

C. Hack it!

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Little X has met the following problem recently.

Let's define $f(x)$ as the sum of digits in decimal representation of number x (for example, $f(1234) = 1 + 2 + 3 + 4$). You are to calculate

Of course Little X has solved this problem quickly, has locked it, and then has tried to hack others. He has seen the following C++ code:

```
ans = solve(l, r) % a;  
if (ans <= 0)  
    ans += a;
```

This code will fail only on the test with . You are given number a , help Little X to find a proper test for hack.

Input

The first line contains a single integer a ($1 \leq a \leq 10^{18}$).

Output

Print two integers: l, r ($1 \leq l \leq r < 10^{200}$) — the required test data. Leading zeros aren't allowed. It's guaranteed that the solution exists.

Examples

input
46
output
1 10

input
126444381000032
output
2333333 2333333333333