

From 1987 to 2013

Description

You might be surprised to know that 2013 is the first year since 1987 with distinct digits.

The years 2014, 2015, 2016, 2017, 2018, 2019 each have distinct digits.

2012 does not have distinct digits, since the digit 2 is repeated.

Given a year, what is the **next year** with distinct digits?

Input Specification

The input consists of one integer Y ($0 \leq Y \leq 10000$), representing the starting year.

If invalid input of any kind is received, the input prompt should be repeated.

Output Specification

The output will be the single integer D , which is the next year after Y with distinct digits.

Sample Input/Output Session – 1 (user input is in **bold**)

What is the starting year? **bananas**

What is the starting year? **1987**

The next year with distinct digits is 2013.

Sample Input/Output Session – 2 (user input is in **bold**)

What is the starting year? **-1**

What is the starting year? **999**

The next year with distinct digits is 1023.