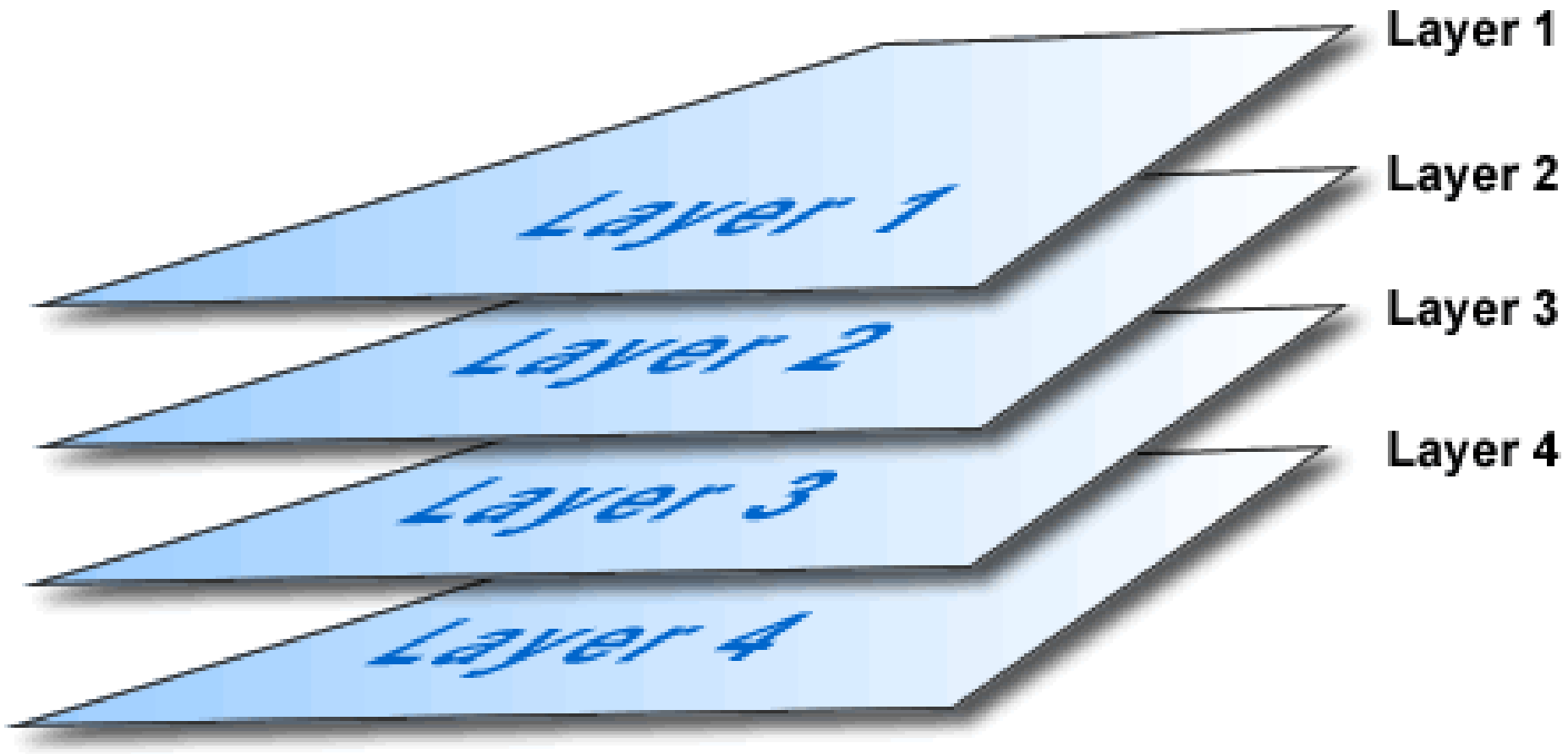
6* 6 * 6 = 216
The volume of this shape is 216 cm^3

