**Secondary Math 2 8.3 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**Graphing Quadratics in Any Form**

**Identify the vertex and the listed key features of each quadratic equation. Then graph each equation.**

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

**Review Problems:**

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|  | Solve by completing the square. |  | Solve by factoring.  (Hint: you will need to set equal to zero first) |

**Identify the x-intercepts of each quadratic. Sketch a basic graph of the function and identify the key information.**

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

1. **Graph the following quadratic equation by first putting the equation in factored form.**

**Also, put the equation in vertex form.**

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| --- | --- | --- |
| A) Factor the quadratic and identify the X-Intercepts.  B) Put the quadratic in vertex form. (Hint: complete the square) |  | **Identify Critical Information:**  **Vertex (**Max/Min)**:**  **Axis of Symmetry:**  **Y-Int:**  **X-Int:**  **Domain:**  **Range:** |