

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

$$a^2 - b^2$$

difference
=
Subtraction

** GCF

1. Take the $\sqrt{\quad}$ of a^2 & b^2
2. Plug in a & b into $(a-b)(a+b)$
3. Check yourself middle term is eliminated

$$x^2 - 4$$

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

Check: $x^2 + \cancel{2x} - \cancel{2x} - 4$
 $x^2 - 4$

$$x^2 - 16$$

$$(x - 4)(x + 4)$$

$$x^2 - 144$$

$$(x - 12)(x + 12)$$

$$4x^2 - 25$$

$$(2x - 5)(2x + 5)$$

$$144x^2 - 1$$

$$(12x - 1)(12x + 1)$$