

## FARIO 2019 Rules

### Competing

- You may compete in any 4 hour time window, during the day assigned to your country.
  - For Australia and New Zealand, this is Friday 8th March
  - For France and Belgium this is Sunday 10th March
- Once you have finished the contest do not discuss the problems, especially on open forums / chat rooms until **Tuesday, 12 March**. Similarly, if you have not yet started the contest, please ensure that you do not attempt to talk about the problems with anyone who has. This should be obvious. This time window extends beyond the time frame of the contest in case of any mishaps, resulting in people needing to sit the contest later.
- A link to the contest website will be available at [fario.org](http://fario.org) on the morning of the contest.
- As with previous contests, the FARIO will be run on CMS (Contest Management System).
- Log in with your the provided username / password
- Send clarifications using the "Communication" tab. You may do so at any time.
- Problem statements available as PDFs under the "Statement" tab of each problem, after you start your timer.
- You may only use the internet to visit the contest website, and [cppreference.com](http://cppreference.com). There will be a link to "cppreference" from the Documentation tab in CMS. No other internet access is permitted.
- The only supported language is C++11.
- You will need to compete at your school, and It is essential that you arrange for a teacher(s) to supervise you while you compete.
- You may not communicate with anyone during the contest, except for your teacher, and the judges.

### Submissions, Subtasks and Scoring

- Each problem will have subtasks.
- After a problem is judged, you should click the "details" button for the submission to see how you did on each subtask (including Sample Data). This will show you the summary of every testcase, up to and including the first test case among the lowest scored testcases in the subtask.
- Different to usual: Your goal is to maximise your score. Your overall contest score is the sum of scores you received for each problem. Your score for a problem is the sum of scores you received on each subtask. Your score for a subtask is the maximum score you achieved on that subtask, among any submission you made for that problem. CMS will tell you your score at any point in time for a specific problem, on the Submissions tab, for that problem.
  - A consequence of the subtask scoring system means, you can submit a program that solves Subtask 1 only (but say, fails on Subtask 2), then later, in a separate submission, write a program that solves Subtask 2 only (but say, fails on Subtask

1), and you will receive the points for both subtasks. That is, once you've solved a subtask, you'll never lose it.

- Remember to click the **details** button for your submission. If there are any obscure error messages for failed testcases (e.g. "Execution killed by Signal 11"), please consult the "Documentation" tab inside CMS. This will give you a description of what each of these may mean. Such errors are usually indicative of crashes / going out of memory / segmentation faults / reading past the end of your array / vector / etc.
- CMS will no longer display the "execution time" and "memory consumed" information anymore, for any submission, regardless of the outcome. Please rely on the "Details" provided (e.g. Output is correct / Output is incorrect / Execution timed out / Execution killed etc.), and look at the "Documentation" tab if you require further explanation for it (if you're still confused, send a message via Communication).
- You may submit at most once per problem, per minute, up to a maximum of 50 submissions for any problem.
- As always, we will try our absolute best to ensure that there are no judging mishaps (e.g. insane test data), or downtime with judging. Unfortunately, we are only human (and our machines prone to failure), so if this does result, we will let you know, and do our best to extend the contest to try to make it fair for everyone. In any case, please remain calm and try your best to solve the problems, in spite of any such mishap.

#### Notes and Allowed Resources

- Any notes on paper (printed or handwritten) are acceptable.
- You are not allowed to use or refer to any electronic notes, including code templates you have generated before the contest, or any pre-existing code. An exception is that you may read man-pages / language manuals already stored on your system.
- You may use any software that has been installed on your machine prior to the start of the contest.
- If there happen to be any interactive / module tasks, we will ensure that you are able to compile this on all systems. If you have any trouble with compiling / modules / anything you're unsure about, please ask a clarification through the communication tab. In this case, I would strongly recommend trying to compile a simple program on your own machine first, before proceeding to implement any complex algorithms.