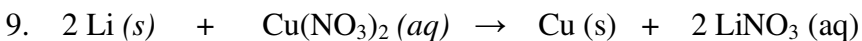
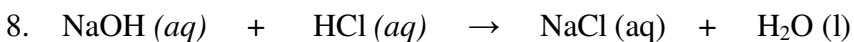
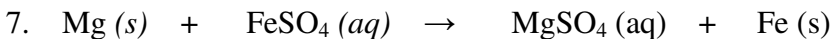
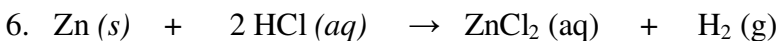
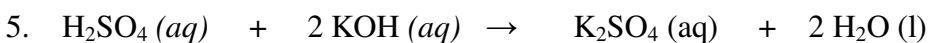
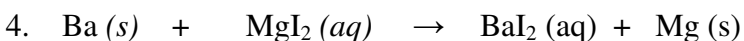
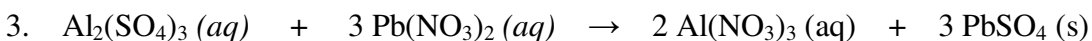
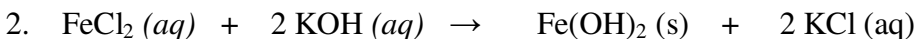
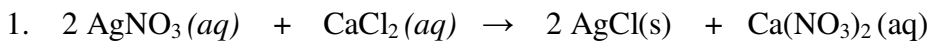


## Writing net Ionic Equations

Write net ionic equations for the following balanced equations. Answers are on the next page.



Answers:

The balanced equation, an intermediate step and then the net ionic equation are shown.

- $$2 \text{AgNO}_3(aq) + \text{CaCl}_2(aq) \rightarrow 2 \text{AgCl}(s) + \text{Ca}(\text{NO}_3)_2(aq)$$
$$2 \text{Ag}^+ + 2 \text{NO}_3^- + \text{Ca}^{2+} + 2 \text{Cl}^- \rightarrow 2 \text{AgCl}(s) + \text{Ca}^{2+} + 2 \text{NO}_3^-$$
$$2 \text{Ag}^+ + 2 \text{Cl}^- \rightarrow 2 \text{AgCl}(s)$$
- $$\text{FeCl}_2(aq) + 2 \text{KOH}(aq) \rightarrow \text{Fe}(\text{OH})_2(s) + 2 \text{KCl}(aq)$$
$$\text{Fe}^{2+} + 2 \text{Cl}^- + 2 \text{K}^+ + 2 \text{OH}^- \rightarrow \text{Fe}(\text{OH})_2(s) + 2 \text{K}^+ + 2 \text{Cl}^-$$
$$\text{Fe}^{2+} + 2 \text{OH}^- \rightarrow \text{Fe}(\text{OH})_2(s)$$
- $$\text{Al}_2(\text{SO}_4)_3(aq) + 3 \text{Pb}(\text{NO}_3)_2(aq) \rightarrow 2 \text{Al}(\text{NO}_3)_3(aq) + 3 \text{PbSO}_4(s)$$
$$2 \text{Al}^{3+} + 3 \text{SO}_4^{2-} + 3 \text{Pb}^{2+} + 6 \text{NO}_3^{1-} \rightarrow 2 \text{Al}^{3+} + 6 \text{NO}_3^{1-} + 3 \text{PbSO}_4(s)$$
$$\text{SO}_4^{2-} + \text{Pb}^{2+} \rightarrow \text{PbSO}_4(s)$$
- $$\text{Ba}(s) + \text{MgI}_2(aq) \rightarrow \text{BaI}_2(aq) + \text{Mg}(s)$$
$$\text{Ba}(s) + \text{Mg}^{2+} + 2 \text{I}^{1-} \rightarrow \text{Ba}^{2+} + 2 \text{I}^{1-} + \text{Mg}(s)$$
$$\text{Ba}(s) + \text{Mg}^{2+} \rightarrow \text{Ba}^{2+} + \text{Mg}(s)$$
- $$\text{H}_2\text{SO}_4(aq) + 2 \text{KOH}(aq) \rightarrow \text{K}_2\text{SO}_4(aq) + 2 \text{H}_2\text{O}(l)$$
$$2 \text{H}^+ + \text{SO}_4^{2-} + 2 \text{K}^+ + 2 \text{OH}^{1-} \rightarrow 2 \text{K}^+ + \text{SO}_4^{2-} + 2 \text{H}_2\text{O}(l)$$
$$\text{H}^+ + \text{OH}^{1-} \rightarrow \text{H}_2\text{O}(l)$$
- $$\text{Zn}(s) + 2 \text{HCl}(aq) \rightarrow \text{ZnCl}_2(aq) + \text{H}_2(g)$$
$$\text{Zn}(s) + 2 \text{H}^+ + 2 \text{Cl}^{1-} \rightarrow \text{Zn}^{2+} + 2 \text{Cl}^{1-} + \text{H}_2(g)$$
$$\text{Zn}(s) + 2 \text{H}^+ \rightarrow \text{Zn}^{2+} + \text{H}_2(g)$$
- $$\text{Mg}(s) + \text{FeSO}_4(aq) \rightarrow \text{MgSO}_4(aq) + \text{Fe}(s)$$
$$\text{Mg}(s) + \text{Fe}^{2+} + \text{SO}_4^{2-} \rightarrow \text{Mg}^{2+} + \text{SO}_4^{2-} + \text{Fe}(s)$$
$$\text{Mg}(s) + \text{Fe}^{2+} \rightarrow \text{Mg}^{2+} + \text{Fe}(s)$$
- $$\text{NaOH}(aq) + \text{HCl}(aq) \rightarrow \text{NaCl}(aq) + \text{H}_2\text{O}(l)$$
$$\text{Na}^{2+} + \text{OH}^{1-} + \text{H}^+ + \text{Cl}^{1-} \rightarrow \text{Na}^+ + \text{Cl}^{1-} + \text{H}_2\text{O}(l)$$
$$\text{OH}^{1-} + \text{H}^+ \rightarrow \text{H}_2\text{O}(l)$$
- $$2 \text{Li}(s) + \text{Cu}(\text{NO}_3)_2(aq) \rightarrow \text{Cu}(s) + 2 \text{LiNO}_3(aq)$$
$$2 \text{Li}(s) + \text{Cu}^{2+} + 2 \text{NO}_3^{1-} \rightarrow \text{Cu}(s) + 2 \text{Li}^+ + 2 \text{NO}_3^{1-}$$
$$2 \text{Li}(s) + \text{Cu}^{2+} \rightarrow \text{Cu}(s) + 2 \text{Li}^+$$