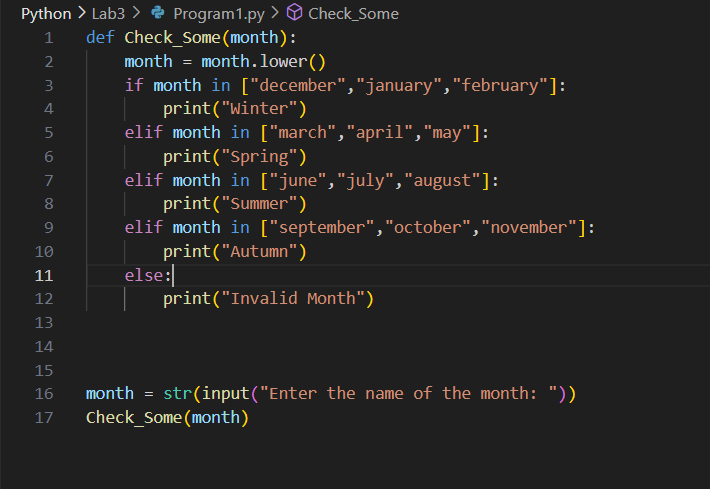
**Lab Assignment 3**

1. Write a function called check-season, it takes a month parameter and returns the season:

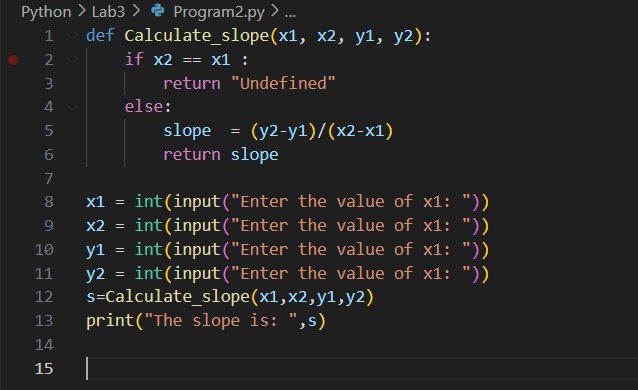
Autumn, Winter, Spring or Summer.



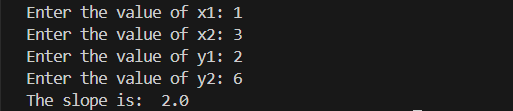
Output :

1.o

1. Write a function called calculate\_slope which return the slope of a linear equation .

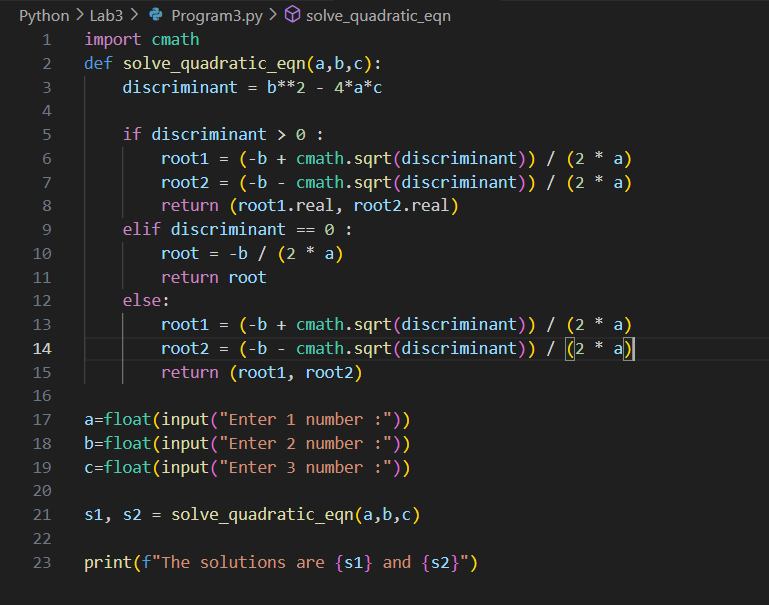


Output:

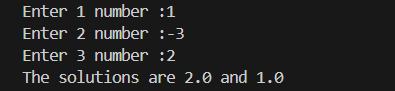


1. Quadratic equation is calculated as follows: ax² + bx + c = 0. Write a function which calculates

solution set of a quadratic equation, \_solve\_quadratic\_eqn\_.

