

Entrainement. Développement. Factorisation.

Boulangier Yann

30 septembre 2025

Table des matières

1	Exercice 1 : Développer les expressions suivantes	2
2	Exercice 2 : Factoriser les expressions suivantes	3

1 Exercice 1 : Développer les expressions suivantes

$$A = (x - 1)(x + 2)$$

$$B = (x - 3)(x + 5)$$

$$C = (x - 6)(2x - 3)$$

$$D = (5 - 4x) - 3 - (7x - 3)$$

$$E = (5x - 2) + 4x - (7x + 1)$$

$$F = 3 - [7 - (3x + 1)] + (5 - 3x)$$

$$G = 4x + [3 - (7 - x)] - [4x - (x - 2)]$$

$$H = 3 - 2x[7 - 2x(3x + 1)] + 2x(5 - 3x)$$

$$I = 4x + x[3 - x(7 - x)] - 2x[4x - (x - 2)]$$

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

$$K = (3x + 1)^2 - (x - 5)^2$$

$$L = (x - 9)(3x + 5)^2$$

$$M = (x - 3)(x + 3) - (3x + 2)(3x - 2)$$

$$N = (5x - 2)^2 - (-2x + 3)^2$$

$$O = (2x - 5)^2(x + 4)$$

$$P = (2x - 3)(2x + 3) - (x - 5)(x + 5)$$

$$Q = (x + 3)^2 + 2(3x - 1)(x + 1)$$

$$R = (2x + 1)(2x - 1) - 3(x - 5)^2$$

$$S = (x + 5)^2 + 2(2x - 1)(x + 1)$$

2 Exercice 2 : Factoriser les expressions suivantes

$$A = 7x^3 + 14x^2 + 21x$$

$$B = x^2y - xy^2 + 2x^2y^2$$

$$C = x(3y - 4) + 4(3y - 4)$$

$$D = (5x - 2)(3x + 4) + (3x + 4)(-x + 3)$$

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

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

$$G = -3x + 4x^2 + 7x^3$$

$$H = (x - 1)(7x + 5) + 2(x - 1) - (x - 1)$$

$$I = (4x - 1)(7x + 3) - (x + 3)(-4x + 1)$$

$$J = (-x + 1)(2x + 1) + (-2x - 1)(x - 10)$$

$$K = (x + 2)^2 - 16$$

$$L = (x + 1)^2 - 9$$

$$M = (x + 3)^2 - (x + 1)^2$$

$$N = (2x + 1)^2 - (3x + 2)^2$$

$$O = (x - 5)^2 - (5x + 7)^2$$

$$P = 16x^2 - 25 + (4x + 5)(3x + 1)$$

$$Q = 25x^2 - 81 - 7(5x + 9)$$

$$R = 25x^2 + 70x + 49 - 3(5x + 7)$$

$$S = 36x^2 - 12x + 1 - (6x - 1)(x + 3)$$

$$T = 36x^2 - 12ax + a^2$$

$$U = x^2 - 6xy + 9y^2$$

$$V = 49x^2 - 70xy + 25y^2$$

$$W = 81b^2 - 90ab + 25a^2$$

$$X = 1 - 6a + 9a^2$$

$$Y = 25x^2 - a^2b^2$$

$$Z = 121x^2 - 49a^2b^2$$

Fin de Chapitre