EDITORIALS

The statistics are given separately. Note there were 76 teams taking part in the contest.

3 Point Problems

3 point problems are designed so that there are no difficult algorithms required, and the solution should be quite straightforward.

A Girl Swaps

The girls' names on the first line had to be read in and stored in an array or other data structure. The names were all on one line with no indication of the length, so this was a bit harder in some languages than others.

Each other line contained the place numbers of 2 girls to be swapped. You may have had to be aware of the 1 based order with a 0 based data structure, and the need to store a temporary copy of one name.

0 swaps was also permitted, and this caused our only time limit exceeded error!

B Get Out Of Jail

A Monopoly question! There were up to 3 pairs of dice scores to be read and checked for doubles (both numbers the same). The last 2 had to be added to give the number of squares to move.

If no pairs were the same, 1 further input was whether of not a "Get out of jail free" card was possessed. There were only 3 answer patterns with 11 possible square numbers.

C Penalties

The goal was divided into a 15 by 5 square grid, so a 2D array or similar could be used to record the goals and saves. Misses were to be ignored. +1 for a goal, -1 for a save, then see which square scored highest. In the case of joint winners, follow the required sort order.

D Bulls and Cows

An ancient version of Wordle with 4 letter words. Getting the number of bulls was fairly simple, those letters which are an exact match in the answer and the guess. The tricky part was making sure they were not counted again as cows, and not counting letters twice as cows if there were 2 in one word and 1 in the other, for example.

10 Point Problems

10 point problems are designed so that there are no difficult algorithms required, and the solution should not be very complicated.

E Beads

Read the beads. If a number is found, add that many of the following bead, or of the sequence in brackets. Once the full bead sequence is found, count how many of each and display in the correct order.

This input caused 2 solutions to time out: 16(SRLT)14(SL)

F Election

Each line is a single name representing 1 vote for the named candidate. Is it a new candidate? Store the name and a count of 1. Otherwise, add one to the count for that candidate.

The winner is the one with most votes, but there may be a tie in which case sort in alphabetical order. Some tests had the full 1,000 votes, and some had all votes for the same candidate.

G Set Game

We have had Set problems a few times over the years, this time the daily puzzle. With only 12 cards, a solution that checked each card with all the others looking for sets would work in time, and nobody got a time limit error. If done in card order, it would also find them in the correct display order, so display sets as found.

H Traffic Lights

A lot of issues with this problem were with sticking to the required time output – the number of minutes and the number of seconds both had to be given even if either was 0. Otherwise, it was simply a case of adding cars to the queue, keeping track of the time, taking the cars off again and seeing how long they had been there.

30 Point Problems

100 Point Problems

These are presented separately.