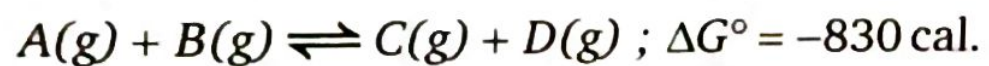


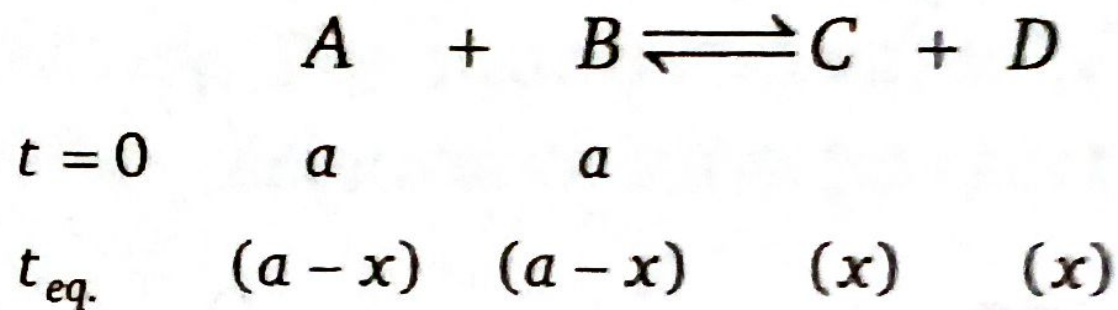
0. Calculate the equilibrium concentration ratio of C to A if equimolar ratio of A and B were allowed to come to equilibrium at 300 K.



2

10. $\Delta G^\circ = -RT \ln K_{eq}$
 $-830 = -2 \times 300 \times 2303 \log_{10} K_{eq}$
 $\Rightarrow K_{eq} = 4$

Now



$$K_C = \frac{[C][D]}{[A][B]}$$

$$\Rightarrow x = 2a/3$$