

# Módulo 13. Primeros Medios

$$\text{I. } 1) (x-2)(x+2) = x^2 - 2^2 \\ = x^2 - 4$$

$$2) (a+3)(a-3) = a^2 - 3^2 \\ = a^2 - 9$$

$$3) (2x-5)(2x+5) = (2x)^2 - 5^2 \\ = 4x^2 - 25$$

$$4) (3x+2)(3x-2) = (3x)^2 - 2^2 \\ = 9x^2 - 4$$

$$\text{II } 1) (x+4)^2 = x^2 + 2 \cdot 4x + 4^2 \\ = x^2 + 8x + 16$$

$$2) (3x+2)^2 = (3x)^2 + 2 \cdot 3x \cdot 2 + 2^2 \\ = 9x^2 + 12x + 4$$

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

$$4) (p+5q)^2 = p^2 + 2 \cdot 5qp + (5q)^2 \\ = p^2 + 10pq + 25q^2$$

$$\text{III } 1) (x-2)(x+1) = x^2 + (-2+1)x + -2 \cdot 1 \\ = x^2 - 1x - 2$$

$$2) (a+3)(a-2) = a^2 + (3-2)a + 3 \cdot -2 \\ = a^2 + a - 6$$

$$3) (2a-3)(a+3) = 2a \cdot a + 2a \cdot 3 + a \cdot -3 - 3 \cdot 3 \\ = 2a^2 + 6a - 3a - 9 \\ = 2a^2 + 3a - 9$$

$$4) (4x+2)(x-5) = 4x \cdot x + 4x \cdot -5 + 2 \cdot x + 2 \cdot -5 \\ = 4x^2 - 20x + 2x - 10 \\ = 4x^2 - 18x - 10$$

$$5) (5x-2)(5x-2) = (5x)^2 + 2 \cdot -2 \cdot 5x + (-2)^2 \\ = 25x^2 - 20x + 4$$