

```

1  import math
2
3  def DD(x, y, yd, n):
4      dd = [[0] * n for _ in range(n)]
5
6      for i in range(n):
7          dd[i][0] = y[i]
8          dd[i][1] = yd[i]
9
10         for j in range(2, n):
11             for i in range(n - j):
12                 dd[i][j] = (dd[i + 1][j - 1] - dd[i][j - 1]) / (x[i + j] - x[i])
13
14         return dd
15
16 def Hermite(x, y, yd, n, num):
17
18     dd = DD(x, y, yd, n)
19     res = y[0]
20
21     for i in range(1, n):
22         prod = dd[0][i]
23         for j in range(i):
24             prod *= (num - x[j])
25         res += prod
26
27     return res
28
29
30 x = [0,0.25]
31 y = [0,1]
32 yd = [math.pi , 2*math.pi]
33 x0 = 0.125
34 v = Hermite(x, y, yd, x.__len__(), x0)
35 print("\nP(", x0, ") = ",round(v,5),"n")
36
37
38

```

up.edu.mx/Documents/UP/CUARTO SEMESTRE/CÁLCULO NUMÉRICO/hermite2.py"

P(0.125) = 0.3927

PS C:\Users\luisa\OneDrive - up.edu.