volume = height ✖ length ✖ width





cube

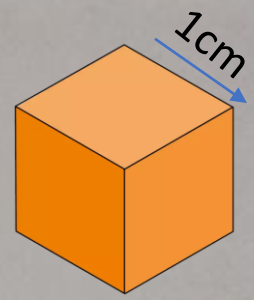


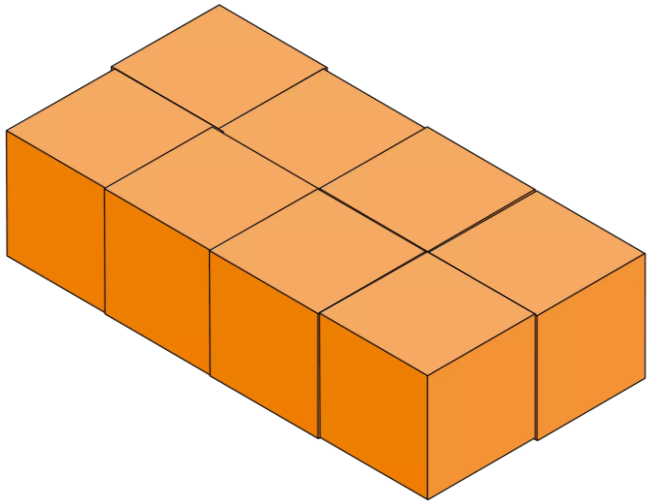
layer

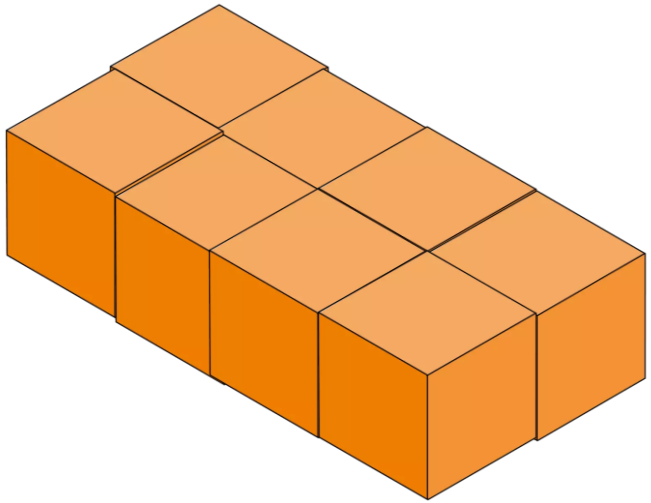
This box holds 2 layers of cubes.

There are 2 rows of 4 cubes, or 8 cubes in each layer.

So, the volume of this box is 16 cubic centimetres, or $16cm^3$.







