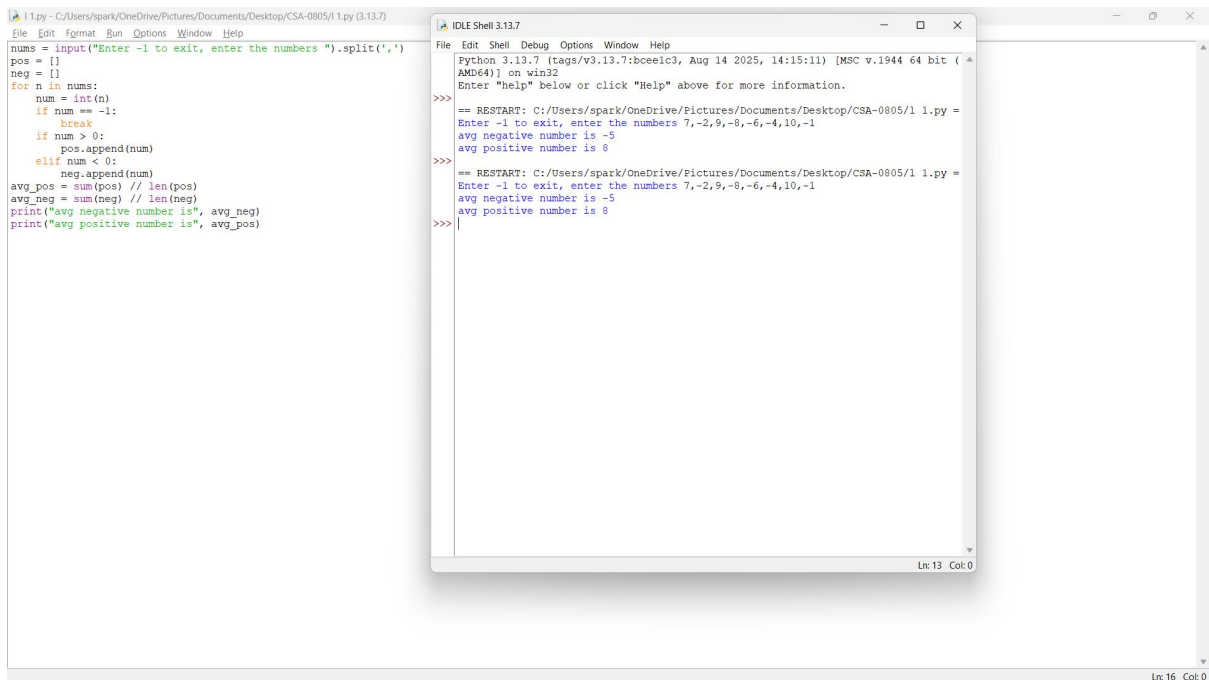


1. Read the number until -1 is encounter. find the avg of positive numbers and negative numbers entered by user

Sample Input:

Enter -1 to exit, enter the numbers 7,-2,9,-8,-6,-4,10,-1

Output: avg negative number is -5, avg positive number is 8



The screenshot shows a Python IDE with two windows. The left window displays the source code for a program that calculates the average of positive and negative numbers entered by the user until -1 is entered. The right window shows the execution output, which matches the sample input and output provided in the problem statement.

```
1.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/1 1.py (3.13.7)
File Edit Format Run Options Window Help
nums = input("Enter -1 to exit, enter the numbers ").split(',')
pos = []
neg = []
for n in nums:
    num = int(n)
    if num == -1:
        break
    if num > 0:
        pos.append(num)
    elif num < 0:
        neg.append(num)
avg_pos = sum(pos) // len(pos)
avg_neg = sum(neg) // len(neg)
print("avg negative number is", avg_neg)
print("avg positive number is", avg_pos)
```

```
IDLE Shell 3.13.7
Python 3.13.7 (tags/v3.13.7:bcee1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/1 1.py =
Enter -1 to exit, enter the numbers 7,-2,9,-8,-6,-4,10,-1
avg negative number is -5
avg positive number is 8
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/1 1.py =
Enter -1 to exit, enter the numbers 7,-2,9,-8,-6,-4,10,-1
avg negative number is -5
avg positive number is 8
>>>
```

