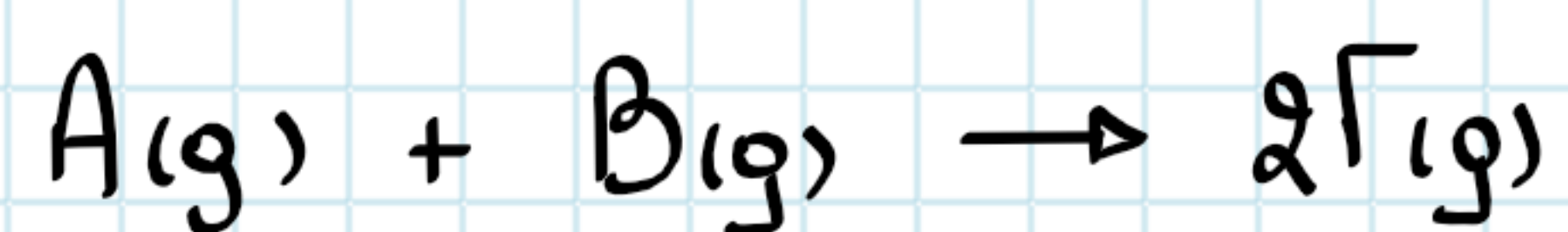


Άσκηση 3.83

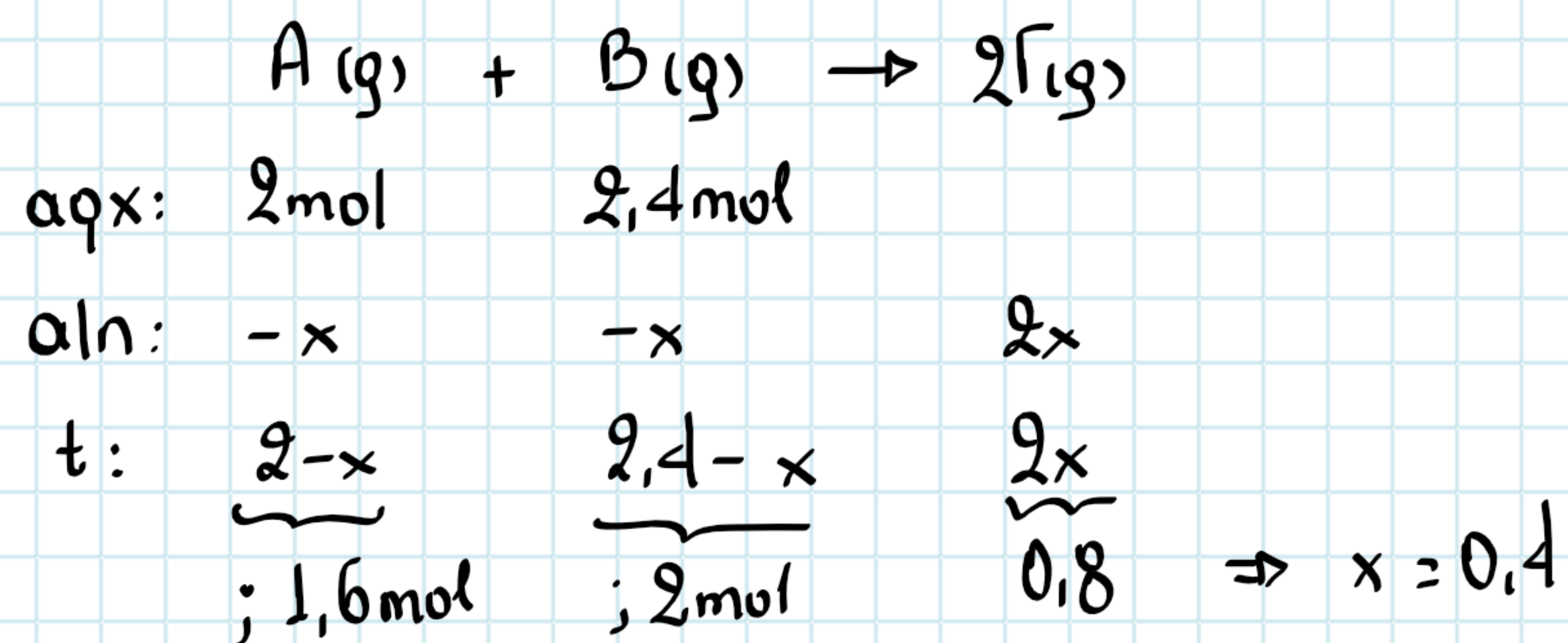
$$V=10L \quad 2\text{mol A} \quad 2,4\text{mol B} \quad k=0,05$$



