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

ANS: def \_sum(arr):

# initialize a variable

# to store the sum

# while iterating through

# the array later

sum = 0

# iterate through the array

# and add each element to the sum variable

# one at a time

for i in arr:

sum = sum + i

return(sum)

# driver function

arr = []

# input values to list

arr = [12, 3, 4, 15]

# calculating length of array

n = len(arr)

ans = \_sum(arr)

# display sum

print('Sum of the array is ', ans)

Sum of the array is 34

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

ANS: def largest(arr, n):

# Initialize maximum element

max = arr[0]

# Traverse array elements from second

# and compare every element with

# current max

for i in range(1, n):

if arr[i] > max:

max = arr[i]

return max

# Driver Code

arr = [10, 324, 45, 90, 9808]

n = len(arr)

Ans = largest(arr, n)

print("Largest in given array ", Ans)

# This code is contributed by Smitha Dinesh Semwal

Largest in given array 9808

3. Write a Python Program for array rotation?

ANS: def reverse(start,end,arr):

#No of iterations needed for reversing the list

no\_of\_reverse=end-start+1

#By incrementing count value swapping of first and last elements is done.

count=0

while((no\_of\_reverse)//2!=count):

arr[start+count],arr[end-count]=arr[end-count],arr[start+count]

count+=1

return arr

#Function takes array, length of array and no of rotations as input

def left\_rotate\_array(arr,size,d):

#Reverse the Entire List

start=0

end=size-1

arr=reverse(start,end,arr)

#Divide array into twosub-array based on no of rotations.

#Divide First sub-array

#Reverse the First sub-array

start=0

end=size-d-1

arr=reverse(start,end,arr)

#Divide Second sub-array

#Reverse the Second sub-array

start=size-d

end=size-1

arr=reverse(start,end,arr)

return arr

arr=[1,2,3,4,5,6,7,8]

size=8

d=1

print('Original array:',arr)

#Finding all the symmetric rotation number

if(d<=size):

print('Rotated array: ',left\_rotate\_array(arr,size,d))

else:

d=d%size

print('Rotated array: ',left\_rotate\_array(arr,size,d))

Original array:[1,2,3,4,5,6,7,8]

Rotated array:[2,3,4,5,6,7,8,1]

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

ANS: def splitArr(arr, n, k):

for i in range(0, k):

x = arr[0]

for j in range(0, n-1):

arr[j] = arr[j + 1]

arr[n-1] = x

arr = [12, 10, 5, 6, 52, 36]

n = len(arr)

position = 2

splitArr(arr, n, position)

for i in range(0, n):

print(arr[i], end = ' '

5 6 52 36 10 12

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

ANS: def isMonotonic(A):

x, y = [], []

x.extend(A)

y.extend(A)

x.sort()

y.sort(reverse=True)

if(x == A or y == A):

return True

return False

# Driver program

A = [6, 5, 4, 4]

# Print required result

print(isMonotonic(A))

True