When the coefficients of BOTH variables are 1 and they have the SAME degree.

The first term is always...first term squared

you can quickly find the middle coefficient by.....sum of the constants

The last term is always..... the product of the constants

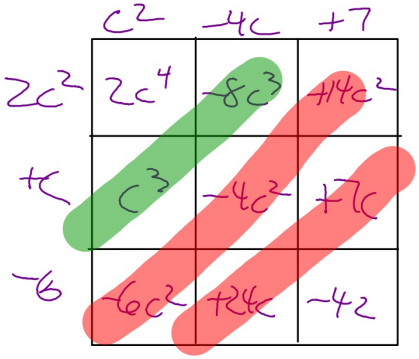
multiply

$(c + 7)(c + 2) = c^2 + 9c + 14$

add

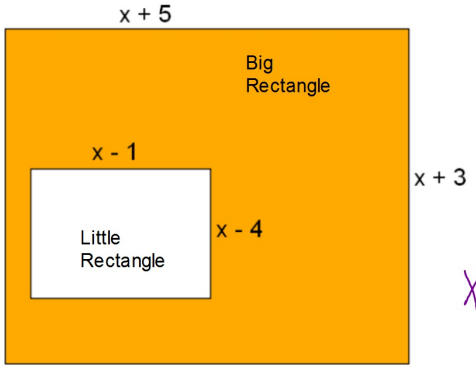
$(w - 8)(w + 3) = w^2 - 5w - 24$

Expand $(2c^2 + c - 6)(c^2 - 4c + 7)$



$2c^4 - 7c^3 + 4c^2 + 31c - 42$

Find the area of the shaded region



BIG Rect − Little Rect

L·W − L·W

$(x+5)(x+3) - (x-4)(x-1)$

$x^2 + 8x + 15 - (x^2 - 5x + 4)$

$+13x + 11$

You can now finish Hwk #18

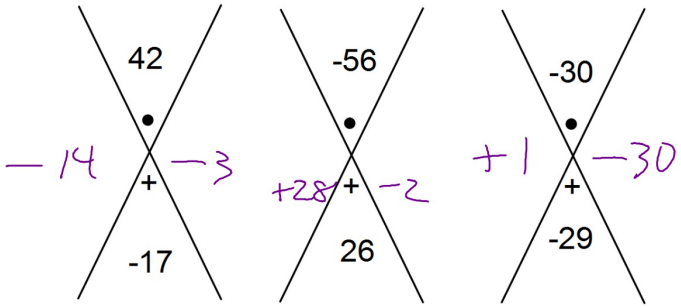
Sec 9-3

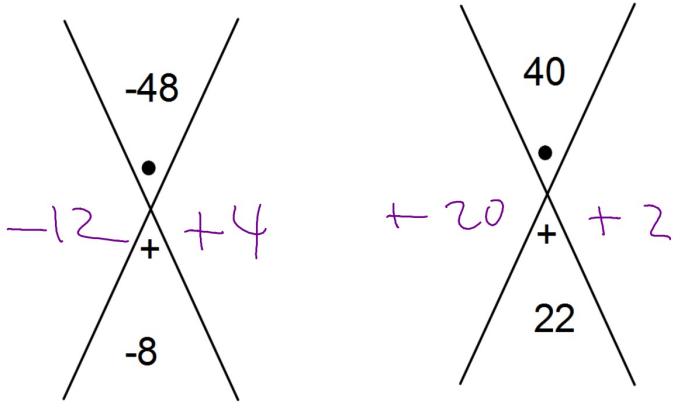
Pages 470-471

Problems 20, 30, 33-37, 45

Gee, I wonder what we might have Thursday now that we are done with Sec 9-3?....

For each of these your job is to find two numbers that multiply to the # on the top and at the same time add to the # on the bottom.





Sec 9-4: Expanding Special Cases

Terms like the following $(x + 2)(x - 2)$

Are called CONJUGATES

Something "nice" happens EVERY TIME you multiply CONJUGATES.

Expand each. Notice what happens.

1. $(d + 7)(d - 7) = d^2 - 49$

	d	−7
d	d^2	$-7d$
+7	$+7d$	−49

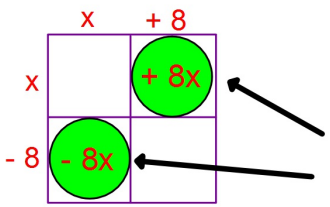
2. $(w - 5)(w + 5) = w^2 - 25$

	w	+5
w	w^2	$+5w$
−5	$-5w$	−25

Result of multiplying Conjugates

$(a + b)(a - b) = a^2 - b^2$

$(x + 8)(x - 8)=$



When mulitplying conjugates these will always be opposites so they will always cancel.

Expand each.

1. $(r - 13)(r + 13)$

$(r)^2 - (13)^2$

$= r^2 - 169$

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

$(t^3)^2 - (1)^2$

$= t^6 - 1$