

BALANCING CHEMICAL EQUATIONS

Name _____

Rewrite and balance the equations below.

1. $\text{N}_2 + \text{H}_2 \rightarrow \text{NH}_3$ $\boxed{\text{N}_2} + \boxed{3\text{H}_2} \rightarrow \boxed{2\text{NH}_3}$
2. $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$ $\boxed{2\text{KClO}_3} \rightarrow \boxed{2\text{KCl}} + \boxed{3\text{O}_2}$
3. $\text{NaCl} + \text{F}_2 \rightarrow \text{NaF} + \text{Cl}_2$ $\boxed{2\text{NaCl}} + \boxed{\text{Fe}} \rightarrow \boxed{2\text{NaF}} + \boxed{\text{Cl}_2}$
4. $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$ $\boxed{2\text{H}_2} + \boxed{\text{O}_2} \rightarrow \boxed{2\text{H}_2\text{O}}$
5. $\text{AgNO}_3 + \text{MgCl}_2 \rightarrow \text{AgCl} + \text{Mg}(\text{NO}_3)_2$ $\boxed{2\text{AgNO}_3} + \boxed{\text{MgCl}_2} \rightarrow \boxed{2\text{AgCl}} + \boxed{\text{Mg}(\text{NO}_3)_2}$
6. $\text{AlBr}_3 + \text{K}_2\text{SO}_4 \rightarrow \text{KBr} + \text{Al}_2(\text{SO}_4)_3$ $\boxed{2\text{AlBr}_3} + \boxed{3\text{K}_2\text{SO}_4} \rightarrow \boxed{6\text{KBr}} + \boxed{\text{Al}_2(\text{SO}_4)_3}$
7. $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ $\boxed{\text{CH}_4} + \boxed{2\text{O}_2} \rightarrow \boxed{\text{CO}_2} + \boxed{2\text{H}_2\text{O}}$
8. $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ $\boxed{\text{C}_3\text{H}_8} + \boxed{5\text{O}_2} \rightarrow \boxed{3\text{CO}_2} + \boxed{4\text{H}_2\text{O}}$
9. $\text{C}_8\text{H}_{18} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ $\boxed{2\text{C}_8\text{H}_{18}} + \boxed{25\text{O}_2} \rightarrow \boxed{16\text{CO}_2} + \boxed{18\text{H}_2\text{O}}$
10. $\text{FeCl}_3 + 3\text{NaOH} \rightarrow \text{Fe(OH)}_3 + 3\text{NaCl}$ $\boxed{\text{FeCl}_3} + \boxed{3\text{NaOH}} \rightarrow \boxed{\text{Fe(OH)}_3} + \boxed{3\text{NaCl}}$
11. $\text{P} + \text{O}_2 \rightarrow \text{P}_2\text{O}_5$ $\boxed{4\text{P}} + \boxed{5\text{O}_2} \rightarrow \boxed{2\text{P}_2\text{O}_5}$
12. $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$ $\boxed{2\text{Na}} + \boxed{2\text{H}_2\text{O}} \rightarrow \boxed{2\text{NaOH}} + \boxed{\text{H}_2}$
13. $\text{Ag}_2\text{O} \rightarrow \text{Ag} + \text{O}_2$ $\boxed{2\text{Ag}_2\text{O}} \rightarrow \boxed{4\text{Ag}} + \boxed{\text{O}_2}$
14. $\text{S}_8 + \text{O}_2 \rightarrow \text{SO}_3$ $\boxed{\text{S}_8} + \boxed{12\text{O}_2} \rightarrow \boxed{8\text{SO}_3}$
15. $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$ $\boxed{6\text{CO}_2} + \boxed{6\text{H}_2\text{O}} \rightarrow \boxed{\text{C}_6\text{H}_{12}\text{O}_6} + \boxed{6\text{O}_2}$
16. $\text{K} + \text{MgBr}_2 \rightarrow \text{KBr} + \text{Mg}$ $\boxed{2\text{K}} + \boxed{\text{MgBr}_2} \rightarrow \boxed{2\text{KBr}} + \boxed{\text{Mg}}$
17. $\text{HCl} + \text{CaCO}_3 \rightarrow \text{CaCl}_2 + \text{H}_2\text{O} + \text{CO}_2$ $\boxed{2\text{HCl}} + \boxed{\text{CaCO}_3} \rightarrow \boxed{\text{CaCl}_2} + \boxed{\text{H}_2\text{O}} + \boxed{\text{CO}_2}$