LAB 09/05/2025

Lab1

```python
# Write a program for arithmatic operators

i = 1
num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: "))
while i == 1:
   print("1: Add")
   print("2: Subtract")
   print("3: Multiply")
   print("4: Divide")
   choice = int(input("Enter your choice: "))
   if choice == 1:
       result = num1 + num2
       print("Result:", result)
       i = 2
   elif choice == 2:
       result = num1 - num2
       print("Result:", result)
       i = 2
   elif choice == 3:
       result = num1 * num2
       print("Result:", result)
       i = 2
   elif choice == 4:
       if num2 != 0:
           result = num1 / num2
           print("Result:", result)
           i = 2
       else:
           print("Cannot divide by zero")
           i = 2
   else:
       print("Invalid choice Please Enter a valid choice")
       i = 1
```

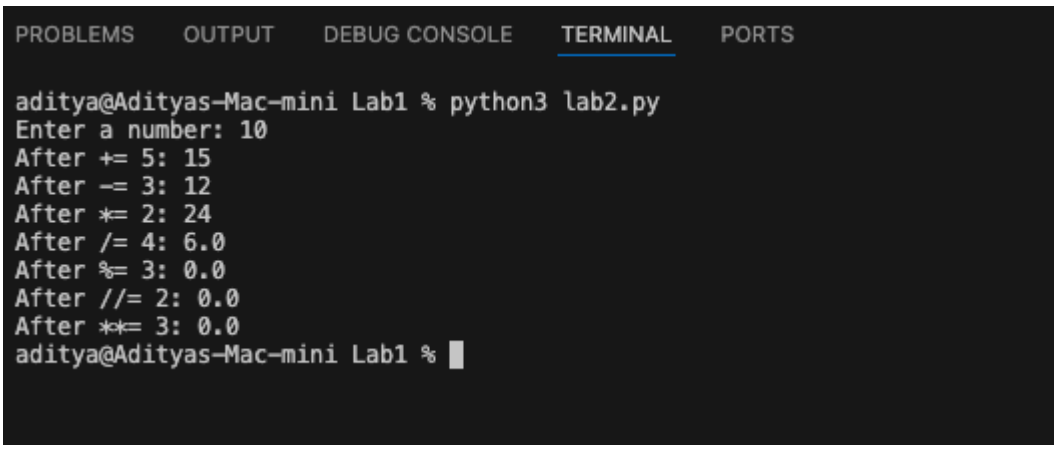
Output :

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

aditya@Adityas-Mac-mini Lab1 % python3 lab1.py
Enter first number: 10
Enter second number: 20
1: Add
2: Subtract
3: Multiply
4: Divide
Enter your choice: 1
Result: 30.0
aditya@Adityas-Mac-mini Lab1 %
```

Lab2

```python
# Write a program for assignment operators

num = int(input("Enter a number: "))

num += 5
print("After += 5:", num)
num -= 3
print("After -= 3:", num)
num *= 2
print("After *= 2:", num)
num /= 4
print("After /= 4:", num)
num %= 3
print("After %= 3:", num)
num //= 2
print("After //= 2:", num)
num **= 3
print("After **= 3:", num)
```

Output :



Lab3 :

```python
# Write a program for Bitwise operators

num1 = int(input("Enter first number: "))
num2 = int(input("Enter second number: "))
print("Bitwise AND:", num1 & num2)
print("Bitwise OR:", num1 | num2)
print("Bitwise XOR:", num1 ^ num2)
print("Bitwise NOT:", ~num1)
print("Left Shift:", num1 << 2)
print("Right Shift:", num1 >> 2)
```

Output

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

aditya@Adityas-Mac-mini Lab1 % python3 lab3.py
Enter first number: 5
Enter second number: 7
Bitwise AND: 5
Bitwise OR: 7
Bitwise XOR: 2
Bitwise NOT: -6
Left Shift: 20
Right Shift: 1
aditya@Adityas-Mac-mini Lab1 %
```

Lab4

```python
# Write a program to calculate greatest of three numbers.

num1 = int(input("Enter first number: "))
num2 = int(input("Enter second number: "))
num3 = int(input("Enter third number: "))

largest= num1
if num2 > largest:
   largest = num2
if num3 > largest:
   largest = num3
print("The largest number is:", largest)
```

