

# Problem I

## ICPC Hardest Problem

Given a positive integer  $N$  with at most  $10^5$  digits. Find a positive integer  $M$  such that:

- $N$  is a substring of  $M^2$ ,
- $M$  has at most  $10^5 + 10$  digits.

An integer  $x$  is a substring of  $y$  if  $x$  appears in a contiguous subsequence of  $y$ .

For example:

- 33 is a substring of 33,
- 34 is a substring of 1345,
- 14 is **not** a substring of 1234.

### Input

The input contains a single positive integer  $N$  ( $1 \leq N < 10^{10^5}$ ).

### Output

Output a single positive integer  $M$  ( $1 \leq M < 10^{10^5+10}$ ) satisfying the given conditions.

#### Sample Input 1

#### Sample Output 1

1	1
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