

Fill in the Blanks

Harder Completing the Square ($ax^2 + bx + c$)

Quadratic Expression	Take out Common Factor	Complete the Square	Multiply by Common Factor	Completed Square
$2x^2 + 16x$	$2[x^2 + 8x]$	$2[(x + 4)^2 - 16]$	$2(x + 4)^2 - 32$	$2(x + 4)^2 - 32$
$3x^2 - 18x$	$3[x^2 - 6x]$			
$2x^2 + 12x + 1$	$2[x^2 + 6x] + 1$	$2[(x + 3)^2 - 9] + 1$	$2(x + 3)^2 - 18 + 1$	$2(x + 3)^2 - 17$
$2x^2 - 20x - 7$	$2[x^2 - 10x] - 7$	$2[(x - 5)^2 - 25] - 7$		
$3x^2 + 6x - 5$	$3[x^2 + 2x] - 5$			
$4x^2 + 16x - 1$				
$5x^2 - 30x + 11$				
$2x^2 - 10x + 3$	$2[x^2 - 5x] + 3$	$2\left[\left(x - \frac{5}{2}\right)^2 - \frac{25}{4}\right] + 3$	$2\left(x - \frac{5}{2}\right)^2 - \frac{25}{2} + 3$	$2\left(x - \frac{5}{2}\right)^2 - \frac{19}{2}$
$2x^2 + 6x - 1$				
$3x^2 - 9x + 2$				