

## 8-6B: Factoring Trinomials: $ax^2 + bx + c$

**Due next class: p.401 #2, 4, 6, 15, 17, 19**

**Challenge #31, 44 (remove GCF)**

**Due today p.401 #1-13 odds**

1.  $(2n+1)(n+7)$

3.  $(11w-3)(w-1)$

5.  $(3t+11)(2t+1)$

7.  $(2m+1)(8m+9)$

9.  $(2y+1)(4y+13)$

11.  $(x-3)(7x-9)$

13.  $(2t-3)(t+1)$

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*Missing Chapter 8 Quiz*

<u>Period 2:</u>	<u>Period 3:</u>
Holly B.	Andrea A.
Edwin G.	Luis A.
	Nate C.
	Andrea H.

**Factor each expression.**

1.  $2n^2 + 15n + 7$

2.  $7d^2 + 50d + 7$

3.  $11w^2 - 14w + 3$

4.  $3x^2 - 17x + 10$

5.  $6t^2 + 25t + 11$

6.  $3d^2 - 17d + 20$

7.  $16m^2 + 26m + 9$

8.  $15p^2 - 26p + 11$

9.  $8y^2 + 30y + 13$

10.  $2y^2 + 35y + 17$

11.  $7x^2 - 30x + 27$

12.  $8x^2 + 18x + 9$

13.  $2t^2 - t - 3$

14.  $8y^2 - 10y - 3$

15.  $2q^2 - 11q - 21$

16.  $7x^2 - 20x - 3$

17.  $13p^2 + 8p - 5$

18.  $5k^2 - 2k - 7$

19.  $10w^2 + 11w - 8$

20.  $12d^2 - d - 20$

21.  $14n^2 + 23n - 15$

Multiply  $a \cdot c$   
 $ax^2 + bx + c$   
 $8x^2 - 6x - 9$   
 Add  $b$   
 ~~$-12$~~   ~~$6$~~   
 ~~$-72$~~   ~~$-6$~~   
 $2x$   
 $-3$

$4x$	$3$
$8x^2$	<u><math>6x</math></u>
<u><math>-12x</math></u>	$-9$

1) Identify a, b, and c.

2) fill out and solve the diamond

$$(2x-3)(4x+3)$$

3) fill out the rectangle

4) Find the GCF

3) fill in the rest of the rectangle and find your factors

9.  $8y^2 + 30y + 13$

~~$\begin{array}{r} 104 \\ 26 \overline{) 4} \\ 30 \end{array}$~~

	$2y$	$1$
$4y$	$8y^2$	$4y$
$13$	$26y$	$13$

$(4y + 13)(2y + 1)$

$$2x^2 - 6x - 80$$

$$2(x^2 - 3x - 40)$$

$$\begin{array}{c} -40 \\ \text{---} \\ -8 \quad 5 \\ \text{---} \\ -3 \end{array} \quad 2(x-8)(x+5)$$