**How to Calculate Cell Potentials**

The voltage generated by an electrochemical cell can be determined from the table of Standard Reduction 1/2 Reactions.

1. Write the 2 reduction 1/2 reactions involved.

2. The more positive one takes place. Keep it.

3. The other one becomes the oxidation 1/2 reaction.

4. Write the reaction as an oxidation changing the sign on the potential.

5. Balance the electrons.

6. Add the reactions.

7. Add the potentials.

e.g. zinc and aluminum

1. What would be the voltage of an electrochemical cell made using:

* 1 M solutions of aluminum nitrate and magnesium nitrate
* 1 aluminum electrode and 1 magnesium electrode

2. What would be the voltage of a cell consisting of lead and nickel?

3. Can you stir a silver nitrate soup with a spoon made of zinc?