MasterMath

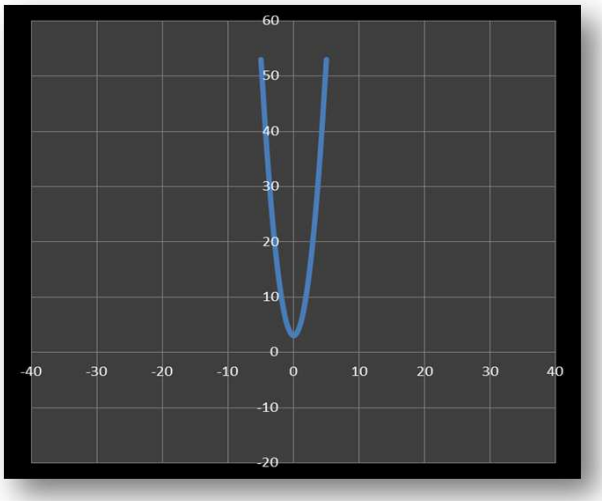
Graph Quadratics: Part 1

Name _____

Date _____

1. **Please graph $y = 2x^2 + 3$**

x	y
-5	53
-4	35
-3	21
-2	11
-1	5
0	3
1	5
2	11
3	21
4	35
5	53



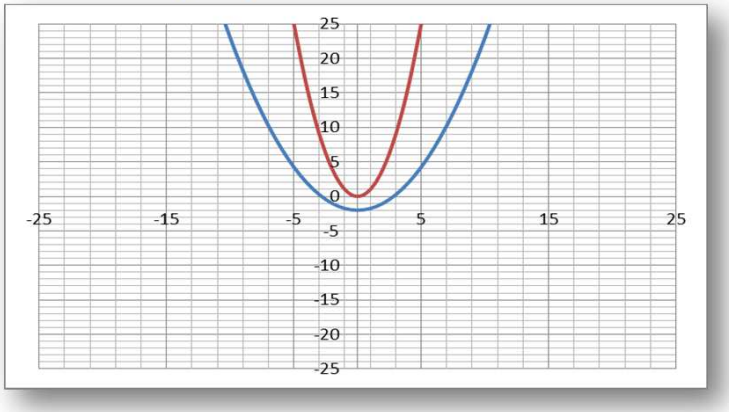
2. **Refering to $y = 2x^2 + 3$, and the graph in Question #1, describe how the equation and the graph varies from the parent. If appropriate, describe any Vertical Stretch or Vertical Shrink.**

The "a" coefficient, being greater than 1, creates vertical stretch. Consequently, the graph is narrower that the parent graph.The "c" constant, being greater than 1, causes an upward vertical translation; in other words, it causes the graph's vertex to slide upward from the graph's origin.

3. **This is a graph of $y = x^2$. Draw your estimate of the graph of $y = .25x^2 - 1$.**

red line: $y = x^2$

blue line: $y = .25x^2 - 1$



4. **This is a graph of $y = x^2$. Draw your estimate of the graph of $y = -2x^2 + 6$**

red line: $y = x^2$

blue line: $y = -2x^2 + 6$