**CHAPTER 3.3 CONVERSION PROBLEMS #2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. A nugget of gold displaces 0.950 cm3 of water. If a jeweler offers $8.00/g for the nugget, how much money is the nugget worth? (density of gold = 19.3 g/cm3)
2. The dimensions of a room are 12 ft by 15 ft. How much will it cost to carpet the total area of this room if the cost of the carpet is $8.00/yd2? (3 ft = 1 yd)
3. Astronomers often use the unit “light-year” to express intergalactic distances. If light travels 3.00 X 1010 cm/sec, and one year is defined as 365 days, how many kilometers does light travel in one (1.00) year?
4. There are 7.0 X 106 red blood cells in 1.0 mm3 of blood. How many red blood cells are in 1.0 L of blood? (1 L = 1000 cm3)
5. Convert 0.44 mL/min into microliters per second
6. Convert 1.54 kg/L to grams per cubic centimeter
7. Your math class has only 0.20 hours remaining. How many dreadful seconds is this?
8. Convert 642 cg to kilograms
9. Convert 8.25 X 102 cg to nanograms