Problem A. Reverse subarray

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

You're given array with N integer numbers and two positive integer numbers L and R. You need to reverse subarray from L to R and print out modified array. Array indexed from 1 up to N. Subarray from L to R is an array $a_L, a_{L+1}, ..., a_R$.

Input

First line contains three positive integer numbers N, L and R ($1 \le L \le R \le N \le 100$) — length of array, left range of subarray and right range of subarray, respectively. Next line contains N integer numbers a_i ($-100 \le a_i \le 100$) — i-th number of array.

Output

Output N integer numbers — modified array.

Examples

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

Problem B. Streamed input

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

Write a program that gets a sequence of numbers from 1 up to 9, ending with zero. Total number of digits will be no more than 100. Count in this sequence the number of ones, twos, threes, etc. The output must contain exactly 9 numbers.

Input

One line of input contains sequence — it's guaranteed that there will be no more than 100 numbers.

Output

Print 9 integers — answer to the problem.

Example

standard input	standard output
1 1 4 1 5 8 6 3 5 1 0	4 0 1 1 2 1 0 1 0

Problem C. Digits sum

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

You're given positive integer number S. Print in ascending order all three-digit numbers, the sum of digits which equal to S. Print each number in separated rows.

Input

One line of input contains one positive integer number S ($1 \leq S \leq 27$) — sum of digits of interested numbers. It can be easily seen that with given constraints there are always at least one answer.

Output

Print all numbers — each number on new line.

Example

standard input	standard output
3	102
	111
	120
	201
	210
	300

Problem D. Rotation

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

Given a matrix with size NxN. Turn it 90 degrees clockwise and print it.

Input

First line contains one integer number N $(1 \le N \le 20)$ — size of matrix. Each of the next N lines contains N integer numbers $a_{i,j}$ $(1 \le a_{i,j} \le 100)$ — number located on i-th row and j-th column.

Output

Print rotated matrix in same format as in input.

Example

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

Problem E. 74438. Dots or number.

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

Write program that prints numbers in increasing order in diagonal and "."on other shells.

Input

The first line contains one integer n (2 <= n <= 100) − number of rows.

Output

Print numbers on diagonal.

Examples

standard input	standard output
| 4 | ```
...1
..2.
.3..
4...
``` |
| 5 | ```
....1
...2.
..3..
.4...
5....
``` |
| 3 | ```
..1
.2.
3..
``` |
| 10 | ```
.........1
........2.
.......3..
......4...
.....5....
....6.....
...7......
..8.......
.9........
10........
``` |
| 2 | ```
.1
2.
``` |

Problem F. 75754. Bye-bye, F.R.I.D.A.Y. 3

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

Tony Stark on a new mission again! He has assembled a new robot who is much stronger than the previous ones.

Today Tony, after coming from his vacation, heard that Captain America is retiring. He felt very disappointed and decided to persuade Captain America to return back.

That's why he asked his new robot to find Captain America's email address. It is known that a valid email address must appear in the following format: **AAA@BBB.CCC**, where AAA, BBB, and CCC are some **non-empty** strings containing **only lowercase English letters**.

Given the email address that was provided by the new robot, your task is to validate it.

Note that any deviation violates the given format.

Input

The first line of input contains a single string s — an email address that was provided by the robot ($5 \le |s| \le 30$).

Output

If the given email address is valid, print «Yes».

Otherwise, print «No».

Examples

standard input	standard output
captainamerica@gmail.com	Yes
captain.gmail@com	No
iamtired@kbtu.kz	Yes
captain@@gmail.com	No
getoffmetony@mail.	No

Note

ATTENTION If your solution is not through the function then 0 points

Problem G.

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

You given $N * M$ matrix with $N * M$ numbers inside. You task is to find out the row in which total number of positive elements is bigger.

Input

First line contains N and $M(1 <= N, M <= 100)$. Then N lines that contains exactly M numbers each are inputed.

Output

Output have to contain the index of the row in which total number of positive elements is bigger. If in each row we are equal number of positives output "Numbers are equal".

Examples

standard input	standard output
3 4 1 1 -3 1 -4 2 2 1 1 -2 2 1	Numbers are equal
2 3 1 -1 3 2 2 2	2

Note

It's guaranty that only one row at once will have more positive element that others.