

# ACES MATH: Algebra (II)

## Course Description

This is the second part of a course on elementary algebra, a mathematical language that we use to describe patterns. The focus of this course is on fundamental topics involving elementary functions, system of equations, and system of inequalities. This course would prepare students to study more advanced topics in algebra and geometry.

**Prerequisite.** Students who take this course should have taken the ACES math course: Algebra (I). A placement test is required for anyone who did not take the prerequisite course.

**Textbooks.** We recommend the following textbook for students to read:

Algebra 2: Concepts and Skills

R. Larson, L. Boswell, T. Kanold and L. Stiff

McDougal Littell, 2008.

**Main Topics.** The main topics of this course include: (i) system of linear equations; (ii) system of linear inequalities; (iii) one-variable quadratic equations and inequalities; (iv) polynomials and polynomial equations; (v) rational equations and functions; and (vi) exponential and logarithmic functions.

**Homework.** Learning mathematics is very similar to learning to play piano: you can not learn anything unless you practice a lot, and if you practice a lot you will be good at it. There is no shortcut here. Therefore, we will have a large (but still reasonable) amount of homework for the students after each lecture.

**Notes on Competition Track.** Students on the competition track are expected to work on harder (meaning more difficult and in larger amount) homework sets.

**Communications.** Students and their parents are encouraged to communicate with the instructors on issues directly related to the course, through the email address [aces.math.info@gmail.com](mailto:aces.math.info@gmail.com); For other issues related to the ACES after school program, please email [aces4kidsinfo@gmail.com](mailto:aces4kidsinfo@gmail.com) .