

Problem 1974: Minimum Time to Type Word Using Special Typewriter

Problem Information

Difficulty: Easy

Acceptance Rate: 78.19%

Paid Only: No

Tags: String, Greedy

Problem Description

There is a special typewriter with lowercase English letters `'a'` to `'z'` arranged in a **circle** with a **pointer**. A character can **only** be typed if the pointer is pointing to that character. The pointer is **initially** pointing to the character `'a'`.

Each second, you may perform one of the following operations:

- * Move the pointer one character **counterclockwise** or **clockwise**.
- * Type the character the pointer is **currently** on.

Given a string `word`, return the **minimum** number of seconds to type out the characters in `word`.

Example 1:

Input: `word = "abc"` **Output:** 5 **Explanation:** The characters are printed as follows: - Type the character 'a' in 1 second since the pointer is initially on 'a'. - Move the pointer clockwise to 'b' in 1 second. - Type the character 'b' in 1 second. - Move the pointer clockwise to 'c' in 1 second. - Type the character 'c' in 1 second.

Example 2:

Input: `word = "bza"` **Output:** 7 **Explanation:** The characters are printed as follows: - Move the pointer clockwise to 'b' in 1 second. - Type the character 'b' in 1 second. - Move the

pointer counterclockwise to 'z' in 2 seconds. - Type the character 'z' in 1 second. - Move the pointer clockwise to 'a' in 1 second. - Type the character 'a' in 1 second.

Example 3:

Input: word = "zjpc" **Output:** 34 **Explanation:** The characters are printed as follows: - Move the pointer counterclockwise to 'z' in 1 second. - Type the character 'z' in 1 second. - Move the pointer clockwise to 'j' in 10 seconds. - Type the character 'j' in 1 second. - Move the pointer clockwise to 'p' in 6 seconds. - Type the character 'p' in 1 second. - Move the pointer counterclockwise to 'c' in 13 seconds. - Type the character 'c' in 1 second.

Constraints:

* 1 <= word.length <= 100 * word consists of lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
    int minTimeToType(string word) {

    }
};
```

Java:

```
class Solution {
    public int minTimeToType(String word) {

    }
}
```

Python3:

```
class Solution:
    def minTimeToType(self, word: str) -> int:
```