$E = E^\circ - \frac{RT}{nF} \ln Q$

TEXT TABLE E std conditions

NOT AT EQ

AT EQ $Q = K$, $\Delta G = 0$, $\Delta E = 0$

$0 = E^\circ - \frac{RT}{nF} \ln K$

$E^\circ = \frac{RT}{nF} \ln K$ AT EQ

$E = E^\circ - \frac{2.303RT}{nF} \log Q$

$E = E^\circ - \frac{0.0592\,V}{n} \log Q$

Mar 30-7:38 AM

(20.54a) $Cu_{(s)}^\circ + 2Ag^+ \rightarrow Cu^{+2} + 2Ag^\circ$

$E^\circ = \frac{RT}{nF} \ln K$

$0.462 = \frac{(8.314)(298)}{2(96500)} \ln K$

$\ln K = 35.98926921\overline{3}$

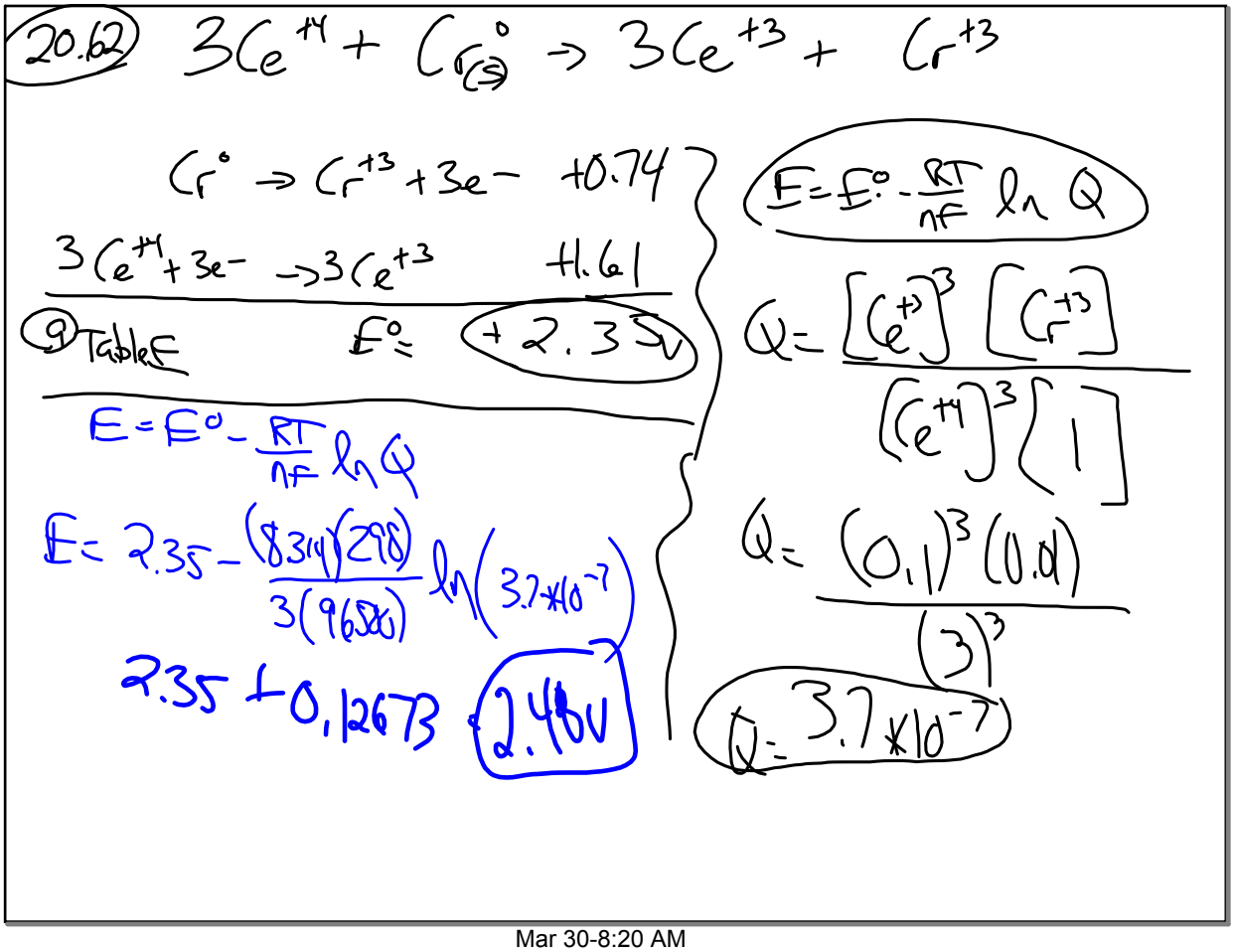
$K = 4.265 \times 10^{15}$

$Cu_{(s)}^\circ \rightarrow Cu^{+2} + 2e^-$ $E_{ox}^\circ = -0.337\,V$

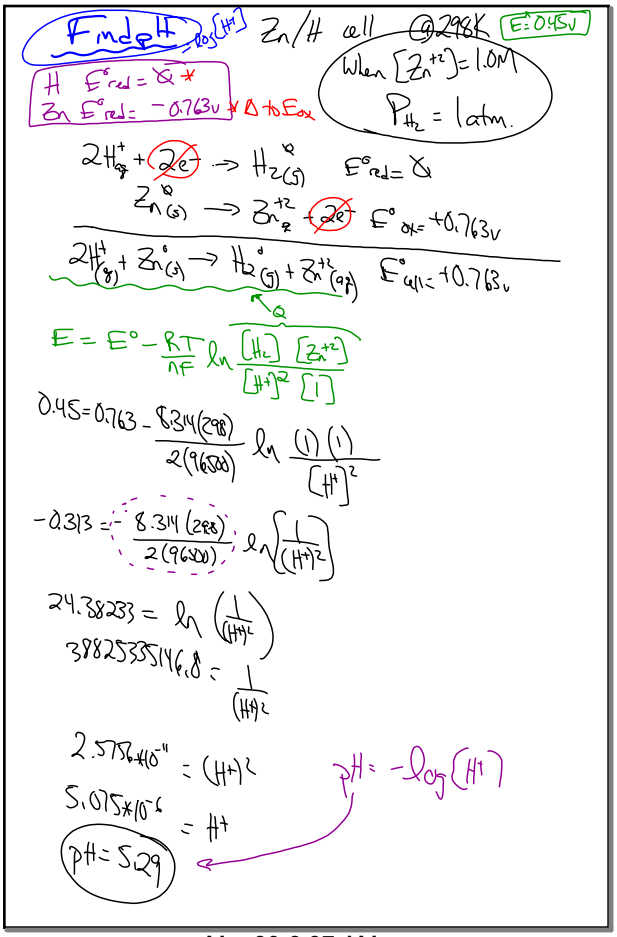
$2Ag^+ + 2e^- \rightarrow 2Ag^\circ$ $E_{red}^\circ = +0.799\,V$

