FACTOR A TRINOMIAL

$x^2 - 5x + 4$

$2x^2 + 5x - 3$

FACTOR BY GROUPING

$3x^3 - 6x^2 - 6x + 3$

x	x^2
1	1
2	4
3	9
4	16
5	25
6	36
7	49
8	64
9	81
10	100
11	121
12	144
13	169
14	196
15	225
16	256
17	289
18	324
19	361
20	400
21	441
22	484
23	529
24	576
25	625

FACTOR OUT A GCF

$3x^2 - 6x$

FACTOR A DIFFERENCE OF SQUARES

$9x^2 - 49$

1. Look at coefficients first
2. Then look at variables. The variable must be common between ALL terms. Take the one with the smallest exponent.

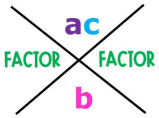
1. $3x^2 - 6x$

2. $5x^3y^2 - 10x^2yz^3$

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

2. $6x^2 + x - 12$

Find factors of ac whose sum is b



Trinomial when a ≠ 1
Slide & Divide Method:

1. Slide "a" into "c"
2. Factor like a basic trinomial.
3. Divide "a" term out of last terms in each binomial, simplify the fractions, and slide the denominator into the first terms.

$(a^2 - b^2)$ factors as

_____

REMEMBER YOUR PERFECT SQUARES!

1. $9x^2 - 49$

2. $16x^2 - 4$

1. $x^3 - 5x^2 + 3x - 15$

1. Group the first 2 and the last 2 terms together.
2. Factor out the GCF from each binomial.
3. Combine your GCFs into one binomial and remaining factor will be the other binomial.