



Multiplying Binomials by Binomials (Geometric Model/Box Method)

(Video Notes)

[Video Link](#)

Multiplying Binomials by Binomials (Geometric Model/Box Method)

- visual
- more than just binomial \times binomial

Background knowledge - what you need to know before you can use the geometric model/box method.

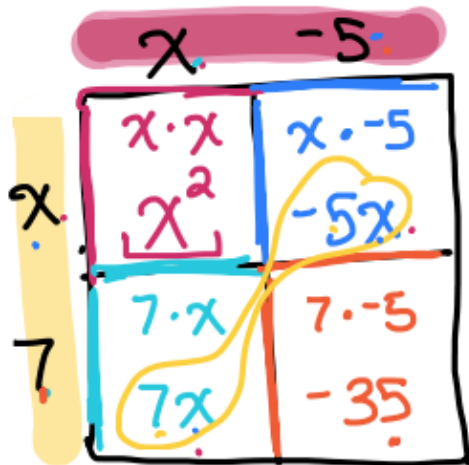
- how to multiply monomials by monomials
- how to multiply monomials by polynomials (distribution)

Expand:

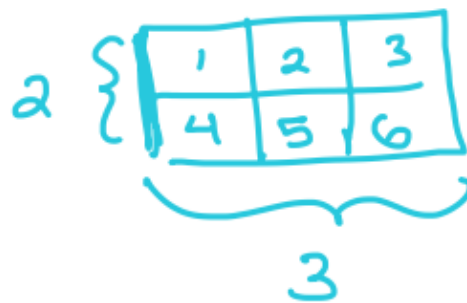
$$(x - 5)(x + 7)$$

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$$2 \times 2$$



$$2 \times 3 \rightarrow \text{area} = 6$$



$$x^2 + 2x - 35$$

Expand:

$$(2x^2 - 9)(x + 8)$$

$$2 \times 2$$

	$2x^2$	x	8
$2x^2$	$2x^3$	$16x^2$	
-9	$-9x$	-72	

$$2x^3 + 16x^2 - 9x - 72$$

Expand:

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

Common mistake

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

$$\cancel{9x^2 + 1}$$

No!

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

$$(3x - 1)(3x - 1)$$

$$2 \times 2$$

	$3x$	-1
$3x$	$9x^2$	$-3x$
-1	$-3x$	1

} square

$$9x^2 - 6x + 1$$