1.Find the Sum of N Natural Numbers in Python

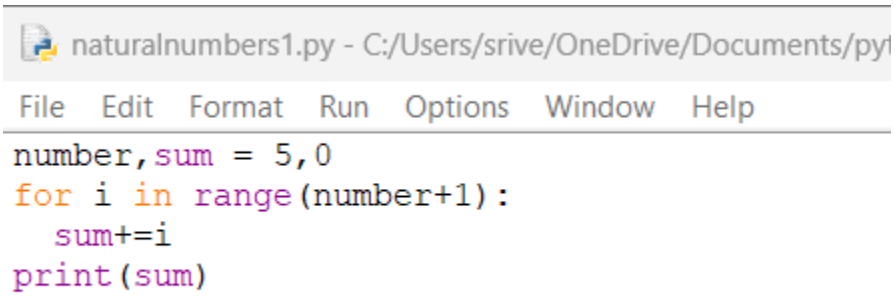
Given an integer input number, the objective is to sum all the numbers that lay from 1 to the integer input number and print the sum. In order to do so we usually use iteration to sum all the numbers until the input variable number.

Example
Input : number = 5
Output : 15
Explanation : 1 + 2 + 3 + 4 + 5 = 15

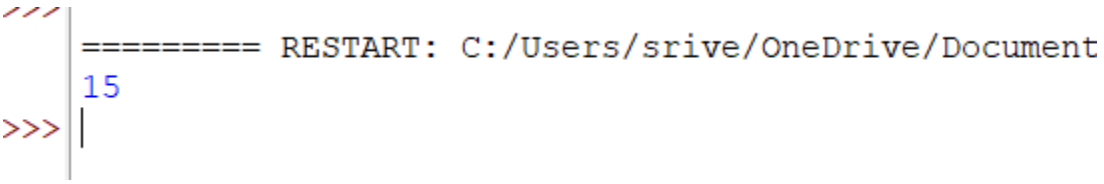
Method 1: Using for Loop

In this method we'll use for loops to iterate through all the numbers until the integer input "number" is reached.

Python Code:



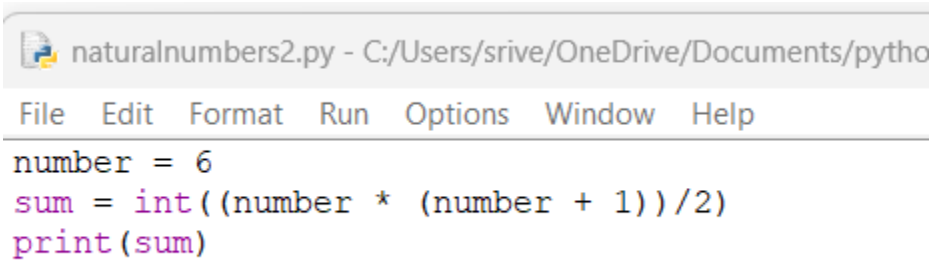
Output:



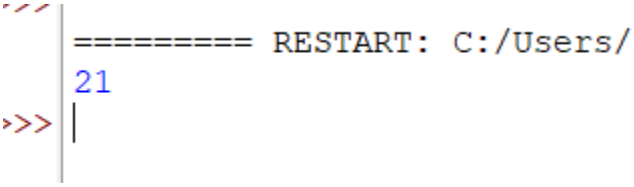
Method 2: Using the Formula

In this method we'll use the formula for finding the sum of N integers in a series from series and sequences i.e sum = number * (number + 1) / 2 to calculate the sum until the given integer input.

Python Code:



Output:



2.Find the Sum of the Numbers in a Given Range

Given two integer inputs as the range [low , high], the objective is to find the sum of the numbers that lay in the intervals given by the integer inputs. Therefore we'll write a code to Find the Sum of the Numbers in a Given Range in Python Language.

Example
Input : 3 9
Output : 42

Method 1: Using Brute Force

In this method we'll use loops like for, while and do while to sum all the numbers that lay in the intervals of the given input integers.

Python Code:

range1.py - C:/Users/srive/OneDrive/Documents/python,

File Edit Format Run Options Window Help

```
#method1
num1, num2 = 3, 9
sum = 0
for i in range(num1,num2+1):
  sum+=i
print(sum)
```

Output:

```
>>>
========== RESTART: C:/Users/sri
42
>>>
```

Method 2: Using the Formula

In this method we'll use formula mentioned below to find the sum of all the numbers that lay in the interval given by the input variable.

Python Code:

range2.py - C:/Users/srive/OneDrive/Documents/python/range2.py (3.13.2)

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```
#method2
num1, num2 = 5,8
sum = int((num2*(num2+1)/2) - (num1*(num1+1)/2) + num1)
print(sum)
```

Output:

```
>>>
========== RESTART: C:/Users/srive/OneDri
26
>>>
```

3.Find the Greatest of the Two Numbers

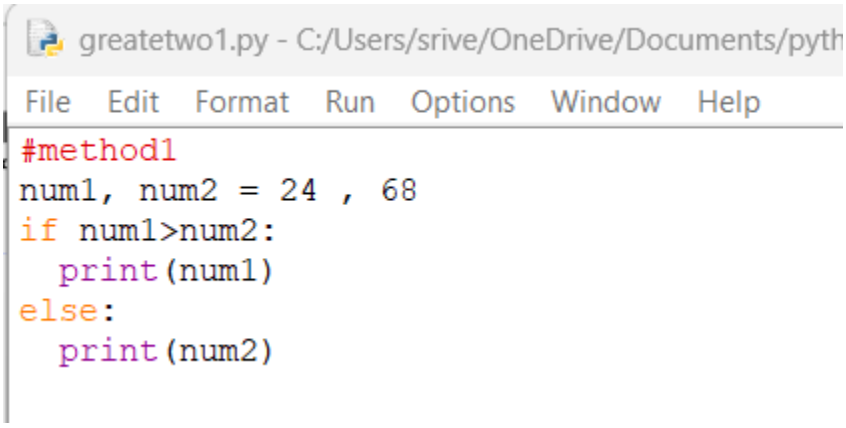
Given two integer inputs as number1 and number2, the objective is to find the largest among the two. Therefore we'll write a code to Find the Greatest of the Two Numbers in Python Language.

Example
Input : 24 68
Output : 68

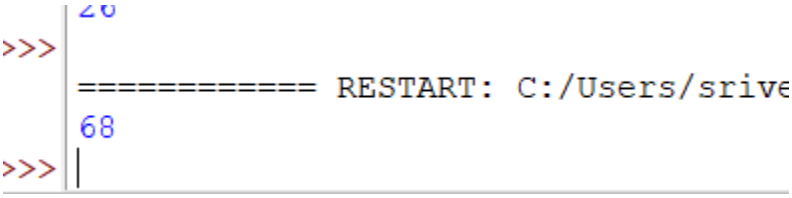
Method 1: Using if-else Statements

In this method we'll find the Largest Number using simple if-else statements.

Python Code:



Output:



Method 2: Using Ternary Operator

In this method we'll use Ternary Operator in Python to find the Largest Number among the two input integers.

Python Code:

```
#method2
num1, num2 = 20 , 30
print((num1 if num1>num2 else num2))
```

Output:

```
>>
============ RESTA
30
>>
```