Net Ionic Equations

**Balance each reaction** then write the total and net ionic equations. Identify the spectator ions.

1. $RbOH_{(aq)} + HCl_{(aq)} \rightarrow HOH_{(l)} + RbCl_{(aq)}$

2. $CaCl_{2\,(aq)} + Na_2CO_{3\,(aq)} \rightarrow NaCl_{(aq)} + CaCO_{3\,(s)}$

3. $CuI_{2\,(aq)} + (NH_4)_3PO_{4\,(aq)} \rightarrow Cu_3(PO_4)_{2\,(s)} + NH_4I_{(aq)}$

4. $Fe_2(SO_4)_{3\,(aq)} + Pb(ClO_3)_{2\,(aq)} \rightarrow Fe(ClO_3)_{3\,(aq)} + PbSO_{4\,(s)}$

5. $NaOH_{(aq)} + H_2SO_{4\,(aq)} \rightarrow Na_2SO_{4\,(aq)} + HOH_{(l)}$

6. $Hg_2(NO_3)_{2\,(aq)} + NiSO_{4\,(aq)} \rightarrow Ni(NO_3)_{2\,(aq)} + Hg_2SO_{4\,(s)}$

7. $H_3PO_{4\,(aq)} + NH_4OH_{(aq)} \rightarrow HOH_{(l)} + (NH_4)_3PO_{4\,(aq)}$

8. $BaCO_{3\,(aq)} + H_3PO_{4\,(aq)} \rightarrow CO_{2\,(g)} + H_2O_{(l)} + Ba_3(PO_4)_{2\,(aq)}$

9. $LiOH_{(aq)} + H_2S_{(aq)} \rightarrow HOH_{(l)} + Li_2S_{(aq)}$

10. $AgNO_{3\,(aq)} + CaCl_{2\,(aq)} \rightarrow AgCl_{(s)} + Ca(NO_3)_{2\,(aq)}$

11. $HNO_{2\,(aq)} + MgCO_{3\,(aq)} \rightarrow Mg(NO_2)_{2\,(aq)} + HOH_{(l)} + CO_{2\,(g)}$

12. $HC_2H_3O_{2\,(aq)} + Ca(OH)_{2\,(aq)} \rightarrow Ca(C_2H_3O_2)_{2\,(aq)} + HOH_{(l)}$

13. $Pb(NO_3)_{2\,(aq)} + NaI_{(aq)} \rightarrow NaNO_{3\,(aq)} + PbI_{2\,(s)}$

14. $CaCl_{2\,(aq)} + H_3PO_{4\,(aq)} \rightarrow Ca_3(PO_4)_{2\,(s)} + HCl_{(aq)}$

15. $KCN_{(aq)} + H_2SO_{4\,(aq)} \rightarrow K_2SO_{4\,(aq)} + HCN_{(g)}$