**Review For Ch 2**

**Convert the following measurements to the units requested: SHOW ALL WORK!!! Write answers in Scientific notation**

1) 1000 m to km =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_kilometers 2) 50.0 cm2 to m2 =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_meters2

3) 1509 mL to µL =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_microliters 4) 1.21 mg to g =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_grams

5) 39.5 m to cm=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_centimeters 6) 4580 mg to µ=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_micrograms

1. How many years are in 6.02 x 10 23 seconds?
2. If it takes 32.2 hours to get to San Francisco at 102 km per hour, how many km is it from here to San Francisco?
3. If the density of a substance is 1.200 g/ml and you have 3.5 kg, how much volume does this substance have?
4. If it takes a cyclist 4.5 min to bike 1,567 meters, how long will it take the cyclist to bike 10.2 km?
5. What is the density of carbon dioxide gas if 0.196 g occupies a volume of 100. mL?
6. A block of wood 3.0 cm x 4.0 cm x 5.5 cm has a mass of 27 g. What is the density of this block?
7. An irregularly shaped stone has a volume of 5.0 mL. The density of the stone is 1.75 g/mL. What is the mass of this stone?
8. A 10.0 cm3 sample of copper has a mass of 89.6 g. What is the density of copper?
9. Silver has a density of 10.5 g/cm3 and gold has a density of 19.3 g/cm3. Using *specific* calculations, determine which would have a greater mass, 5 cm3 of silver or 5 cm3 of gold?
10. 5 mL of ethanol has a mass of 3.9 g and 5.0 mL of benzene has a mass of 4.4 g. Which liquid is denser?
11. A sample of iron has a mass of 94 g and a density of 7.8 g/cm3. What is the volume of the iron?
12. A second sample of iron has a mass of 78g and a density of 7.8 cm3. If the length and width of the sample are each 2 cm, what is the height of this sample?
13. What is the mass of a material that has a volume of 55.1 cm3 and a density of 6.72 g/cm3?
14. A sample of a substance that has a density of 0.824 g/mL has a mass of 0.451 g. Calculate the volume of the sample in m3