

**CHAPTER 3.3 CONVERSION PROBLEMS #2**

Name \_\_\_\_\_

1. A nugget of gold displaces  $0.950 \text{ cm}^3$  of water. If a jeweler offers  $\$8.00/\text{g}$  for the nugget, how much money is the nugget worth? (density of gold =  $19.3 \text{ g/cm}^3$ )
  
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  $\$8.00/\text{yd}^2$ ? (3 ft = 1 yd)
  
3. Astronomers often use the unit "light-year" to express intergalactic distances. If light travels  $3.00 \times 10^{10} \text{ cm/sec}$ , and one year is defined as 365 days, how many kilometers does light travel in one (1.00) year?
  
4. There are  $7.0 \times 10^6$  red blood cells in  $1.0 \text{ mm}^3$  of blood. How many red blood cells are in 1.0 L of blood? (1 L =  $1000 \text{ cm}^3$ )

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  $8.25 \times 10^2$  cg to nanograms