

Devoir 2.63, 2.45, 160

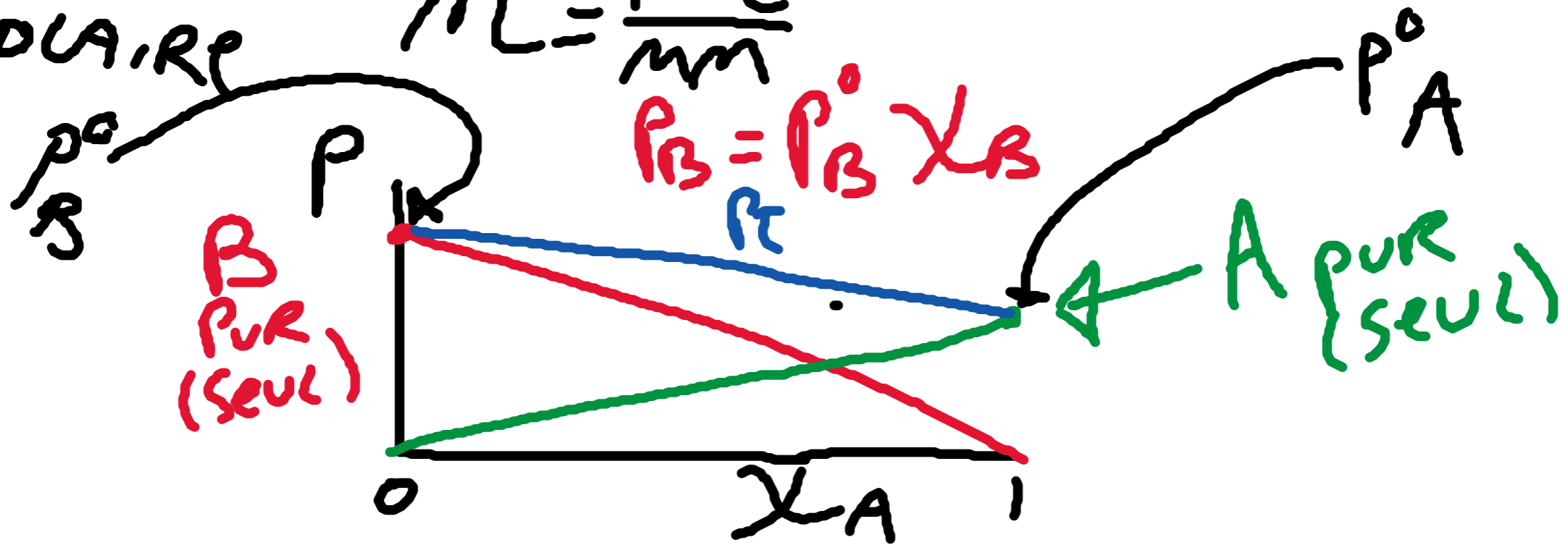
$$P_T = P_A^0 X_A + P_B^0 X_B \Rightarrow \text{Sol. soim. Idéale}$$

$$X_A = \frac{m_A}{m_T}$$

$m_T \rightarrow m_A + m_B + \dots$

FRACTION
MOLAIRE

$$m = \frac{M}{\nu M}$$



C_6H_6 (Benz) 1016 ton } $90,0^\circ C$
 $C_6H_5CH_3$ (tol) 405 ton }

X_{Benz} pour P_{tot} à 760 mm Hg

$$P_T = 760 = P_{Benz}^0 X_{Benz} + P_{tol}^0 X_{tol}$$

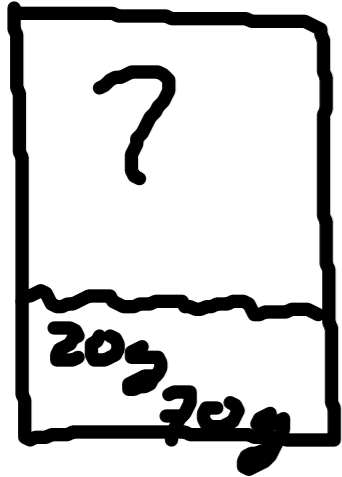
$$X_{tol} = 1 - X_{Benz}$$

$$760 = P_{Benz}^0 X_{Benz} + (P_{tol}^0 \times (1 - X_{Benz}))$$

$$X_B = .58$$

$$P^{\circ}_{\text{H}_2\text{O}} \text{ à } 20^{\circ}\text{C} = 25,21 \text{ Torr}$$

