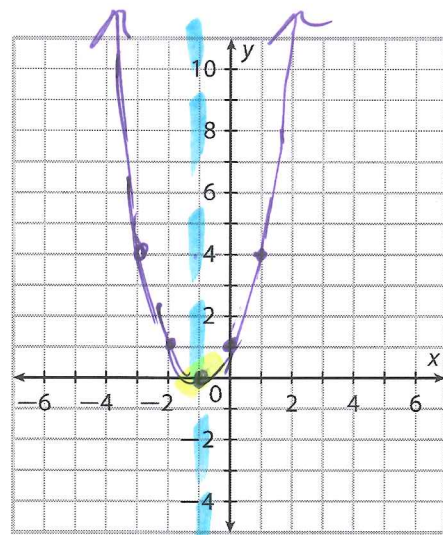


B $g(x) = (x+1)^2 + 0$ $V(-1, 0)$ $y = a(x-h)$

Make a table of values and graph the functions together.

Shift parabola 1 unit to the left

x	f(x) = x ²	g(x) = (x+1) ²
-3	9	
-2	4	1
-1	1	0
0	0	1
1	1	4
2	4	
3	9	



$x = -1$

The function $g(x) = (x+1)^2$ has a minimum value of 0.

The axis of symmetry of $g(x) = (x+1)^2$ is $x = -1$.

Reflect

- How do the values in the table for $g(x) = (x-1)^2$ compare with the values in the table for the parent function $f(x) = x^2$?
- How do the values in the table for $g(x) = (x+1)^2$ compare with the values in the table for the parent function $f(x) = x^2$?

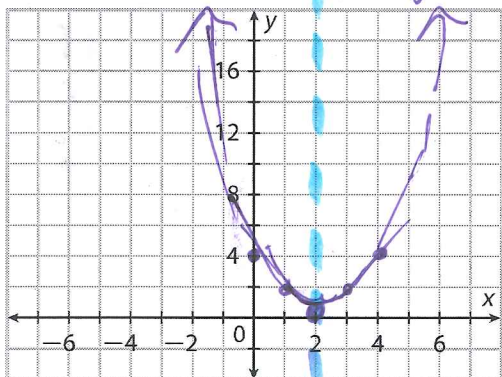
Your Turn

Graph each quadratic function. Give the minimum or maximum value and the axis of symmetry.

Aos: $x = -3$

9. $g(x) = (x-2)^2 + 0$ $V(2, 0)$

10. $g(x) = (x+3)^2$ $V(-3, 0)$



$x = 2$

