# 1056. Confusing Number

# Description

A confusing number is a number that when rotated 180 degrees becomes a different number with each digit valid.

We can rotate digits of a number by 180 degrees to form new digits.

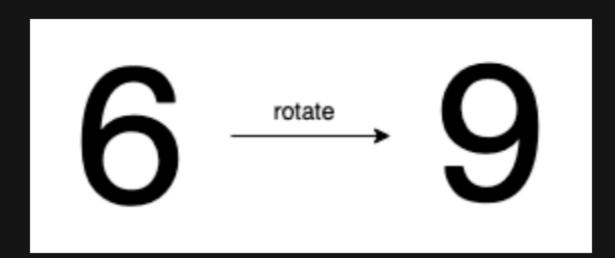
- When 0, 1, 6, 8, and 9 are rotated 180 degrees, they become 0, 1, 9, 8, and 6 respectively.
- When 2, 3, 4, 5, and 7 are rotated 180 degrees, they become invalid.

Note that after rotating a number, we can ignore leading zeros.

• For example, after rotating 8000, we have 0008 which is considered as just 8.

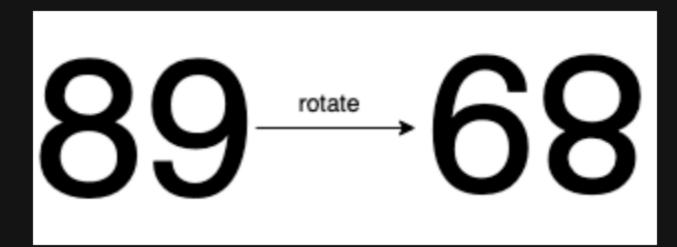
Given an integer n, return true if it is a confusing number, or false otherwise.

## Example 1:



Input: n = 6
Output: true
Explanation: We get 9 after rotating 6, 9 is a valid number, and 9 != 6.

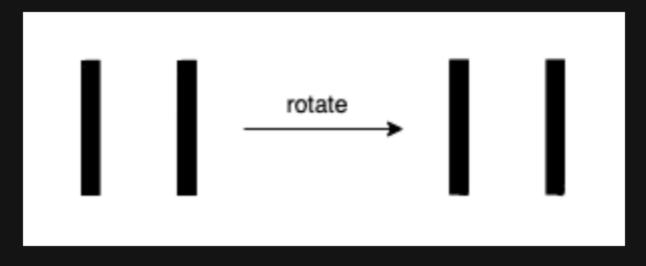
# Example 2:



Input: n = 89
Output: true

Explanation: We get 68 after rotating 89, 68 is a valid number and 68 != 89.

## **Example 3:**



Input: n = 11
Output: false

Explanation: We get 11 after rotating 11, 11 is a valid number but the value remains the same, thus 11 is not a confusing number

#### **Constraints:**

• 0 <= n <= 10 <sup>9</sup>