

HOME ASSIGNMENT

- 1) The mass of a density bottle is 35 g when empty, 65 g when filled with water, and 59 g when filled with alcohol. Find the relative density of alcohol.

A- When it is filled with alcohol = 59 g

$$\text{Mass of alcohol} = 59 - 35 \text{ g} = 24 \text{ g}$$

$$\text{Density of alcohol} = \frac{\text{Mass}}{\text{Volume of bottle}} = \frac{24}{30}$$

$$\text{R.D.} = \frac{\text{Density of substance}}{\text{Density of water}} = \frac{24}{30} = 0.8$$

(Volume of substance = 30 g)
Mass of substance = 59 g

- 2) Explain the meaning of the statement 'Relative density of aluminium is 2.7'.

A- This statement refers to a piece of aluminium of a given volume has a mass 2.7 times that of an equal volume of water.