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 $a_1,a_2,\ldots,a_n$, and an array B, consisting of m positive integers $b_1,b_2,\ldots,b_m$.

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 ($1\le n\le 100$) — the number of elements of A.

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

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

The fourth line contains m different integers $b_1,b_2,\ldots,b_m$ ($1\le b_i\le 200$) — 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

```
1 1
```

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.