1. Write a python program to find the square, cube of the given decimal number. Sample Input:

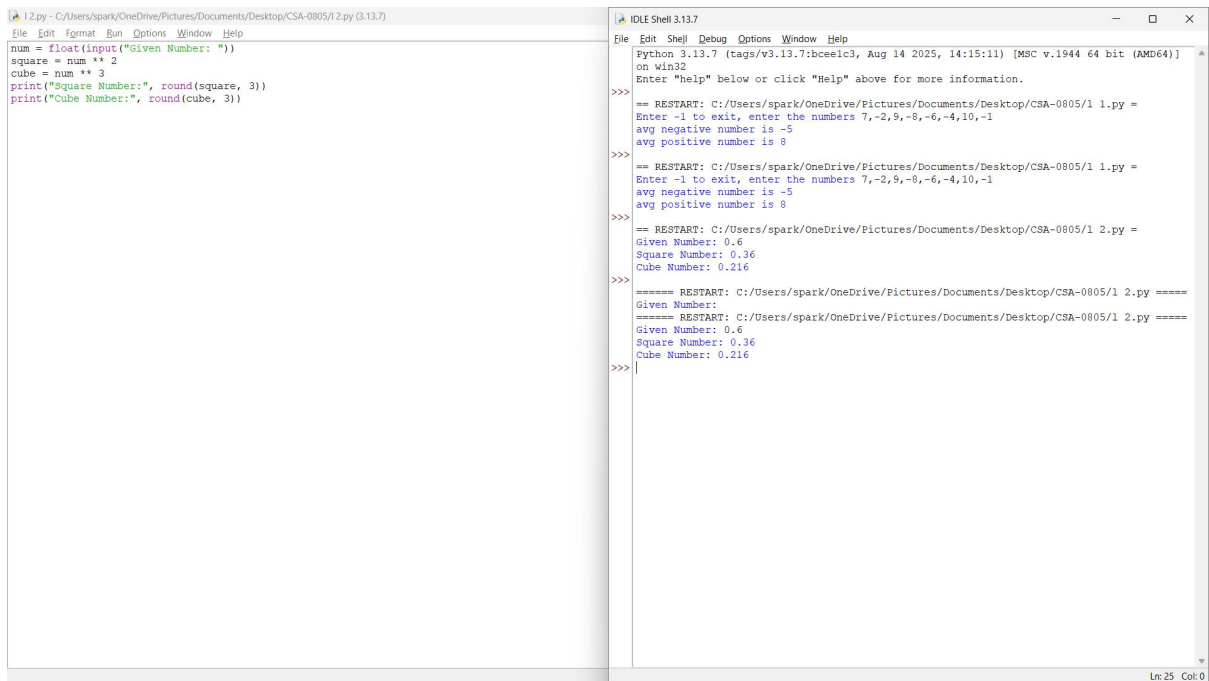
Given Number: 0.6

Output:

Square Number: 0.36

Cube

Number:0.216



The screenshot shows a Python IDE with two windows. The left window displays a Python script named 'l2.py' that takes a user input, calculates its square and cube, and prints the results rounded to three decimal places. The right window shows the IDLE Shell output, which includes a restart message, a list of numbers (7, -2, 9, -8, -6, -4, 10, -1), and the calculated square (0.36) and cube (0.216) for the input 0.6.

```
l2.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l2.py (3.13.7)
File Edit Format Run Options Window Help
num = float(input("Given Number: "))
square = num ** 2
cube = num ** 3
print("Square Number:", round(square, 3))
print("Cube Number:", round(cube, 3))

IDLE Shell 3.13.7
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)]
on win32
Enter "help" below or click "Help" above for more information.

>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l2.py ==
Enter -1 to exit, enter the numbers 7, -2, 9, -8, -6, -4, 10, -1
avg negative number is -5
avg positive number is 8

>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l2.py ==
Enter -1 to exit, enter the numbers 7, -2, 9, -8, -6, -4, 10, -1
avg negative number is -5
avg positive number is 8

>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l2.py ==
Given Number: 0.6
Square Number: 0.36
Cube Number: 0.216

>>>
===== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l2.py =====
Given Number:
===== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l2.py =====
Given Number: 0.6
Square Number: 0.36
Cube Number: 0.216

>>>
```

