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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) =** $-\frac{1}{3}$**(x + 4)2 + 7****Vertex: \_\_\_\_\_****Axis of Symmetry: \_\_\_\_\_****Zeros: \_\_\_\_\_****y-int.: \_\_\_\_\_**14 by 14 axes |