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| **Grade Level:** | | | 9th | | **Teacher/Room**: | | | | LPAYNE 181 | | | / | | ACC ALG I | **Course(s)/ Period(s):** | | | 1 | | | / | 3 | **Week of:** | | 8-24 THRU 8-28 | | |
| **Unit Vocabulary:** | | | | arithmetic sequence, common differnce, constant, constant of variation, decuctive reasoning, direct variation, inductivve reasoning, linear equation, linear function, rate of change, root, sequence, slope, standard form, terms of the sequence, x-intercept, y-intercept, zero of a function, consecutive intergers, dimensional analysis, equivalent equations, formula, literal equation, percent of change, percent of increase and decrease, proprotion, rate, ratio, scale, scale model, unit analysis, unit rate, weighted average | | | | | | | | | | | | | | | | | | | | | | | |
| **Instructional Strategies Used:** | | | | | | | direct instruction, independent study, interactive instruction, partners task, algebra lab | | | | | | | | | | | | | | | | | | | | |
| **Day 1** | | | | | | **Day 2** | | | | | | | **Day 3** | | | | | **Day 4** | | | | | | **Day 5** | | | |
| **GSE/GPS Standard(s)**: | | | | | | **GSE/GPS Standard(s)**: | | | | | | | **GSE/GPS Standard(s)**: | | | | | **GSE/GPS Standard(s)**: | | | | | | **GSE/GPS Standard(s)**: | | | |
| N.Q.1  A.REI.3  A.CED.4  MPS-1, 6, 8 | | | | | | A.REI.1  A.REI.3  MPS-1,4 | | | | | | | F.IF.4  F.IF.7,A  A.REI.10  MPS-1,4,8 | | | | | F.IF.6  F.LE.1A  A.REI.10  F.IF.7A  MPS-1,2,6 | | | | | | F.BF.2  F.LE.2  MPS-1,8 | | | |
| **Essential Question:** | | | | | | **Essential Question:** | | | | | | | **Essential Question:** | | | | | **Essential Question:** | | | | | | **Essential Question:** | | | |
| Can Students solve equations for given variables.? | | | | | | Can students solve mixture problem? Can student solve uniform motion problems? | | | | | | | Can students solve equations by graphing? Can students estimate solutions linear equations by graphing? | | | | | Can students use rate of change to solve problems and find the slope of the line? | | | | | | Can Students recognize arithmetic sequences and relate them to linear functions? | | | |
| **Mini Lesson:** | | | | | | **Mini Lesson:** | | | | | | | **Mini Lesson:** | | | | | **Mini Lesson:** | | | | | | **Mini Lesson:** | | | |
| * Solve equations with variables on each side. | | | | | | * Translate sentences into equations | | | | | | | * Graph linear equations by using tables and finding roots, zeros, and intercepts. | | | | | * graph ordered pairs in the coordinate plane. | | | | | | * Identify linear functions | | | |
| **Activating Strategies:** | | | | | | **Activating Strategies:** | | | | | | | **Activating Strategies:** | | | | | **Activating Strategies:** | | | | | | **Activating Strategies:** | | | |
| * solve equations for given variables. Use formulas to solve real world problems | | | | | | * solvemixture problems. Solve uniform motion problems. | | | | | | | * solve equations by graphing. Estimate sloutions to an equation by graphing | | | | | * use rate of change to solve problems. find the slope of a a line | | | | | | * recognize arithmetic sequences. relate arithmeitc sequences to linear functions | | | |
| **Lesson:** | | | | | | **Lesson:** | | | | | | | **Lesson:** | | | | | **Lesson:** | | | | | | **Lesson:** | | | |
| * solve system of equations. | | | | | | * formulate linear equations to solve problems | | | | | | | * determine the slope of a line | | | | | * write, graph, and solve direct variation equations | | | | | | * write equations in slope-intercept form | | | |
| **Resource/Materials:** | | | | | | **Resource/Materials:** | | | | | | | **Resource/Materials:** | | | | | **Resource/Materials:** | | | | | | **Resource/Materials:** | | | |
| * text, notes, examples, calculator | | | | | | * text, notes, examples, calculator | | | | | | | * text, notes, caculator | | | | | * text, calculator, examples | | | | | | * text, toothpicks, blocks, caculators | | | |
| **Differentiation:**  ***Content/Process/Product:*** | | | | | | **Differentiation:**  ***Content/Process/Product:*** | | | | | | | **Differentiation:**  ***Content/Process/Product:*** | | | | | **Differentiation:**  ***Content/Process/Product:*** | | | | | | **Differentiation:**  ***Content/Process/Product:*** | | | |
| * see attached | | | | | | * see attached | | | | | | | * see attached | | | | | * see attached | | | | | | * see attached | | | |
