

Problem 1419: Minimum Number of Frogs Croaking

Problem Information

Difficulty: **Medium**

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

You are given the string

`croakOfFrogs`

, which represents a combination of the string

`"croak"`

from different frogs, that is, multiple frogs can croak at the same time, so multiple

`"croak"`

are mixed.

Return the minimum number of

different

frogs to finish all the croaks in the given string.

A valid

`"croak"`

means a frog is printing five letters

'c'

,

'r'

,

'o'

,

'a'

, and

'k'

sequentially

. The frogs have to print all five letters to finish a croak. If the given string is not a combination of a valid

"croak"

return

-1

.

Example 1:

Input:

croakOfFrogs = "croakcroak"

Output:

1

Explanation:

One frog yelling "croak

"

twice.

Example 2:

Input:

croakOfFrogs = "crcoakroak"

Output:

2

Explanation:

The minimum number of frogs is two. The first frog could yell "

cr

c

oak

roak". The second frog could yell later "cr

c

oak

roak

".

Example 3:

Input:

croakOfFrogs = "croakcrook"

Output:

-1

Explanation:

The given string is an invalid combination of "croak

"

from different frogs.

Constraints:

$1 \leq \text{croakOfFrogs.length} \leq 10$

5

croakOfFrogs

is either

'c'

,

'r'

,

'o'

,

'a'

, or

'k'

.

Code Snippets

C++:

```
class Solution {  
public:  
    int minNumberOfFrogs(string croakOfFrogs) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int minNumberOfFrogs(String croakOfFrogs) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def minNumberOfFrogs(self, croakOfFrogs: str) -> int:
```

Python:

```
class Solution(object):  
    def minNumberOfFrogs(self, croakOfFrogs):  
        """  
        :type croakOfFrogs: str
```

```
:rtype: int
"""
```

JavaScript:

```
/**
 * @param {string} croakOfFrogs
 * @return {number}
 */
var minNumberOfFrogs = function(croakOfFrogs) {

};
```

TypeScript:

```
function minNumberOfFrogs(croakOfFrogs: string): number {

};
```

C#:

```
public class Solution {
    public int MinNumberOfFrogs(string croakOfFrogs) {

    }
}
```

C:

```
int minNumberOfFrogs(char* croakOfFrogs) {

}
```

Go:

```
func minNumberOfFrogs(croakOfFrogs string) int {

}
```

Kotlin:

```
class Solution {  
    fun minNumberOfFrogs(croakOfFrogs: String): Int {  
  
    }  
}
```

Swift:

```
class Solution {  
    func minNumberOfFrogs(_ croakOfFrogs: String) -> Int {  
  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn min_number_of_frogs(croak_of_frogs: String) -> i32 {  
  
    }  
}
```

Ruby:

```
# @param {String} croak_of_frogs  
# @return {Integer}  
def min_number_of_frogs(croak_of_frogs)  
  
end
```

PHP:

```
class Solution {  
  
    /**  
     * @param String $croakOfFrogs  
     * @return Integer  
     */  
    function minNumberOfFrogs($croakOfFrogs) {  
  
    }  
}
```

Dart:

```
class Solution {  
  int minNumberOfFrogs(String croakOfFrogs) {  
  
  }  
}
```

Scala:

```
object Solution {  
  def minNumberOfFrogs(croakOfFrogs: String): Int = {  
  
  }  
}
```

Elixir:

```
defmodule Solution do  
  @spec min_number_of_frogs(croak_of_frogs :: String.t) :: integer  
  def min_number_of_frogs(croak_of_frogs) do  
  
  end  
end
```

Erlang:

```
-spec min_number_of_frogs(CroakOfFrogs :: unicode:unicode_binary()) ->  
integer().  
min_number_of_frogs(CroakOfFrogs) ->  
.
```

Racket:

```
(define/contract (min-number-of-frogs croakOfFrogs)  
  (-> string? exact-integer?)  
)
```

Solutions

C++ Solution:


```

/*
 * Problem: Minimum Number of Frogs Croaking
 * Difficulty: Medium
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public:
    int minNumberOfFrogs(string croakOfFrogs) {

    }
};

```

Java Solution:

```

/**
 * Problem: Minimum Number of Frogs Croaking
 * Difficulty: Medium
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
    public int minNumberOfFrogs(String croakOfFrogs) {

    }
}

```

Python3 Solution:

```

"""
Problem: Minimum Number of Frogs Croaking
Difficulty: Medium
Tags: string

```

```

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach
"""

class Solution:
    def minNumberOfFrogs(self, croakOfFrogs: str) -> int:
        # TODO: Implement optimized solution
        pass

```

Python Solution:

```

class Solution(object):
    def minNumberOfFrogs(self, croakOfFrogs):
        """
        :type croakOfFrogs: str
        :rtype: int
        """

```

JavaScript Solution:

```

/**
 * Problem: Minimum Number of Frogs Croaking
 * Difficulty: Medium
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

/**
 * @param {string} croakOfFrogs
 * @return {number}
 */
var minNumberOfFrogs = function(croakOfFrogs) {

};

```

TypeScript Solution:

```

/**
 * Problem: Minimum Number of Frogs Croaking
 * Difficulty: Medium
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

function minNumberOfFrogs(croakOfFrogs: string): number {

};

```

C# Solution:

```

/*
 * Problem: Minimum Number of Frogs Croaking
 * Difficulty: Medium
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

public class Solution {
    public int MinNumberOfFrogs(string croakOfFrogs) {

    }
}

```

C Solution:

```

/*
 * Problem: Minimum Number of Frogs Croaking
 * Difficulty: Medium
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach

```

```

*/

int minNumberOfFrogs(char* croakOfFrogs) {

}

```

Go Solution:

```

// Problem: Minimum Number of Frogs Croaking
// Difficulty: Medium
// Tags: string
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

func minNumberOfFrogs(croakOfFrogs string) int {

}

```

Kotlin Solution:

```

class Solution {
    fun minNumberOfFrogs(croakOfFrogs: String): Int {

    }
}

```

Swift Solution:

```

class Solution {
    func minNumberOfFrogs(_ croakOfFrogs: String) -> Int {

    }
}

```

Rust Solution:

```

// Problem: Minimum Number of Frogs Croaking
// Difficulty: Medium
// Tags: string

```

```
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

impl Solution {
    pub fn min_number_of_frogs(croak_of_frogs: String) -> i32 {

    }
}
```

Ruby Solution:

```
# @param {String} croak_of_frogs
# @return {Integer}
def min_number_of_frogs(croak_of_frogs)

end
```

PHP Solution:

```
class Solution {

    /**
     * @param String $croakOfFrogs
     * @return Integer
     */
    function minNumberOfFrogs($croakOfFrogs) {

    }
}
```

Dart Solution:

```
class Solution {
    int minNumberOfFrogs(String croakOfFrogs) {

    }
}
```

Scala Solution:

```
object Solution {  
  def minNumberOfFrogs(croakOfFrogs: String): Int = {  
  
  }  
}
```

Elixir Solution:

```
defmodule Solution do  
  @spec min_number_of_frogs(croak_of_frogs :: String.t) :: integer  
  def min_number_of_frogs(croak_of_frogs) do  
  
  end  
end
```

Erlang Solution:

```
-spec min_number_of_frogs(CroakOfFrogs :: unicode:unicode_binary()) ->  
integer().  
min_number_of_frogs(CroakOfFrogs) ->  
.
```

Racket Solution:

```
(define/contract (min-number-of-frogs croakOfFrogs)  
  (-> string? exact-integer?)  
)
```