

## Algebra 2 Pacing Guide/Standards Correlation

### Semester 1: (44 Days)

#### Project Benchmark Stds:

- 11.1 Students understand the inverse relationship between exponents and logarithms, and use this relationship to solve problems involving logarithms and exponents.
- 14.0 Students understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values..

	Chapter in Textbook	Objective	Content Standards	Allotted Time
<b>Unit 1: Numbers and Functions</b>	<b>Chapter 2</b>			8 days
	2.1	<ul style="list-style-type: none"> <li>• Identify and use properties of real numbers.</li> <li>• Evaluate expressions by using the order of operations.</li> </ul>	25.0 Students use properties from number systems to justify steps in combining and simplifying functions.	
	2.2	<ul style="list-style-type: none"> <li>• Evaluate expressions involving exponents.</li> <li>• Simplify expressions involving exponents.</li> </ul>	7.0* Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.  12.0* Students know the laws of fractional exponents, understand exponential functions, and use these functions in problems involving exponential growth and decay.	
	2.3	<ul style="list-style-type: none"> <li>• State the domain and range of a relation, and tell whether it is a function.</li> <li>• Write a function in function notation and evaluate it.</li> </ul>	24.0 Students solve problems involving functional concepts, such as composition, defining the inverse function and performing arithmetic operations on functions.	

	2.4	<ul style="list-style-type: none"> <li>Perform operations with functions to write new functions.</li> <li>Find the composition of two functions.</li> </ul>	24.0 Students solve problems involving functional concepts, such as composition, defining the inverse function and performing arithmetic operations on functions. 25.0 Students use properties from number systems to justify steps in combining and simplifying functions.	
	2.5	<ul style="list-style-type: none"> <li>Find the inverse of a function.</li> <li>Determine whether the inverse of a function is a function.</li> </ul>	24.0 Students solve problems involving functional concepts, such as composition, defining the inverse function and performing arithmetic operations on functions.	
	2.6*	<ul style="list-style-type: none"> <li>Write, graph, and apply special functions: piecewise, step, and absolute value.</li> </ul>		
	2.7	<ul style="list-style-type: none"> <li>Identify the transformation(s) from one function to another.</li> </ul>	Preparation for Std. 9.0	
<b>Unit 2: Systems of Linear Equations and Inequalities</b>	<b>Chapter 3</b>			7 days
	3.1	<ul style="list-style-type: none"> <li>Solve a system of linear equations in two variables by graphing.</li> <li>Solve a system of equations by substitution.</li> </ul>	2.0* Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices.	
	3.2	<ul style="list-style-type: none"> <li>Solve a system of two linear equations in two variables by elimination.</li> </ul>	2.0* Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices.	
	3.3	<ul style="list-style-type: none"> <li>Solve and graph a linear inequality in two variables.</li> <li>Use a linear inequality in two variables to solve real-world problems.</li> </ul>	2.0* Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices.	

	3.4	<ul style="list-style-type: none"> <li>Write and graph a system of linear inequalities in two variables.</li> <li>Write a system of linear inequalities in two variables for a given solution region.</li> </ul>	2.0* Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices.	
	3.5*	<ul style="list-style-type: none"> <li>Write and graph a set of constraints for a linear-programming problem.</li> <li>Use linear programming to find the maximum or minimum value of an objective function.</li> </ul>		
	3.6*	<ul style="list-style-type: none"> <li>Graph a pair of parametric equations, and use them to model real-world situations.</li> <li>Write the function represented by a pair of parametric equations.</li> </ul>		
<b>Unit 3: Quadratic Functions</b>	<b>Chapter 5</b>			9 days
	5.1	<ul style="list-style-type: none"> <li>Define, identify, and graph quadratic functions.</li> <li>Multiply linear binomials to produce a quadratic expression.</li> </ul>	<p>8.0* Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.</p> <p>9.0* Students demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions; that is, students can determine how the graph of a parabola changes as <math>a</math>, <math>b</math>, and <math>c</math> vary in the equation <math>y = a(x - b)^2 + c</math>.</p> <p>10.0* Students graph quadratic functions and determine the maxima, minima,</p>	

