CCC '13 J4 - Time on task

Time Limit: 2.0s **Memory Limit:** 64M

Canadian Computing Competition: 2013 Stage 1, Junior #4

You have been asked by a parental unit to do your chores.

Each chore takes a certain amount of time, but you may not have enough time to do all of your chores, since you can only complete one chore at a time. You can do the chores in any order that you wish.

What is the largest amount of chores you can complete in the given amount of time?

Input Specification

The first line of input consists of an integer T ($0 \leq T \leq 100\,000$), which is the total number of minutes you have available to complete your chores.

The second line of input consists of an integer C ($0 \leq C \leq 100$), which is the total number of chores that you may choose from. The next C lines contain the (positive integer) number of minutes required to do each of these chores. You can assume that each chore will take at most $100\,000$ minutes.

Output Specification

The output will be the maximum number of chores that can be completed in time T.

Sample Input 1

```
6
3
3
6
3
```

Output for Sample Input 1

```
2
```

Explanation of Output for Sample Input 1

Chores must be completed in at most 6 minutes. There are 3 chores available. The first chore takes 3 minutes. The second chore takes 6 minutes. The third chore takes 3 minutes. The answer is 2 since only 2 of these chores can be completed in 6 minutes of time. Specifically, the first and last chore can be completed in the allowable time. It is not possible to complete all 3 chores in 6 minutes.

Sample Input 2

```
6
5
5
4
3
2
1
```

Output for Sample Input 2

```
3
```

Explanation of Output for Sample Input 2

Tasks 3, 4, and 5 can be completed in 6 minutes. It is not possible to complete more than 3 tasks in 6 minutes.