DENSITY PRACTICE

Name:_____

Density Column Class Demonstration:

Liquid	Mass of empty beaker	Mass of beaker & solution	Mass of solution (empty beaker- beaker & solution)	Volume Get approx. 20.0 mL	Density
Corn Syrup					
Whole Milk					
Maple Syrup					
Veg Oil					
Rubbing Alcohol					
Dish Soap					
Water					

Answer in complete sentences:

1. What caused the liquids to have different densities?

2. Which liquid was the densest?

3. Which liquid was the least dense?

Calculate the required variable (density, mass, or volume) for the following problems. In order to receive credit, you must show ALL your work. Don't forget SIG FIGS!

1. 100 grams of a liquid fill a 200 mL bottle. What is the density of the liquid?

2. A solution has a density of 1.50 g/ml. How many grams are needed to obtain 10.0 mL of solution?

3. If a block of copper measures 40.00 cm^3 and weighs 356 grams, what is its density?

4. The density of mercury is 13.6 g/mL.

    a. What is the mass of 8.20 mL of mercury?

    b. What volume would 120 grams of mercury occupy?

5. A piece of silver has a mass of 2800.0 grams and occupies 266 cm^3. What is the density of silver?

6. A bottle has a capacity of 1.2 L. If the density if ether is 0.74 g/mL, what mass of ether can the bottle hold?

7. A student pipets 5.00 mL of ethanol into a flask weighing 15.25 grams. She finds that the mass of the flask plus ethanol is 19.17 grams. Calculate the density of ethanol.

8. Suppose you find a chunk of what *appears* to be gold in the sand at the beach. Devise a simple experiment to determine whether or not you've struck it rich. Please list all lab equipment required and list the SPECIFIC steps you would take. Hint: Density