CUREYA

TASK - 1

```
#  NUMBERS
A=2
B=1.5
print("Int(A)= ",int(A))
print("Int(B)= ",int(B))
print("Float(B)= ",float(B))
```

```
     Int(A)=  2
     Int(B)=  1
     Float(B)=  1.5
```

```
#  VARIABLES

Var_1 = 10
Var_2 = 20

Var_1,Var_2 = Var_2,Var_1

print("Var_1 = ",Var_1)
print("Var_2 = ",Var_2)
```

```
     Var_1 =  20
     Var_2 =  10
```

```
#  STRING

D = "Pritam"

print(D[-1])

print(D[2:])

print(D.capitalize())

print(D.index("a"))

D = D[::-1]
print(D)
```

```
     m
     itam
     Pritam
```

✓ 0s completed at 10:39 PM

```
L_1.append("21")
print(L_1)

print(L_1.pop(2))

L_2.reverse()
print(L_2)

L_2.sort()
print(L_2)
```

```
[10, 18, 'COLD', 12, 'HOT', 52, '21']
COLD
[14, 40, 12, 22, 48, 22]
[12, 14, 22, 22, 40, 48]
```

```
#  Tuples

T_1 = 4,2,6
T_2 = ('Tuesday','Thusday',2,8)

T_3 = (T_1 + T_2)
print(T_3)

print(T_3[1:4])

print(len(T_3))

print(type(T_3))

print(T_3.count(3))

del T_2

print(T_3)
```

```
(4, 2, 6, 'Tuesday', 'Thusday', 2, 8)
(2, 6, 'Tuesday')
7
<class 'tuple'>
0
(4, 2, 6, 'Tuesday', 'Thusday', 2, 8)
```

```
print(Employee.pop("Company"))
```

```
25
dict_items([('Name', 'Pritam'), ('Age', '25'), ('DOB', '08-03-1997'), ('Place'
Cureya
```

```
#  if-statement

import random
N_1 = random.randint(0,99)
N_2 = random.randint(0,99)

print('X=',N_1 ,',' 'Y=',N_2)

sum = eval(input("enter sum X+Y: "))
result = N_1 + N_2

if sum is result:
    print("TRUE")
else:
    print("False")
```

```
X= 52 ,Y= 66
enter sum X+Y: 108
False
```

```
#  For-loop

print(" The perfect numbers below 10000 are : ")
for A in range (1,10000):
    Y = 0
    for K in range (1,A):
        if A%K == 0:
          Y = Y + K
    if Y == A:
        print(A)
```

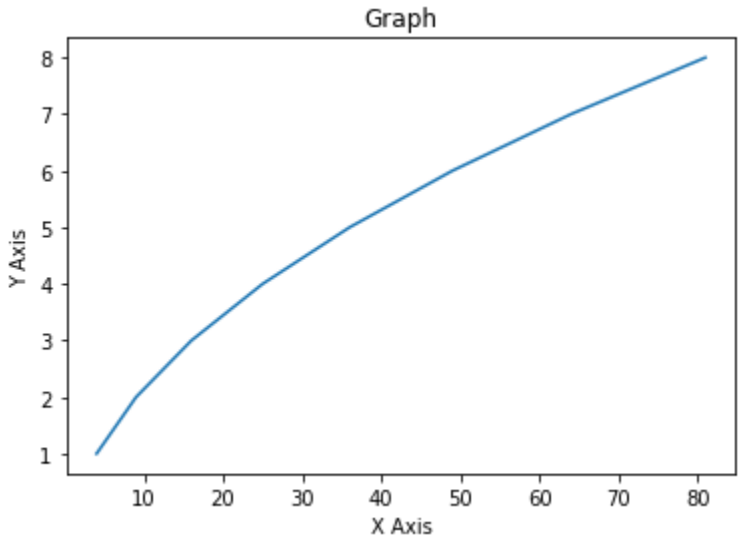
```
print("area of rectangle2 is ",X_1*Y_1)
print("perimeter of rectangle2 is ",2*(X_1+Y_1))

A = (X*Y)/(X_1*Y_1)

print("rectangle1 is ",int(A),"times bigger than rectangle2")
```

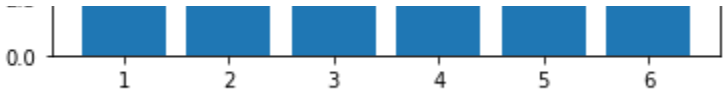
```
Area of Rectangle1 =  8
Perimeter of rectangle1 =  12
area of rectangle2 is  13.5
perimeter of rectangle2 is  15.0
rectangle1 is  0 times bigger than rectangle2
```

```
#  Numpy

import numpy as np

A = np.array([[5,6,4],[1,2,3]])
print(np.shape(A))

C =np.reshape(A,(3,2))
print(C)

K = np.max(A,1)
print(K)

P = np.max(A,0)
print(P)
```

```
(2, 3)
[[5 6]
 [4 1]
```

```
import numpy as np
from matplotlib import pyplot as plt

A = np.array([1,2,3,4,5,6,7,8])

#declaring the equation
X = A**2+A*2+1

plt.xlabel('X Axis')
plt.ylabel('Y Axis')

plt.title('Graph')

plt.plot(X,A)
plt.show()
```






```
#  Pandas

import pandas as pd

#assigning dataset
D = {'Name': ['Pritam',  'Riya',  'Ankita'],


'Roll': [20040,20041,20042],

'Section': ["F3", "F3", "F3"]}

Df= pd.DataFrame(D,columns=['Name',  'Roll',  'Section'])
print(Df)
```