REVIEW

5

SECTION 5.2

Reaction Types

1. Name the compound that is a reactant in all combustion reactions.

2. Explain how you can determine if a chemical reaction represents a single-replacement reaction or a double-replacement reaction.

3. Describe what happens during a reduction/oxidation reaction.

4. Identify which element is reduced and which is oxidized in the following equations:

a. $Cu + 2AgNO_3 \rightarrow Cu(NO_3)_2 + 2Ag$

b. $2Al + 3CuSO_4 \rightarrow 3Cu + Al_2(SO_4)_3$

5. Classify each of the following reactions:

a.
$$2C_8H_{18} + 25O_2 \rightarrow 16CO_2 + 18H_2O$$

b. $Ca + S \rightarrow CaS$

c. $Ca_3(PO_4)_2 + 3H_2SO_4 \rightarrow 3CaSO_4 + 2H_3PO_4$

d. $SiO_2 + 2C \rightarrow Si + 2CO$

 $\mathbf{e.} \quad 2\mathrm{CaCO}_3 \rightarrow 2\mathrm{Ca} + 2\mathrm{C} + 3\mathrm{O}_2$

6. Summarize each of the five general types of chemical reactions.