Teaching Textbooks Pre-Algebra

Class Description:
In this Pre-Algebra course, the student will utilize Teaching Textbooks Pre-Algebra to cover the standard topics, including: fractions, decimals, LCD, GCF, money, multiplication, division, percents, geometric concepts, algebraic equations, dealing with x, slope-intercept, and more.

Learning Materials: Main Curriculum:
Teaching Textbook - Pre-Algebra Textbook
Teaching Textbook - Pre-Algebra Answer Key
Teaching Textbook - Pre-Algebra CD-ROM Set:

Learning Goals/Performance Objectives:
8.1.A Solve one-variable linear equations.
8.1.D Determine the slope and y-intercept of a linear function described by a symbolic expression, table, or graph.
8.1.F Solve single- and multi-step word problems involving linear functions and verify the solutions.
8.2.C Demonstrate that the sum of the angle measures in a triangle is 180 degrees, and apply this fact to determine the sum of the angle measures of polygons and to determine unknown angle measures.
8.2.F Demonstrate the Pythagorean Theorem and its converse and apply them to solve problems.

Learning Activities: The student will complete lessons as per the timeline below, using the workbook and CD's. Each lesson consists of video instruction and new material practice. Quizzes are after every 7th lesson. Grades will be automatically calculated via the digital gradebook.

Teaching Textbooks Pre-Algebra
Course Content:
Chapter 1: Arithmetic Basics
Lesson 1—Number Beginnings
Lesson 2—Adding and Subtracting Whole Numbers
Lesson 3—Multiplying Whole Numbers
Lesson 4—Dividing Whole Numbers
Lesson 5—Divisibility
Chapter 2: Rational Numbers
Lesson 6—Fractions
Lesson 7—Equivalent Fractions
Lesson 8—Factoring and Canceling
Lesson 9—Prime Numbers
Lesson 10—Adding and Subtracting Fractions
Lesson 11—Finding the Lowest Common Denominator
Lesson 12—Mixed Numbers
Lesson 13—Multiplying and Dividing Fractions
Lesson 14—Fractions and Whole Numbers
Chapter 3: Decimals
Lesson 15—Ill-Fitting Fractions
Lesson 16—Hundredths, Thousandths
Lesson 17—Adding and Subtracting Decimals
Lesson 18—Filling the Holes
Lesson 19—Money and Decimals
Lesson 20—Multiplying Decimals
Lesson 21—Dividing Decimals
Lesson 22—Decimal Remainders
Lesson 23—Converting Fractions to Decimals
Lesson 24—Never-Ending Decimals
Chapter 4: Percents
Lesson 25—Percents
Lesson 26—Calculating Percents
Lesson 27—Percent of Any Number
Lesson 28—Fractional Percents
Lesson 29—Percents and Banking
Lesson 30—Finding the Percent
Lesson 31—Calculating a Grade
Chapter 5: Measuring Length
Lesson 32—Units of Measurement
Lesson 33—Unit Conversions
Lesson 34—Skipping Around
Lesson 35—Making a Table
Lesson 36—The Metric System
Lesson 37—It’s All in a Name
Lesson 38—Converting in Metric
Lesson 39—Converting Between Common and Metric
Chapter 6: Measuring Area and Volume
Lesson 40—Little Squares
Lesson 41—Area Unit Conversions
Lesson 42—Area in the Metric System
Lesson 43—Little Cubes
Lesson 44—Volume Unit Conversions
Lesson 45—Liquid Measures of Volume
Lesson 46—Volume in the Metric System
Chapter 7: Simple Algebraic Equations
Lesson 47—Advanced Arithmetic
Lesson 48—What’s it for Anyway?
Lesson 49—The Golden Rule of Algebra
Lesson 50—Undoing Multiplication and Division
Lesson 51—Changing Places
Lesson 52—New Symbols
Lesson 53—Undoing the Algebra Way
Lesson 54—Solving Percent Problems with Algebra
Lesson 55—Solving Distance Problems with Algebra

Chapter 8: Integers
Lesson 56—Less Than Zero
Lesson 57—The Number Line
Lesson 58—How Negatives are Used
Lesson 59—Addition with Negatives
Lesson 60—Subtraction with Negatives
Lesson 61—Multiplication with Negatives
Lesson 62—Division with Negatives
Lesson 63—Undoing Equations with Negatives—Part 1
Lesson 64—Undoing Equations with Negatives—Part 2
Lesson 65—Negatives and Fractions
Lesson 66—Handling a –x
Lesson 67—Dealing with –x in a Fraction

Chapter 9: Longer Algebraic Equations
Lesson 68—Order Matters
Lesson 69—Writing Equations in Order
Lesson 70—Order and the Fraction Bar
Lesson 71—Using the Fraction Bar in Equations
Lesson 72—Undoing in Reverse—Part 1
Lesson 73—Undoing in Reverse—Part 2
Lesson 74—Simplifying First
Lesson 75—More Simplifying First

Chapter 10: Combining Like Terms
Lesson 76—Adding x’s
Lesson 77—Subtracting x’s
Lesson 78—x and 1x
Lesson 79—Work Problems
Lesson 80—Fancy Distance Problems
Lesson 81—x’s on Both Sides
Lesson 82—Refrigerator Repairs
Chapter 11: Rational Expressions
Lesson 83—Reducing Fractions with x’s
Lesson 84—Canceling x’s
Lesson 85—Fractions and Parentheses—Part 1
Lesson 86—Fractions and Parentheses—Part 2
Lesson 87—Multiplying Fractions with x’s
Lesson 88—Dividing Fractions with x’s
Lesson 89—Adding Fractions with x’s
Lesson 90—Subtracting Fractions with x’s
Chapter 12: Powers, Polynomials, and Radicals
Lesson 91—Raising a Number to a Power
Lesson 92—Scientific Notation
Lesson 93—Order and Powers
Lesson 94—Adding and Subtracting Powers
Lesson 95—Multiplying Powers
Lesson 96—Multiplying Powers: Tougher Cases
Lesson 97—Dividing Powers
Lesson 98—Fractions with Powers
Lesson 99—Taking a Root
Lesson 100—Undoing Powers and Roots
Lesson 101—An Exponent of 1
Lesson 102—An Exponent of 0
Chapter 13: Geometry
Lesson 103—Points, Lines, and Planes
Lesson 104—Angles
Lesson 105—Pairs of Angles
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Lesson 107—Triangles
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Lesson 126—Horizontal and Vertical Lines 653
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Lesson 128—Range and Stem-and-Leaf Plots 669
Lesson 129—Histograms and Scatter Plots 675
Lesson 130—Probability 684
Lesson 131—Tree Diagrams 691
Lesson 132—Fundamental Counting Principle 698
Lesson 133—Inequalities 703
Lesson 134—Undoing Inequalities 709
Lesson 135—Undoing Inequalities in Reverse Order 717
Chapter 17: Additional Topics 723
Lesson 136—Equations and the Distributive Property 724
Lesson 137—Absolute Value 730
Lesson 138—Distance Formula 736
Lesson 139—More on Formulas 744

Progress Criteria/Methods of Evaluation: For successful completion of this course, the student will complete at least 70% of the lessons/goals, at a minimum of 70% accuracy.

September Complete Lessons 1 – 14
October Complete Lessons 15 – 28
November Complete Lessons 29 – 42
December Complete Lessons 43 – 56
January Complete Lessons 57 – 70
February Complete Lessons 71 – 84
March Complete Lessons 85 – 98
April Complete Lessons 99 – 112
May Complete Lessons 113 – 126
June Complete Lessons 127 – 139