**Practice:** Sketching Key Elements of Standard Form Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Use Standard Form:** $y=Ax^{2}+Bx+C $**to describe/Sketch A Quadratic Function**

1. What shape does a Quadratic function have?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. How do you know when it opens up or down?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. What is the y-intercept when written in Standard form? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. What is the equation of the vertical line which is the Axis of Symmetry? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. What point on the graph of a quadratic function does the A.O.S. go through? \_\_\_\_\_\_\_\_\_\_\_

For each…. Sketch and label the graph…… include: **A.O.S. , Vertex** and the **y-intercept**

$y=2x^{2}+12x-3$ $y=-5x^{2}+20x+100$

$y=-x^{2}-4x+21$ $y=x^{2}+7.5x+9$