Name:_____ Period:_____

Density Worksheet

In order to receive full credit, you must show ALL work and have units on your final answer.

1. 100 grams of a liquid completely 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 2.00 cm x 4.00 cm x 5.00 cm 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 grams and occupies a volume of 266 cm^3. What is the density of silver?

6. A bottle has a capacity of 1,200 milliliters. If the density of 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 = 19.17 grams. Calculate the density of ethyl alcohol.

8. Peanut oil has a density of 0.92 g/mL. If a recipe calls for ¼ cup of peanut oil, what mass of peanut oil is required? (Hint: 1 cup = 237 mL).

9. A chemist needs 2.00 g of a liquid compound, which has a density of 0.718 g/mL. If the compound costs $5.67 **per mL**, how much will a 2.0 gram sample cost?

Questions courtesy of: http://home.comcast.net/~cochranjim/PDFS/Density2.pdf