TYPES OF REACTIONS NAME_____

Write and balance the equations for each reaction as they are assigned. Also tell what type of reaction each one is.

1. potassium chlorate ----> potassium chloride + oxygen

Type_____

2. aluminum nitrate + sodium hydroxide ----> aluminum hydroxide + sodium nitrate

Type_____

3. ammonium nitrite ----> nitrogen + water

Type_____

4. iron(III) bromide + ammonium sulfide ----> iron(III) sulfide + ammonium bromide

Type_____

5. calcium oxide + diphosphorus pentoxide ----> calcium phosphate

Type_____

6. aluminum + copper(II) chloride ----> aluminum chloride + copper

Type_____

7. calcium hydroxide + nitric acid ----> calcium nitrate + water

Type_____

8. bromine + magnesium iodide ----> magnesium bromide + idodine

Type_____

9. sodium bicarbonate ----> sodium oxide + carbon dioxide + water

Type_____

10. aluminum + oxygen ----> aluminum oxide

Type_____

11. iron + silver acetate ----> iron(II) acetate + silver

Type_____

12. sodium hydroxide + sulfuric acid ----> sodium sulfate + water

Type_____

13. aluminum chloride + sulfuric acid ----> aluminum sulfate + hydrogen chloride

Type_____

Types of Reactions Answer Key

1. **potassium chlorate -----> potassium chloride + oxygen**
   - $2KClO_3 \longrightarrow 2KCl + 3O_2$
   - Decomposition

2. **aluminum nitrate + sodium hydroxide -----> aluminum hydroxide + sodium nitrate**
   - $Al(NO_3)_3 + 3NaOH \longrightarrow Al(OH)_3 + 3NaNO_3$
   - Double Replacement

3. **ammonium nitrite -----> nitrogen + water**
   - $NH_4NO_2 \longrightarrow N_2 + 2H_2O$
   - Decomposition

4. **iron (III) bromide + ammonium sulfide -----> iron (III) sulfide + ammonium bromide**
   - $2FeBr_3 + 3(NH_4)_2S \longrightarrow Fe_2S_3 + 6NH_4Br$
   - Double Replacement

5. **calcium oxide + diphosphorus pentoxide -----> calcium phosphate**
   - $3CaO + P_2O_5 \longrightarrow Ca_3(PO_4)_2$
   - Synthesis

6. **aluminum + copper (II) chloride -----> aluminum chloride + copper**
   - $2Al + 3CuCl_2 \longrightarrow 2AlCl_3 + 3Cu$
   - Single Replacement

7. **calcium hydroxide + nitric acid -----> calcium nitrate + water**
   - $Ca(OH)_2 + 2HNO_3 \longrightarrow Ca(NO_3)_2 + 2H_2O$
   - Double Replacement

8. **bromine + magnesium iodide -----> magnesium bromide + iodine**
   - $Br_2 + MgI_2 \longrightarrow MgBr_2 + I_2$
   - Single Replacement

9. **sodium bicarbonate -----> sodium oxide + carbon dioxide + water**
   - $2NaHCO_3 \longrightarrow Na_2O + 2CO_2 + H_2O$
   - Decomposition

10. **aluminum + oxygen -----> aluminum oxide**
    - $4Al + 3O_2 \longrightarrow 2Al_2O_3$
    - Synthesis

11. **iron + silver acetate -----> iron (II) acetate + silver**
    - $Fe + 2AgC_2H_3O_2 \longrightarrow Fe(C_2H_3O_2)_2 + 2Ag$
    - Single Replacement

12. **sodium hydroxide + sulfuric acid -----> sodium sulfate + water**
    - $2NaOH + H_2SO_4 \longrightarrow Na_2SO_4 + 2H_2O$
    - Double Replacement

13. **aluminum chloride + sulfuric acid -----> aluminum sulfate + hydrogen chloride**
    - $2AlCl_3 + 3H_2SO_4 \longrightarrow Al_2(SO_4)_3 + 6HCl$
    - Double Replacement