Course Name: Summer 05-PreAlgebra (Online Course)

This is an online course consists of two parts:

I: A video before class meeting time.

   The teacher will post each video before class. Students are required to watch it before each class to prepare for a class.

II: Class meeting time on zoom.

   Each class meeting on zoom is one hour. The teacher will repeat some important topics covered in a video and also go over some new topics not covered in the video.

Objectives: This course provides students with the following topics:

- Introduction of a number line and negative numbers

- Arithmetic operations on integers (focus on negative integers)

- Divisibility rules for $2, 3, \cdots 10$

- Review of fractions: reducing fractions to lowest terms, improper fractions, and mixed numbers

- Linear equations in one variable

- Applications of linear equations (the 4-step procedure of solving word problems)

Lesson Plan

- Lesson 1:   Introduction to a number line and addition of integers involving negative numbers.

- Lesson 2:   Subtraction of integers involving negative numbers. Two different models processes for subtraction.

- Lesson 3:   Multiplication of integers involving negative numbers. The order of operations.

- Lesson 4:   Division of integers involving negative numbers. The laws for addition and multiplication.

- Lesson 5:   Application of the distributive law. Word problems.

- Lesson 6:   Revisiting the distributive law. Introduction to linear equations in one variable.

- Lesson 7:   Solving linear equations in depth. Divisibility rules for integers.

- Lesson 8:   Introduction to the 4-step procedure for solving word problems. Review fractions and the arithmetic operations involving negative fractions.

- Lesson 9:   Review for the final exam

- Lesson 10:   Final exam (1.5 hours)

Attendance Policy: Students are expected to attend each scheduled class meeting. Regular attendance is essential to your success in this course. If you miss a class, you are responsible for the material covered by reading lessons and watching the videos posted online.

Lecture Notes: Well written lecture notes will be posted on the assignment section before or after each class. Students are required to read them before doing homework.

Homework: Homework will be posted online after each class and must be submitted it online before the next class. It will be graded and the results will be posted online. It is the essential for the students to do the homework as exercises in order to digest the material covered in the class.

Quizzes: A weekly-quiz will be given at the end of each class except the first and the last class. Each quiz is worth of 10 points. Quiz questions will be similar to the questions in the previous homework assignment. Each quiz will be graded and its score will be posted online afterward.

Makeup Quizzes: If a student misses a class, he/she can make it up within two days by printing out the quiz, work it out at home with parent's supervision, and then email it to the teacher for grading with parent's signature on the top of the quiz.

Final Exam: The final exam will be given at the last class. To be prepared for the final exam, student are required to do all problems on the review sheet posted online.

Awards: The students' grades will be evaluated based on their performance in homework assignments, quizzes, and the final exam. The course grade will be calculated as follows:

Homework assignments: 20%
Quizzes: 50%
Final exam: 30%

Top three scored students will be awarded at the end of the semester.