

PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1Solution 2Solution 3

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(n) time | O(n) space - where n is the length of the input array
4 function minRewards(scores) {
5   const rewards = scores.map(_ => 1);
6   const localMinIdxs = getLocalMinIdxs(scores);
7   for (const localMinIdx of localMinIdxs) {
8     expandFromLocalMinIdx(localMinIdx, scores, rewards);
9   }
10  return rewards.reduce((a, b) => a + b);
11 }
12
13 function getLocalMinIdxs(array) {
14   if (array.length === 1) return [0];
15   const localMinIdxs = [];
16   for (let i = 0; i < array.length; i++) {
17     if (i === 0 && array[i] < array[i + 1]) localMinIdxs.push(i);
18     if (i === array.length - 1 && array[i] < array[i - 1]) localMinIdxs.push(i);
19     if (i === 0 || i === array.length - 1) continue;
20     if (array[i] < array[i + 1] && array[i] < array[i - 1]) localMinIdxs.push(i);
21   }
22   return localMinIdxs;
23 }
24
25 function expandFromLocalMinIdx(localMinIdx, scores, rewards) {
26   let leftIdx = localMinIdx - 1;
27   while (leftIdx >= 0 && scores[leftIdx] > scores[leftIdx + 1]) {
28     rewards[leftIdx] = Math.max(rewards[leftIdx], rewards[leftIdx + 1] + 1);
29     leftIdx--;
30   }
31   let rightIdx = localMinIdx + 1;
32   while (rightIdx < scores.length && scores[rightIdx] > scores[rightIdx - 1]) {
33     rewards[rightIdx] = rewards[rightIdx - 1] + 1;
34     rightIdx++;
35   }
36 }
37
38 exports.minRewards = minRewards;
39
```