

Finding Density

Density is the mass of a substance contained in a given volume. If the mass and volume of an object are known, then its density can be found. The formula for finding density is:

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

EXAMPLE

The mass of an eraser is 50 grams and its volume is 25cm^3 . What is its density?

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

$$\text{Density} = 50\text{g} / 25\text{cm}^3$$

$$\text{Density} = 2\text{ g} / \text{cm}^3$$

Find the density of objects with the following values for mass and volume. **SHOW YOUR WORK!!**

1. Mass=100g
Volume= 50 cm^3

4. Mass= 250 g
Volume= 175 cm^3

2. Mass=150 g
Volume= 75 cm^3

5. Mass= 500 g
Volume= 500 cm^3

3. Mass=230g
Volume= 100 cm^3

6. Mass= 1000g
Volume= 400 cm^3

MASS, VOLUME, AND DENSITY

Look at the drawing of a balance. The pan on the left holds a piece of lead. The pan on the right holds a box full of feathers.

- Which has a greater mass? _____
- Which has a greater volume? _____
- Which has a greater density? _____

