Course Description - Algebra 1

Algebra 1 (3rd edition) covers topics including signed numbers, exponents, and roots; absolute value; equations and inequalities; scientific notation; unit conversions; polynomials; graphs; factoring; quadratic equations; direct and inverse variations; exponential growth; statistics; and probability. (120 Lessons)

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Lesson	Title
1	Addition and Subtraction of Fractions/Line and Segments
2	Angles/ Polygons/ Triangles/Quadrilaterals
3	Perimeter/Circumference
4	Review of Arithmetic
5	Sets, Absolute Value and Addition of Signed Numbers
6	Rules for addition/Adding more than two numbers/Inserting Parentheses Mentally, Definition of Subtraction
7	The opposite of a number/Simplifying More Difficult Notations
8	Concept of Area/Area of Rectangles and Squares/ Areas of Triangles/Area of Circles/ Areas of Parallelograms and Trapezoids
9	Rules for Multiplication of Signed Numbers/Rules for Division of Signed Numbers
10	Division by zero/ Exchange of Factors in Multiplication/Conversions of Area
11	Reciprocal and Multiplicative Inverse/Order of Operations/Identifying Multiplication and Addition
12	Symbols of Inclusion/Order of Operations
13	Multiple Symbols of Inclusion/More on Order of Operations/Product of Signed Numbers
14	Evaluation of Algebraic Expressions
15	Surface Area
16	More Complicated Evaluations
17	Factors and Coefficients/Terms/The Distributive Property
18	Like Terms/Addition of Like Terms
19	Exponents/Powers of Negative Numbers/Roots/Evaluation of Powers
20	Volume
21	Product Rule for Exponents/Addition of Like Terms with Exponents
22	Review of Numerical and Algebraic Expression/Statements and Sentences/Conditional Equations

23	Equivalent Equations/Additive Property of Equality
24	Multiplicative Property of Equality
25	Solution of Equations
26	More Complicated Equations
27	More on the Distributive Property/Simplifying Decimal Equations
28	Fractional Parts of Numbers/Functional Notation
29	Negative Exponents/Zero Exponents
30	Algebraic Phrases/Decimal Parts of a Number
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32	Word Problems
33	Product of Prime Numbers/Problems with Unequal Quantities
34	Greatest Common Factor
35	Factoring the Greatest Common Factor/Canceling
36	Distributive Property of Rational Expressions that Contain Positive Exponents/ Minus Signs and Negative Exponents
37	Inequalities/Greater Than and Less Than/Graphical Solutions of Inequalities
38	Ratio Problems
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41	Addition of Like Terms in Rational Expressions/ Two-Step Problems
42	Solving Multivariable Equations
43	Least Common Multiple/Least Common Multiple of Algebraic Expressions
44	Addition of Rational Expressions with Equal Denominators/ Addition of Rational Expressions with Unequal Denominators
45	Range, Median, Mode and Mean
46	Conjunctions
47	Percents Less Than 100/Percents Greater Than 100
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50	Polynomial Equations/Ordered Pairs/Cartesian Coordinate System
51	Graphs of Linear Equations/Graphs of Vertical and Horizontal Lines
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56	Finite and Infinite Sets/Membership in a Set/Rearranging before Graphing
57	Addition of Algebraic Expressions with Negative Exponents
58	Percent Word Problems
59	Rearranging Before Substitution
60	Geometric Solids/Prisms and Cylinders

61	Subsets/Subset of the Set of Real Numbers
62	Square Roots / Higher Order Roots/Equations Using Plus or Minus
63	Product of Square Roots/Repeating Decimals
64	Domain/Additive Property of Inequality
65	Addition of Radical Expressions/Weighted Average
66	Simplification of Radical Expressions/Square Roots of Large Numbers
67	Review of Equivalent Equations/Elimination
68	More About Complex Fractions
69	Factoring Trinomials
70	Probability/ Designated Order
71	Trinomials with Common Factors/ Subscripted Variables
72	Factors That are Sums/ Pyramids and Cones
73	Factoring the Difference of Two Squares/ Probability without Replacement
74	Scientific Notation
75	Writing the Equation of a Line/ Slope-Intercept Method of Graphing
76	Consecutive Integers
77	Consecutive Odd and Consecutive Even Integers/Fractions and Decimal Word Problems
78	Rational Equations
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96	The Difference of Two Squares
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98	Difference Between Two Points/Slope Formula
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101	Factorable Denominators

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103	More on Rational Equations
104	Abstract Rational Equations
105	Factoring by Grouping
106	Linear Equations/Equation of a Line Through Two Points
107	Line Parallel to a Given Line/Equation of a Line with a Given Slope
108	Square Roots Revisited/Radical Equations
109	Advanced Trinomial Factoring
110	Vertical Shifts/Horizontal Shifts/Reflection About the X-axis/Combination of Shifts and Reflections
111	More About Conjunctions/Disjunctions
112	More on Multiplication of Radical Expressions
113	Direct Variation/ Inverse Variation
114	Exponential Key/Exponential Growth - Part 1/ Exponential Growth - Part 2/Using the Graphing Calculator to Graph Exponential Functions
115	Linear Inequalities
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117	Direct and Inverse Variation Squared
118	Completing the Square
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120	Box-and-Whisker Plots