New Zealand Programming Contest 2024

CONTEST RULES

Document last updated on Thursday, 15 August 2024.

CONTEST CATEGORIES AND GRADES

This contest has five categories of entry. Teams compete only against teams from the same category – there are thus five winners.

School

Tertiary - Junior

Tertiary - Intermediate

Tertiary - Open

Open

These categories are described in separate documents.

REGISTRATION

Teams register through DOMjudge at the start of the contest, but team managers may reserve places for their teams through the New Zealand Programming Contest Web site on: http://www.NZProgContest.org.nz.

CONDUCT OF THE CONTEST

- 1. The contest will be held on Saturday 17th August 2024, beginning at 2pm and lasting for 5 hours.
- 2. There will be four levels of problems (3, 10, 30 and 100 points) with up to four problems per level. Points are based on what the judges consider to be a problem's difficulty; the higher the points weighting, the harder the problem.
- 3. So far as is possible, problems will avoid dependence on detailed knowledge of a particular area.
- 4. Problems will be posed in English and all clarification requests must be expressed in English.
- 5. Solutions to problems are submitted for judging electronically through DOMjudge. Information on how this is done will be given before the contest.
- 6. While the contest is scheduled to last five hours, the contest judges have the authority to shorten or lengthen the contest in the event of unforeseen difficulties.

Should the contest duration be altered, every attempt will be made to notify contestants in a timely and uniform manner.

On-Site Contests

A contest is regarded as "official" only where all teams compete at a recognised site. For official contests, the following rules apply:

- 1. Contestants may bring resource materials such as books, manuals, program listings, and non-programmable calculators to the contest.
- Contestants may not bring any machine-readable versions of software or data, and
 may not have their own memory devices (eg disks or memory sticks) in the contest
 area. Contestants may not bring their own computers or mobile phones. The
 Contest Directors are solely responsible for distinguishing calculators from
 computers.
- 3. Contestants may not use the internet for any reason during the contest apart from that required to use the judging system.
- 4. Teams may not accept help or advice on contest problems from anyone other than judges, contest officials, and host-site staff. Contest judges will clarify problem statements as needed. This will be done through the clarification system on DOMjudge. The host-site staff may advise on system related problems, such as explaining system error messages.
- 5. A team may be disqualified by the contest director or site coordinator for any activity that jeopardises the contest such as dislodging power cords or connecting cables, or distractive talking.
- 6. All sites will endeavour to provide C/C++ and Java, and any other languages the contest officials accept as suitable. Check with the site director to find out what is available at a particular site, and which versions will be available.
- 7. Each team will have a single computer or terminal. All teams at a site will have functionally equivalent equipment.
- 8. Teams may print their code and test data during the contest. All items sent to the printer must have the team's name and/or number, and must be collected from a member of staff, not directly from the printer.
- 9. The contest will be held simultaneously at various sites throughout New Zealand. Contest sites are listed on the contest Website.
- 10. Team managers will be invoiced after the contest for those teams who competed on site.

On-Line Contests

If one or more sites are prevented from operating because of restrictions imposed by the New Zealand Government (such as the Covid lockdowns that occurred in 2020 and 2021), the Contest Director may decide to run an on-line (unofficial) contest. The contest rules will be modified, including the following:

- 1. We will not be setting up monitoring systems to validate how teams are operating, this being the main reason the contest will be deemed unofficial.
- Each team member may use their own computer and will have access to on-line notes and the internet. However, the team must register a single DOMjudge account and must find a way to collaborate if members are not in the same location. Zoom sessions are one possibility.
- 3. There will be no entry fees for an on-line contest.

SCORING

- 1. The contest judges will be solely responsible for determining the correctness of submitted runs. They are empowered to adjust for or adjudicate on unforeseen events and conditions. Their decisions are final.
- 2. A solution is regarded as correct if it produces exactly the same output from the judge's data as did the judge's approved solutions. Teams will be notified of the success or failure of their solution. Failure notifications will include:
 - Failure to compile
 - · Run time errors
 - Failure to complete output on time (usually a few seconds)
 - Wrong answer, which could mean completely wrong in all cases, wrong answer for one test case, or something as small as a missing punctuation mark.

NOTE that trailing white space and trailing blank lines are disregarded.

- 3. If a team's solution is deemed by the judges to have solved the problem, the team gains the points available for that problem. Otherwise, the team gains no points at all, but may modify their solution and submit again as often as they like until a solution is accepted as correct. If a problem is eventually solved, the time at which the accepted solution was submitted is recorded as a time penalty. In addition, an extra 20 minute time penalty is given to the team for every incorrect solution submitted.
- 4. Teams are ranked within categories according to the number of points received, the highest score first.

- 5. Teams that tie on points will be deemed equal except for the top places in a category.
- 6. To determine first place, and any further places for which certificates are to be awarded (possibly second and third place), where teams have equal points, teams are ranked according to the time penalty, the lower the better.

The New Zealand Programming Contest Director is solely responsible for interpreting these rules and for ruling on any unforeseen situations. These rules supersede those of previous years.