

Problem J. Median

Time limit 2000 ms

Mem limit 262144 kB

A *median* in an array with the length of n is an element which occupies position number $\lfloor \frac{n+1}{2} \rfloor$ after we sort the elements in the non-decreasing order (the array elements are numbered starting with 1). A median of an array (2, 6, 1, 2, 3) is the number 2, and a median of array (0, 96, 17, 23) — the number 17.

We define an expression $\lfloor \frac{a}{b} \rfloor$ as the integer part of dividing number a by number b .

One day Vasya showed Petya an array consisting of n integers and suggested finding the array's median. Petya didn't even look at the array and said that it equals x . Petya is a very honest boy, so he decided to add several numbers to the given array so that the median of the resulting array would be equal to x .

Petya can add any integers from 1 to 10^5 to the array, including the same numbers. Of course, he can add nothing to the array. If a number is added multiple times, then we should consider it the number of times it occurs. It is not allowed to delete or change initial numbers of the array.

While Petya is busy distracting Vasya, your task is to find the minimum number of elements he will need.

Input

The first input line contains two space-separated integers n and x ($1 \leq n \leq 500$, $1 \leq x \leq 10^5$) — the initial array's length and the required median's value. The second line contains n space-separated numbers — the initial array. The elements of the array are integers from 1 to 10^5 . The array elements are not necessarily different.

Output

Print the only integer — the minimum number of elements Petya needs to add to the array so that its median equals x .

Sample 1

Input	Output
3 10 10 20 30	1

Sample 2

Input	Output
3 4 1 2 3	4

Note

In the first sample we can add number 9 to array (10, 20, 30). The resulting array (9, 10, 20, 30) will have a median in position $\lfloor \frac{4+1}{2} \rfloor = 2$, that is, 10.

In the second sample you should add numbers 4, 5, 5, 5. The resulting array has median equal to 4.