Problem A. 76433. ASC sort

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

You are given N integers. Sort the N integers by ascending order. Store N integers in a vector.

Input

The first line of input contains the number N - number of integers.
The second line contains a sequence of integers.

Output

Print out sorted integers

Example

standard input	standard output
4 20 3 7 9	3 7 9 20

Problem B. 76435. Reverse array

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

You are given N integers. Your task is to reverse sequence of integers. Store N integers in a vector.

Input

The first line of input contains the number N - number of integers.
The second line contains a sequence of integers.

Output

Print out reversed integers

Example

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

Problem C. 76440. Reverse in range

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

You are given n integers. Then index ranges a and b, $(0 \leq a < b \leq n-1)$. Your task is to reverse array elements in a given range ([a...b] — index range bounds inclusively). Store n integers in a vector.

Input

The first line of input contains the number n - the number of integers.
The second line contains a sequence of integers. The third line contains integers a and b

Output

Print out result sequence

Example

standard input	standard output
5 9 -1 2 8 6 1 3	9 8 2 -1 6

Problem D. 76470. Vector erase

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

You are given n integers. Then you are given an integer k — index in the vector. Your task is to erase value at given index k.

Input

The first line of input contains the number n, $(1 \leq n \leq 100)$ — the number of integers.
The second line contains a sequence of integers.
The third line contains an integer k, $(0 \leq k \leq n-1)$ — index in the vector.

Output

Print out elements of the vector separated by space after erase operation

Example

standard input	standard output
5 3 1 2 9 6 3	3 1 2 6

Problem E. 76471. Erase range

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

You are given n integers. Then index ranges a and b, $(0 \leq a < b \leq n-1)$. Your task is to erase sequence elements in a given range ([a...b] — index range bounds inclusively). Store n integers in a vector.

Input

The first line of input contains the number n - the number of integers.
The second line contains a sequence of integers. The third line contains integers a and b

Output

Print out result sequence after erase operation

Example

standard input	standard output
5 2 3 9 -1 8 2 3	2 3 8

Problem F. 76472. Add element

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

You are given n integers. Then two integers k, $(0 \leq k \leq n-1)$ — index in the sequence and a — given value. Your task is to insert number a at index k. Store n integers in a vector.

Input

The first line of input contains the number n - the number of integers. The second line contains a sequence of integers. The third line contains integers k and a.

Output

Print out newly created sequence

Example

standard input	standard output
5 2 3 8 -3 4 1 10	2 10 3 8 -3 4

Problem G. 76473. Number of primes

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

You are given n, $(1 \leq n \leq 100)$ positive integers, each integer $v[i]$, $(1 \leq v[i] \leq 1000)$. Then one integer number k, $(1 \leq k \leq 200)$. Your task is to show a count of prime numbers in a sequence that are greater than k. Store n integers in a vector. You should create function $isPrime$ to check for the prime.

Input

The first line of input contains the number n - the number of integers. The second line contains a sequence of integers. The third line contains integers k.

Output

Output single number — count result

Example

standard input	standard output
5 3 4 59 13 7 8	2

Problem H. 76503. K smallest numbers

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

You are given n, $(1 \leq n \leq 100)$ positive integers, each integer $v[i]$, $(1 \leq v[i] \leq 1000)$. Then one integer number k, $(1 \leq k \leq n-1)$. Find k smallest numbers from given sequence.

Input

The first line of input contains the number n - the number of integers. The second line contains a sequence of integers. The third line contains integers k.

Output

Print out k smallest numbers

Example

standard input	standard output
5 100 3 40 143 20 2	3 20

Problem I. 76504. Find K

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

Input

You are given n, $(1 \leq n \leq 100)$ positive integers, each integer $v[i]$, $(1 \leq v[i] \leq 1000)$. Then one integer number k, $(1 \leq k \leq 1000)$.

Output

Output Yes if k found at least ones in the sequence, No otherwise.

Examples

standard input	standard output
4 9 30 4 -3 4	Yes
4 2 3 0 1 10	No

Problem J. 76509. Big difference

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

Input

You are given n, $(1 \leq n \leq 100)$ integers, each integer $v[i]$, $(1 \leq v[i] \leq 1000)$.

Output

Output difference between the largest and smallest values in the sequence

Example

standard input	standard output
4 10 2 3 14	12

Problem K. 76512. Sum of K largest

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

You are given n, $(1 \le n \le 100)$ positive integers, each integer $v[i]$, $(1 \le v[i] \le 1000)$. Then one integer number k, $(1 \le k \le n-1)$. Find the sum of k largest numbers from given sequence.

Input

The first line of input contains the number n - the number of integers. The second line contains a sequence of integers. The third line contains integers k.

Output

Print out single number — sum of k largest numbers

Example

standard input	standard output
4 2 12 4 10 2	22

Problem L. 76513. Unique elements

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

Input

You are given n, $(1 \le n \le 100)$ integers, each integer $v[i]$, $(1 \le v[i] \le 1000)$.

Output

Print out single number — the number of unique elements

Example

standard input	standard output
5 1 2 1 3 3	3

Problem M. 76515. Sum of uniques

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

Input

You are given n, $(1 \le n \le 100)$ integers, each integer $v[i]$, $(1 \le v[i] \le 1000)$.

Output

Print out single number — the sum of unique elements.

Example

standard input	standard output
5 1 1 2 3 3	6

Problem N. 76520. Remove evens

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

Input

You are given n, $(1 \leq n \leq 100)$ integers, each integer $v[i]$, $(1 \leq v[i] \leq 1000)$.
Create new sequence with unique elements. Then remove even numbers from new sequence.

Output

Print out sequence after removing operation

Example

standard input	standard output
5 1 1 2 3 3	1 3

Problem O. 76521. Sort letters

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

Input

Single line of input contains one string — s which consists of upper and lower case letter.

Output

In first line output single integer — the number of unique letters from given string
Second line contains lower case each letter in the alphabet separated by space

Examples

standard input	standard output
testsample	7 a e l m p s t
SecondTEST	7 c d e n o s t