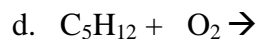
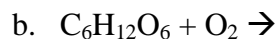
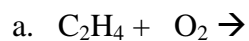
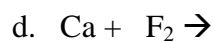
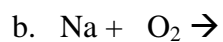
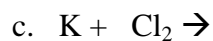
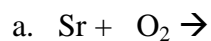


Predict the products and write the balanced equation for each of these reactions:

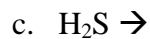
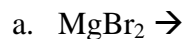
Combustion



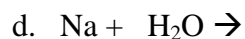
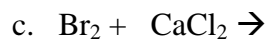
Synthesis



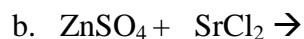
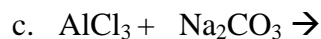
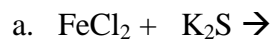
Decomposition



Single Replacement



Double Replacement



Balance the following equations, then state what type of reaction it is.

1. $\text{Fe} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3$
2. $\text{Fe} + \text{H}_2\text{O} \rightarrow \text{Fe}(\text{OH})_3 + \text{H}_2$
3. $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$
4. $\text{Cl}_2 + \text{LiI} \rightarrow \text{LiCl} + \text{I}_2$
5. $\text{PbO}_2 \rightarrow \text{PbO} + \text{O}_2$
6. $\text{Cu} + \text{AgNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + \text{Ag}$
7. $\text{KOH} + \text{H}_3\text{PO}_4 \rightarrow \text{K}_3\text{PO}_4 + \text{H}_2\text{O}$
8. $\text{Al}(\text{NO}_3)_3 + \text{H}_2\text{SO}_4 \rightarrow \text{Al}_2(\text{SO}_4)_3 + \text{HNO}_3$
9. $\text{Al} + \text{Pb}(\text{NO}_3)_2 \rightarrow \text{Al}(\text{NO}_3)_3 + \text{Pb}$
10. $\text{Na}_2\text{SO}_3 + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O} + \text{SO}_2$

In the following equations, the reactants are written correctly. Identify the type of chemical reaction it is, then complete the equation by writing the correct products and balance it.

Type of Reaction

1. $\text{HgO} \rightarrow$ _____
2. $\text{Mg} + \text{O}_2 \rightarrow$ _____
3. $\text{K} + \text{H}_2\text{O} \rightarrow$ _____
4. $\text{CaO} + \text{HCl} \rightarrow$ _____
5. $\text{NaClO}_3 \rightarrow$ _____
6. $\text{Zn} + \text{H}_3\text{PO}_4 \rightarrow$
(zinc has a charge of +2) _____
7. $\text{Si} + \text{Cl}_2 \rightarrow$ _____
8. $\text{Al}(\text{NO}_3)_3 + \text{NH}_4\text{OH} \rightarrow$ _____
9. $\text{AgNO}_3 + \text{CaSO}_4 \rightarrow$ _____
10. $\text{Cl}_2 + \text{AlF}_3 \rightarrow$ _____