

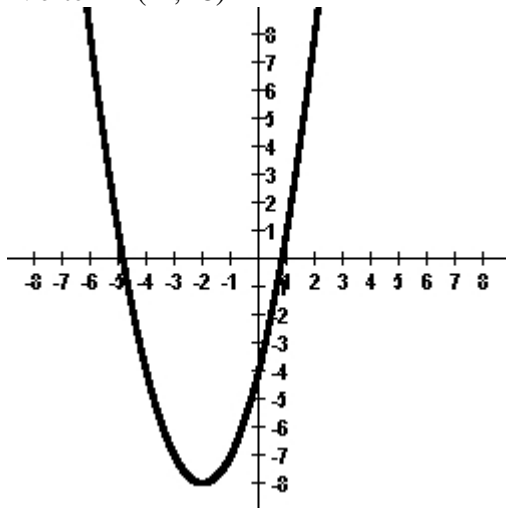
Graphing Parabolas

Graph the following parabolas by first finding the vertex and then picking 2 x-values smaller and larger than the x-value of the vertex.

Example: $y = x^2 + 4x - 4$

Vertex: $x = -\frac{b}{2a} = -\frac{4}{2(1)} = -\frac{4}{2} = -2$ $y = (-2)^2 + 4(-2) - 4 = 4 - 8 - 4 = 4 - 12 = -8$

Vertex = (-2, -8)



x	y
0	-4
-1	-7
-2	-8
-3	-7
-4	-4

1. $y = 3x^2 - 24x - 7$

2. $y = x^2 + 6x + 3$

3. $y = -2x^2 - 8x + 10$

4. $y = -4x^2 + 8x - 1$

5. $y = 6x^2 + 12x + 6$

6. $y = 2x^2 - 2x + 5$