Crooked Digits

The crooked digit of a given number N is calculated using the number's digits in a very weird and bendy algorithm. The algorithm takes the following steps:

1. Sums the digits of the number **N** and stores the result back in N.
2. If the obtained result is bigger than **9**, step **1**. is repeated, otherwise the algorithm finishes.

The last obtained value of **N** is the result, calculated by the algorithm.

Input

- The input data should be read from the console.
- The only line in the input contains a number N, which can be an integer or real number (decimal fraction), positive or negative.
- The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

- The output data should be printed on the console.
- You must print the calculated crooked digit of the number N on the first and only line of the output.

Constraints

- The number N will have no more than 300 **digits** before and after the decimal point.
- The decimal separator will always be the "." symbol.

Sample tests

Input

```
3
```

Output

```
3
```

Input

```
-7231
```

Output

```
4
```

Input

```
1020340567.89
```

Output

```
9
```