

## Answers to Section 3 Review Page 285

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

8. a.  $\text{Cl}_2(g) + 2\text{NaBr}(aq) \rightarrow 2\text{NaCl}(aq) + \text{Br}_2(l)$ ; displacement

b.  $\text{CaO}(s) + \text{H}_2\text{O}(l) \rightarrow \text{Ca}(\text{OH})_2(aq)$ ; synthesis

c.  $\text{Ca}(\text{ClO}_3)_2(s) \rightarrow \text{CaCl}_2(s) + 3\text{O}_2(g)$ ; decomposition

### *Answers to Section 3 Review, continued*

d.  $2\text{AgNO}_3(aq) + \text{K}_2\text{SO}_4(aq) \rightarrow \text{Ag}_2\text{SO}_4(s) + 2\text{KNO}_3(aq)$ ; double-displacement

e.  $\text{Zn}(s) + \text{CuBr}_2(aq) \rightarrow \text{ZnBr}_2(aq) + \text{Cu}(s)$ ; displacement

f.  $2\text{C}_8\text{H}_{18}(l) + 25\text{O}_2(g) \rightarrow 16\text{CO}_2(g) + 18\text{H}_2\text{O}(g)$ ; combustion

9. a. no reaction

b.  $\text{Mg}(s) + \text{Cu}(\text{NO}_3)_2(aq) \rightarrow \text{Cu}(s) + \text{Mg}(\text{NO}_3)_2(aq)$

c.  $4\text{Al}(s) + 3\text{O}_2(g) \rightarrow 2\text{Al}_2\text{O}_3(s)$

d.  $\text{H}_2\text{SO}_4(aq) + 2\text{KOH}(aq) \rightarrow \text{K}_2\text{SO}_4(aq) + 2\text{H}_2\text{O}(l)$

10. a.  $2\text{HgO} \rightarrow 2\text{Hg} + \text{O}_2$ ; decomposition

b.  $2\text{C}_3\text{H}_7\text{OH} + 9\text{O}_2 \rightarrow 6\text{CO}_2 + 8\text{H}_2\text{O}$ ; combustion

c.  $\text{Zn} + \text{CuSO}_4 \rightarrow \text{Cu} + \text{ZnSO}_4$ ; displacement

d.  $\text{BaCl}_2 + \text{Na}_2\text{SO}_4 \rightarrow 2\text{NaCl} + \text{BaSO}_4$ ; double-displacement

e.  $\text{Zn} + \text{F}_2 \rightarrow \text{ZnF}_2$ ; synthesis

f.  $2\text{C}_5\text{H}_{10} + 15\text{O}_2 \rightarrow 10\text{CO}_2 + 10\text{H}_2\text{O}$ ; combustion

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

