Voltaic Cell Potentials Worksheet

For each reaction listed below find the:

a. Balanced chemical equation
b. Element that is oxidized and reduced
c. Oxidizing and Reducing agents
d. Half reactions
e. Net ionic equation
f. Anode and cathode if the materials below were employed within a voltaic cell
g. Cell Potential
h. Spontaneity of the reaction AS GIVEN. (Is it spontaneous or not?)

1. Zinc reacts with copper (II) nitrate to form zinc (II) nitrate and copper.

2. Cadmium reacts with nickel (II) sulfate to form cadmium (II) sulfate and nickel.

3. Silver chloride reacts with nickel to form silver and nickel (II) chloride.

4. Chromium (III) phosphate reacts with aluminum to form chromium and aluminum phosphate.

5. Aluminum chlorate reacts with cadmium to form aluminum and cadmium (II) chlorate.

6. Nickel reacts with cerium (IV) carbonate to form nickel (II) carbonate and cerium (III) ions.