

## PROBLEM 2

# Distincto's Raffle

**Input file:** rafflein.txt**Output file:** raffleout.txt**Time and memory limits:** 1 second, 1 GB

Count Distincto has just raffled off his prized hot sauce recipe! In the raffle,  $N$  competitors each submitted a number between 1 and  $K$  inclusive. Distincto then discarded all the numbers that were submitted by **two or more** competitors. The smallest remaining number was then declared the *winning number*.

What was the winning number? Or was there no winning number?

## Input

- The first line of input contains the integers  $N$  and  $K$ .
- The second line of input contains the  $N$  submitted numbers.

## Output

Your program must output the winning number, if there was one. Otherwise, it must output  $-1$ .

### Sample input 1

```
4 9
9 2 5 2
```

### Sample input 2

```
7 8
3 5 5 6 3 5 6
```

### Sample input 3

```
2 10
4 1
```

### Sample output 1

```
5
```

### Sample output 2

```
-1
```

### Sample output 3

```
1
```

## Explanation

In the first sample case, the number 2 was discarded, because it was submitted by two competitors. The smallest remaining number was 5.

In the second sample case, the numbers 3, 5 and 6 were discarded, because they were submitted by two, three and two competitors respectively. No numbers remained, so there was no winning number.

In the third sample case, no numbers were discarded. The smallest remaining number was 1.

## Subtasks and constraints

For all subtasks:

- $1 \leq N \leq 100\,000$ .
- $1 \leq K \leq 100\,000$ .
- Each submitted number is between 1 and  $K$  inclusive.

Additionally:

- For Subtask 1 (20 marks),  $N = 2$  and the winning number exists.
- For Subtask 2 (50 marks),  $N \leq 100$ ,  $K \leq 100$ , and the winning number exists.
- For Subtask 3 (30 marks), no special constraints apply.