1. Write a Python Program to find sum of array?

def array\_sum(arr):

total = 0

for num in arr:

total += num

return total

# Example

array = [1, 2, 3, 4, 5]

print("Sum of the array:", array\_sum(array))

1. Write a Python Program to find largest element in an array?

def find\_largest\_element(arr):

largest = arr[0]

for num in arr:

if num > largest:

largest = num

return largest

# Example

array = [12, 45, 78, 23, 56]

print("Largest element in the array:", find\_largest\_element(array))

1. Write a Python Program for array rotation?

def rotate\_array(arr, k):

n = len(arr)

k = k % n

rotated\_arr = arr[-k:] + arr[:-k]

return rotated\_arr

# Example usage

array = [1, 2, 3, 4, 5]

k = 2

print("Rotated array:", rotate\_array(array, k))

1. Write a Python Program to Split the array and add the first part to the end?

def split\_and\_add(arr, k):

n = len(arr)

k = k % n

split\_arr = arr[:k]

arr = arr[k:] + split\_arr

return arr

# Example

array = [1, 2, 3, 4, 5]

k = 2

print("Array after splitting and adding:", split\_and\_add(array, k))

1. Write a Python Program to check if given array is Monotonic?

def is\_monotonic(arr):

increasing = decreasing = True

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

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

decreasing = False

elif arr[i] < arr[i - 1]:

increasing = False

return increasing or decreasing

# Example usage

array1 = [1, 2, 3, 4, 5]

array2 = [5, 4, 3, 2, 1]

print("Is array1 monotonic?", is\_monotonic(array1))

print("Is array2 monotonic?", is\_monotonic(array2))