Z 2

x_0	x_1	x_2	x_3	...	x_m
y_0	y_1	y_2	y_3	...	y_m

$$f[x_0] = y_0$$

$$f[x_i, \dots, x_j] = \frac{f[x_{i+1}, \dots, x_j] - f[x_i, \dots, x_{j-1}]}{x_j - x_i}$$

Odejmowanie

$$2n + 2(n-1) + \dots + 2 = \frac{(2n+2)n}{2} = (n+1)n$$

Dzielenie

$$\frac{(n+1)n}{2}$$

Algorytm

Wejście: $X = [x_1, x_2, \dots x_m]$, $Y = [y_1, y_2, \dots, y_m]$

$P, C, D = [0, 0, \dots, 0]$

dla $i = 0$ do $m-1$:

$C[0] = Y[i]$

dla $j = 1$ do i:

$$c[j] = \frac{C[j-1] - P[j-1]}{X[i] - X[i-j]}$$

$D[i] = C[i]$

$P \leftarrow C$

return D

$f[x_0]$

$f[x_1]$ $f[x_0, x_1]$

$f[x_2]$ $f[x_1, x_2]$ $f[x_0, x_1, x_2]$

$f[x_3]$ $f[x_2, x_3]$ $f[x_1, x_2, x_3]$ $f[x_0, x_1, x_2, x_3]$