Quiz Chemistry 121/100

Name Key

For the ten reactions below please balance them and indicate the type:

- 1. $4K_{(s)} + O_{2(g)} \rightarrow 2K_2O_{(s)}$ Combination
- 2. $F_{2(g)} + 2NaBr_{(aq)} \rightarrow Br_{2(g)} + 2NaF_{(aq)}$ Single Replacement
- 3. $N_{2(g)} + 3H_{2(g)} \rightarrow 2NH_{3(g)}$ Combination
- 4. $Zn_{(s)} + H_2SO_{4(aq)} \rightarrow ZnSO_{4(aq)} + H_{2(g)}$ Single Replacement Reaction
- 5. $2KCIO_{3(s)} \rightarrow 2KCI_{(s)} + 3O_{2(g)}$ Decomposition

6. $Pb(NO_3)_{2(aq)} + 2NaCl_{(aq)} \rightarrow PbCl_{2(s)} + 2NaNO_{3(aq)}$ Metathesis / Double Displacement Reaction

7. $2Na_{(s)} + 2H_2O \rightarrow H_{2(g)} + 2NaOH_{(aq)}$ Single Replacement Reaction hint: It is helpful to think of water as having two parts: H---OH

8. $HCI_{(aq)} + NaOH_{(aq)} \rightarrow H_2O_{(l)} + NaCI_{(aq)} Metathesis / Double Displacement Reaction / Acid-Base$

- 9. $CuCl_{2(aq)} + CaCO_{3(s)} \rightarrow CuO_{(s)} + CO_{2(g)} + CaCl_{2(aq)} Decomposition$
- 10. $Mg_{(s)}$ + $CuCl_{2(aq)}$ \rightarrow $MgCl_{2(aq)}$ + $Cu_{(s)}$ Single Replacement Reaction

What kinds of evidence may be observed indicating a chemical reaction has occurred?

Evidence of a chemical reaction includes evolution of a gas, formation of a precipitate, change in temperature, and change in color.