

corrigé de la feuille n°5

$$\begin{aligned} \text{a)} \quad & (5x+1)(5x+4) + (2x+4)(x+1) \\ & = (25x^2 + 20x + 5x + 4) + (2x^2 + 2x + 4x + 4) \\ & = 25x^2 + 20x + 5x + 4 + 2x^2 + 2x + 4x + 4 \\ & \quad \text{AUCUN CHANGEMENT DE SIGNES !} \\ & = 27x^2 + 31x + 8 \end{aligned}$$

$$\begin{aligned} \text{b)} \quad & (5x+1)(5x+4) - (2x+4)(x+1) \\ & = (25x^2 + 20x + 5x + 4) - (2x^2 + 2x + 4x + 4) \\ & = 25x^2 + 20x + 5x + 4 - 2x^2 - 2x - 4x - 4 \\ & \quad \text{on a CHANGÉ les signes !} \\ & = 23x^2 + 19x + 0 \end{aligned}$$

$$\begin{aligned} \text{c)} \quad & (5x-3)(4x+2) - (4x+2)(3x-1) \\ & = (20x^2 + 10x - 12x - 6) - (12x^2 - 4x + 6x - 2) \\ & = 20x^2 + 10x - 12x - 6 - 12x^2 + 4x - 6x + 2 \\ & \quad \text{on a CHANGÉ les signes !} \\ & = 8x^2 - 4x - 4 \end{aligned}$$

$$\begin{aligned} \text{d)} \quad & (5x-4)^2 - (4x+1)^2 \\ & = (5x-4)(5x-4) - (4x+1)(4x+1) \\ & = (25x^2 - 20x - 20x + 16) - (16x^2 + 4x + 4x + 1) \\ & = 25x^2 - 20x - 20x + 16 - 16x^2 - 4x - 4x - 1 \\ & \quad \text{on a CHANGÉ les signes} \\ & = 9x^2 - 48x + 15 \end{aligned}$$