

# Divisible by 11

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            2 seconds  
Memory limit:         1024 megabytes

You are given an integer  $N$  represented in decimal.

Consider all integers that can be formed by rearranging the digits of  $N$  such that the resulting number has no leading zeros.

Find the number of such integers that are divisible by 11, modulo 2147483647 ( $= 2^{31} - 1$ ), which is prime.

Note that the integers formed by rearranging the digits of  $N$  include  $N$  itself.

## Input

The input is given in the following format:

$N$
-----

- All input values are integers.
- $1 \leq N < 10^{2 \times 10^6}$
- $N$  is given in decimal without leading zeros.

## Output

Print the answer on a single line.

## Examples

standard input	standard output
1001	2
31415926535	144000

## Note

In the first example, 1100 and 1001 satisfy the condition.