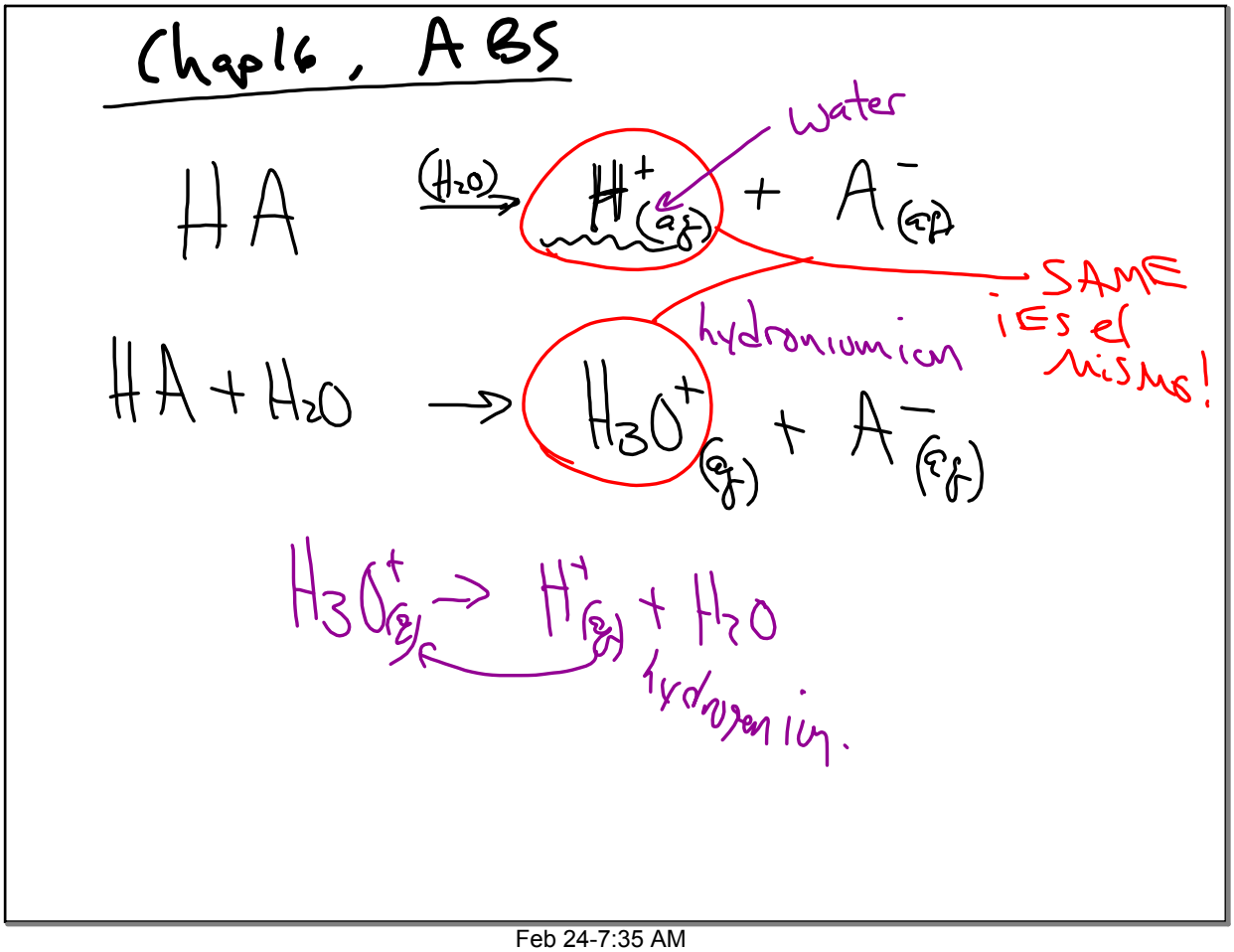
