Contest 32 Analysis

Setter: Kanishk Ali Khanna

Link to challenges: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges

Overall comments

This contest had a total of 7 participants that submitted code. All participants managed to secure some points. It was good to see that 1 contestant managed to solve all 3 questions despite joining the contest late.

Number of contestants who made a submission: 5
Highest score: 100/100
Lowest score: 20/100
Mean: 34.14
Median: 20/100
Mode: 20

All questions have solutions with comments in the hackerrank challenges editorial part.

The leaderboard can be found here: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/leaderboard

Question 1: LEU - KGX 6

Link to Challenge: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges/leu-kgx-6

Highest score: 40/40
Lowest score: 0/40
Mean: 13.33/40
Number of attempts: 3
Difficulty: Medium

This question was the 6th version of the LEU KGX series. The setter was expecting more attempts but it only had a total of 3. In order to solve this question, experience with graph algorithms is useful.

Solution with comments: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges/leu-kgx-6/editorial

Previous versions of this problem can be found here

LEU KGX

LEU KGX 2

LEU KGX 3

LEU KGX 4

LEU KGX 5

Question 2: Moxis's Diamond

Link to challenge: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges/diamond-pattern-moxis

Highest score: 20/20
Lowest score: 20/20
Mean: 20
Number of attempts: 7
Difficulty: Easy

All contestants managed to solve this question and secure full points. It was indeed intended to be the easiest question in the contest. In this question one needs to observe a pattern with the number of spaces that should be printed in each line. It is also important to notice that the number of items in a row is determined by the number itself.

Solution with comments: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges/diamond-pattern-moxis/editorial

Question 3: 7_11_13

Link to challenge: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges/7-11-13

Highest score: 40/40
Lowest score: 0/40
Mean: 19.67/40
Number of attempts: 3
Difficulty: Medium

The setter expected more attempts with this question (especially brute force attempts). The brute force solution will time out with larger cases and involves iterating over numbers from 1 to 10^9 and checking if it only contains 7, 11 or 13 as its factors. A more optimal solution uses previous results to generate new results and pops them out one by one. A heap is useful in this case as one can get the smallest element each time we iterate.

Solution with comments: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-32/challenges/7-11-13/editorial