Problem 905: Sort Array By Parity

Problem Information

Difficulty: Easy
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Given an integer array

nums

, move all the even integers at the beginning of the array followed by all the odd integers.

Return

any array

that satisfies this condition

.

Example 1:

Input:

nums = [3,1,2,4]

Output:

[2,4,3,1]

Explanation:

The outputs [4,2,3,1], [2,4,1,3], and [4,2,1,3] would also be accepted.

Example 2:

Input:

nums = [0]

Output:

[0]

Constraints:

1 <= nums.length <= 5000

0 <= nums[i] <= 5000

Code Snippets

C++:

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

}
};
```

Java:

```
class Solution {
public int[] sortArrayByParity(int[] nums) {

}
}
```

Python3:

```
class Solution:
def sortArrayByParity(self, nums: List[int]) -> List[int]:
```

Python:

```
class Solution(object):
def sortArrayByParity(self, nums):
"""
:type nums: List[int]
:rtype: List[int]
"""
```

JavaScript:

```
/**
* @param {number[]} nums
* @return {number[]}
*/
var sortArrayByParity = function(nums) {

};
```

TypeScript:

```
function sortArrayByParity(nums: number[]): number[] {

};
```

C#:

```
public class Solution {
public int[] SortArrayByParity(int[] nums) {

}
}
```

C:

```
/**
* Note: The returned array must be malloced, assume caller calls free().
*/
int* sortArrayByParity(int* nums, int numsSize, int* returnSize) {
```

```
}
```

Go:

```
func sortArrayByParity(nums []int) []int {

}
```

Kotlin:

```
class Solution {
fun sortArrayByParity(nums: IntArray): IntArray {

}
}
```

Swift:

```
class Solution {
func sortArrayByParity(_ nums: [Int]) -> [Int] {

}
}
```

Rust:

```
impl Solution {
pub fn sort_array_by_parity(nums: Vec<i32>) -> Vec<i32> {

}
}
```

Ruby:

```
# @param {Integer[]} nums
# @return {Integer[]}
def sort_array_by_parity(nums)

end
```

PHP:

```
class Solution {

/**
* @param Integer[] $nums
* @return Integer[]
*/
function sortArrayByParity($nums) {

}
}
```

Dart:

```
class Solution {
List<int> sortArrayByParity(List<int> nums) {

}
}
```

Scala:

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

}
}
```

Elixir:

```
defmodule Solution do
@spec sort_array_by_parity(nums :: [integer]) :: [integer]
def sort_array_by_parity(nums) do

end
end
```

Erlang:

```
-spec sort_array_by_parity(Nums :: [integer()]) -> [integer()].
sort_array_by_parity(Nums) ->
.
```

Racket:

```
(define/contract (sort-array-by-parity nums)
(-> (listof exact-integer?) (listof exact-integer?))
)
```

Solutions

C++ Solution:

```
/*
* Problem: Sort Array By Parity
* Difficulty: Easy
* Tags: array, sort
*
* 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:
vector<int> sortArrayByParity(vector<int>& nums) {

}
};
```

Java Solution:

```
/**
* Problem: Sort Array By Parity
* Difficulty: Easy
* Tags: array, sort
*
* 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 int[] sortArrayByParity(int[] nums) {

}
```

```
}
```

Python3 Solution:

```
"""
Problem: Sort Array By Parity
Difficulty: Easy
Tags: array, sort

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 sortArrayByParity(self, nums: List[int]) -> List[int]:
# TODO: Implement optimized solution
pass
```

Python Solution:

```
class Solution(object):
def sortArrayByParity(self, nums):
"""
:type nums: List[int]
:rtype: List[int]
"""
```

JavaScript Solution:

```
/**
* Problem: Sort Array By Parity
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*/

/**
```

```
* @param {number[]} nums
* @return {number[]}
*/
var sortArrayByParity = function(nums) {

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TypeScript Solution:

```
/**
* Problem: Sort Array By Parity
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function sortArrayByParity(nums: number[]): number[] {

};
```

C# Solution:

```
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*/

public class Solution {
public int[] SortArrayByParity(int[] nums) {

}
}
```

C Solution:

```
/*
* Problem: Sort Array By Parity
* Difficulty: Easy
* Tags: array, sort
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* Approach: Use two pointers or sliding window technique
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/**
* Note: The returned array must be malloced, assume caller calls free().
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int* sortArrayByParity(int* nums, int numsSize, int* returnSize) {

}
```

Go Solution:

```
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//
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func sortArrayByParity(nums []int) []int {

}
```

Kotlin Solution:

```
class Solution {
fun sortArrayByParity(nums: IntArray): IntArray {

}
}
```

Swift Solution:

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class Solution {
func sortArrayByParity(_ nums: [Int]) -> [Int] {

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impl Solution {
pub fn sort_array_by_parity(nums: Vec<i32>) -> Vec<i32> {

}
}
```

Ruby Solution:

```
# @param {Integer[]} nums
# @return {Integer[]}
def sort_array_by_parity(nums)

end
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PHP Solution:

```
class Solution {

/**
* @param Integer[] $nums
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function sortArrayByParity($nums) {

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```

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