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| **Grade Level** 9th – Acc. Algebra I/Geom A | | **Teacher/Room**: LPAYNE/181 Week of: AUG 10-14, 2015 | | | |
| **Unit Vocabulary:** Algebraic expressions, variable, term, power, coefficient, equation, solution, identity, relation, domain, range, independent variable, dependent variable, function, intercept, line symmetry, end behavior, relative maximum, relative minimum. | | | | | |
| **Instructional Strategies Used:** direct instruction, independent study, interactive instruction, partners | | | | | |
| **Day 1** | **Day 2** | | **Day 3** | **Day 4** | **Day 5** |
| **Common Core Standard(s)**:  **A.REI.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line.)  **F.IF.**1Understand that a function from one set (called the domain to another set called the range) assigns to each element of the domain, then f(x) denotes the output of f corresponding to the input x. The graph of *f* is the graph of equation y=f(x).  **MPS1.** | **Common Core Standard(s)**:  **F.IF.**1Understand that a function from one set (called the domain to another set called the range) assigns to each element of the domain, then f(x) denotes the output of f corresponding to the input x. The graph of *f* is the graph of equation y=f(x).  F.IF.2 Use function notation, evaluate functions for inputs in there domains, and interpret statements that use function notation in terms of context  MPS3. | | **Common Core Standard(s)**:  Chapter standards  A.SSE.1a, A.SSE.2, A.SSE.1b,  A.SSE.2, N.Q.3, A.CED.1,A.REI.3, A.REI10,  F.IF.1, F.IF.2 | **Common Core Standard(s)**:  A.SSE.1a, A.SSE.2, A.SSE.1b,  A.SSE.2, N.Q.3, A.CED.1,A.REI.3, A.REI10,  F.IF.1, F.IF.2 | **Common Core Standard(s)**:  A.SSE.1a, A.SSE.2, A.SSE.1b,  A.SSE.2, N.Q.3, A.CED.1,A.REI.3, A.REI10,  F.IF.1, F.IF.2 |
| **EQ Question:**  Why is the concept of a function important and how do I use function notation to show a variety of situations modeled by functions? | **EQ Question:**  Why is the concept of a function important and how do I use function notation to show a variety of situations modeled by functions?  Can students interpret key features of graphs of functions? | | **EQ Question:**  Can students interpret key features of graphs of functions? | **EQ Question:**  Can students interpret key features of graphs of functions? | **EQ Question:**  Can students interpret key features of graphs of functions? |
| **Mini Lesson:** check homework 1.5  **Activating Strategies: (WHY)**  1.)The deeper in the ocean you are, the greater pressure is on your body. This is because there is more water over you. The force of gravity pulls the water weight down, creating a greater pressure. Using  P=rgh  2.)The distance a car travels from when the brakes are applied to the car’s complete stop is the stopping distance.  **Resource/Materials:**  Textbook section 1.6-1.7  Calculator  Graph paper  Ruler  1.6 Relations  1.7 Functions | **Mini Lesson:**  Check section 1.6, 1.7  **Activating Strategies:**  Graphing tech lab representing functions  **Resource/Materials:**  Textbook  Calculator  Graph paper  Ruler  1.7 Tech lab,  1.8 Interpreting graphs of functions | | **Mini Lesson:**  Check section 1.7, 1.8  **Activating Strategies:**  Vocabulary quiz  **Resource/Materials:**  Textbook  Calculator  Graph paper  Ruler | **Mini Lesson:**  Check Study Guide and Review  **Activating Strategies:**  Warm up with calculator  **Resource/Materials:**  Textbook  Calculator  Graph paper  Ruler | **Mini Lesson:**  Check Practice test  **Activating Strategies:**  Review questions  **Resource/Materials:**  TEST #1  Calculator  Graph paper  Ruler |
| **Differentiation:**  *See attached notes* | **Differentiation:**  *See attached notes* | | **Differentiation:**  *See attached notes* | **Differentiation:**  *See attached notes* | **Differentiation:**  *See attached notes* |
| **Assessment :formative**  **Guided practice after each example** | **Assessment:**  **Guided practice after each example** | | **Assessment:**  ***Vocabulary review***  ***Ticket out the door*** | **Assessment:**  **Notebook Grade** | **Assessment:**  **TEST #1** |
| **Homework:**  1.6 P.PS, PG. 43, #9-31 odd 32-38, 40, 43-46  1.7 P.PS, PG. 52, #21-47 odd 48-50, 52,56-59, | **Homework:**  1.7 tech lab pg. 55, #1-6  1.8 P.PS. PG. 59,#5-9 odd, 10-14, 18, 23-26. | | **Homework:**  Study Guide and Review, pg. 62, #1-75 odd | **Homework:**  Practice Test, pg. 67 1-22,  Standardized Test practice, pg. 70, #1-12 | **Homework:**  Ready for Chapter 2. |

Resources and Reflective Notes:

**Differentiated Instruction**- (Monday and Tuesday) 1.) We will spend extra time on independent and dependent variables, since an understanding of these concepts provides the foundation for later work with functions. For exercise #38, students will generate several real-world scenarios with independent and dependent variables. The students will work in small groups to compare and contrast variables. 2.) If students are visual learners, then as a preview of later chapters, students will represent several nonlinear functions graphically to share with the class. Nonlinear functions could include quadratic, absolute value, and exponential functions, with a variety of examples for each. They will emphasize will be on the shape. 3.) If students are having trouble interpreting key features of graphs, then students will work together discussing examples in the lesson.

Extension: Pairs of students challenge each other to draw graphs with given key features. One student draws a graph without showing it to the other and describes its key features. The second student should draw a graph that fits the description. Students will discuss similarities and differences in the graphs and whether both graphs that fit the description. Then switch roles and repeat.

**Ticket out the Door**:1.) Identify the independent and dependent variables on a slip of paper, the temperature, in Fahrenheit, were 81, 84,85,86,88 degrees on days 1-5. 2.) There will be five real-world functions. Each student will be given one graph and as the student leaves they will describe and interpret one or more of the following characteristics of the graph: intercepts its symmetry, where the function is positive, negative, increasing, or decreasing, the location of any relative extrema, or end behavior.