Name Key Bk. ___ CH 8: Additional Practice

Chapter 8 Section: 2 Review

1. Match the equation type on the left to its representation on the Right.

C – Synthesis	(a) $AX + BY \rightarrow AY + BX$
D – Decomposition	(b) $A + BY \rightarrow AY + B$
B – Single Replacement	(c) $A + X \rightarrow AX$
A – Double Replacement	(d) $AX \rightarrow A + X$

2. C In the equation $2Al_{(s)} + 3Fe(NO_3)_{2(aq)} \rightarrow 3Fe_{(s)} + 2Al(NO_3)_{3(aq)}$, iron has been replaced by ____.
(a) nitrate (b) water (c) aluminum (d) nitrogen

3. A Of the following chemical equation, the only reaction that is synthesis is____.
(a) $C_{(s)} + O_{2(g)} \rightarrow CO_{2(g)}$
(b) $2C_4H_{10\,(l)} + 13\,O_{2(g)} \rightarrow 8\,CO_{2(g)} + 10H_2O_{(l)}$
(c) $6CO_{2(g)} + 6H_2O_{(l)} \rightarrow 2C_6H_{12}O_{6(aq)} + 13\,O_{2(g)}$
(d) $2C_6H_{12}O_{6(aq)} + 13\,O_{2(g)} \rightarrow 6CO_{2(g)} + 6H_2O_{(l)}$

4. Identify the products when the following substances decompose:
a. Binary Compound → individual elements
b. metal hydroxide → metal oxide + water
c. metal carbonate → metal oxide + CO_2
d. Oxyacids → nonmetal oxide + water
c. metal chlorate → metal chloride + O_2

5. The complete combustion of a hydrocarbon in excess oxygen yields the products CO_2 & H_2O

Chapter 8 Section: 3 Review

1. List four(4) metals that will ***NOT*** replace hydrogen in an acid.
Any metal Below H_2 on Activity Series
Cu, Hg, Ag, Pt, Au

2. Consider the metals iron & silver, both listed in the Activity series in RXN packet (or in text pg. 266). Which one readily forms oxides in nature? Iron AND, which one does not? Silver.

3. In the laboratory, you are given two small chips each of the unknown metals X, Y, & Z along with dropper bottles containing solutions of $XCl_{2(aq)}$, and $ZCl_{2(aq)}$. Describe an experimental strategy you could use to determine the relative activities of X, Y, and Z.

$X + ZCl_2 \rightarrow$ If react X ↑ than Z on Activity Series
If does not react then ↓ Z on the Activity Series

Repeat w/ Y solid

$Z + XCl_2 \rightarrow$ If React then Z ↑ than X on Activity Series
If does not react then ↓ than X on Activity Series

Repeat w/ Y solid