WDHS Curriculum Map: created by Robert Creamer and Julia Holloway
Course: RC Contemporary Algebra II July 2016

Time Interval/ Content	*Standards/ Strands*	*Essential Questions*	*Skills*	*Assessment*
Unit 0: Review: Solving Equations and Identifying Polynomials Big Ideas Math Chapters 1, 2 Holt Chapters 2, 3 20 days	• **APR.A.1** Understand the polynomials form a system analogous to the integers namely, there are closed under the operations of addition, subtraction, multiplication: add, subtract, and multiply polynomials • **HSA-APR.B** Understand the relationship between zeros and factors of polynomials • **HAS-REI.A.1** Explain each step in solving a simple equation as following from the equality from the numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. • **REI.B** Solve equations and inequalities in one variable. • **REI.B.3** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters, • **REI.D** Represent and solve equations and inequalities graphically.	• How can you add and subtract polynomials? • How can you factor a polynomial completely? • How can you multiply two polynomials? • How can you recognize and factor special products? • How can you solve a multi-step inequality? • How can you solve an equation with variables on both sides? • How can you use an inequality to describe a real life situation?	*Students will understand that…* • Equations can be simplified • Understand multi-step linear equations and inequalities • Solve linear equations using addition, subtraction, multiplication and division • Use linear equations to solve real life problems • Understand polynomial expressions can be added, subtracted and multiplied • Understand that polynomials can be factored by using GCF *Students will know…* • Conjecture • Equation • Linear equation • Solution • Inverse operation • Expression • Literal equation • Equivalent • Compound inequality • Monomial • Polynomial • Binomial • Trinomial • Standard form • Leading coefficient	• Classwork • Practice • Homework • Quizzes • Test • Performance Task Accident Reconstruction: Students will determine when the brakes of a car were applied at an accident scene. (Big Ideas Math Alg 2 Assessment Book pg 34)

			• GCF *Students will be able to…* • Solve linear equations using addition, subtraction, multiplication and division • Use linear equations to solve real life problems • Use multi-step linear equations using inverse operations • Solve linear equations that have variables on both sides • Identify special solutions of linear equations • Rewrite literal equations • Sketch the graphs of linear equations • Find the degrees of monomials • Classify polynomials • Add, subtract, multiply polynomials • Solve real life problems using polynomials	

Unit 1: Quadratic Functions Big Ideas Math: 2-1, 2-2, 2-3 Holt Sections: 5-1, 5-2, 10-5 30 days	• **HSF-IF.C.7a** Graph linear and quadratic functions and show intercepts, maxima, and minima • **HSF-IF.C.9** Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions. • **HSF-IF.B.6** Calculate and interpret the average rate of change of a function (presented symbolically, or as a table) over a specified interval period. Estimate the rate of change from a graph. • **HSF-BF.B.3** Identify the effect of the graph by replacing f(x) by f(x)+k, k*f(x), f(kx), f(x+k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects of the graph using technology. • **HSF-IF.B.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity*. • **HSF-BF.A.1a** Determine an explicit expression, a recursive process, or	• How do the constants a, h, and k affect the graph of the quadratic function $g(x)=a(x-h)^2+k$? • What type of symmetry does the graph of $f(x)=a(x-h)^2+k$ have and how can you describe the symmetry? • What are the focus and directrix of a parabola? • How can you use a quadratic function to model a real-life situation?	*Students will understand that…* • Describe and write transformations of quadratic functions • Graph quadratic function using x-intercepts • Write equations of parabolas • Write quadratic equations to model data sets *Students will know…* • axis of symmetry • maximum value of a function • minimum value of a function • parabola • quadratic function • vertex • zeros of a function • Quadratic model • Vertex form • Standard form • Focus • directrix *Students will be able to…* • Describe/write transformations of quadratic functions • Explore properties of parabolas • Find max/min values of quadratic functions • Graph quadratic functions using x-intercepts • Solve real-life problems • Explore the focus and directrix	• Classwork • Practice • Homework • Quizzes • Test Performance Task Accident Reconstruction: Students will determine when the brakes of a car were applied at an accident scene. (Big Ideas Math Alg 2 Assessment Book pg 34)

	steps for calculation from a context. • **HSA-APR.B.3** Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. • **HSA-CED.A.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. • **HSG-GPE.A.2** Derive the equation of a parabola given a focus and a directrix • **HSS-ID.B.6a** Fit a function to the data; use functions fitted to data to solve problems in the context of the data. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.		of a parabola • Write equations of parabolas • Graph parabolas give equations in standard and vertex form	

