Volume and Density WORKSHEET

NAME_____

Block_____ Date ___/___/___

In the SI system, volume can be expressed in two ways, one is in liters and the other as a unit of distance "cubed" such as cm^3. When using distance the "cube" is because you must multiply a distance times a distance times a distance. It is very important that all three distances are in the same unit such as cm or m or mm. For a cube the formula is length X width X height. Once you have the volume and the mass, it is easy to calculate the density of an object, that is, the amount of stuff in a certain space. To find the density, the formula is mass/volume. Work the following problems for practice; you'll need it on an upcoming lab and chapter test.

1. What is the volume of a box measuring 1mX5mX6m? (Remember units)
2. What is the volume of a box measuring 2cmX7cmX3cm?
3. What is the volume of a cube measuring 5cm on each side?
4. What is the volume of a cube measuring 1cm on each side?
5. What is the volume of a box measuring 3cmX6cmX4cm?
6. What is the volume of a box measuring 8mmX10cmX5cm? (Be careful – units!)

You must have the correct UNITS in order to get credit!

$1cm^3$ is equal to 1mL or another way to put it is 1L = 1,000cm^3. Convert your answers as required.

7. What is the volume in ml of a box measuring 2cmX3cmX4cm?
8. What is the volume in ml of a cube measuring 5cm on each side?
9. What is the volume in L of a box measuring 5cmX20cmX5cm?
10. What is the volume in L of a cube measuring 10cm on each side?
11. What is the volume in L of a cube measuring 1m on each side?