			and zeros of the function.	
5.2	<ul style="list-style-type: none"> <li>Solve quadratic equations by taking square roots.</li> <li>Use the Pythagorean Theorem to solve problems involving right triangles.</li> </ul>	<p>8.0* Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.</p> <p>9.0* Students demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions; that is, students can determine how the graph of a parabola changes as <math>a</math>, <math>b</math>, and <math>c</math> vary in the equation <math>y = a(x - b)^2 + c</math>.</p>		
5.3	<ul style="list-style-type: none"> <li>Factor a quadratic expression.</li> <li>Use factoring to solve a quadratic equation and find the zeros of a quadratic function.</li> </ul>	<p>8.0* Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.</p> <p>10.0* Students graph quadratic functions and determine the maxima, minima, and zeros of the function.</p>		
5.4	<ul style="list-style-type: none"> <li>Use completing the square to solve a quadratic equation.</li> <li>Use the vertex form of a quadratic function to locate the axis-of-symmetry of its graph.</li> </ul>	<p>8.0* Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number</p>		

			<p>system.</p> <p>9.0* Students demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions; that is, students can determine how the graph of a parabola changes as <math>a</math>, <math>b</math>, and <math>c</math> vary in the equation <math>y = a(x - b)^2 + c</math>.</p>	
5.5	<ul style="list-style-type: none"> <li>• Use the quadratic formula to find real roots of quadratic equations.</li> <li>• Use the roots of a quadratic equation to locate the axis of symmetry of a parabola.</li> </ul>	<p>9.0* Students demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions; that is, students can determine how the graph of a parabola changes as <math>a</math>, <math>b</math>, and <math>c</math> vary in the equation <math>y = a(x - b)^2 + c</math>.</p> <p>10.0* Students graph quadratic functions and determine the maxima, minima, and zeros of the function.</p>		
5.6	<ul style="list-style-type: none"> <li>• Classify and find all roots of a quadratic equation.</li> <li>• Graph and perform operations on complex numbers.</li> </ul>	<p>5.0* Students demonstrate knowledge of how real and complex numbers are related both arithmetically and graphically. In particular, they can plot complex numbers as points in the plane.</p> <p>6.0* Students add, subtract, multiply, and divide complex numbers.</p>		
5.7*	<ul style="list-style-type: none"> <li>• Find a quadratic function that exactly fits three data points.</li> <li>• Find a quadratic model to represent a data set.</li> </ul>	<p>8.0* Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.</p>		

			<p>9.0* Students demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions; that is, students can determine how the graph of a parabola changes as <math>a</math>, <math>b</math>, and <math>c</math> vary in the equation <math>y = a(x - b)^2 + c</math></p> <p>10.0* Students graph quadratic functions and determine the maxima, minima, and zeros of the function.</p>	
	5.8*	<ul style="list-style-type: none"> <li>• Write, solve, and graph a quadratic inequality in one variable.</li> <li>• Write, solve, and graph a quadratic inequality in two variables.</li> </ul>	8.0* Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.	
<b>Unit 4: Exponential and Logarithmic Functions</b>	<b>Chapter 6</b>			8 days
	6.1	<ul style="list-style-type: none"> <li>• Determine the multiplier for exponential growth and decay.</li> <li>• Write and evaluate exponential expressions to model growth and decay situations.</li> </ul>	12.0* Students know the laws of fractional exponents, understand exponential functions, and use these functions in problems involving exponential growth and decay.	
	6.2	<ul style="list-style-type: none"> <li>• Classify an exponential function as representing exponential growth or decay.</li> <li>• Calculate the growth of investments under various conditions.</li> </ul>	12.0* Students know the laws of fractional exponents, understand exponential functions, and use these functions in problems involving exponential growth and decay.	
	6.3	<ul style="list-style-type: none"> <li>• Write equivalent forms for exponential and logarithmic equations.</li> <li>• Use the definitions of exponential</li> </ul>	11.1* Students understand the inverse relationship between exponents and logarithms, and use this relationship to solve problems involving	

