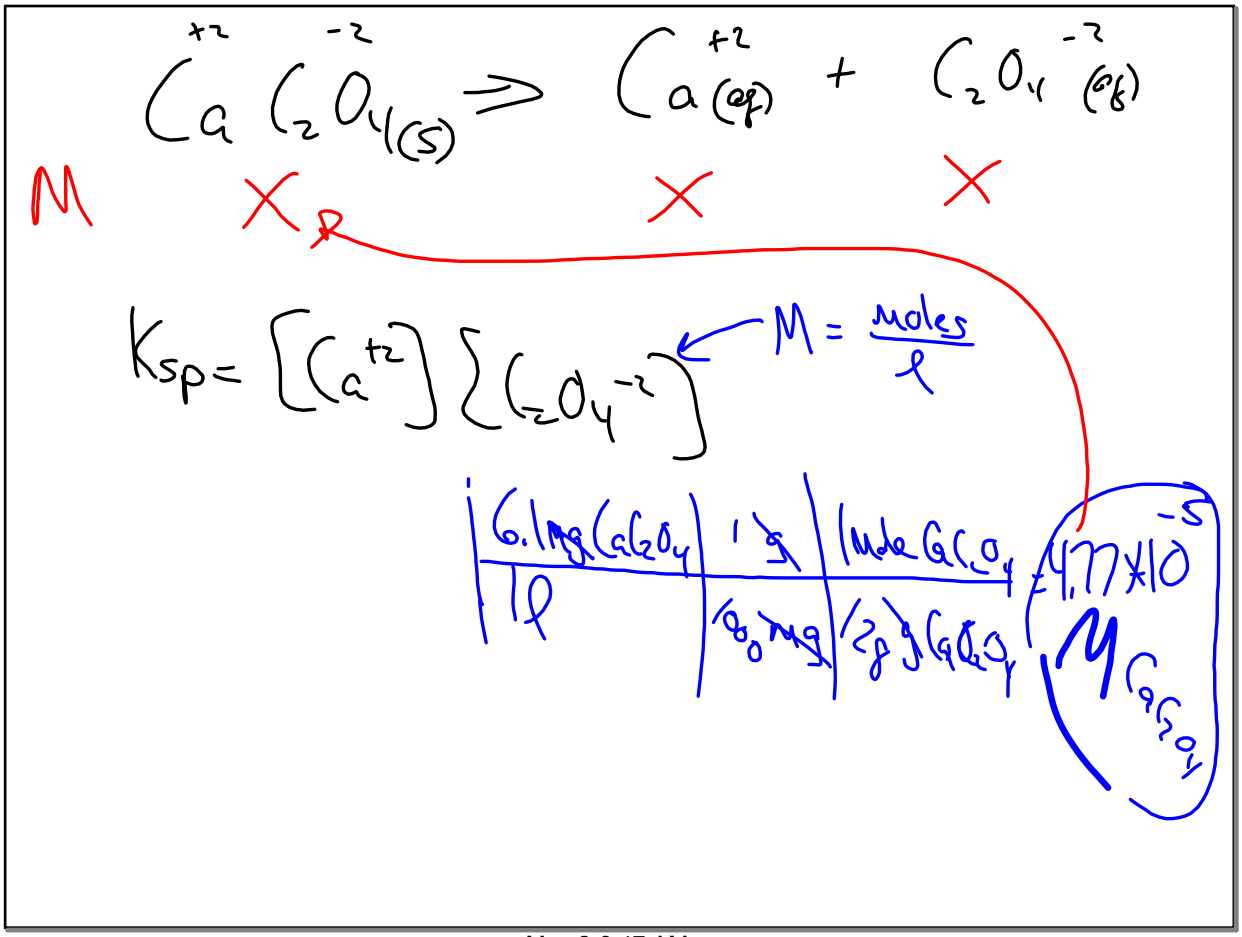
Final Exam ⇒ $7\frac{15}{AM}$ START!

