

Section 4.5 - Calculating Density

Name: _____

Date: _____

Density Questions

Part A: Circle the correct answer.

1. Density is defined as

- (a) mass \times acceleration
- (b) $\frac{\text{mass}}{\text{volume}}$
- (c) $\frac{\text{volume}}{\text{mass}}$
- (d) mass \times volume

Part B: Answer the following questions.

2. Use the given measurements to calculate density.

- (a) mass = 7.2 g, volume = 3 cm³
- (b) mass = 5200 g, volume = 2 m³
- (c) mass = 6300 g, volume = 9 L

a) D = _____

b) D = _____

c) D = _____

3. A metal sample has a mass of 35 000 kg and a volume of 4.0 m³. What is the density of the metal?

4. A metal sample with a mass of 1498 g occupies a volume of 70 cm³. Use the table below to identify the metal. (Recall, 1 cm³ = 1 mL.) Calculate density!

Type of metal	Density
gold	19.3 g/mL
iron	7.9 g/mL
silver	10.5 g/mL
platinum	21.4 g/mL

The metal is _____.