Topic: A1.2.1 Functions


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

2.8.A1.C; 2.8.A1.D;

## Topic: A1.2.1

Key Learning(s): The students will interpret and/or use linear function and their equations, graphs, or tables,
A1.2.1.2


| Concept: <br> A1.2.1.2.1 Create, interpret, and/or use the equation, graph, or table a linear function | Concept: <br> A1.2.1.2.2 Translate from one representation of a linear function to another (i.e. graph, table, and equation) | Concept: |
| :---: | :---: | :---: |
| Lesson Essential Questions: <br> What is the process to create, interpret and use the equation or table in a linear function? | Lesson Essential Questions: How can you translate from one representation of a linear function to another? | Lesson Essential Questions: 1. |
| Vocabulary: equation, linear function | Vocabulary: translate, linear function | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:

## Topic:

Key Learning(s): The students will

1. A1.2.2.1 Describe, compute, and/or use the rate of change (slope) of a line.

Unit Essential Question(s):
When given a line how can you describe, compute and use the rate of change?

| Concept: <br> A1.2.2.1.1 Identify, describe, and/or use constant rates of change | Concept: <br> A1.2.2.1.2 Apply the concept of linear rate of change (slope) to solve problems | Concept: <br> A1.2.2.1.3 Write or identify a linear equation when given <br> The graph of the line <br> Two points on the line, or <br> The slope and a point on the line <br> Note; Linear equation may be in point-slope, standard, and/or slopeintercept form |
| :---: | :---: | :---: |
| Lesson Essential Questions: What is the process to identify, describe and use constant rate of change? | Lesson Essential Questions: How do you apply the concept of linear rate of change to solve problems? | Lesson Essential Questions: <br> When given a graph of the line, two points or the slope and a point on the line how do you write or identify the linear equation? |
| Vocabulary: rate of change, constant | Vocabulary: <br> Linear rate, slope | Vocabulary: <br> Linear equation, slope intercept form, point slope form |


| Concept: <br> A1.2.2.1.4 Determine the slope <br> and/or y-intercept represented by a <br> linear equation or graph | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> How do you determine the slope <br> and y-intercept when it's <br> represented by a linear equation or <br> graph? | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: <br> Y intercept, slope, linear equation | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

2.9.A1.C; 2.8.A1.D

## Topic: Coordinate Geometry

| Key Learning(s): The students will |
| :--- |
| A1.2.2.2 Analyze and/or interpret data on a scatter plot. |
|  |

> Unit Essential Question(s):
> What and how do you analyze and/or interpret data on a scatter plot?

| Concept: <br> A1.2.2.2.1 Draw, identify, find, <br> and/or write an equation for a line of <br> best fit for a scatter plot | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> How to you draw, identify, find and <br> write an equation of best fir for a <br> scatter plot? | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: <br> Line of best fit, scatter plot | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:
2.6.A.1.C

Topic: Module 2: A1.2.3 Data Analysis


| Concept: <br> A1.2.3.1.1 Calculate and/or interpret <br> the range, quartiles, and interquartile <br> range of data | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> How do you calculate and interpret <br> the range, quartiles, and interquartile <br> range of data? | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: <br> Range, quartiles, interquartile | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

2.6.A1.c

## Topic: Data Analysis

Key Learning(s): The students will use data displays in problemsolving settings and/or to make predications
A1.2.3.2

## Unit Essential Question(s):

What is do you need in order to make predication when given data displays in problems solving settings and/or to make predications?


| Concept: <br> A1.2.3.2.1 Estimate or calculate to <br> make predications based on a circle, <br> line, bar graph, measures of central <br> tendency, or other representations | Concept: <br> A1.2.3.2.2 Analyze data, make <br> predications, and/or answer questions <br> based on displayed data. | Concept: <br> A1.2.3.2.3 Make predications using <br> the equations or graphs of best-fit <br> lines of scatter plots |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> When given a circle, bar graph, <br> measures of central tendency or other <br> representations how do you estimate <br> or calculate to make predications <br> from the data given? | Lesson Essential Questions: <br> What do you need in order to analyze <br> date, make predications, and/or <br> answer questions based on the data. | Lesson Essential Questions: <br> How can you make predication using <br> equations or graphs of best-fit lines <br> of scatter plots? |
| Vocabulary: <br> Circle graph, bar graph, measure of <br> central tendency, prediction | Vocabulary: <br> analyze | Vocabulary: <br> Best fit line, scatter plot |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

