

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

Please read [the new rule regarding the restriction on the use of AI tools](#).

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS STANDINGS CUSTOM INVOCATION

A. Robin Helps

time limit per test: 1 second
memory limit per test: 256 megabytes

*There is a little bit of the outlaw
in everyone, and a little bit of
the hero too.*

The heroic outlaw Robin Hood is famous for taking from the rich and giving to the poor.

Robin encounters n people starting from the 1-st and ending with the n -th. The i -th person has a_i gold. If $a_i \geq k$, Robin will take all a_i gold, and if $a_i = 0$, Robin will give 1 gold if he has any. Robin starts with 0 gold.

Find out how many people Robin gives gold to.

Input

The first line of the input contains a single integer t ($1 \leq t \leq 10^4$) — the number of test cases.

The first line of each test case contains two integers n, k ($1 \leq n \leq 50, 1 \leq k \leq 100$) — the number of people and the threshold at which Robin Hood takes the gold.

The second line of each test case contains n integers a_1, a_2, \dots, a_n ($0 \leq a_i \leq 100$) — the gold of each person.

Output

For each test case, output a single integer, the number of people that will get gold from Robin Hood.

Example

input

Copy

4
2 2
2 0
3 2
3 0 0
6 2
0 3 0 0 0 0
2 5
5 4

output

Copy

1
2
3
0

Note

In the first test case, Robin takes 2 gold from the first person and gives a gold to the second person.

In the second test case, Robin takes 3 gold and gives 1 gold to each of the next 2 people.

In the third test case, Robin takes 3 gold and so only gives gold to 3 other people.

Codeforces Round 974 (Div. 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

Submit?

Language: GNU G++20 13.2 (64 bit, wir

Choose file: Choose File No file chosen

Submit

Last submissions

Submission	Time	Verdict
282241005	Sep/21/2024 17:53	Accepted

Problem tags

implementation

No tag edit access

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