Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Density Worksheet**

**Directions:** Solve each problem below. Show your work and circle your answers.

**Example:** A student has a sample of aluminum that has a mass of 27 g and a volume of 10 cm3. What is the density of aluminum?

**Density = mass/volume**

**Density = 27 g / 10 cm3**

**Density = 2.7 g/cm3**

1. A loaf of bread has a mass of 500 g and volume of 2500 cm3. What is the density of the bread?
2. A block of wood has a mass of 6.0 g and a volume of 12.0 cm3. What is the density of the block of wood?
3. The density of a substance is 4.0 g/cm3. If a sample of the substance has a volume of 25 cm3, then what is its mass? (Hint: Use the equation: mass = density × volume.)
4. You have a lead ball with a mass of 420 g. The density of lead is 10.5 g/cm3. What is the volume of the ball? (Hint: Use the equation: volume = mass/density.)
5. A student has a rectangular block. It is 2 cm wide, 3 cm tall, and 25 cm long. It has a mass of 600 g. First, calculate the volume of the block:

Then, use that answer to determine the density of the block:

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answer KEY**

**Density Worksheet**

**Directions:** Solve each problem below. Show your work and circle your answers.

**Example:** A student has a sample of aluminum that has a mass of 27 g and a volume of 10 cm3. What is the density of aluminum?

Density = mass/volume

Density = 27 g / 10 cm3

Density = 2.7 g/cm3

1. A loaf of bread has a mass of 500 g and volume of 2500 cm3. What is the density of the bread?

Density = mass/volume

Density = 500g / 2500cm3

Density = 0.2 g/cm3

1. A block of wood has a mass of 6.0 g and a volume of 12.0 cm3. What is the density of the block of wood?

Density = mass/volume

Density = 6.0g / 12.0cm3

Density = 0.5 g/cm3

1. The density of a substance is 4.0 g/cm3. If a sample of the substance has a volume of 25 cm3, then what is its mass? (Hint: Use the equation: mass = density × volume.)

Mass = density × volume

Mass = 4.0 g/cm3 × 25 cm3

Mass = 100 g

1. You have a lead ball with a mass of 420 g. The density of lead is 10.5 g/cm3. What is the volume of the ball? (Hint: Use the equation: volume = mass/density.)

Volume = mass/density

Volume = 420 g / 10.5 g/cm3

Volume = 40 cm3

1. A student has a rectangular block. It is 2 cm wide, 3 cm tall, and 25 cm long. It has a mass of 600 g. First, calculate the volume of the block:

Volume = length × width × height

Volume = 25 cm × 2 cm × 3 cm

Volume = 150 cm3

Then, use that answer to determine the density of the block:

Density = mass/volume

Density = 600 g / 150 cm3

Density = 4 g/cm3