V = 1*1*1= 1 cm^3

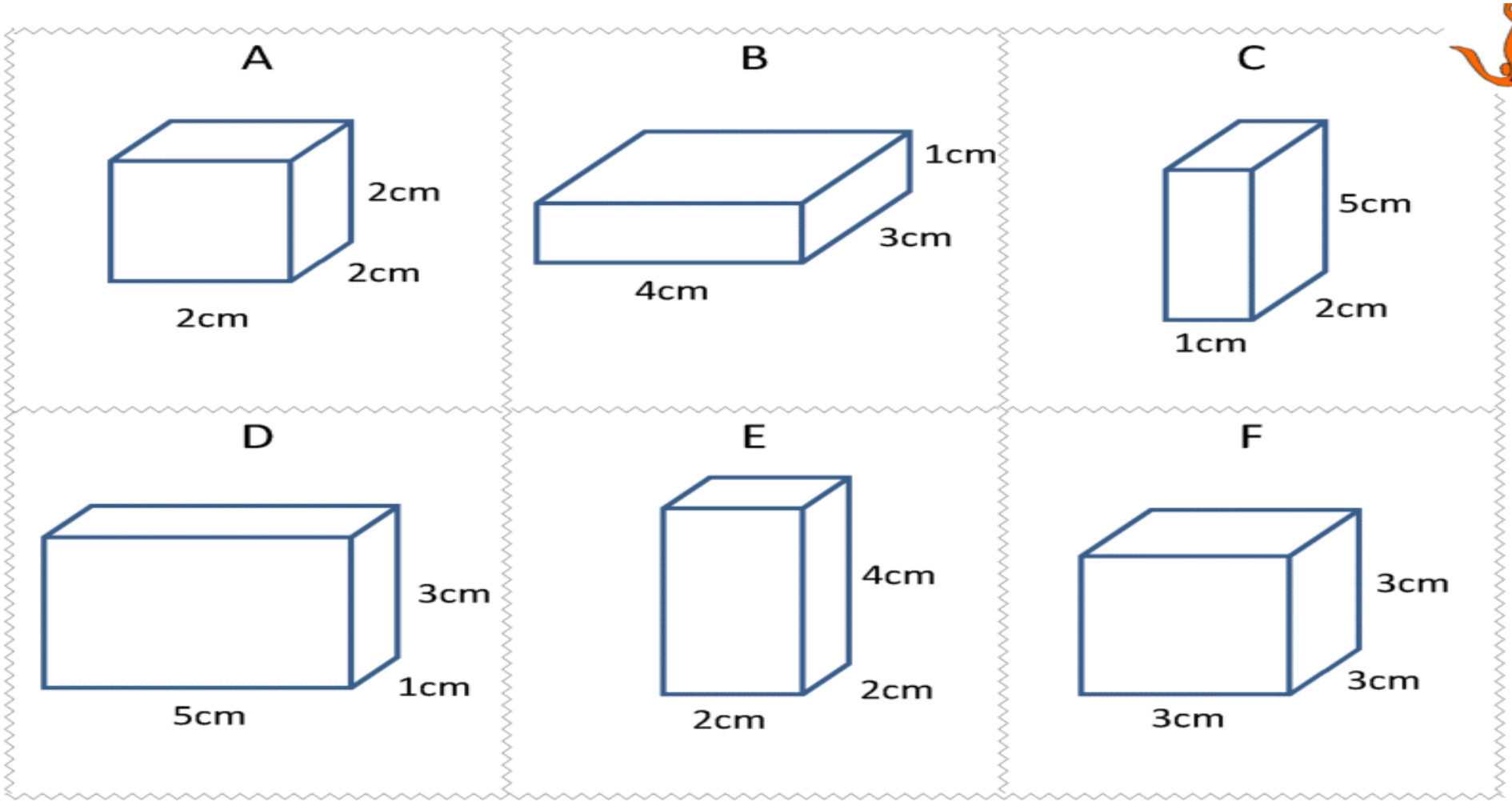
$16 * 1\ cm^3 = 16\ cm^3$

Volume is the amount of s…
that is inside a c… .

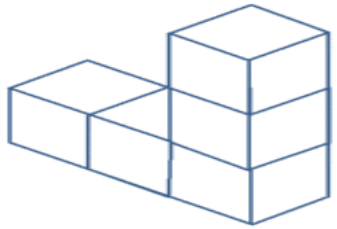
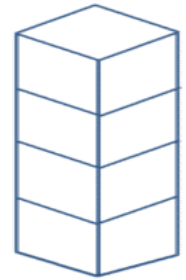
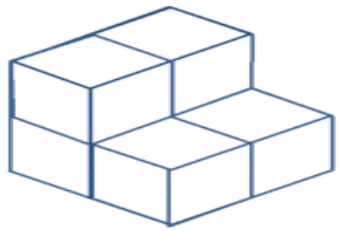
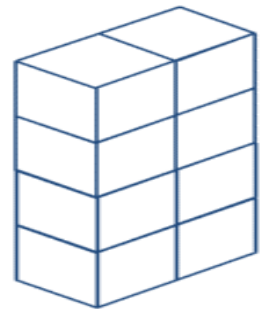
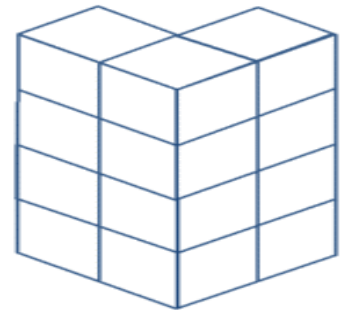
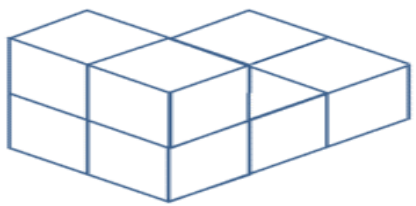
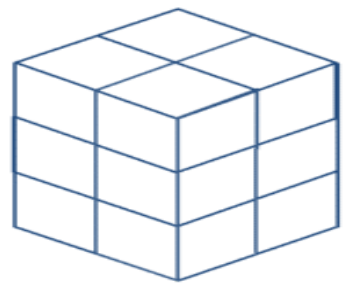
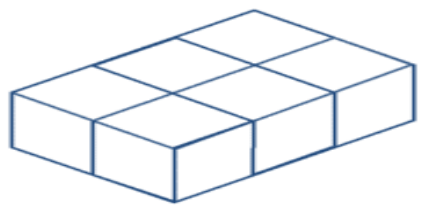
Volume can be measured only for
… shapes.

