

Extra Practice Predicting Products

Name: **Key**

Determine the type of reaction, predict the products, and balance:

#	Reaction Type	Reaction
1.	Synthesis	$2\text{K} + \text{Cl}_2 \rightarrow 2\text{KCl}$
2.	Single Replacement	$\text{Ca} + 2\text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2 + \text{H}_2$
3.	Double Replacement	$\text{Pb}(\text{NO}_3)_2 + 2\text{KI} \rightarrow \text{PbI}_2 + 2\text{KNO}_3$
4.	Single Replacement	$3\text{Ag}_2\text{S} + 2\text{Al} \rightarrow \text{Al}_2\text{S}_3 + 6\text{Ag}$
5.	Combustion	$\text{C}_3\text{H}_8 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O}$
6.	Decomposition	$2\text{CaO} \rightarrow 2\text{Ca} + \text{O}_2$
7.	Single Replacement	$2\text{NaCl} + \text{F}_2 \rightarrow 2\text{NaF} + \text{Cl}_2$
8.	Single Replacement	$\text{CuSO}_4 + 2\text{Li} \rightarrow \text{Li}_2\text{SO}_4 + \text{Cu}$
9.	Combustion	$\text{C}_2\text{H}_5\text{OH} + 3\text{O}_2 \rightarrow 2\text{CO}_2 + 3\text{H}_2\text{O}$
10.	Synthesis	$2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$

11.	Double Replacement (Acid-Base)	$2\text{HNO}_3 + \text{Ca}(\text{OH})_2 \rightarrow \text{Ca}(\text{NO}_3)_2 + 2\text{H}_2\text{O}$
12.	Double Replacement	$\text{AlCl}_3 + (\text{NH}_4)_3\text{PO}_4 \rightarrow \text{AlPO}_4 + 3\text{NH}_4\text{Cl}$
13.	(Single Replacement)	$2\text{Na} + \text{CaSO}_4 \rightarrow \text{N.R.}$
14.	Decomposition	$2\text{NO}_2 \rightarrow 2\text{O}_2 + \text{N}_2$
15.	Single Replacement	$2\text{AgNO}_3 + \text{Cu} \rightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{Ag}$
16.	Decomposition	$2\text{Na}_2\text{O} \rightarrow 4\text{Na} + \text{O}_2$
17.	(Single Replacement)	$\text{Pb} + \text{FeSO}_4 \rightarrow \text{N.R.}$
18.	Double Replacement	$\text{MgCl}_2 + \text{Li}_2\text{CO}_3 \rightarrow \text{MgCO}_3 + 2\text{LiCl}$
19.	Synthesis	$\text{O}_2 + 2\text{H}_2 \rightarrow 2\text{H}_2\text{O}$
20.	Decomposition	$\text{H}_2\text{CO}_3 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
21.	Decomposition	$2\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$
22.	Decomposition	$2\text{O}_3 \rightarrow 3\text{O}_2$

