J: Identical scarves

Memory Limit : **256 MB**

Maggy makes some extra money by knitting scarves. Today she got lucky – a merchant made an offer for as many scarves as possible, under one condition, though – he wants only scarves of the same length, counted in the number of rows (otherwise they look bad in the store). He announced that he would return shortly, after exactly k moments. Maggy knows the current lengths of all scarves and both stitching and unravelling a row takes her one moment. Help Maggy – compute how many scarves of equal length she can produce.

Input

The first line of the input contains two integers n and k ($1 \leqslant n \leqslant 100\,000$, $0 \leqslant k \leqslant 10^9$), separated by a single space, denoting the number of scarves and the number of moments after which the merchant will return. In the second and last line of the input there are n natural numbers a_i ($1 \leqslant a_i \leqslant 10^9$), each separated by a single space. These are the lengths of consecutive scarves, counted in the number of rows.

Output

You should write one integer number in the first and only line of the output – the maximum number of scarves of equal length that Maggy can produce before the merchant returns.

Example

Input	Output
5 6 1 2 3 4 4	5

In 6 moments Maggy can make the lengths of all scarves equal to 2.