

Cord Algebra 1, Learning in Context, 3rd edition
 correlation to Oklahoma Pass Mathematics Content Standards, Algebra I

	Cord Algebra 1 Lesson(s)
Standard 1: Number Sense and Algebraic Operations - The student will use expressions and equations to model number relationships.	
<i>1. Equations and Formulas</i>	
a. Translate word phrases and sentences into expressions and equations and vice versa.	1.8, 1.9, 3.1, 3.2, 3.3, 3.4, 3.5
b. Solve literal equations involving several variables for one variable in terms of the others.	3.4
c. Use the formulas from measurable attributes of geometric models (perimeter, circumference, area and volume), science, and statistics to solve problems within an algebraic context.	1.9, 2.1, 2.2, 2.3, 2.4, 2.5, Chapter 2 Math Applications
d. Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ratio and proportion, and percent.	2.1, 2.2, 2.3, Chapter 2 Math Applications, 3.2, Chapter 3 Math Applications, 10.2, 10.3
<i>2. Expressions</i>	
a. Simplify and evaluate linear, absolute value, rational and radical expressions.	1.3, 1.8, 12.1, 12.2, 12.3, 12.4, 13.3
b. Simplify polynomials by adding, subtracting or multiplying.	10.1, 10.2, 10.3, 10.4, 10.6
c. Factor polynomial expressions.	10.5, 10.6, 10.7
Standard 2: Relations and Functions - The student will use relations and functions to model number relationships.	
<i>1. Relations and Functions</i>	
a. Distinguish between linear and nonlinear data.	4.5, 5.4
b. Distinguish between relations and functions.	5.1
c. Identify dependent and independent variables, domain and range.	5.1, 5.4, 5.5
d. Evaluate a function using tables, equations or graphs.	4.3, 4.4, 4.5, 4.6, 4.7, 5.2, 5.3, 5.4, 5.5
<i>2. Linear Equations and Graphs</i>	
a. Solve linear equations by graphing or using properties of equality.	3.1, 3.2, 3.3, 3.4, 3.5, 4.2, 4.3, 4.4, 4.5
b. Recognize the parent graph of the functions $y = k$, $y = x$, $y = x $, and predict the effects of transformations on the parent graph.	4.6, 4.7, 5.4, 5.5

c. Slope I. Calculate the slope of a line using a graph, an equation, two points or a set of data points. II. Use the slope to differentiate between lines that are parallel, perpendicular, horizontal, or vertical. III. Interpret the slope and intercepts within the context of everyday life (e.g., telephone charges based on base rate [y-intercept] plus rate per minute [slope]).	4.2, 4.3, 4.4, 4.5, 4.6, 4.7, Chapter 4 Math Applications
d. Develop the equation of a line and graph linear relationships given the following: slope and y-intercept, slope and one point on the line, two points on the line, x-intercept and y-intercept, a set of data points.	4.3, 4.4, 4.5
e. Match appropriate equations to a graph, table, or situation and vice versa.	4.3, 4.4, 4.5, 4.6, 4.7
<i>3. Linear Inequalities and Graphs</i>	
a. Solve linear inequalities by graphing or using properties of inequalities.	9.2, 9.3, 9.4
b. Match appropriate inequalities (with 1 or 2 variables) to a graph, table, or situation and vice versa.	9.1, 9.2, 9.3, 9.4, 9.6
<i>4. Solve a system of linear equations by graphing, substitution or elimination.</i>	8.1, 8.2, 8.3, 8.4, 8.5
<i>5. Nonlinear Functions</i>	
a. Match exponential and quadratic functions to a table, graph or situation and vice versa.	5.6, 11.1, 11.2, Chapter 11 Math Applications
b. Solve quadratic equations by graphing, factoring, or using the quadratic formula.	11.2, 11.3, 11.4, 11.5, 11.6
Standard 3: Data Analysis, Probability and Statistics - The student will use data analysis, probability and statistics to formulate and justify predictions from a set of data.	
<i>1. Data Analysis</i>	
a. Translate from one representation of data to another and understand that the data can be represented using a variety of tables, graphs, or symbols and that different modes of representation often convey different messages.	7.2, 7.3, 7.4, 7.5
b. Make valid inferences, predictions, and/or arguments based on data from graphs, tables, and charts.	7.1, 7.2, 7.3, 7.4, 7.5, 7.6
c. Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	6.1, 6.2, 6.3, 6.4, 6.5, Chapter 6 Math Applications, 7.1, Chapter 7 Math Applications