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

# Python Program to find sum of array

# Declare array

arr = [10,20,30,40,50]

# calculate sum using sum() inbuilt function

sum = sum(arr)

# print the sum

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

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

# Python Program to find largest element in an array

# Define a function to calculate maximum in an array

def max(arr, n):

# Initialize maximum element

max = arr[0]

# iterate using for loop

for i in range(1, n):

if arr[i] > max:

max = arr[i]

return max

# Test with the sample array

arr = [20,10,50]

n = len(arr)

# call the max function with the data

max = max(arr, n)

print("largest number in an array is ", max)

1. Write a Python Program for array rotation?

# 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

# test with the sample array

arr = [1,2,3,7,8,9]

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

print(rotateArray(arr, len(arr), 3))

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

# Python Program to Split the array and add the first part to the end

# Define a function to split the array

def splitarray(a, n, k):

b = a[:k]

return (a[k::] + b[::])

# test with the sample array

arr = [10,12,14,15,16]

n = len(arr)

position = 3

arr = 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?

# Python Program to check if given array is Monotonic

# Define a monotonic function

def isMonotonic(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)))

# test with the sample array

A = [1,2,3,4,7,8]

print(isMonotonic(A))