CODE FORCES
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HOME   TOP   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   CALENDAR   HELP   10 YEARS! 🎁

PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

A. DZY Loves Sequences

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

DZY has a sequence a, consisting of n integers.

We'll call a sequence $a_i, a_{i+1}, ..., a_j$ $(1 \leq i \leq j \leq n)$ a subsegment of the sequence a. The value $(j - i + 1)$ denotes the length of the subsegment.

Your task is to find the longest subsegment of a, such that it is possible to change at most one number (change one number to any integer you want) from the subsegment to make the subsegment strictly increasing.

You only need to output the length of the subsegment you find.

Input
The first line contains integer n $(1 \leq n \leq 10^5)$. The next line contains n integers $a_1, a_2, ..., a_n$ $(1 \leq a_i \leq 10^9)$.

Output
In a single line print the answer to the problem — the maximum length of the required subsegment.

Examples

input	Copy
6 7 2 3 1 5 6	

output	Copy
5	

Note
You can choose subsegment a_2, a_3, a_4, a_5, a_6 and change its 3rd element (that is a_4) to 4.

Codeforces Round #FF (Div. 1)
Finished

→ 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

→ Problem tags

dp   implementation   two pointers
*1600

No tag edit access

→ Contest materials

- Announcement   ✕
- Tutorial (en)   ✕

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