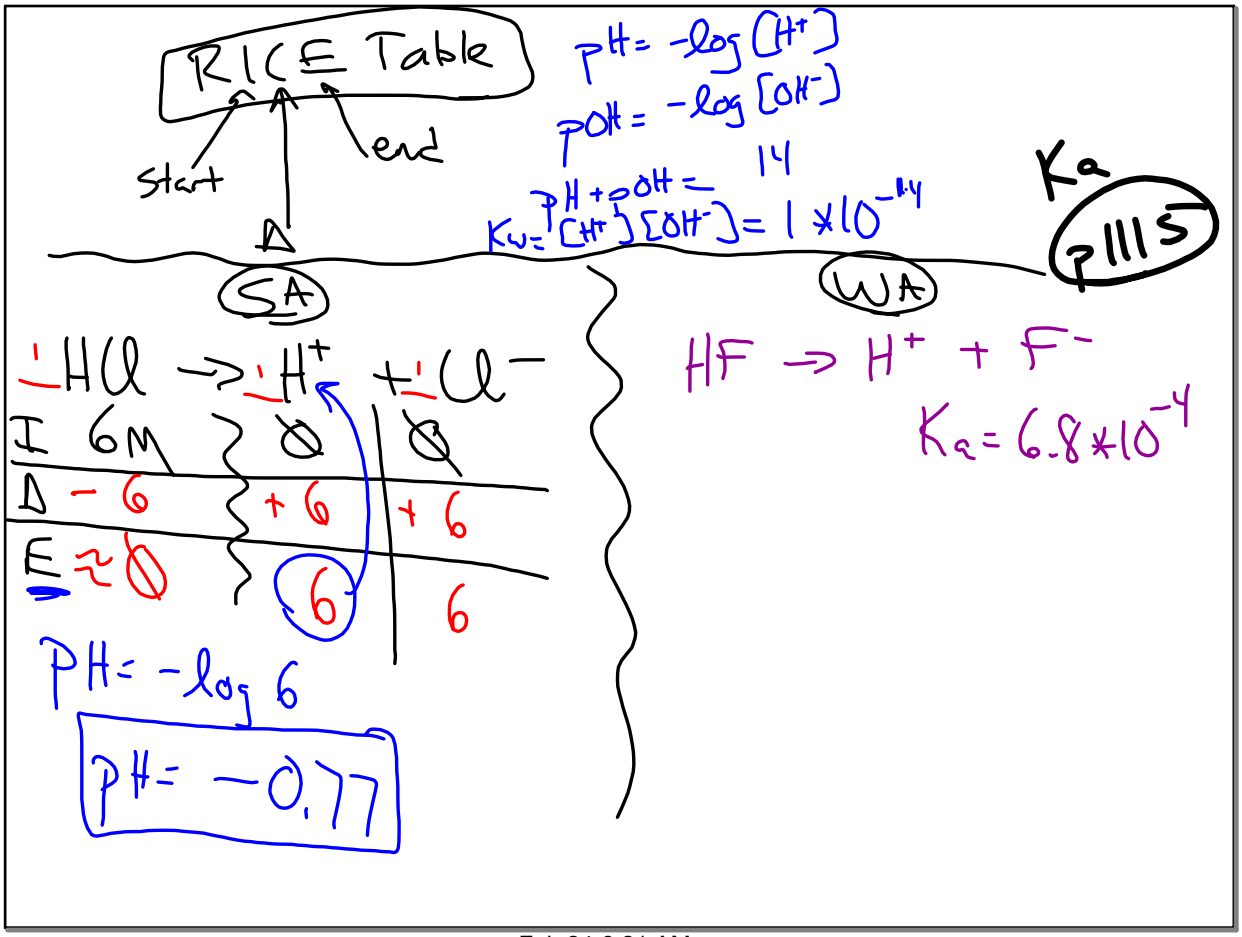


