

Physics

1) The density of silver in kg m^{-3} is 10800 kg m^{-3}

$$10^3 \times 10.8 \text{ kg m}^{-3} \\ = 10800 \text{ kg m}^{-3}$$

2) relative density of silver

1) Mass of wood = 150g

Volume of wood = 200 cm^3

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

$$D = \frac{150}{200}$$

$$D = 0.75 \text{ g/cm}^3$$

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

3) As when volume increases ~~density~~
density decreases.

4) Relative ~~density~~ density is the ratio of density of a substance to the ~~density~~ density of water at 40°C .

$$\text{Unit} = \frac{m}{l^3}$$

5. An object will float if it is less dense than the liquid it is placed in.

6. When any boat displaces a weight of water equal to its own weight, it floats.

eg) The buoyant force is same in each case as weight also same in each case. and buoyant force is equal to weight of liquid displaced.

a) The liquid A has the least density as the body immerses the maximum.

c) Liquid C has the greatest density as the body immerses the least.