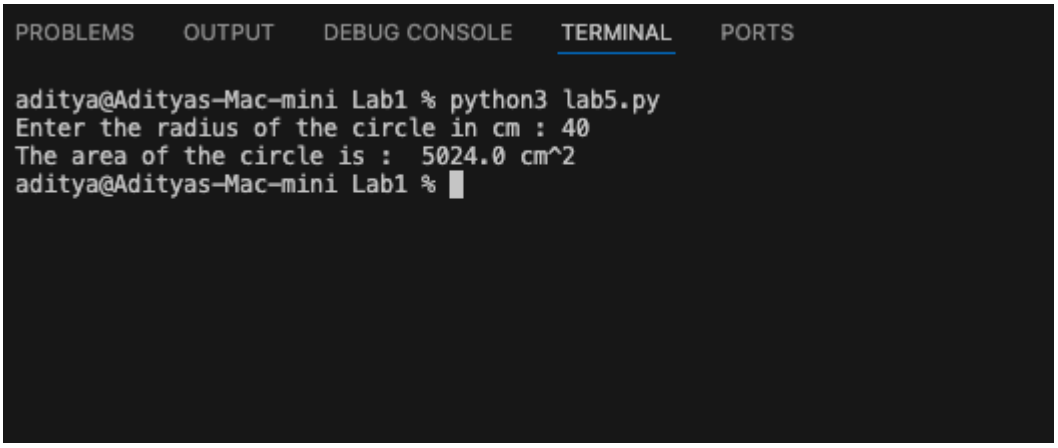
Output :

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

aditya@Adityas-Mac-mini Lab1 % python3 lab4.py
Enter first number: 10
Enter second number: 40
Enter third number: 20
The largest number is: 40
aditya@Adityas-Mac-mini Lab1 %
```

Lab5

```python
# Calculate the area of a circle.

radius = float(input("Enter the radius of the circle in cm : "))
area = 3.14 * radius * radius
print("The area of the circle is : ", area, "cm^2")
```

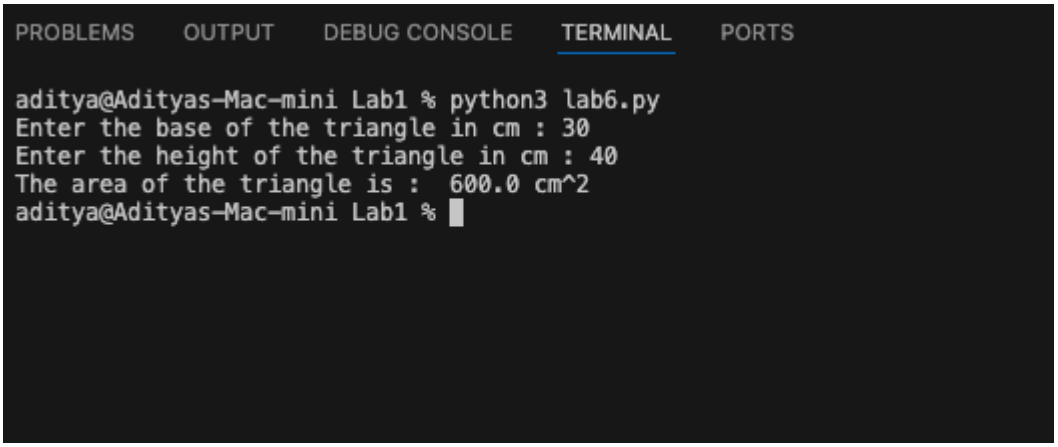
Output :



Lab6

```python
# Calculate the area of a triangle.

base = float(input("Enter the base of the triangle in cm : "))
height = float(input("Enter the height of the triangle in cm : "))
area = (base * height)/2
print("The area of the triangle is : ", area, "cm^2")
```

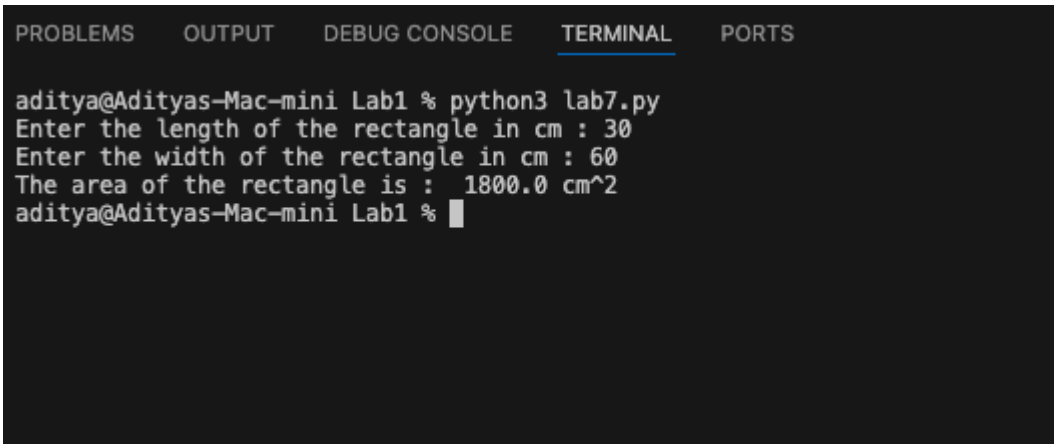
Output :



Lab7

```python
# Calculate the area of a rectangle.

length = float(input("Enter the length of the rectangle in cm : "))
width = float(input("Enter the width of the rectangle in cm : "))
area = length * width
print("The area of the rectangle is : ", area, "cm^2")
```

Output :



Lab8

```python
# Calculate the area of a square.

area = float(input("Enter the side of the square in cm : "))
area = area * area
print("The area of the square is : ", area, "cm^2")
```

Output :