

Corrections

Corrigés Savoir Cf. 1



Corrigé Exercice 1

1)

$$\begin{aligned} A &= 4x(2x - 1) & B &= 5(1 + 3x) \\ C &= 3(3 - x^2) & D &= x(-12x + 7) \\ E &= 5x(1 - x) & F &\text{ non factorisable} \\ H &= a(-7b + 2a) & J &= -5x(2x^2 + 5) \end{aligned}$$

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

$$L = 4a(1 + a)$$

$$M = -n(12n + 7)$$

N non factorisable
(« naturellement »)

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

$$Q = ab(3a - b)$$

$$V = 2(2x^2 + 6x - 1) \quad W = x(3x^2 + 2x + 5)$$

$$Y = 3x(3 - x + 5x^2) \quad Z = ab(3a + ab - 5b)$$

2)

$$R = 2(x^2 - 11x - 1) \quad S = 4(x - 1 + x^2) \quad T = 2x(2x^2 - 3x + 4) \quad U = 5x^2(3x^2 - 2x + 1)$$

Corrigé Exercice 2

1)

$$\begin{aligned} A &= \frac{2}{3}x - \frac{1}{3}x & B &= 5x + \frac{2}{7}x & C &= \frac{2a}{3} - 4a & D &= \frac{x}{5} + \frac{3x}{2} & E &= n - \frac{4n}{3} \\ A &= \left(\frac{2}{3} - \frac{1}{3}\right)x & B &= \left(5 + \frac{2}{7}\right)x & C &= \left(\frac{2}{3} - 4\right)a & D &= \left(\frac{1}{5} + \frac{3}{2}\right)x & E &= \left(1 - \frac{4}{3}\right)n \\ A &= \frac{1}{3}x & B &= \frac{37}{7}x & C &= -\frac{10}{3}a & D &= \frac{17}{10}x & E &= -\frac{1}{3}n \end{aligned}$$

2)

$$\begin{aligned} F &= (1 - 3)\sqrt{7} & G &= \left(\frac{3}{4} - 1\right)\pi & H &= (12 - 6x)\sqrt{x} & I &= \left(\frac{2}{3} - \frac{1}{4}\right)\pi & J &= \left(3 - \frac{2}{5}\right)\sqrt{2} \\ F &= -2\sqrt{7} & G &= -\frac{1}{4}\pi & & & I &= \frac{5}{12}\pi & J &= \frac{13}{5}\sqrt{2} \end{aligned}$$

Corrigé Exercice 3

$$1) A = 2(2x^2 - \frac{5}{2}x + \frac{1}{2}) \quad \text{et} \quad B = 2(-x^2 + \frac{1}{2}x - 2)$$

$$2) A = -(-4x^2 + 5x - 1) \quad \text{et} \quad B = -(2x^2 - x + 4)$$

$$3) A = x(4x - 5 + \frac{1}{x}) \quad \text{et} \quad C = x(x^2 + 3x - 8 + \frac{4}{x})$$

$$4) B = x^2(-2 + \frac{x}{x^2} - \frac{4}{x^2}) = x^2(-2 + \frac{1}{x} - \frac{4}{x^2}) \quad \text{et} \quad C = x^2(x + 3 - \frac{8x}{x^2} + \frac{4}{x^2}) = x^2(x + 3 - \frac{8}{x} + \frac{4}{x^2})$$