

-----Interpolacion de Lagrange-----

X [94.0 | 205.0 | 371.0]
f(x)[929.0 | 902.0 | 860.0]

x = 251.0

Y(x)=[
929.0 * ((x-205.0)/(94.0 - 205.0))((x-371.0)/(94.0 - 371.0)) +
902.0 * ((x-94.0)/(205.0 - 94.0))((x-371.0)/(205.0 - 371.0)) +
860.0 * ((x-94.0)/(371.0 - 94.0))((x-205.0)/(371.0 - 205.0))
]

Resultado:

Pnx=890.5561165532

Presione ENTER para ir al menu...

 -----Interpolacion de Neville-----

X [-2.0 | -1.0 | 0.0 | 1.0 | 2.0]
 f(x) [0.11111 | 0.33333 | 1.0 | 3.0 | 9.0]

x = 0.5

 K=1

f[0][1] = 0.66666
 f[1][1] = 1.333335
 f[2][1] = 2.0
 f[3][1] = -0.0

K=2

f[0][2] = 1.5000037499999999
 f[1][2] = 1.83333375
 f[2][2] = 1.5

K=3

f[0][3] = 1.7777787499999997
 f[1][3] = 1.666666875

K=4

f[0][4] = 1.7083338281249998

i	Xi	f(Xi)	$\hat{f}^0(Xi)$	$\hat{f}^1(Xi)$	$\hat{f}^2(Xi)$	$\hat{f}^3(Xi)$	$\hat{f}^4(Xi)$
0	-2.0	0.11111	0.11111	0.66666	1.50000375	1.77777875	1.7083338281
1	-1.0	0.33333	0.33333	1.333335	1.83333375	1.666666875	0.0
2	0.0	1.0	1.0	2.0	1.5	0.0	0.0
3	1.0	3.0	3.0	0.0	0.0	0.0	0.0
4	2.0	9.0	9.0	0.0	0.0	0.0	0.0

Resultado:
 Pnx=1.7083338281

-----Interpolacion de Newton-----

X [0.1 | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3]
f(x)[0.9975 | 0.97763 | 0.93847 | 0.8812 | 0.80752 | 0.71962 | 0.62009]

x = 0.8

i	Xi	f(Xi)	$\hat{f}''0f(Xi)$	$\hat{f}''1f(Xi)$	$\hat{f}''2f(Xi)$	$\hat{f}''3f(Xi)$	$\hat{f}''4f(Xi)$	$\hat{f}''5f(Xi)$
0	0.1	0.9975	-0.09935	-0.241125	0.0245833333	0.0135416667	-7.8125E-4	-0.0013020833
1	0.3	0.97763	-0.1958	-0.226375	0.0354166667	0.0127604167	-0.00234375	0.0
2	0.5	0.93847	-0.28635	-0.205125	0.045625	0.0104166667	0.0	0.0
3	0.7	0.8812	-0.3684	-0.17775	0.0539583333	0.0	0.0	0.0
4	0.9	0.80752	-0.4395	-0.145375	0.0	0.0	0.0	0.0
5	1.1	0.71962	-0.49765	0.0	0.0	0.0	0.0	0.0
6	1.3	0.62009	0.0	0.0	0.0	0.0	0.0	0.0

Y(x)=[
0.9975 +
-0.09935 * (x - 0.1) +
-0.241125 * (x - 0.1)(x - 0.3) +
0.0245833333 * (x - 0.1)(x - 0.3)(x - 0.5) +
0.0135416667 * (x - 0.1)(x - 0.3)(x - 0.5)(x - 0.7) +
-7.8125E-4 * (x - 0.1)(x - 0.3)(x - 0.5)(x - 0.7)(x - 0.9) +
-0.0013020833 * (x - 0.1)(x - 0.3)(x - 0.5)(x - 0.7)(x - 0.9)(x - 1.1)
]

Resultado:
Pnx=0.8462850977