Multiplying Binomials

$(3x+4)(2x+1)$ $(x-5)(2x+7)$ $(2x+3)(x-2)$ $(x+2)(2x-3)$ $(x+2)(x-3)$ $(5x+1)(2x+1)$

The important thing to remember when multiplying binomials is to make sure all terms are multiplied by each other.

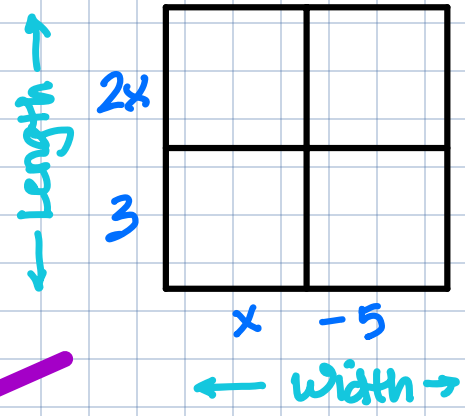
Let's expand this!

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

Area Model (Box)

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

Let's pretend this is length — and this is width



Find the area in each box

	x	-5
$2x$	$2x^2$	$-10x$
3	$3x$	-15

Add up all the areas:

$$2x^2+3x-10x-15$$

(3x and −10x are like terms)

$$2x^2-7x-15$$

Expanded Form!

Double Distributive Property (the claw)

Each term in the first binomial will multiply each term in the second binomial.

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

$(2x+3)(x-5) = 2x^2 - 10x$

The 2x has multiplied all the terms in the second binomial. Now it is the 3's turn.

$(2x+3)(x-5) = 2x^2 - 10x + 3x$

$(2x+3)(x-5) = 2x^2 - 10x + 3x - 15$

Like terms

$2x^2 - 7x - 15$

Expanded Form!