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| **1.)** **Write a quadratic equation in vertex form if a = -8, h = -9 and k = 1.** | **2.) Identify the vertex of the quadratic function: Y = -8(x + 7)2 + 5**  **What does the (-8) in the equation represent** |
| **3.) Graph the equation. Label the vertex and axis of symmetry. Show your table of values.**  x y  **Y = -(x + 4)2 + 5**  14 by 14 axes | **4.) Graph the equation. Label the vertex and axis of symmetry. Show your table of values.**  x y  **Y = 2(x - 1)2 - 6**  14 by 14 axes |
| **5.) Use the graph and the given equation to find a quadratic equation in vertex form.**  **a = -5** | **6.) Use the graph and the given equation to find a quadratic equation in vertex form.**  **a = 6** |
| **7.) Identify the zero(s) of the quadratic function.** | **8.) Identify and label the zero(s) of the quadratic function.** |
| **9.) Write the equation for the quadratic function in vertex form. (Hint: Don’t forget about “a”!)** | **10.) Use your calculator to find the values for the following quadratic function. Then sketch the parabola.**  **f(x) = (x + 4)2 + 7**  **Vertex: \_\_\_\_\_**  **Axis of Symmetry: \_\_\_\_\_**  **Zeros: \_\_\_\_\_**  **y-int.: \_\_\_\_\_**  14 by 14 axes |