A. Mahmoud and Ehab and the MEX

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Dr. Evil kidnapped Mahmoud and Ehab in the evil land because of their performance in the Evil Olympiad in Informatics (EOI). He decided to give them some problems to let them go.

Dr. Evil is interested in sets, He has a set of n integers. Dr. Evil calls a set of integers *evil* if the *MEX* of it is exactly x. the *MEX* of a set of integers is the minimum non-negative integer that doesn't exist in it. For example, the *MEX* of the set $\{0, 2, 4\}$ is 1 and the *MEX* of the set $\{1, 2, 3\}$ is 0 .

Dr. Evil is going to make his set *evil*. To do this he can perform some operations. During each operation he can add some non-negative integer to his set or erase some element from it. What is the minimal number of operations Dr. Evil has to perform to make his set *evil*?

Input

The first line contains two integers n and x ($1 \le n \le 100$, $0 \le x \le 100$) — the size of the set Dr. Evil owns, and the desired *MEX*.

The second line contains n distinct non-negative integers not exceeding 100 that represent the set.

Output

The only line should contain one integer — the minimal number of operations Dr. Evil should perform.

Examples

input
5 3 0 4 5 6 7
output
2

input
1 0 0
output
1

input
5 0 1 2 3 4 5
output
0

Note

For the first test case Dr. Evil should add 1 and 2 to the set performing 2 operations.

For the second test case Dr. Evil should erase 0 from the set. After that, the set becomes empty, so the *MEX* of it is 0.

In the third test case the set is already *evil*.