**Secondary Math 2 8.2 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**Graphing Quadratics by Switching Forms**

1. Use to answer the following questions:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Rewrite in Intercept Form. Hint: Factor. |  | Rewrite in Vertex Form. Hint: |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | What is the Vertex of ? |  | What are the zeros of ? |  | What is the y-intercept of ? |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Plot 5 points that will help you graph an accurate picture of the graph (hint: graph the vertex at the center and two “anchor” points on each side of the vertex)   |  |  | | --- | --- | | x | y | |  |  | |  |  | |  |  | |  |  | |  |  | |  | Sketch the graph of . Label the vertex, x and y intercepts.  http://etc.usf.edu/clipart/49300/49310/49310_graph_blank_md.gif |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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**Review Problems:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Complete the square and solve: |  | Solve by factoring: |
|  | Solve using any method: |  | Solve using any method: |

**Extended Understanding:** Given the function , answer the following questions and sketch the graph.

|  |  |  |
| --- | --- | --- |
|  |  | a) Write the equation in vertex form.  b) What is the coordinate of the vertex?  c) What is the equation of the axis of symmetry?  d) What are the real roots of the function? |