Project Euler #178: Step Numbers

This problem is a programming version of Problem 178 from projecteuler.net

Consider the number 45656.
It can be seen that each pair of consecutive digits of 45656 has a difference of one.
A number for which every pair of consecutive digits has a difference of one is called a step number.
A pandigital number contains every decimal digit from 0 to 9 at least once.

How many pandigital step numbers less than k are there?

Input Format

The input contains only one integer k.

Constraints

- $10^{10} \leq k \leq 10^{10^4}$

Output Format

Print the only integer which is the answer to the problem.

Sample Input 0

```
10000000000
```

Sample Output 0

```
1
```

Explanation 0

The only pandigital step-number less than 10^{10} is 9876543210.