1. **Write a Python program to find sum of elements in list?**

# Function to find the sum of elements in a list

def sum\_of\_elements(lst):

return sum(lst)

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Calculate and print the sum of the elements

result = sum\_of\_elements(lst)

print(f"The sum of the elements in the list is {result}")

1. **Write a Python program to Multiply all numbers in the list?**

# Function to multiply all numbers in a list

def multiply\_elements(lst):

result = 1

for num in lst:

result \*= num

return result

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Calculate and print the product of the numbers

result = multiply\_elements(lst)

print(f"The product of the numbers in the list is {result}")

1. **Write a Python program to find smallest number in a list?**

# Function to find the smallest number in a list

def find\_smallest(lst):

return min(lst)

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Find and print the smallest number

result = find\_smallest(lst)

print(f"The smallest number in the list is {result}")

1. **Write a Python program to find largest number in a list?**

# Function to find the largest number in a list

def find\_largest(lst):

return max(lst)

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Find and print the largest number

result = find\_largest(lst)

print(f"The largest number in the list is {result}")

1. **Write a Python program to find second largest number in a list?**

# Function to find the second largest number in a list

def find\_second\_largest(lst):

if len(lst) < 2:

return "List must have at least two elements."

largest = second\_largest = float('-inf')

for num in lst:

if num > largest:

second\_largest = largest

largest = num

elif num > second\_largest and num < largest:

second\_largest = num

return second\_largest

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Find and print the second largest number

result = find\_second\_largest(lst)

if isinstance(result, str):

print(result)

else:

print(f"The second largest number in the list is {result}")

1. **Write a Python program to find N largest elements from a list?**

# Function to find N largest elements from a list

def find\_n\_largest(lst, n):

if len(lst) < n:

return "List does not have enough elements."

sorted\_lst = sorted(lst, reverse=True)

return sorted\_lst[:n]

# Input a list of numbers and N

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

N = int(input("Enter the value of N: "))

# Find and print the N largest elements

result = find\_n\_largest(lst, N)

if isinstance(result, str):

print(result)

else:

print(f"The {N} largest elements in the list are {result}")

1. **Write a Python program to print even numbers in a list?**

# Function to print even numbers in a list

def print\_even\_numbers(lst):

even\_numbers = [num for num in lst if num % 2 == 0]

print("Even numbers in the list:")

for num in even\_numbers:

print(num)

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Print even numbers from the list

print\_even\_numbers(lst)

1. **Write a Python program to print odd numbers in a List?**

# Function to print odd numbers in a list

def print\_odd\_numbers(lst):

odd\_numbers = [num for num in lst if num % 2 != 0]

print("Odd numbers in the list:")

for num in odd\_numbers:

print(num)

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Print odd numbers from the list

print\_odd\_numbers(lst)

1. **Write a Python program to Remove empty List from List?**

# Function to remove empty lists from a list

def remove\_empty\_lists(lst):

return [sublist for sublist in lst if sublist]

# Input a list of lists

lst = [[], [1, 2, 3], [], [4, 5], [], [6]]

# Remove empty lists and print the result

result = remove\_empty\_lists(lst)

print("List after removing empty lists:")

print(result)

1. **Write a Python program to Cloning or Copying a list?**

# Function to clone or copy a list

def clone\_list(lst):

return lst.copy()

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Clone the list and print the cloned list

cloned\_list = clone\_list(lst)

print(f"Original list: {lst}")

print(f"Cloned list: {cloned\_list}")

1. **Write a Python program to Count occurrences of an element in a list?**

# Function to count occurrences of an element in a list

def count\_occurrences(lst, element):

return lst.count(element)

# Input a list of numbers

lst = [int(x) for x in input("Enter a list of numbers separated by spaces: ").split()]

# Input the element to count

element = int(input("Enter the element to count: "))

# Count and print the occurrences of the element

count = count\_occurrences(lst, element)

print(f"The element {element} occurs {count} times in the list.")