Attached Document(s):

## Additional Info:

2.6.A1.E

## Topic:

## Key Learning(s): The students will

 A1.2.3.3 Apply probability to practical situationsUnit Essential Question(s):
How do you solve and apply probability of practical situations.


| Concept: <br> A1.2.3.3.1 Find probabilities for <br> compound events and represent as a <br> fraction, decimal, or percent | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> When given compound events how <br> do you find the probabilities of the <br> events and represent it. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: <br> Compound events, probability | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:
2.7.A1.A

## Topic: Linear Equations A1.1.2

| Key Learning(s): The students will Write, solve, and/or graph linear equations using various methods. A1.1.2.1 |  |  |
| :---: | :---: | :---: |
| Concept: <br> Write, solve, and/or apply a linear equation. A1.1.2.1.1 | Concept: <br> Use and/or identify an algebraic property to justify any step in an equation-solving process. A1.1.2.1.2 | Concept: <br> Interpret solutions to problems in the context of the problem situation |
| Lesson Essential Questions: <br> 1. How do you write, solve, and/or apply a linear equation? | Lesson Essential Questions: <br> 1. How do you use and/or identify any step in an equation-solving process? | Lesson Essential Questions: <br> 1. How do you interpret solutions to problems in the context of the problem situation? |
| Vocabulary: <br> Linear equation | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

Enhanced Standards 2.1.A1.F, 2.8.A1.F

## Topic: Linear Equations A1.1.2

| Key Learning(s): The students will |
| :--- |
| Write, solve, and/or graph linear equations using various |
| methods. A1.1.2.2 |
|  |

## Unit Essential Question(s):

How do you write, solve, and/or graph linear equations using various methods?


| Concept: <br> Write and/or solve a system of linear <br> equations (including problem <br> situations) using graphing, <br> substitution, and/or elimination. <br> A1.1.2.2.1 | Concept: <br> Interpret solutions to problems in <br> the context of the problem <br> situation. Note: 2 systems <br> A1.1.2.2.2 | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. How do you solve a system <br> of equations? | Lesson Essential Questions: <br> 1.How do you solve a word <br> problem system of <br> equations? | Lesson Essential Questions: <br> 1. |
| Vocabulary: <br> System of equations | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Topic: Linear Inequalities

## Key Learning(s): The students will

1. Write, solve and/or graph linear inequalities using various methods. A1.1.3.1


| Concept: <br> Write or solve compound inequalities <br> and/or graph their solution sets on a <br> number line (include absolute value <br> inequalities). A1.1.3.1.1. | Concept: <br> Identify or graph the solution set to a <br> linear inequality on a number line. <br> A1.1.3.1.2 | Concept: <br> Interpret solutions to problems in the <br> context of the problem situation. <br> A1.1.3.1.3 |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1.How do you write or solve <br> compound inequalities?Lesson Essential Questions: <br> 1.How do you identify or <br> graph the solution set to a <br> linear inequality on a <br> number line?Lesson Essential Questions: <br> 1.How do you interpret <br> solutions to problems in the <br> context of the problem <br> situation? <br> Vocabulary: <br> Compound inequalities, absolute <br> valueVocabulary: |  |  |

## Attached Document(s):

## Additional Info:

## Topic:

Key Learning(s): The students will Write, solve and/or graph linear inequalities using various methods. A1.1.3.1

Unit Essential Question(s):
How do you write, solve and/or graph linear inequalities using various methods?

Optional Instructional Tools:

| Concept: <br> Write and/or solve a system of linear <br> inequalities using graphing. 2 <br> systems only. A1.1.3.2.1 | Concept: <br> Interpret solutions to problems in the <br> context of the problem situation. 2 <br> systems only. A1.1.3.2.2 | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1.How do you write and/or <br> solve a system of linear <br> inequalities using <br> graphing?Lesson Essential Questions: <br> 1.How do you interpret <br> solutions to problems in <br> the context of the problem <br> situation? | Lesson Essential Questions: <br> 1. |  |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: <br> Rights and Responsibilities of <br> Citizenship | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

Attached Document(s):

## Additional Info:

## Topic:

| Key Learning(s): The students will |
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Unit Essential Question(s):


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:

## Topic:

| Key Learning(s): The students will $\quad$


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

Topic:

| Key Learning(s): The students will |
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## Unit Essential Question(s):



| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

Attached Document(s):

## Additional Info:

## Topic:

| Key Learning(s): The students will |
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| Unit Essential Question(s): |
| :--- |
|  |



| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:

