

## Problem A. 77180. Sorting

Input file:            **standard input**  
Output file:          **standard output**  
Time limit:           **1 second**  
Memory limit:        **256 megabytes**

Write a program which sorts an array of elements. The size of an array is not given.

### Input

Input contains some elements and ends with 0, it means that if 0 appears in array you should end your program. Look for examples.

### Output

Output sorted array of elements.

### Examples

standard input	standard output
2 3 4 5 0	2 3 4 5
94 53 -2 34 0 56	-2 34 53 94

### Note

Remember! You should write using vectors.

## Problem B. 77425. From Left to Right

Input file:            `standard input`  
Output file:         `standard output`  
Time limit:          1 second  
Memory limit:       256 megabytes

You are given a single integer number N. Print all its digits one by one, in the usual order, separated by space.

### Input

Input contains an integer N;

### Output

Output all its digits separated by space.

### Example

standard input	standard output
123	1 2 3

### Note

While solving this problem, you cannot use strings, lists, arrays. Only recursion is allowed.

## Problem C. 76434.Uppercase

Input file:            standard input  
Output file:          standard output  
Time limit:           1 second  
Memory limit:        256 megabytes

Given a string  $s$ . Find it's first uppercase letter using recursion. If you can't find it print -1.

### Input

In the first line of the input given  $s$ .

### Output

Print first uppercase letter.

### Example

standard input	standard output
KBTUthebest	K

## Problem D. 77044. Attendance

Input file:            standard input  
Output file:          standard output  
Time limit:           1 second  
Memory limit:        256 megabytes

Zharaskhan is a teacher. He teaches Sociology. In this lesson  $n$  students attended and their names are unique. He has a problem with memorizing names of people and forgets attendance list. He asked  $m$  unique names which he remembers. Print the name of people who attended this lesson in order of which Zharaskhan asked.

### Input

In the first line given ( $1 \leq n \leq 10000$ ), number of attended students. The next  $n$  lines given names of students. It is guaranteed that their names are unique. In the next line given ( $1 \leq m \leq 10000$ ), the number of names which Zharaskhan asked. The next  $m$  lines given names of students. It is guaranteed these names are also unique.

### Output

For each Zharaskhan's query, print name from query if and only if person with this name attended the lesson.

### Example

standard input	standard output
5	Almat
Aida	Aida
Almat	
Temirulan	
Albert	
Ulzhan	
3	
Aibek	
Almat	
Aida	

## Problem E. 77037. Two sequences

Input file:           standard input  
Output file:         standard output  
Time limit:          1 second  
Memory limit:       256 megabytes

Write a program for two sequences, that consist of natural numbers which will determine which numbers occur in each of the sequences, and which of the numbers from 1 to  $n$  — do not occur in any of them.

### Input

In the first line given  $n$ , ( $1 \leq n \leq 10000$ ). In the second line given elements of the first sequence  $a$ , ( $1 \leq a_i \leq 1000$ ) and ends with 0. In the third line given elements of the second sequence  $b$ , ( $1 \leq b_i \leq 1000$ ) and ends with 0. Look for examples.

### Output

In the first line output numbers in increasing order without repetitions, which occur in each of the sequences. In the second line output numbers from 1 to  $n$  in increasing order, which do not occur in any of two sequences.

### Example

standard input	standard output
7	2 3 4
3 2 4 5 2 0	1 6
2 7 4 3 4 2 0	

## Problem F. 77040. Winner

Input file:            standard input  
Output file:           standard output  
Time limit:            1 second  
Memory limit:         256 megabytes

Bekzat is a jury of olympiad. In order to define winners, he wants to determine a winner of this olympiad. But he hasn't time and needs your help. You have to find a winner and print it. If there are several winners print latest encountered one. Look at an example.

### Input

In the first line given ( $1 \leq n \leq 1000$ ), number of participants. The next  $n$  lines given surnames, names of students and their score.

### Output

Print winner's surname, name and score.

### Example

standard input	standard output
6 Sergeev Petr 30 Petrov Vasya 70 Kim Che Ren 65 Romanov Andrey 65 Ivanov Sergey 70 KIm Sergey 50	Ivanov Sergey 70

## Problem G. 77041. Cities

Input file:            standard input  
Output file:           standard output  
Time limit:            1 second  
Memory limit:         256 megabytes

Ulzhan is a very curious girl. She has a list of countries and list of cities of each country. Her task is determining for each city country, where is located. But Ulzhan doesn't know geography and needs your help.

### Input

In the first line of the input gives an integers  $n$ , ( $1 \leq n \leq 1000$ ) The next  $n$  lines given the name of country, count of cities  $k$ , ( $1 \leq k \leq 10$ ) and cities of this country. It is guaranteed that their names are unique. In the next line given  $m$ , ( $1 \leq m \leq 100$ ), the number of names of cities which Ulzhan asked. The next  $m$  lines given names of cities.

### Output

For each Ulzhan's query print country name, if we know in which country is located. Otherwise, print "Unknown".

### Example

standard input	standard output
3	4
Kazakhstan 3 Zhanauzen Aktau Atyrau	Kazakhstan
USA 3 San-Francisco Berkly San-Hose	USA
England 1 London	Kazakhstan
4	Unknown
Zhanauzen	
San-Hose	
Aktau	
Moskow	

## Problem H. 77042. Reading

Input file:            `standard input`  
Output file:         `standard output`  
Time limit:          1 second  
Memory limit:       256 megabytes

Alan really likes  $k$  number and puppies. The zoo shop has  $n$  puppies and Alan wants to buy a puppy with  $k$  - th largest ID. Let's help him. Solve this problem by using a vector.

### Input

In the first line of the input gives two integers  $n$ , a total number of pupills, and  $k$ , ( $1 \leq k \leq n \leq 1000$ ) —  
In the second line given ID numbers of pupils, ( $1 \leq ID \leq 10000$ ) .

### Output

Output  $k$  - th largest element in an unsorted array.

### Example

standard input	standard output
6 3 1 3 4 5 6 8	5



## Problem I. 77043. Online counter

Input file:           standard input  
Output file:         standard output  
Time limit:          1 second  
Memory limit:       256 megabytes

Given a text. For each word of this text print the number of times it has occurred in this text before.

### Input

Input is a text.

### Output

Output answer to the task.

### Examples

standard input	standard output
one two one two three	0 0 1 1 0
She sells sea shells on the sea shore;	0 0 0 0 0 0 1 0

## Problem J. 77336.Queue

Input file:            standard input  
Output file:          standard output  
Time limit:           1 second  
Memory limit:        256 megabytes

Imagine you have a queue. You have  $N$  people coming one by one and entering the queue from the beginning or from the end.

### Input

In the first line of the input, you are given an integer number  $N$  the number of people. In the next  $N$  lines, you are given a string  $s$  the name of a person and a number  $q$  if  $q$  is 1 the person stands at the beginning of the queue otherwise at the end of the queue.

### Output

Print the queue after all people come.

### Examples

standard input	standard output
3 qwe 1 asd 0 zxc 1	zxc qwe asd
6 a 0 b 0 a 1 a 1 c 0 d 0	a a a b c d