

## Basic Completing the Square Review Lesson Assignment

*Complete this assignment and submit it to the dropbox associated with this lesson. Once it is graded, make sure to check the feedback, in case you need to make any corrections. Please make sure to include your work; handwritten is preferable.*

Fill in the blanks to use the complete the square method to write the quadratic function in vertex form.

1.  $f(x) = x^2 + 20x - 5$

$f(x) = x^2 + 20x - 5$	Is the value of $a=1$ ? Yes or No? (Circle one)
$f(x) = x^2 + 20x - 5$	Complete the square: $\left(\frac{b}{2}\right)^2$ $\left(\frac{\quad}{2}\right)^2 = (\quad)^2 = \underline{\quad}$
$f(x) = x^2 + 20x + \underline{\quad} - \underline{\quad} - 5$	Add and subtract the value you found that would complete the square.
$f(x) = (x^2 + 20x + \underline{\quad}) - \underline{\quad} - 5$	Group the perfect square trinomial.
$f(x) = (x + \underline{\quad})^2 - \underline{\quad} - 5$	Factor the trinomial.
$f(x) = (x + \underline{\quad})^2 - \underline{\quad}$	Simplify.

2.  $f(x) = 2x^2 - 10x + 20$

$f(x) = 2x^2 - 10x + 20$	Is the value of $a=1$ ? Yes or No? (Circle one) Determine the GCF: $\underline{\quad}$
$f(x) = \underline{\quad}[x^2 - 5x + \underline{\quad}]$	Factor out the GCF.
$f(x) = \underline{\quad}[x^2 - 5x + \underline{\quad}]$	Complete the square: $\left(\frac{b}{2}\right)^2$ $\left(\frac{\quad}{2}\right)^2 = (\quad)^2$ $= \underline{\quad}$
$f(x) = 2[x^2 - 5x + \underline{\quad} - \underline{\quad} + 10]$	Add and subtract the value you found that would complete the square.
$f(x) = 2[(x^2 - 5x + \underline{\quad}) - \underline{\quad} + 10]$	Group the perfect square trinomial.
$f(x) = 2[(x - \underline{\quad})^2 - \underline{\quad} + 10]$	Factor the trinomial.
$f(x) = 2[(x - \underline{\quad})^2 + \underline{\quad}]$	Simplify.
$f(x) = \underline{\quad}(x - \underline{\quad})^2 + \underline{\quad}$	Distribute the GCF to each term.