

# Problem 1745: Palindrome Partitioning IV

## Problem Information

Difficulty: **Hard**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

Given a string

`s`

, return

true

if it is possible to split the string

`s`

into three

non-empty

palindromic substrings. Otherwise, return

false

.

A string is said to be palindrome if it the same string when reversed.

Example 1:

Input:

`s = "abcbdd"`

Output:

true

Explanation:

"abcbdd" = "a" + "bcb" + "dd", and all three substrings are palindromes.

Example 2:

Input:

`s = "bcbddxy"`

Output:

false

Explanation:

s cannot be split into 3 palindromes.

Constraints:

$3 \leq s.length \leq 2000$

s

consists only of lowercase English letters.

## Code Snippets

**C++:**

```

class Solution {
public:
    bool checkPartitioning(string s) {

    }

};

```

### Java:

```

class Solution {
    public boolean checkPartitioning(String s) {

    }

}

```

### Python3:

```

class Solution:
    def checkPartitioning(self, s: str) -> bool:

```

### Python:

```

class Solution(object):
    def checkPartitioning(self, s):
        """
        :type s: str
        :rtype: bool
        """

```

### JavaScript:

```

/**
 * @param {string} s
 * @return {boolean}
 */
var checkPartitioning = function(s) {

};

```

### TypeScript:

```

function checkPartitioning(s: string): boolean {

```

```
};
```

### C#:

```
public class Solution {  
    public bool CheckPartitioning(string s) {  
  
    }  
}
```

### C:

```
bool checkPartitioning(char* s) {  
  
}
```

### Go:

```
func checkPartitioning(s string) bool {  
  
}
```

### Kotlin:

```
class Solution {  
    fun checkPartitioning(s: String): Boolean {  
  
    }  
}
```

### Swift:

```
class Solution {  
    func checkPartitioning(_ s: String) -> Bool {  
  
    }  
}
```

### Rust:

```
impl Solution {  
    pub fn check_partitioning(s: String) -> bool {
```

```
}  
}
```

### Ruby:

```
# @param {String} s  
# @return {Boolean}  
def check_partitioning(s)  
  
end
```

### PHP:

```
class Solution {  
  
    /**  
     * @param String $s  
     * @return Boolean  
     */  
    function checkPartitioning($s) {  
  
    }  
}
```

### Dart:

```
class Solution {  
    bool checkPartitioning(String s) {  
  
    }  
}
```

### Scala:

```
object Solution {  
    def checkPartitioning(s: String): Boolean = {  
  
    }  
}
```

### Elixir:

```

defmodule Solution do
  @spec check_partitioning(s :: String.t) :: boolean
  def check_partitioning(s) do

  end

end

```

## Erlang:

```

-spec check_partitioning(S :: unicode:unicode_binary()) -> boolean().
check_partitioning(S) ->
.

```

## Racket:

```

(define/contract (check-partitioning s)
  (-> string? boolean?)
)

```

# Solutions

## C++ Solution:

```

/*
 * Problem: Palindrome Partitioning IV
 * Difficulty: Hard
 * Tags: string, tree, dp
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) or O(n * m) for DP table
 */

class Solution {
public:
    bool checkPartitioning(string s) {

    }

};

```

## Java Solution:

```

/**
 * Problem: Palindrome Partitioning IV
 * Difficulty: Hard
 * Tags: string, tree, dp
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) or O(n * m) for DP table
 */

class Solution {
public boolean checkPartitioning(String s) {

}

}

```

### Python3 Solution:

```

"""
Problem: Palindrome Partitioning IV
Difficulty: Hard
Tags: string, tree, dp

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(n) or O(n * m) for DP table
"""

class Solution:
    def checkPartitioning(self, s: str) -> bool:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

class Solution(object):
    def checkPartitioning(self, s):
        """
        :type s: str
        :rtype: bool
        """

```

## JavaScript Solution:

```
/**
 * Problem: Palindrome Partitioning IV
 * Difficulty: Hard
 * Tags: string, tree, dp
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) or O(n * m) for DP table
 */

/**
 * @param {string} s
 * @return {boolean}
 */
var checkPartitioning = function(s) {

};
```

## TypeScript Solution:

```
/**
 * Problem: Palindrome Partitioning IV
 * Difficulty: Hard
 * Tags: string, tree, dp
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) or O(n * m) for DP table
 */

function checkPartitioning(s: string): boolean {

};
```

## C# Solution:

```
/*
 * Problem: Palindrome Partitioning IV
 * Difficulty: Hard
 * Tags: string, tree, dp
 *
 */
```



```

* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) or O(n * m) for DP table
*/

public class Solution {
public bool CheckPartitioning(string s) {

}

}

```

### C Solution:

```

/*
* Problem: Palindrome Partitioning IV
* Difficulty: Hard
* Tags: string, tree, dp
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) or O(n * m) for DP table
*/

bool checkPartitioning(char* s) {

}

```

### Go Solution:

```

// Problem: Palindrome Partitioning IV
// Difficulty: Hard
// Tags: string, tree, dp
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(n) or O(n * m) for DP table

func checkPartitioning(s string) bool {

}

```

### Kotlin Solution:

```
class Solution {  
    fun checkPartitioning(s: String): Boolean {  
  
    }  
}
```

### Swift Solution:

```
class Solution {  
    func checkPartitioning(_ s: String) -> Bool {  
  
    }  
}
```

### Rust Solution:

```
// Problem: Palindrome Partitioning IV  
// Difficulty: Hard  
// Tags: string, tree, dp  
//  
// Approach: String manipulation with hash map or two pointers  
// Time Complexity: O(n) or O(n log n)  
// Space Complexity: O(n) or O(n * m) for DP table  
  
impl Solution {  
    pub fn check_partitioning(s: String) -> bool {  
  
    }  
}
```

### Ruby Solution:

```
# @param {String} s  
# @return {Boolean}  
def check_partitioning(s)  
  
end
```

### PHP Solution:

```

class Solution {

  /**
   * @param String $s
   * @return Boolean
   */
  function checkPartitioning($s) {

  }

}

```

### Dart Solution:

```

class Solution {
  bool checkPartitioning(String s) {

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}

```

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object Solution {
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.

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