**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**

def is\_symmetrical(num):

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

print(is\_symmetrical(7227)) # True

print(is\_symmetrical(12567)) # False

print(is\_symmetrical(44444444)) # True

print(is\_symmetrical(9939)) # False

print(is\_symmetrical(1112111)) # 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**

def multiply\_nums(nums):

# Splitting the string and converting each number from string to int

num\_list = [int(num) for num in nums.split(", ")]

# Initializing product with first number

product = num\_list[0]

# Multiplying all the numbers one by one

for num in num\_list[1:]:

product \*= num

return product

print(multiply\_nums("2, 3")) # Output: 6

print(multiply\_nums("1, 2, 3, 4")) # Output: 24

print(multiply\_nums("54, 75, 453, 0")) # Output: 0

print(multiply\_nums("10, -2")) # Output: -20

**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.**

def square\_digits(num):

result = ""

for digit in str(num):

result += str(int(digit)\*\*2)

return int(result)

print(square\_digits(9119)) # Output: 811181

print(square\_digits(2483)) # Output: 416649

print(square\_digits(3212)) # Output: 9414

**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]**

def setify(lst):

return sorted(list(set(lst)))

print(setify([1, 3, 3, 5, 5])) # Output: [1, 3, 5]

print(setify([4, 4, 4, 4])) # Output: [4]

print(setify([5, 7, 8, 9, 10, 15])) # Output: [5, 7, 8, 9, 10, 15]

print(setify([3, 3, 3, 2, 1])) # Output: [1, 2, 3]

**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.**

def mean(num):

digits = [int(d) for d in str(num)]

return sum(digits) // len(digits)

print(mean(42)) # Output: 3

print(mean(12345)) # Output: 3

print(mean(666)) # Output: 6