Feb 24-7:35 AM



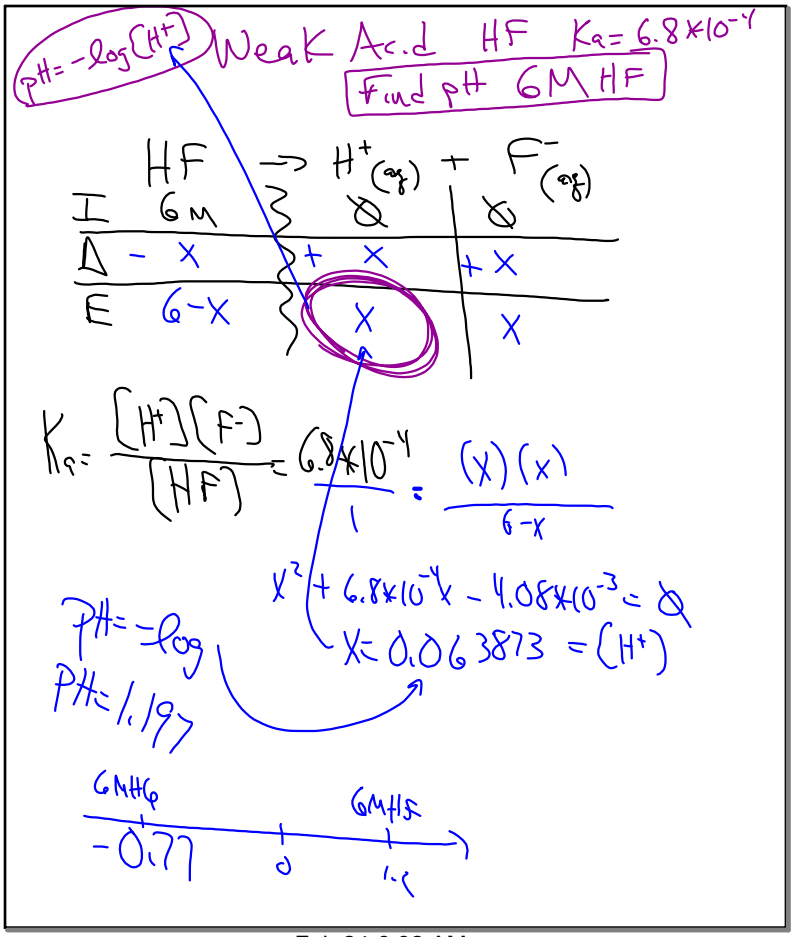
Feb 24-8:21 AM

pH

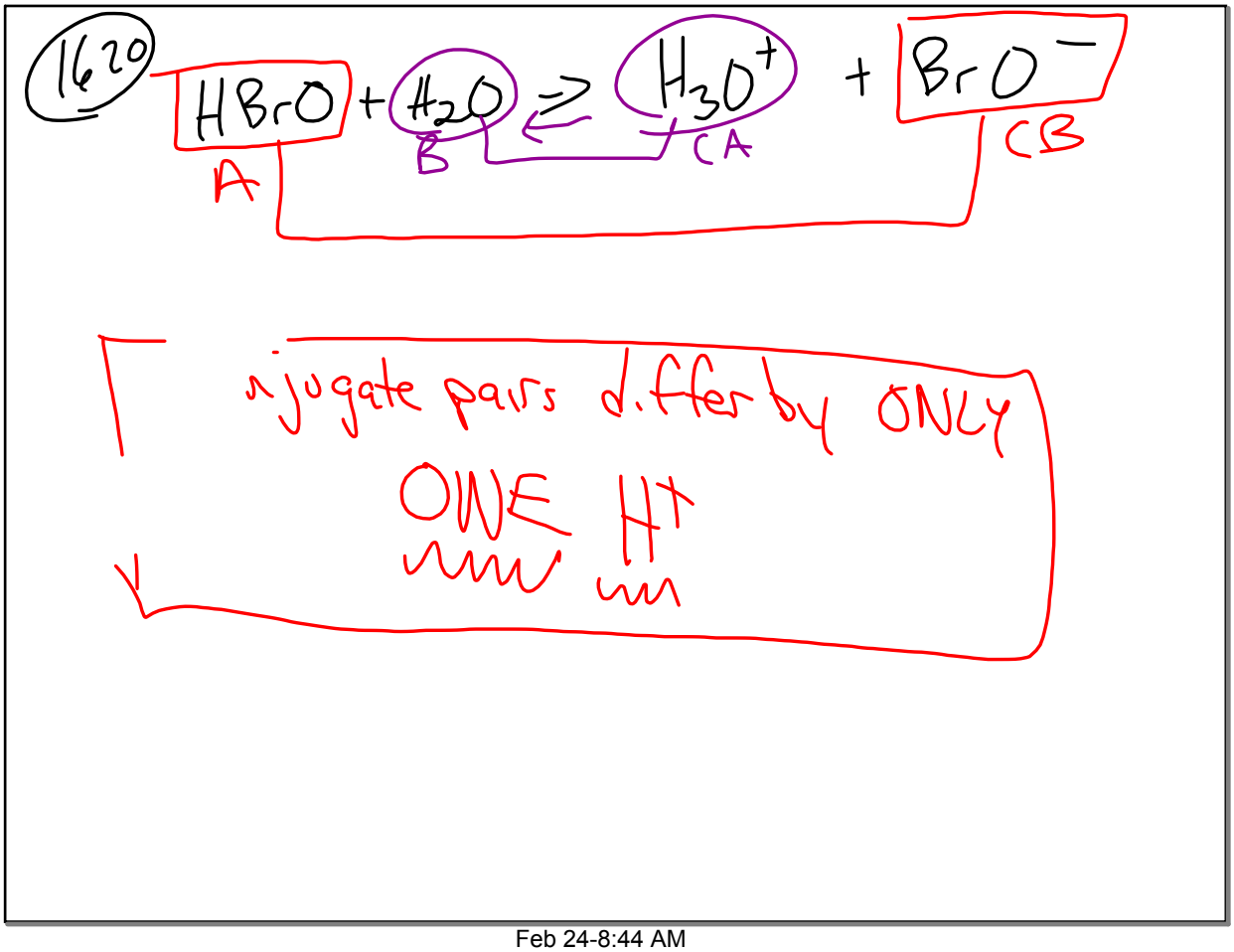
6 M HCl pH = −0.77

pOH = 14.77

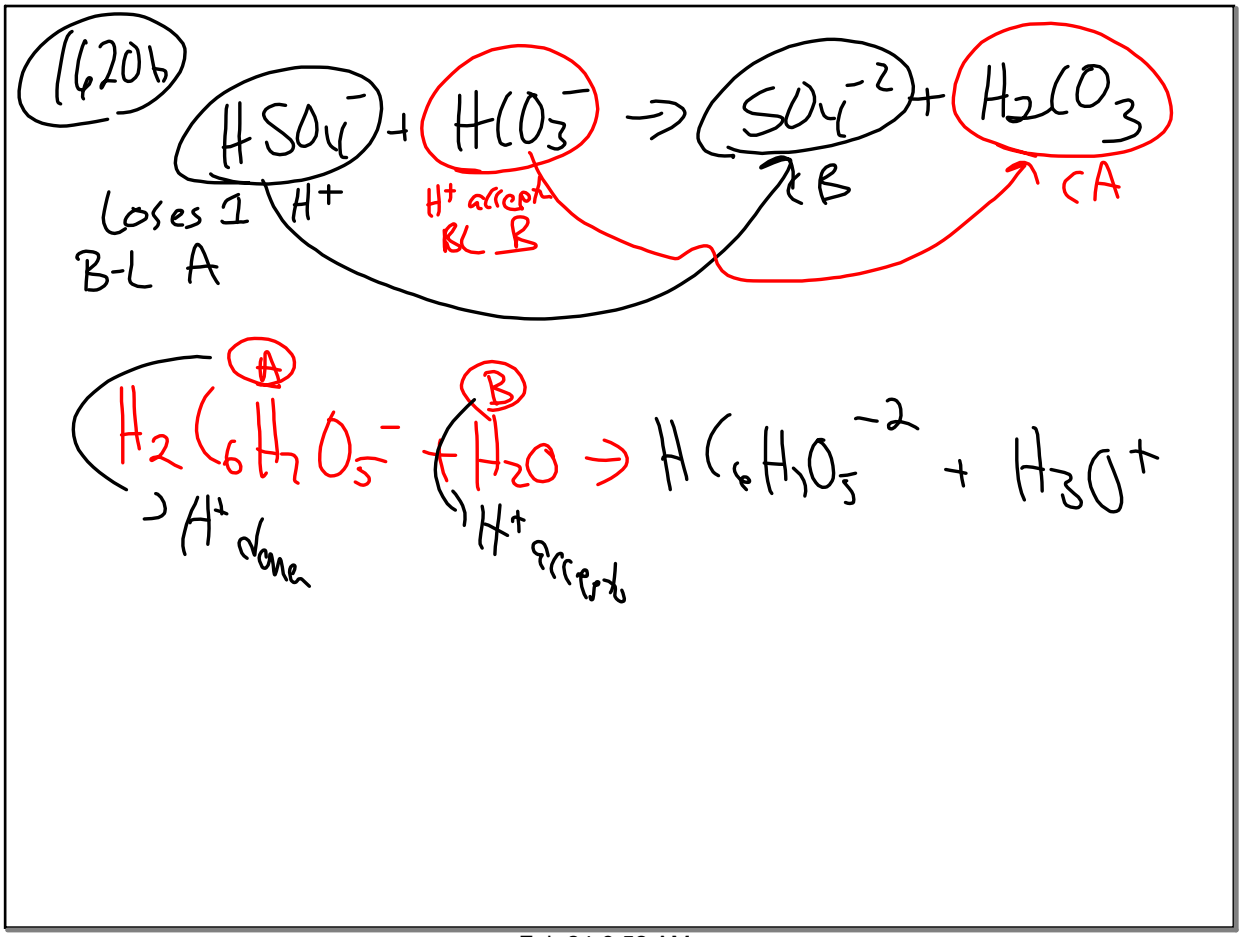
Feb 24-8:27 AM



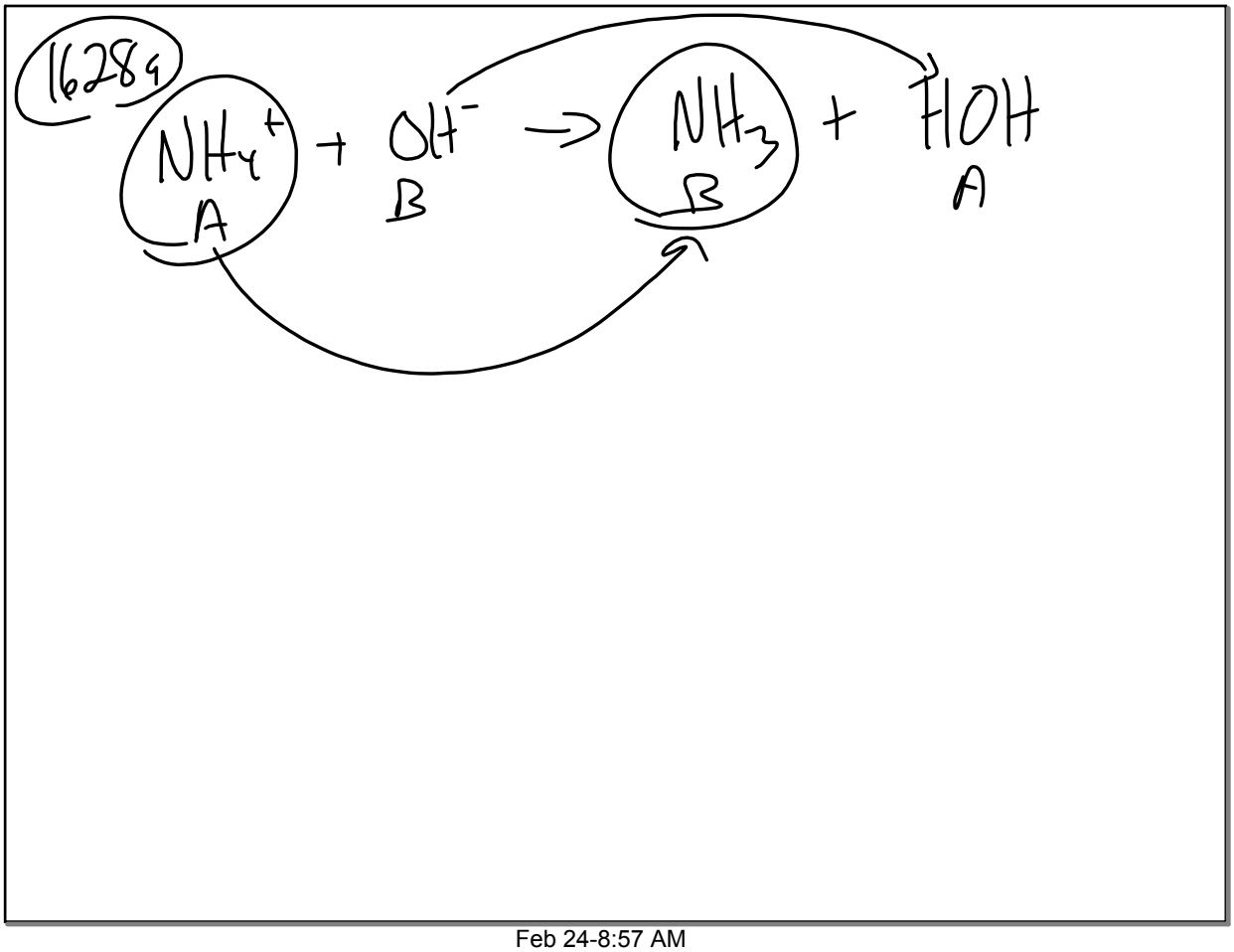
Feb 24-8:32 AM



Feb 24-8:44 AM



Feb 24-8:52 AM



Feb 24-8:57 AM

Ka's on p 1115
Kb's on p 1116

Feb 24-9:01 AM

Spring Exam 1

(1) $A \rightarrow 2C$