E° $+.462$

Mar 30-8:11 AM



Mar 30-8:20 AM



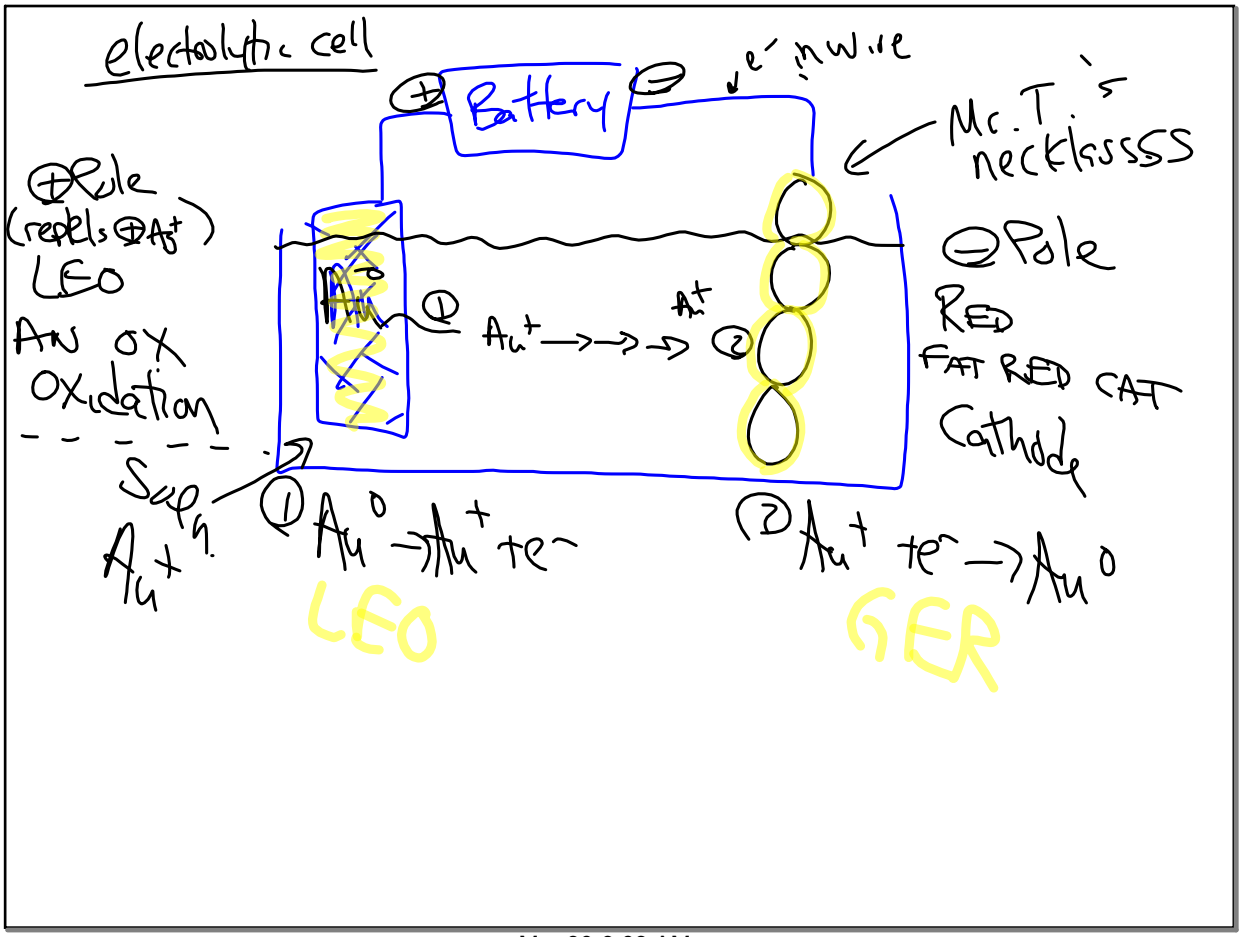
Mar 30-8:37 AM

Electrolysis

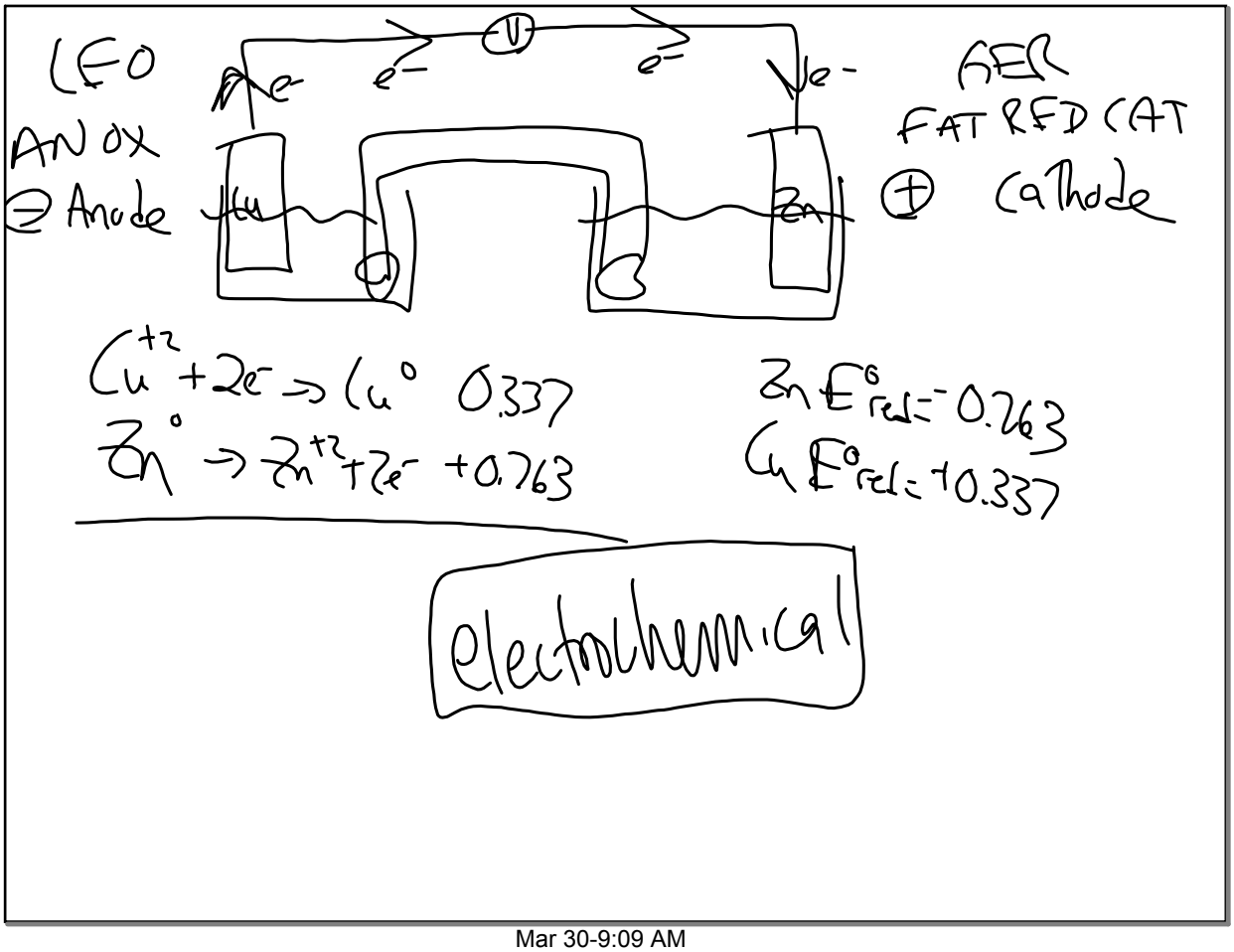
Non-Spontaneous Needs an outside source of energy (Battery) to occur.

Electroplating

Mar 30-8:59 AM



Mar 30-9:03 AM



Mar 30-9:09 AM

PS 20-1 # 1-16

#15 Choice F ← write in ans.

Mar 30-9:16 AM