		and logarithmic functions to solve equations.	14.0	logarithms and exponents. Students understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values.	
	6.4	<ul style="list-style-type: none"> <li>Simplify and evaluate expressions involving logarithms.</li> <li>Solve equations involving logarithms.</li> </ul>	14.0	Students understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values.	
	6.5	<ul style="list-style-type: none"> <li>Define and use the common logarithmic function to solve exponential and logarithmic equations.</li> <li>Evaluate logarithmic expressions by using the change of base formula.</li> </ul>	14.0 13.0	Students understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values. Students use the definition of logarithms to translate between logarithms in any base.	
	6.6	<ul style="list-style-type: none"> <li>Evaluate natural exponential and natural logarithmic functions.</li> <li>Model exponential growth and decay processes.</li> </ul>	15.0*	Students determine whether a specific algebraic statement involving rational expressions, radical expressions, or logarithmic or exponential functions is sometimes true, always true, or never true.	
	6.7	<ul style="list-style-type: none"> <li>Solve logarithmic and exponential equations by using algebra and graphs.</li> <li>Model and solve real-world problems involving exponential and logarithmic relationships.</li> </ul>	11.2*	Students judge the validity of an argument according to whether the properties of real numbers, exponents, and logarithms have been applied correctly at each step.	
<b>Unit 5: Polynomial Functions</b>	<b>Chapter 7</b>				6 days
	7.1	<ul style="list-style-type: none"> <li>Identify, evaluate, add, and subtract polynomials.</li> </ul>	3.0*	Students are adept at operations on polynomials, including long division.	

	<ul style="list-style-type: none"> <li>Classify polynomials and describe the shape of their graph.</li> </ul>		
7.2	<ul style="list-style-type: none"> <li>Identify and describe the important features of the graph of a polynomial function.</li> <li>Use a polynomial function to model real-world data.</li> </ul>	3.0* Students are adept at operations on polynomials, including long division. 4.0* Students factor polynomials representing the difference of squares, perfect square trinomials, and the sum and difference of two cubes.	
7.3	<ul style="list-style-type: none"> <li>Multiply polynomials and divide one polynomial by another using long division and synthetic division.</li> <li>Use the Remainder and Factor Theorems to solve problems.</li> </ul>	3.0* Students are adept at operations on polynomials, including long division.	
7.4	<ul style="list-style-type: none"> <li>Solve polynomial equations.</li> <li>Find the real zeros of polynomial functions and state the multiplicity of each.</li> </ul>	4.0* Students factor polynomials representing the difference of squares, perfect square trinomials, and the sum and difference of two cubes.	
7.5*	<ul style="list-style-type: none"> <li>Use the Rational Roots Theorem and the Complex Conjugate Roots Theorem to find the zeros of a polynomial function.</li> <li>Use the Fundamental Theorem of Algebra to write a polynomial function given sufficient information about its zeros.</li> </ul>		

**Semester 2: (40 Days)**  
**Project Benchmark Stds:**

<b>Unit 6: Rational Functions and Radical Functions</b>	<b>Chapter 8</b>			9 days
	8.1	<ul style="list-style-type: none"> <li>Identify inverse, joint, and combined variations, find the constant of variation, and write an equation for the variation.</li> <li>Solve real-world, problems involving inverse, joint, or combined variations.</li> </ul>	7.0* Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.	
	8.2	<ul style="list-style-type: none"> <li>Identify and evaluate rational functions.</li> <li>Graph a rational function, find its domain, write equations for its asymptotes, and identify any holes in the graph.</li> </ul>	7.0* Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.	
	8.3	<ul style="list-style-type: none"> <li>Multiply and divide rational expressions.</li> <li>Simplify rational expressions, including complex fractions.</li> </ul>	7.0* Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.	
	8.4	<ul style="list-style-type: none"> <li>Add and subtract rational expressions.</li> </ul>	7.0* Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.	

