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

| Unit 5/6 | Course Name: Algebra 1 C\&C | Notes |  |
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| Day 1 <br>  <br> Day 2 | 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: <br> - I can write the explicit formula. <br> - I can write the recursive formula. <br> Lesson/Activity: <br> Resources: <br> 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. <br> SC: <br> - I can write the explicit formula. <br> - I can write the recursive formula. <br> Lesson/Activity: <br> Resources: |  |  |
| 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 <br> use them to solve <br> problems, including mathematically applicable <br> situations. LT: I can solve exponential equations. (Like <br> bases) <br> SC: <br> - I know the rules of exponents when multiplying. <br> - I know the rules of exponents when dividing. <br> - I know the rules of exponents when raising a power to <br> a power. |  |
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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:
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|  | 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. <br> - 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. <br> - A.FGR.9.5: Compare characteristics of two functions each represented in a different way. <br> $\mathrm{LT}: ~ I ~ c a n ~ g r a p h ~ a n d ~ a n a l y z e ~ a n ~ e x p o n e n t i a l ~ f u n c t i o n . ~$ <br> SC: <br> - I can understand $b$ impacts the shape of the graph when $b>1$ and when $0<b<1, g r a p h$ of an exponential function $f$ given by $f(x)=a \cdot b x$. <br> Lesson/Activity: <br> Resources: |  |  |
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| Day 9 | Standards:A.FGR.9: Construct and analyze the graph of an <br> exponential function to explain a mathematically <br> applicable situation for which the graph serves as a <br> model; compare exponential with linear and quadratic <br> functions. <br> - A.FGR.9.1: Use function notation to build and evaluate <br> exponential functions for inputs in their domains and <br> interpret statements that use function notation in terms of a <br> context. <br> - A.FGR.9.2: Graph and analyze the key characteristics of <br> simple exponential functions based on mathematically <br> applicable situations. <br> - A.FGR.9.3: Identify the effect on the graph generated by <br> an exponential function when replacing $f(x)$ with $f(x)+k$, <br> and $k$ |  |
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| 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. <br> - 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. <br> - A.FGR.9.2: Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations. <br> - A.FGR.9.3: Identify the effect on the graph generated by an exponential function when replacing $f(x)$ with $f(x)+k$, and $k$ |  |  |
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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 $k$


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. $\square$

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. |  |  |
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| SC:- I can create exponential functions to represent the <br> relationship between two variables. <br> $\bullet$ I can explore exponential phenomena <br> $\bullet$ I can analyze exponential equations |  |
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| Day 17 | A.FGR.9: Construct and analyze the graph of an exponential <br> function to explain a mathematically applicable situation for <br> which the graph serves as a model; compare exponential with <br> linear and quadratic functions. <br> - A.FGR.9.1 Use function notation to build and evaluate <br> exponential functions for inputs in their domains and <br> interpret statements that use function notation in terms of a <br> context. <br> - A.FGR.9.2 Graph and analyze the key characteristics of <br> simple exponential functions based on mathematically <br> applicable situations. |  |
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|  | - A.FGR.9.5 Compare characteristics of two functions <br> each represented in a different way. | LT: I can compare and contrast linear, quadratic, and <br> exponential functions. <br> SC: <br> - I can recognize the differences between the graphs of <br> linear, quadratic, and exponential functions. <br> - I can recognize the differences between the tables of <br> linear, quadratic, and exponential functions. <br> - I can recognize the differences between the equations <br> of linear, quadratic, and exponential functions. |  |
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| Day 18 | Test Review <br> Day $\mathbf{1 9}$ | Test |  |

