

788. Rotated Digits

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X is a good number if after rotating each digit individually by 180 degrees, we get a valid number that is different from X. A number is valid if each digit remains a digit after rotation. 0, 1, and 8 rotate to themselves; 2 and 5 rotate to each other; 6 and 9 rotate to each other, and the rest of the numbers do not rotate to any other number.

Now given a positive number N, how many numbers X from 1 to N are good?

Example:

Input: 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.

Note:

- N will be in range [1, 10000].
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- Difficulty: Easy
- Total Accepted: 2.8K
- Total Submissions: 5.6K
- Contributor: [awice](#)
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```
class Solution {
    public int rotatedDigits(int N) {
        int count = 0;
        for (int i = 1; i <= N; i++) {
            if (isValid(i)) count++;
        }
        return count;
    }
}
```

```

public boolean isValid(int N) {
    /*
    Valid if N contains ATLEAST ONE 2, 5, 6, 9
    AND NO 3, 4 or 7s
    */
    boolean validFound = false;
    while (N > 0) {
        if (N % 10 == 2) validFound = true;
        if (N % 10 == 5) validFound = true;
        if (N % 10 == 6) validFound = true;
        if (N % 10 == 9) validFound = true;
        if (N % 10 == 3) return false;
        if (N % 10 == 4) return false;
        if (N % 10 == 7) return false;
        N = N / 10;
    }
    return validFound;
}
}

```