**Questions**

Fill in the blanks below.

1.   \_\_\_\_\_ Fe  +  \_\_\_\_\_ S  -->  \_\_\_\_\_ FeS

2.  \_\_\_\_\_ H2   +  \_\_\_\_\_ Cl2  -->  \_\_\_\_\_ HCl

3. \_\_\_\_\_ Mg  +  \_\_\_\_\_ O2  -->   \_\_\_\_\_  MgO

4. \_\_\_\_\_ O2  +  \_\_\_\_\_  H2 -->   \_\_\_\_\_ H2O

5. \_\_\_\_\_ HgO -->  \_\_\_\_\_ Hg  +  \_\_\_\_\_  O2

6. \_\_\_\_\_ Ca  +  \_\_\_\_\_  H2O  -->  \_\_\_\_\_  Ca(OH)2  +   \_\_\_\_\_ H2

7.  \_\_\_\_\_  CH4  +  \_\_\_\_\_  O2  -->   \_\_\_\_\_ CO2  +  \_\_\_\_\_ H20

8.  \_\_\_\_\_  Na2O2  +   \_\_\_\_\_  H2SO4  -->   \_\_\_\_\_  Na2SO4  +   \_\_\_\_\_  H2O2

9. \_\_\_\_\_  N2  +   \_\_\_\_\_  H2  -->   \_\_\_\_\_  NH3

10.   \_\_\_\_\_  Al  +   \_\_\_\_\_  O2  -->   \_\_\_\_\_  Al2O3

11.  \_\_\_\_\_  KMnO4  -->   \_\_\_\_\_  K2O  +   \_\_\_\_\_   MnO  +   \_\_\_\_\_  O2

Draw the molecules just like the program did to figure out the answer to #12 and #13.

12.  \_\_\_\_\_  Na  +   \_\_\_\_\_  H2O  -->   \_\_\_\_\_  NaOH  +   \_\_\_\_\_  H2

Fact for #12: Sodium metal, Na, is stored in kerosene so it won't react with water vapour.  When added to water it reacts quickly to make hydrogen gas.

13.  \_\_\_\_\_  H2SO4  +  \_\_\_\_\_  NaOH  -->  Na2SO4  +  \_\_\_\_\_   H2O

Fact for #13: This is an example of an acid base reaction.  Acid + base --> Salt + Water