Except Ai

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	1024 megabytes

You are given integers N and X, and an integer sequence $A = (A_1, A_2, \ldots, A_N)$ of length N. You will construct an integer sequence $s = (s_1, s_2, \ldots, s_N)$ of length N that satisfies all of the following conditions:

- $1 \leq s_i \leq X$
- $s_i \neq A_i$ $(1 \leq i \leq N)$

Find the maximum possible number of indices i $(1 \leq i < N)$ such that $s_i = s_{i+1}$.

Input

The input is given in the following format:

N X
A_1 A_2 $\ldots$ A_N

- $1 \leq N \leq 5 \times 10^5$
- $2 \leq X \leq 10^9$
- $1 \leq A_i \leq X$ $(1 \leq i \leq N)$
- All input values are integers.

Output

Print the answer.

Examples

standard input	standard output
8 3 1 2 2 3 2 1 2 1	5
4 8 7 6 3 8	3

Note

In the first test case, for example, if we choose $s = (3, 3, 1, 1, 3, 3, 3, 3)$, then the indices i such that $s_i = s_{i+1}$ are $1, 3, 5, 6, 7$, for a total of 5. It can be shown that it is impossible to make $s_i = s_{i+1}$ hold for more indices than this, so the answer is 5.

In the second test case, for example, we can choose $s = (5, 5, 5, 5)$.