

Exercice 1

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = -(-8x - 7)^2 + 100 \\ B = 36x^2 - 36x + 9 \\ C = (7x + 8)(3x + 1) + (3x + 1)(3x + 3) \end{array} \quad \left| \quad \begin{array}{l} D = x^2 - 49 \\ E = (-10x + 10)^2 + (9x + 2)(-10x + 10) \\ F = -(5x - 4) + (5x - 4)(x - 2) \end{array} \right.$$

Exercice 2

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = 25x^2 - 20x + 4 \\ B = (5x - 1)(6x - 3) + (9x - 5)(5x - 1) \\ C = -16x^2 + 64 \end{array} \quad \left| \quad \begin{array}{l} D = 64x^2 - (8x - 10)^2 \\ E = (4x + 2)(x - 9) - (x - 9) \\ F = (4x - 7)(2x + 9) + (2x + 9)^2 \end{array} \right.$$

Exercice 3

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = (-x + 5)(7x + 7) + (-3x - 6)(7x + 7) \\ B = 16x^2 - 80x + 100 \\ C = (x - 6)^2 - 49 \end{array} \quad \left| \quad \begin{array}{l} D = -49x^2 + 9 \\ E = (5x + 10)(7x + 7) - (5x + 10) \\ F = (7x + 1)(3x + 6) + (7x + 1)^2 \end{array} \right.$$

Exercice 4

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = 4x^2 - 25 \\ B = (3x + 9)(7x - 10) - (9x + 4)(3x + 9) \\ C = 16x^2 - 24x + 9 \end{array} \quad \left| \quad \begin{array}{l} D = 64 - (2x + 8)^2 \\ E = 6x - 6 + (6x - 6)(7x - 10) \\ F = (10x - 5)^2 + (10x - 5)(-2x + 2) \end{array} \right.$$

Exercice 5

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = -49 + (-8x + 1)^2 \\ B = (-6x - 2)(-6x - 6) + (10x + 9)(-6x - 2) \\ C = 81x^2 + 90x + 25 \end{array} \quad \left| \quad \begin{array}{l} D = -36x^2 + 81 \\ E = -(6x - 4)(10x + 4) + 10x + 4 \\ F = (-2x - 3)^2 + (7x + 9)(-2x - 3) \end{array} \right.$$

Exercice 6

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = -(-2x + 10)^2 + 64x^2 \\ B = -(-2x - 7)(6x + 6) + (-2x - 7)(-8x + 7) \\ C = -4x^2 + 25 \end{array} \quad \left| \quad \begin{array}{l} D = 64x^2 + 48x + 9 \\ E = (10x + 3)^2 + (2x - 10)(10x + 3) \\ F = (5x + 3)(6x + 3) + 6x + 3 \end{array} \right.$$

Exercice 7

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l} A = 49x^2 - 25 \\ B = (-4x + 2)(5x - 5) + (5x - 5)(9x + 7) \\ C = 9x^2 + 42x + 49 \end{array} \quad \left| \quad \begin{array}{l} D = (3x + 4)^2 - 36x^2 \\ E = (-2x + 8)^2 + (-2x + 8)(-10x + 9) \\ F = -(x + 6)(5x - 1) + 5x - 1 \end{array} \right.$$

Exercice 8

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = (-6x + 5)(10x - 4) + (-6x + 5)(3x + 4) & D = 25x^2 + 100x + 100 \\ B = -9x^2 + 25 & E = 2x + 7 + (2x + 7)(6x - 10) \\ C = -16x^2 + (6x + 6)^2 & F = (-x - 7)(-2x + 7) - (-2x + 7)^2 \end{array}$$

Exercice 9

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = 25x^2 - 9 & D = 9x^2 - 36x + 36 \\ B = -(4x - 4)^2 + 100x^2 & E = (10x + 7)(5x + 1) + (5x + 1)^2 \\ C = (2x + 5)(x - 10) + (x - 10)(-4x - 6) & F = 4x + 8 - (4x + 8)(x - 7) \end{array}$$

Exercice 10

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = 36x^2 - 25 & D = -(-9x + 7)^2 + 49x^2 \\ B = 100x^2 + 160x + 64 & E = (3x + 9)(8x - 4) + 8x - 4 \\ C = (8x + 7)(2x - 6) + (6x + 6)(8x + 7) & F = -(-8x + 4)^2 + (-8x + 4)(6x + 4) \end{array}$$

