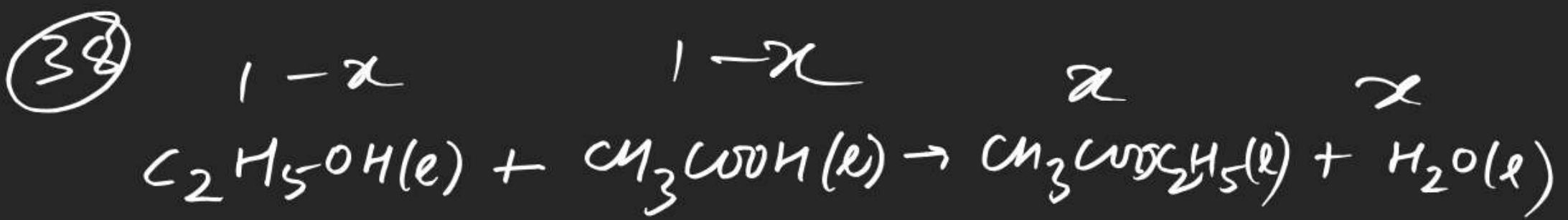


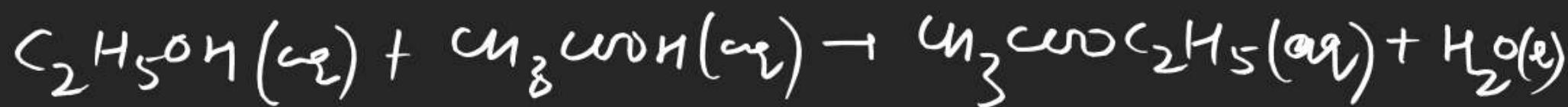
$$\begin{array}{r} O-I \quad 37-40 \\ 52-60 \end{array}$$

$$S-L \quad 17-31$$


---

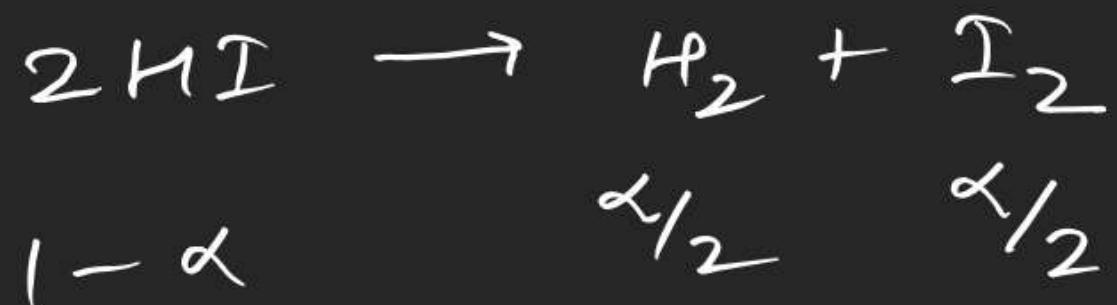


$$K_c = \frac{[\text{CH}_3\text{COOC}_2\text{H}_5]}{[\text{C}_2\text{H}_5\text{OH}] [\text{CH}_3\text{COON}]} \quad [ ]$$

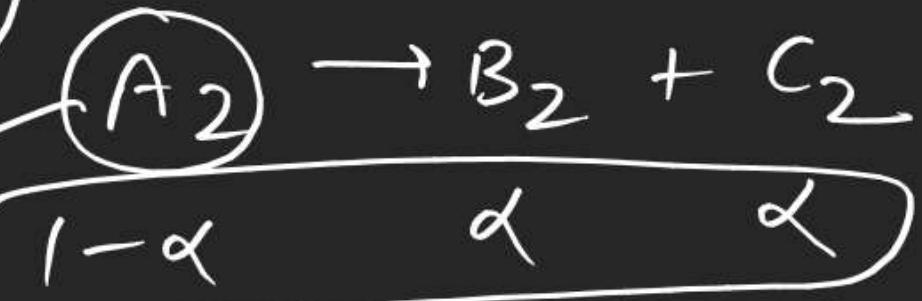


$$K_c = \frac{[\text{CH}_3\text{COOC}_2\text{H}_5]}{[\text{C}_2\text{H}_5\text{OH}] [\text{CH}_3\text{COON}]} \quad [ ]$$

