

CORRIGE – M. QUET

EXERCICE 1 :

$$A = 5x - xy$$

$$A = x \times 5 - x \times y$$

$$A = x(5 - y)$$

$$B = a^2 + 3ab$$

$$B = a \times a + a \times 3b$$

$$B = a(a + 3b)$$

$$C = 12a - 12ab$$

$$C = 12a \times 1 - 12a \times b$$

$$C = 12a(1 - b)$$

$$D = 60x^3 - 24x^5 + 36x^2$$

$$D = 12x^2 \times 5x - 12x^2 \times 2x^3 + 12x^2 \times 3$$

$$D = 12x^2(5x - 2x^3 + 3)$$

$$E = 7x^2 - 28x^4 + 70x^3$$

$$E = 7x^2 \times 1 - 7x^2 \times 4x^2 + 7x^2 \times 10x$$

$$E = 7x^2(1 - 4x^2 + 10x)$$

$$F = 3(2 + x) + (2 + x) \times y$$

$$F = (2 + x) \times 3 + (2 + x) \times y$$

$$F = (2 + x)(3 + y)$$

$$G = (x - 3) + 2x(x - 3)$$

$$G = (x - 3) \times 1 + (x - 3) \times 2x$$

$$G = (x - 3)(1 + 2x)$$

$$H = (5x + 2y)(5 + x) + 2(5x + 2y)$$

$$H = (5x + 2y)[(5 + x) + 2]$$

$$H = (5x + 2y)[5 + x + 2]$$

$$H = (5x + 2y)(x + 7)$$

EXERCICE 2 :

$$B = 78x^2 + 54x^7 + 42x^5$$

$$B = 6x^2 \times 13 + 6x^2 \times 9x^5 + 6x^2 \times 7x^3$$

$$B = 6x^2(13 + 9x^5 + 7x^3)$$

$$C = 42x^5y^3 - 30x^2y^7 - 18x^4y^4$$

$$C = 6x^2y^3 \times 7x^3 - 6x^2y^3 \times 5y^4 - 6x^2y^3 \times 3x^2y$$

$$C = 6x^2y^3(7x^3 - 5y^4 - 3x^2y)$$

$$D = 45x^4y^7z^2 - 30x^3y^4z + 15x^3y^3$$

$$D = 15x^3y^3 \times 3xy^4z^2 - 15x^3y^3 \times 2yz + 15x^3y^3 \times 1$$

$$D = 15x^3y^3(3xy^4z^2 - 2yz + 1)$$

$$E = (3 - 2x)(5 - x) - (3 - 2x)(7 - 4x)$$

$$E = (3 - 2x)[(5 - x) - (7 - 4x)]$$

$$E = (3 - 2x)[5 - x - 7 + 4x]$$

$$E = (3 - 2x)(3x - 2)$$

$$F = (7 - 4x)(x + 4) - (x + 4)(7 + 3x)$$

$$F = (x + 4)[(7 - 4x) - (7 + 3x)]$$

$$F = (x + 4)[7 - 4x - 7 - 3x]$$

$$F = (x + 4)(-7x)$$

$$G = (5 + 2x)(5 - x) - (5 + 2x)$$

$$G = (5 + 2x)(5 - x) - (5 + 2x) \times 1$$

$$G = (5 + 2x)[(5 - x) - 1]$$

$$G = (5 + 2x)[5 - x - 1]$$

$$G = (5 + 2x)(4 - x)$$

$$H = (7 - 9x)(1 + x) - 3(7 - 9x)$$

$$H = (7 - 9x)[(1 + x) - 3]$$

$$H = (7 - 9x)[1 + x - 3]$$

$$H = (7 - 9x)(x - 2)$$

$$I = (2 + x)^2 + 3(2 + x)$$

$$I = (2 + x)(2 + x) + 3(2 + x)$$

$$I = (2 + x)[(2 + x) + 3]$$

$$I = (2 + x)[2 + x + 3]$$

$$I = (2 + x)(x + 5)$$