**Find Sum of Array**

python

Copy code

def sum\_of\_array(arr):

return sum(arr)

# Example usage

arr = list(map(int, input("Enter the elements of the array separated by spaces: ").split()))

print(f"Sum of array elements is: {sum\_of\_array(arr)}")

**2. Find Largest Element in an Array**

python

Copy code

def largest\_element(arr):

return max(arr)

# Example usage

arr = list(map(int, input("Enter the elements of the array separated by spaces: ").split()))

print(f"Largest element in the array is: {largest\_element(arr)}")

**3. Array Rotation**

python

Copy code

def rotate\_array(arr, k):

k = k % len(arr) # Handle rotations greater than array length

return arr[-k:] + arr[:-k]

# Example usage

arr = list(map(int, input("Enter the elements of the array separated by spaces: ").split()))

k = int(input("Enter the number of positions to rotate the array: "))

print(f"Array after rotation: {rotate\_array(arr, k)}")

**4. Split the Array and Add the First Part to the End**

python

Copy code

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

k = k % len(arr) # Handle cases where k >= len(arr)

return arr[k:] + arr[:k]

# Example usage

arr = list(map(int, input("Enter the elements of the array separated by spaces: ").split()))

k = int(input("Enter the split position: "))

print(f"Array after splitting and adding: {split\_and\_add(arr, k)}")

**5. Check if Given Array is Monotonic**

An array is monotonic if it is either entirely non-increasing or non-decreasing.

python

Copy code

def is\_monotonic(arr):

increasing = decreasing = True

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

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

decreasing = False

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

increasing = False

return increasing or decreasing

# Example usage

arr = list(map(int, input("Enter the elements of the array separated by spaces: ").split()))

print(f"Array is monotonic: {is\_monotonic(arr)}")