

# Pre-Pre-Algebra Course Information

**Overview:** The intent of this class is to build up students' basic skills, knowledge base, and confidence in math with an eye toward preparation for higher level math classes. This class focuses on basic skills in number sense, algebraic thinking, and geometry. Working with fractions, decimals, and percents is a major portion of the course. Problem solving is also emphasized to encourage higher order thinking skills.

**Scope and Sequence:** The course is broken down into units. Below are the primary concepts from each unit. **Note: This is not a complete list of course content.**

- **Unit 1:** Large Numbers, Order of Operations, Variables/Expressions, Equations Basics
- **Unit 2:** Prime Factorization, LCM, Fractions Basics, Mixed Numbers, Improper Fractions
- **Unit 3:** Adding and Subtracting Fractions and Mixed Numbers, Fraction Equations
- **Unit 4:** Multiplying and Dividing Fractions, Whole Numbers, and Mixed Numbers
- **Unit 5:** Working with Decimals, Converting Fractions/Decimals, Decimal Equations
- **Unit 6:** Metric System, Area, Pi, Circumference, Area of a Circle, Area of Irregular Figures
- **Unit 7:** Polygons, Angles, Triangle Sides and Angles, Transformations, Tessellations
- **Unit 8:** Adding, Subtracting, Multiplying and Dividing Integers, Plotting Points
- **Unit 9:** Ratios, Rates, Proportions, Similar Polygons, Percents, Percent of a Number
- **Unit 10:** Properties of Solids, Surface Area, Volume, Formulas
- **Unit 11:** Probability Basics, Geometric Probability, Compound Probability
- **Unit 12:** Charts and Graphs, Misleading Graphs, Mean, Median and Mode

**Assignments/Homework:** Assignments are usually about 15-20 problems. Normally, an assignment will be a mix of problems covering the day's lesson and a scattered review of past concepts. Assignments should take about 30-45 mins. to complete. Upon completion, assignments are to be corrected by the student using the answer key and investigated to determine what (if any) areas require review.

**Quizzes and Tests:** Regular quizzes are taken online and students receive instant feedback on how they did. Quizzes are meant to be taken without books, notes, or other forms of help. Formal tests are taken via the traditional "paper and pencil" format.

## Materials/Supplies:

- Students are expected to take notes. A binder or notebook typically works the best.
- Graph paper
- Protractor
- Ruler/straightedge