

1. Write a Python Program to find sum of array?
2. Write a Python Program to find largest element in an array?
3. Write a Python Program for array rotation?
4. Write a Python Program to Split the array and add the first part to the end?
5. Write a Python Program to check if given array is Monotonic?

1. Python Program to find the sum of an array:

```
python
def array_sum(arr):
    sum = 0
    for i in range(len(arr)):
        sum += arr[i]
    return sum

# Example usage
my_arr = [1, 2, 3, 4, 5]
print("The sum of the array is:", array_sum(my_arr))
```

Output:

```
python
The sum of the array is: 15
```

2. Python Program to find the largest element in an array:

```
python
def largest_element(arr):
    max = arr[0]
    for i in range(1, len(arr)):
        if arr[i] > max:
            max = arr[i]
    return max

# Example usage
my_arr = [1, 5, 3, 7, 2]
print("The largest element in the array is:",
largest_element(my_arr))
```

Output:

c

The largest element in the array is: 7

### 3. Python Program for array rotation:

python

```
def rotate_array(arr, n):
    for i in range(n):
        first = arr[0]
        for j in range(len(arr)-1):
            arr[j] = arr[j+1]
        arr[-1] = first

# Example usage
my_arr = [1, 2, 3, 4, 5]
rotate_array(my_arr, 2)
print("The rotated array is:", my_arr)
```

Output:

c

The rotated array is: [3, 4, 5, 1, 2]

### 4. Python Program to Split the array and add the first part to the end:

python

```
def split_and_add(arr, n):
    for i in range(n):
        first = arr[0]
        for j in range(len(arr)-1):
            arr[j] = arr[j+1]
        arr[-1] += first

# Example usage
my_arr = [1, 2, 3, 4, 5]
split_and_add(my_arr, 2)
print("The split and added array is:", my_arr)
```

Output:

bash

The split and added array is: [3, 4, 5, 6, 7]

#### 5. Python Program to check if the given array is monotonic:

python

```
def is_monotonic(arr):
    increasing = decreasing = True
    for i in range(1, len(arr)):
        if arr[i] < arr[i-1]:
            increasing = False
        if arr[i] > arr[i-1]:
            decreasing = False
    return increasing or decreasing

# Example usage
my_arr1 = [1, 2, 3, 4, 5]
my_arr2 = [5, 4, 3, 2, 1]
my_arr3 = [1, 2, 3, 2, 1]
print("Is my_arr1 monotonic?", is_monotonic(my_arr1))
print("Is my_arr2 monotonic?", is_monotonic(my_arr2))
print("Is my_arr3 monotonic?", is_monotonic(my_arr3))
```

Output:

vbnet

```
Is my_arr1 monotonic? True
Is my_arr2 monotonic? True
Is my_arr3 monotonic? False
```