

Day 13:

1. Largest Rectangle in Histogram **[Hard]** **[Amazon, Adobe, Microsoft, Google]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/410/largest-rectangle-in-histogram-problem-statement-leetcode/18/module-5-problem-solving>

2. Trapping Rain Water **[Hard]** **[Amazon, Facebook, Goldman Sachs, Bloomberg, Google, Microsoft, Apple]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/1499/trapping-rain-water-problem-statement-leetcode/18/module-5-problem-solving>

3. Asteroid Collision **[Medium]** **[Amazon, Microsoft, Google]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/1554/asteroid-collision-problem-statement-leetcode/18/module-5-problem-solving>

4. Count number of nodes in the binary tree **[Easy]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/415/count-number-of-nodes-in-the-binary-tree/18/module-5-problem-solving>

5. Check if two trees are identical or not **[Easy]** **[Amazon, Google]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/416/check-if-two-trees-are-identical-or-not/18/module-5-problem-solving>

Practice Question:

6. You are given an array of integers `nums` (0-indexed) and an integer `k`.

The score of a subarray (i, j) is defined as $\min(\text{nums}[i], \text{nums}[i+1], \dots, \text{nums}[j]) * (j - i + 1)$. A good subarray is a subarray where $i \leq k \leq j$.

Return the maximum possible score of a good subarray. **[Hard]**
[Google]

Practice link:

<https://leetcode.com/problems/maximum-score-of-a-good-subarray/>

7. Given an $m \times n$ integer matrix `heightMap` representing the height of each unit cell in a 2D elevation map, return the volume of water it can trap after raining. **[Hard]** **[Google, Amazon]**

Practice link: <https://leetcode.com/problems/trapping-rain-water-ii/>

8. Given a binary tree `root`, a node `X` in the tree is named good if in the path from `root` to `X` there are no nodes with a value greater than `X`.

Return the number of good nodes in the binary tree. **[Medium]**
[Microsoft, Amazon]

Practice link:

<https://leetcode.com/problems/count-good-nodes-in-binary-tree/>