2. Write a python program to print the following pattern.

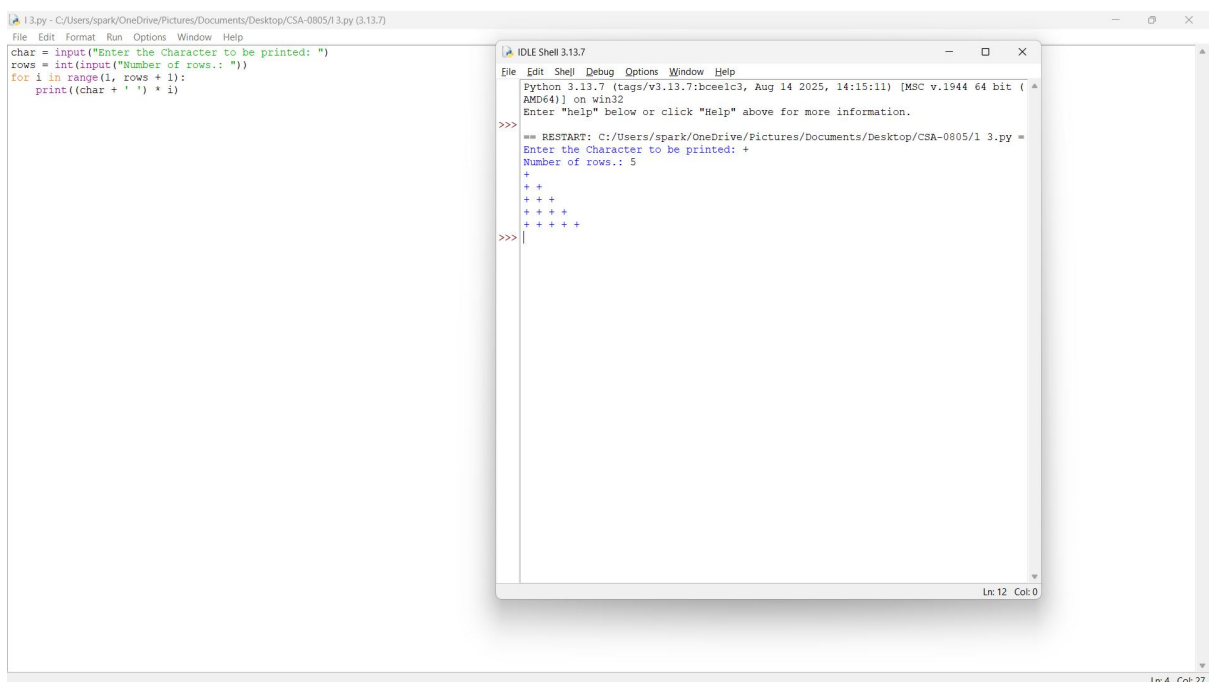
Sample Input:

Enter the Character to be printed: +

Number of rows.: 5

Output:

```
+
++
+++
++++
+++++
```



The screenshot shows a Python IDE with two windows. The left window displays a Python script named 'l3.py' that takes a character and a number of rows as input and prints a pattern of plus signs. The right window shows the IDLE Shell output, which includes a restart message, the input character '+', the number of rows '5', and the resulting pattern of plus signs.

```
l3.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l3.py (3.13.7)
File Edit Format Run Options Window Help
char = input("Enter the Character to be printed: ")
rows = int(input("Number of rows.: "))
for i in range(1, rows + 1):
    print((char + ' ') * i)

IDLE Shell 3.13.7
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)]
on win32
Enter "help" below or click "Help" above for more information.

>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l3.py ==
Enter the Character to be printed: +
Number of rows.: 5

+
++
+++
++++
+++++

>>>
```

3. Python Program to Display the Multiplication Table

Sample Input:

A=7

B=5

Output:

