

Double an eqn

① ΔH ΔS ΔG \Rightarrow Double
Spont KJ J KJ

② K \Rightarrow Squared
Large favors products

③ E \Rightarrow No change
0.5 part

Only Temp
 Can ΔG
 Constant.

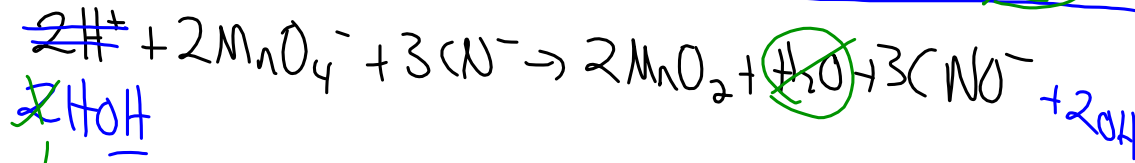
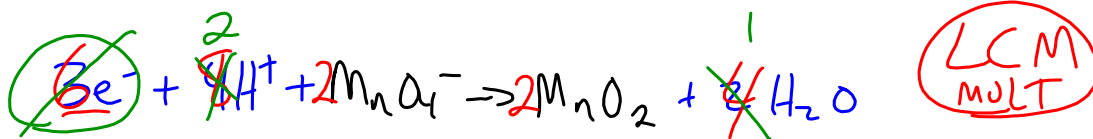
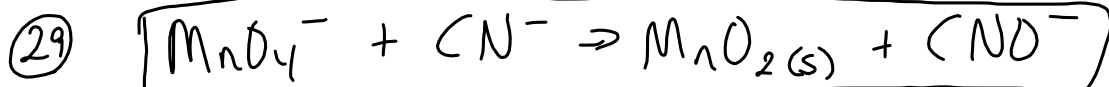
Volts = J/cal

Most convert to
 J \rightarrow KJ First.

May 3-7:40 AM

$\ominus \Delta S$ \downarrow entropy
 $g \rightarrow l \rightarrow s$

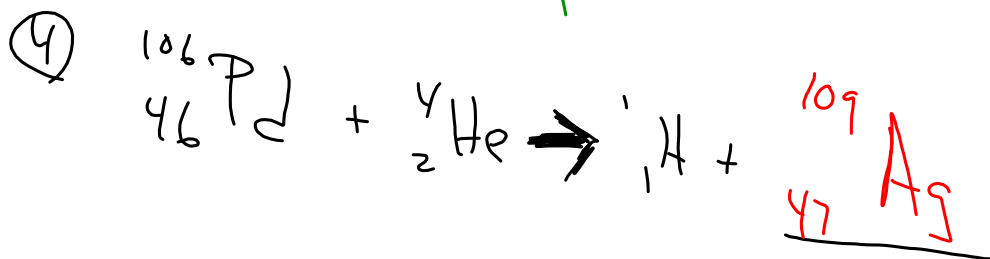
May 3-7:52 AM



May 3-7:56 AM

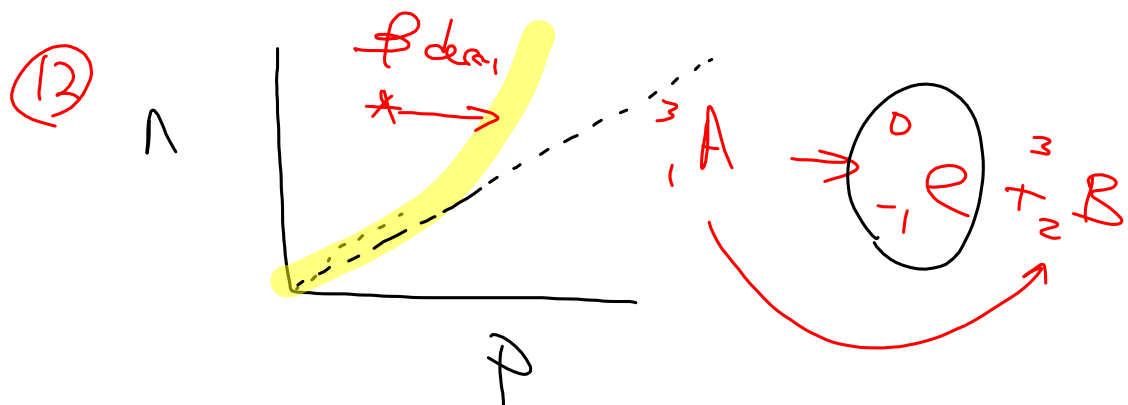
2017 Exam 4

(1) $t_{1/2} = \frac{0.693}{K}$



May 3-8:11 AM

⑦ ${}_{92}^{238}\text{U} + {}_1^2\text{H} \rightarrow {}_{93}^{238}\text{Np} + 2 {}_0^1\text{n}$

