A. Poker II

Time Limit: 1 second

Points: 100

Daniel is hosting a poker night with n players, each of whom starts with m dollars. There will be many games played, and after each game one player wins money from some or all of the others.

During the night, some players may go bust, that is, lose all their money. When this happens, they are required to re-enter the game by starting again with m new dollars.

Given the amount of money held by each player at the end of the night, help Daniel work out how many times players went bust.

Input

The first line of input consists of two space-separated integers, n and m, representing the number of players and the number of dollars to start, respectively.

The second line of input consists of n space-separated integers, $a_1, \ldots, a_n$, the ith of which represents the amount of money held by player i at the end of the night.

Constraints

All input will satisfy the following constraints:

- $2 \leq n \leq 1,000$
- $1 \leq m \leq 1,000,000$
- For all $1 \leq i \leq n$:
  - $1 \leq a_i \leq 2,000,000$
- It is guaranteed that the a_i can arise as the result of a valid sequence of events.

Output

Output a single integer, the number of times that players went bust.

Subtasks

A1 (100 points): no restrictions.

Sample Input 1

```
4 10
12 21 10 7
```

Sample Output 1

```
1
```

Sample Input 2

```
3 5
5 4 6
```

Sample Output 2

```
0
```

Sample Input 3

```
6 100
1100 100 100 100 100 100
```

Sample Output 3

```
10
```

Explanations

In sample 1, the input can arise from the following sequence of events:

- all players start on \$10 (`10 10 10 10`)
- game 1: player 1 wins \$1 from player 3 and \$2 from player 4 (`13 10 9 8`)
- game 2: player 2 wins \$2 from player 1, \$9 from player 3 and \$1 from player 4 (`11 22 0 7`)
  - player 3 starts again with \$10 (`11 22 10 7`)
- game 3: player 1 wins \$1 from player 2 (`12 21 10 7`).

In sample 2, the input can arise from the following event:

- all players start on \$5 (`5 5 5`)
- game 1: player 3 wins \$1 from player 2.

In sample 3, the input can arise from the following sequence of events:

- all players start on \$100 (`100 100 100 100 100 100`)
- game 1: player 1 wins \$100 from all other players (`600 0 0 0 0 0`)
  - players 2 to 6 each start again with \$100 (`600 100 100 100 100 100`)
- game 2: player 1 wins \$100 from all other players (`1100 0 0 0 0 0`)
  - players 2 to 6 each start again with \$100 (`1100 100 100 100 100 100`)