High School Weekly Lesson Plan Template-Unit #5/6

Unit 5/6	Course Name: Algebra 1 C&C	Notes	
Day 1	Standards: A.FGR.9.4: Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers. LT: I can identify the geometric sequence, and write the explicit formula and recursive formula. SC: I can write the explicit formula. I can write the recursive formula. Lesson/Activity: Resources: Standards: A.FGR.9.4: Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers. LT: I can identify the geometric sequence, and write the explicit formula and recursive formula. SC: I can write the explicit formula. I can write the recursive formula. I can write the recursive formula. Lesson/Activity: Resources:	Notes	
Day 3	A.PAR.8: Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve		

exponential equations in mathematically applicable situations.	
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 A.PAR.8.2 - Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations. LT: I can solve exponential equations. (Like bases) SC: I know the rules of exponents when multiplying. I know the rules of exponents when dividing. I know the rules of exponents when raising a power to a power. 	

Day 4	 A.PAR.8: Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations. A.PAR.8.2 - Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations. LT: I can solve exponential equations. SC: know the rules of exponents when multiplying. I know the rules of exponents when dividing. I know the rules of exponents when raising a power to a power. 	
Day 5	 A.PAR.8: Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations. A.PAR.8.2 - Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations. LT: I can solve exponential equations. SC: 	
	 I know the rules of exponents when multiplying. I know the rules of exponents when dividing. I know the rules of exponents when raising a power to a power. 	

Day 6	A.PAR.8: Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations. • A.PAR.8.2 - Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations. LT: I can solve exponential equations. SC: • know the rules of exponents when multiplying. • I know the rules of exponents when dividing. • I know the rules of exponents when raising a power to a power.	
Day 7	QUIZ	
Day 8	Standards:A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph serves as a model; compare exponential with linear and quadratic functions. • A.FGR.9.1: Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context. • A.FGR.9.2: Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations. • A.FGR.9.3: Identify the effect on the graph generated by an	

exponential function when replacing f(x) with f(x) + k, and k f(x), for specific values of k (both positive and negative); find the value of k given the graphs.

- A.FGR.9.4: Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers.
- A.FGR.9.5: Compare characteristics of two functions each represented in a different way.

LT: I can graph and analyze an exponential function. SC:

• I can understand b impacts the shape of the graph when b > 1 and when 0 < b < 1, graph of an exponential function f given by $f(x) = a \cdot bx$.

Lesson/Activity: Resources:

Day 9	Standards:A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph serves as a model; compare exponential with linear and quadratic functions. • A.FGR.9.1: Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context. • A.FGR.9.2: Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations. • A.FGR.9.3: Identify the effect on the graph generated by an exponential function when replacing f(x) with f(x) + k,	
	and k	

- f(x), for specific values of k (both positive and negative); find the value of k given the graphs.
- A.FGR.9.4: Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers.
- A.FGR.9.5: Compare characteristics of two functions each represented in a different way.

LT: I can identify and interpret the key features of exponential functions represented in tables and graphs.

SC:

- I can identify the x-intercepts of a function.
- I can identify the y-intercept of an exponential function. I can identify the intervals of increase and decrease of a function.
- I can identify the domain and range of a exponential function
 I can identify the end behavior of the exponential function

Day 10	Standards:A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph serves as a model; compare exponential with linear and quadratic functions.	
	 A.FGR.9.1: Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context. 	
	A.FGR.9.2: Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations.	
	 A.FGR.9.3: Identify the effect on the graph generated by an exponential function when replacing f(x) with f(x) + k, and k 	

- f(x), for specific values of k (both positive and negative); find the value of k given the graphs.
- A.FGR.9.4: Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers.
- A.FGR.9.5: Compare characteristics of two functions each represented in a different way.

LT: I can identify and interpret the key features of exponential functions represented in tables and graphs.

SC:

- I can identify the x-intercepts of a function.
- I can identify the y-intercept of an exponential function. I can identify the intervals of increase and decrease of a function.
- I can identify the domain and range of a exponential function
 I can identify the end behavior of the exponential function

Day 11	Standards:A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph serves as a model; compare exponential with linear and quadratic functions.	
	 A.FGR.9.1: Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context. 	
	 A.FGR.9.2: Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations. 	
	 A.FGR.9.3: Identify the effect on the graph generated by an exponential function when replacing f(x) with f(x) + k, and k 	

	f(x), for specific values of k (both positive and negative); find the value of k given the graphs. • A.FGR.9.4: Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers. • A.FGR.9.5: Compare characteristics of two functions each represented in a different way. LT: I can identify and interpret the key features of exponential functions represented in tables and graphs. SC: • I can identify the x-intercepts of a function. • I can identify the y-intercept of an exponential function. • I can identify the intervals of increase and decrease of a function. • I can identify the domain and range of a exponential function • I can identify the end behavior of the exponential function	
Day 12	LT: Identify the effect on the graph generated by an exponential function when replacing $f(x)$ with $f(x) + k$, and k $f(x)$, for specific values of k (both positive and negative); find the value of k given the graphs.	
	SC: • I can translate an exponential up, down, left or	
	right. • I can reflect a function	
	 I can stretch and compress a function. 	

Day 13	A.PAR.8 Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations.		
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Day 14

- A.PAR.8.2 Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations.
- A.PAR.8.3 Create exponential equations in two variables to represent relationships between quantities, including in mathematically applicable situations; graph equations on coordinate axes with labels and scales.

LT: I can create exponential equations and use them to solve problems.

SC:

- I can create exponential functions to represent the relationship between two variables.
- I can explore exponential phenomena
- I can analyze exponential equations

A.PAR.8 Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations.

- A.PAR.8.2 Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations.
- A.PAR.8.3 Create exponential equations in two variables to represent relationships between quantities, including in mathematically applicable situations; graph equations on coordinate axes with labels and scales.

LT: I can create exponential equations and use them to

solve problems.	
 SC: I can create exponential functions to represent the relationship between two variables. I can explore exponential phenomena I can analyze exponential equations 	

Day 15	A.PAR.8 Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations. • A.PAR.8.2 - Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations. • A.PAR.8.3 - Create exponential equations in two variables to represent relationships between quantities, including in mathematically applicable situations; graph equations on coordinate axes with labels and scales. LT: I can create exponential equations and use them to solve problems. SC: • I can create exponential functions to represent the relationship between two variables. • I can explore exponential phenomena • I can analyze exponential equations	
Day 16	A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph	

serves as a model; compare exponential with linear and quadratic functions.

- A.FGR.9.1 Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context.
- A.FGR.9.2 Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations.
- A.FGR.9.5 Compare characteristics of two functions each represented in a different way.

LT: I can compare and contrast linear, quadratic, and exponential functions.

SC:

- I can recognize the differences between the graphs of linear, quadratic, and exponential functions.
- I can recognize the differences between the tables of linear, quadratic, and exponential functions.
- I can recognize the differences between the equations of linear, quadratic, and exponential functions.

simple exponential functions based on mathematically applicable situations.	Day 17	 A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph serves as a model; compare exponential with linear and quadratic functions. A.FGR.9.1 Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context. A.FGR.9.2 Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations. 		
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	 A.FGR.9.5 Compare characteristics of two functions each represented in a different way. 	
	 LT: I can compare and contrast linear, quadratic, and exponential functions. SC: I can recognize the differences between the graphs of linear, quadratic, and exponential functions. I can recognize the differences between the tables of linear, quadratic, and exponential functions. I can recognize the differences between the equations of linear, quadratic, and exponential functions. 	
Day 18	Test Review	
Day 19	Test	