7 x 1 = 7

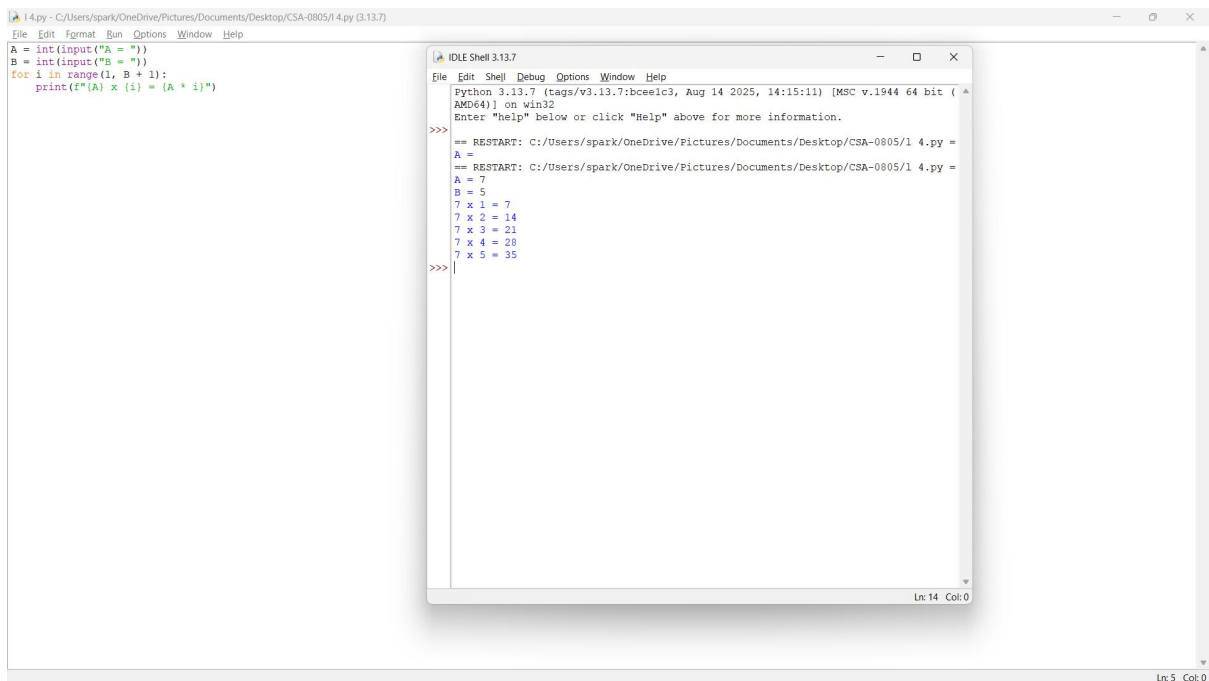
7 x 2 = 14

7 x 3 = 21

7 x 4 = 28

7 x 5 =

35



The screenshot shows a Python IDE window titled 'Python 3.13.7'. The main editor displays the following code:

```
A = int(input("A = "))
B = int(input("B = "))
for i in range(1, B + 1):
    print(f"{A} x {i} = {A * i}")
```