Volume is measured in
… .

Which shape's volume is : 12 cm^3
15 cm^3
27 cm^3

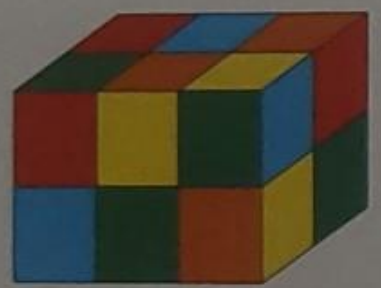


Write down the volume of each of these shapes by working out the number of cubes.

1) 	2) 	3)
Volume: _____ cubes	Volume: _____ cubes	Volume: _____ cubes
4) 	5) 	6) 
Volume: _____ cubes	Volume: _____ cubes	Volume: _____ cubes
7) 	8) 	9) 
Volume: _____ cubes	Volume: _____ cubes	Volume: _____ cubes

1. Make each object with centimetre cubes.
Find the volume of each object.
Order the objects from least to greatest volume.

a)



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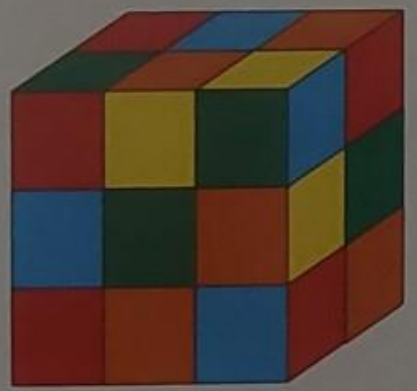
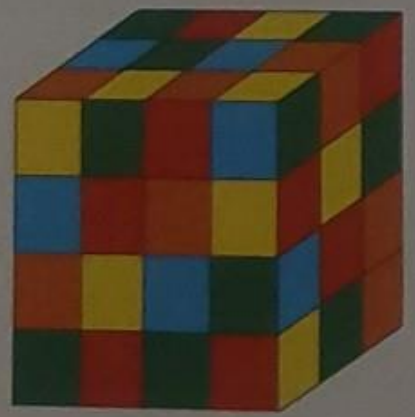


c)

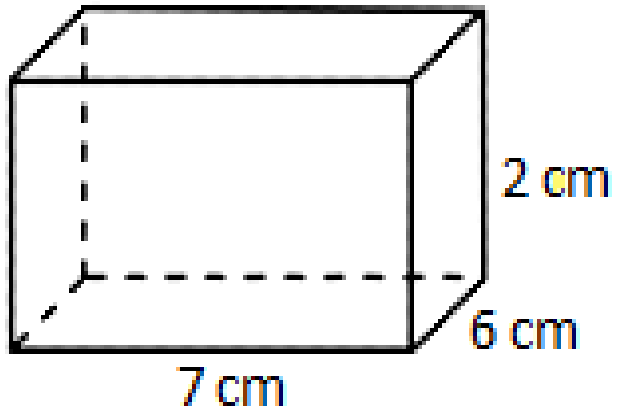
d)



