

# 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, 1018 - 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:
```