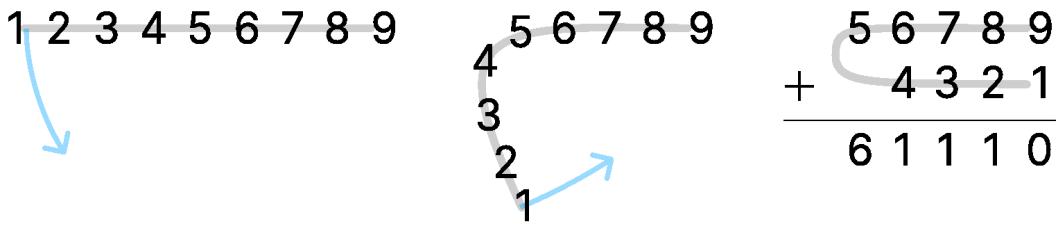
Folded Numbers X43287_en

You have to compute the value of "`folding`" a number. "`Folding`" a number n is an operation shown in the following figure (open the PDF if you can't see the figure correctly on the Jutge web page).



In particular, any number n can be considered a sequence of digits and be divided into two subsequences of consecutive digits a and b, be they of the same length, or alternatively of lengths differing only in one unit (including the case where a or b are empty). Concatenating these two halves a and b we would recover the original number n.
Then, to compute the "folding" operation, we invert the order of the a subsequence, which we will call a_{inv}, and, interpreting a_{inv} and b as numbers once again, add them together to obtain the result of "folding".
As an example, if n is 1234, the subsequence a is 12 and b is 34. Inverting the order of a gives 21, and the result will be, then, $21 + 34 = 55$.
In the case where n has an odd length, the partition can be made in two different ways. For instance, if n is 12345, we can compute the "folding" in these two ways:

- Divide n in $a = 123$ and $b = 45$, and inverting a and adding, we would get $321 + 45 = 366$.
- Divide n in $a = 12$ and $b = 345$, and inverting a and adding, we would get $21 + 345 = 366$.

The middle digit, then, ends up contributing in the same way to the final sum in both cases.

Input

The input consists of a sequence of strictly positive integers.

Output

The output consists of each number in the input "`folded`" as explained, each one in a separate line.

Sample input

```
1
55
```

```
444
555
9901
12345
```

```
123456
9991001
```

Sample output

```
1 -> 1
55 -> 10
444 -> 48
555 -> 60
9901 -> 100
12345 -> 366
123456 -> 777
9991001 -> 2000
```

Problem information

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