Exercice 11

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = (-9x - 4)(9x - 9) - (8x - 2)(-9x - 4) & D = (8x - 10)^2 - 49 \\ B = 100x^2 + 80x + 16 & E = 4x + 8 + (10x + 2)(4x + 8) \\ C = 49x^2 - 4 & F = (-6x - 3)(-2x + 5) + (-6x - 3)^2 \end{array}$$

Exercice 12

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = -9 + (10x + 1)^2 & D = 4x^2 - 64 \\ B = (-2x + 8)(-7x - 5) + (-2x + 8)(7x + 5) & E = 10x + 9 + (4x + 7)(10x + 9) \\ C = 4x^2 + 4x + 1 & F = (-x + 7)^2 - (-x + 7)(8x + 10) \end{array}$$

Exercice 13

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = (9x + 9)(x + 3) + (10x + 8)(x + 3) & D = -(4x - 8)^2 + 9 \\ B = 4x^2 - 16x + 16 & E = -(5x + 1)(8x + 2) + (5x + 1)^2 \\ C = x^2 - 81 & F = 6x - 8 + (6x - 8)(4x + 5) \end{array}$$

Exercice 14

Factoriser chacune des expressions littérales suivantes :

$$\begin{array}{l|l} A = -(-5x - 4)^2 + 16 & D = 9x^2 - 48x + 64 \\ B = (-8x - 3)(10x - 4) + (-8x - 3)(-10x - 2) & E = (3x + 5)(4x + 2) + (3x + 5)^2 \\ C = -9x^2 + 49 & F = -(4x + 8)(3x + 3) + 4x + 8 \end{array}$$

Exercice 15

Factoriser chacune des expressions littérales suivantes :

$$A = 4x^2 + 32x + 64$$

$$B = (-4x + 3)(4x + 5) + (4x + 4)(-4x + 3)$$

$$C = 25x^2 - 25$$

$$D = (-6x + 5)^2 - 4x^2$$

$$E = (-7x - 6)^2 - (-2x + 3)(-7x - 6)$$

$$F = (4x - 6)(4x + 9) + 4x - 6$$

Exercice 16

Factoriser chacune des expressions littérales suivantes :

$$A = 4x^2 + 20x + 25$$

$$B = -x^2 + 9$$

$$C = (8x + 7)^2 - 4$$

$$D = (3x + 4)(10x + 2) + (-8x + 5)(3x + 4)$$

$$E = (2x + 3)(7x + 6) + (7x + 6)^2$$

$$F = -(4x + 2) + (8x + 6)(4x + 2)$$

Exercice 17

Factoriser chacune des expressions littérales suivantes :

$$A = (2x + 10)(-4x + 6) + (2x + 10)(9x - 1)$$

$$B = 49x^2 - 4$$

$$C = -36 + (-4x + 2)^2$$

$$D = x^2 + 2x + 1$$

$$E = 10x - 3 - (8x + 6)(10x - 3)$$

$$F = (3x + 6)^2 + (3x + 6)(8x + 7)$$

Exercice 18

Factoriser chacune des expressions littérales suivantes :

$$A = x^2 - 64$$

$$B = 9x^2 - 24x + 16$$

$$C = -(-5x - 8)^2 + 9$$

$$D = (10x + 5)(2x + 8) + (2x + 9)(2x + 8)$$

$$E = 7x + 9 + (7x + 9)(8x + 7)$$

$$F = -(10x + 4)(-7x + 6) + (-7x + 6)^2$$

Exercice 19

Factoriser chacune des expressions littérales suivantes :

$$A = 81 - (5x - 4)^2$$

$$B = 100x^2 + 80x + 16$$

$$C = (7x + 2)(2x + 4) + (2x + 4)(8x + 2)$$

$$D = -100x^2 + 81$$

$$E = (10x + 5)(2x + 3) + (10x + 5)^2$$

$$F = -(x + 2) + (x + 2)(8x + 8)$$

Exercice 20

Factoriser chacune des expressions littérales suivantes :

$$A = (-5x + 3)(2x + 1) + (-5x + 3)(-10x - 3)$$

$$B = -16x^2 + 49$$

$$C = -4x^2 + (3x + 9)^2$$

$$D = 100x^2 - 200x + 100$$

$$E = (-9x + 7)(4x + 10) + (4x + 10)^2$$

$$F = (8x + 3)(10x + 4) - (10x + 4)$$

Exercice 21

Factoriser chacune des expressions littérales suivantes :

