

$$\text{Density} = \frac{\text{Mass}}{\text{Volume}}$$

$$\text{Mass} = \text{Density} \times \text{Volume}$$

$$\text{Volume} = \frac{\text{Mass}}{\text{Density}}$$

Problems:

1. A block of wood measures 3cm x 6cm x 2cm and has a mass of 72g. Calculate the density of this object.

_____ g/cm³

2. Calculate the mass of an object that has a volume of 12 cm³ and a density of 3.2 g/cm³.

_____ g

3. Calculate the volume of an object that has a mass of 5.6 g and a density of 10 g/cm³.

_____ cm³

4. Calculate the density of an object that has a mass of 44.5g and displaces 5 cm³ volume of water.

_____ g/cm³

5. The density of a solid is 8 g/cm³. If the mass of the object is 105g, determine the volume.

_____ cm³

6. The volume change in a graduated cylinder is 13 cm^3 , when you place an irregular shaped solid inside. The density of the solid is 1.25 g/cm^3 . What is the mass of the solid?

_____ g

7. A sample of platinum occupying a volume of 2.5 cm^3 has a mass of 1.28 g . Calculate the density of platinum.

_____ g/cm^3

8. You have a graduated cylinder with 37 cm^3 of water in it. You add 250 g of lead weights, and the volume of water rises to 42 cm^3 . What is the density of the lead?

Volume: _____ cm^3

Answer: _____ g/cm^3