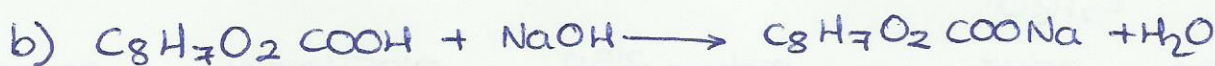


(B5)

a) $\left. \begin{array}{l} \text{NaOH } 0.2 \text{ M} \\ V_{\text{NaOH}} = 250 \text{ ml} \end{array} \right\} M = \frac{\text{moles}}{V} \Rightarrow 0.2 = \frac{\text{moles}}{0.25} \rightarrow \text{moles} = 0.05 \text{ NaOH}$

$$\text{moles} = \frac{\text{gr}}{P_m} \rightarrow \text{gr NaOH} = 0.05 \text{ moles} \cdot 40 \text{ g/mol}$$
$$\text{gr NaOH} = \boxed{2 \text{ g NaOH}}$$



c) 12.5 ml NaOH pto Equiv.

$$\text{moles NaOH} \rightarrow 0.0125 \text{ l} \cdot 0.2 \frac{\text{moles}}{\text{l}} = 2.5 \cdot 10^{-3} \text{ moles NaOH}$$

$$\text{luego } 2.5 \cdot 10^{-3} \text{ moles ácido PUROS.} \rightarrow \text{gr PUROS} = 2.5 \cdot 10^{-3} \cdot P_m \text{ Ácido}$$

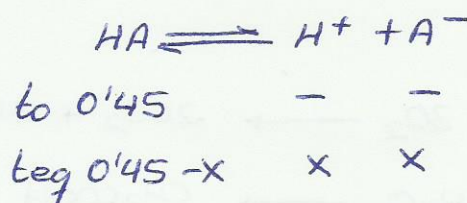
$$\text{gr PUROS Ácido} = 2.5 \cdot 10^{-3} \cdot 180 = 0.45 \text{ gr PUROS Ácido}$$

1 aspirina 650 mg = 0.65g TOTALES

$$\% \text{ Rig} = \frac{0.45}{0.65} \cdot 100 = \boxed{69.23\%}$$

d) 250 ml

1 aspirina \rightarrow 0.45 gr AC.



$$K_a = \frac{\frac{x^2}{V^2}}{\frac{0.45-x}{V}} = \frac{x^2}{(0.45-x) \cdot V} = K_a ; 2.64 \cdot 10^{-5} = \frac{x^2}{(0.45-x) \cdot 0.25}$$

$$\text{Obtenemos } x \rightarrow \frac{x}{0.25 \text{ ml}} = [\text{H}^+] \rightarrow \text{pH} = -\log [\text{H}^+].$$