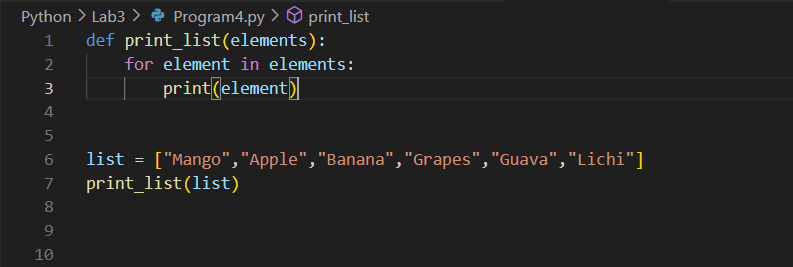


Output:



1. Declare a function named print\_list. It takes a list as a parameter and it prints out each

element of the list.

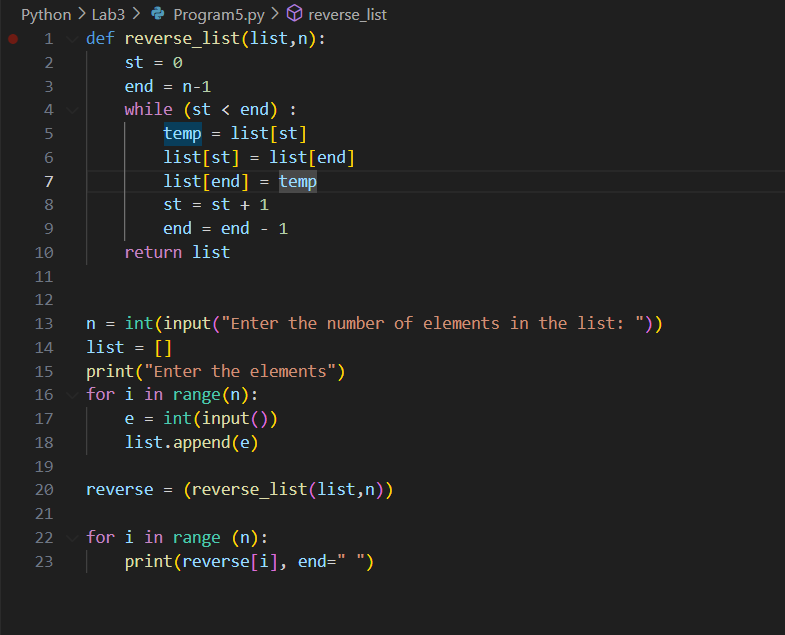


Output:

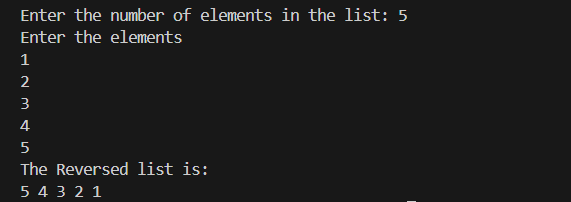


1. Declare a function named reverse\_list. It takes an array as a parameter and it returns the

reverse of the array (use loops).

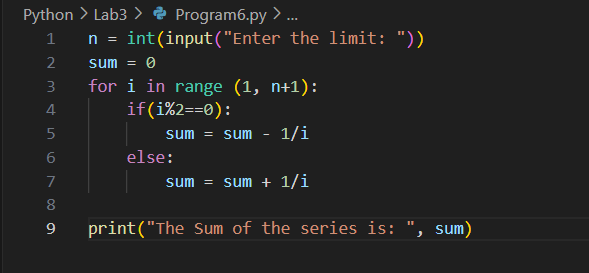


Output:

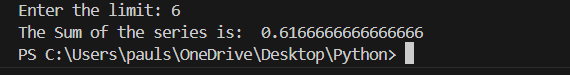


1. Compute the sum up to n terms in the series

1 - 1/2 + 1/3 - 1/4 + 1/5 -... 1/n where n is a positive integer and input by user.