$$\frac{2}{1}\,\frac{-\Delta[A]}{\Delta t} = \frac{1}{2}\,\frac{\Delta[C]}{\Delta t} \times \frac{2}{1}$$

Feb 24-9:06 AM

(4) $E_a = 123\ kJ/mole$ $R = 8.314 \times 10^{-3}\ kJ$

$K_1 = 0.2$ $T_1 = 311$

$2(0.2) \rightarrow K_2 = 0.4$ $T_2 = ?$

$$\ln\frac{K_1}{K_2} = \frac{E_a}{R}\left(\frac{1}{T_2} - \frac{1}{T_1}\right)$$

Feb 24-9:09 AM

(9) $A + B \rightarrow C$

$\text{Rate} = K[A]^2[B]^0$

(10) Flip and *3

$K \rightarrow \frac{1}{K} \rightarrow \left(\frac{1}{K}\right)^3 = \frac{1^3}{K^3} = \frac{1}{K^3}$

$\frac{1}{K} * \frac{1}{K} * \frac{1}{K} =$

Feb 24-9:13 AM

(11) $K_p = K_c (RT)^{\Delta n}$

$= 1.10 \left((0.08206)(298)\right)^2$

Feb 24-9:20 AM

(13)

	$1N_2O_4$	$\rightleftharpoons$	$2NO_2$
I	0.4		0
Δ	−0.0345		+2(0.0345)
E	0.0055		0.789

MOLE RATIO

$$K = \frac{(NO_2)^2}{(N_2O_4)} = \frac{(0.789)^2}{0.0055} = 113.19$$

Feb 24-9:23 AM

(13)

$$CaCO_{3(s)} + \text{HEAT KJ} \rightleftharpoons CaO_{(s)} + CO_{2(g)}$$

Feb 24-9:26 AM

(19) $C_6H_6 + 3H_2 \rightleftharpoons C_6H_{12}$

	C_6H_6	H_2	C_6H_{12}
I	0.005	0.015	0
Δ	-6.85×10^{-4}	$-3(6.85\times10^{-4})$	$+6.85\times10^{-4}$
E			6.85×10^{-4} M

$$K = \frac{([C_6H_{12}])}{([C_6H_6])([H_2])^3}$$

Feb 24-9:29 AM

HW

16/ 44 9+b, 60

Feb 24-9:31 AM