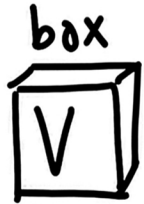


# Noteset 7A (Part 2) - In Class Noteset

## Volume and Volume Unit Conversions

### Volume (V)

The space that an object occupies (take up) in the universe



Universe  
(Nature)

### Equations for Volume

Square [math]

$$V_{\text{square}} = l \cdot w \cdot h$$

Circle

$$V = \frac{4}{3} \pi \cdot r^3$$

Cylinder

$$V = \pi \cdot r^2 \cdot h$$

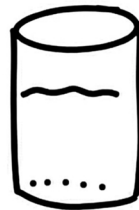
Unit:  $\text{cm}^3$  or  $\text{m}^3$

### Volume by difference

Using a tool used to measure volume to meas. vol. of an object

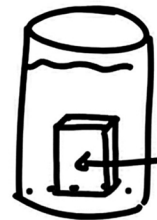
### Vol. by Difference

Before



$V_{\text{water}}$

After



$V_{\text{box}}$

$V_{\text{total}}$

$$V_{\text{box}} = V_{\text{total}} - V_{\text{water}}$$

## Units of Volume

Math:  $\text{cm}^3$  or  $\text{m}^3$

Science mL or L

## Conversion Factor

$$1 \text{ cm}^3 = 1 \text{ mL} \quad | \quad 1 \text{ L} = 1000 \text{ mL}$$

## Conversions

mL  $\rightarrow$  L

<u>start</u> mL		1 L
		1000 mL

L  $\rightarrow$  mL = \_\_\_\_\_ L

<u>start</u> L		1000 mL
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1 L  
= \_\_\_\_\_ mL