

Machine Problem 3 (PYTHON)

The screenshot shows the Spyder Python IDE interface. The editor on the left contains a Python script named `MPprob3.py`. The script imports `numpy` and `ast`, takes user input for the number of data points `n`, and then iterates to collect data points `(x, y)`. It uses `np.polyfit` to fit a polynomial of degree `n-1` to the data and prints the coefficients.

```
1 import numpy as np
2 import ast
3
4 ns = input('Enter
5
6 n1 = ast.literal_
7 n = np.asarray(n1
8 print (n)
9
10 for i in range(ler
11     pf = np.polyf:
12     pv = np.polyvi
13     la = np.linalj
14     a = [i,la]
15
16     if i==0:
17         x = a
18     elif x[1] >= :
19         y = a[0]
20
21 pf = np.polyfit(n
22 print('The coeffi
23
24
```

The IPython console on the right shows the execution of the script. It prompts the user to enter data points in the form `[x,y],[x,y],...`. The user enters `[2, 1], [0, 5], [-1, 2]`. The console then displays the coefficients of the fitted polynomial: `[-1.66666667 1.33333333 5.]`.

Usage

Variable explorer File explorer Help

IPython console

Console 1/A

In [8]: `runfile('C:/Users/HP/Downloads/MP PROBLEMS/MPprob3.py', wdir='C:/Users/HP/Downloads/MP PROBLEMS')`

Enter the data point/s in the form [x,y],[x,y],...: `[2, 1], [0, 5], [-1, 2]`

`[[2 1]
[0 5]
[-1 2]]`

The coefficients are: `[-1.66666667 1.33333333 5.]`

In [9]:

Permissions: RW End-of-lines: CRLF Encoding: ASCII Line: 21 Column: 20 Memory: 88 %

Type here to search

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