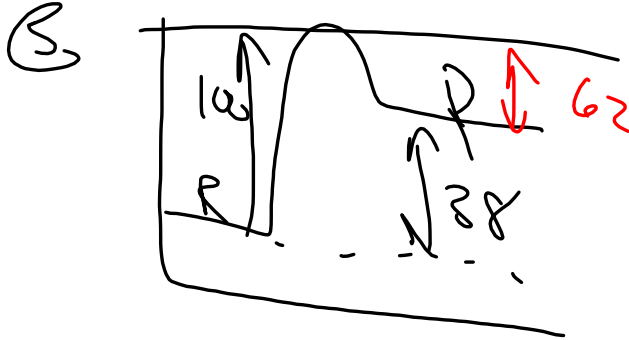


⑨
$$\frac{t_{1/2}}{1} = \frac{0.693}{k} = \frac{0.693}{35} = 0.0198 \text{ min}$$

$$\frac{0.0198 \text{ min}}{\times 60} = 1.188 \text{ sec}$$

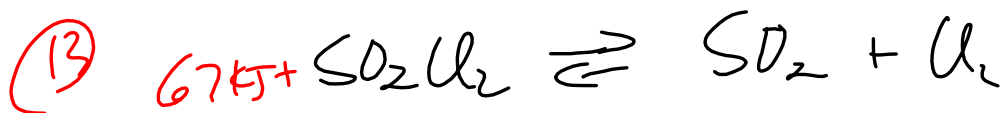


Feb 21-9:52 AM

⑩
$$\ln A_t = -kt + \ln A_0$$

$$\ln(0.25) = -k(6.3 \times 10^4) + \ln 1$$

Feb 21-10:03 AM



Feb 21-10:07 AM

(18) $\text{COCl}_2 \rightleftharpoons \text{CO} + \text{Cl}_2$

$K_c = 8.05 \times 10^{-4}$

I	0.04 M		
Δ	-x	+x	+x
E	0.04 - x	x	x

0.0347 M ← (0.04 - 0.0053)

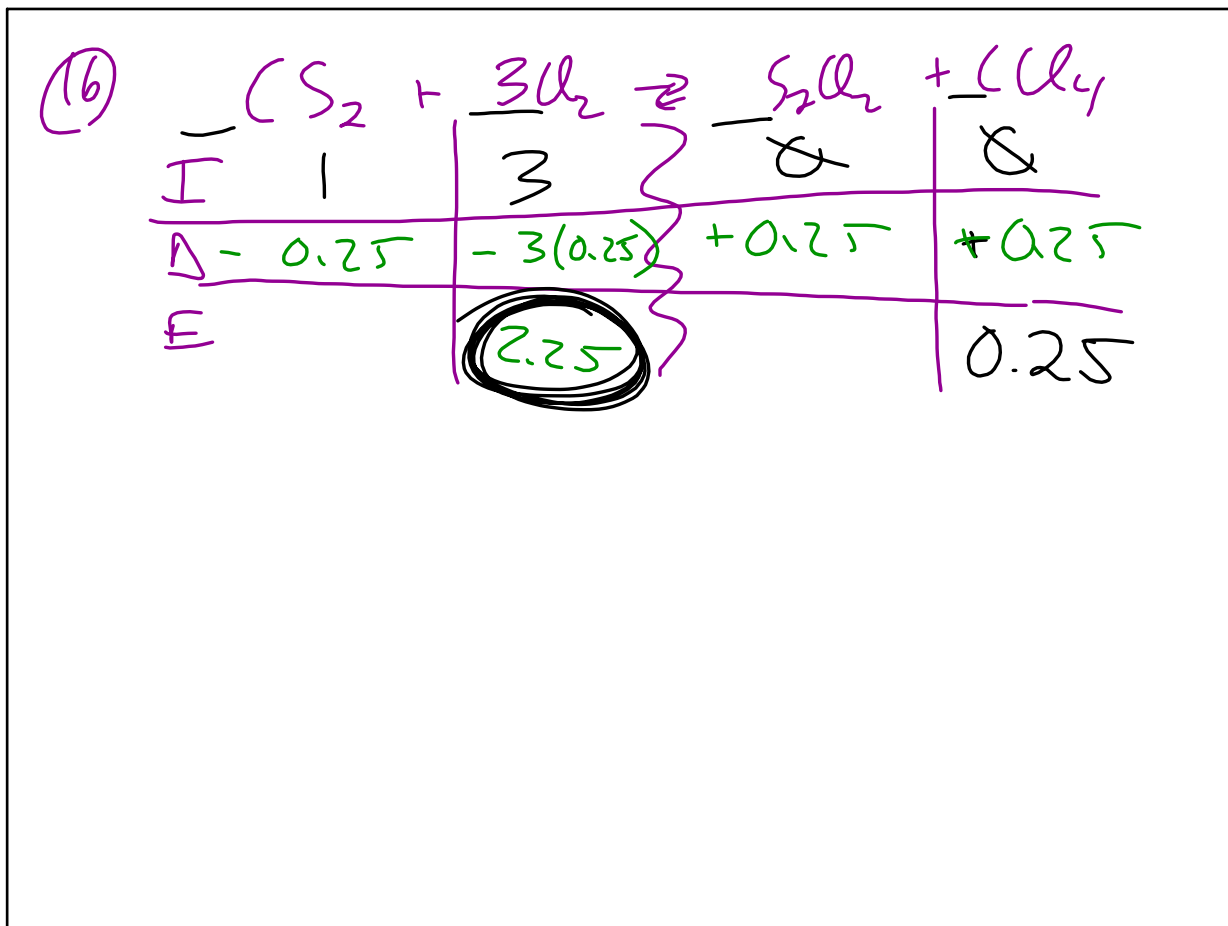
$$K = \frac{[\text{CO}][\text{Cl}_2]}{[\text{COCl}_2]} = \frac{(x)(x)}{0.04 - x} = \frac{8.05 \times 10^{-4}}{1}$$

$$x^2 + 8.05 \times 10^{-4}x - 3.22 \times 10^{-5} = 0$$

$ax^2 + bx + c = 0$

$x = 0.0053 \text{ M}$

Feb 21-10:11 AM



Feb 21-10:16 AM