

## Types of Chemical Reactions

Name \_\_\_\_\_

**S** - Synthesis or Combination (putting together)  $A + B \rightarrow AB$

**D** - Decomposition (taking apart)  $AB \rightarrow A + B$

**SR** - Single Replacement or Displacement (usually a compound and an element)  $A + BC \rightarrow AC + B$

**DR** - Double Replacement or Displacement (two compounds)  $AB + CD \rightarrow AC + BD$

**Comb** - Combustion reaction (hydrocarbon + oxygen)  $C_xH_y + O_2 \rightarrow CO_2 + H_2O$

Classify the following reactions as: **S, D, SR, DR, or Comb.**

1.  $C + O_2 \rightarrow CO_2$  \_\_\_\_\_
2.  $HgO \rightarrow Hg + O_2$  \_\_\_\_\_
3.  $NaCl + AgNO_3 \rightarrow NaNO_3 + AgCl$  \_\_\_\_\_
4.  $Mg + HCl \rightarrow MgCl_2 + H_2$  \_\_\_\_\_
5.  $NaOH + HCl \rightarrow NaCl + H_2O$  \_\_\_\_\_
6.  $H_2 + O_2 \rightarrow H_2O$  \_\_\_\_\_
7.  $Al_2(SO_4)_3 + Ca(OH)_2 \rightarrow Al(OH)_3 + CaSO_4$  \_\_\_\_\_
8.  $Cl_2 + NaBr \rightarrow NaCl + Br_2$  \_\_\_\_\_
9.  $KClO_3 \rightarrow KCl + O_2$  \_\_\_\_\_
10.  $H_2O + Fe \rightarrow Fe_2O_3 + H_2$  \_\_\_\_\_
11.  $N_2 + H_2 \rightarrow NH_3$  \_\_\_\_\_
12.  $K + H_2O \rightarrow KOH + H_2$  \_\_\_\_\_
13.  $Na_2O + CO_2 \rightarrow Na_2CO_3$  \_\_\_\_\_
14.  $Ca(OH)_2 + HNO_3 \rightarrow Ca(NO_3)_2 + H_2O$  \_\_\_\_\_
15.  $HCl + Zn \rightarrow ZnCl_2 + H_2$  \_\_\_\_\_
16.  $H_2CO_3 \rightarrow H_2O + CO_2$  \_\_\_\_\_
17.  $H_2SO_4 + KOH \rightarrow K_2SO_4 + H_2O$  \_\_\_\_\_
18.  $C_3H_8 + O_2 \rightarrow CO_2 + H_2O$  \_\_\_\_\_
19.  $Al + CuCl_2 \rightarrow AlCl_3 + Cu$  \_\_\_\_\_
20.  $H_2O_2 \rightarrow H_2O + O_2$  \_\_\_\_\_
21.  $HCl + KOH \rightarrow KCl + H_2O$  \_\_\_\_\_
22.  $Mg + F_2 \rightarrow MgF_2$  \_\_\_\_\_
23.  $C_8H_{18} + O_2 \rightarrow CO_2 + H_2O$  \_\_\_\_\_
24.  $LiOH + H_3PO_4 \rightarrow H_2O + Li_3PO_4$  \_\_\_\_\_
25.  $CaCO_3 \rightarrow CaO + CO_2$  \_\_\_\_\_