```python

# 1.creating list 10 integer
'''list_integer = [1,2,3,4,5,6,7,8,9,10]'''

# 2.creating list with 5 string
'''list_string = ["11", "A", "B", "True","5.5"]'''

# 3.print the above 2 list
'''print(list_integer, list_string)'''

# 4.print the above 2 lists alues one value in each line
'''for integer in list_integer:
    print(integer)

for string in list_string:
    print(string)
'''

# 5.print the sum of values in the list
'''list_integer = [1,2,3,4,5,6,7,8,9,10]
print(sum(list_integer))'''

# 6.Write a function that takes a List of number and print only odd numbers
'''num = 3,4,5,6,7,8,9,1
def odd_num(num):
    count = 0
    for i in num:
        if i %2 !=0:
            count +=1
            print(i)
    print(f"Number of odd number is {count}")
odd_num(num)'''

# 7.Write a function that takes a List of number and print only Even numbers
'''num = 87,23,45,43,76,87,12,80

def even_num(num):
    count = 0
    for i in num:
        if i %2 == 0:
            count+=1
            print(i)
    print(f" Number of even number is {count}")
even_num(num)'''

# 8.Write a function that takes a list of numbers and a target number the
function should return True or False
#If the target is in the list return True
#If the target is not in the list return False
'''num = 3,4,6,7,8
target = 10
def func(num):
    if target in num:
```

```
        print(f"{target} is im the list")
    else:
        print(f"{target} is not in the list")
func(num)
'''

# 9.Write a function that will takes list of numbers and returns a list with the Squre of the original values in the list.
#Ex : input list = [1,3,5,6]      output list = [1,9,25,36]
#Explanation:  the Squre of 1 is 1 & 3 is 9 & 5 is 25 & 6 is 36
'''num = 2,5,8,23,65,10

def square(num):
    for i in num:
        sq = i * i
        print(f"The square of {i} is {sq}")
square(num)'''



# 10.Write a function that takes the list of numbers and return the total count of even number and odd numbers in the list.
'''number = [3,4,5,9]

def even_odd (number):
    count_even = 0
    count_odd = 0
    for num in number:
        if num%2 ==0:
            print(f"{num} is even")
            count_even+=1
        else:
            print(f"{num} is odd number")
            count_odd+=1

    print (f"{count_even} is the count of even number")
    print (f"{count_odd} is the count of odd number")
even_odd(number)'''


# 11.Write a function That takes a list of numbers and print the prime numbers from list.
'''num = 5
def prime(num):
    for i in range(2,num):
        if num %i == 0:
            print(f"{num} is not a prime number")
            print(f"{num} is divisible by {i} ")
            return
    print(f"{num} is a prime number")

prime(num)'''

```

```python
# 12.Write a Python program to calculate the factorial of a given number.
#Example Input: 5
#Example Output: 120


'''def fact(i):
    x= 1
    while i >0:
        x = x*i
        i = i -1
    print(f"factorial is {x}")

fact(6)

factorial =1
num = 6
for i in range(1,num+1):
    factorial = factorial*i
print(factorial)'''

#or

'''def fact(num):
    factorial = 1
    for i in range (1,num+1):
        factorial = (factorial * i)
    print(f"Factorial of {num} is {factorial}")
#factorial = 1
fact(5)'''

#or

'''def fact(x):
    if x==1 or x==0:
        return 1
    else:
        return(x*fact(x-1))
x = 5
result =fact(x)
print(f"The factorial of {x} is {result}")'''
```