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(n):**

**str\_num = str(n)**

**l = len(str\_num)**

**for i in range( 0 , l-1 ):**

**if( str\_num[i] == str\_num[ l-1-i]):**

**continue**

**else:**

**return False**

**return True**

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( str):**

**tmp = 1**

**for i in str:**

**if( ord(i) < 58 and ord(i) > 47):**

**tmp = tmp\*int(i)**

**return tmp**

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( n ):**

**str\_n = str(n)**

**res = ""**

**for i in str\_n:**

**res = res + str(int(i)\*int(i))**

**return int(res)**

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( lst ):**

**new\_list = []**

**for i in lst:**

**if( i not in new\_list):**

**new\_list.append(i)**

**return new\_list**

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(n):**

**digit = 0**

**sum = 0**

**while ( n != 0):**

**sum = sum + n%10**

**n = int( n/10)**

**digit = digit +1**

**return int(sum/digit)**