

C. Potencias

$$P(x) = 2x^2 + 1$$

$$P(x)^2 = P(x) \cdot P(x) = (2x^2 + 1)(2x^2 + 1) = 4x^4 + 2x^2 + 2x^2 + 1 = \boxed{4x^4 + 4x^2 + 1}$$

D. IDENTIDADES NOTABLES

$$a) P = a + b$$

$$P^2 = (a+b)^2 = (a+b)(a+b) = a^2 + ab + ba + b^2 = a^2 + 2ab + b^2$$

$$\boxed{(a+b)^2 = a^2 + 2ab + b^2}$$

$$\underbrace{(2x^2+1)}_{\substack{a \\ b}}^2 = (2x^2)^2 + 2(2x^2)(1) + 1^2 = \boxed{4x^4 + 4x^2 + 1}$$

$$b) P = a - b$$

$$P^2 = (a-b)^2 = (a-b)(a-b) = a^2 - ab - ba + b^2 = a^2 - 2ab + b^2$$

$$\boxed{(a-b)^2 = a^2 - 2ab + b^2}$$

$$\underbrace{(3x^2-5y)}_{\substack{a \\ b}}^2 = (3x^2)^2 - 2(3x^2)(5y) + (5y)^2 = \boxed{9x^4 - 30x^2y + 25y^2}$$

$$c) P = a + b \quad Q = a - b$$

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

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

$$(3x-5y)(3x+5y) = (3x)^2 - (5y)^2 = 9x^2 - 25y^2$$