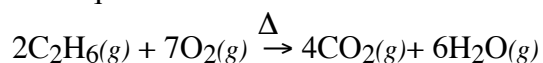




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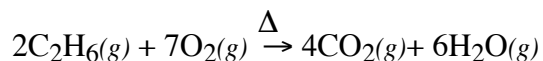
**STOICHIOMETRY
HONORS CHEMISTRY
TEXTBOOK PGS 102-115, 133-139**

1. Given an equation



How many mol of CO_2 will be formed by the complete combustion of 6.6 mol C_2H_6 ?
0.0410 mol C_2H_6 ?

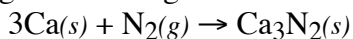
2. In the reaction,



Determine the moles of CO_2 and H_2O formed when 2.00 moles of ethane are reacted with 10.0 moles of oxygen.

3. Suppose in another example 15.0 mol of O_2 are combined with 5.00 mol of C_2H_6 . Determine the moles of products formed and the moles of excess reactant remaining.

4. Calculate the mass of calcium nitride formed when 50.0 g of calcium react with 50.0 g of nitrogen according to the reaction.



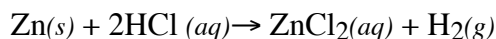
5. How many moles of C_2H_6 , assuming excess oxygen, are required to form 3.7 mol H_2O ?

6. Define the terms *concentration* and *molarity*.

7. Calculate the molarity of a solution contain 0.875 mole NaCl in 1 liter? in 500 ml; in 100 ml; in 6 liters?

8. Calculate the volume of 0.500 M $\text{Cu}(\text{NO}_3)_2$ needed to prepare 250 mLs of a 0.0400 M $\text{Cu}(\text{NO}_3)_2$ solution.

9. How many mLs of 0.450 M HCl are required to completely react with 2.50 g of Zn ?



10. Calculate the molarity of sulfuric acid in a 20.00 mL sample which is neutralized by 18.50 mLs of 0.750 M NaOH.

11. Calculate the mass of As_2O_5 which is theoretically possible.

12. Calculate the molarity of sulfuric acid in a 20.00 mL sample which is neutralized by 18.50 mLs of 0.750 M NaOH.