

Perfect Squares

Perfect Squares

$$\begin{aligned} & \cdot (a+b)^2 \\ & = a^2 + 2ab + b^2 \\ & \cdot (a-b)^2 \\ & = a^2 - 2ab + b^2 \end{aligned}$$

Example of Perfect Squares

$(x+1)^2$	$(2x-5)^2$	$(x+2\sqrt{3})^2$
$x^2 + 2x + 1$	$4x^2 - 20x + 25$	$x^2 + 4\sqrt{6}x + 12$

Difference of Two Squares

Difference of Two Squares

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

note:

$$\begin{aligned} & (a-b)(a+b) \\ & = a^2 + ab - ab - b^2 \\ & = a^2 - b^2 \end{aligned}$$

Examples of Difference of Two Squares

$(x-1)(x+1)$	$(2m+5)(2m-5)$
$x^2 + x - x - 1$	$4m^2 - 10m + 10m - 25$
$x^2 - 1$	$4m^2 - 25$

$$(\sqrt{3}x + \sqrt{5})(\sqrt{3}x - \sqrt{5})$$

$$3x^2 - \sqrt{15} + \sqrt{15}$$

$$3x^2 - 5$$

Polynomial signs

Quadratic equation	Sign of factors
$ax^2 + bx + c$	Positive sign for both factors + +
$ax^2 - bx + c$	Negative sign for both factors - -
$ax^2 + bx - c$	- for small number, + for large number
$ax^2 - bx - c$	+ for small number, - for large number

C

By enfoiree (enfoiree_)
cheatography.com/enfoiree/

Not published yet.
Last updated 22nd November, 2022.
Page 1 of 1.

Sponsored by CrosswordCheats.com
Learn to solve cryptic crosswords!
<http://crosswordcheats.com>