| ***Grouping Strategy:*** | | | | | | ***Grouping Strategy:*** | | | | | | | ***Grouping Strategy:*** | | | | | ***Grouping Strategy:*** | | | | | | ***Grouping Strategy:*** | | | |
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| ***Assessment:*** | | | | | | ***Assessment:*** | | | | | | | ***Assessment:*** | | | | | ***Assessment:*** | | | | | | ***Assessment:*** | | | |
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| **Assessment :** | | | | | | **Assessment :** | | | | | | | **Assessment :** | | | | | **Assessment :** | | | | | | **Assessment :** | | | |
| ***Pre-Test:*** |  | | | | | ***Pre-Test:*** | | | |  | | | ***Pre-Test:*** | | |  | | ***Pre-Test:*** |  | | | | | ***Pre-Test:*** | |  | |
| ***Post-Test:*** |  | | | | | ***Post-Test:*** | | | |  | | | ***Post-Test:*** | | |  | | ***Post-Test:*** |  | | | | | ***Post-Test:*** | |  | |
| ***Formative:*** | | guided practice afer each example | | | | ***Formative:*** | | | | | guided practice afer each example | | ***Formative:*** | | | | guided practice afer each example | ***Formative:*** | | guided practice afer each example | | | | ***Formative:*** | | | guided practice afer each example |
| ***Summative:*** | |  | | | | ***Summative:*** | | | | |  | | ***Summative:*** | | | |  | ***Summative:*** | |  | | | | ***Summative:*** | | |  |
| ***Performance Based:*** | | | | | | ***Performance Based:*** | | | | | | | ***Performance Based:*** | | | | | ***Performance Based:*** | | | | | | ***Performance Based:*** | | | |
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| **Homework:** | | | | | | **Homework:** | | | | | | | **Homework:** | | | | | **Homework:** | | | | | | **Homework:** | | | |
| 2.7 pg. 122, # 15-35 odd, 36, 41, 45, 50-53  2.8 pg. 129, # 9-19 odd , 20,22, 29-31,37, 41-44 | | | | | | 2.9 pg. 129, #8-19, 36,38, 39-44 | | | | | | | 3.1pg. 159, 13-49 odd, 42, 50, 59,65-68  3.2 pg. 11-43odd, 36, 46, 51-54 | | | | | 3.3 pg. 15-39odd, 49,59,52-56  3.4 pg. 185, #11-37 odd, 35, 38,41,42,51-54 | | | | | | 3.5 pg. 193, #9-23 odd, 24-32,34,36-40 | | | |
| **Resources and Reflective Notes:** | | | | | | | | Monday: differentiated insturction: If studnents are confused by equations with more than one variable and with variables on both sides of the equations, such as example 2, then students will work in pairs to analyze, discuss, and write out the steps necessry for solving the equation. They can then refer to and mark off the steps ans they work through the solution.  Tuesday: differentiated instruction: Write 1/R=1/a+1/b on the board. Tell students that the total resistance R in an electrical circuit consisting of two resistances of a ohms and b ohms connected in parallel is given by the equation. Students will explain how to solve this formula for R.  Wednesday: Differentiated instruction: 3.2 extension: 1.) solve 0>1/3x-1. 2.) explain to studens that the graph of a linear equation is called a continuous graph. It represents all soultions of the linear equation. Every ordered pair on a contunous line satisfies the equation. When the variables in an equation must be whole numbers, the pionts cannot be connected with a line. The type of graph is a discrete graph. I will ask student to think of an eample of when a diescrete graph would be used. (sample answer. if x stood for the nubmer of boys in a class and y stood for the number of girls in a class.  Thursday:3.3 If students automatically assume that the left-most point has to be (x1,y1) and the point farther right is (x2,y2), I will explain that the designation of (x1,y1) and (x2,y2,) is arbitrary. I will write pairs of points on index cards. i will give one card to each student. I will have them find the slope both ways. Then ask which way make the subtraction easier.  3.4 Differentiated instruction; If students have trouble with direct variation equations, then I will give students one function at a time. The will read the function aloud, and then tell if the function is a drirect variation. If it is, They will identify the constant of variation.  Extension: Write y=kx^2 on the board. Tell the students that y varies directly as the square of x, and y=48 when x=4. Find y when x=10.  Friday:3.5 Differentiated instruction: If students have an interesst in nature, then students can schare that sequences are often visible in nature. stutdents can take photographs or find pictures in magazines or on calanders of examples of sequences in nature. One example is the sequence found in the arrangement of seeds in a daisy. this particular sequence is called the Fibonacci sequence. | | | | | | | | | | | | | | | | | | | |