

Name _____ Period _____

Reaction Types synthesis decomposition single replacement double replacement combustion

For each reaction, balance the chemical equations and state the reaction type.

1. $2 \text{KI} + \text{Pb}(\text{NO}_3)_2 \rightarrow 2 \text{KNO}_3 + \text{PbI}_2$ Single Replacement
2. $\text{H}_2\text{CO}_3 \rightarrow \text{H}_2\text{O} + \text{CO}_2$ _____
3. $\text{C}_8\text{H}_{18} + \text{O}_2 \rightarrow \text{H}_2\text{O} + \text{CO}_2$ _____
4. $\text{CuSO}_4 + \text{Zn} \rightarrow \text{Cu} + \text{ZnSO}_4$ _____
5. $\text{RbCl} + 2 \text{O}_2 \rightarrow \text{RbClO}_4$ _____
6. $\text{Pb}(\text{NO}_3)_2(\text{aq}) + \text{Na}_2\text{CrO}_4(\text{aq}) \rightarrow \text{NaNO}_3(\text{s}) + \text{PbCrO}_4(\text{s})$ _____
7. $\text{NO}_2(\text{g}) + \text{H}_2\text{O}(\text{l}) \rightarrow \text{HNO}_3(\text{aq}) + \text{NO}(\text{g})$ _____
8. $\text{Li}_2\text{O}_2(\text{s}) + \text{CO}_2(\text{g}) \rightarrow \text{Li}_2\text{CO}_3(\text{s}) + \text{O}_2(\text{g})$ _____
9. $\text{Ce}(\text{IO}_3)_4 + \text{H}_2\text{C}_2\text{O}_4 \rightarrow \text{Ce}_2(\text{C}_2\text{O}_4)_3 + \text{I}_2 + \text{CO}_2 + \text{H}_2\text{O}$ _____
10. $\text{SnCl}_2 + \text{I}_2 + \text{HCl} \rightarrow \text{SnCl}_4 + \text{HI}$ _____
11. $\text{Al} + \text{H}_2\text{SO}_4 \rightarrow \text{Al}_2(\text{SO}_4)_3 + 3\text{H}_2$ _____
12. $\text{Na}_2\text{SO}_4 + \text{AgNO}_3 \rightarrow \text{Ag}_2\text{SO}_4 + 2\text{NaNO}_3$ _____
13. $\text{C} + \text{Fe}_2\text{O}_3 \rightarrow \text{Fe} + \text{CO}$ _____

Predict the products from these reaction, balance the equation and state the reaction type

14. $2 \text{H}_2 + \text{O}_2 \rightarrow \underline{2 \text{H}_2\text{O}}$ combination
15. $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow$ _____
16. $\text{HgO} \rightarrow$ _____
17. $\text{KBr} + \text{Cl}_2 \rightarrow$ _____
16. $\text{AgNO}_3 + \text{NaCl} \rightarrow$ _____