## Topic:

| Key Learning(s): The students will |
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| Unit Essential Question(s): |
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| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:

## Topic: Operations with Real Numbers and Expressions

| Key Learning(s): The students will <br> $1 . \quad$ Represent and/or use numbers in equivalent forms A1.1.1.1 |  |
| :--- | :--- |
| Unit Essential Question(s): <br> How can you represent equivalent forms of numbers? <br> Instructional Tools: |  |
| Concept: <br> Compare/Order Real Numbers <br> A1.1.1.1 Concept: <br> Simplify Square Roots <br> A1.1.1.1.2 Concept: <br> Lesson Essential Questions: <br> 1. <br> How do you compare <br> and/or real numbers? Lesson Essential Questions: <br> $1 . \quad$ How do you simplify a <br> square root? Lesson Essential Questions: <br> 1.   |  |
| Vocabulary: <br> Ratioanl, Irrational Number | Vocabulary: <br> Square Root |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Attached Document(s): |
| :--- |

## Additional Info:

Enhanced standard: 2.1.A1.A

## Topic: Topic: Operations with Real Numbers and Expressions

| Key Learning(s): The students will |
| :--- |
| Apply number theory concepts to show relationships between real |
| numbers in problem-solving settings. A1.1.1.2 |
|  |

## Unit Essential Question(s): <br> How do you apply number theory concepts to show relationships between real numbers in problem-solving settings?



| Concept: <br> Find the Greatest Common Factor <br> and/or the Least Will Common <br> Multiple for sets of monomials. <br> A1.1.1.2.1 |  | Concept: |
| :--- | :--- | :--- | Concept:


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Additional Info:

Enhanced Standard 2.1.A1.E

## Topic: Operations with Real Numbers and Expressions

| Key Learning(s): The students will |
| :--- |
| 1. $\quad$Use exponents, roots, and/or absolute values to solve <br> problems. A1.1.1.3 |

## Unit Essential Question(s):

How do you use exponents, roots, and/or absolute values to solve problems?


| Concept: <br> Simplify/evaluate expressions <br> involving properties/laws of <br> exponents, roots, and/or absolute <br> values to solve problems.A1.1.1.3.1 | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1.How do you <br> simplify/evaluate <br> expressions involving <br> properties/laws of <br> exponents, roots and <br> absolute values?Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |  |
| Vocabulary: <br> Absolute value, exponents, roots | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

Enhanced 2.2.A1.C

## Topic: Operations with Real Numbers and Expressions



| Concept: <br> Use estimation to solve problems. <br> A1.1.1.4.1 | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1.How do you use <br> estimation to solve <br> problems?Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |  |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: <br> Rights and Responsibilities of <br> Citizenship | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

Enhanced 2.2A1.C

## Topic: Operations with Real Numbers and Expressions

| Key Learning(s): The students will |
| :--- |
| Simplify expressions involving polynomials. A1.1.1.5 |
|  |

## Unit Essential Question(s): <br> How do you simplify expressions involving polynomials?



| Concept: <br> Add, subtract, and/or multiply <br> polynomial expressions? A1.1.1.5.1 | Concept: <br> Factor algebraic expressions, <br> including binomials and trinomials? <br> A1.1.1.5.2 | Concept: <br> Simplify/reduce a rational algebraic <br> expression? |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. How do you add, subtract,, <br> and/or multiply <br> polynomial expressions? | Lesson Essential Questions: <br> $1 . \quad$ How do you factor <br> binomials and trinomials? | Lesson Essential Questions: <br> $1 .$How do you reduce a <br> rational algebraic <br> expression? <br> Vocabulary: <br> Polynomial expressions |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

Enhanced Standard 2.8.A1.B

## Topic:




| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

Topic:

| Key Learning(s): The students will |
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## Unit Essential Question(s):



| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

## Additional Info:

## Topic:

| Key Learning(s): The students will |
| :--- |
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| Unit Essential Question(s): |
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| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:

## Topic:

| Key Learning(s): The students will |
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| Unit Essential Question(s): |
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| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: | Lesson Essential Questions: | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |


| Concept: | Concept: | Concept: |
| :--- | :--- | :--- |
| Lesson Essential Questions: <br> 1. | Lesson Essential Questions: <br> 1. | Lesson Essential Questions: |
| Vocabulary: | Vocabulary: | Vocabulary: |

## Attached Document(s):

Additional Info:

