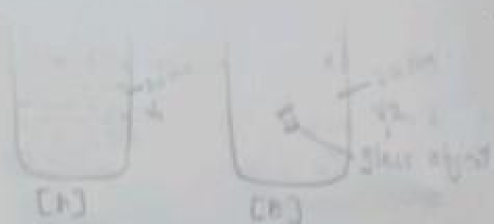
* Simple lab Method *



- Solid is weighted on balance against known gm of weights and mass is determined
- fill cylinder with known volume $[v_1]$
- then add object
- then measure water level $[v_2]$
- the differerence btween $[v_2 - v_1]$ in ml is equal to volume of solid.

So - density - $D = \frac{M}{V}$

* Floatation method

- observation that solid object will either sink, float or remain suspended
- density can be known from this liquid used
- \> density -> sink
  < density -> float
  = density -> suspended.

1) heavier density -> methylene Iodide
   -> bromoform
2) lighter density -> bromobenzene
   -> Nitrobenzene
   - benzene
   - xylene

* density compared by density gradient method.

- tube length -> 30 cm
  diameter -> 1 cm.
- Standard tube -> by mixing 2 liquid layer in varying proportion with different density value
- 6 layers with bottom layer high density.

take 7 test tube in rack

Mixture of bromobenzene + bromoform
[density - 2.89] [1.52 gm/cm³]

↓

Pure BF = 6ml

5ml BF +1 ml BB = 6ml

make 7 equal species in density gradient tube

carefully add solution in order