B. Once Again...

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

You are given an array of positive integers $a_1, a_2, ..., a_{n \times T}$ of length $n \times T$. We know that for any $i > n$ it is true that $a_i = a_{i-n}$. Find the length of the longest non-decreasing sequence of the given array.

Input

The first line contains two space-separated integers: n, T ($1 \le n \le 100$, $1 \le T \le 10^7$). The second line contains n space-separated integers $a_1, a_2, ..., a_n$ ($1 \le a_i \le 300$).

Output

Print a single number — the length of a sought sequence.

Examples

input
4 3 3 1 4 2

output
5

Note

The array given in the sample looks like that: 3, **1**, 4, **2**, **3**, 1, **4**, 2, 3, 1, **4**, 2. The elements in bold form the largest non-decreasing subsequence.