## Answer Key for Balancing Equations

1. 
$$\frac{2}{OR} H_{2(g)} + \frac{1}{2} O_{2(g)} \longrightarrow H_{2} O_{(g)}$$

$$OR H_{2(g)} + \frac{1}{2} O_{2(g)} \longrightarrow H_{2} O_{(g)}$$

2. 
$$2 \text{ KNO}_{2(s)} + 0_{2(g)} \longrightarrow 2 \text{ KNO}_{3(s)}$$

OR  $\text{KNO}_{2(s)} + \frac{1}{2} O_{2(9)} \longrightarrow \text{KNO}_{3}$ 

3. 
$$\frac{2 c_{r_2} o_{3\omega}}{2} \xrightarrow{4} c_{r_{\omega}} + \frac{3}{2} o_{2\omega}$$

4. 
$$Zn_{(g)} + ZHCl_{(aq)} \longrightarrow ZnCl_{2(aq)} + H_{2(g)}$$

6. 
$$3_{Mg_{(g)}} + \dots N_{2(g)} \longrightarrow Mg_3N_{2(g)}$$

7. 
$$2_{Fe_{(g)}} + 3_{Cl_{2(g)}} \longrightarrow 2_{FeCl_{3(g)}}$$

8. 
$$C_3H_{8(g)} + 5O_{2(g)} \longrightarrow 4H_2O_{(g)} + 3CO_{2(g)}$$

9. 
$$c_2H_5OH_{(0)} + 3o_{2(g)} \longrightarrow 3H_2O_{(0)} + 2co_{2(g)}$$

10. 
$$Cl_{2(g)} + 2NaBr_{(aq)} \longrightarrow Br_{2(t)} + 2NaCl_{(aq)}$$

11. 
$$\frac{2}{2}c_{6}H_{14(6)} + \frac{19}{2}O_{2(6)} \longrightarrow \frac{14}{7}H_{2}O_{(6)} + \frac{12}{2}co_{2(6)}$$
or  $C_{6}H_{14(6)} + \frac{19}{2}O_{2(6)} \longrightarrow 7H_{2}O_{(6)} + 6O_{2(6)}$ 

12. 
$$2 CH_3OH_{(0)} + 3 O_{2(g)} \longrightarrow 4 H_2O_{(0)} + 2 CO_{2(g)}$$
or  $CH_3OH_{(0)} + 3 O_{2(g)} \longrightarrow 2 H_2O_{(0)} + CO_{2(g)}$ 

13. 
$$\underline{\qquad}$$
  $HBrO_{3(0)} + \underline{\qquad}$   $\underline{\qquad}$   $\underline{\qquad$ 

14. 
$$Fe_3O_{4(s)} + H_{2(g)} \longrightarrow Fe_{(s)} + H_2O_{(g)}$$

16. 
$$Ba(NO_3)_{2(aq)} + K_2CrO_{4(aq)} \longrightarrow BaCrO_{4(s)} + KNO_{3(aq)}$$

17. 
$$Al_2(SO_4)_{3(aq)} + 3 Sr(NO_3)_{2(aq)} \longrightarrow 2 Al(NO_3)_{3(aq)} + 3 SrSO_{4(s)}$$

18. 
$$NH_4Cl_{(g)} + H_2O_{(f)} \longrightarrow NH_{4(aq)}^* + Cl_{(aq)}^- + H_2O_{(f)}$$

19. 
$$Ca(NO_3)_{2(aq)} + 2NaF_{(aq)} \longrightarrow CaF_{2(s)} + 2NaNO_{3(aq)}$$