Q1. Write a function called list\_average(lst) that takes a list of

numbers lst as a parameter and returns the average of the

numbers in the list.

def list\_average(lst):

    numbers = sum(lst) / 6

    return numbers

average = list\_average([10, 20, 30, 40, 50, 60])

print(average)

"""

Write a function called dictionary\_value\_sum(d) that takes a

dictionary d as a parameter, where the values are numbers, and

returns the sum of all the values in the dictionary.

"""

def dictionary\_value\_sum(d):

    dict = {"a": 1, "b": 2, "c": 3, "d": 4, "e": 5}

    items = list(dict.values())

    d = sum(items)

    return d

sum\_items = dictionary\_value\_sum({"a": 1, "b": 2, "c": 3, "d": 4, "e": 5})

print(sum\_items)

"""

Q3. Write a function called filter\_even\_numbers(lst) that takes a

list of integers lst as a parameter and returns a new list containing

only the even integers from the input list.

"""

def filter\_even\_numbers(lst):

    l1 = [-5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5]

    l2 = []

    for i in range(0, len(l1)):

        if l1[i] % 2 == 0:

            l2.append(l1[i])

    return l2

even\_num = filter\_even\_numbers([-5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5])

print(even\_num)

"""

Q4. Write a function called union\_of\_sets(set\_a, set\_b) that

takes two sets set\_a and set\_b as parameters and returns a new

set containing the union of the two input sets.

"""

def union\_of\_sets(set\_a, set\_b):

    set\_a = {1, 2, 3}

    set\_b = {3, 4, 5}

    union\_set = set\_a.union(set\_b)

    return union\_set

x = union\_of\_sets({1, 2, 3}, {3, 4, 5})

print(x)

"""

Q5. Write a function called is\_palindrome(s) that takes a string s

as a parameter and returns True if the string is a palindrome

(reads the same forward and backward), otherwise False.

"""

def is\_palindrome(s):

    str = input("Enter a str: ")

    if str == str[::-1]:

        return True

    else:

        return False

palin = is\_palindrome("")

print(palin)

"""

Q6. Write a function called get\_factors(n) that takes an integer n

as a parameter and returns a list of its factors, excluding 1 and the

number itself.

"""

def get\_factors(n):

    n1 = int(input("Enter a no:   "))

    l1 = []

    for i in range(2, n1 - 1):

        if n1 % i == 0:

            l1.append(n1 // i)

            i += 1

    return l1

x = get\_factors(6)

print(x)