

Name: _____ Date: _____ Period: 1 2 3 4 5 6 7

Types of Chemical Reaction and Predicting Products Worksheet

Balance the following. Indicate which type of chemical reaction (synthesis, decomposition, single-displacement, double-displacement, acid-base, combustion, precipitation, or gas evolution) is being represented in 1 to 13.

1. 1 $\text{Na}_3\text{PO}_4(\text{aq}) + \underline{3} \text{KOH}(\text{aq}) \rightarrow \underline{3} \text{NaOH}(\text{aq}) + \underline{1} \text{K}_3\text{PO}_4(\text{s})$
Reaction Type DR
2. 1 $\text{MgCl}_2(\text{s}) + \underline{1} \text{Li}_2\text{CO}_3(\text{s}) \rightarrow \underline{1} \text{MgCO}_3(\text{s}) + \underline{2} \text{LiCl}(\text{aq})$
Reaction Type DR
3. 1 $\text{C}_6\text{H}_{12}(\text{l}) + \underline{9} \text{O}_2(\text{g}) \rightarrow \underline{6} \text{CO}_2(\text{g}) + \underline{6} \text{H}_2\text{O}(\text{l})$
Reaction Type C
4. 1 $\text{Pb}(\text{s}) + \underline{1} \text{FeSO}_4(\text{aq}) \rightarrow \underline{1} \text{PbSO}_4(\text{s}) + \underline{1} \text{Fe}(\text{s})$
Reaction Type SR
5. 1 $\text{CaCO}_3(\text{s}) \rightarrow \underline{1} \text{CaO}(\text{s}) + \underline{1} \text{CO}_2(\text{g})$
Reaction Type D
6. 1 $\text{P}_4(\text{s}) + \underline{3} \text{O}_2(\text{g}) \rightarrow \underline{2} \text{P}_2\text{O}_3(\text{s})$
Reaction Type S
7. 2 $\text{RbNO}_3(\text{aq}) + \underline{1} \text{BeF}_2(\text{aq}) \rightarrow \underline{1} \text{Be}(\text{NO}_3)_2(\text{aq}) + \underline{2} \text{RbF}(\text{aq})$
Reaction Type DR
8. 2 $\text{AgNO}_3(\text{aq}) + \underline{1} \text{Cu}(\text{s}) \rightarrow \underline{1} \text{Cu}(\text{NO}_3)_2(\text{aq}) + \underline{2} \text{Ag}(\text{s})$
Reaction Type SR
9. 1 $\text{C}_3\text{H}_6\text{O}(\text{l}) + \underline{4} \text{O}_2(\text{g}) \rightarrow \underline{3} \text{CO}_2(\text{g}) + \underline{3} \text{H}_2\text{O}(\text{l})$
Reaction Type C
10. 2 $\text{C}_5\text{H}_5(\text{l}) + \underline{1} \text{Fe}(\text{s}) \rightarrow \underline{1} \text{Fe}(\text{C}_5\text{H}_5)_2(\text{s})$
Reaction Type S
11. 1 $\text{SeCl}_6(\text{s}) + \underline{1} \text{O}_2(\text{g}) \rightarrow \underline{1} \text{SeO}_2(\text{s}) + \underline{3} \text{Cl}_2(\text{g})$
Reaction Type SR
12. 2 $\text{MgI}_2(\text{aq}) + \underline{1} \text{Mn}(\text{SO}_3)_2(\text{s}) \rightarrow \underline{2} \text{MgSO}_3(\text{s}) + \underline{1} \text{MnI}_4(\text{aq})$
Reaction Type DR
13. 2 $\text{NO}_2(\text{g}) \rightarrow \underline{2} \text{O}_2(\text{g}) + \underline{1} \text{N}_2(\text{g})$
Reaction Type S