

Zad. 6

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| x | -1 | 0 | 1 | 2 |
|------|----|---|---|----|
| f(x) | -2 | 1 | 0 | 53 |

Postać Newtona:

$$L_n(x) = \sum_{k=0}^n l_k p_k(x)$$

$$l_k = \sum_{i=0}^n \frac{y_i}{\prod_{j=0, j \neq k}^n (x_i - x_j)}$$

$$p_0(x) = (x - x_0) \dots (x - x_{n-1}) \quad p_n(x) = 1$$

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$$\begin{aligned} L_{\underset{93}{n}}(x) &= l_0 p_0(x) + l_1 p_1(x) + l_2 p_2(x) + l_3 p_3(x) = \\ &= \frac{y_0}{1} + \underbrace{(x - x_0)}_{p_1} \cdot \left(\frac{y_0}{(x_0 - x_1)} + \frac{y_1}{(x_1 - x_0)} \right) + \underbrace{(x - x_0)(x - x_1)}_{p_2(x)} \cdot \left(\frac{y_0}{(x_0 - x_2)(x_0 - x_1)} + \frac{y_1}{(x_1 - x_2)(x_1 - x_0)} + \frac{y_2}{(x_2 - x_0)(x_2 - x_1)} \right) + \\ &+ (x_0 - x_0)(x - x_1)(x - x_2) \left(\frac{y_0}{(x_0 - x_1)(x_0 - x_2)(x_0 - x_3)} + \frac{y_1}{(x_1 - x_0)(x_1 - x_2)(x_1 - x_3)} + \frac{y_2}{(x_2 - x_0)(x_2 - x_1)(x_2 - x_3)} + \frac{y_3}{(x_3 - x_0)(x_3 - x_1)(x_3 - x_2)} \right) \end{aligned}$$

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TUTAJ MUSIMY POSTAWIĆ DANE TABELKI POWZGÓR NIE
ZROBIŁEM TEGO Z UWAGI NA BRAK CZASU :)