Output:

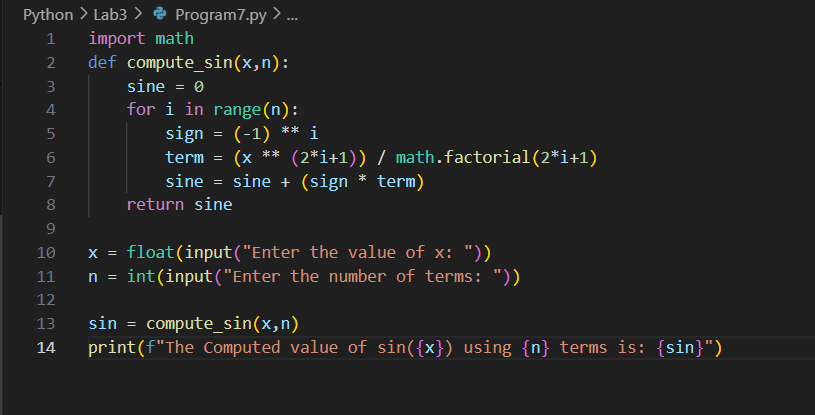


1. Write a program to compute sin x for given x. The user should supply x and a positive integer

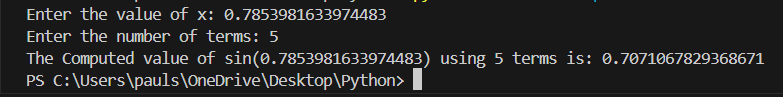
n. We compute the sine of x using the series and the computation should use all terms in the

series up through the term involving xn

sin x = x - x3/3! + x5/5! - x7/7! + x9/9! ........



Output:

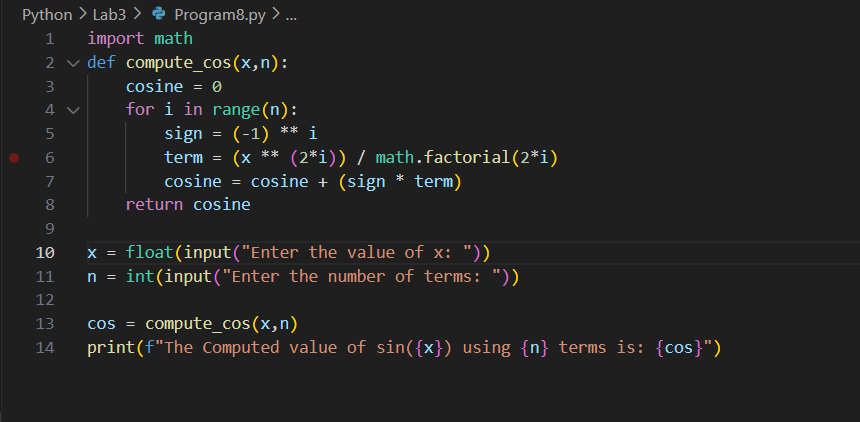


1. Write a program to compute cosine of x. The user should supply x and a positive integer n.

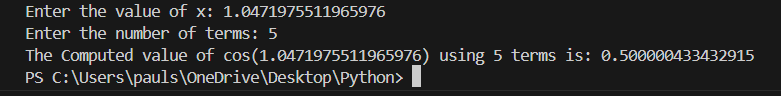
We compute the cosine of x using the series and the computation should use all terms in the

series up through the term involving xn

cos x = 1 - x2/2! + x4/4! - x6/6! ....



Output:



1. Print the pattern upto N Lines:

.

/\_\

N=2

.

/ \

/\_\_\_\

N=3

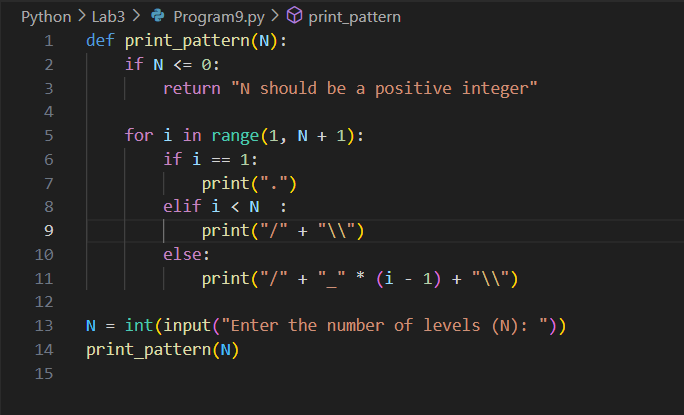
.

