

Prove this Polynomial Identity

$$x^4 - a^4 = (x^2 - a^2)(x^2 + a^2)$$

Practice

Prove this Polynomial Identity

$$x^4 - a^4 = (x^2 - a^2)(x^2 + a^2)$$

$$x^4 - a^4 = x^4 + \cancel{x^2 a^2} - \cancel{x^2 a^2} - a^4$$

$$x^4 - a^4 = x^4 - a^4$$

Prove this Polynomial Identity

$$x^6 + y^6 = (x^2 + y^2)(x^4 - x^2y^2 + y^4)$$

Practice

Prove this Polynomial Identity

$$x^6 + y^6 = (x^2 + y^2)(x^4 - x^2y^2 + y^4)$$

	x^4	$-x^2y^2$	$+y^4$
x^2	x^6	$-x^4y^2$	x^2y^4
y^2	x^4y^2	$-x^2y^4$	y^6

$$x^6 + y^6 = x^6 + y^6$$