| Density = $\frac{\text{Mass}}{\text{Volume}}$ | Mass = Density x Volume | 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.

   _____ $g/cm^3$

2. Calculate the mass of an object that has a volume of 12 $cm^3$ and a density of 3.2 $g/cm^3$.

   _____ g

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

   _____ $cm^3$

4. Calculate the density of an object that has a mass of 44.5g and displaces 5 $cm^3$ volume of water.

   _____ $g/cm^3$

5. The density of a solid is 8 $g/cm^3$. If the mass of the object is 105g, determine the volume.

   _____ $cm^3$

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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 1.25g/$cm^3$. 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 1.28g. Calculate the density of platinum.

_____ g/$cm^3$

8. You have a graduated cylinder with 37 $cm^3$ of water in it. You add 250g 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/$cm^3$

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