**Density Problems**

**REMEMBER: All questions should be answered in correct scientific form which includes**

* Given information
* Equation used
* Correct work including units
* Final answer as a sentence

***Do your work on a separate piece of paper. You may use a calculator when solving each problem.***

1. A liquid has a mass of 200 g and a volume of 50 mL.
   1. What is its density?
   2. Will it float or sink in water? Why?
2. A block of wood has dimensions of 10 cm x 10 cm x 5 cm.
   1. What is its volume?
   2. If it has a mass of 250 g, what is its density?
   3. Will it float or sink on water?
3. A liquid called mercury has a density of about 13 g/mL. If you have 100 mL of mercury, what is its mass?
4. An ice cube of density 0.9 g/cm3 has a volume of 100 cm3. What is its mass?
5. A stone has a mass of 100 g and a density of 5 g/cm3. What is the volume of the stone?
6. An ice cube has a density of 0.9 g/cm3 and a mass of 18 g.
   1. What volume does the ice cube occupy?
   2. Will this ice cube float or sink in methyl alcohol which has a density of 0.8 g/mL?
7. A stone is put in a graduated cylinder of 50 mL of water. The volume rises to 70 mL.
   1. What is the volume of the stone?
   2. If the stone has a density of 2g/cm3, what is its mass?

**Be sure you included all of your steps for each question!**