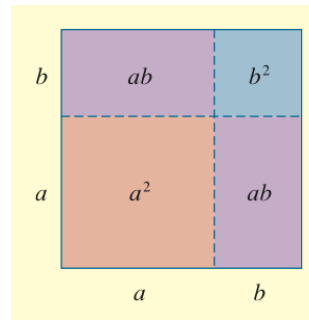


MULTIPLYING ALGEBRAIC EXPRESSIONS

ex. $(3x + 2)(x^2 - 1)$

ex. $(x^3 - \sqrt{x})(2x + \sqrt{x})$

ex. $(3x^2 + x)(x^2 + 6x - 2)$



SPECIAL PRODUCT FORMULAS

If A and B are any real numbers or algebraic expressions, then

- $(A + B)(A - B) = A^2 - B^2$ Sum and difference of same terms
- $(A + B)^2 = A^2 + 2AB + B^2$ Square of a sum
- $(A - B)^2 = A^2 - 2AB + B^2$ Square of a difference
- $(A + B)^3 = A^3 + 3A^2B + 3AB^2 + B^3$ Cube of a sum
- $(A - B)^3 = A^3 - 3A^2B + 3AB^2 - B^3$ Cube of a difference

ex. $(x+1)^2$

ex. $(x-1)^2$

ex. $(x+1)(x-1)$

ex. $(3x^2 + 4x)^2$

ex. $(3x^2 - 4x)^2$

ex. $(3x^2 + 4x)(3x^2 - 4x)$

ex. $(2x + 3)^3$

ex. $(2x - 3)^3$

ex. $(3 + \sqrt{x})(3 - \sqrt{x})$