Answers to Section 3 Review Page 285

7. a solid precipitate, a gas, or a molecular compound, such as water

8. **a.** $Cl_2(g) + 2NaBr(aq) \longrightarrow 2NaCl(aq) + Br_2(l)$; displacement

   b. $CaO(s) + H_2O(l) \longrightarrow Ca(OH)_2(aq)$; synthesis

   c. $Ca(ClO_3)_2(s) \longrightarrow CaCl_2(s) + 3O_2(g)$; decomposition

Answers to Section 3 Review, *continued*

   d. $2AgNO_3(aq) + K_2SO_4(aq) \longrightarrow Ag_2SO_4(s) + 2KNO_3(aq)$; double-displacement

   e. $Zn(s) + CuBr_2(aq) \longrightarrow ZnBr_2(aq) + Cu(s)$; displacement

   f. $2C_8H_{18}(l) + 25O_2(g) \longrightarrow 16CO_2(g) + 18H_2O(g)$; combustion

9. **a.** no reaction

   b. $Mg(s) + Cu(NO_3)_2(aq) \longrightarrow Cu(s) + Mg(NO_3)_2(aq)$

   c. $4Al(s) + 3O_2(g) \longrightarrow 2Al_2O_3(s)$

   d. $H_2SO_4(aq) + 2KOH(aq) \longrightarrow K_2SO_4(aq) + 2H_2O(l)$

10. **a.** $2HgO \longrightarrow 2Hg + O_2$; decomposition

    b. $2C_3H_7OH + 9O_2 \longrightarrow 6CO_2 + 8H_2O$; combustion

    c. $Zn + CuSO_4 \longrightarrow Cu + ZnSO_4$; displacement

    d. $BaCl_2 + Na_2SO_4 \longrightarrow 2NaCl + BaSO_4$; double-displacement

    e. $Zn + F_2 \longrightarrow ZnF_2$; synthesis

    f. $2C_5H_{10} + 15O_2 \longrightarrow 10CO_2 + 10H_2O$; combustion

11. when the single element is below the element it is trying to replace on the activity series