

Course Title: PRE-ALGEBRA A	Course Description
<p>Course No. 3261 Grade level: 7-12</p> <p>Text and Resources: A. <i>Pre-Algebra</i>, Part I, AGS B. <i>Algebra ½</i>, Part I; Saxon Publishers C. <i>Saxon Math 87</i>, Part I; Saxon Publishers D. <i>Pacemaker Pre-algebra</i>; Globe Fearon E. <i>Pre-Algebra</i>; Prentice Hall</p>	<p>Course Value: *One Semester</p> <p>Credit Value: 1 – 5 credits</p>
<p align="center">Course Content: Key Content Standards and Course Objectives</p>	
<p>The following course objectives are based on the Grade 7 Mathematical standards and many of the CAHSEE mathematical strands:</p> <ol style="list-style-type: none"> Number Sense: Students know the properties of, and compute with, rational numbers expressed in a variety of forms (7-1.0), students use exponents, powers, and roots and use exponents in working with fractions. (7-2.0). Algebra and Functions: Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs (7-1.0), students interpret and evaluate expressions involving integer powers and simple roots (7-2.0). Measurement and Geometry: Students compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less common objects. They know how perimeter, area and volume are affected by changes of scales (7-2.0). Statistics, Data Analysis, and Probability: Students collect, organize, and represent data sets that have one or more variables and identify relationships among variables within a data set by hand and through the use of an electronic spreadsheet software program (7-1.0). Mathematical Reasoning: Students make decisions about how to approach problems (7-1.0), students use strategies, skills, and concepts in finding solutions (7-2.0), students determine a solution is complete and move beyond a particular problem by generalizing to other situations (7-3.0). 	<p>This Pre-Algebra course will help students develop the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will compute interest through percentages, graph linear function, compare rational numbers with scientific notation, and convert fractional numbers between fractions, decimals, and percents. Practical application through the incorporation of word problems is required in this course. This course includes many of the mathematical concepts that are found in the California High School Exit Exam.</p> <p>*Open entry/open exit</p>
<p align="center">Methods of Study</p>	<p align="center">Evaluation of Performance Standards</p>
<ol style="list-style-type: none"> Students will complete all activities assigned. Students will participate in discussion with other class members and/or teacher. 	<ol style="list-style-type: none"> Students will complete all assignments with a minimum of 70% accuracy. The supervising teacher will be satisfied with the quality of the student’s work. The student must receive a minimum score of 70% on a teacher assigned final evaluation.

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Course Outline 3261

I. Textbook Assignment Options:

A. *AGS Pre-Algebra*, Part I (5.0 credits)

- Complete: even-numbered problems in Chapter 1.
- Complete: Chapter 1 “Review,” even-numbered problems.
- Complete: even-numbered problems in Chapter 2.
- Complete: Chapter 2 “Review,” even-numbered problems.
- Complete: even-numbered problems in Chapter 3.
- Complete: Chapter 3 “Review,” even-numbered problems.
- Complete: even-numbered problems in Chapter 4.
- Complete: Chapter 4 “Review,” even-numbered problems only.
- Complete: even-number problems Chapter 5.
- Complete: Chapter 5 “Review,” even-numbered problems.
- Complete: even-numbered problems in Chapter 6.
- Complete: Chapter 6 “Review,” even-numbered problems.
- Complete: two Extension Activities listed below.

B. *Saxon Algebra ½*, Part I (5.0 credits)

- Complete: Lessons 1-17, even-numbered problems.
- Complete: Extension Activity A.
- Complete: Lessons 18-35, even-numbered problems.
- Complete: Lessons 36-53, even-numbered problems.
- Complete: Extension Activity B.
- Complete: Lessons 54-71, even-numbered problems.

C. *Saxon Math 87*, Part I (5.0 credits)

- Complete: Lessons 1-15, even-numbered problems.
- Complete: Lessons 16-30, even-numbered problems.
- Complete: Lessons 31-44, even-numbered problems.
- Complete: Lessons 45-60, even-number problems.
- Complete two Extension Activities listed below.

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D. *Pacemaker Pre-Algebra*, Part I (5.0 credits)

- Complete: Chapters 1-6 “Practice” exercises
- Complete: “Chapter Quizzes”
- Complete: “Unit One Review,” even-numbered problems
- Complete: “Unit Two Review,” even-numbered problems
- Complete one Extension Activity listed below.

E. Pre-Algebra (Prentice Hall) (1.0-5.0 credits: direct instruction or course contract)

II. Extension Activity Options:

A. Listed below is an imaginary list of U.S. car production for 2002.

Auto Alliance	149,562
Chrysler Corp.	576,864
General Motors Corp.	2,515,136
Honda Motors	552,995
Ford Motor Co.	4,500,200
Nissan	333,234
Saturn	450,565

This assignment will include making a pie graph using Microsoft Excel that will illustrate what percent of the total U.S. car production each of the above companies represents. This assignment may require teacher assistance, but following are some basic directions:

1. Open Excel. At cell A1, type in the name of the first car company, adjusting the column width so that the entire name fits. At cell A2, type in the name of the second car company and so on.
2. At cell B1, type in the number of cars produced by the first company, at cell B2 the number of cars of the second company, etc.
3. Use the mouse to highlight Columns A and B.
4. On the toolbar, click on “chart wizard” to begin creating a graph.
5. Select “pie” as the type of graph to create. Click on the “titles” tab in the chart title window, and type: 2002 U.S Car Production. Click on “data labels” tab and select: show percent.
6. Click on the “next” button once. Select: As An Object In: Sheet 1. Click on “finish”.
7. Print a copy of your graph.
8. Convert each company’s percent of production to a fraction.