

*Cord Algebra 1, Learning in Context, 3rd edition*  
correlation to Indiana Algebra I American Standards

American Standard	Cord Algebra 1 Lesson(s)
<b>Standard 1 Relations and Functions</b>	
A1.1.1 Determine whether a relation represented by a table, graph, words or equation is a function or not a function and translate among tables, graphs, words and equations.	4.3, 4.4, 4.5, 4.6, 4.7, 5.1, 5.3, 5.4, 11.2
A1.1.2 Identify the domain and range of relations represented by tables, graphs, words, and equations.	5.1, 5.3, 5.4, 5.5, 11.2
<b>Standard 2 Linear Functions, Equations and Inequalities</b>	
A1.2.1 Translate among various representations of linear functions including tables, graphs, words and equations.	4.3, 4.4, 4.5, 4.6, 4.7
A1.2.2 Graph linear equations and show that they have constant rates of change.	4.3, 4.4, 4.5, 4.6, 4.7
A1.2.3 Determine the slope, $x$ -intercept, and $y$ -intercept of a line given its graph, its equation, or two points on the line and determine the equation of a line given sufficient information.	4.3, 4.4, 4.5, 4.6, 4.7
A1.2.4 Write, interpret, and translate among equivalent forms of equations for linear functions (slope-intercept, point-slope, and standard), recognizing that equivalent forms reveal more or less information about a given situation.	4.3, 4.4, 4.5, 4.6, 4.7
A1.2.5 Solve problems that can be modeled using linear equations and inequalities, interpret the solutions, and determine whether the solutions are reasonable.	4.3, 4.4, 4.5, 4.6, 4.7, Ch. 4 Math Applications, 9.6
A1.2.6 Graph a linear inequality in two variables.	9.6
<b>Standard 3 Pairs of Linear Equations and Inequalities</b>	
A1.3.1 Understand the relationship between a solution of a pair of linear equations in two variables and the graphs of the corresponding lines and solve pairs of linear equations in two variables by graphing, substitution or elimination.	8.1, 8.2, 8.3, 8.4, 8.5
A1.3.2 Graph the solution set for a pair of linear inequalities in two variables with and without technology and use the graph to find the solution set.	9.7

A1.3.3 Solve problems that can be modeled using pairs of linear equations in two variables, interpret the solutions, and determine whether the solutions are reasonable.	8.1, 8.2, 8.3, 8.4, 8.5, Ch. 8 Math Applications
<b>Standard 4 Polynomials</b>	
A1.4.1 Use the laws of exponents for variables with exponents and multiply, divide, and find powers of variables with exponents.	10.2, 10.3
A1.4.2 Add, subtract and multiply polynomials and divide polynomials by monomials.	10.1, 10.2, 10.3, 10.4
A.1.4.3 Factor common terms from polynomials and factor quadratic expressions.	10.5, 10.6, 10.7, 11.3
<b>Standard 5 Quadratic Equations and Functions</b>	
A1.5.1 Graph quadratic functions.	11.1, 11.2
A1.5.2 Solve quadratic equations in the real number system with real number solutions by factoring, by completing the square, and by using the quadratic formula.	11.3, 11.4, 11.5, 11.6
A1.5.3 Solve problems that can be modeled using quadratic equations, interpret the solutions, and determine whether the solutions are reasonable.	11.1, 11.2, 11.3, 11.4, 11.5, 11.6, Ch. 11 Math Applications
A1.5.4 Analyze and describe the relationships among the solutions of a quadratic equation, the zeros of a quadratic function, the $x$ -intercepts of the graph of a quadratic function, and the factors of a quadratic expression.	11.1, 11.2, 11.3, 11.4, 11.5, 11.6
A1.5.5 Sketch and interpret linear and non-linear graphs representing given situations and identify independent and dependent variables.	4.3, 4.4, 4.5, 4.6, 4.7, 5.3, 5.4, 11.2
<b>Standard 6 Rational and Radical Expressions and Equations</b>	
A1.6.1 Add, subtract, multiply, divide, reduce, and evaluate rational expressions with polynomial denominators. Simplify rational expressions with linear and quadratic denominators, including denominators with negative exponents.	12.2, 12.3, 12.4
A1.6.2 Solve equations involving rational and common irrational expressions.	12.5
A1.6.3 Simplify radical expressions involving square roots.	13.3
A1.6.4 Solve equations that contain radical expressions on only one side of the equation and identify extraneous roots when they occur.	13.6

<b>Standard 7 Data Analysis</b>	
A1.7.1 Organize and display data using appropriate methods to detect patterns and departures from patterns. Summarize the data using measures of center (mean, median) and spread (range, percentiles, variance, standard deviation). Compare data sets using graphs and summary statistics.	7.1, 7.2, 7.3, 7.4, 7.5, 7.6
A1.7.2 Distinguish between random and non-random sampling methods, identify possible sources of bias in sampling, describe how such bias can be controlled and reduced, evaluate the characteristics of a good survey and well-designed experiment, design simple experiments or investigations to collect data to answer questions of interest, and make inferences from sample results.	6.6
A1.7.3 Evaluate reports based on data published in the media by considering the source of the data, the design of the study, the way the data are analyzed and displayed and whether the report confuses correlation with causation.	Various items in Chapter 7 Math Applications (pp. 431-439) refer to published data