SCIENCE 8
MS. TOWERS

More 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

You may use a calculator when solving each problem.

1. A liquid has a mass of 200 g and a volume of 50 mL.
   a. What is its density?

   b. Will it float or sink in water? Why?

2. A block of wood has dimensions of 10 cm x 10 cm x 5 cm.
   a. What is its volume?

   b. If it has a mass of 250 g, what is its density?

   c. 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/cm^3 has a volume of 100 cm^3. What is its mass?

5. A stone has a mass of 100 g and a density of 5 g/cm^3. What is the volume of the stone?

6. An ice cube has a density of 0.9 g/cm^3 and a mass of 18 g.
    a. What volume does the ice cube occupy?

    b. 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.
    a. What is the volume of the stone?

    b. If the stone has a density of 2g/cm^3, what is its mass?

Be sure you included all of your steps for each question! You will have a quiz on this next class - make sure you understand how to do these types of density questions!