P_t soinv A_7 70,0g H_2O et 20,0g $\text{C}_6\text{H}_{12}\text{O}_6$



$$P_t = P^{\circ}_{\text{H}_2\text{O}} \chi_{\text{H}_2\text{O}} + P^{\circ}_{\text{Gluc}} \chi_{\text{Gluc}}$$

↖ O
↑ solide N-V

$$P_t = 25,21 \times \left(\frac{70/18}{\left(\frac{70}{18}\right) + \left(\frac{20}{180}\right)} \right)$$

$$= 24,51 \text{ Torr}$$

200g $C_6H_{12}O_6$ + 70g H_2O $T_{\text{eb}} = ?$

$$K_{\text{eb}} = 51 \text{ } ^\circ\text{C m}^{-1}$$

$$\Delta T = 51 \times \frac{(20/180)}{70 \times 10^{-3}} \times 1$$

$$81^\circ\text{C}$$

$$T_{\text{eb}} = 100,81^\circ\text{C}$$

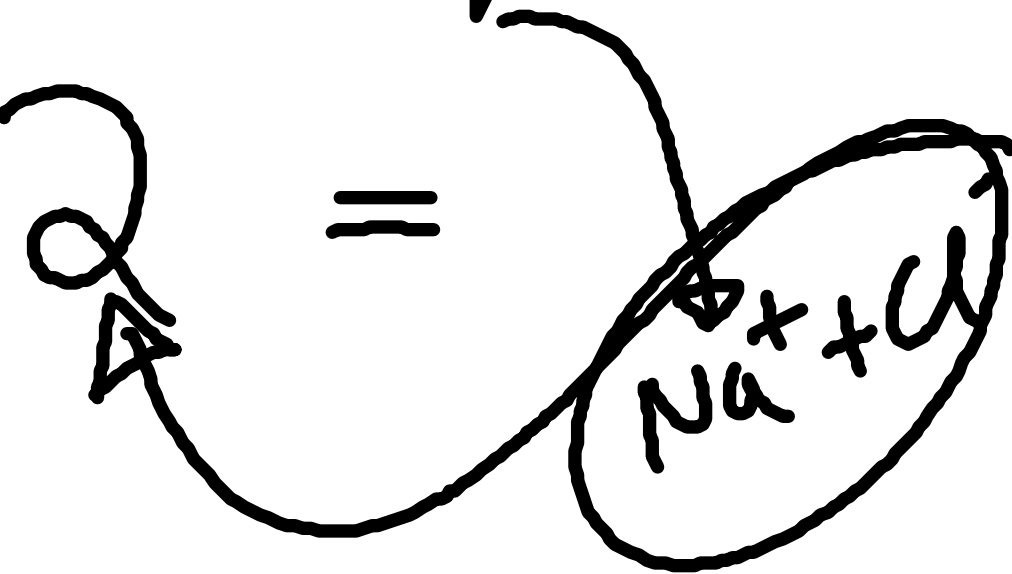
32 F	212 F - 180	6 F
0°C	100°C - 100	x 333