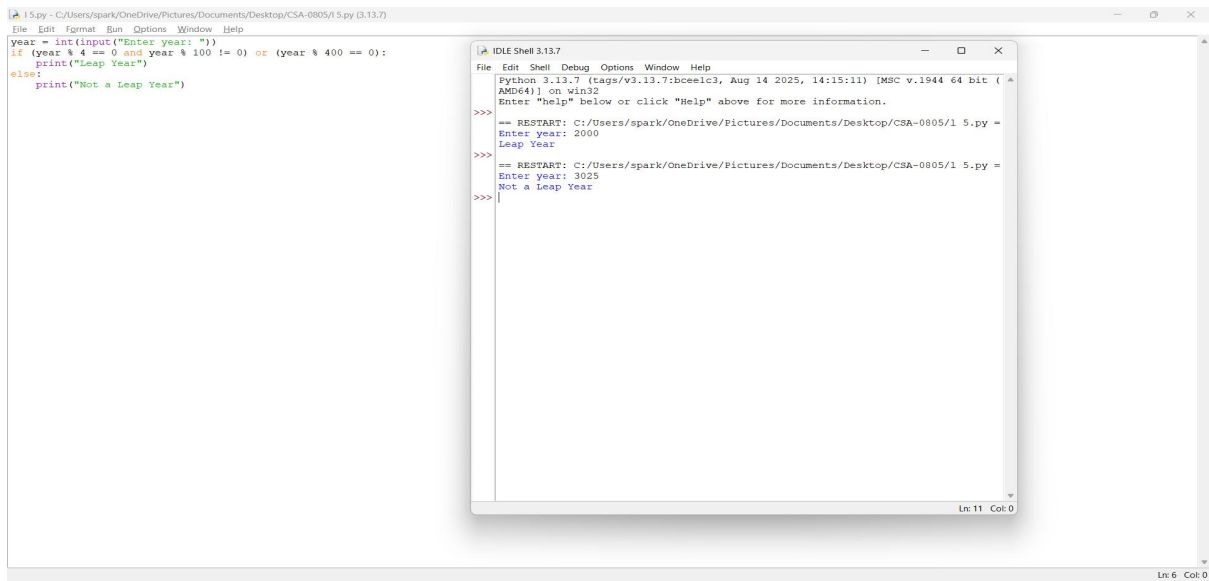
The output window shows the execution of the program. It displays the prompts and inputs for A and B, followed by the multiplication table output:

```
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/1 4.py ==
A =
A = 7
B =
B = 5
7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
>>>
```

4. Write a program to find whether it is leap year or not?

Sample Input: 2000

Output: Leap Year



The screenshot shows a Python IDE with a file named `l5.py` containing a leap year checker program. The program prompts the user to enter a year and checks if it is a leap year based on the rules: a year is a leap year if it is divisible by 4 and not by 100, or if it is divisible by 400. The IDE's shell window shows the program being executed twice: first with the input 2000, which is a leap year, and then with the input 3025, which is not a leap year.

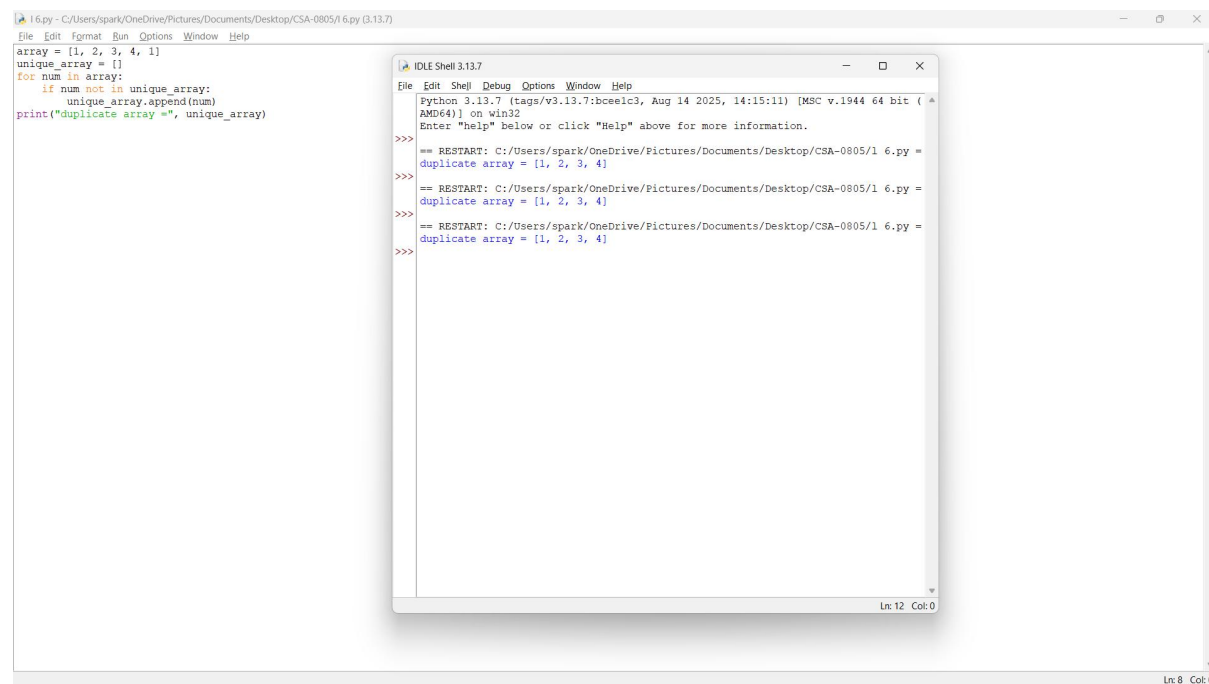
```
l5.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l5.py (3.13.7)
File Edit Format Run Options Window Help
year = int(input("Enter year: "))
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("Leap Year")
else:
    print("Not a Leap Year")

IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceec13, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l5.py =
Enter year: 2000
Leap Year
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l5.py =
Enter year: 3025
Not a Leap Year
>>>
```