⑬ 

May 3-8:15 AM

235.04	931 MeV	0.19 amu
+ 1.01		
- 87.91		
- 143.91		
- 4.04 ← 4(1.01)		
0.19 amu		

energy ↑

↑ Δmass

May 3-8:21 AM

(14) 100 $\xrightarrow{57.5\%}$ 50 $\xrightarrow{57.5\%}$ 25%

(15) $E = mc^2$
 $3.83 \times 10^{-12} = m (3 \times 10^8)^2$
 $m = 4.256 \times 10^{-29} \text{ Kg}$
 $4.256 \times 10^{-26} \text{ g}$

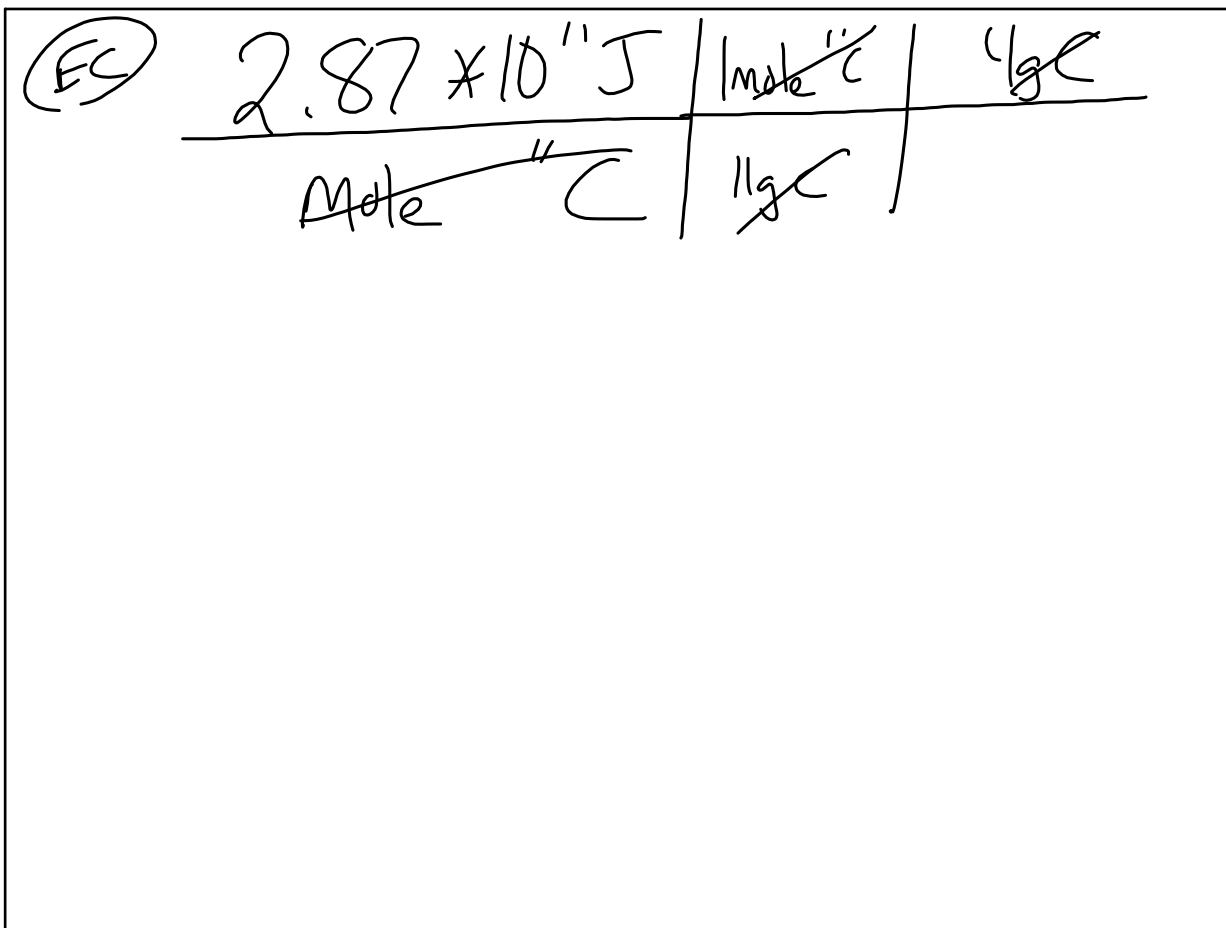
May 3-8:24 AM

(18)

