Codility_

Candidate Report: trainingC7B6H8-FYS

Check out Codility training tasks

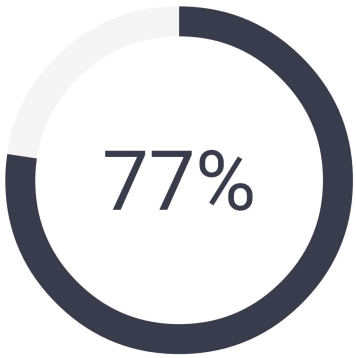
Test Name:

Summary Timeline Feedback

Tasks summary

Task	Time spent	Score
MaxProductOfThree C#	1 min	77%

Total score



Tasks Details

Easy

1. MaxProductOfThree

Maximize A[P] * A[Q] * A[R] for any triplet (P, Q, R).

Task Score	Correctness	Performance
77%	100%	60%

Task description

A non-empty array A consisting of N integers is given. The *product* of triplet (P, Q, R) equates to A[P] * A[Q] * A[R] (0 ≤ P < Q < R < N).

For example, array A such that:

```
A[0] = -3
A[1] = 1
A[2] = 2
A[3] = -2
A[4] = 5
A[5] = 6
```

contains the following example triplets:

- (0, 1, 2), product is −3 * 1 * 2 = −6
- (1, 2, 4), product is 1 * 2 * 5 = 10
- (2, 4, 5), product is 2 * 5 * 6 = 60

Your goal is to find the maximal product of any triplet.

Write a function:

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

that, given a non-empty array A, returns the value of the maximal product of any triplet.

Solution

Programming language used:	C#
Total time used:	1 minutes
Effective time used:	1 minutes
Notes:	*not defined yet*

Task timeline

21:23:53 21:24:37

Code: 21:24:37 UTC, cs, final, score: 77 show code in pop-up

For example, given array A such that:

```
A[0] = -3
A[1] = 1
A[2] = 2
A[3] = -2
A[4] = 5
A[5] = 6
```

the function should return 60, as the product of triplet (2, 4, 5) is maximal.

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

- N is an integer within the range [3..100,000];
- each element of array A is an integer within the range [−1,000..1,000].


```
1  using System;
2  using System.Collections.Generic;
3  using System.Text;
4  using System.Linq;
5  // you can also use other imports, for example:
6  // using System.Collections.Generic;
7
8  // you can write to stdout for debugging purposes, e.g.
9  // Console.WriteLine("this is a debug message");
10
11 class Solution {
12             public int solution(int[] A)
13         {
14             var a = A.ToList().Where(x=>x>=0).OrderByDescen
15             var b = A.ToList().Where(x=>x<0).OrderByDescend
16             List<int> list2NegAnd1Positive = new List<int>(
17             List<int> list3Positive = new List<int>();
18             List<int> list3Negative = new List<int>();
19             List<int> Maxes = new List<int>();
20             if (a.Count() >= 3)
21             {
22                 list3Positive = a.Take(3).ToList();
23             }
24             if (b.Count() >= 2)
25             {
26                 list2NegAnd1Positive = b.Take(2).ToList();
27                 if (a.Count() >= 1)
28                 {
29                     list2NegAnd1Positive.Add(a.First());
30                 }else
31                 {
32
33                 }
34             }
35             if (b.Count() >= 3)
36             {
37                 list3Negative = b.Take(3).ToList();
38             }
39
40             if (list3Positive.Count >= 3)
41                 try
42                 {
43                     Maxes.Add(list3Positive[0] * list3Posit
44                 }catch(Exception)
45                 { }
46             if (list2NegAnd1Positive.Count >= 3)
47                 try
48                 {
49                     Maxes.Add(list2NegAnd1Positive[0] * lis
50                 }catch(Exception)
51                 { }
52             if (list3Negative.Count >= 3)
53                 try
54                 {
55                     Maxes.Add(list3Negative[0] * list3Negat
56                 }
57                 catch (Exception)
58                 { }
59             return Maxes.Max();
60
61
62
63
64         }
65 }
```

Analysis summary

The following issues have been detected: wrong answers.

Analysis

expand all	**Example tests**	
▶	example example test	✓ OK
expand all	**Correctness tests**	
▶	one_triple three elements	✓ OK
▶	simple1 simple tests	✓ OK
▶	simple2 simple tests	✓ OK
▶	small_random random small, length = 100	✓ OK
expand all	**Performance tests**	
▼	medium_range -1000, -999, ... 1000, length = ~1,000	✗ WRONG ANSWER got 997002000 expected 999000000
1.	0.032 s	WRONG ANSWER, got 997002000 expected 999000000
▶	medium_random random medium, length = ~10,000	✓ OK
▶	large_random random large, length = ~100,000	✓ OK
▼	large_range 2000 * (-10..10) + [-1000, 500, -1]	✗ WRONG ANSWER got 50000 expected 5000000
1.	0.116 s	WRONG ANSWER, got 50000 expected 5000000
▶	extreme_large (-2, .., -2, 1, .., 1) and (MAX_INT)..(MAX_INT), length = ~100,000	✓ OK