

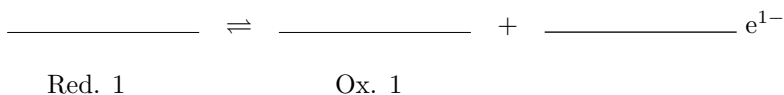
## Exercise 11.10 (Cont.)

### **EXERCISE 11.10: Continued**

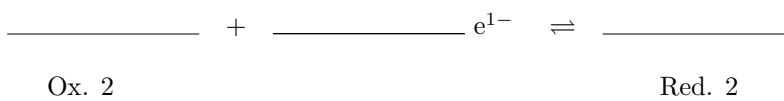
Use the Table of Standard Reduction Potentials to write the net equations for the processes described below and determine their standard cell potentials.

**Metallic copper is placed in 1 M AgNO<sub>3</sub>.**

Oxidation half reaction:

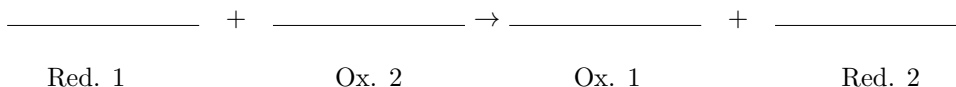


Reduction half reaction:



The number of electrons transferred (or the LCM) is:                     

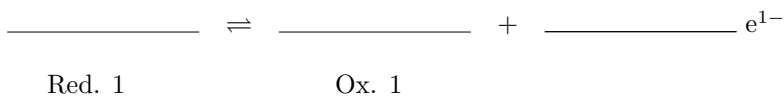
Write the net equation (if any).



The standard cell potential in volts is:                     

**Metallic chromium is placed in 1 M CuSO<sub>4</sub>.**

Oxidation half reaction:

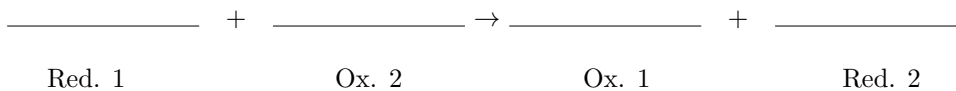


Reduction half reaction:



The number of electrons transferred (or the LCM) is:                     

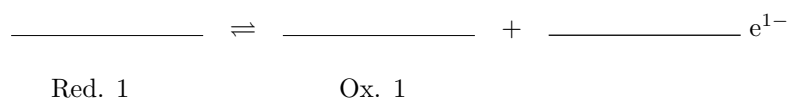
Write the net equation (if any).



The standard cell potential in volts is:

**Metallic iron is placed in 1 M NiSO<sub>4</sub>.**

Oxidation half reaction:

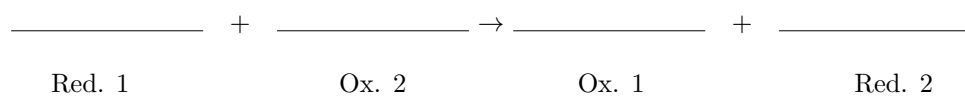


Reduction half reaction:



The number of electrons transferred (or the LCM) is:                     

Write the net equation (if any).

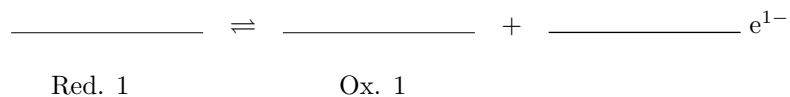


The standard cell potential in volts is:                     

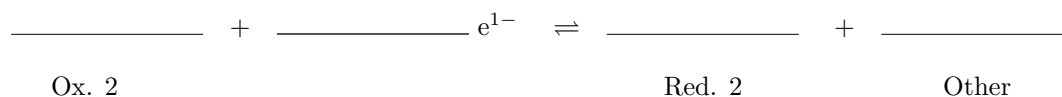
**Metallic sodium is added to water.**

Note: in some half reactions, there are substances present that are not involved in the electron transfer but are required for a balanced equations. These substances will be referred to as "other." Other substances are usually H<sub>2</sub>O, OH<sup>1-</sup>, or H<sup>1+</sup> when they are not involved in the electron transfer. This example contains one "Other" substance.

Oxidation half reaction:

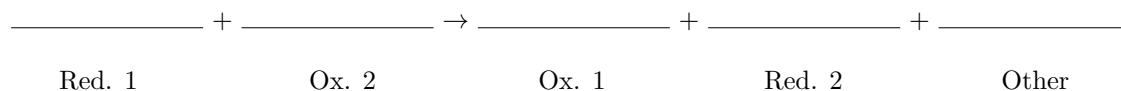


Reduction half reaction:



The number of electrons transferred (or the LCM) is:                     

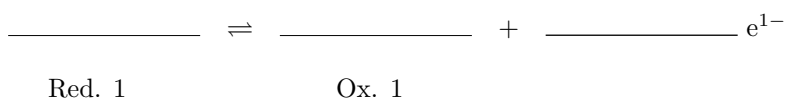
Write the net equation (if any).



The standard cell potential in volts is:

**Metallic chromium is placed in 1 M AgNO<sub>3</sub>.**

Oxidation half reaction:

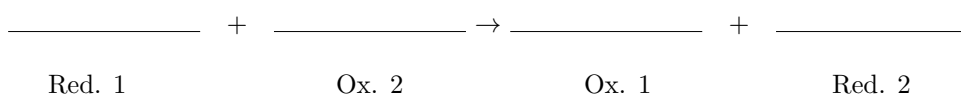


Reduction half reaction:



The number of electrons transferred (or the LCM) is:                     

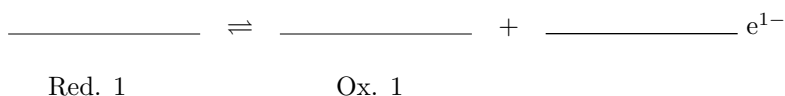
Write the net equation (if any).



The standard cell potential in volts is:                     

**Metallic copper is placed in 1 M nitric acid.**

Oxidation half reaction:

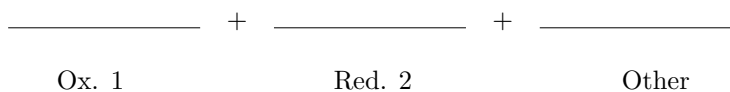
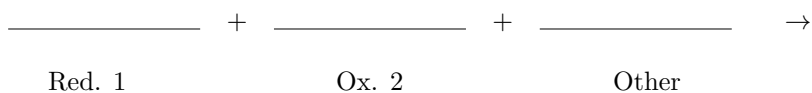


Reduction half reaction:



The number of electrons transferred (or the LCM) is:                     

Write the net equation (if any).



The standard cell potential in volts is: