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The Virtual Learning Environment for Computer Programming

Long Enough Plateaus

X77133_en

Given a sequence of integers, a *plateau* is a subsequence of consecutive identical numbers. For example, in 1 2 2 2 1 4 we have a plateau of length 3 formed by 2's, and the rest of the plateaus have length 1. Your task is to write a program that checks for long enough plateaus.

Input

First comes an integer $n \ge 1$; then, starting in the next line, a sequence of integers follows, possibly spanning several lines in an unpredictable manner.

Output

If there are n or more consecutive occurrences of the same number, say i, the answer should be "A plateau of i's of length at least n occurs.", with the right values of i and n inserted appropriately: i must be such that the plateau of n occurrences of i is the first plateau of that length. Otherwise, the answer should be "No plateau of length n occurs." Don't forget the period at the end of these sentences.

Sample input 1

1 2 2 2 1 4

Sample output 1

A plateau of 2's of length at least 3 occurs.

Sample input 2

```
5
1 2 2
2 2 2 3
```

Sample output 2

A plateau of 2's of length at least 5 occurs.

Sample input 3

```
7 2 2
```

Sample output 3

A plateau of 7's of length at least 1 occurs.

Sample input 4

7

Sample output 4

A plateau of 7's of length at least 1 occurs.

Sample input 5

```
3
1 1
2 2 3
3 4 4
```

Sample output 5

No plateau of length 3 occurs.

Problem information

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