

Thank you for registering for Code Quest 2020.

The safety and wellbeing of students, teachers, volunteers and Lockheed Martin employees is a top priority. In light of the COVID-19 pandemic, the Code Quest competition on May 2, 2020, has been canceled.

Regardless, we recognize that the Code Quest competition represents a valuable learning experience for students. Included in this archive are a selection of problems that were being considered for presentation in this year's contest. These problems are being provided to registered coaches for presentation to students in a classroom setting.

What's in this archive?

This archive contains a set of five new Code Quest problems, plus our two practice problems. For each of these problems, we have included:

- The problem description
- The sample input/output set
- The official input/output set
- Solutions to the problem in each of the five languages used at Code Quest, written by volunteer Lockheed Martin employees.

What do you suggest we do with this?

When presenting these problems to students, we recommend that you try to simulate the conditions of the contest as best as possible. Provide the students with the problem description and sample IO files, but retain the official IO files and solutions. As students work on the problems, run their solutions against the official files and compare the outputs. Once students have had a chance to solve the problems themselves, the solutions can be reviewed as a class.

To support those teachers who do opt for this approach, we ask that you not distribute the solutions publicly. In keeping with our normal process, all of these problems, including our solutions, will be posted on our website by the end of the year.

If you or your students require clarification or other assistance with any of these problems, please contact us at code-quest.gr-aero@lmco.com.

How difficult are these problems?

The problems presented here fall in the easy-to-medium difficulty range, compared to most Code Quest problems. They are numbered in rough order of difficulty, with Problem 1 being the easiest problem. If presented during a contest, they would likely be worth between 5 and 30 points, depending on the difficulty of the other problems.

Problems A and B are our practice problems, which would be provided to students prior to the contest, and are not worth any points.

What about the rest of your problems?

The majority of our problems will be held for future use. By this fall, we will be releasing a website that will provide 24/7 access to Code Quest problems so that students and teachers can work to improve their programming skills year-round. Many of the problems we are reserving will be used there, and we will send announcements when the website is available. The remaining problems will be reserved for use in our 2021 contest.

As a reminder, any students who were registered for Code Quest 2020 that graduated from high school this year will be invited to register again for Code Quest 2021.

Legal stuff

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Problem B's problem description, input files, and output files are the original work of Chris Liu and are used with permission.