

Niveau 1 :

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

$$\begin{aligned}B(x) &= 9(5x - 7) \\&= 9 \times 5x + 9 \times (-7) \\&= 45x - 63\end{aligned}$$

$$\begin{aligned}C(x) &= 2x(5 - 4x) \\&= 2x \times 5 + 2x \times (-4x) \\&= 10x - 8x^2\end{aligned}$$

Niveau 2 :

$$\begin{aligned}D(x) &= (4x + 8)(3x + 6) \\&= 4x \times 3x + 4x \times 6 + 8 \times 3x + 8 \times 6 \\&= 12x^2 + 24x + 24x + 48 \\&= 12x^2 + 48x + 48\end{aligned}$$

$$\begin{aligned}E(x) &= (4x + 8)(3x - 6) \\&= 4x \times 3x + 4x \times (-6) + 8 \times 3x + 8 \times (-6) \\&= 12x^2 - 24x + 24x - 48 \\&= 12x^2 - 48\end{aligned}$$

$$\begin{aligned}F(x) &= (4x - 8)(3x - 6) \\&= 4x \times 3x + 4x \times (-6) - 8 \times 3x - 8 \times (-6) \\&= 12x^2 - 24x - 24x + 48 \\&= 12x^2 - 48x + 48\end{aligned}$$

Niveau 3 :

$$\begin{aligned}G(x) &= (7x + 4)^2 \\&= (7x + 4)(7x + 4) \\&= 7x \times 7x + 7x \times 4 + 4 \times 7x + 4 \times 4 \\&= 49x^2 + 28x + 28x + 16 \\&= 49x^2 + 56x + 16\end{aligned}$$

$$\begin{aligned}H(x) &= (4x - 9)^2 \\&= (4x - 9)(4x - 9) \\&= 4x \times 4x + 4x \times (-9) - 9 \times 4x - 9 \times (-9) \\&= 16x^2 - 36x - 36x + 81 \\&= 16x^2 - 72x + 81\end{aligned}$$

$$\begin{aligned}I(x) &= 8x(9x - 6)(3x + 5) \\&= 8x(9x \times 3x + 9x \times 5 - 6 \times 3x - 6 \times 5) \\&= 8x(27x^2 + 45x - 18x - 30) \\&= 8x(27x^2 + 27x - 30) \\&= 8x \times 27x^2 + 8x \times 27x + 8x \times (-30) \\&= 216x^3 + 216x^2 - 240\end{aligned}$$