$$\Delta T = 333 = 51 \times \frac{m}{180} \times 1$$
$$m = 1176 \text{ kg}$$

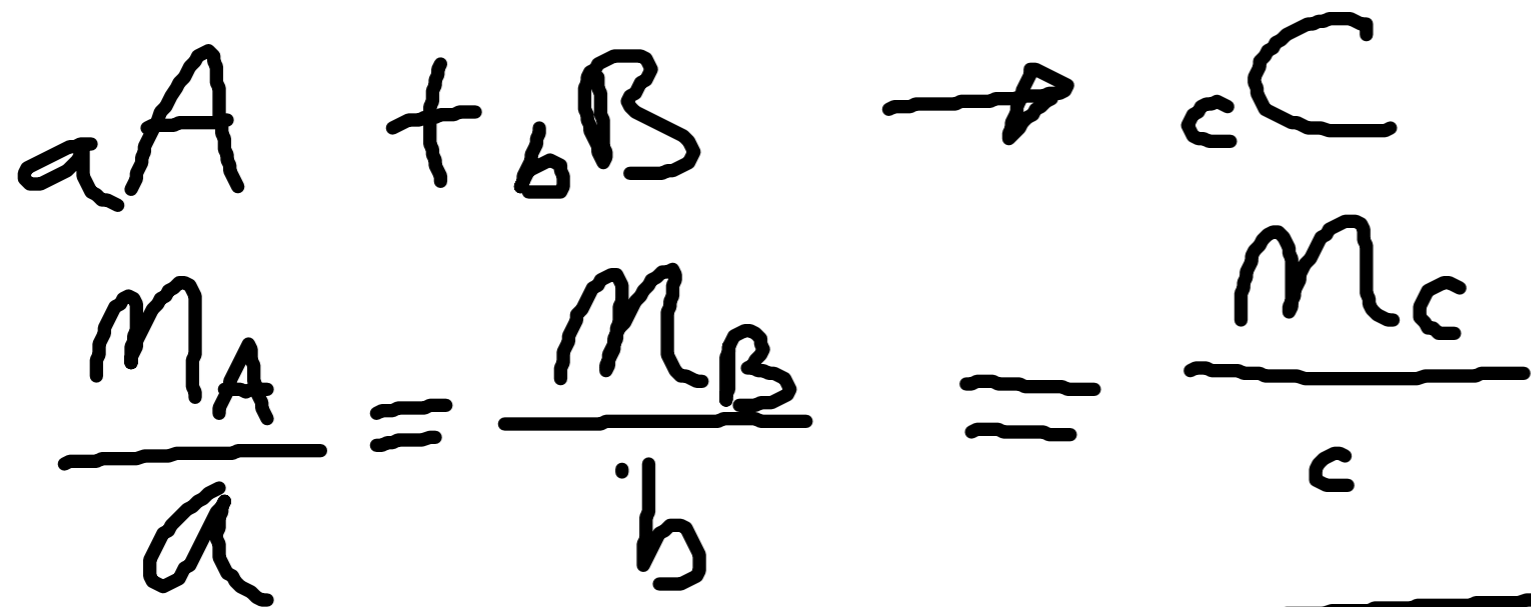
Pates

1 kg H₂O

50g NaCl

$$\Delta T = 0.51 \times \left(\frac{50}{58.5} \right) \times \frac{1000}{1} =$$


$$= 0.87$$
$$100.87^\circ$$

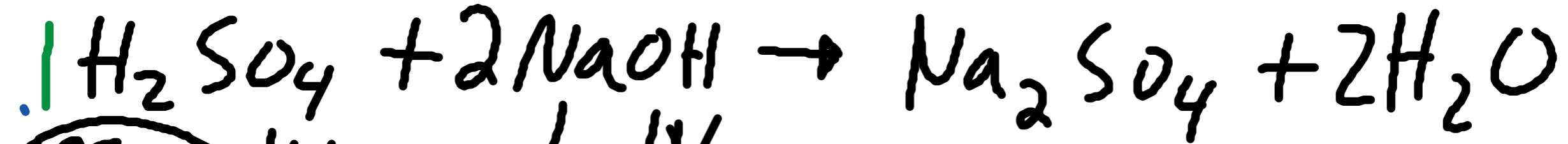


$$m = \frac{m}{mm}$$

$$\frac{C_A V_A}{a} = \frac{C_B V_B}{b} = \frac{C_C V_C}{c}$$

$$N_A V_A = N_B V_B = N_C V_C$$

TITRAGES

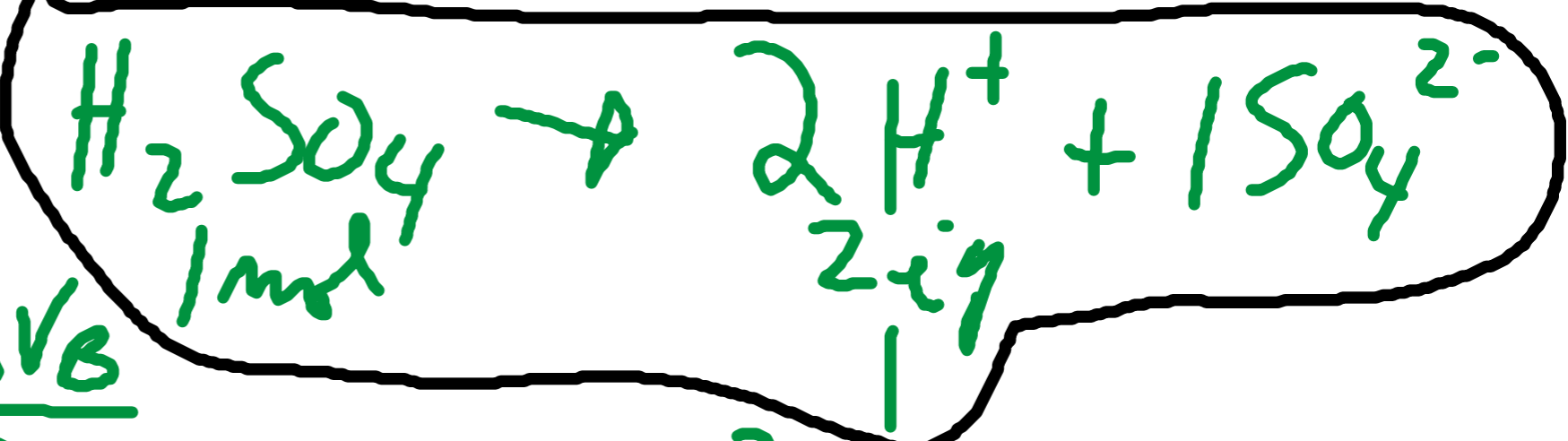


