**The Bestest Product Formation Homework Ever!**

For each of the problems below, indicate whether you believe a reaction will occur. For those that you believe will occur, write the expected products of the reactions. Remember to write symbols for the states of each compound.

1) \_\_\_\_ H2SO4 + \_\_\_\_ MgCl2 No reaction (both products are soluble)

2) 2 Al + 3 FeI2 2 AlI3 + 3 Fe (Al is higher on activity series than Fe)

3) 1 Mg(OH)2 + 2 HCl 2 H2O + MgCl2 (acid-base reactions always occur)

4) 8 Mg + 1 S8 8 MgS

5) 3 SrBr2 + 2(NH4)3PO4 Sr3(PO4)2(s) + 6 NH4Br(aq)

6) H2CO3 H2O + CO2