

April 11, 2016  
 \* Factoring Quiz Wednesday

Apr 11-9:51 AM

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

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

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

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

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

Guess & Check Method  
 $(3x + \text{?})(x + \text{?})$  \* Reverse FOIL

$\therefore 3x \cdot x = 3x^2$   
 O:  $3x \cdot 5 = 15x$   
 I:  $2 \cdot x = 2x$  }  $17x \neq 31x$   
 L:  $2 \cdot 5 = 10$

Apr 11-10:21 AM

$7x^2 - 4x - 11$   $ac = 7 \cdot (-11) = -77$   
 $b = -4$

$7x^2 - 11x + 7x - 11$

$x(7x-11) + 1(7x-11) \rightarrow$

|    |   |     |    |  |
|----|---|-----|----|--|
|    | - | +   |    |  |
| 10 | 6 | -16 | -4 |  |
| 12 | 8 | -16 | -4 |  |
| 5  | 1 | 5   | -4 |  |
| 11 | 7 | -77 | -4 |  |

$(7x-11)(x+1)$

Apr 11-10:38 AM

$4x^2 - 8x - 21$   $ac = 4 \cdot (-21) = -84$   
 $b = -8$

$4x^2 - 14x + 4x - 21$

$2x(2x-7) + 3(2x-7)$

$(2x-7)(2x+3)$

|    |   |     |    |  |
|----|---|-----|----|--|
|    | - | +   |    |  |
| 10 | 2 | -20 | -8 |  |
| 11 | 3 | -33 | -8 |  |
| 14 | 6 | -84 | -8 |  |

Apr 11-10:46 AM