Part A: Determine the type of reaction, write the products, and balanced the chemical equation.

Reaction Type

1. BaCl₂ + AgNO₃
$$\rightarrow$$

2.
$$C_2H_6 + O_2 \rightarrow$$

3.
$$CuCO_3 + H_2SO_4 \rightarrow$$

4.
$$ZnCO_3 + H_3PO_4 \rightarrow$$

5.
$$K_2S + Li \rightarrow$$

6.
$$CuCO_3 \rightarrow$$

7.
$$Ba(NO_3)_2 + Na_2SO_4 \rightarrow$$

8.
$$Na_2CO_3 \rightarrow$$

9. Na +
$$H_2O \rightarrow$$

10.
$$CO_2 + H_2O \rightarrow$$

11.
$$C_3H_8 + O_2 \rightarrow$$

Part B: Mass and Mole Relationships: (show all of your work for credit)

1. What is the mass of Nitrogen if you have 38.2 g of Carbon in the compound C₈H₇N₄O₂?

2. What is the mass of N_2O_4 gas in a sample of 5.67 L of N_2O_4 ?