

# Problem 1400: Construct K Palindrome Strings

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 68.64%

**Paid Only:** No

**Tags:** Hash Table, String, Greedy, Counting

## Problem Description

Given a string `s` and an integer `k`, return `true` if you can use all the characters in `s` to construct `k` non-empty palindrome strings or `false` otherwise.

**Example 1:**

**Input:** `s = "annabelle", k = 2` **Output:** `true` **Explanation:** You can construct two palindromes using all characters in `s`. Some possible constructions `"anna" + "elble"`, `"anbna" + "elle"`, `"anellena" + "b"`

**Example 2:**

**Input:** `s = "leetcode", k = 3` **Output:** `false` **Explanation:** It is impossible to construct 3 palindromes using all the characters of `s`.

**Example 3:**

**Input:** `s = "true", k = 4` **Output:** `true` **Explanation:** The only possible solution is to put each character in a separate string.

**Constraints:**

`1 <= s.length <= 105` `s` consists of lowercase English letters. `1 <= k <= 105`

## Code Snippets

**C++:**

```
class Solution {  
public:  
    bool canConstruct(string s, int k) {  
  
    }  
};
```

**Java:**

```
class Solution {  
    public boolean canConstruct(String s, int k) {  
  
    }  
}
```

**Python3:**

```
class Solution:  
    def canConstruct(self, s: str, k: int) -> bool:
```