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| **Standards-Based Lesson** | | | | **Tuesday, August 6 – Friday, August 30** | | |
| **Coordinate Algebra/ Analytic Geometry A** | | | | | | |
| Teacher: Elliott | | Unit 1: Relationships Between Quantities | | | | |
| **STANDARDS – CCGPS** | | | | | | |
| **Reason quantitatively and use units to solve problems.** MCC9-12.N.Q.1: Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and origin in graphs and data displays. MCC9-12.N.Q.2: Define appropriate quantities for the purpose of descriptive modeling. MCC9-12.N.Q.3: Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.  **Interpret the structure of expressions.** MCC9-12,A,SSE.1: Interpret expressions that represent a quantity in terms of its context. a. Interpret parts of an expression, such as terms, factors, and coefficients. b. Interpret complicated expressions by viewing one or more of their parts as a single entity.  **Create equations that describe numbers or relationships.** MCC9-12.A.CED.1: Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and exponential functions. MCC9-12.A.CED.2: Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. MCC9-12.A.CED.3: Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. MCC9-12.A.CED.4: Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. | | | | | | |
| **OBJECTIVES: Students will know… or Students will be able to…** | | | | | | |
| * Decompose expressions and make sense of the multiple factors and terms by explaining the meaning of the individual parts | | | | | | |
| **ESSENTIAL QUESTIONS** | | | | | | |
| * How are algebraic expressions different from algebraic equations? * How is the order of operations applied to expressions and simple formulas at specific values? * How are verbal phrases translated into algebraic expressions? | | | | | | |
| **VOCABULARY** | | | | | | |
| * algebra * coefficient * domain * equation * expression * function * inequality * ordered pair * perimeter * Pythagorean Theorem * range * substitution * variable | | | | | | |
| **ESSENTIAL QUESTIONS** | | | | | | |
| **Reason quantitatively and use units to solve problems.**   * How are algebraic expressions different from algebraic equations? * How is the order of operations applied to expressions and simple formulas at specific values? * How are verbal phrases translated into algebraic expressions?   **Interpret the structure of expressions.**   * How are equations and inequalities alike and different? * What makes creating an exponential equations different from creating a linear equation?   **How are quantities modeled with equations and inequalities?**   * What do the graphs of equations in two variables represent? * How do you determine the scales to use for the x- and y-axes on any given graph? * How do the graphs of linear equations and exponential equations differ? How are they similar? * How can graphing equations help you to make decisions? | | | | | | |
| **PRE-ASSESSMENT** | | | | | | |
| * Unit 1 Pre-Assessment | | | | | | |
| **PRIOR TO ACTIVATION (CRCT/EOCT PRACTICE)** | | | | | | |
| **Bell Ringer -**   * Students complete questions independently * Have students compare answers and work with their table buddies. * Assist students as needed. * Review Bell Ringer   **Sources:**   * [Holt (7th Grade) CRCT Countdown](file:///C:\Users\noreen.elliott\Documents\2013-2014%20Coordinate%20Algebra\Math%207\countdown_to_crct.doc) * Wach (7th Grade) Warm-ups * [Holt (](file:///C:\Users\noreen.elliott\Documents\2013-2014%20Coordinate%20Algebra\Math%207\countdown_to_crct.doc)8[th Grade) CRCT Countdown](file:///C:\Users\noreen.elliott\Documents\2013-2014%20Coordinate%20Algebra\Math%207\countdown_to_crct.doc) * Wach (8th Grade Warm-ups) | | | | | | |
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|  | **Activate (front screen)** | | **Instruction** | | **Practice/Application** | **Assignment** |
| **Mon 8/5** | TEACHER WORK DSAY | |  | |  |  |
| **Tues 8/6** | “How I Used Math This Summer” | | Procedures and expectations | |  |  |
| **Wed 8/7** | Begin “This is my life in math class” | | None | | MAP Math 8 | None |
| **Thu 8/8** | Walch Warm-up 1.1.1 | | Walch Instruction 1.1.1 | | Walch Guided Practice 1.1.1; begin Walch Problem-Based Task 1.1.1 | Walch Practice 1.1.1; finish Walch Problem-Based Task 1.1.1 |
