Once in a tram

One day, Jack was going home by tram. When he got his ticket, he noticed that number on the ticket was not *lucky*. A *lucky* ticket is a six-digit number on the ticket in which sum of the first three digits is equal to the sum of the last three digits.

For example, number 165912 is lucky. Because, $1 + 6 + 5 = 12$, and $9 + 1 + 2 = 12$.

Since the number on the ticket wasn't lucky, Jack needs your help to find the next lucky ticket number.

For example, if Jack's ticket number is 165901, then the next lucky ticket number is 165903.

Given Jack's current ticket number, find and print the next lucky ticket number.

Input Format

The first line contains an integer, x, denoting the $6 - digit$ number on the ticket.

Constraints

- $10^5 \leq x \leq 10^6 - 2$

Output Format

For the given input find and print the next lucky ticket number.

Sample Input 0

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555555
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Sample Output 0

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555564
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Explanation 0

After 555555 the first lucky number is 555564, where the sum of first three digits $5 + 5 + 5$ is equal to the sum of last three digits $5 + 6 + 4$.