Problem D
Another Problem

Time Limit: 1 seconds

Memory Limit: 1024 megabytes

Phidang thinks that the first problem to test the candidates is too simple and easy. Therefore, he wants to give another problem with numbers. The problem is as follows.

There are two extremely large numbers a and b. Phidang asks the candidates to compute the multiplication of all the numbers in the interval $[a, b]$. Let the result of the multiplication is x. Now, the candidates have to do the following process to find the result.

1. Calculate the sum of all digits of x.

2. If the sum is less than 10, print it.

3. Otherwise, repeat the process with x is now the sum of all digits of x.

Input

The input contains two lines corresponding to the two numbers a and $(1 \leq a \leq b \leq 10^{100\,000}$, each lies on one line.

Output

The output contains a single number, which is the result of the above process.

Sample Input	Sample Output
1 5	3
6 8	3
5 68	9