

Enter the x-coordinates of the data points as row vector: [8.3 8.6]
Enter the y-coordinates of the data points as row vector: [17.56492 18.50515]
Enter the derivative of y-coordinates of the function as row vector: [3.116256 3.151762]

The data is given in a table as:

x	f(x)	df(x)
8.30000000	17.56492000	3.11625600
8.60000000	18.50515000	3.15176200

Hermite divided difference table is given as:

8.3000000	17.5649200	3.1162560	0.0594800	-0.0020222
8.3000000	17.5649200	3.1341000	0.0588733	0.0000000
8.6000000	18.5051500	3.1517620	0.0000000	0.0000000
8.6000000	18.5051500	0.0000000	0.0000000	0.0000000

In the above table the entries of the first rows (from 2nd to 5th columns) are required to construct the interpolating polynomial.

Enter the point at which we want to find the value of the function : 8.4

The value of the Hermite interpolating polynomial (of degree less than or equal to 3 for the given data) at 8.40 is : 17.8771444

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