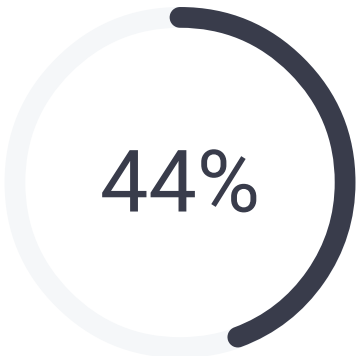


Tasks summary

Task	Time spent	Score
MissingInteger JavaScript	18 min	44%

Total score



Tasks Details

Medium	1. MissingInteger	Task Score	Correctness	Performance
	Find the smallest positive integer that does not occur in a given sequence.	44%	80%	0%

Task description

This is a demo task.

Write a function:

```
function solution(A);
```

that, given an array A of N integers, returns the smallest positive integer (greater than 0) that does not occur in A.

For example, given A = [1, 3, 6, 4, 1, 2], the function should return 5.

Given A = [1, 2, 3], the function should return 4.

Given A = [-1, -3], the function should return 1.

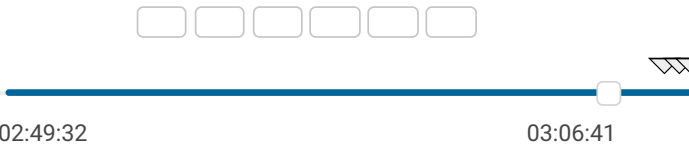
Write an **efficient** algorithm for the following assumptions:

- N is an integer within the range [1..100,000];
- each element of array A is an integer within the range [-1,000,000..1,000,000].

Solution

Programming language used:	JavaScript	
Total time used:	18 minutes	?
Effective time used:	18 minutes	?
Notes:	not defined yet	

Task timeline



```
1 // you can write to stdout for debugging purposes
2 // console.log('this is a debug message');
3
4 function solution(A) {
5     // write your code in JavaScript (Node.js)
6     A.sort();
7     let smallest = 1;
8     for(let i = 0; i < A.length; i++){
9         if (A[i] == smallest) // to increase smallest
10             smallest++;
11     }
12     return smallest;
13 }
```

Analysis summary

The following issues have been detected: wrong answers.

Analysis

Example tests	
▶ example1	✓ OK
first example test	
▶ example2	✓ OK
second example test	
▶ example3	✓ OK
third example test	
Correctness tests	
▶ extreme_single	✓ OK
a single element	
▶ simple	✓ OK
simple test	
▶ extreme_min_max_value	✓ OK
minimal and maximal values	
▶ positive_only	✗ WRONG ANSWER
shuffled sequence of 0...100 and then 102...200	
got 10 expected 101	
▶ negative_only	✓ OK
shuffled sequence -100 ... -1	
Performance tests	
▶ medium	✗ WRONG ANSWER
chaotic sequences length=10005 (with minus)	
got 10 expected 111	
▶ large_1	✗ WRONG ANSWER
chaotic + sequence 1, 2, ..., 40000 (without minus)	
got 10 expected 40000	
▶ large_2	✗ WRONG ANSWER
shuffled sequence 1, 2, ..., 100000 (without minus)	
got 10 expected 100001	
▶ large_3	✗ WRONG ANSWER
chaotic + many -1, 1, 2, 3 (with minus)	
got 10 expected 10000	

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