	8.5	<ul style="list-style-type: none"> <li>Solve a rational equation or inequality by using algebra, a table, or a graph.</li> <li>Solve problems by using a rational equation or inequality.</li> </ul>	7.0* Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.	
	8.6	<ul style="list-style-type: none"> <li>Analyze the graphs of radical functions, and evaluate radical expressions.</li> <li>Find the inverse of a quadratic function.</li> </ul>	15.0* Students determine whether a specific algebraic statement involving rational expressions, radical expressions, or logarithmic or exponential functions is sometimes true, always true, or never true.	
	8.7	<ul style="list-style-type: none"> <li>Add, subtract, multiply, divide, and simplify radical expressions.</li> <li>Rationalize a denominator.</li> </ul>	15.0* Students determine whether a specific algebraic statement involving rational expressions, radical expressions, or logarithmic or exponential functions is sometimes true, always true, or never true.	
	8.8	<ul style="list-style-type: none"> <li>Solve radical equations.</li> <li>Solve radical inequalities.</li> </ul>	15.0* Students determine whether a specific algebraic statement involving rational expressions, radical expressions, or logarithmic or exponential functions is sometimes true, always true, or never true.	
<b>Unit 7: Conic Sections*</b>	<b>Chapter 9</b>			7 days
	9.1*	<ul style="list-style-type: none"> <li>Classify a conic section as the intersection of a plane and a double cone.</li> </ul>	16.0 Students demonstrate and explain how the geometry of the graph of a conic section (e.g., asymptotes, foci,	

	<ul style="list-style-type: none"> <li>Use the distance and midpoint formulas.</li> </ul>	eccentricity) depends on the coefficients of the quadratic equation representing it.	
9.2*	<ul style="list-style-type: none"> <li>Write and graph the standard equation of a parabola given sufficient information.</li> <li>Given an equation of a parabola, graph it, and label the vertex, focus, and directrix.</li> </ul>	16.0 Students demonstrate and explain how the geometry of the graph of a conic section (e.g., asymptotes, foci, eccentricity) depends on the coefficients of the quadratic equation representing it. 17.0 Given a quadratic equation of the form $ax^2 + by^2 + cx + dy + e = 0$ , students can use the method for completing the square to put the equation into standard form and can recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.	
9.3*	<ul style="list-style-type: none"> <li>Write an equation for a circle given sufficient information.</li> <li>Given an equation of a circle, graph it and label the radius and center.</li> </ul>	16.0 Students demonstrate and explain how the geometry of the graph of a conic section (e.g., asymptotes, foci, eccentricity) depends on the coefficients of the quadratic equation representing it. 17.0 Given a quadratic equation of the form $ax^2 + by^2 + cx + dy + e = 0$ , students can use the method for completing the square to put the equation into standard form and can recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.	
9.4*	<ul style="list-style-type: none"> <li>Write the standard equation for an</li> </ul>	16.0 Students demonstrate and explain	

