

X. Kareem

time limit per test: 1 second  
memory limit per test: 256 megabytes

Given an array  $a$  of  $n$  elements. Calculate the following.

$$\sum_{i=1}^n \sum_{j=i}^n \max \left( \left( \sum_{k=i}^j a_k \right), 0 \right)$$

Input

The first line of input contains an integer  $n$  ( $1 \leq n \leq 10^5$ )— the number of elements in the array.

The second line contains  $n$  space separated integers  $a_1, a_2, \dots, a_n$  ( $-10^9 \leq a_i \leq 10^9$ )— elements of the array.

Output

Print the answer *modulo*  $10^9 + 7$ .

Examples

input	Copy
5 1 2 3 4 5	
output	Copy
105	

input	Copy
3 3 -2 -2	
output	Copy
4	

ICPC Assiut Ramadan Marathons

Private

Participant

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→ Group Contests

- Ramadan Marathon 2024
- Ramadan Marathon 2023
- Ramadan Marathon 2021
- Ramadan Marathon Juniors 2020
- Ramadan Marathon Newcomers 2020
- Ramadan Marathon Newcomers 2019
- Ramadan Marathon Juniors 2019
- Ramadan Kareem - Marathon 2017

Ramadan Marathon 2024

Finished

Practice

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→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win ▼

Choose file: Choose File No file chosen

Submit

→ **Last submissions**

Submission	Time	Verdict
<a href="#">283382306</a>	Sep/28/2024 16:29	<b>Accepted</b>
<a href="#">283381946</a>	Sep/28/2024 16:26	<b>Accepted</b>
<a href="#">283380364</a>	Sep/28/2024 16:15	Wrong answer on test 3
<a href="#">283380020</a>	Sep/28/2024 16:13	Wrong answer on test 3
<a href="#">259924628</a>	May/07/2024 23:17	<b>Accepted</b>
<a href="#">259913301</a>	May/07/2024 21:00	<b>Accepted</b>
<a href="#">259876177</a>	May/07/2024 15:45	<b>Accepted</b>
<a href="#">259696756</a>	May/06/2024 05:03	<b>Accepted</b>
<a href="#">259696677</a>	May/06/2024 05:00	Wrong answer on test 7
<a href="#">259696139</a>	May/06/2024 04:44	Wrong answer on test 1

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