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| **1.)** **Write a quadratic equation in vertex form if a = 3, h = -5 and k = 3.** | **2.) Identify the vertex of the quadratic function: Y = -2(x + 4)2 - 3**  **What does the (-2) in the equation represent** |
| **3.) Graph the equation. Label the vertex and axis of symmetry. Show your table of values.**  x y  **Y = -(x + 1)2 + 4**  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 - 2**  14 by 14 axes |
| **5.) Use the graph and the given equation to find a quadratic equation in vertex form.**  **a = -2** | **6.) Use the graph and the given equation to find a quadratic equation in vertex form.**  **a = 1** |
| **7.) Identify the zero(s) of the quadratic function.**  http://aventalearning.com/courses/ALG2x-CR-K09/a/unit01/resources/images/A2_1.6_Content_13b.bmp | **8.) Identify and label the zero(s) of the quadratic function.**  https://dr282zn36sxxg.cloudfront.net/datastreams/f-d%3A16863f11e702f5cd0aaa89e72844812758dc42e76477f909c08a5b1c%2BIMAGE%2BIMAGE.1 |
| **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 + 2)2 + 3**  **Vertex: \_\_\_\_\_**  **Axis of Symmetry: \_\_\_\_\_**  **Zeros: \_\_\_\_\_**  **y-int.: \_\_\_\_\_**  14 by 14 axes |