Algebra 2

2-01 Graph Quadratic Functions in Standard Form (2.1, 2.2)



Properties of Quadratic Functions in Standard Form (Vertex Form)

- $f(x) = a(x h)^2 + k$
- Vertex is _____.
- Wideness of parabola
 - If |a| > 1, then it looks _____ than $y = x^2$
 - If 0 < |a| < 1, then it looks _____ than $y = x^2$
- Opens Up/Down
 - If *a* > 0, the parabola opens _____.
 - If *a* < 0, the parabola opens _____.



- 1. Find the ______. In standard form, the vertex is (*h*, *k*).
- 2. Create a ______ with the vertex in the center.
- 3. _____ the points from the table of values. At least five points are required.
- 4. Draw a _____ through the points.











Find a Quadratic Model

To find a quadratic model given vertex and another point,

- 1. Substitute the _____ into standard form, $f(x) = a(x h)^2 + k$.
- 2. Substitute the other point for _____.
- 3. Solve for _____.
- 4. Write the _____ function.

Write the quadratic function for the graph. 5 4 3 2 1 6 -5 -4 -3 -1 0 2 3 4 5 1 -2 -3 -4 -5

50 #1, 5, 13, 25, 27, 29, 30, and 59 #1, 3, 5, 9, 11, and 76 #1, 3, 5, and Mixed Review = 20