(55)



(59)



(57)



$$\begin{matrix} M_{avg} \\ \downarrow \\ V.D \end{matrix}$$

$$K_p \downarrow$$

$$\alpha \downarrow$$

$$M_{avg} \downarrow$$

density

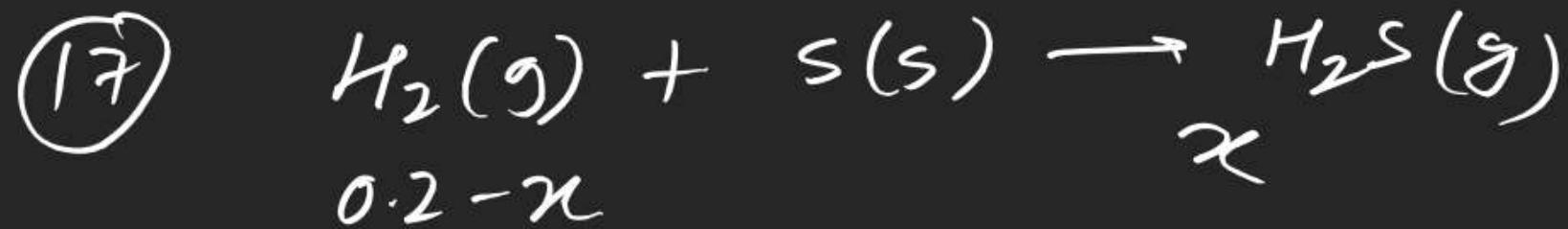
$$PM = dRT$$

$$K_p = g = \frac{\alpha^2}{1-\alpha} \left( \frac{7}{1+\alpha} \right)$$

$$= \frac{\alpha^2}{1-\alpha^2} \times 7$$

$$\alpha = 3/4 = 0.75$$

$$M_{avg} = \frac{70}{1+\alpha} = \frac{70}{1.75}$$



$$K = 6.8 \times 10^{-2} = \frac{x}{0.2 - x}$$



$$K_p = 4 \times 10^{-2} = P_{CO_2}$$

$$4 \times 10^{-2} \times V = n \times RT$$

$W_{CaO} = n \times 56$

(22)  $P_{H_2O}^S = \underline{3125} \times 10^{-15}$

$$P_{H_2O} = 5 \times 10^{-3}$$

23

$$\frac{1}{P_{H_2O}^6} = 64 \times 10^{84}$$

$$\frac{1}{P_{H_2O}} = 2 \times 10^{14}$$

$$P_{H_2O} = \frac{1}{2} \times 10^{-14} = 5 \times 10^{-15}$$

(25)

$$K_p = \frac{\alpha^2}{1-\alpha^2} P$$

(31)

