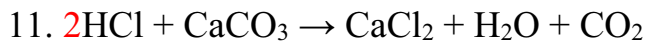
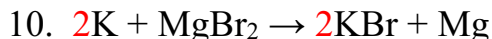
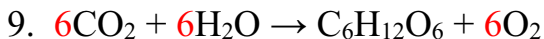
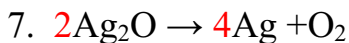
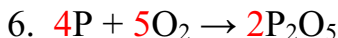
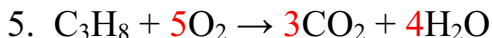
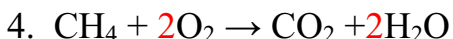
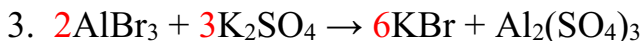
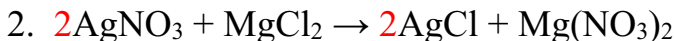
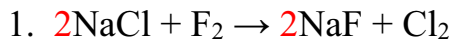


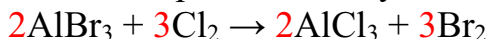
KEY

Balancing Chemical Equations

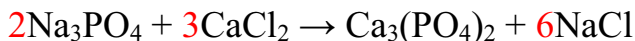
Rewrite and balance the equations below:



12. aluminum bromide plus chlorine yield aluminum chloride plus bromine.



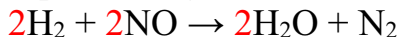
13. sodium phosphate + calcium chloride yield calcium phosphate + sodium chloride.



14. potassium chlorate when heated yields potassium chloride + oxygen gas.



15. Hydrogen plus nitrogen monoxide yield water plus nitrogen.



Classification of Chemical Reactions

Classify the reactions below as synthesis, decomposition, single replacement, double replacement, or combustion. On the second line, balance the equation.

1. $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$ synthesis
a. $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
2. $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow \text{ZnSO}_4 + \text{H}_2$ single replacement
a. balanced
3. $\text{CO} + \text{O}_2 \rightarrow \text{CO}_2$ synthesis
a. balanced
4. $\text{HgO} \rightarrow \text{Hg} + \text{O}_2$ decomposition
a. $2\text{HgO} \rightarrow 2\text{Hg} + \text{O}_2$
5. $\text{C}_{10}\text{H}_{20} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ combustion (double replacement)
a. $\text{C}_{10}\text{H}_{20} + 15\text{O}_2 \rightarrow 10\text{CO}_2 + 10\text{H}_2\text{O}$
6. $\text{H}_2\text{O} \rightarrow \text{H}_2 + \text{O}_2$ decomposition
a. $2\text{H}_2\text{O} \rightarrow 2\text{H}_2 + \text{O}_2$
7. $\text{KBr} + \text{Cl}_2 \rightarrow \text{KCl} + \text{Br}$ single replacement
a. $2\text{KBr} + \text{Cl}_2 \rightarrow 2\text{KCl} + 2\text{Br}$
8. $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2$ synthesis
a. balanced
9. $\text{AgNO}_3 + \text{NaCl} \rightarrow \text{AgCl} + \text{NaNO}_3$ double replacement
a. balanced
10. $\text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$ decomposition
a. $4\text{H}_2\text{O}_2 \rightarrow 4\text{H}_2\text{O} + 2\text{O}_2$
11. $\text{Ca(OH)}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{CaSO}_4 + \text{H}_2\text{O}$ double replacement
a. $\text{Ca(OH)}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{CaSO}_4 + 2\text{H}_2\text{O}$