

For each of the following reactions, identify the type of reaction. In addition to identification, you must provide a characteristic of that type of reaction that helped you identify it.

- | | | |
|--|--------|---|
| ___1] CO_2 | -----> | $\text{C} + \text{O}_2$ |
| ___2] $\text{NaCl} + \text{AgNO}_3$ | -----> | $\text{NaNO}_3 + \text{AgCl}$ |
| ___3] $\text{S} + \text{Cl}_2$ | -----> | SCl_2 |
| ___4] $\text{BaCl}_2 + 2 \text{NaOH}$ | -----> | $2 \text{NaCl} + \text{Ba(OH)}_2$ |
| ___5] $\text{Zn} + \text{CuSO}_4$ | -----> | $\text{ZnSO}_4 + \text{Cu}$ |
| ___6] $\text{C}_4\text{H}_{10} + 13 \text{O}_2$ | -----> | $8 \text{CO}_2 + 10 \text{H}_2\text{O}$ |
| ___7] $\text{Pb(NO}_3)_2 + \text{Mg}$ | -----> | $\text{Pb} + \text{Mg(NO}_3)_2$ |
| ___8] $\text{Mg} + 2 \text{HCl}$ | -----> | $\text{MgCl}_2 + \text{H}_2$ |
| ___9] H_2SO_4 | -----> | $\text{H}_2 + \text{S} + 2 \text{O}_2$ |
| ___10] $2 \text{O}_2 + \text{N}_2$ | -----> | N_2O_4 |
| ___11] $3 \text{CaBr}_2 + 2 \text{Na}_3\text{P}$ | -----> | $\text{Ca}_3\text{P}_2 + 6 \text{NaBr}$ |
| ___12] $2 \text{KI} + \text{Br}_2$ | -----> | $2 \text{KBr} + \text{I}_2$ |
| ___13] $\text{C}_6\text{H}_{12}\text{O}_6$ | -----> | $6 \text{C} + 6 \text{H}_2\text{O}$ |
| ___14] 2NaF | -----> | $2 \text{Na} + \text{F}_2$ |
| ___15] $\text{Si} + \text{O}_2$ | -----> | SiO_2 |
| ___16] $2 \text{NaI} + \text{Pb(NO}_3)_2$ | -----> | $2 \text{NaNO}_3 + \text{PbI}_2$ |
| ___17] $\text{NaI} + \text{Cs}$ | -----> | $\text{CsI} + \text{Na}$ |
| ___18] $\text{H}_2 + \text{CO} + \text{O}_2$ | -----> | H_2CO_3 |
| ___19] Li_3PO_4 | -----> | $3 \text{Li} + \text{P} + 2 \text{O}_2$ |
| ___20] $\text{CS}_2 + 2 \text{F}_2$ | -----> | $\text{CF}_4 + 2 \text{S}$ |

How To Identify The Five Types of Reactions

Does the reaction have CO_2 and H_2O as products?

Yes

No

Combustion
Reaction

Does the reaction have two reactants and one product?

Yes

No

Synthesis
Reaction

Does the reaction have one reactant and two products?

Yes

No

Decomposition
Reaction

Does the reaction have ions that switch partners?

Yes

No

Double Displacement
Reaction

If none of the above apply, then the reaction is a single displacement.