α) αρχή αντίδρασης:  $v = k \cdot [A][B] = 0,05 \cdot \frac{2}{10} \cdot \frac{2,4}{10} = 24 \cdot 10^{-3} \text{ M/s}$

β)  $v_0 = 0,05 \cdot \frac{2}{20} \cdot \frac{2,4}{20} = 6 \cdot 10^{-3} \text{ M/s}$

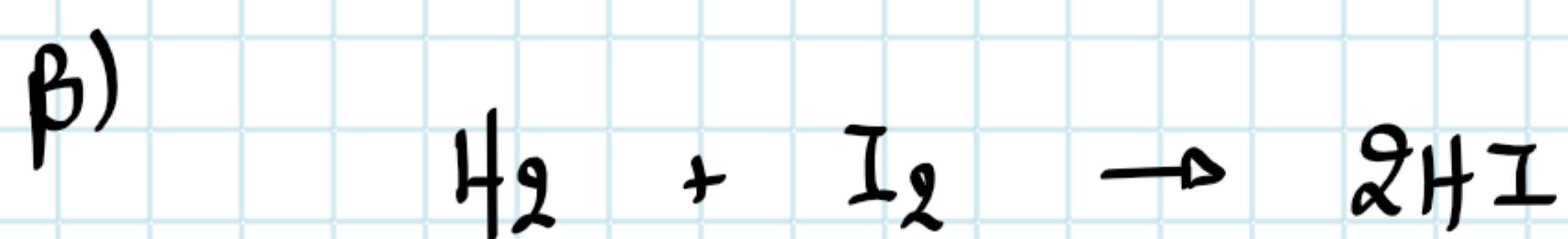
γ) t: 0,8 mol Γ



t:  $v' = 0,05 \cdot \frac{1,6}{10} \cdot \frac{2}{10} = 16 \cdot 10^{-3} \text{ M/s}$

Άσκηση 3.84

α)  $k_1 = 0,02 \text{ M}^{-1} \cdot \text{s}^{-1}$



αρχ: 0,5 mol 0,6 mol

α/n: -x -x 2x

t: 0,5-x 0,6-x 2x

i)  $\left. \begin{array}{l} [\text{H}_2]_{t_1} = 0,5 - 0,2 = 0,3 \text{ M} \\ [\text{I}_2]_{t_1} = 0,6 - 0,2 = 0,4 \text{ M} \end{array} \right\} v = k \cdot [\text{H}_2] \cdot [\text{I}_2] \Rightarrow v_{t_1} = 0,02 \cdot 0,3 \cdot 0,4 = 24 \cdot 10^{-4} \text{ M/s}$

ii)  $2x = 0,6 \Rightarrow x = 0,3$

$\left. \begin{array}{l} [\text{H}_2] = 0,5 - 0,3 = 0,2 \text{ M} \\ [\text{I}_2] = 0,6 - 0,3 = 0,3 \text{ M} \end{array} \right\} v = 0,02 \cdot 0,2 \cdot 0,3 = 12 \cdot 10^{-4} \text{ M/s}$

Άσκηση 3.85

α)  $v_0 = k[A][B]^2 = 0,08 \cdot (0,5)(0,5)^2 = 0,01 \text{ M/s}$

β)  $v = 288 \cdot 10^{-4} \text{ M/s} \quad v_r = 2 \cdot 288 \cdot 10^{-4} \text{ M/s}$

γ) 0-20s:  $v_{\mu} = 0,005 \text{ M/s}$