April 11, 2016

* Factoring Trinomials Wednesday

Apr 11-9:03 AM

$-x^2 + 4x + 21$

note: $a = -1$

Factor out a (-1) from the whole Trinomial

$-(x^2 - 4x - 21)$ factor as normal

$ac = -21$, $b = -4$

−	+
7	3

$-[(x^2 - 7x + 3x - 21)]$

$-[x(x-7) + 3(x-7)]$

$-[(x-7)(x+3)]$

$-(x-7)(x+3) = 0$

$(-x+7)(x+3) = 0$

① $-x + 7 = 0$

$-7 = -7$

$x = 7$

② $x + 3 = 0$

$x = -3$

Ck

$x = 7$: $-x^2 + 4x + 21$

$-(7)^2 + 4(7) + 21$

$-(49) + 28 + 21$

$-21 + 21$

0

$x = 3$

$-(3)^2 + 4(3) + 21$

$-9 - 12 + 21$

$-21 + 21$

0

Apr 11-9:29 AM

6.4

Factoring Trinomials of the form $ax^2 + bx + c = 0$ where $a \neq 1$

$3x^2 + 31x + 10$ $ac = 3 \cdot 10 = 30$, $b = 31$

+	+
30	1

$3x^2 + 30x + x + 10$

$3x(x+10) + 1(x+10)$

$(x+10)(3x+1)$

Ck

$3x^2 + x + 30x + 10$

$3x^2 + 31x + 10$ ✓

Apr 11-9:43 AM

$x^2 + 7x + 12$ $ac = 12$, $b = 7$

+	+
4	3

$x^2 + 4x + 3x + 12$

$x(x+4) + 3(x+4)$

$(x+4)(x+3)$

Apr 11-9:44 AM