Codility_

Candidate Report: trainingB686VK-SJF

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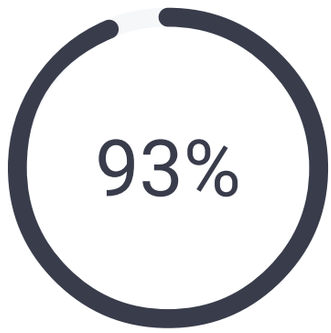
Test Name:

Summary Timeline

Tasks summary

Task	Time spent	Score
Triangle Java 8 ⚠	17 min	93%

Total score



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Tasks Details

1. **Triangle**
Easy
Determine whether a triangle can be built from a given set of edges.

Task Score	Correctness	Performance
93%	90%	100%

Task description

An array A consisting of N integers is given. A triplet (P, Q, R) is *triangular* if 0 ≤ P < Q < R < N and:

- A[P] + A[Q] > A[R],
- A[Q] + A[R] > A[P],
- A[R] + A[P] > A[Q].

For example, consider array A such that:

```
A[0] = 10    A[1] = 2    A[2] = 5
A[3] = 1     A[4] = 8    A[5] = 20
```

Triplet (0, 2, 4) is triangular.

Write a function:

```
class Solution { public int solution(int[] A); }
```

that, given an array A consisting of N integers, returns 1 if there exists a triangular triplet for this array and returns 0 otherwise.

For example, given array A such that:

```
A[0] = 10    A[1] = 2    A[2] = 5
A[3] = 1     A[4] = 8    A[5] = 20
```

the function should return 1, as explained above. Given array A such that:

```
A[0] = 10    A[1] = 50    A[2] = 5
A[3] = 1
```

the function should return 0.

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

Solution

Programming language used:	Java 8
Total time used:	17 minutes
Effective time used:	17 minutes
Notes:	*not defined yet*

Task timeline

06:48:49 07:05:04

Code: 07:05:03 UTC, java, final, score: **93** 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,
5  // System.out.println("this is a debug message");
6
7  class Solution {
8      public int solution(int[] A) {
9          // write your code in Java SE 8
10         Arrays.sort(A);
11         for(int i=2;i<A.length;i++){
```

- N is an integer within the range [0..100,000];
- each element of array A is an integer within the range [−2,147,483,648..2,147,483,647].


```
12              if(A[i]<A[i-1]+A[i-2]){
13                  return 1;
14              }
15          }
16          return 0;
17
18
19      }
20  }
```

Analysis summary

The following issues have been detected: wrong answers.

Analysis

Detected time complexity: **O(N*log(N))**

expand all	Example tests	
▸	example example, positive answer, length=6	✓ OK
▸	example1 example, answer is zero, length=4	✓ OK
expand all	Correctness tests	
▸	extreme_empty empty sequence	✓ OK
▸	extreme_single 1-element sequence	✓ OK
▸	extreme_two_elems 2-element sequence	✓ OK
▸	extreme_negative1 three equal negative numbers	✓ OK
▸	extreme_arith_overflow1 overflow test, 3 MAXINTs	✗ WRONG ANSWER got 0 expected 1
▸	extreme_arith_overflow2 overflow test, 10 and 2 MININTs	✓ OK
▸	extreme_arith_overflow3 overflow test, 0 and 2 MAXINTs	✓ OK
▸	medium1 chaotic sequence of values from [0..100K], length=30	✓ OK
▸	medium2 chaotic sequence of values from [0..1K], length=50	✓ OK
▸	medium3 chaotic sequence of values from [0..1K], length=100	✓ OK
expand all	Performance tests	
▸	large1 chaotic sequence with values from [0..100K], length=10K	✓ OK
▸	large2 1 followed by an ascending sequence of ~50K elements from [0..100K], length=~50K	✓ OK
▸	large_random chaotic sequence of values from [0..1M], length=100K	✓ OK
▸	large_negative chaotic sequence of negative values from [-1M..-1], length=100K	✓ OK
▸	large_negative2 chaotic sequence of negative values from [-10..-1], length=100K	✓ OK
▸	large_negative3 sequence of -1 value, length=100K	✓ OK

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