

FICHE 4 : DEVELOPPEMENT DU TYPE $(A+B)(C+D)$

FORMULE :

$$(a+b)(c+d) = ac + ad + bc + bd$$

EXERCICE 1 - Développer :

$$\begin{aligned} (x+2)(x+3) &= x \times x + x \times 3 + 2 \times x + 2 \times 3 \\ &= x^2 + 3x + 2x + 6 \\ &= x^2 + 5x + 6 \\ &= \end{aligned}$$

$$\begin{aligned} (x+7)(5+x) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (3+x)(2+x) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (5x+6)(x+4) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (3x+2)(4x+7) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (3+5x)(1+2x) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

EXERCICE 2 - Développer :

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

$$\begin{aligned} (x-4)(x+1) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (x^2+1)(x+2) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (5-x)(-3-x) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (x^2-3)(-2x+4) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (3x-7)(4x^2-1) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

$$\begin{aligned} (3+2x)(5x-4) &= \quad \quad \quad \\ &= \quad \quad \quad \\ &= \quad \quad \quad \end{aligned}$$

EXERCICE 3

Développer puis réduire :

$$A = (x+3)(x-2) \quad B = (x-4)(x+6)$$

$$A = x^2 - 2x + 3x - 6$$

$$A = x^2 + x - 6$$

$$C = (x-5)(2x-7) \quad D = (4-x^2)(x+3)$$

$$E = (3x-2)(5x+1) \quad F = (4-2x)(-1-3x)$$

$$G = (x+3)(x+3) \quad H = (2-x)(2-x)$$

$$I = (x+5)(x-5) \quad J = (x+6)^2$$

EXERCICE 4

Développer puis réduire :

$$A = (4x-1)(6-3x)$$

$$B = (x-2)(x+7) + x^2$$

$$C = 2x^2 + (x-4)(3-x)$$

$$D = x(x-1) + (3+x)(x+1)$$

$$E = 2x(3x+5) + (3x+4)(4x+6)$$

$$F = (2x+1)(3-4x) - 5x(7-3x)$$