

Problem 283: Move Zeroes

Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Given an integer array

`nums`

, move all

0

's to the end of it while maintaining the relative order of the non-zero elements.

Note

that you must do this in-place without making a copy of the array.

Example 1:

Input:

`nums = [0,1,0,3,12]`

Output:

`[1,3,12,0,0]`

Example 2:

Input:

nums = [0]

Output:

[0]

Constraints:

1 <= nums.length <= 10

4

-2

31

<= nums[i] <= 2

31

- 1

Follow up:

Could you minimize the total number of operations done?

Code Snippets

C++:

```
class Solution {
public:
    void moveZeroes(vector<int>& nums) {

    }
};
```

Java:

```
class Solution {  
    public void moveZeroes(int[] nums) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def moveZeroes(self, nums: List[int]) -> None:  
        """  
        Do not return anything, modify nums in-place instead.  
        """
```

Python:

```
class Solution(object):  
    def moveZeroes(self, nums):  
        """  
        :type nums: List[int]  
        :rtype: None Do not return anything, modify nums in-place instead.  
        """
```

JavaScript:

```
/**  
 * @param {number[]} nums  
 * @return {void} Do not return anything, modify nums in-place instead.  
 */  
var moveZeroes = function(nums) {  
  
};
```

TypeScript:

```
/**  
Do not return anything, modify nums in-place instead.  
 */  
function moveZeroes(nums: number[]): void {  
  
};
```

C#:

```
public class Solution {  
    public void MoveZeroes(int[] nums) {  
  
    }  
}
```

C:

```
void moveZeroes(int* nums, int numsSize) {  
  
}
```

Go:

```
func moveZeroes(nums []int) {  
  
}
```

Kotlin:

```
class Solution {  
    fun moveZeroes(nums: IntArray): Unit {  
  
    }  
}
```

Swift:

```
class Solution {  
    func moveZeroes(_ nums: inout [Int]) {  
  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn move_zeroes(nums: &mut Vec<i32>) {  
  
    }  
}
```

Ruby:

```
# @param {Integer[]} nums
# @return {Void} Do not return anything, modify nums in-place instead.
def move_zeroes(nums)

end
```

PHP:

```
class Solution {

    /**
     * @param Integer[] $nums
     * @return NULL
     */
    function moveZeroes(&$nums) {

    }

}
```

Dart:

```
class Solution {
  void moveZeroes(List<int> nums) {

  }
}
```

Scala:

```
object Solution {
  def moveZeroes(nums: Array[Int]): Unit = {

  }
}
```

Solutions

C++ Solution:

```

/*
 * Problem: Move Zeroes
 * Difficulty: Easy
 * Tags: array
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public:
    void moveZeroes(vector<int>& nums) {

    }
};

```

Java Solution:

```

/**
 * Problem: Move Zeroes
 * Difficulty: Easy
 * Tags: array
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 * Approach: Use two pointers or sliding window technique
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class Solution {
    public void moveZeroes(int[] nums) {

    }
}

```

Python3 Solution:

```

"""
Problem: Move Zeroes
Difficulty: Easy
Tags: array

```

```

Approach: Use two pointers or sliding window technique
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach
"""

class Solution:
    def moveZeroes(self, nums: List[int]) -> None:
        # TODO: Implement optimized solution
        pass

```

Python Solution:

```

class Solution(object):
    def moveZeroes(self, nums):
        """
        :type nums: List[int]
        :rtype: None Do not return anything, modify nums in-place instead.
        """

```

JavaScript Solution:

```

/**
 * Problem: Move Zeroes
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/**
 * @param {number[]} nums
 * @return {void} Do not return anything, modify nums in-place instead.
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var moveZeroes = function(nums) {

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```

TypeScript Solution:

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function moveZeroes(nums: number[]): void {

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C# Solution:

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 */

public class Solution {
    public void MoveZeroes(int[] nums) {

    }
}

```

C Solution:

```

/*
 * Problem: Move Zeroes
 * Difficulty: Easy
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 *

```



```

* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

void moveZeroes(int* nums, int numsSize) {

}

```

Go Solution:

```

// Problem: Move Zeroes
// Difficulty: Easy
// Tags: array
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
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func moveZeroes(nums []int) {

}

```

Kotlin Solution:

```

class Solution {
    fun moveZeroes(nums: IntArray): Unit {

    }
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Swift Solution:

```

class Solution {
    func moveZeroes(_ nums: inout [Int]) {

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Rust Solution:

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impl Solution {
pub fn move_zeroes(nums: &mut Vec<i32>) {

}
}

```

Ruby Solution:

```

# @param {Integer[]} nums
# @return {Void} Do not return anything, modify nums in-place instead.
def move_zeroes(nums)

end

```

PHP Solution:

```

class Solution {

/**
 * @param Integer[] $nums
 * @return NULL
 */
function moveZeroes(&$nums) {

}

}

```

Dart Solution:

```

class Solution {
void moveZeroes(List<int> nums) {

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Scala Solution:

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