

# Problem 3190: Find Minimum Operations to Make All Elements Divisible by Three

## Problem Information

Difficulty: **Easy**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

You are given an integer array

nums

. In one operation, you can add or subtract 1 from

any

element of

nums

.

Return the

minimum

number of operations to make all elements of

nums

divisible by 3.

Example 1:

Input:

nums = [1,2,3,4]

Output:

3

Explanation:

All array elements can be made divisible by 3 using 3 operations:

Subtract 1 from 1.

Add 1 to 2.

Subtract 1 from 4.

Example 2:

Input:

nums = [3,6,9]

Output:

0

Constraints:

$1 \leq \text{nums.length} \leq 50$

$1 \leq \text{nums}[i] \leq 50$

## Code Snippets

C++:

```
class Solution {  
public:  
    int minimumOperations(vector<int>& nums) {  
  
    }  
};
```

### Java:

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

### Python3:

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

### Python:

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

### JavaScript:

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

### TypeScript:

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

```
};
```

**C#:**

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

**C:**

```
int minimumOperations(int* nums, int numsSize) {  
    }
```

**Go:**

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

**Kotlin:**

```
class Solution {  
    fun minimumOperations(nums: IntArray): Int {  
        }  
    }
```

**Swift:**

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

**Rust:**

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

```
}
```

```
}
```

### Ruby:

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

end
```

### PHP:

```
class Solution {

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

    }
}
```

### Dart:

```
class Solution {
    int minimumOperations(List<int> nums) {
        }
}
```

### Scala:

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

### Elixir:

```

defmodule Solution do
  @spec minimum_operations(nums :: [integer]) :: integer
  def minimum_operations(nums) do
    end
  end
end

```

### Erlang:

```

-spec minimum_operations(Nums :: [integer()]) -> integer().
minimum_operations(Nums) ->
  .

```

### Racket:

```

(define/contract (minimum-operations nums)
  (-> (listof exact-integer?) exact-integer?))

```

## Solutions

### C++ Solution:

```

/*
 * Problem: Find Minimum Operations to Make All Elements Divisible by Three
 * Difficulty: Easy
 * Tags: array, math
 *
 * 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 minimumOperations(vector<int>& nums) {
    }
} ;

```

### Java Solution:

```

/**
 * Problem: Find Minimum Operations to Make All Elements Divisible by Three
 * Difficulty: Easy
 * Tags: array, math
 *
 * 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 minimumOperations(int[] nums) {

}
}

```

### Python3 Solution:

```

"""
Problem: Find Minimum Operations to Make All Elements Divisible by Three
Difficulty: Easy
Tags: array, math

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

```

### Python Solution:

```

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

```

### JavaScript Solution:

```
/**  
 * Problem: Find Minimum Operations to Make All Elements Divisible by Three  
 * Difficulty: Easy  
 * Tags: array, math  
 *  
 * 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  
 */  
  
/**  
 * @param {number[]} nums  
 * @return {number}  
 */  
var minimumOperations = function(nums) {  
  
};
```

### TypeScript Solution:

```
/**  
 * Problem: Find Minimum Operations to Make All Elements Divisible by Three  
 * Difficulty: Easy  
 * Tags: array, math  
 *  
 * 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  
 */  
  
function minimumOperations(nums: number[]): number {  
  
};
```

### C# Solution:

```
/*  
 * Problem: Find Minimum Operations to Make All Elements Divisible by Three  
 * Difficulty: Easy  
 * Tags: array, math  
 */
```

```

* 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
*/
public class Solution {
    public int MinimumOperations(int[] nums) {
        }
    }
}

```

### C Solution:

```

/*
 * Problem: Find Minimum Operations to Make All Elements Divisible by Three
 * Difficulty: Easy
 * Tags: array, math
 *
 * 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
*/
int minimumOperations(int* nums, int numSize) {
}

```

### Go Solution:

```

// Problem: Find Minimum Operations to Make All Elements Divisible by Three
// Difficulty: Easy
// Tags: array, math
//
// 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

func minimumOperations(nums []int) int {
}

```

### Kotlin Solution:

```
class Solution {  
    fun minimumOperations(nums: IntArray): Int {  
  
    }  
}
```

### Swift Solution:

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

### Rust Solution:

```
// Problem: Find Minimum Operations to Make All Elements Divisible by Three  
// Difficulty: Easy  
// Tags: array, math  
//  
// 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  
  
impl Solution {  
    pub fn minimum_operations(nums: Vec<i32>) -> i32 {  
  
    }  
}
```

### Ruby Solution:

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

### PHP Solution:

```
class Solution {  
  
    /**  
     * @param Integer[] $nums  
     * @return Integer  
     */  
    function minimumOperations($nums) {  
  
    }  
}
```

### Dart Solution:

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

### Scala Solution:

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

### Elixir Solution:

```
defmodule Solution do  
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def minimum_operations(nums) do  
  
end  
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### Erlang Solution:

```
-spec minimum_operations(Nums :: [integer()]) -> integer().  
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```
(define/contract (minimum-operations nums)
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)
```