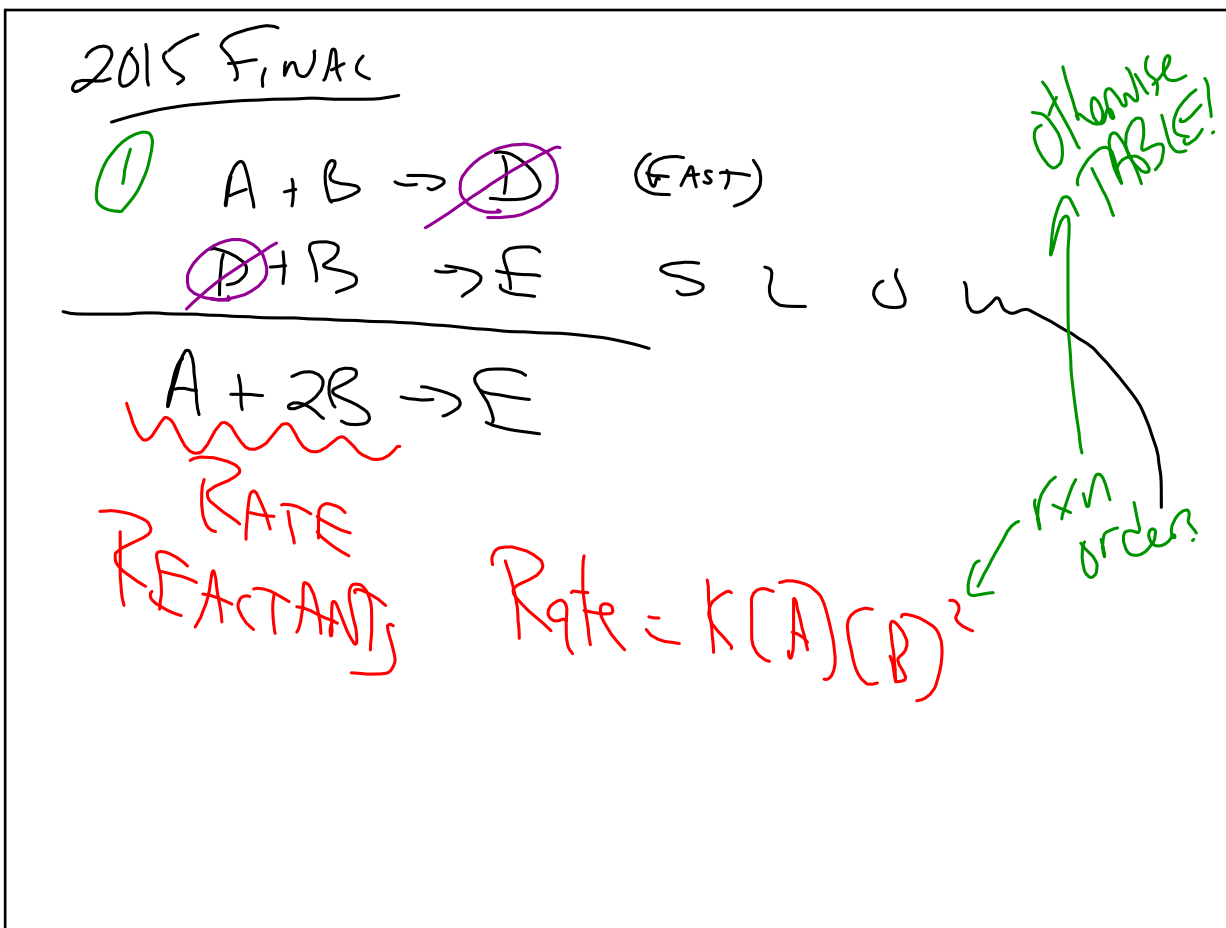
$\begin{array}{c} \diagup \\ \text{C} = \\ \diagdown \end{array}$

