

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

```
In [1]: 1 array = [1,2,3,4]
2 sum = 0
3 for i in array:
4     sum = sum + i
5 print(sum)
```

10

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

```
In [2]: 1 array = [1,20,30,4]
2 max = array[0]
3 for i in range(0, len(array)):
4     if(array[i] > max):
5         max = array[i];
6 print(max)
```

30

3. Write a Python Program for array rotation?

```
In [3]: 1 def rotateArray(a,d):
2     temp = []
3     n=len(a)
4     #Printing First the second part
5     for i in range(d,n):
6         temp.append(a[i])
7     i = 0
8     #Printing Late the first part
9     for i in range (0,d):
10        temp.append(a[i])
11    a=temp.copy()
12    return a
13
14 array1 = [1, 2, 3, 4, 5, 6, 7]
15 print("Array after left rotation is: ", end=' ')
16 print(rotateArray(array1, 2))
```

Array after left rotation is: [3, 4, 5, 6, 7, 1, 2]

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

```
In [4]: 1 def rotateArray(a,d):
2     temp = []
3     n=len(a)
4     #Printing First the second part
5     for i in range(d,n):
6         temp.append(a[i])
7     i = 0
8     #Printing Late the first part
9     for i in range (0,d):
10        temp.append(a[i])
11    a=temp.copy()
12    return a
13
14 array1 = [1, 2, 3, 4, 5, 6, 7]
15 print("Array after Split is: ", end=' ')
16 print(rotateArray(array1, 5))
```

Array after Split is: [6, 7, 1, 2, 3, 4, 5]

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

#Monotonic array will contain the elements either in increasing order or decreasing order

In [5]:

```
1 def monotonic(a):
2     n=len(a)
3     if n==1:
4         return True
5     else:
6         #checking whether its increasing or decreasing order.
7         if all(a[i]>=a[i+1] for i in range(0,n-1) or a[i]<=a[i+1] for i in range(0,n-1)):
8             return True
9         else:
10            return False
11
12 A = [6, 5, 4, 2]
13 print(monotonic(A))
14 b = [6, 2, 4, 2]
15 print(monotonic(b))
16 c=[4,3,2]
17 print(monotonic(c))
18 d=[1]
19 print(monotonic(d))
```

True
False
True
True

In []:

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