

DeveloppementNiveau 1Ex 1 p 16

$$\begin{aligned} A &= 2(x+3) \\ &= 2x + 2 \cdot 3 \\ &= 2x + 6 \end{aligned}$$

$$\begin{aligned} B &= 5(10x+8) \\ &= 5 \times 10x + 5 \times 8 \\ &= 50x + 40 \end{aligned}$$

$$\begin{aligned} C &= 4(3x+1) \\ &= 4 \times 3x + 4 \times 1 \\ &= 12x + 4 \end{aligned}$$

$$\begin{aligned} D &= -5(2-x) \\ &= (-5)x \cdot 2 + (-5)x(-x) \\ &= -10 + 5x \end{aligned}$$

$$\begin{aligned} E &= -3(4+x) \\ &= -3 \times 4 + (-3) \times x \\ &= -12 - 3x \end{aligned}$$

$$\begin{aligned} F &= 7(x-9) \\ &= 7x - 7 \times (-9) \\ &= 7x + 63 \end{aligned}$$

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$$\begin{aligned} n &= 3(4x+7) + 5(2x-9) \\ &= 3 \times 4x + 3 \times 7 + 5 \times 2x + 5 \times (-9) \\ &= \underline{12x} + \underline{21} + \underline{8x} - \underline{45} \\ &= 20x - 15 \end{aligned}$$

$$\begin{aligned} N &= 7x(2x-5) - x(2x-5) \\ &= 7x \times 2x + 7x \times (-5) + (-x) \times 2x + (-x) \times (-5) \\ &= \underline{14x^2} - \underline{35x} - \underline{2x^2} + \underline{5x} \\ &= 12x^2 - 30x \end{aligned}$$

Niveau 3

$$\begin{aligned} A &= 2(x-2) + 3(x+2) \\ &= 2x - 2 \times (-2) + 3x + 3 \times 2 \\ &= \underline{2x} - \underline{4} + \underline{3x} + \underline{6} \\ &= 5x + 2 \end{aligned}$$

$$B = 4(1-x) + (3x+1)$$

$$= 4 \cancel{x} 1 + 4 \cancel{x} (-x) + 3x + 1 \quad (\text{suppression parenthèse après un signe +})$$
$$= \cancel{4} - \cancel{4}x + 3x + 1$$
$$= -x + 5$$

$$C = 3(2x-5) - 2(x-1)$$

$$= 3 \times 2x + 3 \times (-5) + (-2) \times x + (-2) \times (-1) \quad (\text{signe distributif})$$
$$= \cancel{6}x - \cancel{15} - \cancel{2}x + \cancel{2}$$
$$= 4x - 13$$

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

$$= 3 \times 3x + 3 \times (-2) - 2 + x \quad (\text{suppression des parenthèses après un signe -})$$
$$= \cancel{9}x - \cancel{6} - \cancel{2} + \cancel{x}$$
$$= 10x - 8$$

$$E = -4(x-2) + 3(2x+1)$$

$$= -4 \cdot x \cdot x + (-4) \times (-2) + 3 \times (2x) + 3 \times 1$$
$$= \cancel{-4}x + \cancel{8} + \cancel{6}x + \cancel{3}$$
$$= 2x + 11$$

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

$$= 3 \times 2x + 3 \times (-2) + (-3) \times 2 + (-3) \times (-3x)$$
$$= \cancel{6}x - \cancel{6} - \cancel{6} + \cancel{9}x$$
$$= 15x - 12$$