

# H.W Physics

Q

$$a) \frac{1 \text{ gm}}{1 \text{ cm}^3} = \frac{1000 \text{ kg}}{1 \text{ m}^3}$$

$$= \frac{10.3 \text{ gm}}{1 \text{ cm}^3} \times \frac{1000 \text{ kg}}{\text{m}^3}$$

$$= \frac{10300}{\text{m}^3}$$

$$b) \begin{array}{l} \text{Density of silver} = 10.3 \text{ gm/cm}^3 \\ \text{" " " water} = 1 \text{ gm/cm}^3 \end{array}$$

$$\text{Relative Density} = \frac{10.3 \text{ gm/cm}^3}{1 \text{ gm/cm}^3} = 10.3$$

$$2. \text{ CGS} = \frac{750}{1000} = 0.75 \text{ gm/cm}^3$$

$$\text{SI} = 0.75 \text{ gm/cm}^3 \times 1000 \\ = 750 \text{ kg/m}^3$$

3. As temperature increases molecules of water and air are energized and so the molecules spread making it less density.

4. Relative density is comparing of a density of object with another (mostly water). There is no unit of relative density.

5. If density of the body is less than the density of liquid <sup>it will float</sup> & If the density of the body is more density than the liquid it will sink.

6. It states that if the body displace equal<sup>a</sup> weight of water  $\rho =$  to the weight of object it will float.

a) Liquid A, as it there is more volume and density of true force resulting in ~~is~~ more upthrust.

b) Liquid C, as it has the most upthrust.

c) Liquid A, as it has the least upthrust due to ~~unwanted~~ density of the object.