DENSITY PRACTICE PROBLEMS: Name: _____

Examples:

I.   Calculate the volume of a piece of a certain metal that has a density of 4.33 g / cm^3 and a mass of 75.2 grams.

II.   Calculate the percent error for a measurement (taken in the lab) for the melting point of a certain pure substance - if the temperature was taken at 155.3^{0}C and the literature value is 169.8^{0}C.

1) Calculate the volume of a container needed by a chemical company in order to ship 760.00 grams of benzene at room temperature. At room temperature, the density of benzene equals 0.8787 g / cm^3.

2) You have a sample of material with a mass of 620. grams and a volume of 753.00 cm^3. Another sample of another material has a density of 0.700 g / cm^3. Are the two samples the same material? Explain your answer.

3) Calculate the volume of a piece of wood that has a density of 0.243 g / cm^3 and a mass of 50.3 grams.

4) A piece of copper has a volume of 28.6 cm^3. The density of copper is 8.92 g / cm^3. What is the mass of the copper?

5) An experiment performed to determine the density of lead yields a value of 10.95 g / cm^3. The literature value for the density of lead is 11.342 g / cm^3. Find the percent error.

6) The literature value for the boiling point of bromine is 59.35^{0}C. Find the percent error for the laboratory measurement of the boiling point of bromine when the student read 54.6^{0}C as the boiling point.