

# Problem 564: Find the Closest Palindrome

## Problem Information

**Difficulty:** Hard

**Acceptance Rate:** 31.77%

**Paid Only:** No

**Tags:** Math, String

## Problem Description

Given a string `n` representing an integer, return \_the closest integer (not including itself), which is a palindrome\_. If there is a tie, return \*\*the smaller one\*\*.

The closest is defined as the absolute difference minimized between two integers.

**Example 1:**

**Input:** n = "123" **Output:** "121"

**Example 2:**

**Input:** n = "1" **Output:** "0" **Explanation:** 0 and 2 are the closest palindromes but we return the smallest which is 0.

**Constraints:**

\* `1 <= n.length <= 18` \* `n` consists of only digits. \* `n` does not have leading zeros. \* `n` is representing an integer in the range `[1, 10<sup>18</sup> - 1]`.

## Code Snippets

**C++:**

```
class Solution {  
public:
```

```
string nearestPalindromic(string n) {  
    }  
};
```

**Java:**

```
class Solution {  
public String nearestPalindromic(String n) {  
    }  
}
```

**Python3:**

```
class Solution:  
def nearestPalindromic(self, n: str) -> str:
```