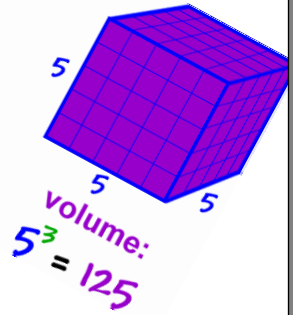
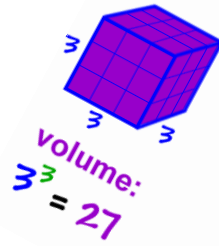


Measuring Volume



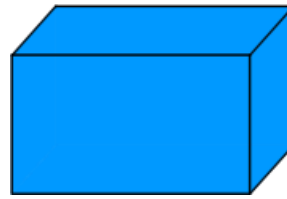
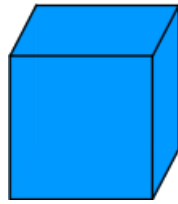
Volume: the amount of space an object takes up

We can measure the volume of

Solids
Liquids
AND
Gases



Regular Solids: Objects that have straight edges



MEASURE the edges
MULTIPLY length x width x height
UNIT: cubic centimeters (cm³)



Example:

Length = 1 cm

Width = 2 cm

Height = 5 cm

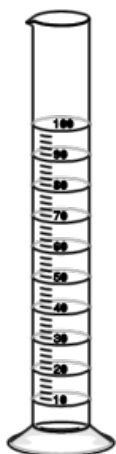
Volume Formula:

Length x width x height or l x w x h

Substitute:

1 cm x 2 cm x 5 cm = _____ cm _____

Measuring volume of liquids:



Use a graduated cylinder

Usually marked in **mL** (milliliters)

In a graduated cylinder, liquids have a curved surface called a **meniscus**

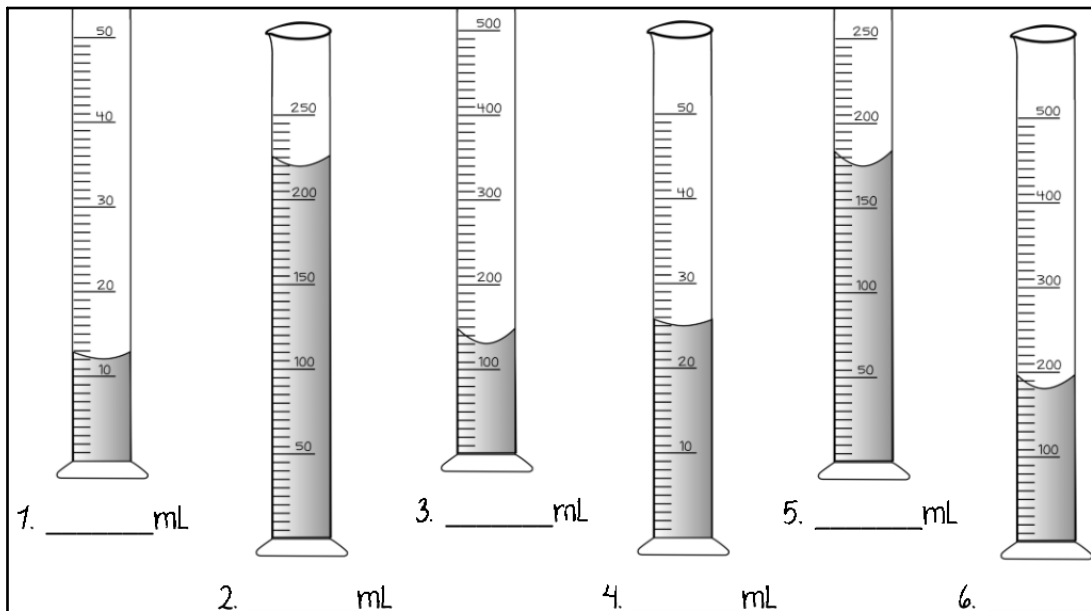
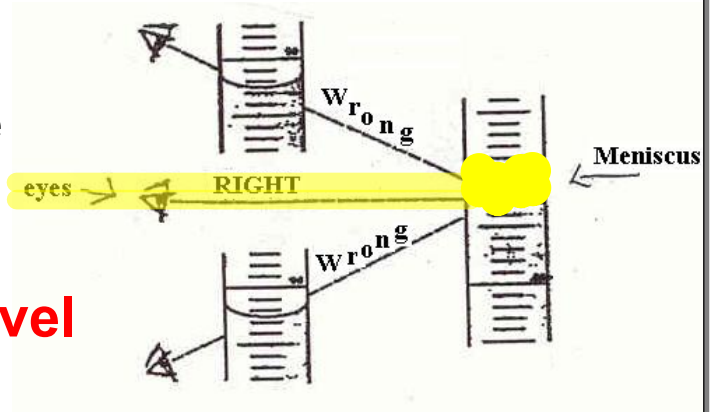


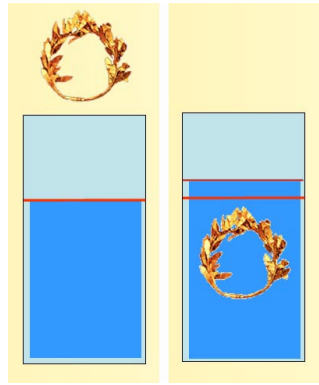
To measure accurately, look at the **bottom** of the meniscus.

To measure accurately, look at the **bottom** of the meniscus.

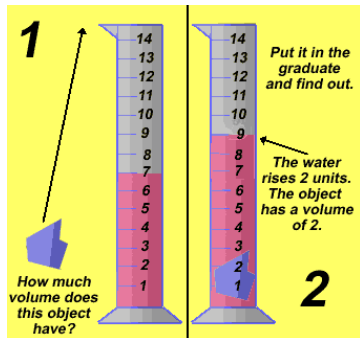
Graduated cylinder should be **flat** on the counter

Look at it from the **level** of the meniscus!





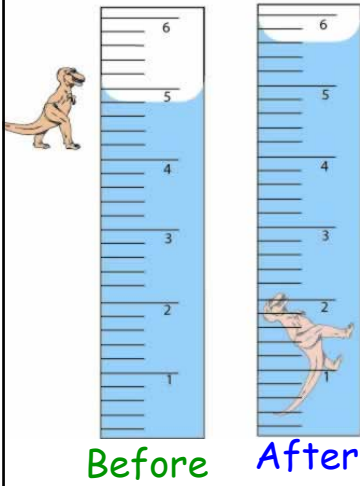
- 1) Use graduated cylinder!
- 2) Measure & record level of water
- 3) Put object in water
- 4) Measure & record level of water



Subtract !

$$\begin{array}{r} \text{Water level after} \\ - \text{Water level before} \\ \hline \text{Volume of irregular object} \end{array}$$

Subtract !



Water level after
- Water level before
Volume of irregular object

Measuring Irregular and Regular Objects

- Block
- Eraser
- Marble
- 5 Pennies
- Lego