

Graphing $y = ax^2 + c$ (10.1)**Prior Knowledge:** Evaluate.

1) Solve $y = -3x^2 - 4$ when $x = -1$

2) Solve $y = \frac{2}{3}x^2 + 7$ when $x = -3$

3) Solve $y = -x^2 + 2$ when $x = -4$

4) Solve $y = \frac{3}{4}x^2 + 4$ when $x = -2$

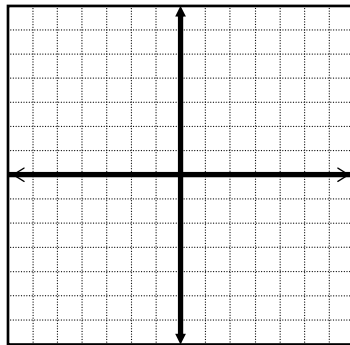
Key Terms: Get to know these terms extremely well!!!

- **Parabola** –
- **Parent Quadratic Function** –
- **Vertex** –

Graphing Quadratic Functions: Graph the function. Compare the graph with the graph of $y = x^2$.

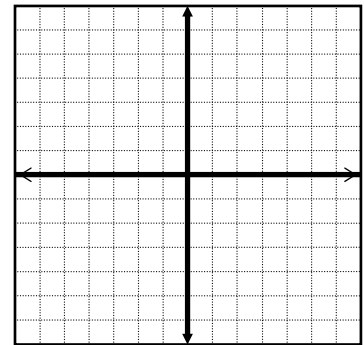
5) $y = x^2$ (Parent Quadratic Function)

x	y
-2	
-1	
0	
1	
2	



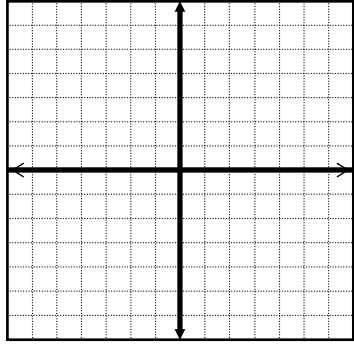
6) $y = -\frac{1}{2}x^2$

x	y



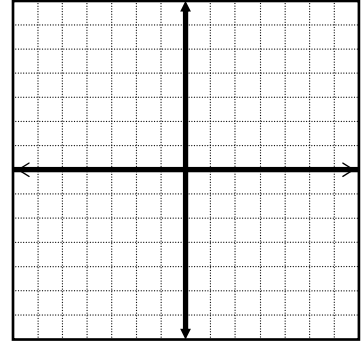
7) $y = \frac{1}{3}x^2 - 2$

x	y



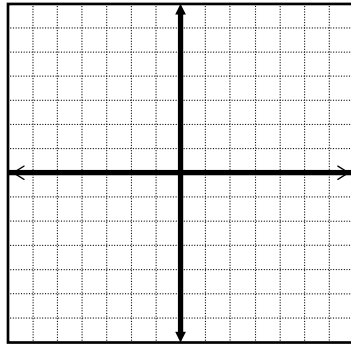
8) $y = -2x^2 + 3$

x	y



9) $y = -\frac{1}{2}x^2 + 3$

x	y



10) $y = -3x^2 - 2$

x	y

