Problem A. 56260.Summator

Input file: standard input
Output file: standard output
Time limit: 2 seconds
Memory limit: 64 megabytes

You have an array a with size N. Find the sum of three biggest elements of array a.

Input

First line one integer - N,size of array. $(1 <= N <= 100000)$ In the second line you have elements of array $a[i]$ $(1 <= a[i] <= 10000)$

Output

Output sum of three biggest elements of array

Example

standard input	standard output
5 1 2 3 4 5	12

Problem B. 56242.ASCII

Input file:	standard input
Output file:	standard output
Time limit:	2 seconds
Memory limit:	64 megabytes

Given N chars, find the sum of the ASCII codes of this chars.

Input

First line contains one integer number - N. Next N lines contain chars. $(1 <= N <= 1000000)$

Output

One integer number.

Examples

standard input	standard output
5 u l u e c	542
2 a b	195

Problem C. 56259.Counter

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	64 megabytes

Given number X and array. Count how many times X appears in array.

Input

First line contains N - number of elements in array. $(1 <= N <= 1000000)$ Next N lines contain elements of array,elements are integers. Last line contains one number - X also integer.

Output

One integer number.

Examples

standard input	standard output
5 5 3 7 4 6 4	1
10 5 10 7 9 2 3 6 1 2 2 8	0

Problem D. 73584. Fancy array

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

Rayan (aka Mahambet) loves playing with one dimensional arrays. This time he created a new method of generating arrays.

He takes some random array, and adds 1 to the first element of the array, adds 2 to the second element, adds 3 to the third element and so on. Eventually, he ends up with adding n to the last element of the array.

You are given an array. What will be the resulting array, if we use Rayan's method to generate arrays?

Input

First line of input contains a single integer n — number of elements in the array ($1 \leq n \leq 1000$).

Second line contains n space separated integers $a_1, a_2, ..., a_n$ — elements of the array ($0 \leq a_i \leq 1000$).

Output

Output n elements separated by space — array that is generated from the given array by Rayan's method.

Examples

standard input	standard output
3 2 2 2	3 4 5
7 2 5 6 7 1 5 6	3 7 9 11 6 11 13

Problem E. 56261.Dividers

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	64 megabytes

Given number N. Find count of dividers of this number.

Input

Input contain one number N ($1 <= N <= 1000$).

Output

Output count of dividers of this number

Examples

standard input	standard output
7	2
15	4

Problem F. 38688.Removing element

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

You're given array with N positive integer numbers and number K. You need to remove K-th number from array and print out modified array. Array indexed from 1 up to N.

Input

First line of input contains two positive integer numbers N and K ($2 \leq N \leq 1000$ and $1 \leq K \leq N$) — length of array and index of removing element. Next line contains N positive integer numbers a_i ($1 \leq a_i \leq 1000$) — i-th number of array.

Output

Print $N - 1$ numbers — modified array.

Example

standard input	standard output
4 2 1 2 3 4	1 3 4

Problem G. 74141.year

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

Given a year number, find the minimum year number which is strictly larger than the given one and has only distinct digits.

Input

The single line contains integer y ($1000 <= y <= 9000$) — the year number.

Output

Print a single integer — the minimum year number that is strictly larger than y and all it's digits are distinct. It is guaranteed that the answer exists.

Examples

standard input	standard output
1111	1203
2334	2340
1987	2013

Problem H. 51263.Grade

Input file: standard input
Output file: standard output
Time limit: 2 seconds
Memory limit: 64 megabytes

Input contains one integer number A - grade, scored in programming principle class. Output letter equivalent of grade (0-59 F, 60-69 D, 70-79 C, 80-89 B, 90-100 A)

Input

One integer number $N(0 \le N \le 100)$

Output

Letter equivalent of grade

Examples

standard input	standard output
95	A
72	C

Problem I. 74133.pizza

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

You have pizza, the weight of pizza W kilogram, you task is to find you may divide this pizza into two parts, that each of the two parts weighs even number of kilos, at the same time it is not obligatory that the parts are equal.

For sure, each of them should get a part of positive weight. And weighs of the two parts must be integer.

Input

The first (and the only) input line contains integer number W ($1 <= W <= 100$) — the weight of the pizza.

Output

Print "YES"if you can divide the pizza into two parts, each of them weighing even number of kilos; and "NO"in the opposite case.

Example

standard input	standard output
8	YES

Note

For example, you may divide pizza into two parts of 2 and 6 kilos respectively (another variant — two parts of 4 and 4 kilos).

Problem J. 74131.Tricky sum

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

You should find sum of numbers from 1 to N(inclusive).

Input

You have one integer number N.

(-1000 <= N <= 1000)

Output

Output sum of numbers

Examples

standard input	standard output
6	21
3	6