

ASSIGNMENT 2

SCS 2211

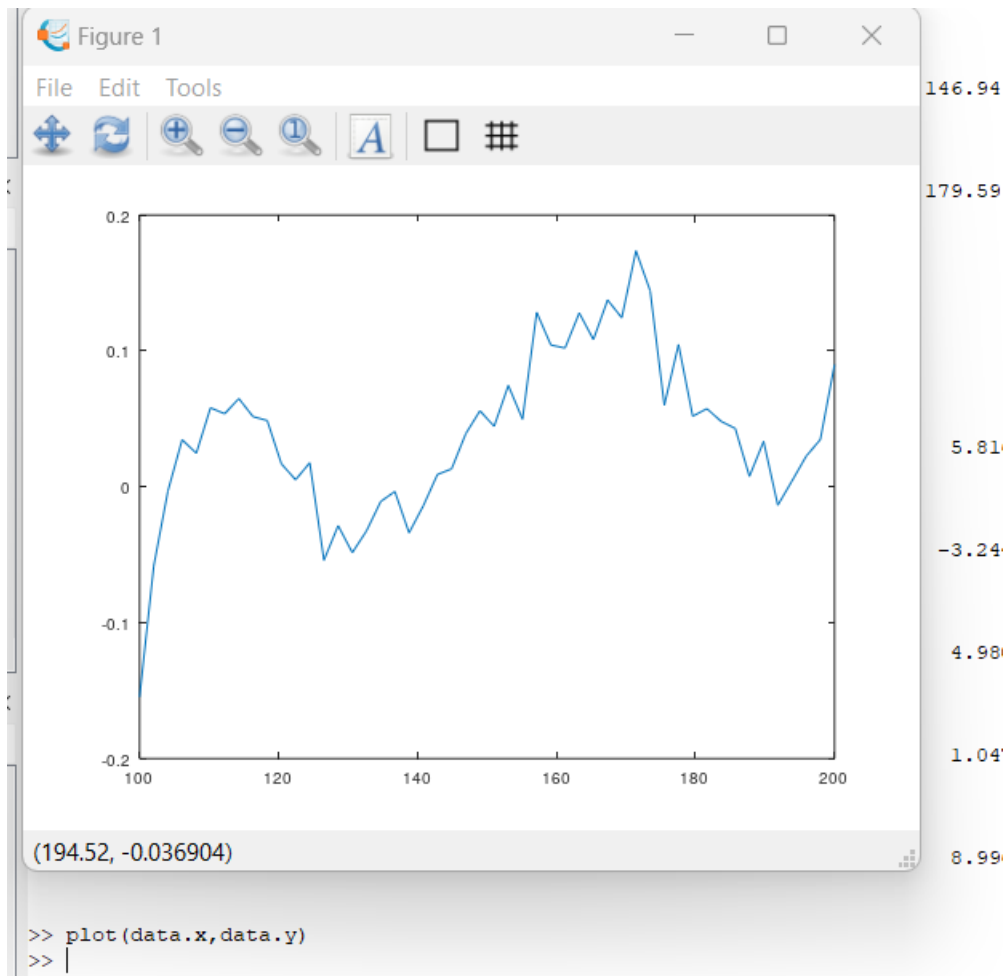
REG:2020/CS/041 Index:20000413

Question 1

```
plot at line 235 column 10
>> data =load('randomData.mat')
data =
    scalar structure containing the fields:

    x =
        Columns 1 through 16:
            100.00    102.04    104.08    106.12    108.16    110.20    112.24    114.29    116.33    118.37    120.41    122.45    124.49    126.53    128.57    130.61
        Columns 17 through 32:
            132.65    134.69    136.73    138.78    140.82    142.86    144.90    146.94    148.98    151.02    153.06    155.10    157.14    159.18    161.22    163.27
        Columns 33 through 48:
            165.31    167.35    169.39    171.43    173.47    175.51    177.55    179.59    181.63    183.67    185.71    187.76    189.80    191.84    193.88    195.92
        Columns 49 and 50:
            197.96    200.00

    y =
        Columns 1 through 11:
            -1.5465e-01    -5.8274e-02    -2.9792e-03    3.4672e-02    2.4714e-02    5.8163e-02    5.3791e-02    6.4944e-02    5.1647e-02    4.8813e-02    1.6917e-02
        Columns 12 through 22:
            5.2032e-03    1.7703e-02    -5.3988e-02    -2.8584e-02    -4.8410e-02    -3.2446e-02    -1.0810e-02    -3.4723e-03    -3.3836e-02    -1.4084e-02    9.0685e-03
        Columns 23 through 33:
            1.3219e-02    3.9124e-02    5.5949e-02    4.4541e-02    7.4607e-02    4.9800e-02    1.2844e-01    1.0436e-01    1.0215e-01    1.2794e-01    1.0841e-01
        Columns 34 through 44:
            1.3749e-01    1.2442e-01    1.7370e-01    1.4429e-01    6.0068e-02    1.0479e-01    5.1965e-02    5.7522e-02    4.8239e-02    4.2975e-02    7.6944e-03
        Columns 45 through 50:
            3.3439e-02    -1.3526e-02    4.3025e-03    2.2517e-02    3.4820e-02    8.9966e-02
```



```
>> e = polyfit(data.x,data.y,5)
e =
    3.3360e-09   -2.5226e-06    7.5248e-04   -1.1064e-01    8.0175e+00   -2.2907e+02

>> d = polyfit(data.x,data.y,4)
d =
   -2.0516e-08    1.1490e-05   -2.3790e-03    2.1724e-01   -7.4054e+00

>> c = polyfit(data.x,data.y,3)
c =
   -8.1914e-07    3.4496e-04   -4.6016e-02    1.9644e+00

>> b = polyfit(data.x,data.y,2)
b =
   -2.3657e-05    7.9975e-03   -6.0848e-01

>> a = polyfit(data.x,data.y,1)
a =
    9.0051e-04   -9.6730e-02
```

Question 2

```
>> A = [2 5 -1 4;1 1 1 1;4 -3 6 1;2 -5 -3 -1]
A =
```

```
     2     5     -1     4
     1     1     1     1
     4    -3     6     1
     2    -5    -3    -1
```

```
>> B = [0;0;0;7]
B =
```

```
     0
     0
     0
     7
```

```
>> y = inv(A)*B
y =
```

```
     3
     1
    -1
    -3
```

```
>> |
```

Question 3

Nargin: This is used to return the number of inputs to a function. If it is called with in the function returns the number of arguments passed to a function incase if it is called with an optional argument such as function name or handle it will return the number of arguments that the function will be able to accept.

Nargout: This will return the number of output arguments from a function

There is an error in the first function definition when defining a function the 'function ' keyword and variable name must be present then we can specify the function name with the parameters and do the operations with in the function. And it is important to mention 'endfunction' keyword. In the first answer function keyword is missing but the second one defines a function correctly.