

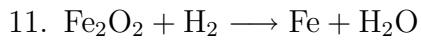
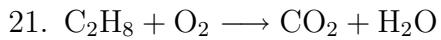
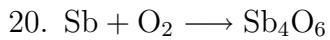
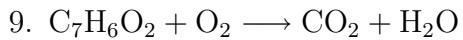
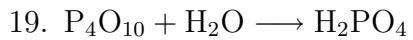
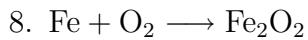
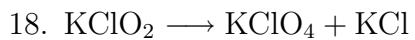
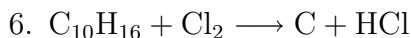
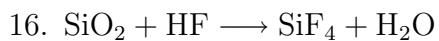
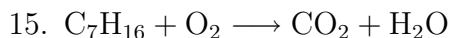
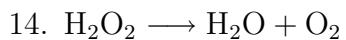
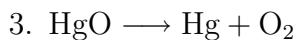
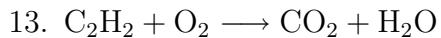
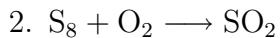
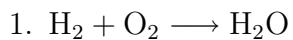
Name: \_\_\_\_\_

Block: \_\_\_\_\_

## Types of Chemical Reactions

For each of the following chemical reactions, indicate whether the type of reaction is:

- synthesis
- decomposition
- single replacement
- double replacement
- combustion
- none of the above



23.  $\text{PCl}_5 + \text{H}_2\text{O} \longrightarrow \text{HCl} + \text{H}_2\text{PO}_4$       37.  $\text{P}_4 + \text{O}_2 \longrightarrow \text{P}_2\text{O}_5$
24.  $\text{H}_2\text{S} + \text{Cl}_2 \longrightarrow \text{S}_8 + \text{HCl}$       38.  $\text{K}_2\text{O} + \text{H}_2\text{O} \longrightarrow \text{KOH}$
25.  $\text{Fe} + \text{H}_2\text{O} \longrightarrow \text{Fe}_2\text{O}_4 + \text{H}_2$       39.  $\text{Al} + \text{O}_2 \longrightarrow \text{Al}_2\text{O}_2$
26.  $\text{N}_2 + \text{H}_2 \longrightarrow \text{NH}_2$       40.  $\text{Na}_2\text{O}_2 + \text{H}_2\text{O} \longrightarrow \text{NaOH} + \text{O}_2$
27.  $\text{N}_2 + \text{O}_2 \longrightarrow \text{N}_2\text{O}$       41.  $\text{C} + \text{H}_2\text{O} \longrightarrow \text{CO} + \text{H}_2$
28.  $\text{CO}_2 + \text{H}_2\text{O} \longrightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$       42.  $\text{H}_2\text{AsO}_4 \longrightarrow \text{As}_2\text{O}_5 + \text{H}_2\text{O}$
29.  $\text{SiCl}_4 + \text{H}_2\text{O} \longrightarrow \text{H}_4\text{SiO}_4 + \text{HCl}$       43.  $\text{Al}_2(\text{SO}_4)_2 + \text{Ca}(\text{OH})_2 \longrightarrow \text{Al}(\text{OH})_2 + \text{CaSO}_4$
30.  $\text{H}_2\text{PO}_4 \longrightarrow \text{H}_4\text{P}_2\text{O}_7 + \text{H}_2\text{O}$       44.  $\text{FeCl}_2 + \text{NH}_4\text{OH} \longrightarrow \text{Fe}(\text{OH})_2 + \text{NH}_4\text{Cl}$
31.  $\text{CO}_2 + \text{NH}_2 \longrightarrow \text{OC}(\text{NH}_2)_2 + \text{H}_2\text{O}$       45.  $\text{Ca}_2(\text{PO}_4)_2 + \text{SiO}_2 \longrightarrow \text{P}_4\text{O}_{10} + \text{CaSiO}_2$
32.  $\text{Al}(\text{OH})_2 + \text{H}_2\text{SO}_4 \longrightarrow \text{Al}_2(\text{SO}_4)_2 + \text{H}_2\text{O}$       46.  $\text{N}_2\text{O}_5 + \text{H}_2\text{O} \longrightarrow \text{HNO}_2$
33.  $\text{Fe}_2(\text{SO}_4)_2 + \text{KOH} \longrightarrow \text{K}_2\text{SO}_4 + \text{Fe}(\text{OH})_2$       47.  $\text{Al} + \text{HCl} \longrightarrow \text{AlCl}_2 + \text{H}_2$
34.  $\text{H}_2\text{SO}_4 + \text{HI} \longrightarrow \text{H}_2\text{S} + \text{I}_2 + \text{H}_2\text{O}$       48.  $\text{H}_2\text{BO}_2 \longrightarrow \text{H}_4\text{B}_6\text{O}_{11} + \text{H}_2\text{O}$
35.  $\text{Al} + \text{FeO} \longrightarrow \text{Al}_2\text{O}_2 + \text{Fe}$       49.  $\text{Mg} + \text{N}_2 \longrightarrow \text{Mg}_2\text{N}_2$
36.  $\text{Na}_2\text{CO}_2 + \text{HCl} \longrightarrow \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$       50.  $\text{NaOH} + \text{Cl}_2 \longrightarrow \text{NaCl} + \text{NaClO} + \text{H}_2\text{O}$