

Research question:

RESEARCH QUESTION

Displacement

INTRODUCTION

Density is defined mathematically as the ratio of a substances mass and volume:

$$\rho = \text{mass/volume}$$

It uses derived units; in chemistry, the derived units are usually g/mL or g/cm³. The latter is equivalent to the former because 1 mL = 1 cm³.

Dividing mass over volume

PROCEDURES

First, we measured the mass of the gray plastic PVC sample using an electronic scale.

We filled our graduated cylinder with

60

- mL of water and then slid the sample into the cylinder. We then measured the new volume of the water, being careful each time to measure at the meniscus. Next, we subtracted these two volumes to obtain the sample's volume. The sample's mass was divided by its volume to obtain density. Each lab group then announced their findings and a comparison of these was made.

DATA/OBSERVATIONS

measure @ meniscus

The mass of My PBC was

5.30

Volume of water was 50ml.

The new volume was of H₂O after the PBC is 53.5.

$$53.5 - 50.0 = 3.5 \text{ ml}$$

$$5.30 \text{ g} \div 3.5 \text{ ml} = 1.51 \text{ g/ml}$$

$$\begin{array}{r} 53.5 \\ +50.0 \\ \hline 3.5 \end{array}$$

Conclusion: The units of density are determined by the units used for mass and volume and then dividing these units by their repetitive quantities.

Compared to water anything will sink. Lighter it will float.

Density is a physical trait that determines if an object will sink or float. Everything has its own density

