

Name: _____ Per _____

- c. If 30 mol of H_2O is produced, determine the moles of CO_2 produced

 - d. If 0.015 mol of CO_2 is produced, determine the moles of C_5H_{12} reacting
2. Calcium iodide is reacted with sodium. Write a balanced chemical equation for this reaction, and then answer the following questions.
- a. If 2.2 mol of calcium iodide reacts, determine the moles of sodium reacting and the moles of each product.

 - b. If 0.016 mol of sodium reacts, determine the moles of calcium iodide reacting and the moles of each product.

V. Mass-Mass stoichiometry

- 1. Antimony and iodine can be combined to form antimony triiodide. If 60.09 g of antimony are present, what mass of iodine will be required in the reaction? What mass of antimony triiodide will be produced?

VII. Limiting and Excess Reactants

1. Iron (III) iodide reacts with bromine. Write a balanced chemical equation for this reaction.
 - a. If 218 g of iron (III) iodide reacts with 90.0 g of bromine, which reactant is limiting and which is in excess?
 - b. What is the mass of each of the products?
 - c. What mass of the excess reactant is used in the reaction, and what mass of the excess reactant remains after the reaction?
 - d. If the reaction has a percent yield of 92.5 % for iodide, determine the actual yield of iodide. What mass of iron (III) bromide would actually be obtained?