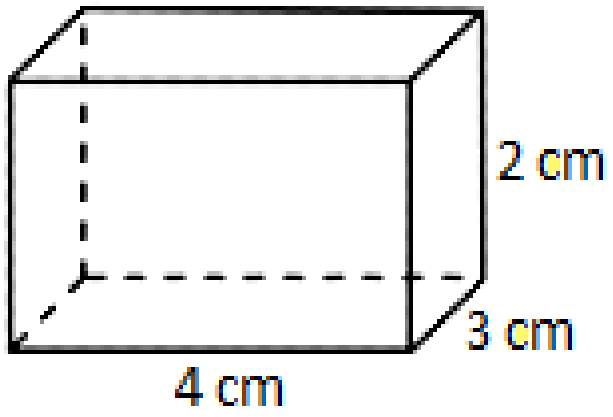
e)

f)

(i)



(ii)



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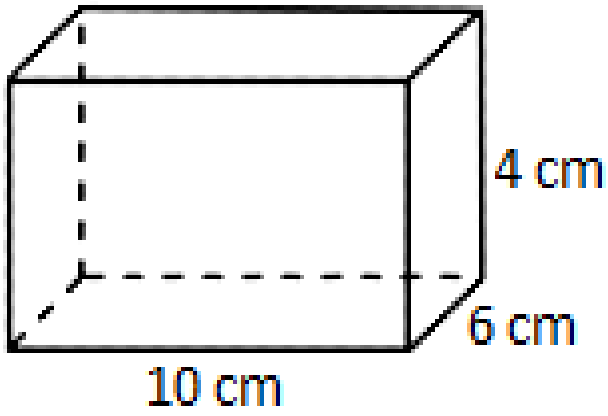

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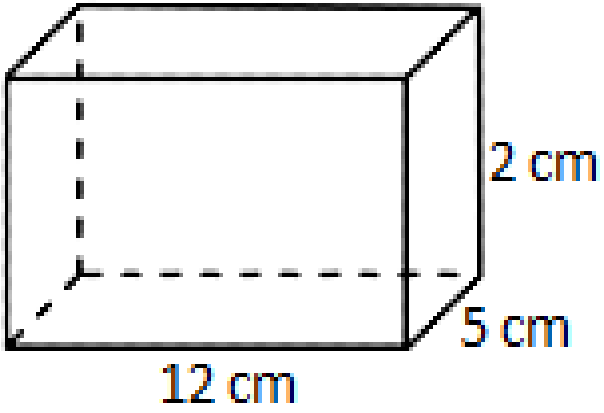

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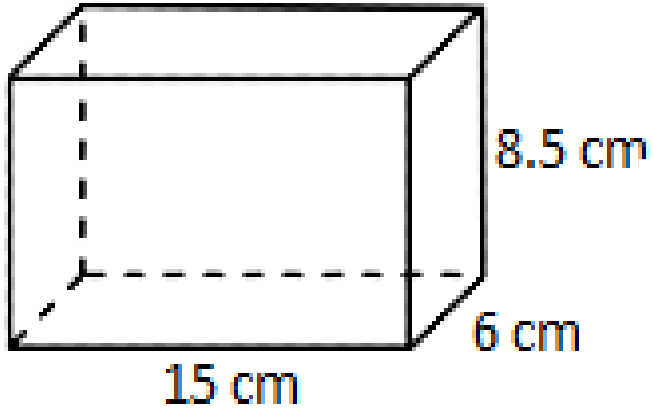
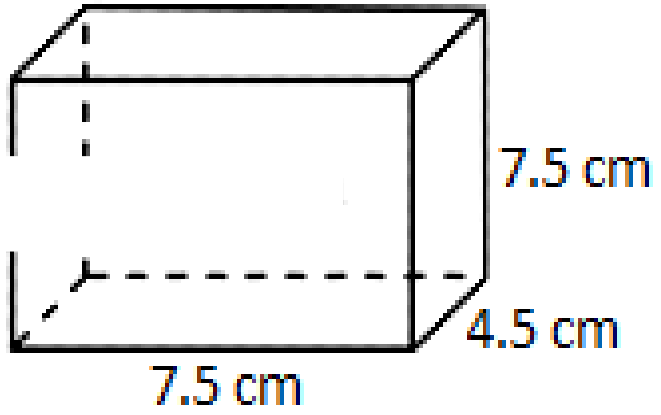
(vi)