Stoichiometry Problems

- 1. Upon the addition of heat to an unknown amount of KClO₃, 0.96 g of oxygen was liberated, with KCl being the other product. How much KClO₃ was present?
- 2. Given the reaction

$$NH_{3(g)}$$
 + $O_{2(g)}$ \rightarrow $NO_{(g)}$ + $H_2O_{(g)}$

how many grams of NH₃ will be required to react with 80 g of O₂?

- 3. A chemist decides to react 2.0 g of VO with 5.75 g of Fe_2O_3 to produce V_2O_5 and FeO. How many grams of V_2O_5 can be obtained?
- 4. Determine the weight of CO₂ and H₂O produced on burning 104 g of C₂H₂ in excess oxygen.
- 5. Silver bromide, used in photography may be prepared from AgNO₃ and NaBr. In this double replacement reaction, calculate the mass of each required to produce 245 g of AgBr?
- 6. What mass of sulfur must combine with aluminum to form 100 g of aluminum sulfide?