

Console

Inverse Lagrange interpolation x=

- 1.3139169

y	x	f(y0,y1)	f(y0,y1,y3)
0	0	1	0
1	1	0	0
8	2	0	0
27	3	0	0
64	4	0	0

Newton Divide Difference x(20)=2.81Warning : redefining function: P
uncprot(0) to avoid this message

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y	y1-y	x
27.0	-7	3
8.0	12	2
1.0	19	1
0.0	20	0
64.0	-44	4

Polynomials

2.631579
3.714286
20.000000
1.250000

2.923077
-20.714286
14.345238

-3.205128
-13.201531

-1.313917

Iterated Linear Interpolation $x(20) = -1.313917$

x	y	dy	d2y	d3y	d4y
0	0	1	6	6	0
1	1	7	12	6	0
2	8	19	18	0	0
3	27	37	0	0	0
4	64	0	0	0	0

Stage 1 :

$$27 + 19s$$

Stage 2 :

$$27 + 25s + 6s^2$$

Stage 3 :

$$27 + 27s + 9s^2 + s^3$$

$s_0 =$

$$- 0.3684211$$

$s_1 =$

$$- 0.2949410$$

$x_1 =$

$$2.705059$$

$s_2 =$

$$- 0.2840909$$

Suggested Interpolation $x(20) =$

$$2.7159091$$