#### **FINAL EVALUATION**

## **CTM Online Course: AP Computer Science A Online**

#### **Student: Rostislav Litovkin**

School Year: 2020-21 Date of the evaluation: 13.6. 2021 Course Partner: CTM Instructor: Vojtěch Jindra Assignments Complete: 83/83 (100%) Course Complete: Yes Time spent in the course: 249 hours

Module Exam Average: 96.68% Overall Average: 98.05%

#### Course Grade: A+

Dear Rosťa,

Congratulations on successfully completing the AP Computer Science A Online course!

Thank you for your participation in the course. It was a pleasure to be your teacher and guide for this challenging programming class. You submitted a total of 83 assignments and assessments. I'm glad you were able to take advantage of the resources that the course offers.

The programs you wrote were well structured and the underlying logic was usually very advanced. You started the course with a good knowledge of programming and you seem to have deepened your knowledge even further throughout the year. Moreover, you were my only student to discuss your programming side projects with me, and I was always very happy to hear about them!

The communication with you was always a pleasure. Our discussion-based assessments were interesting, as you were always able to come up with quite advanced questions.

I wish you all the best for your continued studies in computer science, algorithms, mathematics, and in other subjects. I would definitely recommend that you continue to participate in the CTM Online program. Please keep in touch and let me know about your plans for college and your progress in science and other classes.

CTM Online courses recommendation: AP Computer Science Principles Online, AP Calculus, AP Physics

Your teacher,

Vojtěch Jindra

# **CTM Online Course: AP Computer Science A Online**

### **Curricular Topics Covered:**

The AP Computer Science A course is an introductory computer AP Computer Science A science course. A large part of the course involves developing the skills to write programs or parts of programs that correctly solve specific problems. The course also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition, an understanding of the basic hardware and software components of compute systems and the responsible use of these systems.

The goals of the AP Compute Science course are comparable to those in the introductory sequence of courses for computer science majors offered in college and university computer science departments. Students completing the AP Computer Science course will be able to:

- Design and implement computer-based solutions to problems in a variety of application areas.
- Use and implement commonly-used algorithms and data structures.
- Develop and select appropriate algorithms and data structures to solved problems.
- Code fluently in an object-oriented paradigm using the programming language Java. Students will be familiar with and be able to use standard Java library classes from the AP Java subset.
- Read and understand a large program consisting of several classes and interacting objects. Students will be able to read and understand a description of the design and development process leading to a program such as the AP Computer Labs.
- Identify the major hardware and software components of a computer system, their relationship to one another, and the roles of these components within the system.
- Recognize the ethical and social implications of computer use.