

Codility

CodeCheck Report: trainingQUPTXR-93U

Test Name:

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Summary

Timeline

Tasks summary

Task	Time spent	Score
AbsDistinct Python	9 min	100%

Total score

100%

Tasks Details

Easy	1. AbsDistinct Compute number of distinct absolute values of sorted array elements.	Task Score	Correctness	Performance
		100%	100%	100%

Task description

A non-empty array A consisting of N numbers is given. The array is sorted in non-decreasing order. The *absolute distinct count* of this array is the number of distinct absolute values among the elements of the array.

For example, consider array A such that:

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

Solution

Programming language used: Python

Total time used: 9 minutes ?

Effective time used: 9 minutes ?

Notes: not defined yet

$A[5] = 6$

The absolute distinct count of this array is 5, because there are 5 distinct absolute values among the elements of this array, namely 0, 1, 3, 5 and 6.

Write a function:

```
def solution(A)
```

that, given a non-empty array A consisting of N numbers, returns absolute distinct count of array A.

For example, given array A such that:

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

the function should return 5, as explained above.

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 [-2,147,483,648..2,147,483,647];
- array A is sorted in non-decreasing order.

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Task timeline



15:59:09

16:07:12

Code: 16:07:11 UTC, py, [show code in pop-up](#)
final, score: 100

```
1  # you can write to stdout for debugging
2  # print("this is a debug message")
3
4  def solution(A):
5      # Implement your solution here
6      # pass
7      plus_signed_A = []
8      for n in A:
9          plus_signed_A.append(abs(n))
10
11     set_A = set(plus_signed_A)
12
13     return len(set_A)
14
15
16
```

Analysis summary

The solution obtained perfect score.

Analysis

Detected time complexity: $O(N)$ or $O(N \cdot \log(N))$

expand all	Example tests	
▶	example	✓ OK
	example test	
expand all	Correctness tests	
▶	one_element	✓ OK
▶	two_elements	✓ OK
▶	same_elements	✓ OK
▶	simple	✓ OK
▶	simple_no_zero	✓ OK
▶	simple_no_same	✓ OK
▶	simple_no_negative	✓ OK
▶	simple_no_positive	✓ OK
▶	arith_overflow	✓ OK

▶ medium_chaotic1	✓ OK
▶ medium_chaotic2	✓ OK
expand all	Performance tests
▶ long_sequence_no_negative	✓ OK
▶ long_sequence_no_positive	✓ OK
▶ long_sequence	✓ OK