

## Exercise 89

For the following exercises, use the graph of  $f(x) = x^2$  to graph each transformed function  $g$ .

$$g(x) = (x + 3)^2 + 1$$

### Solution

Because of the 3 inside the parentheses, the entire graph of  $f(x) = x^2$  is shifted to the left by 3 units. And because of the 1 outside the parentheses, the entire graph of  $f(x) = x^2$  is shifted up by 1 unit.

