Pokażmy, że $\frac{A_k}{b-a} \in \mathbb{Q}$

$$\frac{A_k}{b-a} = \frac{(-1)^{n-k} \cdot \cancel{h}^{\frac{1}{n}}}{k!(n-k)!} \cdot \frac{\cancel{1}}{\cancel{b-a}} \int_0^n \prod_{j \neq k}^{n} (t-j)\,dt \qquad \left(h = \frac{b-a}{n}\right)$$

$$\frac{A_k}{b-a} = \overset{\mathbb{Q}}{\boxed{\frac{(-1)^{n-k}}{k!(n-k)!\,n}}} \cdot \int_0^n \prod_{j \neq k}^{n} (t-j)\,dt$$

$$\int_0^n \underbrace{\prod_{j \neq k}^{n} (t-j)}_{\text{wielomian}}\,dt = \int_0^n \sum_{j=0}^{n} a_j t^j \,dt = \sum_{j=0}^{n} a_j \int_0^n t^j \,dt = \sum_{j=0}^{n} \overset{\mathbb{Q}}{\boxed{a_j}} \overset{\mathbb{Q}}{\boxed{\frac{n^{j+1}}{j+1}}}$$