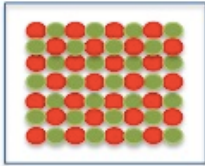


Finding Density of an Object

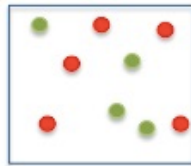
What is density?

- How compact something is
- How heavy an object is **compared** to its volume

High vs. Low Density

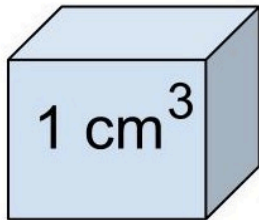


High Density

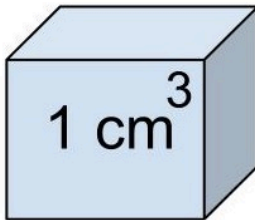


Low Density

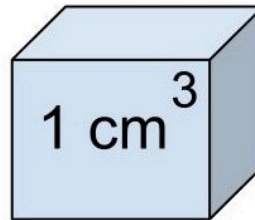
Same Volume, Different Densities



Foam
0.03g



Diamond
3.5g



Iron
7.8g

Calculating Density:

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

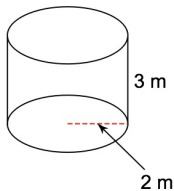
A helpful triangle:



Example 1: The mass of a block is 100 pounds. If the volume is 20 cubic inches, what is the density of the object?

Example 2: The density of piece of wood is .74 grams /cubic meter. If the mass of piece of wood is 40 grams, what is the volume of the wood?

Example 3: The solid lead pipe shown has a mass of 380 grams. What is the density of the shape?



Example 4: The cup below has a radius of 4 cm and a height of 6 cm. It is filled with honey with a known density of 1.4 grams per cubic centimeter. What is the mass of honey in the cup.

