

Ⓝ Trinomial factoring for expressions in quad. form.

$$(a^2+2a)^2 - 2(a^2+2a) - 3$$

If a certain quantity repeats itself exactly it is often a good idea to replace it with a new variable.

$$\text{Say } a^2+2a = w$$

Then $w^2 - 2w - 3$ we can factor this

$$\text{as } (w-3)(w+1)$$

Replace w with what it stands for

$$(a^2+2a-3)(a^2+2a+1)$$

$$= (a+3)(a-1)(a+1)^2$$