Algebra 1 Packet April 20th - May 18th

***Monday, April 20th:***

Go do Review Quiz 2 #1-5. It is another document on my website and in Schoology. Put answers in Schoology

***Tuesday, April 21st:***

Go do Review Quiz 2 #6-10. It is another document on my website and in Schoology. Put answers in Schoology

***Topic #13: Exponent Rules Wednesday April 22***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| PRODUCT RULE | QUOTIENT RULE | | POWER RULE | | NEGATIVE EXPONENT RULE |
|  |  | |  | |  |
| **Simplify each expression.** | | | | | |
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***Topic #14: Simplifying Polynomials Thursday April 23***

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| **Simplify each expression.** | |
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| 1. ***Monday, April 27*** |  |
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***Tuesday, April 28:***

**Review Quiz 3: It’s in the “Quizzes” Documents on my website and in Schoology.**

**Put answers in Schoology.**

***Topic #15: Factoring Polynomials Wednesday, April 29-May 5***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Factor each polynomial.** | | | | | |
| GREATEST COMMON FACTOR (GCF) | ***Wednesday, April 29*** | |  | |  |
| DIFFERENCE OF SQUARES |  | |  | |  |
| TRINOMIAL | ***Thursday, April 30*** | |  | |  |
| TRINOMIAL |  | |  | |  |
| ***Monday, May 4*** | |  | |  | |
|  | | ***Tuesday, May 5*** | |  | |
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***Topic #16: Graphing Quadratic Equations Wednesday, May 6***

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| Macintosh HD:Users:reneice.glasper:Desktop:Screen Shot 2020-04-09 at 1.49.08 PM.png  A quadratic equation creates a U-shaped curve called a PARABOLA. | Standard Form: |  |
| Axis of Symmetry: |
| Vertex Form: |  |
| Axis of Symmetry: *x = h*; Vertex: *(h, k)* |
|
| **Graph each equation using a table of values. Identify all key characteristics.** | | |
| |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | | Domain: |
| Range: |
| Axis of Symmetry: |
| Vertex: |
| x-intercepts (zeros): |
| y-intercept: |
| |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | | Domain: |
| Range: |
| Axis of Symmetry: |
| Vertex: |
| x-intercepts (zeros): |
| y-intercept: |
| |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | | Domain: |
| Range: |
| Axis of Symmetry: |
| Vertex: |
| x-intercepts (zeros): |
| y-intercept: |
| |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | | Domain: |
| Range: |
| Axis of Symmetry: |
| Vertex: |
| x-intercepts (zeros): |
| y-intercept: |

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| |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | Domain: |
| Range: |
| Axis of Symmetry: |
| Vertex: |
| x-intercepts (zeros): |
| y-intercept: |

***Topic #17: Transformations Thursday, April 7th***

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| **Recall that vertex form describes transformations from the quadratic parent function, .** | | | | | | | | |
| Given : | | | | | | | | |
| Translations (Shifts) | | | | | Reflections | Dilations (compress/stretch) | | |
|  | Shifts left |  | Shifts up | | If is negative, the graph reflects over the x-axis. |  | Creates a vertical stretch | |
|  | Shifts right |  | Shifts down | |  | Creates a vertical compression | |
| **Given each equation, describe the transformations from the parent function .** | | | | | | | | |
|  | | | |  | | | |  |
| **Transformations from the parent function . Write an equation to represent the new function.** | | | | | | | | |
| 1. Translated 3 units right and 2 units up | | | | 1. Vertically stretched by a factor of 4, then 5 units down | | | | 1. Reflected over the x-axis, then translated 7 units left and 1 unit up. |

***Topic #18: Solving Quadratic Equations Monday, April 11-14 (Look at Calendar)***

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| * The solutions to a quadratic equation are the points at which the parabola intersects the x-axis. * Solutions are also referred to as roots, zeros, or x-intercepts. * A quadratic equation can have two solutions, one solution, or no real solutions. | Methods to Solve a Quadratic Equation |
| * Graphing * Factoring * The Quadratic Formula |
| **Solve each equation. Round to the nearest hundredth when necessary.** | |
| 1. Monday | 1. Monday |
| 1. Wedneday | 1. Don’t Do |
| 1. Don’t Do | 1. Don’t Do |
| 1. Tuesday | 1. Tuesday |
| 1. Wednesday | 1. Tuesday |
| 1. Thursday | 1. Thursday |

***Tuesday, May 12th***

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| 1. The dimensions of a rectangle can be represented by the expression and . If the area of the rectangle is 75 square feet, find the value of x.   Hint: set up an equation.  Area of a rectangle is A=LxW  Set up like this: Multiply the two binomials and set it equal to 75.  Solve for x by setting each binomial = to zero  The answer can only be the positive one because you can’t have a negative measurement. |
| 1. ~~The stress distribution on a structure is given by where is stress in pounds per square inch and is the distance in feet from a reference point. At what distance is the stress equal to 0 pounds per square inch?~~ |
| 1. ~~A toy rocket is launched from a platform that is 48 feet high. The rocket’s height above the ground is modeled by the equation . What is the rocket’s height at 2 seconds?~~ |

***Monday, May 18th***

**Review Quiz 4: It’s in the “Quizzes” Documents on my website and in Schoology.**

**Put answers in Schoology.**