Oklahoma Algebra 1 with CalcChat® and CalcView®

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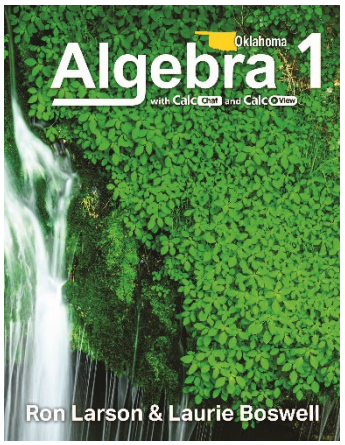
Correlated to the Oklahoma Academic Standards for Mathematics



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Standard	Oklahoma Algebra 1 with CalcChat® and CalcView®
Algebra 1	
Numbers & Operations (N)	
A1.N.1.1 Write square roots and cube roots of constants and monomial algebraic expressions in simplest radical form.	1.2 (pp. 9-14), 6.3 (pp. 317-326)
A1.N.1.2 Add, subtract, multiply, divide, and simplify square roots of constants, rationalizing the denominator when necessary	6.2 (pp. 311-316), 6.3 (pp. 317-326)
Algebraic Reasoning & Algebra (A)	
A1.A.1.1 Use knowledge of solving equations with rational values to represent, use and apply mathematical models (e.g., angle measures, geometric formulas, dimensional analysis, Pythagorean theorem, science, statistics) and interpret the solutions in the original context.	1.3 (pp. 15-22), 1.4 (pp. 23-30), 1.5 (pp. 31-36), 1.6 (pp. 37-42), 1.7 (pp. 43-48), 1.9 (pp. 57-64)
A1.A.1.2 Solve absolute value equations and interpret the solutions in the original context.	1.8 (pp. 49-56)
A1.A.1.3 Analyze, use and apply mathematical models to solve problems involving systems of linear equations with a maximum of two variables by graphing, substitution, and elimination. Graphing calculators or other appropriate technology may be utilized. Interpret the solutions in the original context	5.1 (pp. 257-262), 5.2 (pp. 263-268), 5.3 (pp. 269-274), 5.4 (pp. 275-280), 5.5 (pp. 281-286)
A1.A.2.1 Represent relationships using mathematical models with linear inequalities; solve the resulting inequalities, graph on a coordinate plane, and interpret the solutions.	2.1 (pp. 75-82), 2.2 (pp. 83-88), 2.3 (pp. 89-94), 2.4 (pp. 95-100), 5.6 (pp. 287-292)
A1.A.2.2 Represent relationships using mathematical models with compound	2.5 (pp. 101-106), 2.6 (pp. 107-112)

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and absolute value inequalities and solve the resulting inequalities by graphing and interpreting the solutions on a number line.	
A1.A.3.1 Solve equations involving several variables for one variable in terms of the others.	1.9 (pp. 57-64)
A1.A.3.2 Simplify polynomial expressions by adding, subtracting, or multiplying.	6.1 (pp. 303-310), 7.1 (pp. 355-362), 7.2 (pp. 363-370), 7.3 (pp. 371-376)
A1.A.3.3 Factor common monomial factors from polynomial expressions and factor quadratic expressions with a leading coefficient of 1.	7.4 (pp. 377-382), 7.5 (pp. 383-388)
A1.A.3.4 Evaluate linear, absolute value, rational, and radical expressions. Include applying a nonstandard operation such as $x \odot y=2x+y$	1.1 (pp. 3-8), 1.2 (pp. 9-14)
A1.A.4.1 Analyze, use and apply mathematical models and other data sets (e.g., graphs, equations, two points, a set of data points) to calculate and interpret slope and the x- and y-intercepts of a line.	3.5 (pp. 155-160), 3.6 (pp. 161-170), 4.4 (pp. 227-232), 4.5 (pp. 233-238), 4.6 (pp. 239-246)
A1.A.4.2 Analyze and interpret mathematical models involving lines that are parallel, perpendicular, horizontal, and vertical.	3.5 (pp. 155-160), 3.6 (pp. 161-170), 3.9 (pp. 189-196), 4.4 (pp. 227-232)
A1.A.4.3 Write the equation of the line given its slope and y-intercept, slope and one point, two points, x- and y-intercepts, or a set of data points.	4.1 (pp. 209-214), 4.2 (pp. 215-220), 4.4 (pp. 227-232)
A1.A.4.4 Express linear equations in slope-intercept, point-slope, and standard forms. Convert between these forms.	3.6 (pp. 161-170), 4.1 (pp. 209-214), 4.2 (pp. 215-220), 4.3 (pp. 221-226), 4.4 (pp. 227-232)
A1.A.4.5 Analyze and interpret associations between graphical representations and written scenarios.	3.2 (pp. 133-138), 3.9 (pp. 189-196)
Functions (F)	
A1.F.1.1 Distinguish between relations and functions.	3.1 (pp. 123-128)
A1.F.1.2 Identify the dependent variable, independent variable, domain and range given a function, equation, or graph. Identify restrictions on the domain and range in mathematical models.	3.1 (pp. 123-128), 3.3 (pp. 139-148), 3.5 (pp. 155-160), 3.6 (pp. 161-170), 3.8 (pp. 181-188), 6.4 (pp. 327-334)

