Quadratic Functions: Shifting
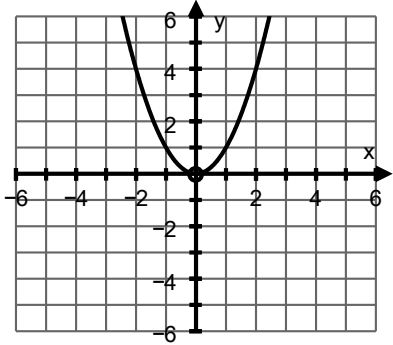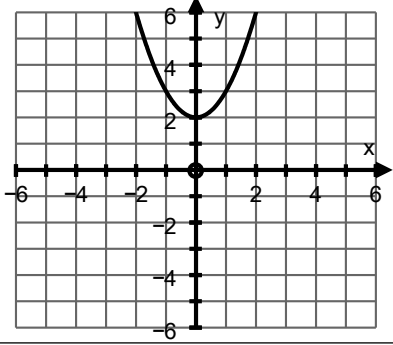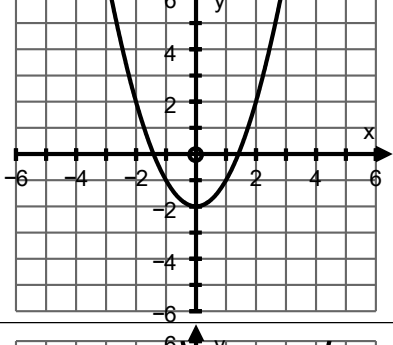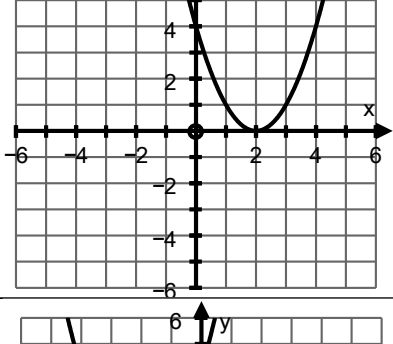
Dr. William J. Larson - http://MathsTutorGeneva.ch/

Shifting by 2:

If 2 is "inside the brackets" with x, it's a shift right or left.

If 2 is "outside the brackets", it's a shift up or down.

Of course this example works just the same for any other number.

$y = x^2$	original (unshifted) function	
$y = x^2 + 2$	shifted **<u>up</u>** by 2	
$y = x^2 - 2$	shifted **<u>down</u>** by 2	
$y = (x - 2)^2$	shifted **<u>right</u>** by 2	
$y = (x + 2)^2$	shifted **<u>left</u>** by 2	