Synthesis Reactions: A + B 🡪 AB

Decomposition Reactions: AB🡪A + B

\*Remember, to be **balanced**, the number of atoms of each element on each side need to be **equal**!

Directions: *For each reaction, balance the equation and tell the type of reaction (synthesis or decomposition).*

1. \_\_\_ H + \_\_\_\_\_ Cl2 🡪 \_\_\_\_\_HCl Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_NaOH 🡪 \_\_\_\_\_\_Na2O + \_\_\_\_\_H2O Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_MgCl2 🡪 \_\_\_\_\_\_ Mg + \_\_\_\_\_\_ Cl Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_ Ca + \_\_\_\_\_ O2 🡪 \_\_\_\_\_CaO Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. \_\_\_\_\_\_ Cu + \_\_\_\_\_\_S8 🡪 \_\_\_\_\_\_Cu4S Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. \_\_\_\_\_\_ MgO 🡪 \_\_\_\_\_\_ Mg + \_\_\_\_\_O2 Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. \_\_\_\_\_\_\_O2 + \_\_\_\_\_\_KCl 🡪 \_\_\_\_KClO3 Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. \_\_\_\_\_\_\_N3O5 🡪 \_\_\_\_\_N2 + \_\_\_\_\_O2 Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. \_\_\_\_\_\_CO3 🡪 \_\_\_\_\_\_C + \_\_\_\_\_\_\_O2 Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. \_\_\_\_\_PbO 🡪 \_\_\_\_\_Pb + \_\_\_\_\_\_O2 Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_