

# Problem 2027: Minimum Moves to Convert String

## Problem Information

Difficulty: **Easy**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

You are given a string

s

consisting of

n

characters which are either

'X'

or

'O'

.

A

move

is defined as selecting

three

consecutive characters

of

s

and converting them to

'O'

. Note that if a move is applied to the character

'O'

, it will stay the

same

.

Return

the

minimum

number of moves required so that all the characters of

s

are converted to

'O'

.

Example 1:

Input:

s = "XXX"

Output:

1

Explanation:

XXX

-> OOO We select all the 3 characters and convert them in one move.

Example 2:

Input:

s = "XXOX"

Output:

2

Explanation:

XXO

X -> O

OOX

-> OOOO We select the first 3 characters in the first move, and convert them to

'O'

. Then we select the last 3 characters and convert them so that the final string contains all

'O'

s.

Example 3:

Input:

s = "OOOO"

Output:

0

Explanation:

There are no

'X's

in

s

to convert.

Constraints:

$3 \leq s.length \leq 1000$

$s[i]$

is either

'X'

or

'O'

## Code Snippets

### C++:

```
class Solution {  
public:  
    int minimumMoves(string s) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int minimumMoves(String s) {  
  
    }  
}
```

### Python3:

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

### Python:

```
class Solution(object):  
    def minimumMoves(self, s):  
        """  
        :type s: str  
        :rtype: int  
        """
```

### JavaScript:

```
/**  
 * @param {string} s  
 * @return {number}  
 */
```

```
var minimumMoves = function(s) {  
};
```

### TypeScript:

```
function minimumMoves(s: string): number {  
};
```

### C#:

```
public class Solution {  
    public int MinimumMoves(string s) {  
        }  
    }
```

### C:

```
int minimumMoves(char* s) {  
}
```

### Go:

```
func minimumMoves(s string) int {  
}
```

### Kotlin:

```
class Solution {  
    fun minimumMoves(s: String): Int {  
        }  
    }
```

### Swift:

```
class Solution {  
    func minimumMoves(_ s: String) -> Int {
```

```
}
```

```
}
```

### Rust:

```
impl Solution {
    pub fn minimum_moves(s: String) -> i32 {
        }
    }
}
```

### Ruby:

```
# @param {String} s
# @return {Integer}
def minimum_moves(s)

end
```

### PHP:

```
class Solution {

    /**
     * @param String $s
     * @return Integer
     */
    function minimumMoves($s) {

    }
}
```

### Dart:

```
class Solution {
    int minimumMoves(String s) {
        }
    }
}
```

### Scala:

```
object Solution {  
    def minimumMoves(s: String): Int = {  
        }  
        }  
}
```

### Elixir:

```
defmodule Solution do  
  @spec minimum_moves(String.t) :: integer  
  def minimum_moves(s) do  
  
  end  
  end
```

### Erlang:

```
-spec minimum_moves(unicode:unicode_binary()) -> integer().  
minimum_moves(S) ->  
.
```

### Racket:

```
(define/contract (minimum-moves s)  
  (-> string? exact-integer?)  
)
```

## Solutions

### C++ Solution:

```
/*  
 * Problem: Minimum Moves to Convert String  
 * Difficulty: Easy  
 * Tags: string, greedy  
 *  
 * 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 minimumMoves(string s) {  
  
    }  
};
```

### Java Solution:

```
/**  
 * Problem: Minimum Moves to Convert String  
 * Difficulty: Easy  
 * Tags: string, greedy  
 *  
 * 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 minimumMoves(String s) {  
  
    }  
}
```

### Python3 Solution:

```
"""  
Problem: Minimum Moves to Convert String  
Difficulty: Easy  
Tags: string, greedy  
  
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 minimumMoves(self, s: str) -> int:  
        # TODO: Implement optimized solution  
        pass
```

### Python Solution:

```
class Solution(object):
    def minimumMoves(self, s):
        """
        :type s: str
        :rtype: int
        """
```

### JavaScript Solution:

```
/**
 * Problem: Minimum Moves to Convert String
 * Difficulty: Easy
 * Tags: string, greedy
 *
 * 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} s
 * @return {number}
 */
var minimumMoves = function(s) {

};
```

### TypeScript Solution:

```
/**
 * Problem: Minimum Moves to Convert String
 * Difficulty: Easy
 * Tags: string, greedy
 *
 * 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 minimumMoves(s: string): number {
```

```
};
```

### C# Solution:

```
/*
 * Problem: Minimum Moves to Convert String
 * Difficulty: Easy
 * Tags: string, greedy
 *
 * 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 MinimumMoves(string s) {
        return 0;
    }
}
```

### C Solution:

```
/*
 * Problem: Minimum Moves to Convert String
 * Difficulty: Easy
 * Tags: string, greedy
 *
 * 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 minimumMoves(char* s) {
    return 0;
}
```

### Go Solution:

```
// Problem: Minimum Moves to Convert String
// Difficulty: Easy
```

```
// Tags: string, greedy
//
// 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 minimumMoves(s string) int {

}
```

### Kotlin Solution:

```
class Solution {
    fun minimumMoves(s: String): Int {
        return 0
    }
}
```

### Swift Solution:

```
class Solution {
    func minimumMoves(_ s: String) -> Int {
        return 0
    }
}
```

### Rust Solution:

```
// Problem: Minimum Moves to Convert String
// Difficulty: Easy
// Tags: string, greedy
//
// 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 minimum_moves(s: String) -> i32 {
        return 0
    }
}
```

### Ruby Solution:

```
# @param {String} s
# @return {Integer}
def minimum_moves(s)

end
```

### PHP Solution:

```
class Solution {

    /**
     * @param String $s
     * @return Integer
     */
    function minimumMoves($s) {

    }
}
```

### Dart Solution:

```
class Solution {
int minimumMoves(String s) {

}
```

### Scala Solution:

```
object Solution {
def minimumMoves(s: String): Int = {

}
```

### Elixir Solution:

```
defmodule Solution do
@spec minimum_moves(s :: String.t) :: integer
def minimum_moves(s) do
```

```
end  
end
```

### Erlang Solution:

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-spec minimum_moves(S :: unicode:unicode_binary()) -> integer().  
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```

### Racket Solution:

```
(define/contract (minimum-moves s)  
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)
```