**STOICHIOMETRY PROBLEMS 1**

***Directions:* Use your mole map to help you answer the following questions. SHOW ALL WORK USING DIMENSIONAL ANALYSIS!! Label all numbers with both units and the formula of the compound.**

Propane, C3H8, burns in oxygen to produce carbon dioxide and water.

1. Write a balanced equation for the reaction described above:
2. How many moles of water can be produced from 2.5 moles of propane? Assume there is an **EXCESS** of oxygen.

c. How many grams of carbon dioxide can be formed from 3.00 moles of oxygen reacting with an excess of propane?

d. If 25.0 g of propane is reacted with an excess of oxygen, how many grams of carbon dioxide will be produced?

e. How many grams of propane are necessary to produce 5.00 kg of water?

f. How many water molecules will be produced from the reaction of 36.5 g of oxygen with an excess amount of propane?

g. How many molecules of oxygen are needed to make 4.03 x 1030 molecules of water?

h. How many grams of carbon dioxide would be needed to react exactly with 50.0 g of oxygen?