## Problem 2 – Astrological Digits

The astrological digit of a given number **N** is a digit calculated by the number's digits by a special algorithm. The algorithm performs 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 integer or real number (decimal fraction).

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 astrological digit of the number **N** on the first and only line of the output.

### Constraints

* The number N will be in range [-1.7 × 10−308… 1.7 × 10308]. It will have no more than 300 digits before and after the decimal point.
* The decimal separator will always be the "**.**" symbol.
* Allowed working time for your program: 0.25 seconds.
* Allowed memory: 16 MB.

### Examples

|  |  |
| --- | --- |
| **Input example** | **Output example** |
| 8 | 8 |
| -1337 | 5 |
| 1234567.8900 | 9 |