$$1.78 = \frac{\alpha^2}{1-\alpha^2} \times 1$$

$$\alpha \downarrow$$

$M_{avg}$

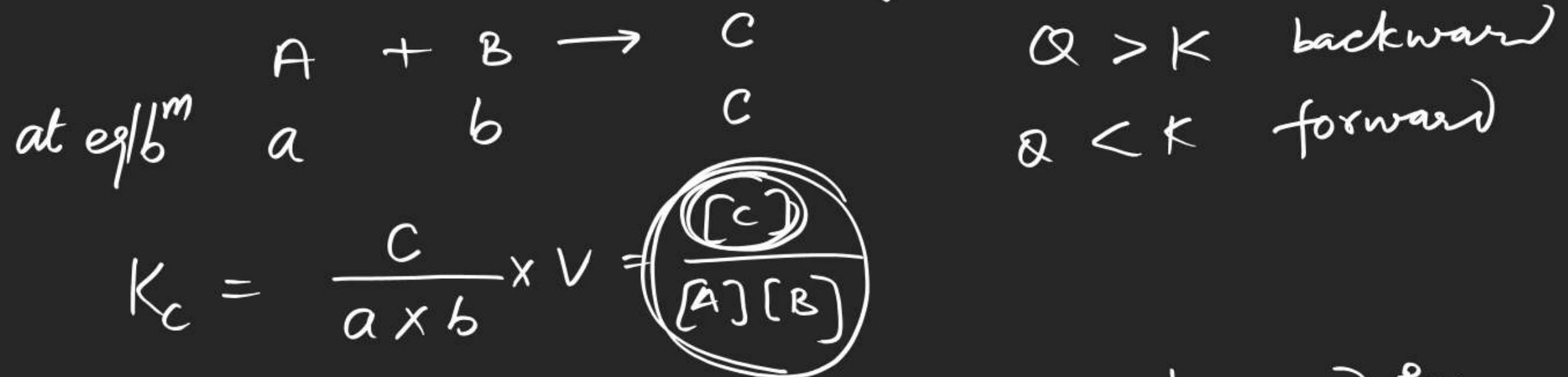
$\downarrow$   
 $P M = dRT$

$$\begin{aligned} 1.78 &= 2.78 \alpha^2 \\ \sqrt{\frac{1.78}{2.78}} &= \alpha \end{aligned}$$

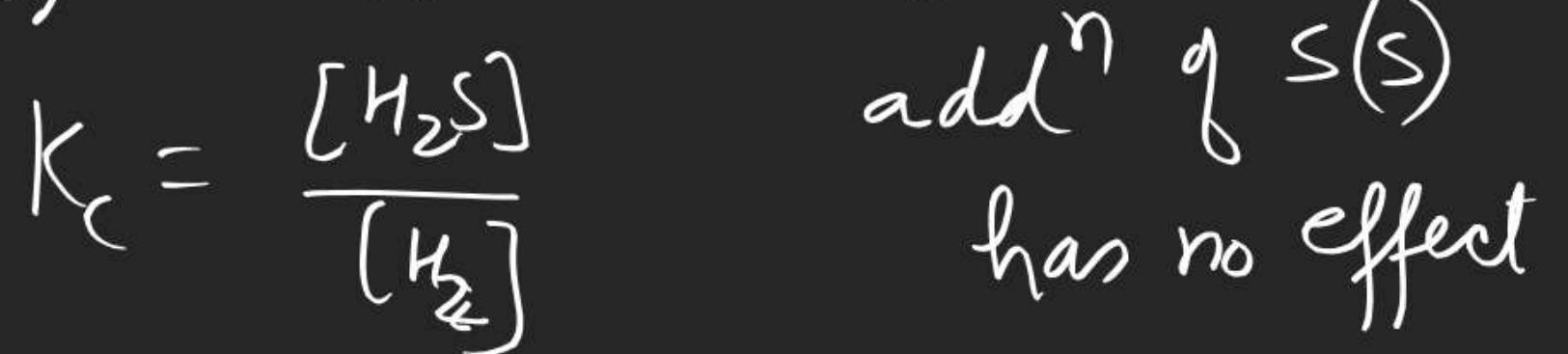
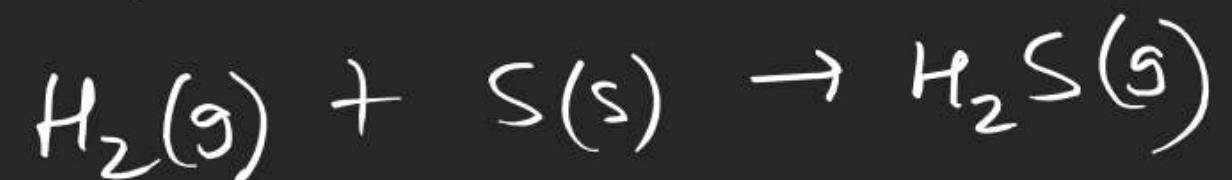
$$\sqrt{\frac{89}{139}}$$

