

## Balancing Equations

1.  $\underline{\hspace{1cm}} H_{2(g)} + \underline{\hspace{1cm}} O_{2(g)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(l)}$
2.  $\underline{\hspace{1cm}} KNO_{2(s)} + \underline{\hspace{1cm}} O_{2(g)} \longrightarrow \underline{\hspace{1cm}} KNO_{3(s)}$
3.  $\underline{\hspace{1cm}} Cr_2O_{3(s)} \longrightarrow \underline{\hspace{1cm}} Cr_{(s)} + \underline{\hspace{1cm}} O_{2(g)}$
4.  $\underline{\hspace{1cm}} Zn_{(s)} + \underline{\hspace{1cm}} HCl_{(aq)} \longrightarrow \underline{\hspace{1cm}} ZnCl_{2(aq)} + \underline{\hspace{1cm}} H_{2(g)}$
5.  $\underline{\hspace{1cm}} NH_{3(g)} + \underline{\hspace{1cm}} O_{2(g)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(g)} + \underline{\hspace{1cm}} NO_{(g)}$
6.  $\underline{\hspace{1cm}} Mg_{(s)} + \underline{\hspace{1cm}} N_{2(g)} \longrightarrow \underline{\hspace{1cm}} Mg_3N_{2(s)}$
7.  $\underline{\hspace{1cm}} Fe_{(s)} + \underline{\hspace{1cm}} Cl_{2(g)} \longrightarrow \underline{\hspace{1cm}} FeCl_{3(s)}$
8.  $\underline{\hspace{1cm}} C_3H_{8(g)} + \underline{\hspace{1cm}} O_{2(g)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(l)} + \underline{\hspace{1cm}} CO_{2(g)}$
9.  $\underline{\hspace{1cm}} C_2H_5OH_{(l)} + \underline{\hspace{1cm}} O_{2(g)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(l)} + \underline{\hspace{1cm}} CO_{2(g)}$
10.  $\underline{\hspace{1cm}} Cl_{2(g)} + \underline{\hspace{1cm}} NaBr_{(aq)} \longrightarrow \underline{\hspace{1cm}} Br_{2(l)} + \underline{\hspace{1cm}} NaCl_{(aq)}$
11.  $\underline{\hspace{1cm}} C_6H_{14(l)} + \underline{\hspace{1cm}} O_{2(g)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(l)} + \underline{\hspace{1cm}} CO_{2(g)}$
12.  $\underline{\hspace{1cm}} CH_3OH_{(l)} + O_{2(g)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(l)} + \underline{\hspace{1cm}} CO_{2(g)}$
13.  $\underline{\hspace{1cm}} HBrO_{3(l)} + \underline{\hspace{1cm}} HBr_{(l)} \longrightarrow \underline{\hspace{1cm}} H_2O_{(l)} + \underline{\hspace{1cm}} Br_{2(l)}$
14.  $\underline{\hspace{1cm}} Fe_3O_{4(s)} + \underline{\hspace{1cm}} H_{2(g)} \longrightarrow \underline{\hspace{1cm}} Fe_{(s)} + \underline{\hspace{1cm}} H_2O_{(g)}$
15.  $\underline{\hspace{1cm}} Fe(OH)_{2(s)} + \underline{\hspace{1cm}} O_{2(g)} + \underline{\hspace{1cm}} H_2O_{(l)} \longrightarrow \underline{\hspace{1cm}} Fe(OH)_{3(s)}$
16.  $\underline{\hspace{1cm}} Ba(NO_3)_{2(aq)} + \underline{\hspace{1cm}} K_2CrO_{4(aq)} \longrightarrow \underline{\hspace{1cm}} BaCrO_{4(s)} + \underline{\hspace{1cm}} KNO_{3(aq)}$
17.  $\underline{\hspace{1cm}} Al_2(SO_4)_{3(aq)} + \underline{\hspace{1cm}} Sr(NO_3)_{2(aq)} \longrightarrow \underline{\hspace{1cm}} Al(NO_3)_{3(aq)} + \underline{\hspace{1cm}} SrSO_{4(s)}$
18.  $\underline{\hspace{1cm}} NH_4Cl_{(s)} + \underline{\hspace{1cm}} H_2O_{(l)} \longrightarrow \underline{\hspace{1cm}} NH_4^+_{(aq)} + \underline{\hspace{1cm}} Cl^-_{(aq)} + \underline{\hspace{1cm}} H_2O_{(l)}$
19.  $\underline{\hspace{1cm}} Ca(NO_3)_{2(aq)} + \underline{\hspace{1cm}} NaF_{(aq)} \longrightarrow \underline{\hspace{1cm}} CaF_{(s)} + \underline{\hspace{1cm}} NaNO_{3(aq)}$

### Challenge Question

20.  $\underline{\hspace{1cm}} Cu_{(s)} + \underline{\hspace{1cm}} HNO_{3(aq)} \longrightarrow \underline{\hspace{1cm}} Cu(NO_3)_{2(aq)} + \underline{\hspace{1cm}} NO_{(g)} + \underline{\hspace{1cm}} H_2O_{(l)}$