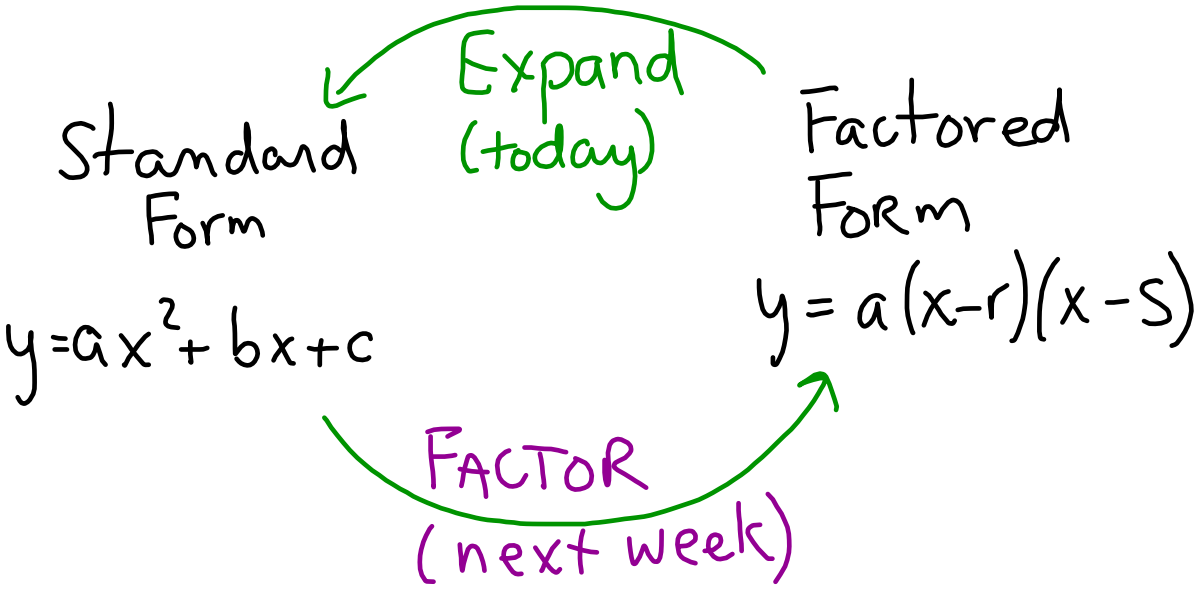

Distributive properties

ex: $3(2x+5)$ $\quad$ ex 2 $5x^1(3x^1+8)$

$= 6x+15$ $\quad$ $= 15x^2+40x$

FACTORED FORM

ex: $y = 2x(x-6)$

$y = 2x^2-12x$ Expand to Standard

$y = ax^2+bx+c$ ← y-int

$y = (x-3)(2x+5)$

$y = 2x^2 + 5x - 6x - 15$

$y = 2x^2 - 1x - 15$

FOIL

FIRST OUTER INNER LAST

ex s:

$y = -3(2x-3)(x+5)$

Expand here first

Expand

$y = -3(2x^2 + 10x - 3x - 15)$

$y = -3(2x^2 + 7x - 15)$

$y = -6x^2 - 21x + 45$

$y = \frac{2}{5}(2x+6)(5-4x)$