HOME   TOP   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   HELP   CALENDAR

PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

A. USB Flash Drives

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

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	Copy
3 5 2 1 3	
output	Copy
2	

input	Copy
3 6 2 3 2	
output	Copy
3	

input	Copy
2 5 5 10	
output	Copy
1	

Educational Codeforces Round 3

Finished

→ **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

→ **Problem tags**

greedy   implementation   sortings   *800

No tag edit access

→ **Contest materials**

- Announcement (en)   ✕
- Tutorial (en)   ✕

Note

In the first example Sean needs only two USB flash drives — the first and the third.

In the second example Sean needs all three USB flash drives.

In the third example Sean needs only one USB flash drive and he can use any available USB flash drive — the first or the second.