CODEFORCES
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PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

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 $(1000 \leq y \leq 9000)$ — 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	Copy
1987	
output	Copy
2013	

input	Copy
2013	
output	Copy
2014	

Codeforces Round #166 (Div. 2)

Finished

Practice

⭐

→ Problem tags

brute force   *800

No tag edit access

→ **Contest materials**

- Announcement ✕
- Tutorial #1 `(ru)` ✕
- editroal `(en)` ✕

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The only programming contests Web 2.0 platform
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