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A1.F.1.3 Write linear functions, using function notation, to represent mathematical models.	4.1 (pp. 209-214), 4.2 (pp. 215-220)
A1.F.1.4 Read and interpret the linear piecewise function, given a graph modeling a situation.	3.9 (pp. 189-196)
A1.F.1.5 Interpret graphs as being discrete or continuous.	3.3 (pp. 139-148)
A1.F.2.1 Distinguish between linear and nonlinear (including exponential) functions. Understand that linear functions grow by equal intervals (arithmetic) and that exponential functions grow by equal factors over equal intervals (geometric).	3.3 (pp. 139-148), 6.4 (pp. 327-334), 6.5 (pp. 335-344)
A1.F.2.2 Recognize the parent functions $f(x) = x$ and $f(x) = \|x\|$. Predict the effects of vertical and horizontal transformations $f(x + c)$ and $f(x) + c$, algebraically and graphically.	3.7 (pp. 171-180), 3.8 (pp. 181-188)
A1.F.3.1 Identify and generate equivalent representations of linear functions, graphs, tables, and real-world situations.	3.3 (pp. 139-148), 3.4 (pp. 149-154), 3.5 (pp. 155-160), 3.6 (pp. 161-170), 4.1 (pp. 209-214), 4.2 (pp. 215-220), 4.4 (pp. 227-232)
A1.F.3.2 Use function notation; evaluate a function, including nonlinear, at a given point in its domain algebraically and graphically. Interpret the results in terms of the original context.	3.4 (pp. 149-154), 6.4 (pp. 327-334), 6.5 (pp. 335-344)
A1.F.3.3 Add, subtract, and multiply functions using function notation.	7.2 (pp. 363-370)
Data & Probability (D)	
A1.D.1.1 Display, describe, and compare data sets using summary statistics (central tendency and spread (range)). Utilize technology (e.g., spreadsheets, calculators) to display data and calculate summary statistics.	4.5 (pp. 233-238), 4.6 (pp. 239-246), 8.1 (pp. 399-404), 8.2 (pp. 405-410), 8.3 (pp. 411-418), 8.4 (pp. 419-422)
A1.D.1.2 Collect data and analyze scatter plots for patterns, linearity, and outliers.	4.5 (pp. 233-238), 4.6 (pp. 239-246)

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A1.D.1.3 Make predictions based upon the linear regression, and use the correlation coefficient to assess the reliability of those predictions using graphing technology.	4.6 (pp. 239-246)
A1.D.2.1 Apply simple counting procedures (factorials, permutations, combinations, and tree diagrams) to determine sample size, sample space, and calculate probabilities.	9.1 (pp. 433-442), 9.6 (pp. 471-478)
A1.D.2.2 Given a Venn diagram, determine the probability of the union of events, the intersection of events, and the complement of an event. Understand the relationships between these concepts and the words “AND,” “OR,” and “NOT.”	9.1 (pp. 433-442), 9.3 (pp. 449-456), 9.4 (pp. 457-464), 9.5 (pp. 465-470)
A1.D.2.3 Use simulations and experiments to calculate experimental probabilities.	9.1 (pp. 433-442), 9.2 (pp. 443-448), 9.7 (pp. 479-484)
A1.D.2.4 Apply probability concepts to real-world situations to make informed decisions.	9.1 (pp. 433-442), 9.2 (pp. 443-448), 9.3 (pp. 449-456), 9.4 (pp. 457-464), 9.5 (pp. 465-470), 9.6 (pp. 471-478), 9.7 (pp. 479-484)