		<p>ellipse given sufficient information.</p> <ul style="list-style-type: none"> <li>Given the equation of an ellipse, graph it and label the center, vertices, co-vertices, and foci.</li> </ul>	<p>how the geometry of the graph of a conic section (e.g., asymptotes, foci, eccentricity) depends on the coefficients of the quadratic equation representing it.</p> <p>17.0 Given a quadratic equation of the form <math>ax^2 + by^2 + cx + dy + e = 0</math>, students can use the method for completing the square to put the equation into standard form and can recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.</p>	
	9.5*	<ul style="list-style-type: none"> <li>Write the standard equation for a hyperbola given sufficient information.</li> <li>Graph the equation of a hyperbola, and identify the center, foci, vertices, and co-vertices.</li> </ul>	<p>16.0 Students demonstrate and explain how the geometry of the graph of a conic section (e.g., asymptotes, foci, eccentricity) depends on the coefficients of the quadratic equation representing it.</p> <p>17.0 Given a quadratic equation of the form <math>ax^2 + by^2 + cx + dy + e = 0</math>, students can use the method for completing the square to put the equation into standard form and can recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.</p>	
	9.6*	<ul style="list-style-type: none"> <li>Solve a system of equations containing first- or second-degree equations in two variables.</li> <li>Identify a conic section from its equation.</li> </ul>	<p>17.0 Given a quadratic equation of the form <math>ax^2 + by^2 + cx + dy + e = 0</math>, students can use the method for completing the square to put the equation into standard form and can</p>	

			recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.	
<b>Unit 8: Counting Principal and Probability</b>	<b>Chapter 10</b>			8 days
	10.1	<ul style="list-style-type: none"> <li>Find the theoretical probability of an event.</li> <li>Apply the Fundamental Counting Principle</li> </ul>	18.0* Students use fundamental counting principles to compute combinations and permutations.	
	10.2	<ul style="list-style-type: none"> <li>Solve problems involving linear permutations of distinct or indistinguishable objects.</li> <li>Solve problems involving circular permutations.</li> </ul>	18.0* Students use fundamental counting principles to compute combinations and permutations.	
	10.3	<ul style="list-style-type: none"> <li>Solve problems involving combinations.</li> <li>Solve problems by distinguishing between permutations and combinations.</li> </ul>	18.0* Students use fundamental counting principles to compute combinations and permutations.	
	10.4	<ul style="list-style-type: none"> <li>Find the probabilities of mutually exclusive events.</li> <li>Find the probabilities of inclusive events.</li> </ul>	19.0* Students use combinations and permutations to compute probabilities. P1.0 Students know the definition of the notion of <i>independent events</i> and can use the rules for addition, multiplication, and complementation to solve for probabilities of particular events in finite sample spaces.	
	10.5	<ul style="list-style-type: none"> <li>Find the probability of two or more independent events.</li> </ul>	19.0* Students use combinations and permutations to compute probabilities.	

			P1.0 Students know the definition of the notion of <i>independent events</i> and can use the rules for addition, multiplication, and complementation to solve for probabilities of particular events in finite sample spaces.	
	10.6	<ul style="list-style-type: none"> <li>Find conditional probabilities.</li> </ul>	19.0* Students use combinations and permutations to compute probabilities. P2.0 Students know the definition of <i>conditional probability</i> and use it to solve for probabilities in finite sample spaces.	
	10.7	<ul style="list-style-type: none"> <li>Use simulation methods to estimate or approximate the experimental probability of an event.</li> </ul>	19.0* Students use combinations and permutations to compute probabilities. P1.0 Students know the definition of the notion of <i>independent events</i> and can use the rules for addition, multiplication, and complementation to solve for probabilities of particular events in finite sample spaces. P2.0 Students know the definition of <i>conditional probability</i> and use it to solve for probabilities in finite sample spaces.	
<b>Unit 9: Series and Patterns</b>	<b>Chapter 11</b>			9 days
	11.1	<ul style="list-style-type: none"> <li>Find the terms of a sequence.</li> <li>Evaluate the sum of a series expressed in sigma notation.</li> </ul>	22.0 Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series.	

