

Given an array **arr** of **N** integers. Find the contiguous sub-array with maximum sum.

Example 1:

Input:

N = 5

arr[] = {1,2,3,-2,5}

Output:

9

Explanation:

Max subarray sum is 9
of elements (1, 2, 3, -2, 5) which
is a contiguous subarray.

Example 2:

Input:

N = 4

arr[] = {-1,-2,-3,-4}

Output:

-1

Explanation:

Max subarray sum is -1
of element (-1)

Your Task:

You don't need to read input or print anything. The task is to complete the function **maxSubarraySum()** which takes arr and N as input parameters and returns the sum of subarray with maximum sum.

Expected Time Complexity: $O(N)$
Expected Auxiliary Space: $O(1)$

Constraints:

$$1 \leq N \leq 10^6$$

$$-10^7 \leq A[i] \leq 10^7$$