

### Problem 1 – Multiverse Communication

One day, after eating too much pizza, the **master-programmers** Niki, Toni and Ivo started talking about “highly-intelligent” topics – how the universe **started**, who created it, are there other **advanced** forms of life, what kind of girls are hot and so on. Suddenly they received an **answer** from beyond to one of the biggest mysteries for the mankind – there is more than one universe in the space-time continuum! As a matter of fact – they are **infinite** – a multiverse to rule them all! How cool is that, huh?

So, back to our story – somewhere in between the wormholes, dark matter and a lot of space-flying Zerg Mutalisks, there was another universe almost **identical** to ours. The very same day after eating too much spaghetti, Ikin, Inot and Ovi (being well trained Terran Ghosts), decided to send telepathically an **encrypted numerical message** to our well-known software engineers.

The sent message is made of the following digits:

0	CHU
1	TEL
2	OFT
3	IVA
4	EMY
5	VNB
6	POQ
7	ERI
8	CAD
9	K-A
10	IIA
11	YLO
12	PLA

The message is written as a **sequence of digits**. The last digit of the number (the most right one) has a value as shown in the above table. The next digit on the left has a value **13** times bigger than the shown in the above table, the next digit on the left has **13\*13** times bigger value than the shown in the table and so on. Since our masters are too lazy after so much pizza and do not want to think (and code C# too), your task is to **translate the message into its decimal representation**. With your help, our heroes can fall asleep calmly, knowing other universes exist somewhere.

#### Input

The input data consists of a single line – the message from the parallel universe.

The input data will always be valid and in the described format. There is no need to check it explicitly.

## Output

The output data consists of a single line holding the calculated decimal representation of the given message number and should be printed at the console.

## Constraints

- The input number will have between 1 and 9 digits.
- Allowed working time for your program: 0.1 seconds.
- Allowed memory: 16 MB.

## Examples

Input	Output	Explanation
OFT	2	From the table <b>OFT</b> means <b>2</b> in 13 <sup>th</sup> based numeral system. Message is <b>2</b> . After converting it to decimal – the answer is <b>2</b> .

Input	Output	Explanation
IVAYLO	50	From the table <b>IVA</b> means <b>3</b> and <b>YLO</b> means <b>B (11)</b> in 13 <sup>th</sup> based numeral system. Message is <b>3B</b> . After converting it to decimal – the answer is <b>50</b> .

Input	Output	Explanation
TELERIK-ACADEMY	45569	From the table <b>TEL</b> means <b>1</b> , <b>ERI</b> means <b>7</b> , <b>K-A</b> means <b>9</b> , <b>CAD</b> means <b>8</b> and <b>EMY</b> means <b>4</b> in 13 <sup>th</sup> based numeral system. Message is <b>17984</b> . After converting it to decimal – the answer is <b>45569</b> .