A. Group of Students

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

At the beginning of the school year Berland State University starts two city school programming groups, for beginners and for intermediate coders. The children were tested in order to sort them into groups. According to the results, each student got some score from 1 to m points. We know that c_1 schoolchildren got 1 point, c_2 children got 2 points, ..., c_m children got m points. Now you need to set the passing rate k (integer from 1 to m): all schoolchildren who got less than k points go to the beginner group and those who get at strictly least k points go to the intermediate group. We know that if the size of a group is more than y, then the university won't find a room for them. We also know that if a group has less than x schoolchildren, then it is too small and there's no point in having classes with it. So, you need to split all schoolchildren into two groups so that the size of each group was from x to y, inclusive.

Help the university pick the passing rate in a way that meets these requirements.

Input

The first line contains integer m ($2 \le m \le 100$). The second line contains m integers c_1, c_2, ..., c_m, separated by single spaces ($0 \le c_i \le 100$). The third line contains two space-separated integers x and y ($1 \le x \le y \le 10000$). At least one c_i is greater than 0.

Output

If it is impossible to pick a passing rate in a way that makes the size of each resulting groups at least x and at most y, print 0. Otherwise, print an integer from 1 to m — the passing rate you'd like to suggest. If there are multiple possible answers, print any of them.

Examples

input
5 3 4 3 2 1 6 8
output
3

input
5 0 3 3 4 2 3 10
output
4

input
2 2 5 3 6
output
0

Note

In the first sample the beginner group has 7 students, the intermediate group has 6 of them.

In the second sample another correct answer is 3.

Codeforces Round #207 (Div. 2)
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 ACM-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

brute force greedy implementation

No tag edit access

→ Contest materials

- Announcement
- Tutorial