
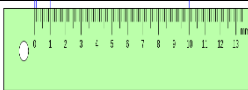
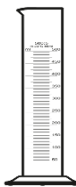





# General properties

## WHAT IS THE AIM OF THIS PRACTICAL?

You will learn to measure some general properties: the mass and the volume of some solid objects and one liquid.

## WHAT DO YOU NEED?

Digital scale	A ruler	Graduated cylinder
		
A dice	A bottle of water	A rock
		

## A BIT OF THEORY

General properties are those that cannot be used to identify a substance. For example, volume, mass or area.

## WHAT DO YOU HAVE TO DO?

### 1. Mass of a solid object

a. Take a scale and switch it on. Wait until the display shows zero;

b. Place the object on the scale's plate;

c. Read the value shown in the display;



- d. Fill the table with the result of the reading: A
- e. Repeat the process for each object: B

### 2. Volume of a regular solid object

- a. Take a ruler and measure all the edges (width, height and depth) of the object;
- b. Calculate the volume of the solid object using the following equation:

$$V = w \cdot h \cdot d$$

- c. Fill the table with the result of the calculation: C



### 3. Volume of an irregular solid object

- a. Take a graduated cylinder;
- b. Pour liquid into the cylinder paying attention not to reach the brim;
- c. Read the level of the liquid ( $V_i$ ) avoiding the parallax error;
- d. Drop the object into the cylinder;
- e. Read the new level of the liquid ( $V_f$ ) avoiding the parallax error;
- f. Calculate the volume of the solid ( $V_s$ ) object by using the following equation:

$$V_s = V_f - V_i$$

- g. Fill the table with the result of the calculation: D



### 4. Volume of a liquid

- a. Take a graduated cylinder;
- b. Pour the liquid into the cylinder paying attention not to reach the brim;
- c. Read the level of the liquid avoiding the parallax error;
- d. Fill the table with the result of the reading: E
- e. Repeat the process for each liquid.



### 5. Mass of a liquid

- a. Take a scale and switch it on. Wait until the display shows zero;
- b. Place a graduated cylinder on the scale's plate;
- c. Press the "Tare" button;

- d. Pour the liquid into the cylinder paying attention not to reach the brim;
- e. Read the value shown in the display;
- f. Fill the table with the result of the reading: F



RESULTS:

	Mass (g)	Volume (cm <sup>3</sup> )
Regular solid object	A	C
Irregular solid object	B	D
Liquid	F	E

### FEED-BACK

Evaluate the difficulty of this practical. Circle the number that suits the level of difficulty you found while going through this practical:

*Very Easy*    1    2    3    4    5    *Very Difficult*

Did you enjoy going through this practical? Circle the number that suits your choice

*Not at all*    1    2    3    4    5    *Very much*