

The key is to multiply each term in one expression by all the terms in the other expression. Just like multiplying multiple digit numbers!

$$(x + 3)(3x^2 + 2x + 4) = 3x^3 + 2x^2 + 4x + 9x^2 + 6x + 12 = 3x^3 + 11x^2 + 10x + 12$$

Now combine *like* terms:

Solve by dividing each term.

$$(8x - 6)(2x + 4 - 2) =$$

$$(4x^2 - 4x + 2)(x - 2) =$$

$$(5x^2 - 6x + 4)(x + 4) =$$

$$(a^2 + 2a)(2a^2 - 4a) =$$