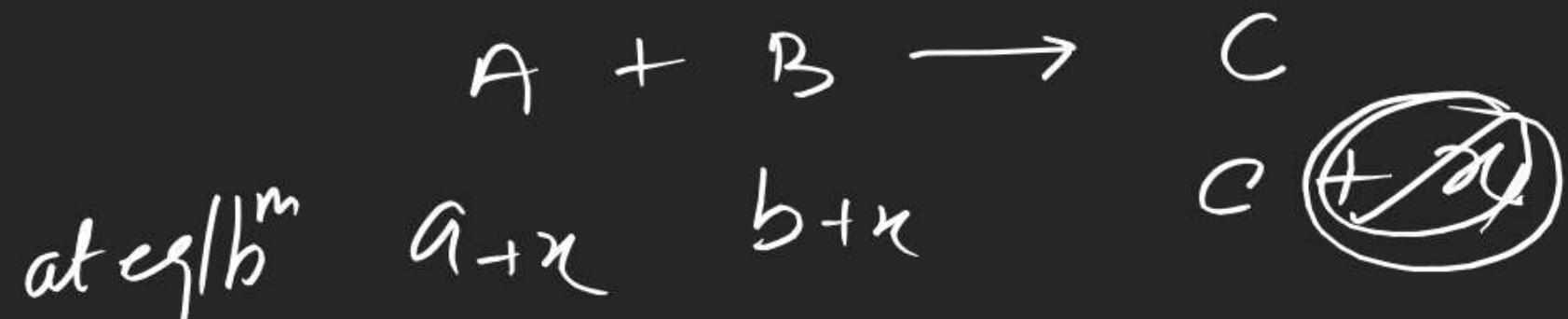
Le-châtelier principle : → If a system at eqlb<sup>m</sup> is subjected to a change in any one of the parameter like moles, volume, temperature etc , the system try to nullify (compensate) that change as far as possible

① Effect of addition and removal of a substance



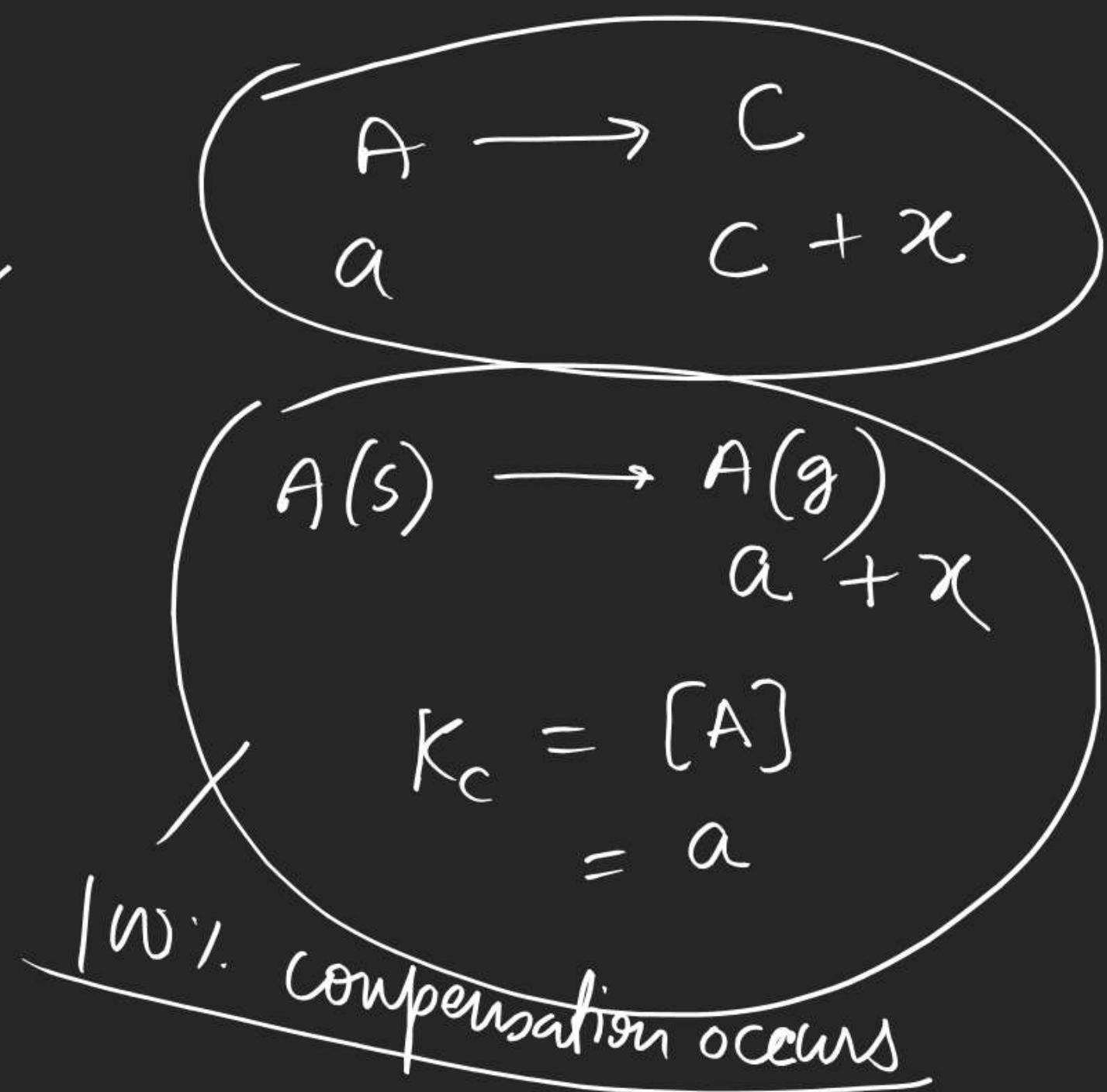
add<sup>n</sup> of reactants at eq/b<sup>m</sup> favours forward rxn  
 " product      "      " backward rxn