5. Write a program to find out the duplicate array

Sample Input: array={1,2,3,4,1}

1. Output: duplicate array={1,2,3,4}



The screenshot shows a Python IDE with a file named `l6.py` containing a program to find duplicate elements in an array. The program initializes an array `[1, 2, 3, 4, 1]` and a set `unique_array`. It iterates through the array, adding elements to the set if they are not already present. Finally, it prints the set of unique elements. The IDE's shell window shows the program being executed three times, each time displaying the output `duplicate array = {1, 2, 3, 4}`.

```
l6.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l6.py (3.13.7)
File Edit Format Run Options Window Help
array = [1, 2, 3, 4, 1]
unique_array = set()
for num in array:
    if num not in unique_array:
        unique_array.add(num)
print("duplicate array =", unique_array)

IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceec13, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l6.py =
duplicate array = {1, 2, 3, 4}
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l6.py =
duplicate array = {1, 2, 3, 4}
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l6.py =
duplicate array = {1, 2, 3, 4}
>>>
```

6. Check whether the number is positive or negative

Sample Input:23

Output: positive

```
l7.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l7.py (3.13.7)
File Edit Format Run Options Window Help
num = int(input("Enter a number: "))
if num > 0:
    print("positive")
elif num < 0:
    print("negative")
else:
    print("zero")

IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceec13, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l7.py ==
Enter a number: 32
positive
>>>
```

7. Write a python program to find the average of mean median mode

Sample Input: [12,45,83,52]/4

1. Output: utput:48

```
l8.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l8.py (3.13.7)
File Edit Format Run Options Window Help
data = [12, 45, 83, 52]
mean = sum(data) / len(data)
data.sort()
n = len(data)
if n % 2 == 0:
    median = (data[n//2 - 1] + data[n//2]) / 2
else:
    median = data[n//2]
mode = None
for i in data:
    if data.count(i) > 1:
        mode = i
        break
if mode is None:
    mode = data[0]
average = (mean + median + mode) / 3
print("Output:", int(average))

IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceec13, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/l8.py ==
Output: 36
>>>
```

8. Write a python program to store the arrays in non-increasing order

Sample Input:[1,8,3,4,0]

1. Output:[8,4,3,1,0]

```
9.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/9.py (3.13.7)
File Edit Format Run Options Window Help
input_str = input("Enter array : ")
input_str = input_str.strip(" ")
arr = list(map(int, input_str.split(',')))
arr.sort(reverse=True)
print("Output:", arr)

IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceec13, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/9.py =
Enter array : [1,8,3,4,0]
Output: [8, 4, 3, 1, 0]
>>>
```

9. Write a Python Program to Intersecting an elements

Sample Input:

(2,3,4,5)

(3,4,8,6)

Output:

1. (3,4)

```
10.py - C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/10.py (3.13.7)
File Edit Format Run Options Window Help
a = (2, 3, 4, 5)
b = (3, 4, 8, 6)
result = tuple(set(a) & set(b))
print("Output:", result)

IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceec13, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
== RESTART: C:/Users/spark/OneDrive/Pictures/Documents/Desktop/CSA-0805/10.py =
Output: (3, 4)
>>>
```