

	x_0	x_1	x_2	x_3
x	1	-1	2	0
	2	1	4	1
	δ_0	δ_1	δ_2	δ_3

x	δ_0	δ_1	δ_2
1	2	$\begin{array}{c c} 1 & 2 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$
-1	1	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$
2	5	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$
0	1	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$	$\begin{array}{c c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$

(*) $\begin{array}{c|c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$

$\begin{array}{c|c} 1 & 1 \\ \hline 1 & -1 \\ \hline 1 & 3 \end{array}$

(*)

$$P_3(x) = x + \frac{3}{4}(x-1) + \frac{5}{12}(x-1)(x+1) + \frac{1}{12}(x-1)(x+1)(x-2)$$

OBS COM A ORDEM

x	-1	0	1	2
x^2	$\frac{1}{2}$	1	2	4

OBTIVEMOS

$$P_3(x) = \frac{1}{2} + \frac{1}{2}(x+1) + \frac{1}{4}(x+1)x + \frac{1}{12}(x+1)x(x-1)$$

DIFERENCAS SIMPLES

x	-1	0	1	2
y^k	$\frac{1}{2}$	1	2	4

OBS $h = 1$

x	Δ^0	Δ^1	Δ^2	Δ^3
-1	$\frac{1}{2}$	$1 - \frac{1}{2} = \frac{1}{2}$	$1 - \frac{1}{2} = \frac{1}{2}$	$1 - \frac{1}{2} = \frac{1}{2}$
0	1	$2 - 1 = 1$	$2 - 1 = 1$	$1 - \frac{1}{2} = \frac{1}{2}$
1	2	$4 - 2 = 2$	$2 - 1 = 1$	
2	4			

$$P_3(x) = \frac{1}{2} + \frac{1/2}{1 \cdot 1!} (x+1) + \frac{1/2}{1^2 \cdot 2!} (x+1)(x) + \frac{1/2}{1^3 \cdot 3!} (x+1)(x)(x-1) =$$

$$= \frac{1}{2} + \frac{1}{2}(x+1) + \frac{1}{2}(x+1) \cdot x$$

$$+ \frac{1}{12}(x+1)x(x-1)$$