CODEFORCES β
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# A. Beautiful Year

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

It seems like the year of 2013 came only yesterday. Do you know a curious fact? The year of 2013 is the first year after the old 1987 with only distinct digits.

Now you are suggested to solve the following problem: given a year number, find the minimum year number which is strictly larger than the given one and has only distinct digits.

## Input

The single line contains integer $y$ ($1000 \le y \le 9000$) — the year number.

## Output

Print a single integer — the minimum year number that is strictly larger than $y$ and all it's digits are distinct. It is guaranteed that the answer exists.

## Examples

| input |
|-------|
| 1987 |
| **output** |
| 2013 |

| input |
|-------|
| 2013 |
| **output** |
| 2014 |

**Codeforces Round #166 (Div. 2)**
**Finished**

**→ Virtual participation**

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[ Start virtual contest ]

**→ Problem tags**

[ brute force ]

No tag edit access

**→ Contest materials**

- Announcement              ✕
- Tutorial                  ✕