Amazalgo 2018 Practice Contest

A. Adding Two Integers

time limit per test: 1.0 s
memory limit per test: 256 MB
input: standard input
output: standard output

Given two integers (a and b), get their sum:

$$a + b$$

Input

There will be one line with two integers given, a and b, separated by spaces.

Output

You should return the integer sum of a and b, sum.

Examples

input	Copy
5 9	

output	Copy
14	

input	Copy
50 -26	

output	Copy

```
24
```

Note

Constraints:

$-1,000,000,000 \le a \le 1,000,000,000$

$-1,000,000,000 \le b \le 1,000,000,000$

$-2,000,000,000 \le sum \le 2,000,000,000$

B. Racetrack

time limit per test: 1.0 s
memory limit per test: 64 MB
input: standard input
output: standard output

Alice and Bob play different games. When Alice plays, she always wins exactly a points. When Bob plays, he always wins exactly b points.

Today, after they finished playing, they noticed they had the same number of points. What is the smallest number this could be?

Input

The first line contains two integers, a and b, separated by spaces, where a is the number of points Alice wins in one game and b is the number of points Bob wins in one game.

Output

You should return the smallest possible number of points that Alice and Bob have, which should be an integer c.

Examples

input	Copy
2 3	

output	Copy
6	

input	Copy
4 6	
output	Copy
12	

Note

Constraints:

$1 \leq a \leq 10,000$

$1 \leq b \leq 10,000$

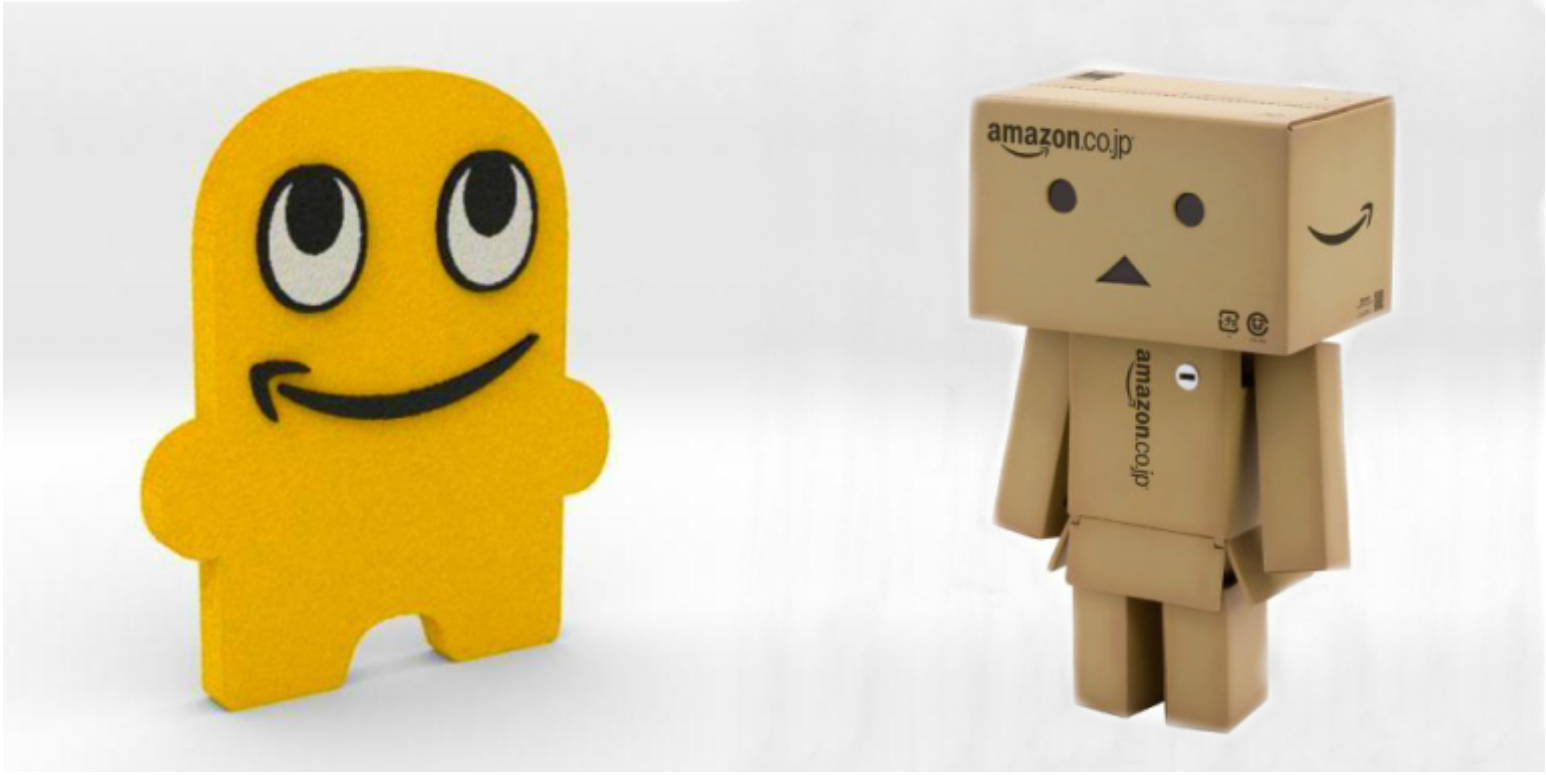
$1 \leq c \leq 100,000,000$

C. Pig Latin

time limit per test: 1.0 s
memory limit per test: 64 MB
input: standard input
output: standard output

Peccy and Danbo are two Amazon mascots. They like sending each other messages over Amazon Chime, but they've realised that their messages are unencrypted! Help Peccy and Danbo encrypt their messages by converting them into Pig Latin.

Pig Latin is a secret language which is similar to English. To convert an English word to Pig Latin, take the first letter of that word, move it to the end, and then add "ay". Make sure to check the examples.



Input

The first line will contain an integer T, where T is the number of sentences given.

Each sentence will be on a new line and will not contain punctuation. However, they will be capitalised at the beginning (but not anywhere else). Make sure you check the examples given.

Output

A list of sentences in Pig Latin. Each sentence should be on a new line and should not contain punctuation, but it should start with a capital letter.

Examples

input	Copy
1 Hello world	
output	Copy

```
Ellohay orldway
```

input

```
8
Hello danbo
Hello peccy
How are you today
Good how are you
Oh no
Whats wrong
It seems like our messages are not being encrypted
Dont panic
```

output

```
Ellohay anboday
Ellohay eccypay
Owhay reaay ouyay odaytay
Oodgay owhay reaay ouyay
Hoay onay
Hatsway rongway
Tiay eemssay ikelay uroay essagesmay reaay otnay eingbay ncryptedeay
Ontday anicpay
```

Note

Constraints:

$1 \leq T \leq 20$

Each sentence will not contain punctuation and will be all lowercase English characters, except for the very first letter of the very first word, which will be an uppercase English character.