Time Interval/ Content	*Standards/ Strands*	*Essential Questions*	*Skills*	*Assessment*
Unit 2: Quadratic Equations Big Ideas Math: 3-1, 3-2, 3-3, 3-4, 3-5 Holt Sections: 5-3, 5-4, 5-5, 5-6, 5-9, 10-7 20 days all levels	• **HSA-SSE.A.2** Use the structure of an expression to identify ways to rewrite it. • **HSA-REI.B.4b** Solve quadratic equations by inspection (eg, for x^2=49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a+/-bi for real numbers a and b. • **HSA-REI.C.7** Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. • **HSA-CED.A.3** Represent constraints by equations or inequalities, and by systems of equations and/or inequalities and interpret solutions as viable or nonviable options in a modeling context. • **HSA-REI.D.11** Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately (e.g, using technology to graph the functions, make tables of the values, or find successive approximations). Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential,	• How can you use the graph of a quadratic equation to determine the number of real solutions of the equation? • What are the subsets of the set of complex numbers? • How can you complete the square for a complex expression? • How can you derive a general formula for solving a quadratic equation? • How can you solve a nonlinear system of equations?	*Students will understand that…* • Solve quadratic equations for real and complex solutions. • Add, subtract and multiply complex numbers. • Solve systems of nonlinear equations. *Students will know…* • Quadratic equation in one variable • Root of an equation • Zero of an equation • Imaginary unit, i • Complex number • Imaginary number • Pure imaginary number • Completing the square • Quadratic formula • Discriminant • System of nonlinear equations *Students will be able to…* • Solve quadratic equations by graphing • Solve quadratic equations algebraically • Solve real-life problems • Define and use the imaginary unit i • Add, subtract and multiply complex numbers	• Classwork • Practice • Homework • Quizzes • Test • Performance Task Algebra in Genetics – The Hardy-Weinberg Law: Students will determine the percent of people that carry traits for free earlobes and attached earlobes (Big Ideas Math Assessment Book pg 46)

	and logarithmic functions. • **HSF-IF.C.8a** Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. • **HSN-CN.A.1** Know there is a complex number I such that i^2=-1, and every complex number has the form a+bi with a and b real. • **HSN-CN.A.2** Use the relation i^2=-1 and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. • **HSN-CN.C.7** Solve quadratic equations with real coefficients that have complex solutions. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.		• Find complex solutions and zeros • Solve quadratic equations using square roots • Solve quadratic equations using completing the square • Write quadratic functions in vertex form • Solve quadratic equations using the quadratic formula • Analyze the discriminant to determine the number and type of solutions • Solve systems of nonlinear equations	

Time Interval/ Content	**Standards/ Strands**	Essential Questions	*Skills*	Assessment
Unit 3: Polynomial Functions Big Ideas Math: 4-1, 4-2, 4-3, 4-4, 4-5, 4-7, 4-8, 4-9 Holt Sections: 6.4 (factoring sum and difference of cubes) 6-7 (end behavior,max, min) 6.9 supplement graph and transform cubic. 20 days all levels	• **HSA-APR.A.1** Understand that polynomials form a system analogous to the integers, namely, their closed under the operations of addition, subtraction, and multiplication; add, subtract, multiply polynomials. • **HSA-APR.B.2** Know and apply the remainder theorem; for a polynomial P(x) and a number a, the remainder on division by (x-a) is P(a), so P(a)=0 if and only if (x-a) is a factor of P(x). • **HSA-APR.B.3** Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. • **HSA-APR.C.4** Prove polynomial identities and use them to describe numerical relations ships. • **HSA-APR.D.6** Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x)+r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degrees of b(x), using inspection, long division or, for the more complicated examples, a computer algebra system. • **HSA-SSE.A.2** Use the structure of an expression to identify ways to rewrite it. • **HSA-CED.A.2** Create equations in two or more variables to represent	• What are some common characteristics of the graphs of cubic and quartic polynomial functions? • How can you cube a binomial? • How can you use the factors of a cubic polynomial to solve a division problem involving the polynomial? • How can you factor a polynomial? • How can you determine whether a polynomial equation has a repeated solution? • How can you determine whether a polynomial equation has imaginary solutions? • How can you transform the graph of a polynomial function? • How many turning points can the graph of polynomial	*Students will understand that…* • Graph and analyze the graphs of polynomial functions • Add, subtract, multiply, divide and factor polynomials • Find solutions of polynomial equations and zeros of polynomial functions • Write polynomial functions *Students will know…* • Polynomial • Polynomial function • End behavior • Polynomial long division • Synthetic division • Factored completely • Factor by grouping • Quadratic form • Repeated solution • Complex conjugates • Local maximum/minimum • Odd function • Even function • Finite differences *Students will be able to…* • Identify polynomial functions • Graph polynomial functions using end behavior • Add, subtract, multiply, divide polynomials	• Classwork • Practice • Homework • Quizzes • Test • Performance Task - For the Birds-Wild Life Management: Students will determine how the presence of humans affects the population of sparrows in a park. (Big Ideas Math Assessment Book pg 63)

