**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) | Warm-Up: Algebra EOC Question of the Day  Review:  Teacher will review Computations of Rational and Irrational Numbers and Labeling Parts of a Quadratic Expression  Students and teacher will then review Expressing Quadratic Expressions (Factored Form to Standard Form)  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.  Teacher will then transition into expressing quadratic expressions from vertex form to standard form. Teacher will provide guided practice problems that details with this specific topic. Students will have an assignment that deals with expressing quadratics from vertex form to standard form. | Guided practice over Expressing Quadratics (factored to standard, vertex to standard)  Assignment over converting vertex form to standard form |
| **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) | Warm-Up: Algebra EOC Question of the Day  Review:  Teacher will review Computations of Rational and Irrational Numbers and Labeling Parts of a Quadratic Expression  Students and teacher will then review Expressing Quadratic Expressions (Factored Form to Standard Form)  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.  Teacher will then transition into expressing quadratic expressions from vertex form to standard form. Teacher will provide guided practice problems that details with this specific topic. Students will have an assignment that deals with expressing quadratics from vertex form to standard form. | Guided practice over Expressing Quadratics (factored to standard, vertex to standard)  Assignment over converting vertex form to standard form |
| **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) | Quiz covering the following:   * Understanding Computations of Rational and Irrational Numbers * Labeling Parts of a Quadratic Expressions * Converting Quadratic Expression between various forms   Teacher will then transition into Converting Quadratic Expressions from Factored form to Standard Form  Factoring Quadratic Expressions/Equations:  Teacher will illustrate how to convert quadratic expressions from standard form to factored 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. | Quick Quiz |
| **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) | Warm-Up: Algebra EOC Question of the Day  Review:  Expressing Quadratic Expressions (Factored Form to Vertex Form:  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.  Factoring Quadratic Expressions/Equations:  Teacher will illustrate how to convert quadratic expressions from standard form to factored 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. | Factoring Quadratic Expressions Assignment  Binomials |
| **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) | Warm-Up: Algebra EOC Question of the Day  Review:  Expressing Quadratic Expressions (Factored Form to Vertex Form:  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.  Factoring Quadratic Expressions/Equations:  Teacher will illustrate how to convert quadratic expressions from standard form to factored 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. | Factoring Quadratic Expressions Assignment |

**\***☐ 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