

Maryland Core Learning Goals Correlation

		Algebra 1 Lessons
<p>Goal 1 Functions and Algebra</p> <p>The student will demonstrate the ability to investigate, interpret, and communicate solutions to mathematical and real-world problems using patterns, functions, and algebra.</p>		
<p>Expectation</p> <p>1.1 The student will analyze a wide variety of patterns and functional relationships using the language of mathematics and appropriate technology.</p>		
<p>1.1.1 The student will recognize, describe, and/or extend patterns and functional relationships that are expressed numerically, algebraically, and/or geometrically.</p>	4.3, 4.4, 4.5, 4.6, 5.1, 5.3	
<p>1.1.2 The student will represent patterns and/or functional relationships in a table, as a graph, and/or by mathematical expression.</p>	4.3, 4.4, 4.5, 4.6, 4.7	
<p>1.1.3 The student will apply addition, subtraction, multiplication, and/or division of algebraic expressions to mathematical and real-world problems.</p>	2.1, 10.1, 10.3, 10.4, 10.5, 10.6, 10.7	
<p>1.1.4 The student will describe the graph of a non-linear function and discuss its appearance in terms of the basic concepts of maxima and minima, zeros (roots), rate of change, domain and range, and continuity.</p>	5.1, 5.2, 5.3, 5.4, 5.5, 5.6	
<p>Expectation</p> <p>1.2 The student will model and interpret real-world situations using the language of mathematics and appropriate technology.</p>		
<p>1.2.1 The student will determine the equation for a line, solve linear equations, and/or describe the solutions using numbers, symbols, and/or graphs.</p>	3.1, 3.2, 3.3, 3.4, 3.5, 4.2, 4.3, 4.4, 4.5, 4.6	
<p>1.2.2 The student will solve linear inequalities and describe the solutions using numbers, symbols, and/or graphs.</p>	9.1, 9.2, 9.3, 9.4	
<p>1.2.3 The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.</p>	4.7, 8.1	
<p>1.2.4 The student will describe how the graphical model of a non-linear function represents a given problem and will estimate the solution.</p>	5.4, 5.5, 5.6, Ch 5 Applications	
<p>1.2.5 The student will apply formulas and/or use matrices (arrays of numbers) to solve real-world problems.</p>	1.6, 2.2, 2.3, 2.4, 2.5, 2.6, Ch 2 Applications	

	Algebra 1 Lessons
Goal 3 Data Analysis And Probability	
The student will demonstrate the ability to apply probability and statistical methods for representing and interpreting data and communicating results, using technology when needed.	
Expectation	
3.1 The student will collect, organize, analyze, and present data.	
3.1.1 The student will design and/or conduct an investigation that uses statistical methods to analyze data and communicate results.	Ch 6 Labs, Ch 7 Labs
3.1.2 The student will use the measures of central tendency and/or variability to make informed conclusions.	7.1, Ch 7 Applications
3.1.3 The student will calculate theoretical probability or use simulations or statistical inference from data to estimate the probability of an event.	6.1, 6.3, 6.4, 6.5
Expectation	
3.2 The student will apply the basic concepts of statistics and probability to predict possible outcomes of real-world situations.	
3.2.1 The student will make informed decisions and predictions based upon the results of simulations and data from research.	6.2, Ch 6 Labs, Ch 7 Labs
3.2.2 The student will interpret data and/or make predictions by finding and using a line of best fit and by using a given curve of best fit.	7.3, Ch 7 Applications
3.2.3 The student will communicate the use and misuse of statistics.	Covered in <i>Cord Bridges to Algebra and Geometry</i> (Lesson 2.7)