**BASIC PROGRAMMING ASSIGNMENT\_23 -SUBMITTED BY SAMUEL DEVDAS**

Question 1

Create a function that takes a number as an argument and returns True or False depending on whether the number is symmetrical or not. A number is symmetrical when it is the same as its reverse.

**Examples**

is\_symmetrical(7227) ➞ True

is\_symmetrical(12567) ➞ False

is\_symmetrical(44444444) ➞ True

is\_symmetrical(9939) ➞ False

is\_symmetrical(1112111) ➞ True

Ans.

def is\_symmetrical(num):

if str(num)==str(num)[::-1]:

return(True)

else:

return False

is\_symmetrical(1112111)

Question 2

Given a string of numbers separated by a comma and space, return the product of the numbers.

### Examples

multiply\_nums("2, 3") ➞ 6

multiply\_nums("1, 2, 3, 4") ➞ 24

multiply\_nums("54, 75, 453, 0") ➞ 0

multiply\_nums("10, -2") ➞ -20

Ans.

def multiply\_nums(nums):

nums\_split=nums.split(sep=',')

prod=1

for nums in nums\_split:

prod=prod\*int(nums)

return prod

multiply\_nums("10, -2")

Question 3

Create a function that squares every digit of a number.

### Examples

square\_digits(9119) ➞ 811181

square\_digits(2483) ➞ 416649

square\_digits(3212) ➞ 9414

### Notes

The function receives an integer and must return an integer.

Ans.

def square\_digits(numb):

numb\_split=[int(i) for i in str(numb)]

squares=[]

for nums in numb\_split:

squares.append(nums\*nums)

string\_square=''

for num in squares:

string\_square+=str(num)

return(int(string\_square))

square\_digits(2483)

Question 4

Create a function that sorts a list and removes all duplicate items from it.

### Examples

setify([1, 3, 3, 5, 5]) ➞ [1, 3, 5]

setify([4, 4, 4, 4]) ➞ [4]

setify([5, 7, 8, 9, 10, 15]) ➞ [5, 7, 8, 9, 10, 15]

setify([3, 3, 3, 2, 1]) ➞ [1, 2, 3]

Ans.

def setify(numbs):

return list(set(numbs))

setify([3, 3, 3, 2, 1])

Question 5

Create a function that returns the mean of all digits.

### Examples

mean(42) ➞ 3

mean(12345) ➞ 3

mean(666) ➞ 6

### Notes

* The mean of all digits is the sum of digits / how many digits there are (e.g. mean of digits in 512 is (5+1+2)/3(number of digits) = 8/3=2).
* The mean will always be an integer.

Ans.

def mean(numb):

numb\_split=[int(i) for i in str(numb)]

mean=sum(numb\_split)/len(numb\_split)

return round(mean)

mean(12345)