Calcul Littéral

1- Développer

$A = 5x(x-1) + 3x$

$= 5x \times x - 5x \times 1 + 3x$

$= 5x^2 - 5x + 3x$

$= 5x^2 - 2x$

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

$= x \times x + x \times 3 + 2 \times x + 2 \times 3$

$= x^2 + 3x + 2x + 6$

$= x^2 + 5x + 6.$

$$C = (6x+7)(3x-1)$$

$$= 6x \times 3x - 6x \times 1 + 7 \times 3x - 7 \times 1$$

$$= 18x^2 - 6x + 21x - 7$$

$$= 18x^2 + 15x - 7$$

$$D = (x+1)(x-3) + (x-1)(x+5).$$

$$= x \times x - x \times 3 + 1 \times x - 1 \times 3 + x \times x + x \times 5 - x \times 1 - 1 \times 5$$

$$= x^2 - 3x + x - 3 + x^2 + 5x - x - 5$$

$$= 2x^2 + 2x - 8$$

$$E = (3x+2)(x-2) - 2(5x+3)(2x+1)$$

$$= 3x \times x + 3x \times -2 + 2 \times x + 2 \times (-2) - 2 \times 5x \times 2x - 2 \times 5x \times 1 - 2 \times 3 \times 2x - 2 \times 3 \times 1 .$$

$$= 3x^2 - 6x + 2x - 4 - 20x^2 - 10x - 12x - 6$$

$$= -17x^2 - 26x - 10 .$$

2 - Factoriser

$$A = 4x + 8$$

$$= 4(x + 2)$$

$$B = 3x^2 - x$$

$$= 3x \times x - 1 \times x$$

$$= x(3x - 1)$$

$$C = 5x^3 - 2x^2$$

$$= 5x \times x^2 - 2 \times x^2$$

$$= x^2(5x - 2)$$

$$D = 20x^5 + 4x^3$$

$$= 4x^3 \times 5x^2 + 4x^3 \times 1$$

$$= 4x^3 (5x^2 + 1)$$

$$E = (x+1)(x+2) + (x+1)(x+3)$$

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

$$= (x+1)(2x+5)$$

$$F = (4x+8)(x+1) - (x+1)(5-2x)$$

$$= (x+1)((4x+8) - (5-2x))$$

$$= (x+1)(4x+8-5+2x)$$

$= (x + 1)(6x - 3).$