A. Array Without Local Maximums

time limit per test: 2 seconds
memory limit per test: 512 megabytes
input: standard input
output: standard output

Ivan unexpectedly saw a present from one of his previous birthdays. It is array of n numbers from 1 to 200. Array is old and some numbers are hard to read. Ivan remembers that for all elements at least one of its neighbours ls not less than it, more formally:

$a_1 \leq a_2$,

$a_n \leq a_{n-1}$ and

$a_i \leq max(a_{i-1},\ a_{i+1})$ for all i from 2 to $n-1$.

Ivan does not remember the array and asks to find the number of ways to restore it. Restored elements also should be integers from 1 to 200. Since the number of ways can be big, print it modulo 998244353.

Input

First line of input contains one integer n ($2 \leq n \leq 10^5$) — size of the array.

Second line of input contains n integers a_i — elements of array. Either $a_i = -1$ or $1 \leq a_i \leq 200$. $a_i = -1$ means that i-th element can't be read.

Output

Print number of ways to restore the array modulo 998244353.

Examples

input	Copy
3 1 -1 2	

output	Copy
1	

input	Copy
2 -1 -1	

output	Copy
200	

Note

In the first example, only possible value of a_2 is 2.

In the second example, $a_1 = a_2$ so there are 200 different values because all restored elements should be integers between 1 and 200.

- Announcement (en)
- Tutorial (en)