	relationships between quantities; graph equations on coordinate axes with labels and scales. • **HSF-IF.B.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. • **HSF-C.7c** Graph polynomial functions, identify zeros when suitable factorizations are available, and showing end behavior. • **HSF-BF.B.3** Identify the effect of the graph by replacing f(x) by f(x)+k, k*f(x), f(kx), f(x+k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects of the graph using technology. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.	function have?	• Use and long and synthetic division to divide polynomials • Factor polynomials • Use the Factor Theorem • Find solutions of polynomial equations and zeros of polynomial functions • Describe and write transformations of polynomial functions • Use x-intercepts to graph polynomial functions • Find turning points and identify local maximums and minimums of graphs of polynomial functions • Identify even and odd functions • Write polynomial functions using finite differences	

Time Interval/ Content	**Standards/ Strands**	Essential Questions	*Skills*	Assessment
Unit 4: Rational Expressions and Radical Exponents Big Ideas Math: 5-1, 5-2, 5-3, 5-4, 5-5, 5-6 Holt Sections: 30 days all levels	• **HSN-RN.A.1** Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. • **HSN-RN.A.2** Rewrite expressions using radicals and rational exponents using the properties of exponents • **HSA-REI.A.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. • **HSA-REI.A.2** Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. • **HSA-CED.A.4** Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. • **HSF-IF.C.7b** Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. • **HSF-BF.B.3** Identify the effect of the graph by replacing f(x) by f(x)+k, k*f(x), f(kx), f(x+k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation	• How can you use a rational exponent to represent a power involving a radical? • How can you use properties of exponents to simplify products and quotients of radicals? • How can you identify the domain and range of a radical function? • How can you solve a radical equation? • How can you sketch the graph of the inverse of a function?	*Students will understand that…* • Evaluate expressions using properties of rational exponents • Graph radical functions • Solve equations contacting radicals and rational exponents • Explore inverses of functions *Students will know…* • nth root of a • index of a radical • simplest form of a radical • conjugate • like radicals • radical function • radical equation • extraneous solutions • inverse functions *Students will be able to…* • Find nth roots of numbers • Evaluate expressions with rational exponents • Solve equations using nth roots • Use properties of rational exponents to simplify expressions with rational exponents • Use properties of radicals to simplify and write radical expressions in simplest form • Graph radical functions	• Classwork • Practice • Homework • Quizzes • Test • Performance Task- Turning the Tables: For each answer provided students will be asked to create an equivalent expression that requires the specified property of exponents to simplify. (Big Ideas Math Assessment Book pg 79)

	of the effects of the graph using technology. • **HSF-BF.A.1b** Combine standard function types using arithmetic operations. • **HSF-BF.B.4a** Solve an equation of the form f(x)=c for a simple function f that has an inverse and write and expression for the inverse. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.		• Write transformations of radical functions • Solve equations containing radicals and rational exponents • Add, subtract, multiply, divide functions • Explore inverses of functions • Find and verify inverses of nonlinear functions • Solve real-life problems using inverses	

Time Interval/ Content	*Standards/ Strands*	*Essential Questions*	*Skills*	*Assessment*
Unit 5: Exponential and Logarithmic Functions Big Ideas Math: 6-1 through 6-6 Holt Sections: 7-1 through 7-7 20 days all levels	• **HSA-SSE. B.3c** Use the properties of exponents to transform expressions for exponential functions. • **HSE-SSE.A.2** Use the structure of an expression to identify ways to rewrite it. • **HSA-CED.A.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. • **HSA-REI.A.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. • **HSF-LE.A.2** Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table). • **HSF-LE.A.4** For exponential models, express a logarithm the solution to ab to the ct power = d where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology. • **HSF-LE.B.5** Interpret the parameters in a linear or exponential function in terms of a context.	• What are some of the characteristics of the graph of an exponential function? • What is the base e? • What are some of the characteristics of the graph of a logarithmic function? • How can you transform the graphs of exponential and logarithmic functions? • How can you use properties of exponents to derive properties of logarithms? • How can you solve exponential and logarithmic equations?	*Students will understand that…* • Define and evaluate logarithms, using the properties of logarithms and the change of base formula • Graph logarithmic functions • Transform graphs of logarithmic functions • Solve logarithmic equations *Students will know…* • Exponential function • Exponential growth/decay function • Growth factor • Asymptote • Decay factor • Natural base e • Logarithm of y with base b function • Common logarithm • Natural logarithm • Exponential equations • Logarithmic equations *Students will be able to…* • Graph exponential growth and decay functions • Use exponential models to solve real-life models • Define and use the natural base e • Graph natural base functions	• Classwork • Practice • Homework • Quizzes • Test • Performance Task - Measuring Natural Disasters: A contractor has used the same blueprints to build the same house in two different cities in two different states. An earthquake has been recorded in each city. Students will be charged with creating a chart, plotting and labeling a graph, and then answering questions based upon their findings.

