

# Density Notes

Density - describes how much mass is in a given volume of a material.  
Density is the mass per unit volume.

$$D = \frac{m}{V} \qquad \text{Density} = \frac{\text{mass}}{\text{volume}}$$

$$* \frac{g}{cm^3} \quad \text{or} \quad * \frac{g}{mL} \quad \text{or} \quad \frac{Kg}{m^3}$$

$$1 mL = 1 cm^3$$

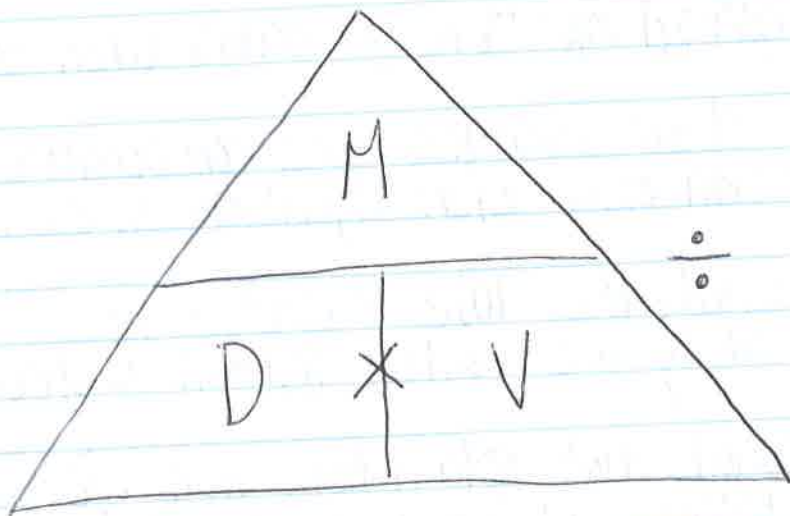
$$\text{Density of Water} = \frac{1.0g}{mL} \quad \text{or} \quad \frac{1.0g}{cm^3}$$

$D > \frac{1.0g}{mL}$  object will sink in water

$D < \frac{1.0g}{mL}$  object will float in water

→ Density of a material is the same no matter what the size or shape of the material.

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

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

$$M = D \times V$$