Experimet 8: Electrochemistry

S. No	Concentration of Cu^{2+} (M)	E_{cell} (V)
1	1.0	1.079
2	0.1	1.048
3	0.01	1.037
4	0.001	1.018
5	Unknown	1.054
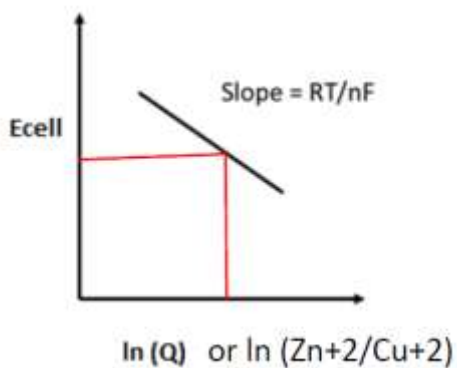
Result:

Concentration of Cu2+ in unknown solution:

Questions:

1) Why is E_{cell} changing with change in Cu^{+2} concentration?

2) What is observed E^0 cell in this experiment?

3) What is the change in Gibb's free energy for this electrochemical reaction?