Name:_____   Date:_____

Pre-Calculus 11 Ch3/4 HW Lesson1 Factoring Trinomials

1. Given each pair of binomials, expand and simplify:

a. $(x-3)(x+4)$

b. $(x+11)(x-9)$

c. $(2x+3)(3x-1)$

e. $(7x-3)(4x+2)$

f. $(10x-3)(4x-2)$

g. $(8x-3)(3x-8)$

2. Given each expression, find the missing value in the box:

a. $x^2 - 11x - 12 = \left(x - \boxed{?}\right)(x+1)$

b. $x^2 - 29x + 120 = \left(x - \boxed{?}\right)(x-5)$

c. $5x^2 + 6x + 1 = \left(5x + \boxed{?}\right)(x+1)$

d. $2x^2 - 23x + 11 = \left(2x - \boxed{?}\right)(x-11)$

3. Factor each of the following expressions. Show all your steps and work:

a. $x^2 + 7x + 6$

b. $x^2 + 25x + 24$

c. $x^2 + 10x + 21$

d. $x^2 - 10x + 24$

e. $x^2 + 3x - 40$

f. $4x^2 + 9x + 2$

g. $2x^2 + 5x + 2$

h. $2x^2 - 11x + 15$

i) $21x^2 + 17x - 30$ j) $2x^2 - 7x + 5$ k) $5x^2 - 13x - 6$ L) $7x^2 + 9x - 10$
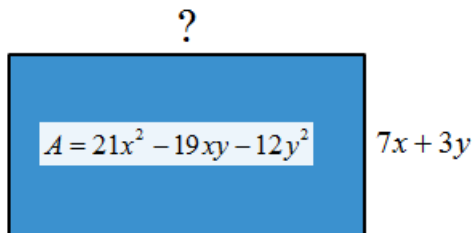
m) $21 + 26x - 15x^2$ n) $2x^2 - 9xy - 45y^2$ o) $5x^4 - 9x^2 - 2$ p) $6 - 7x^2 + 2x^4$

4. The area of a rectangle is given by the expression: $21x^2 - 19xy - 12y^2$ and the width is $7x + 3y$. Find the length of the rectangle:

?

$A = 21x^2 - 19xy - 12y^2$ $7x + 3y$

5. The area of a triangle is given by the expression: $14x^2 + 20x - 1.5$ and the width is $14x - 1$. Find the length of the rectangle:

?

$A = 14x^2 + 20x - 1.5$

$14x - 1$ fa