

Types of Chemical Reaction Worksheet

Balance the reactions **1 to 6** and indicate which type of chemical reaction (synthesis, decomposition, single-displacement, double-displacement or combustion) is being represented:

1. $2_ \text{NaBr} + _1_ \text{Ca(OH)}_2 \rightarrow 1_ \text{CaBr}_2 + _2_ \text{NaOH}$ Reaction Type : Double replacement
2. $2_ \text{NH}_3 + _1_ \text{H}_2\text{SO}_4 \rightarrow _1_ (\text{NH}_4)_2\text{SO}_4$ Reaction Type : Synthesis
3. $4 \text{C}_5\text{H}_9\text{O} + 27 \text{O}_2 \rightarrow 20 \text{CO}_2 + 18 \text{H}_2\text{O}$ Reaction Type : Combustion
4. $3_ \text{Pb} + _2_ \text{H}_3\text{PO}_4 \rightarrow _3_ \text{H}_2 + ____ \text{Pb}_3(\text{PO}_4)_2$ Reaction Type : single replacement
5. $____ \text{Li}_3\text{N} + _3_ \text{NH}_4\text{NO}_3 \rightarrow _3_ \text{LiNO}_3 + ____ (\text{NH}_4)_3\text{N}$ Reaction Type : Double replacement
6. $3_ \text{HBr} + ____ \text{Al(OH)}_3 \rightarrow _3_ \text{H}_2\text{O} + ____ \text{AlBr}_3$ Reaction Type : double replacement
7. $____ \text{Na}_3\text{PO}_4 + _3_ \text{KOH} \rightarrow 3_ \text{NaOH} + ____ \text{K}_3\text{PO}_4$ Reaction Type double replacement
8. $____ \text{MgCl}_2 + ____ \text{Li}_2\text{CO}_3 \rightarrow ____ \text{MgCO}_3 + 2_ \text{LiCl}$ Reaction Type double replacement
9. $____ \text{C}_8\text{H}_{16} + _12_ \text{O}_2 \rightarrow _8_ \text{CO}_2 + _8_ \text{H}_2\text{O}$ Reaction Type combustion

Indicate which type of chemical reaction (synthesis, decomposition, single-displacement, double-displacement or combustion) is being represented in 7 to 20.

10. $\text{Pb} + \text{FeSO}_4 \rightarrow \text{PbSO}_4 + \text{Fe}$ Reaction Type single replacement
11. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$ Reaction Type decomposition
12. $\text{P}_4 + 3 \text{O}_2 \rightarrow 2 \text{P}_2\text{O}_3$ Reaction Type synthesis
13. $2 \text{RbNO}_3 + \text{BeF}_2 \rightarrow \text{Be(NO}_3)_2 + 2 \text{RbF}$ Reaction Type double replacement
14. $2 \text{AgNO}_3 + \text{Cu} \rightarrow \text{Cu(NO}_3)_2 + 2 \text{Ag}$ Reaction Type single replacement
15. $\text{C}_3\text{H}_6\text{O} + 4 \text{O}_2 \rightarrow 3 \text{CO}_2 + 3 \text{H}_2\text{O}$ Reaction Type combustion
16. $2 \text{C}_5\text{H}_5 + \text{Fe} \rightarrow \text{Fe(C}_5\text{H}_5)_2$ Reaction Type synthesis
17. $\text{SeCl}_6 + \text{O}_2 \rightarrow \text{SeO}_2 + 3 \text{Cl}_2$ Reaction Type single replacement
18. $2 \text{MgI}_2 + \text{Mn(SO}_3)_2 \rightarrow 2 \text{MgSO}_3 + \text{MnI}_4$ Reaction Type double replacement
19. $\text{O}_3 \rightarrow \text{O} + \text{O}_2$ Reaction Type decomposition
20. $2 \text{NO}_2 \rightarrow 2 \text{O}_2 + \text{N}_2$ Reaction Type decomposition