1N
1M

$$N_A V_A = N_B V_B$$

$$1 \text{N} \times 25 \text{ml} = 1 \text{N} \times V_B$$

$$V_B = 25.0 \text{ml}$$



$$\frac{C_A V_A}{1} = \frac{C_B V_B}{2}$$

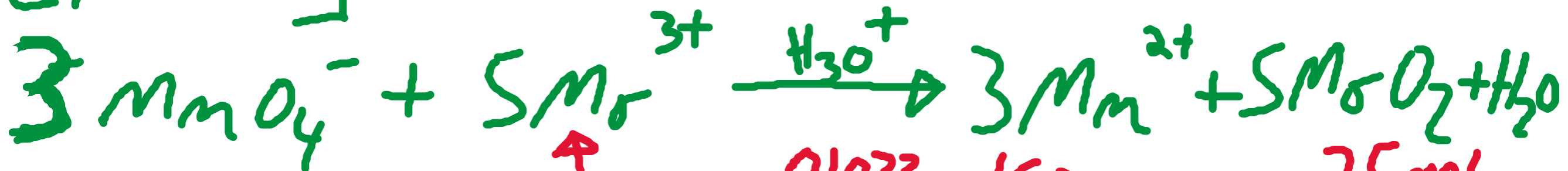
$$\frac{5 \times 25}{1} = \frac{1 \times ?}{2}$$

$$V = 25 \text{ml}$$

UNE SOLUTION DE Mo^{6+} EST RÉDUITE À L'ÉTAT (III)
 UN ALIQUOT 25,00 ml de LA SOLUTION EST TITRÉ

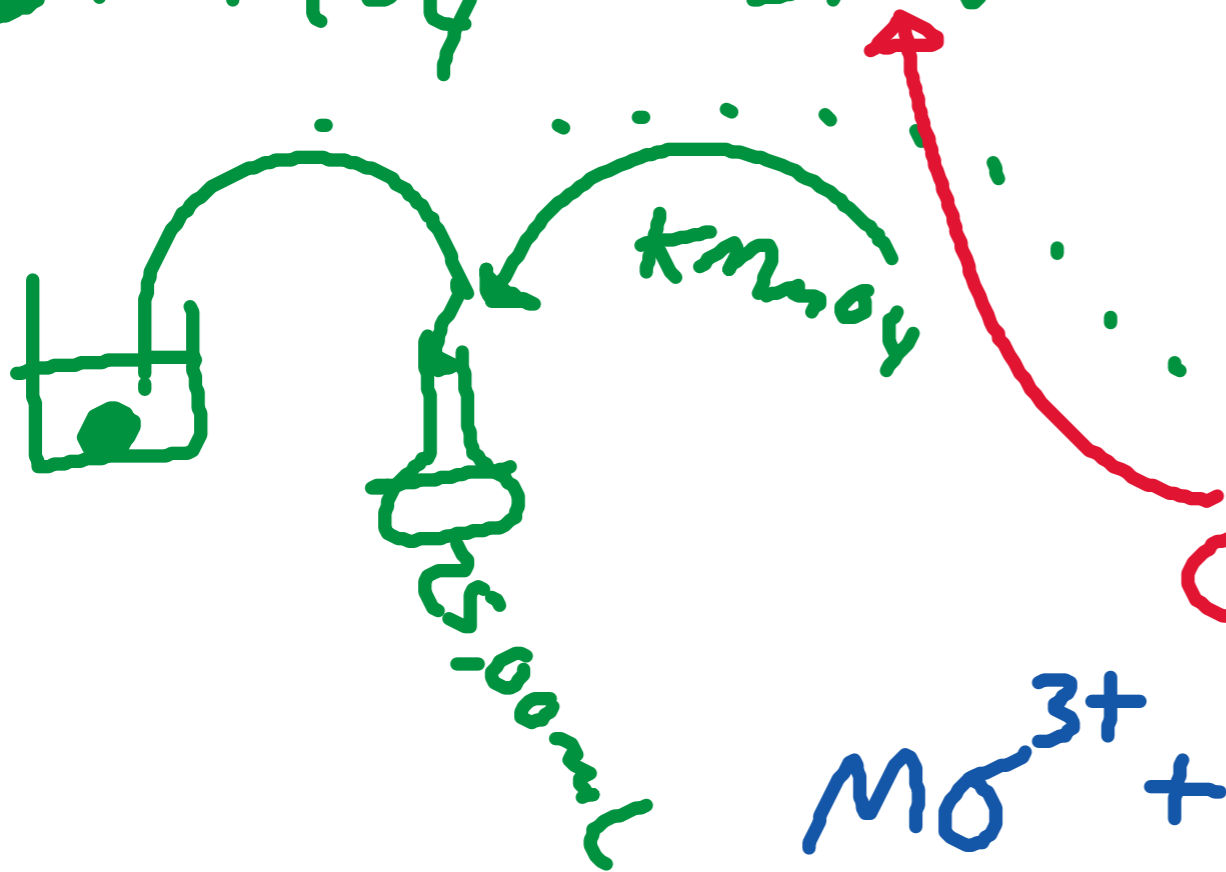
KMnO_4 0,01033 M $V_{\text{KMnO}_4} = 16,39 \text{ ml}$

