Name _____ Date _____ Per _____

**Density Practice Problems**

**REMEMBER:** **D = M/V** **M = D x V** **V = M/D**

**SHOW ALL WORK!**

**1) Write equation. 2) Plug in numbers. 3) Show work. 4) Circle answer. 5) Label units.**

1. What is the density of a piece of wood that has a mass of 25.0 grams and a volume of 29.4 $cm^3$?

2. A piece of wood that measures 3.0 cm by 6.0 cm by 4.0 cm has a mass of 80.0 grams. What is the density of the wood? Would the piece of wood float in water? (volume = *L* x *W* x *H*)

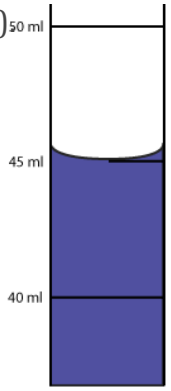
3. A cup of gold colored metal beads was measured to have a mass 425 grams. By water displacement, the volume of the beads was calculated to be 48.0 $cm^3$. Given the following densities, identify the metal.

Gold: 19.3 g/ $cm^3$
Copper: 8.86 g/ $cm^3$
Bronze: 9.87 g/ $cm^3$

4. I threw a plastic ball in the pool for my dog to fetch. The mass of the ball was 125 grams. What must the volume be to have a density of 0.500 g/mL.

5. (Hard) After throwing the ball in the pool for my dog, the ball sprung a leak and began to fill with water. How many mL of water can the ball absorb before the ball sinks?

6. The volume of a solution was measured in a graduated cylinder (shown on the right). If the mass of solution is measured to be 60.75 grams, what is the density of the solution?




7. An ice cube measuring 5.80 cm by 5.80 cm by 5.80 cm has a density of 0.917 g/mL. What is the mass?

8. 450 grams of gasoline is spilled into a puddle of water. If the density of gasoline is 0.665 g/mL, what volume of gasoline is spilled?

9. The density of aluminum is 2.70 g/mL. If the mass of a piece of aluminum is 244 grams, what is the volume of the aluminum?