A. USB Flash Drives

time limit per test: 2 seconds
memory limit per test: 256 megabytes

Sean is trying to save a large file to a USB flash drive. He has n USB flash drives with capacities equal to $a_1, a_2, ..., a_n$ megabytes. The file size is equal to m megabytes.

Find the minimum number of USB flash drives needed to write Sean's file, if he can split the file between drives.

Input

The first line contains positive integer n ($1 \le n \le 100$) — the number of USB flash drives.

The second line contains positive integer m ($1 \le m \le 10^5$) — the size of Sean's file.

Each of the next n lines contains positive integer a_i ($1 \le a_i \le 1000$) — the sizes of USB flash drives in megabytes.

It is guaranteed that the answer exists, i. e. the sum of all a_i is not less than m.

Output

Print the minimum number of USB flash drives to write Sean's file, if he can split the file between drives.

Examples

input
```
3
5
2
1
3
```
output
```
2
```

input
```
3
6
2
3
2
```
output
```
3
```

input
```
2
5
5
10
```
output
```
1
```

Note

Educational Codeforces Round 3
Finished
Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

→ Submit?

Language: GNU G++17 7.3.0

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
348100956	Nov/09/2025 10:29	Accepted

→ Problem tags

greedy implementation sortings *800

No tag edit access

→ Contest materials

- Announcement (en)
- Editorial (en)