sp^2

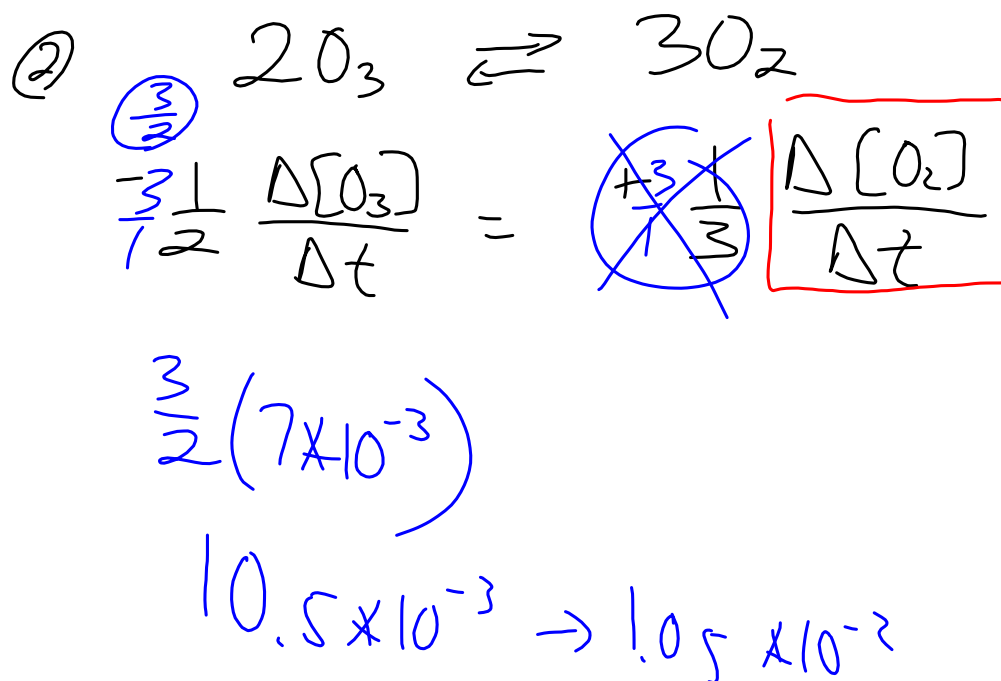
May 3-8:41 AM



May 3-8:49 AM



May 3-8:58 AM



May 3-9:01 AM

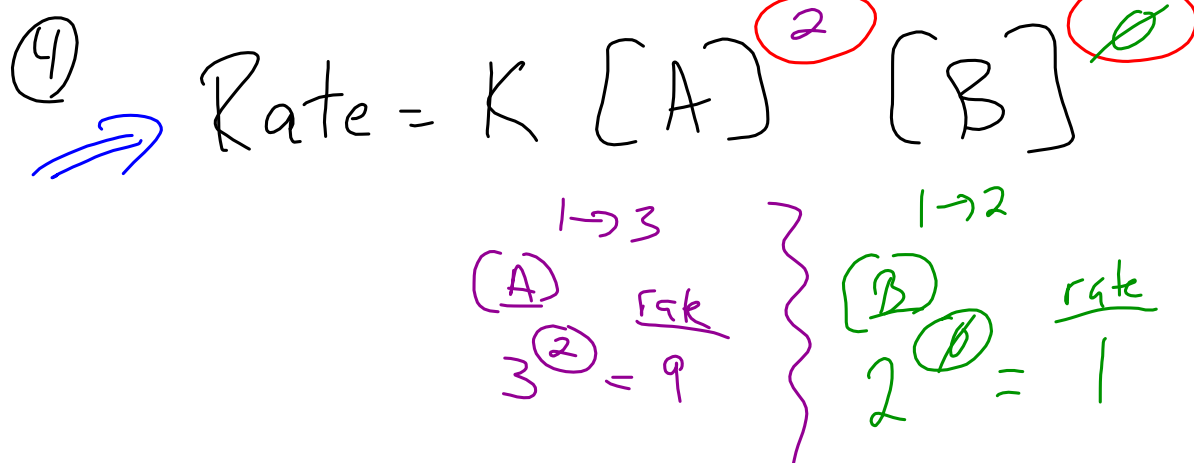
③

1^o $\ln A_t = -Kt + \ln A_0$ $t_{1/2} = \frac{0.693}{K}$

$Y = mx + b$

2^o $\frac{1}{A_t} = -Kt + \frac{1}{A_0}$ $t_{1/2} = \frac{1}{K(A_0)}$

May 3-9:03 AM



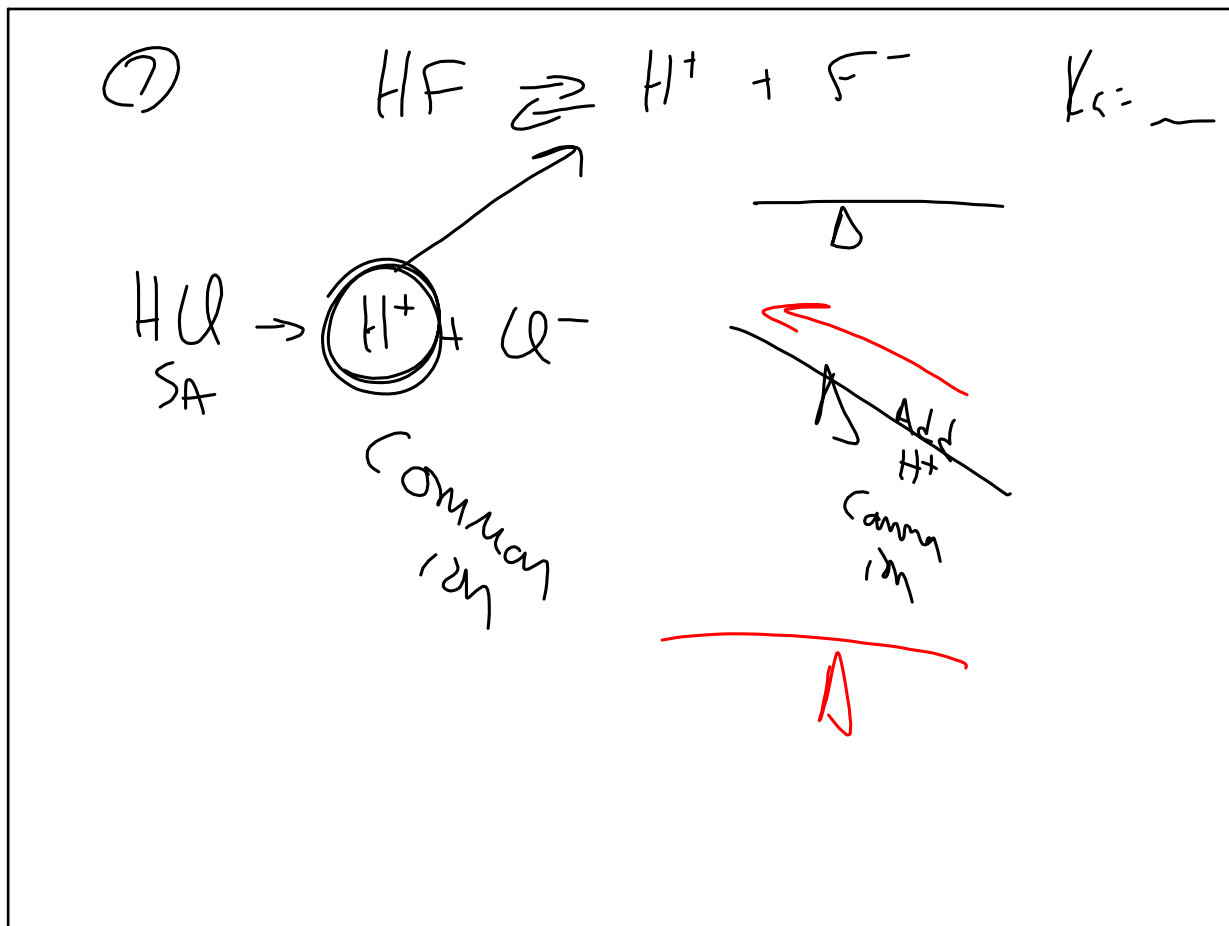
May 3-9:06 AM

⑤ $\ln \frac{k_1}{k_2} = \frac{E_a}{R} \left(\frac{1}{T_2} - \frac{1}{T_1} \right)$

$\ln \frac{k_1}{1.35 \times 10^2} = \frac{55.5}{8.314 \times 10^{-3}} \left(\frac{1}{298} - \frac{1}{368} \right)$

$\left(\begin{array}{c} 252 \\ \downarrow \end{array} \right) \quad \left(\begin{array}{c} 950 \\ \downarrow \end{array} \right)$

May 3-9:09 AM



May 3-9:13 AM

Finish 2015
FINAC Exam

May 3-9:16 AM