**ARC Week at Glance**

**-Subject: Mathematics Course: Algebra: Concepts & Connections Grade:** **9th – 12th Date: 1/6/2024**

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| **Standard(s):** A.NR.5.2 Using numerical reasoning, show and explain that the sum or product of rational numbers is rational, the sum of a rational number and an irrational number is irrational, and the product of a nonzero rational number and an irrational number is irrational.  A.PAR.6.1 Interpret quadratic expressions and parts of a quadratic expression that represent a quantity in terms of its context.  A.PAR.6.2 Fluently choose and produce an equivalent form of a quadratic expression to reveal and explain properties of the quantity represented by the expression.  **Assessment(s): ☒ Quiz ☐ Unit Test ☐ Project ☐ Lab ☐ None** | | | |
|  | **Learning Target**  **(I am learning about…)** | **Success Criteria**  **(I can….)** | **Lesson/Activities of the Day** | **Assignments/Formative Assessment** |
| **Monday** | I am learning to use numerical reasoning to explain mathematical computations with rational and irrational numbers  I am learning to interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | I can use numerical reasoning to explain mathematical computations with rational and irrational numbers  I can interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | Understanding Computations of Rational and Irrational Numbers:  Teacher will discuss the various characteristics of rational and irrational numbers. Teacher will discuss what happens when you add, subtract and multiply rational and irrational numbers. Teacher will provide guided practice problems to further understanding.  Students will then transition into labeling parts of quadratic expression  Labeling and Interpreting parts of a Quadratic Expressions:  Teacher will discuss the various parts of a quadratic expression. Teacher show students how to label the various coefficients and variables. Teacher will also discuss how to interpret these coefficients and variables in real-world context. | Guided Practice over Understanding Computations of Rational and Irrational Numbers  Guided Practice over Interpreting and Labeling Parts of a Quadratic Expression |
| **Tuesday** | I am learning to use numerical reasoning to explain mathematical computations with rational and irrational numbers  I am learning to interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | I can use numerical reasoning to explain mathematical computations with rational and irrational numbers  I can interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | Understanding Computations of Rational and Irrational Numbers:  Teacher will discuss the various characteristics of rational and irrational numbers. Teacher will discuss what happens when you add, subtract and multiply rational and irrational numbers. Teacher will provide guided practice problems to further understanding.  Students will then transition into labeling parts of quadratic expression  Labeling and interpreting parts of a Quadratic Expressions:  Teacher will discuss the various parts of a quadratic expression. Teacher show students how to label the various coefficients and variables. Teacher will also discuss how to interpret these coefficients and variables in real-world context.  Assignment over Labeling and Interpreting Parts of a Quadratic Expression and Understanding Computations of Rational and Irrational Numbers | Guided Practice over Understanding Computations of Rational and Irrational Numbers  Guided Practice over Interpreting and Labeling Parts of a Quadratic Expression  Assignment over Labeling and Interpreting Parts of a Quadratic Expression and Understanding Computations of rational and Irrational Numbers |
| **Wednesday** | I am learning to use numerical reasoning to explain mathematical computations with rational and irrational numbers  I am learning to interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | I can use numerical reasoning to explain mathematical computations with rational and irrational numbers  I can interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | Review:  Teacher will review Computations of Rational and Irrational Numbers and Labeling Parts of a Quadratic Expression  Students will then transition into Expressing Quadratic Expressions  Expressing Quadratic Expressions:  Students will learn how to create quadratic expressions from various forms. Students will start with expressing quadratic expressions from factored form to standard form. Students will then transition into expressing quadratic expressions from vertex form to standard form.  Teacher will provide guided practice for these various problems and students will have an opportunity to work on guided practice problems to achieve the correct answer.  In addition, students will assignment over converting quadratic expressions from factor form to standard and from vertex form to standard form | Assignment over Labeling and Interpreting Parts of a Quadratic Expression and Understanding Computations of rational and Irrational Numbers  Assignment over Converting Quadratic functions between various forms |
| **Thursday** | I am learning to use numerical reasoning to explain mathematical computations with rational and irrational numbers  I am learning to interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | I can use numerical reasoning to explain mathematical computations with rational and irrational numbers  I can interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | Review:  Teacher will review Computations of Rational and Irrational Numbers and Labeling Parts of a Quadratic Expression  Students will then transition into Expressing Quadratic Expressions  Expressing Quadratic Expressions:  Students will learn how to create quadratic expressions from various forms. Students will start with expressing quadratic expressions from factored form to standard form. Students will then transition into expressing quadratic expressions from vertex form to standard form.  Teacher will provide guided practice for these various problems and students will have an opportunity to work on guided practice problems to achieve the correct answer.  In addition, students will assignment over converting quadratic expressions from factor form to standard and from vertex form to standard form | Assignment over Labeling and Interpreting Parts of a Quadratic Expression and Understanding Computations of rational and Irrational Numbers  Assignment over Converting Quadratic functions between various forms |
| **Friday** | I am learning to use numerical reasoning to explain mathematical computations with rational and irrational numbers  I am learning to interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | I can use numerical reasoning to explain mathematical computations with rational and irrational numbers  I can interpret the parts of a quadratic expression  I am learning to express quadratic expressions from various forms (factor, vertex, standard) | Quiz covering the following:   * Understanding Computations of Rational and Irrational Numbers * Labeling Parts of a Quadratic Expressions * Converting Quadratic Expression between various forms | MAP Testing  1st Semester Study Gide |

**\***☐ Exit Ticket/Final Stretch Check ☐ Electronic Tools ☐ Dry Erase Boards – quick checks ☐ Turn & Talk Discussion (verbal responses) ☐ Teacher Observation – document Clipboard

☐ Quick Write/Draw ☐ Annotation ☐ Extended Writing ☐ Socratic Seminar ☐ Jigsaw ☐ Thinking Maps ☐ Worked Examples ☐ Other