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?

Ans:

Sure! Here are the solutions to your Python programming questions:

1. Program to find the sum of an array:

```python

def sum\_of\_array(arr):

return sum(arr)

# Example usage:

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

print("Sum of the array:", sum\_of\_array(array))

```

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

```python

def find\_largest\_element(arr):

return max(arr)

# Example usage:

array = [1, 5, 3, 9, 2]

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

```

3. Program for array rotation:

```python

def rotate\_array(arr, rotate\_by):

n = len(arr)

rotate\_by = rotate\_by % n # to handle cases where rotation is greater than array size

rotated\_arr = arr[rotate\_by:] + arr[:rotate\_by]

return rotated\_arr

# Example usage:

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

rotation = 2

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

```

4. Program to split the array and add the first part to the end:

```python

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

return arr[split\_index:] + arr[:split\_index]

# Example usage:

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

split\_index = 2

print("Split and added array:", split\_and\_add(array, split\_index))

```

5. Program to check if a given array is monotonic:

```python

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

# Example usage:

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

print("Is the array monotonic?", is\_monotonic(array))

```

Feel free to run these programs and modify them as needed.