

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 def minRewards(scores):
5     rewards = [1 for _ in scores]
6     localMinIdxs = getLocalMinIdxs(scores)
7     for localMinIdx in localMinIdxs:
8         expandFromLocalMinIdx(localMinIdx, scores, rewards)
9     return sum(rewards)
10
11
12 def getLocalMinIdxs(array):
13     if len(array) == 1:
14         return [0]
15     localMinIdxs = []
16     for i in range(len(array)):
17         if i == 0 and array[i] < array[i + 1]:
18             localMinIdxs.append(i)
19         if i == len(array) - 1 and array[i] < array[i - 1]:
20             localMinIdxs.append(i)
21         if i == 0 or i == len(array) - 1:
22             continue
23         if array[i] < array[i + 1] and array[i] < array[i - 1]:
24             localMinIdxs.append(i)
25     return localMinIdxs
26
27
28 def expandFromLocalMinIdx(localMinIdx, scores, rewards):
29     leftIdx = localMinIdx - 1
30     while leftIdx >= 0 and scores[leftIdx] > scores[leftIdx + 1]:
31         rewards[leftIdx] = max(rewards[leftIdx], rewards[leftIdx + 1] + 1)
32         leftIdx -= 1
33     rightIdx = localMinIdx + 1
34     while rightIdx < len(scores) and scores[rightIdx] > scores[rightIdx - 1]:
35         rewards[rightIdx] = rewards[rightIdx - 1] + 1
36         rightIdx += 1
37
```