

Marking Assignments

time limit per test: 2 seconds (10 seconds for Python)

memory limit per test: 976.6 megabytes

input: standard input

output: standard output

points: 100 · problem code: marking · author: inj

You are the Chief Examiner of a unit and you have t assignments that are needed to be marked. You have n TAs which mark assignments in parallel. The i -th TA can mark an assignment every s_i minutes. What is the minimum amount of time that it will take to mark all assignments?

Input

The first line will contain integers n and t . The number of TAs and number of assignments to mark, respectively. The second line contains n integers, $s_1, \dots, s_n$, the time it takes for each TA to mark 1 assignment.

Output

Output the minimum time needed to mark every assignment.

Constraints

- $1 \leq n \leq 10^5$
- $1 \leq t, s_i \leq 10^9$

Example 1

Input

```
10 123
7 7 4 6 3 8 9 8 5 1
```

Output

```
49
```

Example 2

Input

```
10 63
8 10 4 6 3 6 9 8 4 5
```

Output

```
36
```