

Single Number

Try to solve the Single Number problem.

We'll cover the following

- Statement
- Example
- Understand the problem
- Figure it out!
- Try it yourself

Statement

Given an array of integers, where every element appears twice except for one, find the element that occurs only once.

Note: The solution must have linear runtime and constant space complexity.

Constraints:

- $1 \leq \text{nums.length} \leq 3 \times 10^3$
- $-3 \times 10^3 \leq \text{nums}[i] \leq 3 \times 10^3$

Example

Sample example 1

Input

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 2 | 3 | 3 | 1 | 4 |
|---|---|---|---|---|---|---|

Output

| |
|---|
| 4 |
|---|

The number that appear once is 4.




1 of 3

Sample example 2

Input

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | 5 | 5 | 2 | 1 | 1 | 4 |
|---|---|---|---|---|---|---|

Output



2

The number that appear once is 2.

2 of 3

Sample example 3

Input

| | | | | |
|----|----|----|----|----|
| -4 | -1 | -2 | -1 | -2 |
|----|----|----|----|----|

Output

-4

The number that appear once is -4.

3 of 3

—

☐

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Single Number

1

From the given array of integers, find the number that appears once.

array = [1, 2, 4, 1, 2, 4, 9, 6, 7, 6, 7]

A) 1

B) 2

C) 9

D) 6

Submit Answer

<

Question 1 of 2
0 attempted

>

?

Tt

🔄

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

 Drag and drop the cards to rearrange them in the correct sequence.

Initialize a variable named `result` with 0.

Traverse the input array and perform the bitwise XOR for every element with the `result` variable.

Update the `result` each time we take XOR.

After you've traversed the whole array, the result has the number that appears once.

Return the `result` variable.

Reset

Show Solution

Submit

Try it yourself

Implement your solution in the following coding playground:



Java

usercode > SingleNumber.java

```
1 import java.util.*;
2 public class SingleNumber{
3     public static int singleNumber(int[] arr) {
4
5         // Write your code here
6         // your code will replace this placeholder return statement
7
8         return -1;
9     }
10 }
```

 Powered by AI



Submit



Test Cases

Results

Case 1

Case 2

Case 3

Input #1

[1,2,2,3,3,1,4]

Single Number

← Back

Solution: Flipping an l...

Next →

Solution: Single Numb...

☒ Mark as Completed