

# Problem 1316: Distinct Echo Substrings

## Problem Information

**Difficulty:** Hard

**Acceptance Rate:** 52.63%

**Paid Only:** No

**Tags:** String, Trie, Rolling Hash, Hash Function

## Problem Description

Return the number of **distinct** non-empty substrings of `text` that can be written as the concatenation of some string with itself (i.e. it can be written as `a + a` where `a` is some string).

**Example 1.**

**Input:** `text = "abcabcabc"` **Output:** 3 **Explanation:** The 3 substrings are "abcabc", "bcabca" and "cabcab".

**Example 2.**

**Input:** `text = "leetcodeleetcode"` **Output:** 2 **Explanation:** The 2 substrings are "ee" and "leetcodeleetcode".

**Constraints:**

`1 <= text.length <= 2000` `text` has only lowercase English letters.

## Code Snippets

**C++:**

```
class Solution {
public:
    int distinctEchoSubstrings(string text) {
```

```
}  
};
```

### Java:

```
class Solution {  
    public int distinctEchoSubstrings(String text) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def distinctEchoSubstrings(self, text: str) -> int:
```