Algebra Notes                                          Name _____
10.1 – Investigating Quadratic Functions               Block ____

**IMPORTANT DEFINITIONS**:

Quadratic function: _____

Standard form: _____

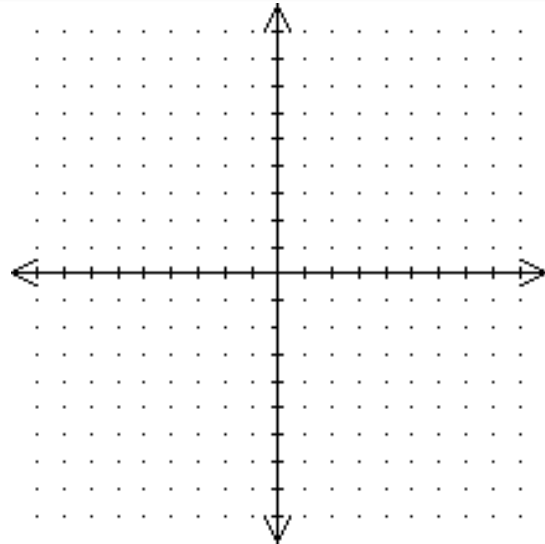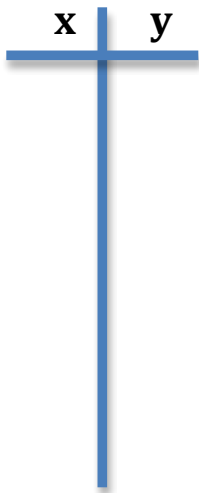Parent function: _____
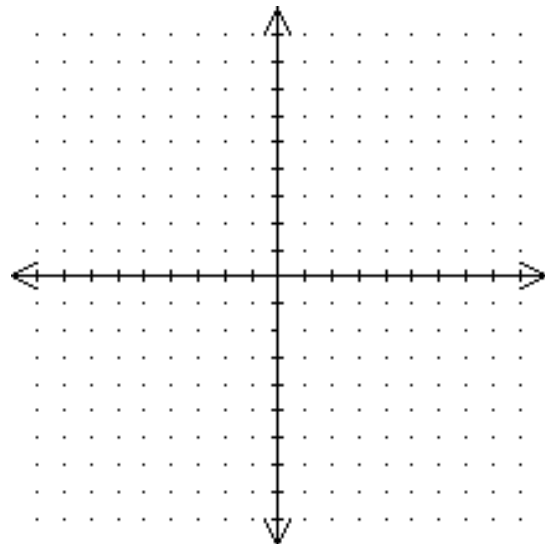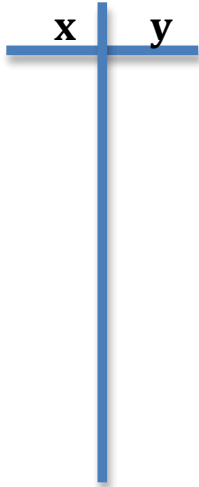
Parabola: _____

Vertex: _____

Maximum: _____
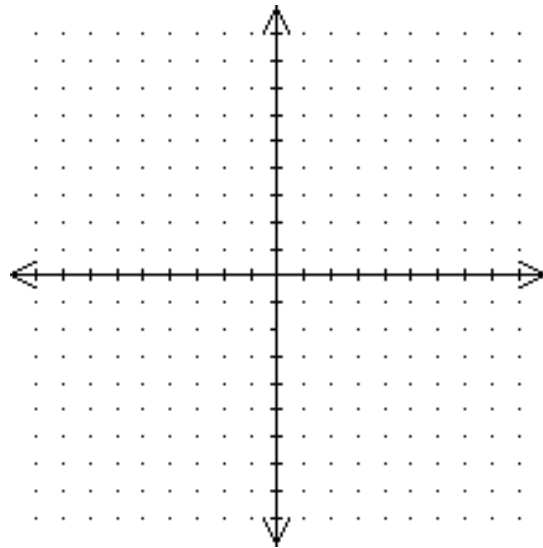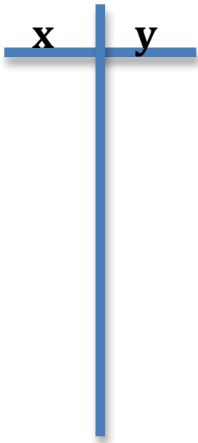
Minimum: _____

Axis of Symmetry: _____

1. Graph  $y = x^2$

| x | y |
|---|---|
|   |   |

2. Graph  $y = 2x^2$

| x | y |
|---|---|
|   |   |

3. Graph $y = 5x^2$

| x | y |
|---|---|

So…as the "a-value" increases, the parent graph gets _____.

**Discussion question:** How would you create a graph that is WIDER than the parent function $y = x^2$?

$$y = ax^2 + bx + c$$