**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 09/02/22**

**CH 111 Workshop 1 – Chapters 1 and 2**

1. Perform the following calculation and retain the appropriate number of significant figures in the result.
2. A rectangular container has a volume of If it is filled with a liquid with a density of 0.772 g/mL, what would be the mass (in lbs) of the liquid inside of the container?
3. Write the formula for the following:
   1. ammonium carbonate
   2. dinitrogen heptoxide
   3. nitrous acid
   4. aluminum ion
   5. iodine trichloride
   6. tin(IV) phosphate
   7. iron(II) perchlorate octahydrate
4. Give the name for each of the following:
5. Magnesium has three naturally occurring isotopes. Their masses and percent abundances are 23.985042 amu, 78.99%; 24.985837 amu, 10.00%; and 25.982593 amu, 11.01%, Calculate the average atomic mass of magnesium.
6. A 26.27 gram sample of a solid is placed in a flask. Gasoline, in which the solid is insoluble, is added to the flask so that the total volume of solid and liquid together is exactly 50.00 mL. The solid and gasoline together have a mass of 52.65 grams. The density the of gasoline is 0.864 g/mL. What is the density of the solid? Does the solid float or sink in the gasoline filled flask