AlgoExpert

Quad Layout

++

Sublime

Monokai

00:00:

Run Code

Our Solution(s)

Solution 1

Run Code

**Your Solutions** 

14рх

Solution 1 Solution 2 Solution 3

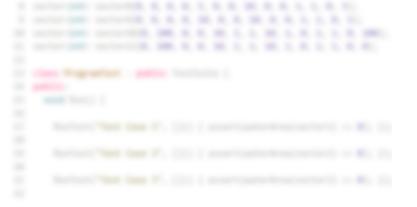
```
1 #include <vector>
2 using namespace std;
3
4 int waterArea(vector<int> heights) {
5  // Write your code here.
6  return -1;
7 }
8
```

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
   #include <vector>
4 using namespace std;
 6 // O(n) time | O(n) space
7 int waterArea(vector<int> heights) {
     vector<int> maxes(heights.size(), 0);
     int leftMax = 0;
     for (int i = 0; i < heights.size(); i++) {</pre>
10
11
       int height = heights[i];
12
       maxes[i] = leftMax;
13
       leftMax = max(leftMax, height);
14
15
     int rightMax = 0;
16
     for (int i = heights.size() - 1; i >= 0; i--) {
17
       int height = heights[i];
       int minHeight = min(rightMax, maxes[i]);
18
19
       if (height < minHeight) {</pre>
20
         maxes[i] = minHeight - height;
       } else {
21
         maxes[i] = 0;
23
24
       rightMax = max(rightMax, height);
25
26
     int total = 0;
27
     for (int i = 0; i < heights.size(); i++) {</pre>
      total += maxes[i];
28
29
30
     return total;
31 }
32
```

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 Our Tests
 Custom Output
 Submit Code



Run or submit code when you're ready.