

# Rules of the Helvetic Coding Contest

## Objectives

1. The contest aims to let students in the Swiss educational system compete at the highest level in a fair setting, enabling dissemination of knowledge, improvement of individuals' skills and social networking.

## Participation conditions

### Eligibility

2. Participants must take part in the contest in teams of 1, 2 or 3 people.
3. There are two kinds of teams: students and professionals. Student teams are those consisting only of people currently studying in an educational institution with a half-time or greater load, and who have not yet obtained a Master's degree (in any field) nor started a doctoral program. All other teams are professionals.
4. Contest organizers may allow a team to compete despite not fulfilling the eligibility criteria, if such an exemption is justified by the contest objectives.

### Registration

5. Teams must register using the registration form on the contest's website.
6. Teams are required to pay registration fees in the amount indicated on the contest's website.
7. Contestants may reserve, and pay for, a place at the after-contest dinner. The dinner payment must be paid along with the registration fee, with the same reimbursement policy.
8. Contest organizers may require participants to prove that their registration information is correct.
9. Teams may be merged, if all participants consent and the resulting team has at most 3 members.

### Confirmation

10. The registration deadline is set by the contest organizers and announced on the contest website.
11. To confirm its participation to the contest, all members of a team must have paid the registration fee.
12. If there are enough resources available, teams may register or confirm a registration after the deadline, and individuals may join existing teams, but preferences such as T-shirt size might not be accommodated.

13. If there are not enough resources available, contest organizers may close registration at any time. In this case, the date at which all members of a team have paid is used to determine which teams are included in the contest, where earlier is better.
14. If a disproportionate amount of registrations come from professionals, organizers may prioritize students, in which case professionals are included using the same criteria as for resource exhaustion.
15. Teams who are refused entry are reimbursed in full.
16. At any time before the registration deadline, teams or team members may withdraw from the contest for any reason and have their registration fee refunded.
17. Contest organizers may accept a team's registration despite not fulfilling the confirmation criteria, if such an exemption is justified by the contest objectives.

## **Conduct of the contest**

18. All participants must arrive on time, as specified in the contest schedule.

## **Dry Run**

19. The contest is preceded by a dry run to get the contestants acquainted with the contest system.
20. The ranking of the dry run does not influence the ranking of the contest in any way.

## **Duration**

21. The duration of the dry run is 30 minutes, extendable in case of technical problems.
22. The duration of the contest is 4 hours 30 minutes, extendable in case of technical problems.

## **Problems**

23. The contest features algorithmic problems which may be divided into sub-problems. Statements are available electronically, and in one printout version.

## **Environment**

24. Teams must use computers provided by the organizers, running a custom operating system. For reasons of fairness and security, administrator privileges and Internet access are disabled.
25. Teams may not access external storage, such as USB keys.
26. Pens and paper are provided. Contestants may not bring their own.
27. Teams may bring their own keyboard and mouse, subject to approval by the contest organizers. Noisy hardware, or hardware which may give an unfair advantage over competitors, is not allowed. Bluetooth and programmable keyboards are not allowed.

## **Reference Material**

28. Documentation is provided for all allowed programming languages and their standard library.

29. The use of any material not provided and not explicitly allowed by the organizers is forbidden and considered an attempt to cheat.

## Code printouts

30. Teams may ask for printouts of their source code, delivered to their workstation, to help with debugging.
31. Contest organizers may deny prints to teams who have made excessive use of the service.

## Unauthorized behavior

32. 33. Participants may not:
  - sleep, behave rudely, or interfere in any way with the contest organization;
  - try to gain an unfair advantage over their competitors;
  - bring food or drinks in the computer labs;
  - share information with other teams, voluntarily or not, in any way;
  - attempt to overload, crash or exploit the judging system, or to obtain more resources than is allowed.
33. Teams who behave in an unauthorized way may be disqualified with or without warning, and may be held liable for any damage that they caused.

## Scoring System

### Scoring

34. To be considered correct, a solution to a sub-problem must successfully pass all relevant test cases.
35. Teams may re-submit a solution to the same sub-problem as many times as needed.
36. Every sub-problem successfully solved at the  $n$ th attempt  $t$  minutes after the start of the contest (rounded down to the nearest integer) gives a time penalty of  $20(n - 1) + t$  minutes.
37. Contest organizers may, if truly necessary, change test cases during the contest. Such a change is announced to all participants.

### Ranking

38. Teams are ranked by the total number of sub-problems solved, where more is better. Ties are broken by time penalties, where less is better. Further ties are broken by the submission time for the latest correct sub-problem, where earlier is better. Further ties are broken by the submission time of the second latest correct sub-problem, and so on. Complete ties are broken by a coin toss.
39. The live ranking is available to all teams during the contest, except during the last hour.

## **Prizes**

40. Contestants in the top 3 teams overall and in the 3 next best student teams receive a prize and a medal.
41. Remaining prizes, if any, are raffled with a winning probability proportional to the number of problems solved by a contestant's team. Contestants cannot win more than one prize (thus medalists are excluded from the raffle).
42. Contestants who miss the closing ceremony automatically forfeit any prize.
43. Once the results are announced, the contest organizers' decisions are final.

## **Liability**

44. The contest organizers, as well as all people involved during the contest organization, do not take any responsibility for accidents, losses, or theft occurring before, during or after the contest.

## **Photography and film**

45. Contestants consent to being photographed and filmed by persons authorized by the organizers. They authorize the publication of the resulting pictures and films on any media considered appropriate by the organizers.
46. Third parties are forbidden to shoot photos, video or sound recordings on the premises of the contest unless explicitly authorized to do so by the organizers.

## **Copyright of submitted code**

47. By submitting their code to the contest judging system, contestants grant the contest organizers unlimited but non-exclusive rights to use and publish their source code.

## **Final provisions**

48. These rules may be updated until 24 hours before the start of the contest.
49. Specific information about the contest, such as the software ("live system") used and the dinner restaurant, is published on the contest website and may be updated until 24 hours before the start of the contest.
50. All teams participating in the contest must accept these rules.