Topic I Test Overview

- Know how to calculate percent error
  - Percent Error measures accuracy.
    - Formula:

      Percent Error = $\dfrac{|True - Experimental|}{True} \bullet 100$

- Know how to solve problems where you are given the density and you have to solve the mass
  - Look at problem #15 on the *Topic 1 Practice Using the Metric System Sheet.*
- Practice adding in scientific notation (the exponents have to be the same)
- Know the 7 Fundamental Units/Basic Units – Really 5 that you should be most familiar with, and less with current and luminosity.
  - Ex. Amount of substance = <u>mole</u>
- Temperature
  - Kelvin will be the larger numbers
  - Conversions between Kelvin and Celsius
    - K = °C + 273
    - °C = K – 273
  - You do not need to know Celsius to Fahrenheit conversions
- Look at *Advanced Metric Conversions* worksheet (ex. #5)
- Know how to solve problems where you have to cube both sides of the equivalent statement
  - Ex. How many cm^3/mL are in 1 m^3

    <u>10^6</u> cm^3 = 1 m^3
         (mL)

    <u>   </u> cm = 1 m

    $(\underline{10^2}$ cm$)^3$ = (1 m$)^3$ *cube both sides*

    10^6 cm^3 = 1m^3

- Remember in dimensional analysis question - it is 1 of the bigger number equals how many of the smaller number (ex. 1 m = 10^2 cm).
  - Example:
    850.00 cg → picograms (pg)
    1 cg = <u>10^{10}</u> p
    (not 1 p = <u>10^{10}</u> cg)
    850.00 cg x <u>10^{10} p</u>
            1 cg
    850.00 x 10^{10} pg = **8.5000 x 10^{12} pg** ← **final answer**