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# Super Minimum Sum

? Ask Doubt

Time-Limit: 1 sec    Score: 0/100    Difficulty : ★★

Memory: 256 MB    Accepted Submissions: 100 Relevant For:

AZ-201

AZ-202

## Description

You have given an array  $A$  of size  $N$ .  $A_1, A_2, \dots, A_N$  are the elements of the array. All elements in the array  $A$  are distinct. Find the sum of the minimum of all subarrays possible of array  $A$ .

A **subarray** of an  $-$ element array is an array composed from a contiguous block of the original array's elements

## Input Format

The first line contains  $T$ , the number of test cases.  
The first line of each test case contains  $N$ , the number of integers in an array  $A$ .  
The second line of each test case contains  $N$  space-separated integers  $A_1, A_2, \dots, A_N$ .

## Output Format

For each test case, print a single number representing the sum of the minimum of all subarrays of  $A$ .

## Constraints

$1 \leq T \leq 100000$   
 $1 \leq N \leq 100000$   
 $1 \leq A_i \leq 10^6$   
Sum of  $N$  over all test cases  $\leq 5 * 10^5$ .  
It is guaranteed that all elements in an array  $A$  are distinct.

## Sample Input 1

Copy

```
5
3
1 2 3
2
1 5
4
2 3 4 10
8
1000000 1000001 1000002 1000003 1000004 1000005 1000006 1000007
3
3 1 2
```

## Sample Output 1

Copy

C++14[GCC] ▾

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