## Exercise 23

The accompanying figure shows the graph of $y=-x^{2}$ shifted to two new positions. Write equations for the new graphs.


## Solution

Replacing $x$ with $x-4$ shifts the graph to the right by 4 units, and replacing $x$ with $x+7$ shifts the graph to the left by 7 units.
$y=-(x+7)^{2} y=-x^{2}$

