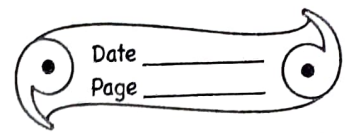


H.W PHYSICS



1) When empty = 35g

When filled with water = 65g
 $= 65 - 35 = 30g$

When filled with alcohol = 59g
 $= 59 - 35 = 24g$

$\rho = \frac{m}{V} = \frac{24g}{10ml}$ density of alcohol = 2.4g/cm³

Relative Density $\frac{2.4g}{1} = 2.4$

1) Density Bottle is a specific bottle which has a stopper at its neck. It is used to measure the density of liquid. usually it comes with 25ml or 50ml density.

→ The stopper has a narrow hole through it. When bottle is filled the stopper is inserted the excess liquid gets out through the hole and drains. Thus, it will contain same volume of any liquid each time filled.

1) Density is the mass per unit volume of a substance denoted by "d":

*) Relative density is the ratio of density of substance to the density of water.

4) This means the density of aluminium to the density of water is 2.4. This also tells that the density of aluminium is 2.4 g/cm³

5) a) volume of density bottle = 21.8 ml

b) R.D of liquid = $\frac{40.6}{1} = 40.6$

6) a) Density of Brine solution = $\frac{54}{22}$
 $= 2.2$

$$d = \frac{m}{v}$$

$$d = \frac{22}{22} = 1$$

$$R \cdot D = 1$$