

A. Choose Two Numbers

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

You are given an array A , consisting of n positive integers a_1, a_2, \dots, a_n , and an array B , consisting of m positive integers b_1, b_2, \dots, b_m .

Choose some element a of A and some element b of B such that $a + b$ doesn't belong to A and doesn't belong to B .

For example, if $A = [2, 1, 7]$ and $B = [1, 3, 4]$, we can choose 1 from A and 4 from B , as number $5 = 1 + 4$ doesn't belong to A and doesn't belong to B . However, we can't choose 2 from A and 1 from B , as $3 = 2 + 1$ belongs to B .

It can be shown that such a pair exists. If there are multiple answers, print any.

Choose and print any such two numbers.

Input

The first line contains one integer n ($1 \leq n \leq 100$) — the number of elements of A .

The second line contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 200$) — the elements of A .

The third line contains one integer m ($1 \leq m \leq 100$) — the number of elements of B .

The fourth line contains m different integers b_1, b_2, \dots, b_m ($1 \leq b_i \leq 200$) — the elements of B .

It can be shown that the answer always exists.

Output

Output two numbers a and b such that a belongs to A , b belongs to B , but $a + b$ doesn't belong to nor A neither B .

If there are multiple answers, print any.

Examples

input	Copy
1 20 2 10 20	
output	Copy
20 20	
input	Copy
3 3 2 2 5 1 5 7 7 9	
output	Copy
3 1	
input	Copy
4 1 3 5 7 4 7 5 3 1	
output	Copy

Codeforces Round #580 (Div. 2)

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 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](#)

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup

You can clone this contest to a mashup.

[Clone Contest](#)

→ Submit?

Language: GNU G++11 5.1.0

Choose file: [选择文件](#) 未选择任何文件

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

[Submit](#)

→ Problem tags

math *800

No tag edit access

→ Contest materials

- Announcement #1 (en)

Note

In the first example, we can choose 20 from array [20] and 20 from array [10, 20]. Number $40 = 20 + 20$ doesn't belong to any of those arrays. However, it is possible to choose 10 from the second array too.

In the second example, we can choose 3 from array [3, 2, 2] and 1 from array [1, 5, 7, 7, 9]. Number $4 = 3 + 1$ doesn't belong to any of those arrays.

In the third example, we can choose 1 from array [1, 3, 5, 7] and 1 from array [7, 5, 3, 1]. Number $2 = 1 + 1$ doesn't belong to any of those arrays.

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