Warm up-

Factor the following

1. $x^2 + 2x - 48$

$(x+8)(x-6)$

$-48x^2$

$8x \quad -6x$

$2x$

2. $2x^2 + 22x - 52$

$2(x^2+11x-26)$

$-26x^2$

$13x \quad -2x$

$11x$

$2(x-2)(x+13)$

3. $2x^3 - 32x$

$2x(x^2-16)$

$-16x^2$

$-4x \quad 4x$

$0x$

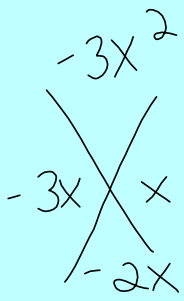
$2x(x-4)(x+4)$

Homework Questions?

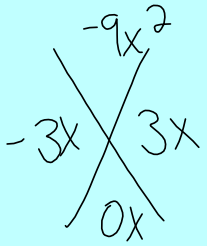
9 $6x^3 - 12x^2 - 18x$

$6x(x^2 - 2x - 3)$

$6x(x-3)(x+1)$



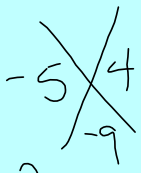
13 $x^2 - 9$



$(x+3)(x-3)$

15 $7x^2 - 28$

$7(x^2 - 4)$ $7(x-2)(x+2)$



$2(x^2 - 9x + 20)$

$2(x-4)(x-5)$

9.6 Factoring Trinomials of the Type

$$ax^2 + bx + c$$

Steps

1. See if there is a GCF
2. Place the x^2 term and constant term in the box
3. Using the X, find two terms whose product is ac and whose sum is b
4. Place those two terms in the box
5. Find the dimensions (factors) of the box
6. Check to make sure you are correct by FOILing.

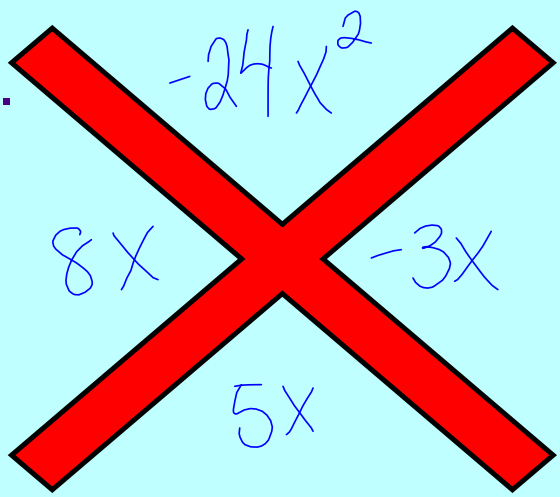
Examples: $6x^2 + 5x - 4$

1. No GCF

2.

	3x	+4
2x	$6x^2$	8x
-1	-3x	-4

3.



4.

5. (3x+4)(2x-1)

6.

Examples: $2x^2 - 3x - 2$

1. NO GCF

2.

	2x	+1
1x	$2x^2$	1x
-2	-4x	-2

3. $-4x^2$, $-4x$, $1x$, $-3x$

4.

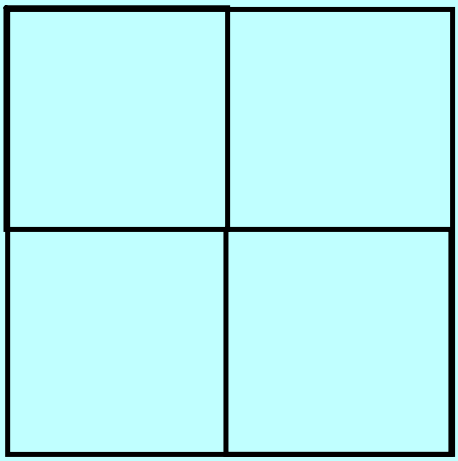
5. $(2x+1)(x-2)$

6.

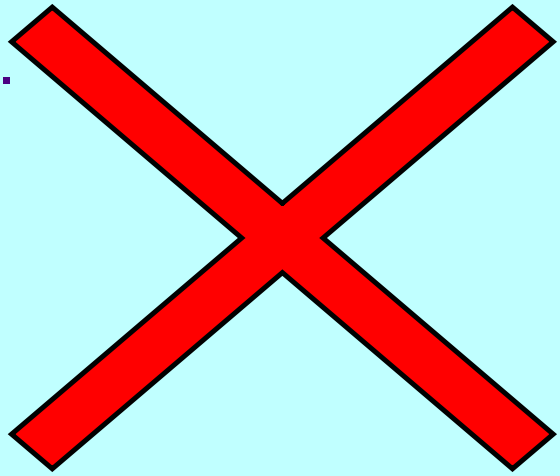
Examples: $6x^2 - 7x - 10$

1.

2.



3.



4.

5.

6.

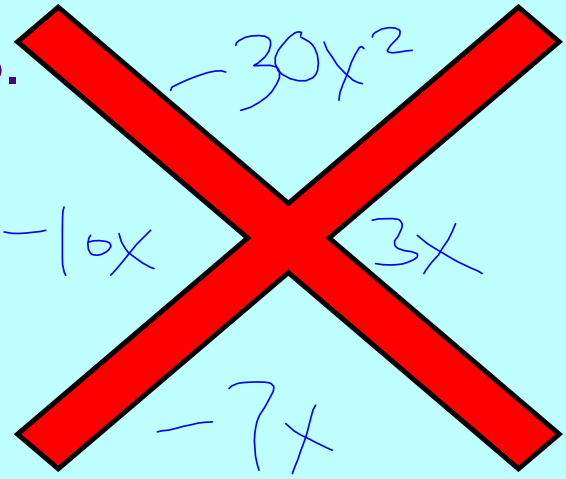
Examples: $9x^2 - 21x - 30$

1. $3(3x^2 - 7x - 10)$

2.

	$1x$	$+1$
$3x$	$3x^2$	$3x$
-10	$-10x$	-10

3.



4.

5. $3(x+1)(3x-10)$

6.

Factoring Maze

- All work must be done on a separate piece of paper
- Write both factors under each polynomial
- If factors from one box match another box you can move to that box (we will do a few examples)

START

$x^2 + 6x - 16$ $(x+8)(x-2)$	$x^2 - 8x + 12$ $(x-6)(x-2)$	
$2x^2 - 11x + 12$ $(x-4)(2x-3)$	$2x^2 - 9x - 18$	
$x^2 + 4x + 3$	$2x^2 + 23x + 30$	

Homework:

Pg 525 #1-11 odd, 23-27 odd,

36, 39, 55-61 odd