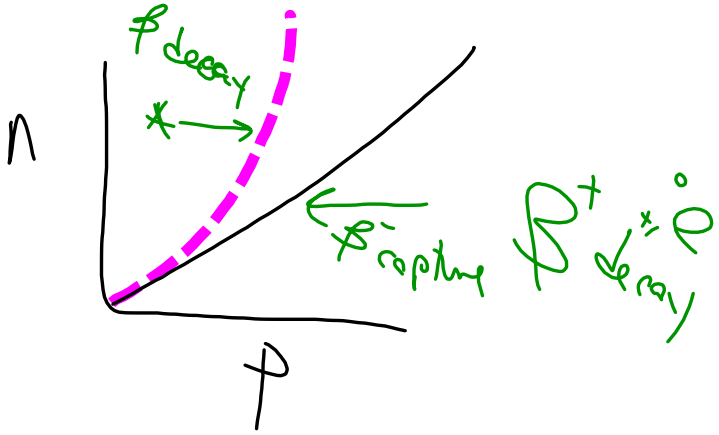
May 2-8:29 AM



May 2-8:47 AM

(21) $2SO_{2(g)} + O_{2(g)} \rightleftharpoons 2SO_{3(g)}$ + heat

3 moles gas → 2 mole gas



May 2-8:52 AM

(24) $\Delta H = [-127] - [105.9 + -167.2]$

$= -65.7\ kJ$

$\Delta S = [96.11] - [73.93 + 56.5] =$

$-34.32\ J$

$\Delta G = \Delta H - T\Delta S$

$= -65.7 - 298(-0.03432)$

$= -55.47\ kJ$

$\Delta G = -RT\ln K$

$-55.47 = -(8.314 \times 10^{-3})(298)\ln K$

May 2-9:01 AM

28

a) +2.48 + +1.84 (+)

b) −1.84 + +2.84 (+)

c) −1.84 + −2.84 (−)

d) −0.126 + +1.84 (+)

May 2-9:06 AM

29

$\times 2$ $6e^- + 8H^+ + 2MnO_4^- \rightarrow 2MnO_2 + 4H_2O$

$\times 3$ $3H_2O + 3CN^- \rightarrow 3CNO^- + 6H^+ + 6e^-$

$2H^+ + 2MnO_4^- + 3CN^- \rightarrow$

$2H^+ + 2OH^-$

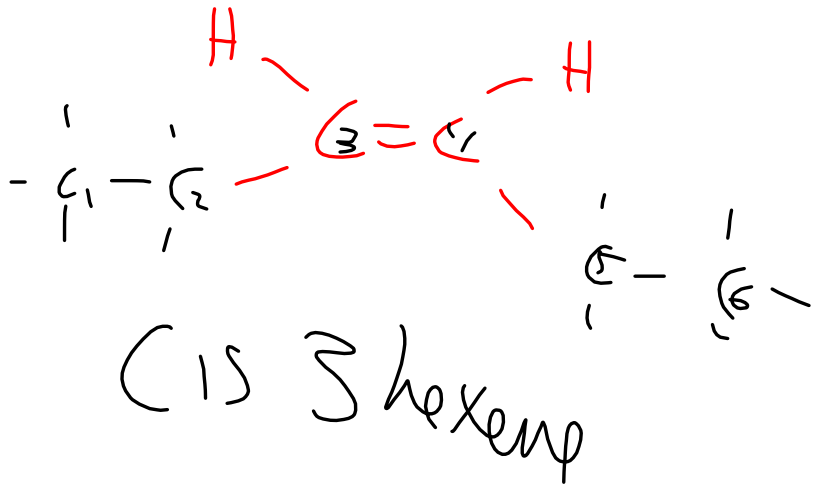
$\times 1$ $2HOH$

$2MnO_2 + H_2O + 3CNO^- + 2OH^-$

$\Sigma = 13$

May 2-9:08 AM

$CH_3CH_2CH=CHCH_2CH_3$



Cis 3 hexene

May 2-9:14 AM