Problem S. S

Time limit 1000 ms
Mem limit 262144 kB

We define an integer to be *the most common* on a subsegment, if its number of occurrences on that subsegment is larger than the number of occurrences of any other integer in that subsegment. A subsegment of an array is a consecutive segment of elements in the array a.

Given an array a of size n, and an integer k, determine if there exists a non-empty subsegment of a where k is *the most common element*.

Input

Each test consists of multiple test cases. The first line contains a single integer t ($1 \leq t \leq 1000$) — the number of test cases. The description of test cases follows.

The first line of each test case contains two integers n and k ($1 \leq n \leq 100$, $1 \leq k \leq 100$) — the number of elements in array and the element which must be *the most common*.

The second line of each test case contains n integers $a_1, a_2, a_3, \ldots, a_n$ ($1 \leq a_i \leq 100$) — elements of the array.

Output

For each test case output "`YES`" if there exists a subsegment in which k is *the most common* element, and "`NO`" otherwise.

You can output the answer in any case (for example, the strings "`yEs`", "`yes`", "`Yes`", and "`YES`" will be recognized as a positive answer).

Examples

Input	Output
7 5 4 1 4 3 4 1 4 1 2 3 4 4 5 6 43 5 60 4 2 2 5 1 5 4 1 5 3 3 1 1 3 3 5 3 3 4 1 5 5	YES NO NO YES YES YES YES

Note

In the first test case we need to check if there is a subsegment where the *most common element* is 4.

On the subsegment $[2, 5]$ the elements are $4,\ 3,\ 4,\ 1$.

- 4 appears 2 times;
- 1 appears 1 time;
- 3 appears 1 time.

This means that 4 is the *most common element* on the subsegment $[2, 5]$, so there exists a subsegment where 4 is the *most common element*.