Name:_____ Date:_____Period:_____

NOTES: FACTOR A TRINOMIAL WHEN A ≠ 1

Steps to Factor Using the Slide and Divide Method

1. _____ "a" into "c."
2. _____ like a basic trinomial.
3. _____ "a" out of last terms in each binomial, and simplify the fractions.
4. _____ denominator into first terms.

Examples: Factor the following trinomials.

1. $3x^2 - 8x + 4$

2. $4x^2 - 15x - 25$

3. $6x^2 + 37x + 6$

4. $2x^2 + 3x - 27$

5. $16x^2 + 60x - 100$

6. $6x^2 - 4x - 16$

Name:_____ Date:_____Period:_____

A.__ FACTOR A TRINOMIAL WHEN A ≠ 1

Factor the following trinomials using the slide and divide method. Be sure to factor out a GCF first, if necessary.

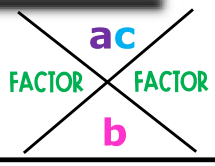
1. $7x^2 + 6x - 1$	**2.** $5x^2 - 52x + 20$
3. $9x^2 + 9x - 4$	**4.** $3x^2 + 10x - 8$
5. $2x^2 - 9x + 9$	**6.** $2x^2 - 3x - 5$
7. $3x^2 - 10x + 7$	**8.** $5x^2 - x - 4$
9. $7x^2 + 16x + 4$	**10.** $6x^2 - 7x + 2$
11. $10x^2 - 48x - 10$	**12.** $9x^3 + 21x^2 - 18x$

Name:_____ Date:_____ Period:_____

NOTES: FACTOR A TRINOMIAL WHEN A ≠ 1

Steps to Factor Using the Grouping Method

1. Find the _____ of "ac" that also have a _____ of "b."



2. Use the factors to split the _____ term into two terms, creating a 4-term polynomial.

$$ax^2 + bx + c$$
$$ax^2 + fx + fx + c$$

3. Factor by _____.

$$(ax^2 + fx)(+ fx + c)$$

Example

$$5x^2 - 13x + 6$$

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3. $9x^2 + 9x - 4$

4. $3x^2 + 10x - 8$

5. $2x^2 - 9x + 9$

6. $2x^2 - 3x - 5$

7. $3x^2 - 10x + 7$

8. $5x^2 - x - 4$

9. $7x^2 + 16x + 4$

10. $6x^2 - 7x + 2$

11. $10x^2 - 48x - 10$

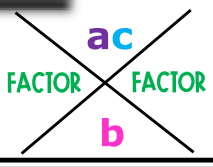
12. $9x^3 + 21x^2 - 18x$

Name:_____ Date:_____ Period:_____

NOTES: FACTOR A TRINOMIAL WHEN A ≠ 1

Steps to Factor Using the Box Method

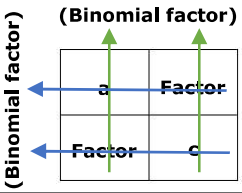
1. Find the _____ of "ac" that also have a _____ of "b."



2. Draw a 2 by 2 "box" and place the terms (including the variables) in the grid as follows:

a	Factor
Factor	c

3. Factor out a GCF from each row & column. Your GCFs become your binomial factors!



Example

$5x^2 - 13x + 6$

Examples: Factor the following trinomials.

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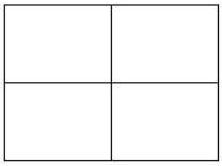
Name:_____ Date:_____Period:_____

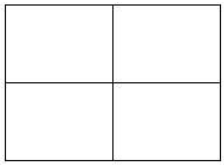
A.__ FACTOR A TRINOMIAL WHEN A ≠ 1

Factor the following trinomials using the box method. Be sure to factor out a GCF first, if necessary.

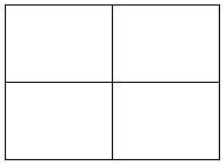
1. $7x^2 + 6x - 1$



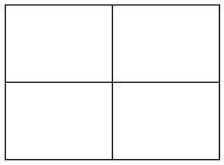
2. $5x^2 - 52x + 20$



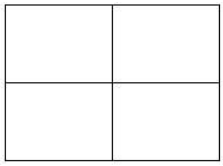
3. $9x^2 + 9x - 4$



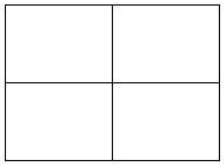
4. $3x^2 + 10x - 8$



5. $2x^2 - 9x + 9$



6. $2x^2 - 3x - 5$



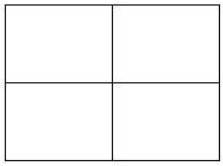
7. $3x^2 - 10x + 7$

8. $5x^2 - x - 4$

9. $7x^2 + 16x + 4$

10. $6x^2 - 7x + 2$

11. $10x^2 - 48x - 10$



12. $9x^3 + 21x^2 - 18x$