	• **HSF-IF.C.7e** Graph exponential and logarithmic functions, showing intercepts and end-behavior, and trigonometric functions, showing period, midline, and amplitude. • **HSF-IF.C.8b** Use the properties of exponents to interpret expressions for exponential functions. • **HSF-BF.B.3** Identify the effect of the graph by replacing f(x) by f(x)+k, k*f(x), f(kx), f(x+k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects of the graph using technology. • **HSF-BF.B.4a** Solve an equation in the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.		• Define and evaluate logarithms • Use inverse properties of logarithmic and exponential functions • Graph logarithmic functions • Transform graphs of exponential and logarithmic functions • Write transformations of graphs of exponential and logarithmic functions • Use the properties of logarithms to evaluate logarithms • Use the properties of logarithms to expand or condense logarithmic expressions • Use the change of base formula to evaluate logarithms • Solve exponential equations • Solve logarithmic equations	

Unit 6: Rational Functions Big Ideas Math: 7-2, 7-3, 7-4, 7-5 Holt Sections: 8-2, 8-3, 8-4, 8-5 20 days all levels	• **HSA-APR.D.6** Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x) using inspection, long division, or for the more complicated examples, a computer algebra system. • **HSA-APR.D.7** Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a no-zero rational expression; add, subtract, multiply, and divide rational expressions. • **HSA-CED.A.4** Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. • **HSA-REI.A.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. • **HSA-REI.A.2** Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. • **HSF-BF.B.3** Identify the effect of the graph by replacing f(x) by f(x)+k, k*f(x), f(kx), f(x+k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment	• What are some of the characteristics of the graph of a rational function? • How can you determine the excluded values of a rational expression? • How can you determine the domain of a rational expression? • How can you solve a rational equation?	*Students will understand that…* • Graph rational functions • Add, subtract, multiply, and divide rational expressions • Solve rational equations *Students will know…* • Rational function • Rational expression • Simplified form of a rational expression • Complex fraction • Cross-multiplying *Students will be able to…* • Graph simple rational functions • Translate simple rational functions • Graph other rational functions • Simplify rational expressions • Add, subtract, multiply divide rational expressions • Simplify complex fractions • Solve rational equations	• Classwork • Practice • Homework • Quizzes • Test • Performance Task – Circuit Design: Students are given 7 rational functions and must identify a pair that will sum to a linear function. Expressions have different denominators and degrees. There are two different pairs of thermistors that result in a linear sum and 3 distracter expressions. (Big Ideas Assessment Book pg 107)

	with cases and illustrate an explanation of the effects of the graph using technology. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.			
Unit 7: Sequences and Series Big Ideas Math: 8-1, 8-2, 8-3, 8-5 Holt Sections: 12-1, 12-2, 12-3, 12-4 10 days all levels	• **HSF-IF.A.3** Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. • **HSF-BF.A.2** Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. • **HSF-BF.A.1a** Determine an explicit expression, a recursive process, or steps for calculation from a context. • **HSF-LE.A.2** Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table). • **HSA-SSE.B.4** Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the	• How can you write a rule for the nth term of a sequence? • How can you recognize an arithmetic sequence? • How can you recognize a geometric sequence? • How can you define a sequence recursively?	*Students will understand that…* • Use sequence notation to write terms of sequences • Write a rule for the nth term of a sequence • Find the sums of finite arithmetic and finite geometric series • Evaluate recursive rules for sequences • Translate between explicit and recursive rules for sequences *Students will know…* • Sequence • Terms of a sequence • Series • Summation notation • Arithmetic sequence • Common difference	• Classwork • Practice • Homework • Quizzes • Test • Performance Task- Integrated Circuits and Moore's Law: Students characterize and investigate the geometric sequence that is used to make key predictions in the world of computing. (Big Ideas Assessment Book pg 117)

	formula to solve problems. • **TECH.8.1.12.A.3** Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. • **TECH.8.1.12.C.1** Develop an innovative solution to a real-world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. • **TECH.8.2.12.E.1** Demonstrate understanding of the problem solving capacity of computers in our world.		• Arithmetic series • Geometric sequence • Geometric series • Common ratio • Explicit rule • Recursive rule *Students will be able to…* • Use sequence notation to write the terms of a sequence • Write a rule for the nth term of a sequence • Sum the terms of sequence to obtain a series • Identify arithmetic sequences • Write rules for arithmetic sequences • Find sums of finite arithmetic series • Identify geometric sequences • Write rules for geometric sequences • Find sums of finite geometric series • Evaluate recursive rules for sequences • Write recursive rules for sequences • Translate between explicit and recursive rules for sequences • Use recursive rules to solve real-life problems	