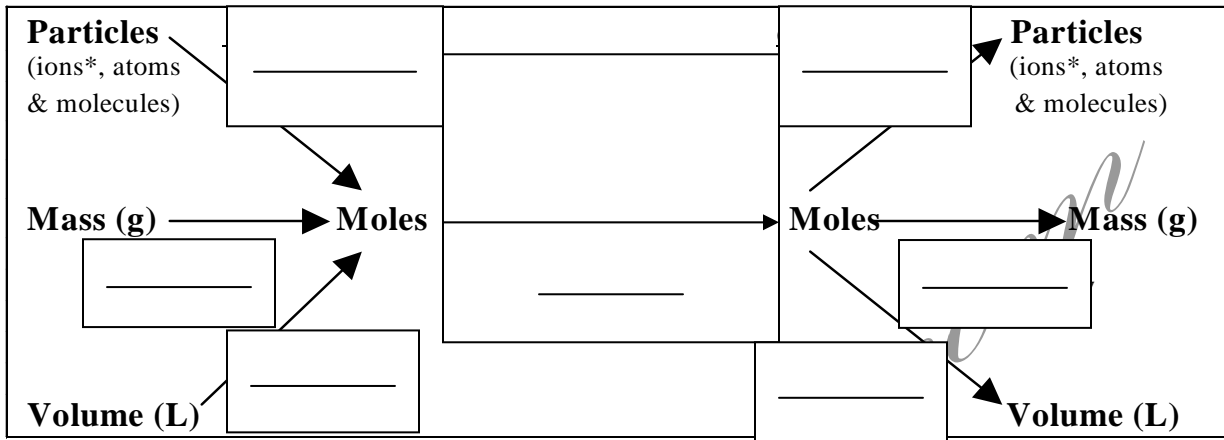
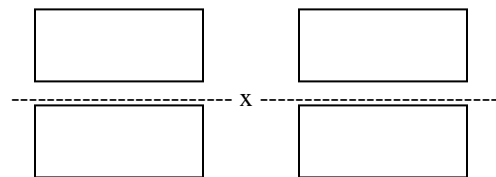


Stoichiometry

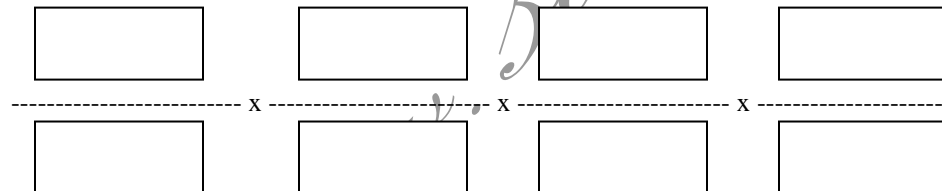
1. Fill in the boxes with the missing information.



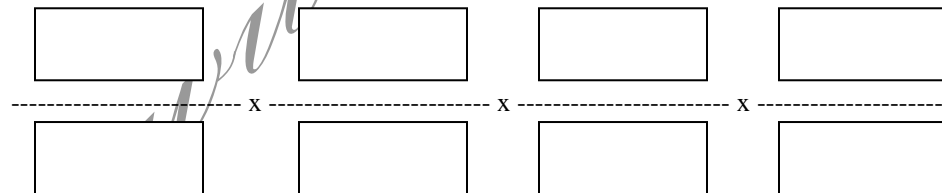
2. What are the steps for a mole to mole problem?



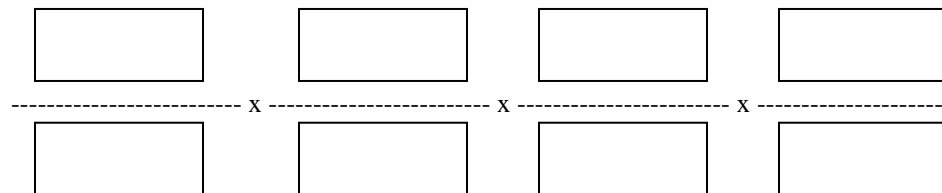
3. What are the steps for a mass to mass problem?



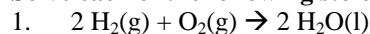
4. What are the steps in a mass to volume problem?



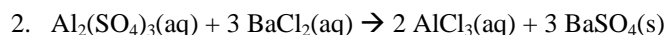
5. What are the steps in a volume to molecules problem?



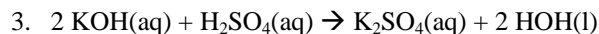
Solve each of the following stoichiometry problems on a separate sheet of paper.



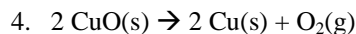
How many moles of H_2 and O_2 are required to produce 0.6 moles of H_2O ?



How many grams of barium chloride will react with 18.0 moles of aluminum sulfate?



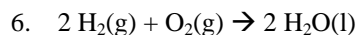
Potassium hydroxide reacts with hydrogen sulfate in a double replacement reaction. What is the mass of potassium sulfate produced if 19.6 g of KOH reacts with excess hydrogen sulfate?



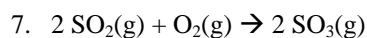
Copper(II) oxide decomposes to form solid copper and oxygen gas. If 95.4 g of copper(II) oxide decomposes, how many grams of copper and oxygen are formed?



What volume of hydrogen, reacting with nitrogen, will produce 500 mL of NH_3 at constant conditions of temperature and pressure?



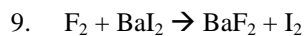
How many liters of oxygen gas are needed to produce 2.0 kilograms of water?



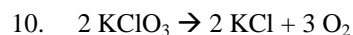
How many liters of oxygen would react with 2.2×10^{20} molecules of SO_2 ?



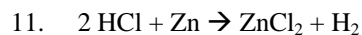
You are given 18.5 moles of sodium; calculate the number of moles of sodium chloride produced.



How many moles of barium fluoride can be produced from 88.3 grams of barium iodide?



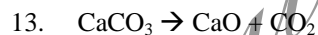
Calculate the mass of potassium chloride that is produced as 12.4 grams of potassium chlorate decomposes.



Calculate the mass of zinc needed to fully react with the 124.9 grams of hydrogen chloride.



What mass of aluminum must be used to produce 15.0 g iron?



How many liters of carbon dioxide will be produced in the decomposition of 220. grams of calcium carbonate?



How many moles of hydrogen carbonate can be produced from 75 liters of carbon dioxide and an unlimited supply of water?



How many grams of potassium are needed to completely react with 125 grams of gold(III) chloride?