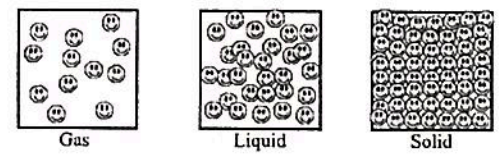


Name: _____ Date: 1/31/19 Period: _____

Density:

- Amount of mass in a specific amount of Volume
- How tightly packed the particles of an object are



Less dense \longrightarrow More dense

- Calculated using the following formula:

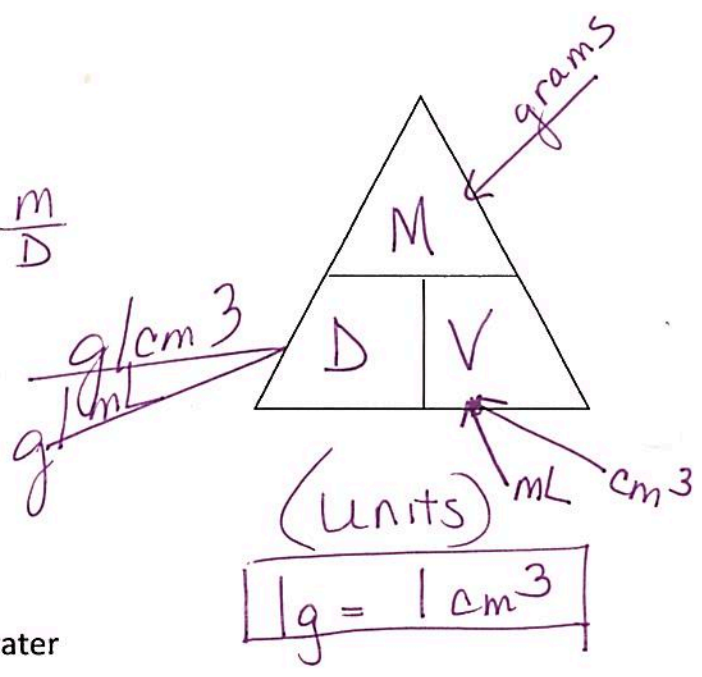
$$\text{Density} = \frac{m}{V}$$

$$D = \frac{m}{V}$$

$$m = D \cdot V$$

$$V = \frac{m}{D}$$

- mass is measured in g
- density is measured in mL or cm^3



Why do some things float and others sink?

- Density of water = 1 g/cm^3
- Object with density $> 1 \text{ g/cm}^3$ will sink in water
- Object with density $< 1 \text{ g/cm}^3$ will float in water
- Changing an objects size will not change its density!!!

Cubes in Water:

- A. 100 % under & on bottom ... $> 1.0 \text{ g/cm}^3$
- B. 90 % under ... $\approx 0.9 \text{ g/cm}^3$
- C. 30 % under ... $\approx 0.3 \text{ g/cm}^3$
- D. 50 % under... $\approx 0.5 \text{ g/cm}^3$
- E. 20 % under... $\approx 0.2 \text{ g/cm}^3$
- F. Suspended ... 1.0 g/cm^3