$$A = (-7x - 9)(-10x - 7) - (-7x - 9)(2x + 9)$$

$$B = -81x^2 + 36$$

$$C = (-6x + 4)^2 - 36x^2$$

$$D = 36x^2 - 12x + 1$$

$$E = (3x - 10)(3x + 4) + 3x + 4$$

$$F = (-8x - 2)^2 + (3x + 3)(-8x - 2)$$

Exercice 22

Factoriser chacune des expressions littérales suivantes :

$$A = (-7x - 3)(3x + 5) + (3x + 5)(-4x - 6)$$

$$B = -(-x + 9)^2 + 16$$

$$C = 81x^2 - 9$$

$$D = 36x^2 - 12x + 1$$

$$E = -(5x + 9)(3x - 4) + (3x - 4)^2$$

$$F = 9x + 9 + (9x + 9)(2x + 7)$$

Exercice 23

Factoriser chacune des expressions littérales suivantes :

$$A = -(3x - 10)^2 + 4$$

$$B = -9x^2 + 100$$

$$C = (5x + 8)(x + 5) - (x + 5) \times (4x + 2)$$

$$D = 81x^2 + 36x + 4$$

$$E = 5x - 9 + (8x + 5)(5x - 9)$$

$$F = (-7x - 10)(4x - 6) + (-7x - 10)^2$$

Exercice 24

Factoriser chacune des expressions littérales suivantes :

$$A = -49x^2 + 49$$

$$B = 4x^2 + 28x + 49$$

$$C = (8x - 10)(-10x + 9) + (8x - 10)(-5x - 10)$$

$$D = -(-2x + 8)^2 + 49$$

$$E = (-6x - 4)^2 - (-9x + 8)(-6x - 4)$$

$$F = 4x + 10 + (10x + 4)(4x + 10)$$

Exercice 25

Factoriser chacune des expressions littérales suivantes :

$$A = (x - 6)(-3x + 7) + (x - 6) \times (4x + 8)$$

$$B = 64x^2 - 160x + 100$$

$$C = (-6x + 2)^2 - x^2$$

$$D = -100x^2 + 9$$

$$E = -(7x + 4) + (7x + 4)(7x + 7)$$

$$F = (8x - 5)^2 + (8x - 5)(9x - 10)$$

Exercice 26

Factoriser chacune des expressions littérales suivantes :

$$A = 49x^2 + 56x + 16$$

$$B = 64x^2 - 81$$

$$C = (x - 5)(-3x + 1) - (8x - 8)(-3x + 1)$$

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

$$E = (8x + 6)^2 + (8x + 6)(-x - 4)$$

$$F = (4x - 6)(7x + 8) + 7x + 8$$

Exercice 27

Factoriser chacune des expressions littérales suivantes :

$$A = 49x^2 - 14x + 1$$

$$B = 9x^2 - 64$$

$$C = -(4x - 3)^2 + 25x^2$$

$$D = (2x + 3)(3x + 2) + (3x + 2)(2x - 7)$$

$$E = (-9x + 5)^2 - (-9x + 5)(10x + 4)$$

$$F = (7x + 10)(9x + 6) + 9x + 6$$

Exercice 28

Factoriser chacune des expressions littérales suivantes :

$$A = -(-5x + 8)(10x + 4) + (-5x + 8)(6x + 8)$$

$$B = 4x^2 - 20x + 25$$

$$C = 16x^2 - 81$$

$$D = -(2x - 2)^2 + 36$$

$$E = (6x + 6)(5x - 10) + 5x - 10$$

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

Exercice 29

Factoriser chacune des expressions littérales suivantes :

$$A = (5x + 10)(-7x + 3) - (5x + 10)(-x + 8)$$

$$B = 9x^2 - 25$$

$$C = -(-6x - 7)^2 + 36x^2$$

$$D = 64x^2 + 80x + 25$$

$$E = (x - 4)(-6x - 10) + (x - 4)^2$$

$$F = 5x - 9 + (5x - 9)(6x + 7)$$

Exercice 30

Factoriser chacune des expressions littérales suivantes :

$$A = 100x^2 - 64$$

$$B = (-8x + 8)(-x - 8) - (-8x + 8)(5x - 9)$$

$$C = 81x^2 - 54x + 9$$

$$D = -16 + (9x + 10)^2$$

$$E = 5x + 5 + (5x + 5)(5x - 7)$$

$$F = (-6x + 10)^2 + (-6x + 10)(-10x - 7)$$