Contest rules

These rules and procedures may be modified and/or extended right up to the time of the competition.

Our competition rules are based on the rules used for the regional and international programming competitions run by the ICPC (International Collegiate Programming Contest) though there are differences because the student level and experience are not the same. This virtual contest will be hosted on the Kattis platform, as are many ICPC contests.

The goal of the competition is for teams to solve as many problems as possible, as fast as possible. (Most years, there are between 6 and 10 problems given.) The only thing that matters is to have the program return the correct answer on input data sets that are different than what is provided to you. This means that you should not spend extra time writing your code in a proper style or adding comments to it unless it really helps you develop your solution.

Contestants are permitted to use any number of paper books or resources, but they are not permitted to access the Internet during the contest except to use Kattis or look up API information on the sites linked from the Kattis help pages (https://open.kattis.com/help) Local resources on the team's computer and/or flash drives are permitted. **A team shares one computer**. If your computer lab supports it, you may use a printer.

Solutions can be coded in

- C or C++
- Java
- Python (2 or 3)
- (for this year) any other language supported by Kattis. (See https://open.kattis.com/help and note that Visual Basic is not one of the supported languages.)

It is the responsibility of contestants or their schools to provide a programming environment. Although the Kattis web platform allows students to edit and submit programs from the web browser, it is

not possible to see the compile errors or the output of the program, so the use of a local IDE is almost necessary when developing the solution. Once the program is believed to solve the problem correctly, then it should be submitted through the Kattis web platform.

Programs read from the standard input ("the keyboard") and write to the standard output ("the screen"). No file input or output is done. Please check the example files provided here (in Java, C, C++, and Python) to see what would be acceptable.

No communication is permitted between contestants (except within a team) or between contestants and teachers/coaches or other people other than contest staff, once the competition has started.

Exceptions are that you may communicate with the supervising staff member at your school about the contest rules, to take a brief bathroom or snack break away from the computer, to get help with technical setup problems with the team's computer and other matters that *do not concern the competition problems, computer programming, or the problem solutions*.

In the case you have questions related to the problems to be solved, send your clarification requests via the Kattis site. For other questions or requests, contact us via Teams (more details to come).

Solutions are submitted electronically via the Kattis site, and to be accepted a submitted program must produce the right output values in the correct format. Program code itself is not read and not evaluated in any way. Input test data files used for judging may (and usually will) include data that the contestants have not seen.

Solutions can be submitted in any order. However, it is recommended to submit them from easiest to hardest, as this can impact your score (see below about how winners are determined). The problems are presented in the order we believe to be from easiest to hardest. However, depending on the contestant's expertise and experience, the ordering may not be correct. So do not hesitate to move on to the next problem if you are stuck on one of them.

A solution that is not accepted as correct will be rejected. Students may resubmit the code as many times as they want until they get the correct answer.

The winner is determined by most problems solved. In the case of a tie, the winner is the one with the lowest “total time”. This total time is calculated as the sum of the elapsed times for each correct submission. For example, in the following scenario:

- The contest started at 9am
- A correct solution to Problem A was submitted at 9:15
- An incorrect solution to Problem B was submitted at 9:30
- A correct solution to Problem B was submitted at 9:45
- An incorrect solution to Problem C was submitted at 10:30

the total time would be calculated as 15+45 = 60 (i.e., number of minutes since the start of the competition, for each problem when correctly solved – see 2nd and 4th bullet points above). Such calculation implies that in order to increase your chances of winning, you should solve the easiest problems first.