e Chemistry

Date <u>3/9/07</u>

- A. Determine if the following are written in ionic or molecular form.
- 1. HNO_3 I
 6. CO_2 M

 2. Cl_2 M
 7. H_3PO_4 M

 3. KNO_3 I
 8. AgCl M

 4. NaOH I
 9. Na_2SO_4 I

 5. Li_2O M
 10. $HClO_4$ I
- B. Write the following reactions in net ionic form, showing all work as in the examples. Balance first.
- 1. Hydrobromic acid reacts with sodium hydroxide to form sodium bromide and water.

$$HBr + Na0H \rightarrow NaBr + HaDI I MH+ + Br + Hat + 0H \rightarrow Hat + HA + HaD[H+ + OH \rightarrow HaD]$$

2. Potassium chlorate decomposes to potassium chloride and oxygen gas.

$$2 \frac{1}{1} \frac{1}{2} \frac{1}{1} \frac{$$

3. Potassium metal reacts with water to produce potassium hydroxide and hydrogen gas

$$\frac{2K + 2H_{2}}{M} \rightarrow \frac{2KOH}{I} + \frac{H_{2}}{M}$$

$$\frac{1}{2K + 2H_{1}O} \rightarrow \frac{2K + 10H}{K} + \frac{11}{10}$$

4. Butane burns in air to produce water and carbon dioxide.

5. Hydrogen gas reacts with nitrogen gas to produce ammonia.

Predict the products and then write the balanced net ionic equation.

1. Silver reacts with lead(II) carbonate forming -

$$A_{1} + P_{0} \longrightarrow P_{0} + A_{22}CO_{2}$$

$$A_{2} - I_{0} \longrightarrow P_{0} + A_{22}CO_{2}$$

$$A_{2} - I_{0} \longrightarrow P_{0} + A_{22}CO_{2}$$

1. Barium hydroxide is decomposed –

$$\begin{bmatrix} E \left(\frac{1}{2} + \frac{1}{2} \right) - \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) + \frac{1}{2}$$

2. Sulfuric acid reacts with strontium hydroxide producing -