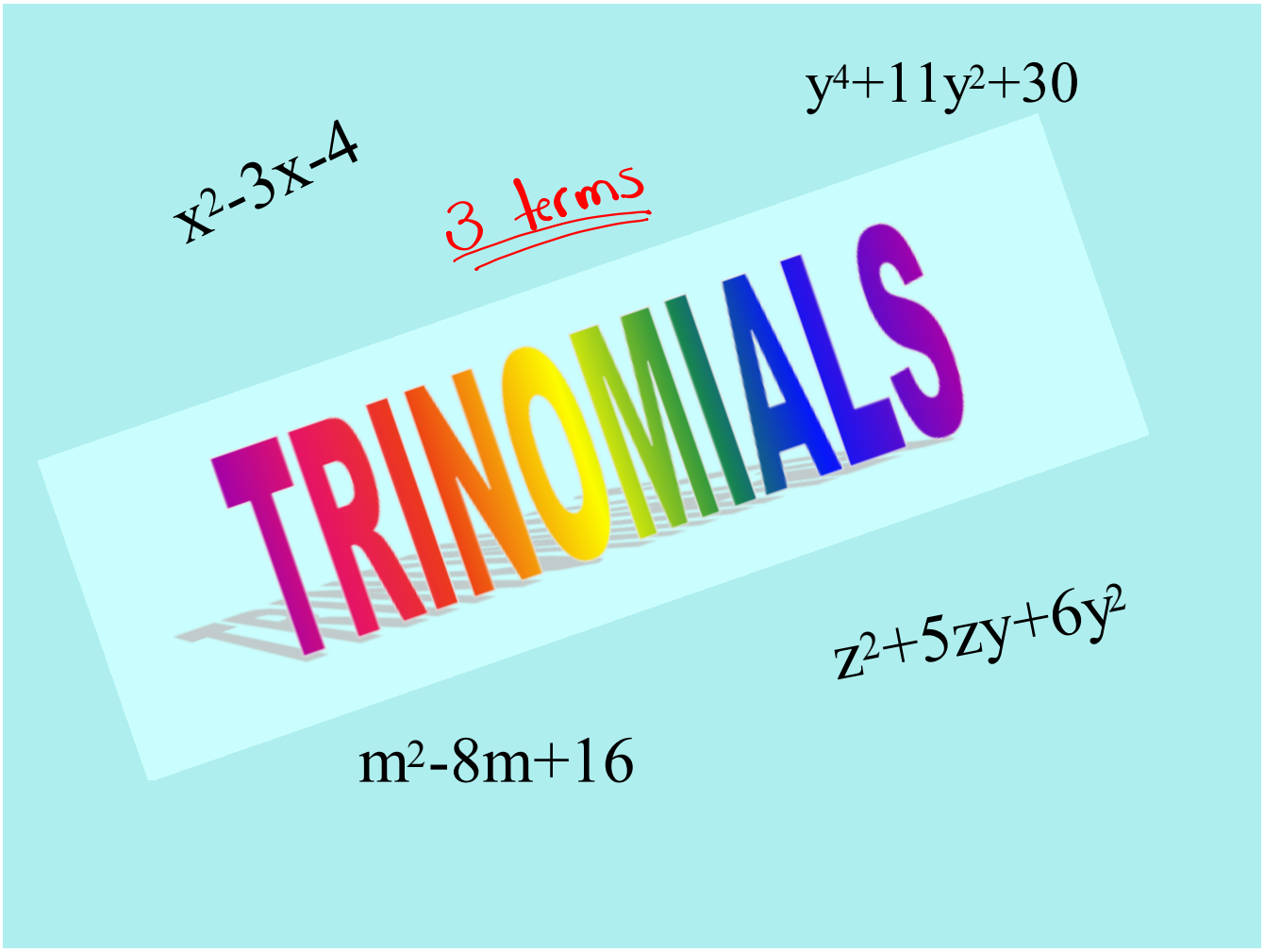

x^2-3x-4
y^4+11y^2+30
3 terms
TRINOMIALS
$z^2+5zy+6y^2$
$m^2-8m+16$

Expand: (multiply)

$(x+2)(x+1)$

$x^2+1x+2x+2$

x^2+3x+2

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

$x^2-4x+5x-20$

$x^2+1x-20$

$(x-7)(x-1)$

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

x^2-8x+7

Krow sdrawkcab

1. $x^2+19x+18$ (Simple Trinomial)

$(x+1)(x+18)$

$1x^2$

$1 + 18 = 19$

$1 \times 18 = 18$

18

1 x 18

2 x 9

3 x 6

2. x^2-5x+6 (Simple Trinomial)

$1x^0$

$(x-2)(x-3)$

$-2 + -3 = -5$

$-2 \times -3 = 6$

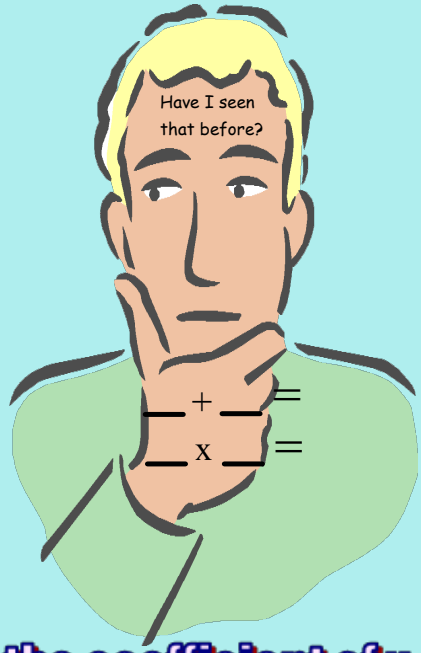
6

-1×-6

-2×-3

3. $x^2+5x-24$

$(x-3)(x+8)$



$-3+8=5$ And that adds to give you the coefficient of x

$-3\times 8=-24$ Find two numbers that multiply to give you the new number!

