

Problems (Always Show Your Work and units – g, mL, cm³, g/cm³, g/mL):

1. $M = 35\text{g}$, $V = 17\text{cm}^3$ Density = _____
2. $M = 40\text{g}$, $V = 31\text{cm}^3$ Density = _____
3. A 10.0 cm^3 unknown has a mass of 93.0 g . What is the density of the unknown? _____
What is the identity of the unknown? _____
4. Silver has a density of 10.5 grams/cm^3 and gold has a density of 19.3 g/cm^3 .
Which would have the greater mass, 5cm^3 of silver or 5cm^3 of gold? _____
5. One side of a cube is 6 cm long. Its weight is 220 g .
What is the density of the cube? _____
6. A sample has the same dimensions of $2\text{ cm} \times 3\text{ cm} \times 2\text{ cm}$. The mass of this rectangular prism is 94 g .
What is the density sample? _____
What is the identity of the sample? _____

Common Substances	Density (g/cm ³)
Copper	9.3
Gold	19.3
Steel	8.2
Silver	10.5
Iron	7.87