

804. Rotated Digits

Difficulty : Medium

<https://leetcode.com/problems/rotated-digits>

An integer x is a **good** if after rotating each digit individually by 180 degrees, we get a valid number that is different from x . Each digit must be rotated - we cannot choose to leave it alone.

A number is valid if each digit remains a digit after rotation. For example:

- 0, 1, and 8 rotate to themselves,
- 2 and 5 rotate to each other (in this case they are rotated in a different direction, in other words, 2 or 5 gets mirrored),
- 6 and 9 rotate to each other, and
- the rest of the numbers do not rotate to any other number and become invalid.

Given an integer n , return *the number of **good** integers in the range $[1, n]$* .

Example 1:

Input: $n = 10$

Output: 4

Explanation: There are four good numbers in the range $[1, 10]$: 2, 5, 6, 9.

Note that 1 and 10 are not good numbers, since they remain unchanged after rotating.

Example 2:

Input: $n = 1$

Output: 0

Example 3:

Input: $n = 2$

Output: 1

Constraints:

- $1 \leq n \leq 10^4$