

# Determination of density of an irregular solid, Density of a liquid, density bottle.

## CLASS-VIIC(RANK UP)

**SUBJECT : PHYSICS**

**CHAPTER NUMBER: 2**

**CHAPTER NAME : PHYSICAL QUANTITIES AND MEASUREMENT**

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**CHANGING YOUR TOMORROW**

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# Home Assignment

1. The density of alcohol is  $600 \text{ kg/m}^{-3}$ . Express it in  $\text{g cm}^{-3}$ .
2. A piece of wood of mass  $150 \text{ g}$  has a volume of  $200 \text{ cm}^3$ . Find the density of wood in (a) C.GS unit, (b) S.I. unit
3. Calculate the density of solid from the following data:
  - (a) Mass of solid (M) =  $72 \text{ g}$
  - (b) Initial volume of water in measuring cylinder =  $24 \text{ ml}$
  - (c) Final volume of water when solid is completely immersed in water  $42 \text{ ml}$ .
4. How does the density of a liquid (or gas) vary with temperature?
5. What is a density bottle? How is it used to find the density of a liquid?

# Density of fluid using density bottle, Relative density

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# Home Assignment

1. The mass of a density bottle is 35g when empty, 65g when filled with water, and 59g when filled with alcohol. Find the relative density of alcohol.
2. What is a density bottle? How is it used to find the density of a liquid?
3. Distinguish between density and relative density.
4. Explain the meaning of the statement 'Relative density of aluminum is 2:7.'
5. The mass of an empty density bottle is 21.8g, when filled completely with water it is 41.8g and when filled completely with liquid it is 40.6g. find
  - a. The volume of density bottle
  - b. The relative density of liquid.
6. From the following observations calculate the density and relative density of a brine solution
  - a. Mass of empty density bottle = 22g
  - b. Mass of bottle + water = 50g
  - c. Mass of bottle + brine solution = 54g

**THANKING YOU**  
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