

Lift

At one school building, there is a lift that can serve unlimited number of people. But there is a weight limitation: if the total weight of its passengers is more than W then the lift will stop working.

Task

Given the weights of n students. Find the maximum number of students that can get on the lift (and it is still working).

Input

On the first line, there are two integers: n ($1 < n < 1000$) and W ($0 < W < 2,000,000$).

Next n lines: each line contains an integer, weight of each student.

Output

Output the maximum number of students that can get on the lift.

Example

Input

```
5 11
2
3
4
5
2
```

Output

```
4
```