Problem A. Even Ascii

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

Given a single string, output new string, so that the ASCII code of each string is even number.

Input

Singla line, string s

Output

Single line, string, where the ASCII of each character is even number.

Examples

standard input	standard output
abcdef	bdf
aabbccddeeff	bbddff
abcdefghjklmnopqrstuywxyz	bdfhjlnprtxz

Note

Not even positions, even ASCII!!!

ASCII in C++:

char c = 'a';

int code = (int) c;

Problem B. Alimzhan agay's quiz

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

After a very hard quiz, Alimzhan agay wants to count the mean of points of his class. He has a matrix of points where rows are students, and columns are problems. For example matrix: [0, 1], [3, 3] means that first student (row 1) got 0 points for the first problem and 1 for the second; and the second student (row 2) got 3 points for both of the problems. Mean of this example is (0+1+3+3)/4 = 1.75 points.

Mean is a sum of all elements divided by a number of elements.

Input

First line contains integer n - number of students Second line contains integer m - number of problems Next n lines contains m integer - points of students.

Output

Print one integer - mean of the class.

Examples

standard input	standard output
3 3 1 1 1 0 0 3 0 0 3	1
5 4 1 3 3 4 0 0 0 4 2 0 0 4 0 0 0 0 0 0 0 4	1.25

Problem C. Game of brilliants

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

Bob and Nelson play a game. They have to take some amount of brilliants from the bag with N brilliants. They decided that a winner will be a player who take the last brilliant in the bag.

The rule of game is so simple. In the i'th round, Bob takes i amount of brilliants whereas Nelson takes two times more brilliants.

In the bag, there are only N brilliants. Please help to find the winner.

Input

First line contains an integer N - number of brilliants in the bag.

Output

Output "Bob"if Bob takes the last brilliant ,"Nelson"otherwise.

Examples

standard input	standard output
13	Nelson
19	Bob
1	Bob
2	Nelson

Problem D. Divide the Problems

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

Assistants made N problems for PP1 midterm. The problems are numbered 1 to N, and the difficulty of Problem i is represented as an integer d[i] (the bigger, the harder).

Instructor is dividing the problems into two categories by choosing an integer L and R, as follows:

A problem with difficulty in range [L;R] (inclusive) will be on midterm quiz. Other problems will remain for other exams. Which problems will be on midterm.

Input

First line of input contains 3 integers: N - amount of problems ($1 <= N < = 100$), L and R : lower and upper bound of problem difficulties. ($1 <= L <= R <= 10^5$).

Next N lines represents problems difficulty number d[i]. ($1 <= d[i] <= 10^5$)

Output

Print indexes of problems that will be in midterm. Index number starts from 1.

Example

standard input	standard output
10 101 200 1 50 100 101 150 200 900 1597 144 978465	4 5 6 9

Problem E. String

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

Aizhan wrote an essay. She likes to count down the appearance of each letter in the text. Please help her to write a program that will count repetition of each letter of alphabet.

Input

You have given a single line of text. It's guaranteed that text is in lower case.

Output

Print all characters and number of repetition of the character ordered by alphabet. For even letter position print number of repetition of a letter first and then a letter.

Example

standard input	standard output
asdfgh xcvbnm jhhdcbksdjc	a 1 2 b c 3 3 d e 0 1 f g 1 3 h i 0 2 j k 1 0 l m 1 1 n o 0 0 p q 0 0 r s 2 0 t u 0 1 v w 0 1 x y 0 0 z

Problem F. Massive

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

You are given an arrray and two numbers L and R which represent some range. Write a program that will print all numbers which are within L and R range inclusively.

Input

You have given n - size of array. Then n integer numbers a[i]. The last line contains L and R numbers(L<R).

Output

Print all numbers which are in the range.

Example

standard input	standard output
5 10 13 14 19 20 11 15	13 14

Problem G. Shifting letters in string

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

You are given some word and integer n. You need to shift all characters in the word to +n character in alphabetical order. If character is 'a' and n = 3 the result will be 'd'. If 'z' and n = 2 result will be 'b'.

Input

Line contains a word and integer n. (0 <= n <= 100). Word contains only lowercase letters.

Output

Print transformed word.

Examples

standard input	standard output
abcd 4	efgh
awz 1	bxa
aa 27	bb