/ \

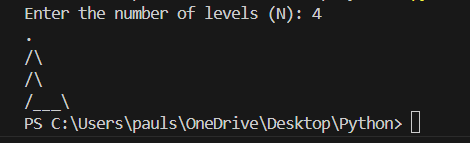
/ \

/\_\_\_\_\_\

N=4



Output:



1. Print a number as a 8 segment display N Lines:

\_

\_|

|\_

N=2

\_

\_|

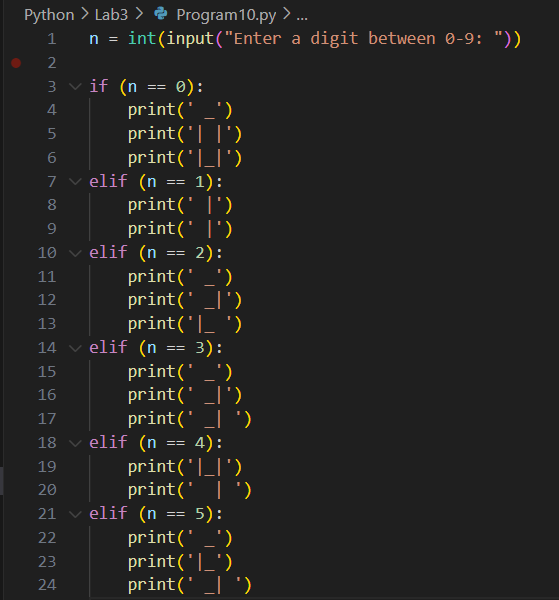
\_|

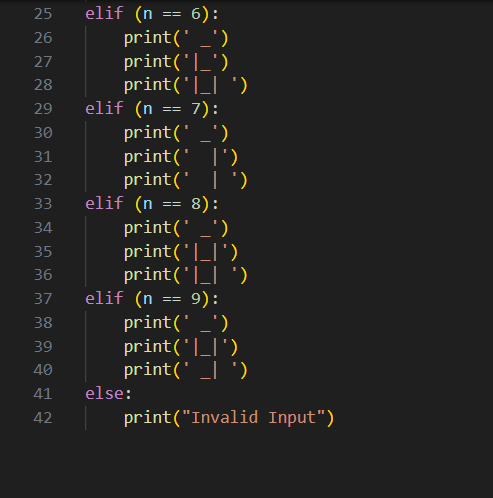
N=3

|\_|

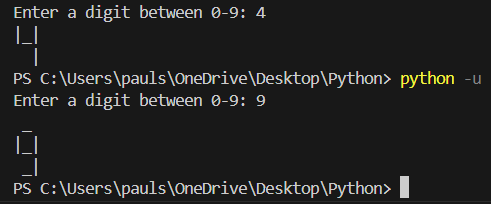
|

N=4





Output:



1. Print the pattern upto N lines:

1 2

4 3

N=2

1 2 3

8 9 4

7 6 5

N=3

1 2 3 4

12 13 14 5

11 16 15 610 9 8 7

N=4

1. Write a python script that displays the following table

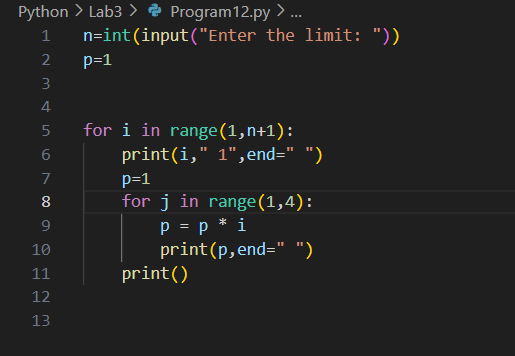
1 1 1 1 1

2 1 2 4 8

3 1 3 9 27

4 1 4 16 64

5 1 5 25 125



Output:

