

Name _____

Density: Show ALL work using dimensional analysis. Answers should have correct # of sig figs.

1. If an unknown solid weighs 84.0 grams and occupies 30.0 cm^3 of space, what is its density?
2. What is the mass, in grams, of a liquid having a density of 1.50 g/ml and a volume of 3.5 liters?
3. What is the volume of a 200. gram sample of gold if its density is known to be 20.5 g/cm^3 ?
4. A solid block of substance is 74.0 cm by 55.0 cm by 29.0 cm and it weighs 625 kg. Determine the density. Would it float in water? The density of water is 1 g/cm^3 . Show your work.
5. A gas has a volume of 7.0 liters and a mass of 444 grams. What is its density?
6. A certain liquid has a density of 0.855 g/mL. If the mass of a sample of the liquid 1.00 kg what is the volume in mL? (Don't forget to convert kg to grams before solving!)