	11.2	<ul style="list-style-type: none"> <li>Recognize arithmetic sequences, and find the indicated term of an arithmetic sequence.</li> <li>Find arithmetic means between two numbers.</li> </ul>	22.0 Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series.	
	11.3	<ul style="list-style-type: none"> <li>Find the sum of the first <math>n</math> terms of an arithmetic series.</li> </ul>	22.0 Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series. 23.0* Students derive the summation formulas for arithmetic series and for both finite and infinite geometric series.	
	11.4	<ul style="list-style-type: none"> <li>Recognize geometric sequences, and find the indicated term of a geometric sequence.</li> <li>Find the geometric means between two numbers.</li> </ul>	22.0 Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series.	
	11.5	<ul style="list-style-type: none"> <li>Find the sum of the first <math>n</math> terms of a geometric series.</li> <li>Use mathematical induction to prove statements about natural numbers.</li> </ul>	21.0 Students apply the method of mathematical induction to prove general statements about the positive integers. 22.0 Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series.	
	11.6	<ul style="list-style-type: none"> <li>Find the sum of an infinite geometric series, if one exists.</li> <li>Write repeating decimals as fractions.</li> </ul>	22.0 Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series. 23.0* Students derive the summation formulas for arithmetic series and for both finite and infinite geometric	

			series.	
	11.7	<ul style="list-style-type: none"> <li>Find entries in Pascal's triangle.</li> <li>Use Pascal's triangle to find combinations and probabilities.</li> </ul>	20.0* Students know the binomial theorem and use it to expand binomial expressions that are raised to positive integer powers.	
	11.8	<ul style="list-style-type: none"> <li>Use the Binomial Theorem to calculate a probability.</li> </ul>	20.0* Students know the binomial theorem and use it to expand binomial expressions that are raised to positive integer powers.	
<b>Unit 10: Statistics</b>	<b>Chapter 12</b>			7 days
	12.1	<ul style="list-style-type: none"> <li>Find the mean, median, and mode of a data set.</li> <li>Find or estimate the mean from a frequency table of data.</li> </ul>		
	12.2	<ul style="list-style-type: none"> <li>Make a stem-and-leaf plot, a histogram, or a circle graph for a data set.</li> <li>Find and use relative frequencies to solve probability problems.</li> </ul>		
	12.3	<ul style="list-style-type: none"> <li>Find the range, quartiles, and interquartile range for a data set.</li> <li>Make a box-and-whisker plot for a data set.</li> </ul>		
	12.4	<ul style="list-style-type: none"> <li>Calculate and use measures of dispersion, such as range, mean deviation, variance, and standard deviation.</li> </ul>	7.0 Students compute the variance and the standard deviation of a distribution of data.	
	12.5	<ul style="list-style-type: none"> <li>Find the probability of <math>r</math> successes in <math>n</math> trials of a binomial experiment.</li> </ul>		
	12.6	<ul style="list-style-type: none"> <li>Find the probability of an event given that the data is normally</li> </ul>	7.0 Students compute the variance and the standard deviation of a	

		<p>distributed and its mean and standard deviation are known.</p> <ul style="list-style-type: none"> <li>• Use z-scores to find probabilities.</li> </ul>	distribution of data.	
<b>Unit 11: Matrices</b>	<b>Chapter 4</b>			6 days
	4.1	<ul style="list-style-type: none"> <li>• Represent mathematical and real-world data in a matrix.</li> <li>• Find sums and differences of matrices and the scalar product of number and a matrix.</li> </ul>		
	4.2	<ul style="list-style-type: none"> <li>• Multiply two matrices.</li> <li>• Use matrix multiplication to solve mathematical and real-world problems.</li> </ul>		
	4.3	<ul style="list-style-type: none"> <li>• Find and use the inverse of a matrix, if it exists.</li> <li>• Find and use the determinant of a matrix.</li> </ul>		
	4.4	<ul style="list-style-type: none"> <li>• Use matrices to solve systems of linear equations in mathematical and real-world situations.</li> </ul>		
	4.5	<ul style="list-style-type: none"> <li>• Represent a system of equations as an augmented matrix.</li> <li>• Solve a system of linear equations by using elementary row operations.</li> </ul>		

