Difference of **TWO Squares** $(a^2 - b^2)$

Make sure that _two_ terms
are _perfect square_ and
that they are _subtracted_
from one another.

Steps:

1. Check for _GCF_
2. Find the _square root_ of the
   first term
3. Find the _square root_ of the
   second term
4. Set up your two binomials as
   (_a + b_)(_a - b_)

$\sqrt{a^2} = a$

$\sqrt{b^2} = b$

SQUARE ROOTS & EXPONENTS

$\sqrt{x^2}$ $\sqrt[2]{x^4}$ $(x^4)^{\frac{1}{2}}$ $\sqrt{16x^8}$

$= x^1$ $= x^2$ $4x^4$

SQUARE ROOTS DIVIDE

EXPONENTS BY

Half

$$\sqrt{a^2} - \sqrt{9}$$

$$(a + 3)(a - 3)$$

$$a^2 - 3a + 3a - 9$$

$$a^2 - 9$$

$$\sqrt{a^4} + \sqrt{100}$$

$$(a^2 - 10)(a^2 + 10)$$

$$a^4 + \cancel{10a^2 - 10a^2} - 100$$

$$\sqrt{225x^2} - \sqrt{9b^2}$$

$$(15x - 3b)(15x + 3b)$$

$$\sqrt{9x^2y^4} - \sqrt{25}$$

$$(3xy^2 + 5)(3xy^2 - 5)$$

$$\frac{8x^2 - 32}{8}$$

$$8\left(\sqrt{x^2} - \sqrt{4}\right)$$

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