



## CSES Problem Set

# Maximum Subarray Sum

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**Time limit:** 1.00 s **Memory limit:** 512 MB

Given an array of  $n$  integers, your task is to find the maximum sum of values in a contiguous, nonempty subarray.

### Input

The first input line has an integer  $n$ : the size of the array.

The second line has  $n$  integers  $x_1, x_2, \dots, x_n$ : the array values.

### Output

Print one integer: the maximum subarray sum.

### Constraints

- $1 \leq n \leq 2 \cdot 10^5$
- $-10^9 \leq x_i \leq 10^9$

### Example

Input:

8  
-1 3 -2 5 3 -5 2 2

Output:

9

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### Your submissions