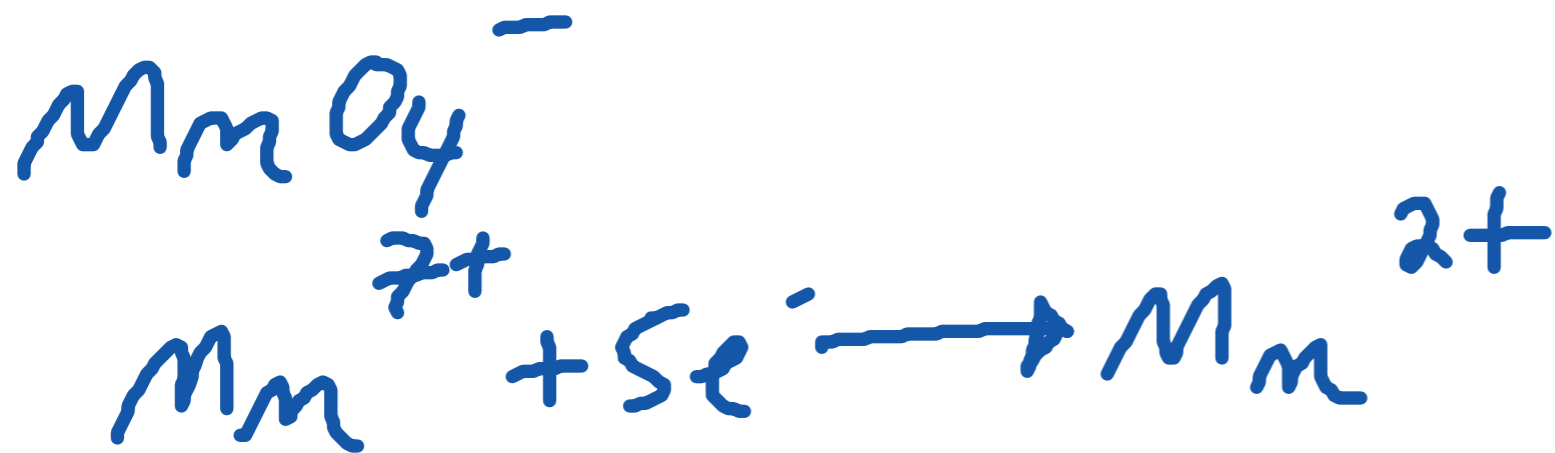
$[\text{Mo}^{6+}]$



$$\frac{0,01033 \times 16,39}{3} = \frac{C_{\text{red}} \times 25 \text{ ml}}{5}$$

$$C_{\text{red}} = 0,1129 \text{ M}$$





38,60 ml de MnO_4^- 0,0972 N sont
 requis pour NEUTRALISER 25,00 ml de
 $FeSO_4$

$$[FeSO_4] = ?$$

$$N_{MnO_4^-} V_{MnO_4^-} = N_{Fe^{2+}} V_{Fe^{2+}}$$

$$0,0972 \times 38,6 = N \times 25,00$$

$$N_{Fe^{2+}} \longrightarrow 0,1500 N$$