

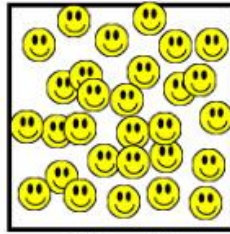
# What is density?

## Density of Matter

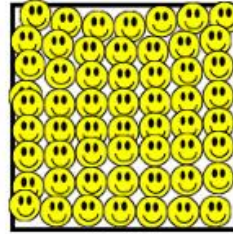
How tightly packed matter is. The amount of mass in a given space.



Gas



Liquid



Solid

Less dense



More dense

(Image from <https://sites.google.com/a/linguisticocassara.it/flipped-physics/density>)

### TASK

You want to find a general formula which describes the density of any object.  
Consider an object with:

$V$  \_\_\_\_\_  
 $m$  \_\_\_\_\_  
 $d$  density

### Complete the sentences.

By definition, \_\_\_\_\_ is the ratio between the mass and \_\_\_\_\_, in formulae:

$$d = \frac{m}{V} .$$

Mass has the unit of .....or [g]; Volume has the unit of ..... or [cm] or [L] so density unit is .....or [ $g/cm$ ]

Inverting the previous formula, we get that

$$m =$$

$$V =$$