**AP Chem: Unit 2 Practice Problems: Redox Reactions**

1. Determine the oxidation number of the elements in each of the following compounds:  
     
   a. H2CO3 b. N2  c. Zn(OH)42-

d. NO2-  e. LiH  f. Fe2O3 

1. Identify the species being oxidized and reduced in each of the following reactions:

a. Cr+ + Sn4+ http://www.chemistry.wustl.edu/~coursedev/Online%20tutorials/arrow.gif Cr3+ + Sn2+

b. 3 Hg2+ + 2 Fe (s) http://www.chemistry.wustl.edu/~coursedev/Online%20tutorials/arrow.gif 3 Hg2 + 2 Fe3+

c. 2As(s) + 3 Cl2 (g) http://www.chemistry.wustl.edu/~coursedev/Online%20tutorials/arrow.gif 2AsCl3

1. Write balanced equations for the following reactions:

a. Cr(OH)3 + Br2 http://www.chemistry.wustl.edu/~coursedev/Online%20tutorials/arrow.gif CrO42- + Br- in acidic solution

b. above reaction in basic solution

c. HCOOH + MnO4- http://www.chemistry.wustl.edu/~coursedev/Online%20tutorials/arrow.gif CO2 + Mn2+ in acidic solution

d. ClO2- http://www.chemistry.wustl.edu/~coursedev/Online%20tutorials/arrow.gif ClO2 + Cl- in acidic solution