

W metodzie trapezów

$$\begin{aligned} P &= (f(x_1) + f(x_2)) \cdot \frac{\Delta x}{2} + (f(x_2) + f(x_3)) \cdot \frac{\Delta x}{2} + \\ &\quad + \dots + (f(x_n) + f(x_{n+1})) \cdot \frac{\Delta x}{2} = \\ &= \left(\frac{f(x_1) + f(x_{n+1})}{2} + \sum_2^n f(x_i) \right) \cdot \Delta x \end{aligned}$$