-24

$-1 \quad x+24$

$-2 \quad x+12$

$-3 \quad x+8$

$-4 \quad x+6$

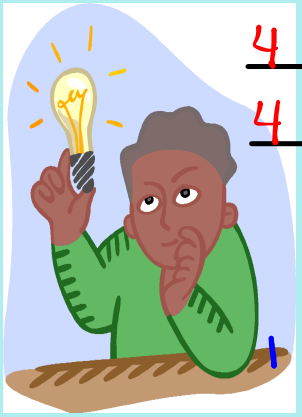
4. $3x^2-18x-120$

common factor of 3

$3(1x^2-6x-40)$

simple trinomial

$3(x+4)(x-10)$



4 + -10 = -6

4 x -10 = -40

-40

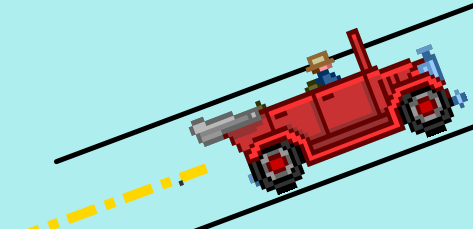
1 x -40

2 x -20

4 x -10

5 x -8

Rules of the road...



x^2+5x-6

Sign of the biggest number.

Signs are different.

x^2-5x+6

Sign of the biggest number.

Signs are the same.

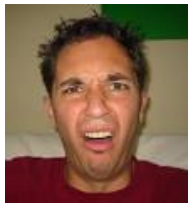
Check out

a few

on

your own.

$2x^2+7x+3$



__ + __ =

__ x __ =

$5x^2+34x-7$

__ + __ =

__ x __ =

$6x^2-7x+2$

__ + __ =

__ x __ =

$8x^2+10x-3$

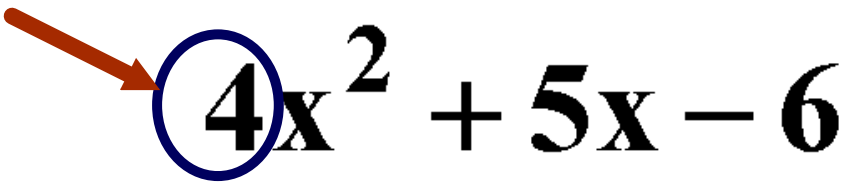
__ + __ =

__ x __ =

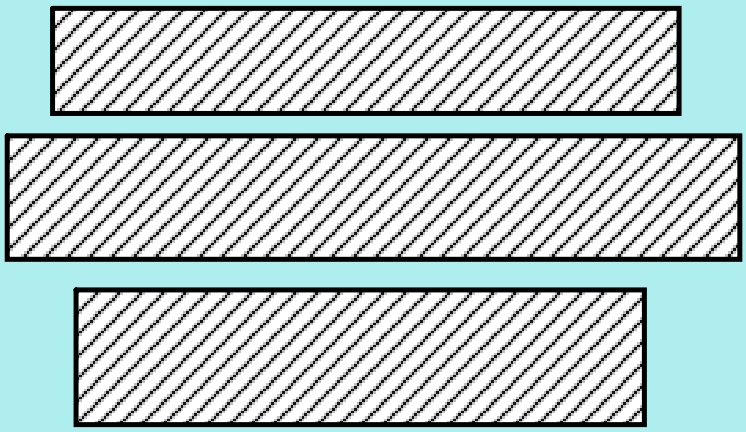
Check out the sheet. :)

DECOMPOSITION

If there is a *numerical coefficient* in front of x , then we use a method for factoring called *DECOMPOSITION.*



$2x^2+5x+3$



$$2x^2+5x+3$$

$$\left(\frac{2x}{2}+\frac{2}{2}\right)(2x+3)$$

$$(x+1)(2x+3)$$

$\_ + \_ = 5$

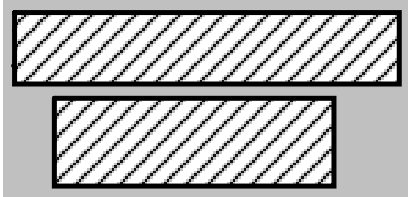
$\_ \times \_ = 6$

Check out pages 167,177 and 178.

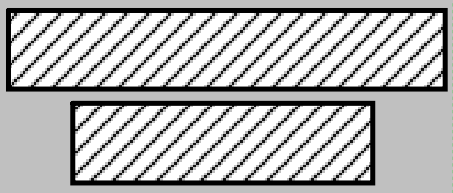
Numbers _____ , 13 and 15. :)

Expand:

(3x+2)(x+1)



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



(2x-7)(x-1)