**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Types of Reactions**

**Identify the reactions below as synthesis, decomposition, single replacement, double replacement, or combustion.**

|  |  |
| --- | --- |
| **REACTION** | **TYPE?** |
| Na3PO4 + 3 KOH 🡪 3 NaOH + K3PO4 |  |
| MgCl2 + Li2CO3 🡪 MgCO3 + 2 LiCl |  |
| C6H12  + 9 O2 🡪 6 CO2 + 6 H2O |  |
| Pb + FeSO4 🡪 PbSO4 + Fe  |  |
| CaCO3 🡪 CaO + CO2  |  |
| P4 + 3 O2 🡪 2 P2O3 |  |
| 2 RbNO3 + BeF2 🡪 Be(NO3)2 + 2 RbF  |  |
| 2 AgNO3 + Cu 🡪 Cu(NO3)2 + 2 Ag  |  |
| C3H6O + 4 O2 🡪 3 CO2 + 3 H2O `` |  |
| 2 C5H5 + Fe 🡪 Fe(C5H5)2  |  |
| SeCl6 + O2 🡪 SeO2 + 3Cl2  |  |
| 2 MgI2 + Mn(SO3)2 🡪 2 MgSO3 + MnI4 |  |
| O3 🡪 O. + O2  |  |
| 2 NO2 🡪 2 O2 + N2 |  |
| 3 Cs + AlCl3 🡪 3 CsCl + Al |  |

**Identify the types of reactions below based on the following diagrams.** (Your options are synthesis, decomposition, single replacement, double replacement)

1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**State whether each of the following equations represents a synthesis (s) , decomposition(d), single replacement (sr), double replacement (dr), or combustion reaction (c).**

\_\_\_\_\_\_\_\_\_\_\_\_\_ 1. CO2 → C + O2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. NaCl + AgNO3 → NaNO3 + AgCl

\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. S + Cl2 → SCl2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. BaCl2 + 2NaOH -→ 2NaCl + Ba(OH)2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. 2C2H2 + 5O2  → 4CO2 + 2 H2O

\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. Zn + CuSO4 → ZnSO4  + Cu

\_\_\_\_\_\_\_\_\_\_\_\_\_ 7. CH4 → C + 2H2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 8. Pb(NO3)2 + Mg → Pb + Mg(NO3)2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 9. Mg + 2 HCl → MgCl2 + H2

\_\_\_\_\_\_\_\_\_\_\_\_ 10. H2SO4 → H2 + S + 2O2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 11. 2O2 + N2 → N2O4

\_\_\_\_\_\_\_\_\_\_\_\_\_ 12. 3CaBr2 + 2Na3P → Ca3P2 + 6NaBr

\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. 2KI + Br2 → 2KBr + I2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 14. C6H12O6 → 6C + 6H2O

\_\_\_\_\_\_\_\_\_\_\_\_\_ 15. 2NaF → 2Na + F2

\_\_\_\_\_\_\_\_\_\_\_\_\_ 16. Si + O2 → SiO2