

How does the “box method” work?

First, watch these videos. Each is less than 5 minutes:

- Multiplying Binomials (two examples) <http://bit.ly/binomials>
Multiplying a binomial and trinomial <http://bit.ly/binomial-tri>

Multiply:

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

Combine like terms. $12x$ and $-8x$ to get $4x$.

$$8x^2 + 4x - 12$$

first binomial goes here

second binomial goes here

	$2x$	$+3$
$4x$	$8x^2$	$12x$
-4	$-8x$	-12



Multiply:

$$(k + 7)(2k^2 - 5k + 7)$$

Combine like terms.

$$14k^2 + (-5k^2) = 9k^2$$

$$-35k + 7k = -28k$$

$$2k^3 + 9k^2 - 28k + 49$$

trinomial goes here

binomial goes here

	$2k^2$	$-5k$	$+7$
k	$2k^3$	$-5k^2$	$7k$
$+7$	$14k^2$	$-35k$	49

Remember: “like terms” can be added or combined. You may add constants together, example is $4 + 5$ these combine to 9. Another example is $2x + 3x$, these combine to $5x$. The degree of the exponent is important. You cannot combine $2x + 3x^3$. You may always multiply “non-like” terms, for example, $2x \cdot 5x^2 = 10x^3$.