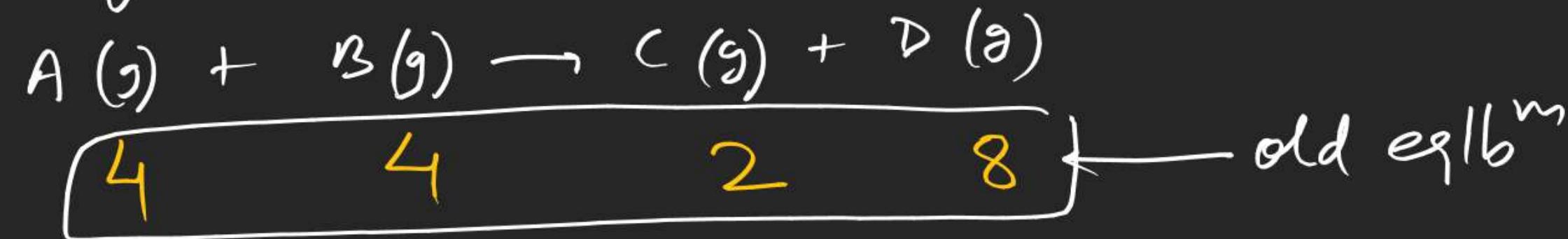


$$K_c = \frac{[C]}{[A][B]} = \frac{c}{a+b} \times v$$

$$\alpha > K_c$$



Q. for the given rxn



the no. of moles  
at eqlb<sup>m</sup>

was found to be

4, 4, 2 & 8

respectively in

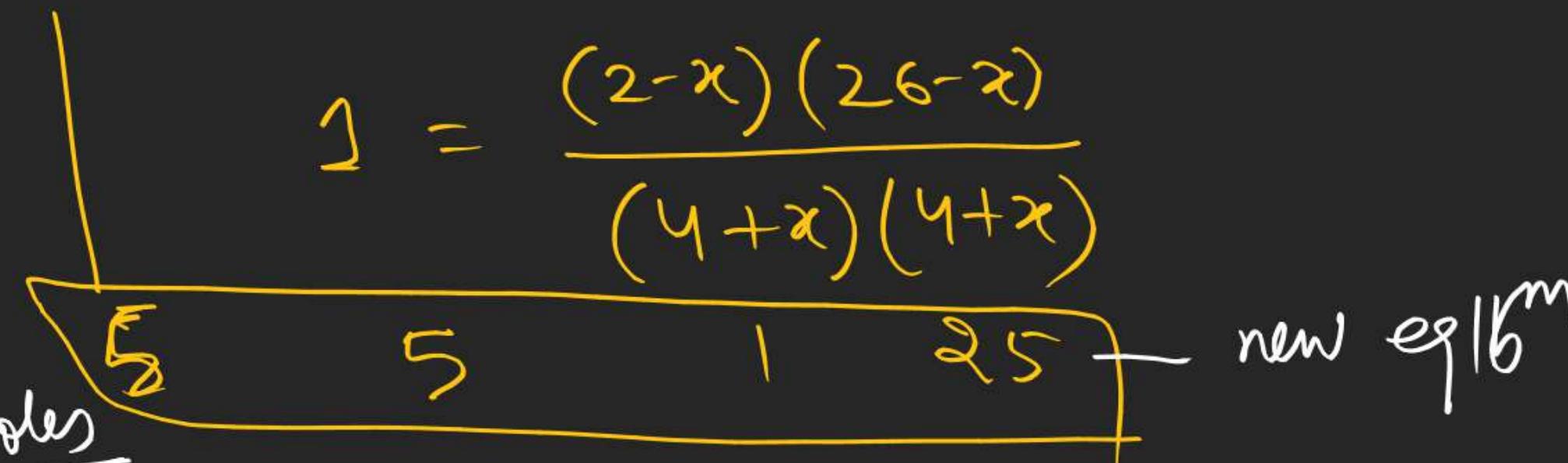
1 lit container.

