

Name:
Period:

Density Worksheet

Directions: Show your work for each of the following problems. Round off your answer to the correct number of significant digits and label the answer correctly.

1. A piece of metal with a mass of 147 g is placed in a 50 ml graduated cylinder. The water level rises from 20.0 ml to 41.0 ml. What is the density of the metal?
2. What is the volume of a sample that has a mass of 20.0 g and a density of 4.0 g/ml?
3. A metal cube has a mass of 20.0 g and a volume of 5.0 cm³. What is the density of the cube? Could it be made of pure aluminum which has a density of 2.7 g/cm³?
4. A 55 ml sample of water has a mass of 55 grams. What is the density of water?
5. An object with a mass of 7.5 g raises the level of water in a graduated cylinder from 25.1 ml to 30.1 ml. What is the density of the object?
6. The density of aluminum is 2.7 g/ml. What is the volume of 8.1 g?
7. The density of gold is 19.32 g/cm³. A piece of gold raises the water level in a graduated cylinder from 10.0 cm³ to 20.0 cm³. What is its mass?