

4-12-21-22-Calcul littéral : Développer- factoriser

I. Distributivité (simple) :

1. Exemples :

2. Règles

$$k \times (a + b) = k \times a + k \times b$$

$$k \times (a - b) = k \times a - k \times b$$

Produit

somme

Ici on a **développé**

$$k \times a + k \times b = k \times (a + b)$$

$$k \times a - k \times b = k \times (a - b)$$

Somme

produit

On a **factorisé**

Exemples :

1. Développer

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

$$B = (2x - 1) \times 5$$

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

$$D = 2x(x - 5)$$

$$E = 5x^2(x - 2)$$

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

$$G = 2(x + 8) =$$

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

$$I = 4(8 + 2x) =$$

$$J = -3(x + 4)$$

$$K = -5(2x - 1)$$

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

2. Factoriser

$$45 \times 34 + 45 \times 66 = 45 \times (34 + 66) = 45 \times 100 = 4500$$

$$k \times a + k \times b = k \times (a + b)$$

Exemple

$$A = 16x + 24 = 8 \times 2x + 8 \times 3 = 8 \times (2x + 3)$$

$$B = 21x + 35$$

$$C = 18x + 15$$

$$D = 49x - 56$$