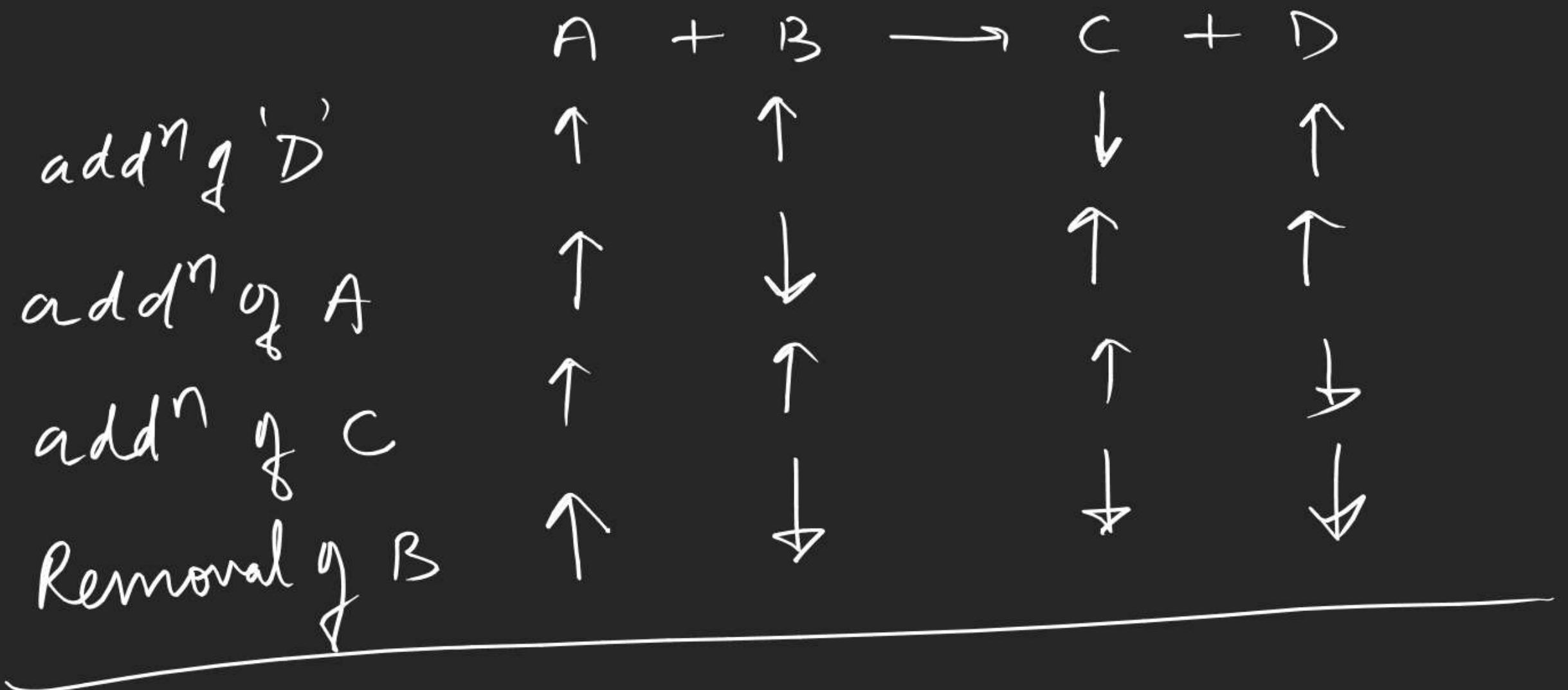
find the no. of moles

at new eqlb<sup>m</sup> if 12 moles  
of D are added to  
above container



$$1 = \frac{(2-x)(26-x)}{(4+x)(4+x)}$$





# ① Effect of change in pressure

akk 7007

