

## Submission Details

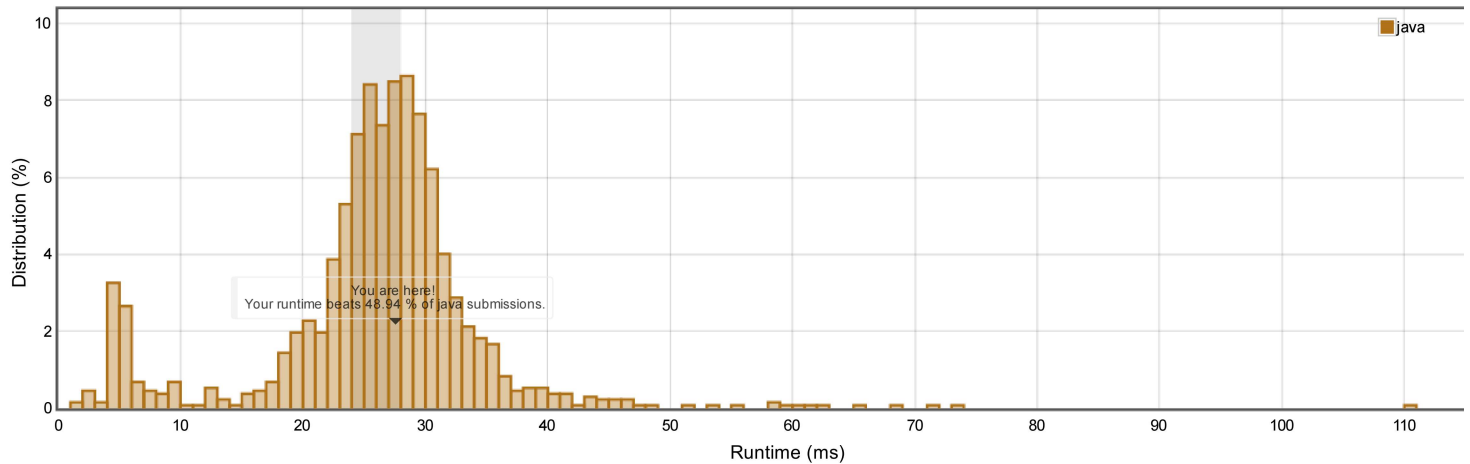
96 / 96 test cases passed.

Runtime: 26 ms

Status: Accepted

Submitted: 1 hour, 23 minutes ago

## Accepted Solutions Runtime Distribution



Invite friends to challenge Largest Rectangle in Histogram !

◀ 17

Submitted Code: 1 hour, 23 minutes ago

Language: java

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```
1 public class Solution {
2     public int largestRectangleArea(int[] heights) {
3         heights = Arrays.copyOf(heights, heights.length + 1);
4         Stack<Integer> positionsStack = new Stack<>();
5         Stack<Integer> heightsStack = new Stack<>();
6         int index = 0;
7         int maxSquare = 0;
8         for (int value : heights) {
9             if ((value > 0) && (heightsStack.isEmpty() || heightsStack.peek() < value)) {
10                 heightsStack.add(value);
11                 positionsStack.add(index);
12             } else {
13                 Integer lastHeight = null;
14                 Integer lastPosition = null;
15                 while (!heightsStack.isEmpty() && heightsStack.peek() > value) {
16                     lastHeight = heightsStack.pop();
17                     lastPosition = positionsStack.pop();
18                     // height before current
19                     int rectangleSquare = lastHeight * (index - lastPosition);
20                     if (maxSquare < rectangleSquare) {
21                         maxSquare = rectangleSquare;
22                     }
23                 }
24                 // adding new previous max possible height and start position
25                 if (lastHeight != null) {
26                     heightsStack.add(value);
27                     positionsStack.add(lastPosition);
28                 }
29             }
30             index++;
31         }
32         return maxSquare;
33     }
34 }
```

[Back to problem \(/problems/largest-rectangle-in-histogram/\)](/problems/largest-rectangle-in-histogram/)[Frequently Asked Questions \(/faq/\)](/faq/) | [Terms of Service \(/tos/\)](/tos/)[✉ Send Feedback \(mailto:admin@leetcode.com?subject=Feedback\)](mailto:admin@leetcode.com?subject=Feedback)

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