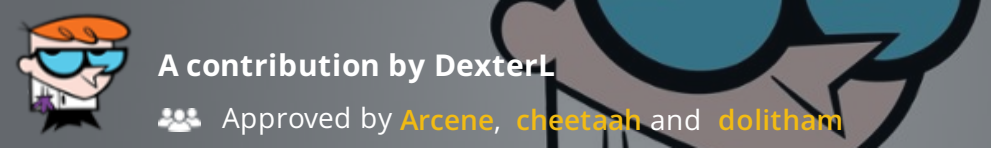

A contribution by DexterL

Approved by Arcene, cheetaah and dolitham

Goal

Multiply all of the digits of N, and repeat the same with the product obtained till the product cosists of only one digit. Output the number of steps taken to do so.

Example: N = 39

Step 1: 3 * 9 = 27
Step 2: 2 * 7 = 14
Step 3: 1 * 4 = 4

Since it took us 3 steps to reach a number with only 1 digit, the output is 3 .

Input

Line 1 : An integer N

Output

The multiplicative persistence of N, as described in the example above

Constraints

0 ≤ N ≤ 10^8

Example

Input	Output
39	3