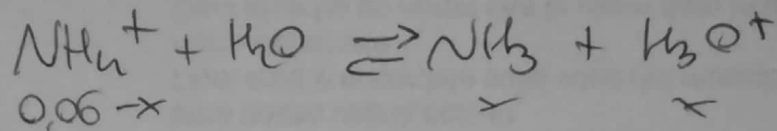


NH_4Cl 0,2 M 300 ml mol = 0,06

H_2O 300 ml



$$K_a = \frac{[\text{NH}_3][\text{H}_3\text{O}^+]}{[\text{NH}_4^+]}$$

$$\frac{K_w}{K_b} = \frac{[\text{NH}_3][\text{H}_3\text{O}^+]}{[\text{NH}_4^+]}$$

$$5,5 \cdot 10^{-10} = \frac{x^2}{0,1}$$

$$0,06 : 300 \text{ ml} = x : 1000 \text{ ml}$$

$$x = 0,1$$

$$x = [\text{H}_3\text{O}^+] = \sqrt{5,5 \cdot 10^{-10} \cdot 0,1} = 7,41 \cdot 10^{-6}$$

$$\text{pH} = 5,13$$