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

Ans:

```
20]:  def array_sum(arr):
          for i in range(len(arr)):
              arr[i] = int(arr[i])
          return sum(arr)
      arr_raw = input('Enter elements of a arr separated by space: ')
      arr = arr_raw.split()
      print('arr: ', arr)
      ans = array_sum(arr)
      print ('Sum of the array is ', ans)

      Enter elements of a arr separated by space: 4 5
      arr:  ['4', '5']
      Sum of the array is  9
```

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

Ans:

```
16]:  def largest(arr,n):
          max = arr[0]
          for i in range(1, n):
              if arr[i] > max:
                  max = arr[i]
          return max
      arr = [1,2,3,6,5,4,77,7777]
      n = len(arr)
      Ans = largest(arr,n)
      print ("Largest in given array is",Ans)

      Largest in given array is 7777
```

3. Write a Python Program for array rotation?

Ans:

```
}]:  def rotateList(arr,d,n):
         arr[:]=arr[d:n]+arr[0:d]
         return arr

     arr_raw = input('Enter elements of a arr separated by space: ')
     arr = arr_raw.split()
     print("The array is : ", arr)
     elements = int(input("Enter no of elements : "))
     print("Rotated list is")
     print(rotateList(arr,elements,len(arr)))

     Enter elements of a arr separated by space: 1 2 3 4 5 6 7 8 9
     The array is :  ['1', '2', '3', '4', '5', '6', '7', '8', '9']
     Enter no of elements : 2
     Rotated list is
     ['3', '4', '5', '6', '7', '8', '9', '1', '2']
```

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

Ans:

```
}]:  def split_array(a, n, k):
         b = a[:k]
         return (a[k::]+b[::])
     arr_raw = input('Enter elements of a arr separated by space: ')
     arr = arr_raw.split()
     n = len(arr)
     position = int(input("Enter position : "))
     arr = split_array(arr, n, position)
     print("After Spliting and adding the first part to the end, the array is: ")
     for i in range(0, n):
         print(arr[i], end = ' ')

     Enter elements of a arr separated by space: 1 2 3 4 5 6 7 8 9
     Enter position : 2
     After Spliting and adding the first part to the end, the array is:
     3 4 5 6 7 8 9 1 2
```

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

Ans:

```python
def Monotonic(A):
    return (all(A[i] <= A[i + 1] for i in range(len(A) - 1)) or
            all(A[i] >= A[i + 1] for i in range(len(A) - 1)))
A = [6, 5, 4, 4]
print(Monotonic(A))
```

True