

# Problem 2486: Append Characters to String to Make Subsequence

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 72.96%

**Paid Only:** No

**Tags:** Two Pointers, String, Greedy

## Problem Description

You are given two strings `s` and `t` consisting of only lowercase English letters.

Return the minimum number of characters that need to be appended to the end of `s` so that `t` becomes a **subsequence** of `s`.

A **subsequence** is a string that can be derived from another string by deleting some or no characters without changing the order of the remaining characters.

**Example 1:**

**Input:** `s = "coaching", t = "coding"` **Output:** 4 **Explanation:** Append the characters "ding" to the end of `s` so that `s = "coachingding"`. Now, `t` is a subsequence of `s` ("`co`\_aching\_`ding`\_"). It can be shown that appending any 3 characters to the end of `s` will never make `t` a subsequence.

**Example 2:**

**Input:** `s = "abcde", t = "a"` **Output:** 0 **Explanation:** `t` is already a subsequence of `s` ("`a`\_bcde").

**Example 3:**

**Input:** `s = "z", t = "abcde"` **Output:** 5 **Explanation:** Append the characters "abcde" to the end of `s` so that `s = "zabcde"`. Now, `t` is a subsequence of `s` ("`z`\_abcde\_"). It can be shown that appending any 4 characters to the end of `s` will never make `t` a subsequence.

**\*\*Constraints:\*\***

\* `1 <= s.length, t.length <= 105` \* `s` and `t` consist only of lowercase English letters.

## Code Snippets

### C++:

```
class Solution {  
public:  
    int appendCharacters(string s, string t) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int appendCharacters(String s, String t) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def appendCharacters(self, s: str, t: str) -> int:
```