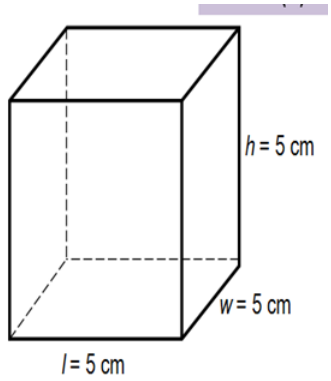
PSBB Learning Leadership Academy

MASS, WEIGHT AND DENSITY Revision Worksheet

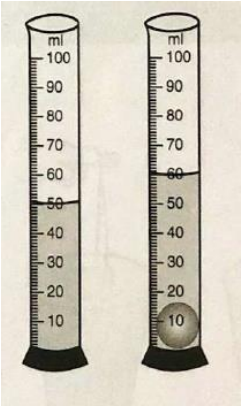
VIII Std – Science

1. (a) Define weight. What is its SI unit?
2. Define density, mass, volume, buoyant force, convection currents.
3. Differentiate between miscible and immiscible liquids. Give two examples for each.
4. The density of lead is 11.6 g/cm^3 and that of wood is 800 kg/m^3. What do you understand by these statements?
5. How does the density of a liquid change with the rise in temperature? considerably.
6. Two solids A and B of density 25 g/cm^3 and 0.80 g/cm^3 are placedin a liquid 'L' of density 1.2 g/cm^3. Which solids is likely to float andwhy?
7. Mention any four differences between mass and weight
8. State Archimedes principle. Explain law of floatation of bodies in a liquid.

9. What is the volume of the cube?



10. Given: Mass of the ball is 80g. Calculate its volume and density.



Mass of the ball = …….

Volume of water displaced = …… - …….. = ……..

Volume of the ball = …….

Density of the ball = …… / ……

= ……

11. How can huge ships made of heavy metal float whereas a small iron nail sinks in water?
12. Atul poured 10ml each of four immiscible liquids A, B, C and D, having density 1g/cm3, 0.6 g/cm3, 3.0 g/cm3 and 1.5 g/cm3 respectively, into a beaker. Draw a diagram to show how they would be arranged in the beaker.
13. What is the mass of air in a cube having side 10 cm, if the density of air is 1g/cm3.
14. A log floats on water. It weighs 100Kg-wt.
    (i) What weight of water must the log displace?
    (ii) What mass of water does it displace?
    (iii) If the density of water is 1000 Kg/m3, what volume of water is displaced by the log?
15. Fill in the blanks.

1. Mass per _____ volume is called density.
2. An iron needle sinks in water as its density is _____ than 1 g/cm^3.
3. The SI unit of density is_____.
4. A body X floats in a liquid Y. The density of body X is _____ than liquid Y.
5. The weight is found by _____ balance.
6. The unit of mass in SI system is_____ and the unit of weight in SI system is _____.
7. One Newton is the force by which a mass of _____ g is attracted towards earth.
8. The weight of a body is maximum at _____ and minimum at _____ of the earth.
9. The density of milk is 1.04 g/cm^3. Therefore, 1 cm^3 of milk has a mass of _____ g.
10. The mass of a body _____ zero, whereas the weight of a body can be _____.