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

import array as arr

a = arr.array('i',[10, 21, 12, 13])

print ('Sum of the array is ', sum(a) )

OR

import array as ar

def SumofArray(arr):

sum=0

n = len(arr)

for i in range(n):

sum = sum + arr[i]

return sum

#input values to list

a = ar.array('i',[10, 21, 12, 13])

# display sum

print ('Sum of the array is ', SumofArray(a) )

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

def largest(arr,n):

#maximum element

max = arr[0]

# traverse the whole loop

for i in range(1, n):

if arr[i] > max:

max = arr[i]

return max

# Driver Code

arr = [23,1,32,67,2,34,12]

n = len(arr)

Ans = largest(arr,n)

print ("Largest element given in array is", Ans)

1. Write a Python Program for array rotation?

def rotateArray(arr, n, d):

temp = []

i = 0

while (i < d):

temp.append(arr[i])

i = i + 1

i = 0

while (d < n):

arr[i] = arr[d]

i = i + 1

d = d + 1

arr[:] = arr[: i] + temp

return arr

# Driver function to test above function

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

print("Array after left rotation is: ", end=' ')

print(rotateArray(arr, len(arr), 2))

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

def SplitArray(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 = [15, 40, 15, 16, 50, 36]

n = len(arr)

position = 2

SplitArray(arr, n, position)

for i in range(0, n):

print(arr[i], end = ' ')

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

#check if monotone

#function definition

def ismonotone(a):

n=len(a) #size of array

if n==1:

return True

else:

#check for monotone behaviour

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)):

return True

else:

return False

A = [6, 5, 4, 2]

print(ismonotone(A))

b = [6, 2, 4, 2]

print(ismonotone(b))

c=[4,3,2]

print(ismonotone(c))

d=[1]

print(ismonotone(d))