

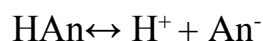
$$\text{pH} = 3,18$$

$$C_{\text{HAn}} = 1,00 \text{ M} = 1,00 \text{ mol/L}$$

$$\text{pH} = - [\lg \text{H}^+]$$

$$[\text{H}^+] = 10^{-3,18} = 6,6 \cdot 10^{-4} \text{ mol/L}$$

suppose that we are dealing with monobasic acid.



$$K_a = \frac{[\text{H}^+][\text{A}^-]}{[\text{HA}]} = \frac{[\text{H}^+][\text{H}^+]}{C_{\text{HAn}} - [\text{H}^+]} \approx \frac{[\text{H}^+][\text{H}^+]}{C_{\text{HAn}}} = (6,6 \cdot 10^{-4} \text{ mol/L})^2 / 1,00 \text{ mol/L} =$$

$$= 4,36 \cdot 10^{-7} \text{ mol/L}.$$

Answer provided by <https://www.AssignmentExpert.com>