Standard Electrode Potential

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Standard Electrode Potentials**

1. A standard indium-gold voltaic cell is constructed and its Eºcell = + 1.84 V. The gold electrode was observed to be the cathode. What is the reduction potential for the indium half cell?

2. Identify the unknown half cells in the following standard voltaic cells (*in each case the first half cell is the anode*).

a. Zn(s) | Zn2+(aq) || X2–(aq), Y+(aq), Z(aq) | C(s) Eºcell = +0.93 V

b. X(s) | X2+(aq) || MnO4– (aq), H+(aq), Mn2+(aq) | C(s) Eºcell = +1.17 V

c. Ni(s) | Ni2+(aq) || X–(aq), Y2(aq), | Pt(s) Eºcell = + 1.33 V