1. Python Program for Find reminder of array multiplication divided by n

def find\_remainder(arr, n):

product = 1

for num in arr:

product \*= num

remainder = product % n

return remainder

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

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

result = find\_remainder(array, n)

print("The remainder of array multiplication divided by", n, "is", result)

1. Python Program to check if given array is Monotonic

def is\_monotonic(arr):

increasing = decreasing = True

for i in range(len(arr) - 1):

if arr[i] > arr[i + 1]:

increasing = False

if arr[i] < arr[i + 1]:

decreasing = False

return increasing or decreasing

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

if is\_monotonic(array):

print("The array is monotonic")

else:

print("The array is not monotonic")

1. Python program to interchange first and last elements in a list

def interchange\_elements(arr):

if len(arr) >= 2:

arr[0], arr[-1] = arr[-1], arr[0]

return arr

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

result = interchange\_elements(array)

print("The array after interchanging first and last elements is", result)

1. Python program to swap two elements in a list

def swap\_elements(arr, index1, index2):

if 0 <= index1 < len(arr) and 0 <= index2 < len(arr):

arr[index1], arr[index2] = arr[index2], arr[index1]

return arr

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

index1 = int(input("Enter the index of the first element to swap: "))

index2 = int(input("Enter the index of the second element to swap: "))

result = swap\_elements(array, index1, index2)

print("The array after swapping the elements is", result)

1. write a program to find length of list

def find\_length(arr):

return len(arr)

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

length = find\_length(array)

print("The length of the list is", length)

1. write a program to check if element exists in list

def element\_exists(arr, element):

return element in arr

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

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

if element\_exists(array, element):

print("The element", element, "exists in the list")

else:

print("The element", element, "does not exist in the list")

1. write a program to clear a list in Python

def clear\_list(arr):

arr.clear()

return arr

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

result = clear\_list(array)

print("The list after clearing is", result)

1. write a program to Reversing a List

def find\_sum(arr):

return sum(arr)

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

sum\_of\_elements = find\_sum(array)

print("The sum of elements in the list is", sum\_of\_elements)

1. write a program to find sum of elements in list

def find\_sum(arr):

return sum(arr)

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

sum\_of\_elements = find\_sum(array)

print("The sum of elements in the list is", sum\_of\_elements)

1. write a program to Multiply all numbers in the list

def multiply\_numbers(arr):

product = 1

for num in arr:

product \*= num

return product

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

result = multiply\_numbers(array)

print("The product of all numbers in the list is", result)