vertex horizontal shift to $x = -2$

vertical shift up 1

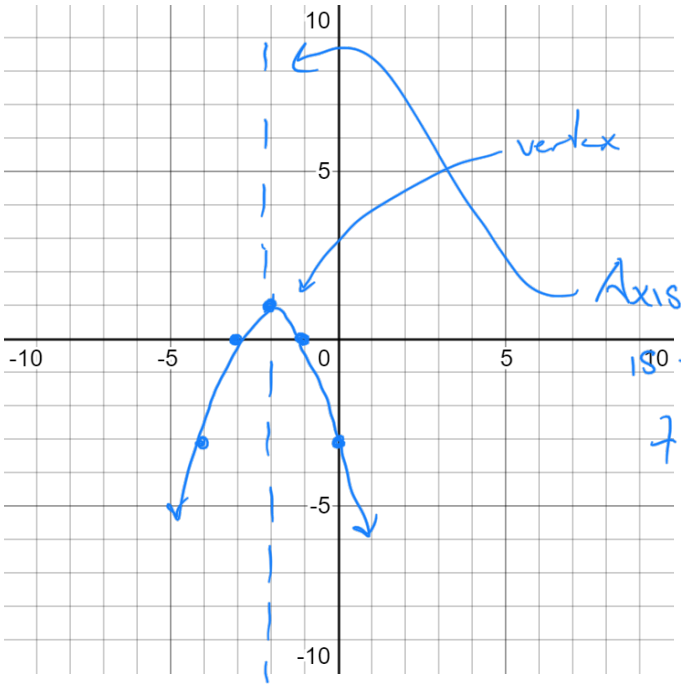
Quadratic Graphing Refresher

Graph the following equations. Identify the Vertex, Line of Symmetry, and plot any necessary points.

1. $y = -(x+2)^2 + 1$

negative a-term opens down → outputs stretched by a factor of -1

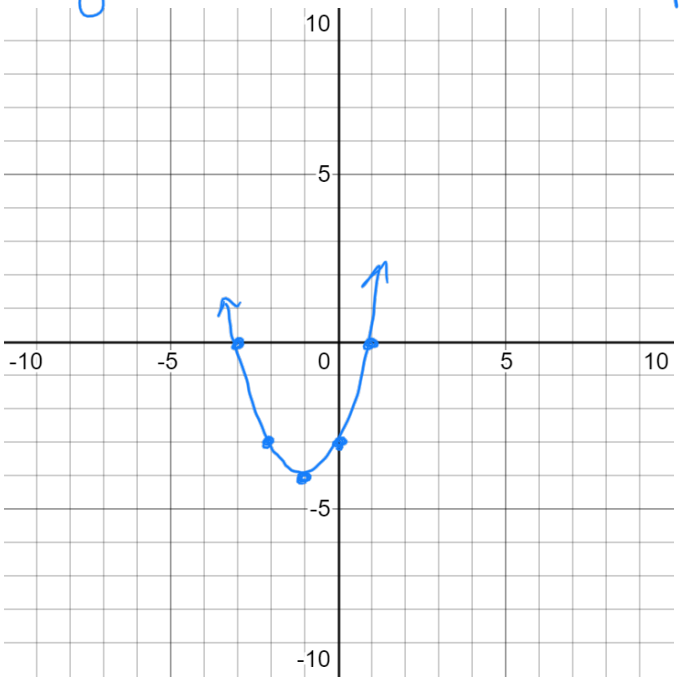
x	y
-2	1
-1	0
0	-3
-3	0
-4	



no change is a-value so basic shape

2. $y + 4 = (x+1)^2$

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



$y = (x+1)^2 - 4$

vertex: $(-1, -4)$ Axis of Sym: $x = -1$