| **Fri 8/9** | Review homework from Thursday Walch Warm-up 1.1.2; | | Walch Instruction 1.1.2 | | Walch Guided Practice 1.1.2; begin Walch Problem-Based Task 1.1.2  \*\*\*Assessment 1\*\*\* | Walch Practice 1.1.2; finish Walch Problem-Based Task 1.1.2 |
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| **Mon 8/12** | Review homework from Friday | |  | | Work on Problem Portfolio | Work on Problem Portfolio |
| **Tue 8/13** | Review homework from Monday  Walch Warm-up 1.2.1 | | Walch Instruction 1.2.1 | | Walch Guided Practice 1.2.1; begin Walch Problem-Based Task 1.2.1  \*\*\*Assessment 1\*\*\* | Walch Practice 1.2.1  Walch Problem-Based Task 1.2.1 |
| **Wed 8/14** | Review homework from Tuesday  Walch Warm-up 1.2.2 | | Walch Instruction 1.2.2 | | Walch Guided Practice 1.2.2; begin Walch Problem-Based Task 1.2.2 | Walch Practice 1.2.2  Walch Problem-Based Task 1.2.2 |
| **Thu 8/15** | Review homework from Wednesday  Walch Warm-up 1.2.3 | | Walch Instruction 1.2.3 | | Walch Guided Practice 1.2.3; begin Walch Problem-Based Task 1.2.3 | Walch Practice 1.2.3  Walch Problem-Based Task 1.2.3 |
| **Fri 8/16** | Review homework from Thursday | |  | | Work on Problem Portfolio | Work on Problem Portfolio |
|  |  | |  | |  |  |
| **Mon 8/19** | Walch Warm-up 1.3.1 | | Walch Instruction 1.3.1 | | Walch Guided Practice 1.3.1; begin Walch Problem-Based Task 1.3.1  \*\*\*Assessment 2\*\*\* | Walch Practice 1.3.1  Walch Problem-Based Task 1.3.1 |
| **Tue 8/20** | Review homework from Monday | |  | | Work on Problem Portfolio | Work on Problem Portfolio |
| **Wed 8/21** | Review homework from Tuesday  Walch Warm-up 1.3.2 | | Walch Instruction 1.3.2 | | Walch Guided Practice 1.3.2; begin Walch Problem-Based Task 1.3.2 | Walch Practice 1.3.2  Walch Problem-Based Task 1.3.2 |
| **Thu 8/22** | Review homework from Wednesday | |  | | \*\*\*Assessment 3\*\*\*  Work on Problem Portfolio | Work on Problem Portfolio |
| **Fri 8/23** | Review homework from Thursday | |  | | Work on Problem Portfolio | Work on Problem Portfolio |
|  |  | |  | |  |  |
| **Mon 8/26** | Review homework from Friday | |  | | Work on Problem Portfolio | Work on Problem Portfolio |
| **Tue 8/27** | Review homework from Tuesday | |  | | \*\*\*Assessment 4\*\*\*  Work on Problem Portfolio | Work on Problem Portfolio |
| **Wed 8/28** | Walch Warm-up 1.5.1 | | Walch Instruction 1.5.1 | | Walch Guided Practice 1.5.1; begin Walch Problem-Based Task 1.5.1 | Walch Practice 1.5.1  Walch Problem-Based Task 1.5.1 |
| **Thu 8/29** | Review homework from Wednesday | |  | | \*\*\*Assessment 5\*\*\*  Work on Problem Portfolio | Work on Problem Portfolio |
| **Fri 8/30** | Review problems from Unit 1 assessment | |  | |  | Problem Portfolio due |
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| **Mon 9/2** | HOLDIAY | |  | |  |  |
| **Tue 9/3** | Review for unit assessment | |  | | Work on Problem Portfolio  Centers | Work on Problem Portfolio |
| **Wed 9/4** | Review for unit assessment | |  | | Work on Problem Portfolio  Centers | Work on Problem Portfolio |
| **Thu 9/5** | Review for unit assessment | |  | | Work on Problem Portfolio  Centers | Work on Problem Portfolio |
| **Fri 9/6** |  | |  | | Unit 1 Assessment  Unit 2 Pre-Assessment | Problem Portfolios due |
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| **DIFFERENTIATED INSTRUCTION** | | | | | | |
| Specific accommodations: (as specified in IEPs).  All periods:  Students with 90+ averages and demonstration of excellent work habits and motivation have the option of being in a “blended” segment of this class. All presentations, practice problems, etc. are on the web site. They may go to the media center or computer lab to work on the course. Students may also stay in class when they need additional support. This enables the instructor to work more closely with the other students and enables the “blended” students to be more challenged than they would be in the regular classroom. Current students taking the option: | | | | | | |
| **ASSESSMENT/EVALUATION** | | | | | | |
| * Observation, questioning of students while they are working * Completion of guided practice activity * Homework quizzes | | | | | | |
| **CLOSURE** | | | | | | |
| * Review day’s concepts and vocabulary * Remind students to review their unit notes | | | | | | |