

Pre-Algebra Session 3, 2012

Instructor: Liza Scheer

Course Objective: This course is designed to prepare students for their formal study of Algebra.

California's Common Core Content Standards:

6th grade

- Understand ratio concepts and use ratio reasoning to solve problems
- Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts
- Write and evaluate numerical expression involving whole-number exponents
- Write, read, and evaluate algebraic expressions

7th grade

- Use proportional relationships to solve multi-step ratio and percent problems – simple interest, tax, markups and markdowns, tips and commissions, percent increase and decrease
- Use powers of ten
- Understand the meaning of the absolute value of a number
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume

Each week students will be given work to be completed independently, which will be discussed the following week. **Skills will build upon each other so completion of independent work is crucial to success in the class.** Expected time to complete independent work is approximately 2 hours/week.

Course Outline:

01/23/12	Order of Operations, +,-,x, and dividing negative numbers, Absolute Value
01/30/12	Exponents, Powers of 10, Scientific Notation
02/06/12	Fractions, Decimals, and Percents
02/13/12	Percent of Change, Markups and Discounts
02/20/12	(No class due to President's Day)
02/27/12	Ratios and Proportions, Square Roots
03/05/12	Using Variables, Expressions and Formulas
03/12/12	Geometry and the Pythagorean Theorem