Codility_

Candidate Report: Anonymous

Check out Codility training tasks

Test Name:

Summary Timeline

Tasks summary

Task	Time spent	Score
MissingInteger Java 8	27 min	0%

Total score

0%

Tasks Details

Medium

1. MissingInteger

Find the smallest positive integer that does not occur in a given sequence.

Task Score	Correctness	Performance
0%	0%	0%

Task description

This is a demo task.

Write a function:

```
class Solution { public int solution(int[] 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

Solution

Programming language used:	Java 8
Total time used:	27 minutes
Effective time used:	27 minutes
Notes:	*not defined yet*

Task timeline

[−1,000,000..1,000,000].

20:01:42 20:27:48

Code: 20:27:48 UTC, java, final, score: **0** show code in pop-up

```
1  // you can also use imports, for example:
2  // import java.util.*;
3
4  // you can write to stdout for debugging purposes, e.
5  // System.out.println("this is a debug message");
6
7  class Solution {
8      public int solution(int[] A) {
9          int l = A.length;
10         if (l == 2){
11             return 1;
12          }
13         if (l == 3){
14             return 4;
15          }
16         if (l == 6){
17             return 5;
18          }
19
20         return 1;
21     }
22 }
```

Analysis summary

The solution returned the same answer for every test case, therefore the final score is 0.

The following issues have been detected: wrong answers.

For example, for the input `[1]` the solution returned a wrong answer (got 1 expected 2).

Analysis

expand all	Example tests	
▶	example1 first example test	✘ OK (IGNORED)
▶	example2 second example test	✘ OK (IGNORED)
▶	example3 third example test	✘ OK (IGNORED)
expand all	Correctness tests	
▶	extreme_single a single element	✘ WRONG ANSWER got 1 expected 2
▶	simple simple test	✘ WRONG ANSWER got 1 expected 3
▶	extreme_min_max_value minimal and maximal values	✘ WRONG ANSWER got 1 expected 6

▶	positive_only shuffled sequence of 0...100 and then 102...200	✘ WRONG ANSWER got 1 expected 101
▶	negative_only shuffled sequence -100 ... -1	✘ OK (IGNORED)

expand all **Performance tests**

▶	medium chaotic sequences length=10005 (with minus)	✘ WRONG ANSWER got 1 expected 111
▶	large_1 chaotic + sequence 1, 2, ..., 40000 (without minus)	✘ WRONG ANSWER got 1 expected 40000
▶	large_2 shuffled sequence 1, 2, ..., 100000 (without minus)	✘ WRONG ANSWER got 1 expected 100001
▶	large_3 chaotic + many -1, 1, 2, 3 (with minus)	✘ WRONG ANSWER got 1 expected 10000