

Fiche d'exercices : Factorisation

3^e

Exercice n°1:

Factoriser

$$\begin{array}{lll} A(x) = 6x + 18 & B(x) = 45 - 18x & C(x) = 8x - 56 \\ E(x) = 15x - 10 & F(x) = 39x + 26x^2. & \end{array}$$

Exercice n°2:

Factoriser

$$\begin{aligned} A(x) &= (5x + 4)(x - 2) + (5x + 4)(8 - 3x) \\ B(x) &= (x + 4)(3x - 2) - (7x + 4)(3x - 2) \\ C(x) &= (x + 4)(2x - 7) + 3x(x + 4) \\ D(x) &= 5(8 - 3x) - (-3x + 11)(8 - 3x) \\ E(x) &= (4x - 21)(9x - 7) + (9x - 7)(-6x - 9) \\ F(x) &= (-7x + 1)(x + 2) - (-9 - 5x)(-7x + 1) \end{aligned}$$

Exercice n°3:

Factoriser

$$\begin{array}{l} A(x) = (x + 3)^2 + (x + 3)(-2x + 9) \\ B(x) = (4x + 5)^2 - (2x + 9)(4x + 5) \\ C(x) = (6 - x)(3x - 11) + (3x - 11)^2 \\ D(x) = (5x - 6)(7 - 2x) - (5x - 6)^2 \end{array}$$

Exercice n°4:

Factoriser

$$\begin{array}{l} A(x) = x^2 + 6x + 9 \\ B(x) = x^2 - 10x + 25 \\ C(x) = x^2 + 20x + 100 \\ D(x) = x^2 - 36 \\ E(x) = 16 - 8x + x^2 \\ F(x) = 36x^2 - 49 \\ G(x) = 4x^2 + 12x + 9 \\ H(x) = 9x^2 - 6x + 1 \\ I(x) = 36 - 24x + 4x^2 \\ J(x) = 16x^2 - 9 \end{array}$$

Exercice n°5:

Factoriser

$$\begin{array}{l} A(x) = 3x - 12 \\ B(x) = 15x - 25x^2 \\ C(x) = (4x + 3)(5 - 2x) + (4x + 3)(7 + x) \\ D(x) = 81 - 64x^2 \\ E(x) = (4 - 6x)^2 - (4 - 6x)(2 + 3x) \\ F(x) = 25x^2 - 70x + 49 \end{array}$$

Exercice n°6:

Factoriser

$$(3x - 7)^2 - 64$$

$$(5x - 4)^2 - 36$$

$$25 - (2x + 1)^2$$

$$49 - 70x + 25x^2$$

$$81 - 9x^2$$

$$16x^2 + 40x + 25$$

$$(2x + 4)^2 - (3x - 5)(2x + 4)$$

$$(4x - 7)(3x + 2) + (4x - 7)^2$$

$$3x^2 - 6x$$

$$36 - (2x - 4)^2$$

$$(3x - 5)^2 - (2x + 4)^2$$