

Enter the x-coordinates of the data points as row vector: [8.1 8.3 8.6 8.7]  
Enter the y-coordinates of the data points as row vector: [16.94410 17.56492 18.50515 1

The data is given in a table as:

8.1000000	8.3000000	8.6000000	8.7000000
16.9441000	17.5649200	18.5051500	18.8209100

Newton divided difference table is given as:

8.1000000	16.9441000	3.1041000	0.0600000	-0.0020833
8.3000000	17.5649200	3.1341000	0.0587500	0.0000000
8.6000000	18.5051500	3.1576000	0.0000000	0.0000000
8.7000000	18.8209100	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 : 8.5

The value of the interpolating polynomial (of degree less than or equal to 3 for the given data) at 8.50 is : 18.1905567

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