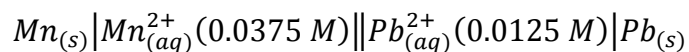


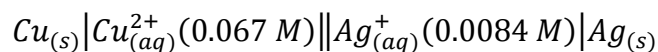
### Exercise 9.5

#### Nonstandard Potential for Electrochemical Cells: The Nernst Equation!

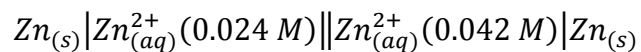
1. Calculate the potential for the following electrochemical cell operating at 1 bar pressure and 298.15 K:



2. The following electrochemical cell is observed to have a potential of +0.3696 V. Calculate the standard reduction potential of  $Cu_{(aq)}^{2+}$ .



3. Consider the following electrochemical cell operating at 1 bar pressure and 298.15 K:



- (a) Without performing any calculations, would you expect this cell to have a standard potential that is positive, negative or zero? Why?
- (b) Without performing any calculations, would you expect this cell to have a potential that is positive, negative or zero? Why?
- (c) Calculate the potential for this electrochemical cell.