

Corrigé de l'exercice 1

Factoriser chacune des expressions littérales suivantes :

$$A = -(-8x - 7)^2 + 100$$

$$A = -(-8x - 7)^2 + 10^2$$

$$A = (10 - 8x - 7) \times (10 - (-8x - 7))$$

$$A = (-8x + 10 - 7) \times (10 + 8x + 7)$$

$$A = (-8x + 10 - 7) \times (8x + 10 + 7)$$

$$A = (-8x + 3) \times (8x + 17)$$

$$B = 36x^2 - 36x + 9$$

$$B = (6x)^2 - 2 \times 6x \times 3 + 3^2$$

$$B = (6x - 3)^2$$

$$C = (7x + 8) \times (3x + 1) + (3x + 1) \times (3x + 3)$$

$$C = (3x + 1) \times (7x + 8 + 3x + 3)$$

$$C = (3x + 1) \times (7x + 3x + 8 + 3)$$

$$C = (3x + 1) \times (10x + 11)$$

$$D = x^2 - 49$$

$$D = x^2 - 7^2$$

$$D = (x + 7) \times (x - 7)$$

$$E = (-10x + 10)^2 + (9x + 2) \times (-10x + 10)$$

$$E = (-10x + 10) \times (-10x + 10) + (9x + 2) \times (-10x + 10)$$

$$E = (-10x + 10) \times (-10x + 10 + 9x + 2)$$

$$E = (-10x + 10) \times (-10x + 9x + 10 + 2)$$

$$E = (-10x + 10) \times (-x + 12)$$

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

$$F = -(5x - 4) \times 1 + (5x - 4) \times (x - 2)$$

$$F = (5x - 4) \times (-1 + x - 2)$$

$$F = (5x - 4) \times (x - 1 - 2)$$

$$F = (5x - 4) \times (x - 3)$$

Corrigé de l'exercice 2

Factoriser chacune des expressions littérales suivantes :

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

$$A = (5x)^2 - 2 \times 5x \times 2 + 2^2$$

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

$$B = (5x - 1) \times (6x - 3) + (9x - 5) \times (5x - 1)$$

$$B = (5x - 1) \times (6x - 3 + 9x - 5)$$

$$B = (5x - 1) \times (6x + 9x - 3 - 5)$$

$$B = (5x - 1) \times (15x - 8)$$

$$C = -16x^2 + 64$$

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

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

$$D = 64x^2 - (8x - 10)^2$$

$$D = (8x)^2 - (8x - 10)^2$$

$$D = (8x + 8x - 10) \times (8x - (8x - 10))$$

$$D = (16x - 10) \times (8x - 8x + 10)$$

$$D = (16x - 10) \times 10$$

$$E = (4x + 2) \times (x - 9) - (x - 9)$$

$$E = (4x + 2) \times (x - 9) - (x - 9) \times 1$$

$$E = (x - 9) \times (4x + 2 - 1)$$

$$E = (x - 9) \times (4x + 1)$$

$$F = (4x - 7) \times (2x + 9) + (2x + 9)^2$$

$$F = (4x - 7) \times (2x + 9) + (2x + 9) \times (2x + 9)$$

$$F = (2x + 9) \times (4x - 7 + 2x + 9)$$

$$F = (2x + 9) \times (4x + 2x - 7 + 9)$$

$$F = (2x + 9) \times (6x + 2)$$

Corrigé de l'exercice 3

Factoriser chacune des expressions littérales suivantes :

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

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

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

$$A = (7x + 7) \times (-4x - 1)$$

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

$$B = (4x)^2 - 2 \times 4x \times 10 + 10^2$$

$$B = (4x - 10)^2$$

$$C = (x - 6)^2 - 49$$

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

$$C = (x - 6 + 7) \times (x - 6 - 7)$$

$$C = (x + 1) \times (x - 13)$$

$$D = -49x^2 + 9$$

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

$$D = (7x + 3) \times (-7x + 3)$$

$$E = (5x + 10) \times (7x + 7) - (5x + 10)$$

$$E = (5x + 10) \times (7x + 7) - (5x + 10) \times 1$$

$$E = (5x + 10) \times (7x + 7 - 1)$$

$$E = (5x + 10) \times (7x + 6)$$

$$F = (7x + 1) \times (3x + 6) + (7x + 1)^2$$

$$F = (7x + 1) \times (3x + 6) + (7x + 1) \times (7x + 1)$$

$$F = (7x + 1) \times (3x + 6 + 7x + 1)$$

$$F = (7x + 1) \times (3x + 7x + 6 + 1)$$

$$F = (7x + 1) \times (10x + 7)$$

Corrigé de l'exercice 4

Factoriser chacune des expressions littérales suivantes :

$$A = 4x^2 - 25$$

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

$$A = (2x + 5) \times (2x - 5)$$

$$B = (3x + 9) \times (7x - 10) - (9x + 4) \times (3x + 9)$$

$$B = (3x + 9) \times (7x - 10 - (9x + 4))$$

$$B = (3x + 9) \times (7x - 10 - 9x - 4)$$

$$B = (3x + 9) \times (7x - 9x - 10 - 4)$$

$$B = (3x + 9) \times (-2x - 14)$$

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

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

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

$$D = 64 - (2x + 8)^2$$

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

$$D = (8 + 2x + 8) \times (8 - (2x + 8))$$

$$D = (2x + 8 + 8) \times (8 - 2x - 8)$$

$$D = (2x + 8 + 8) \times (-2x + 8 - 8)$$

$$D = (2x + 16) \times (-2x)$$

$$E = 6x - 6 + (6x - 6) \times (7x - 10)$$

$$E = (6x - 6) \times 1 + (6x - 6) \times (7x - 10)$$

$$E = (6x - 6) \times (1 + 7x - 10)$$

$$E = (6x - 6) \times (7x + 1 - 10)$$

$$E = (6x - 6) \times (7x - 9)$$

$$F = (10x - 5)^2 + (10x - 5) \times (-2x + 2)$$

$$F = (10x - 5) \times (10x - 5) + (10x - 5) \times (-2x + 2)$$

$$F = (10x - 5) \times (10x - 5 - 2x + 2)$$

$$F = (10x - 5) \times (10x - 2x - 5 + 2)$$

$$F = (10x - 5) \times (8x - 3)$$

Corrigé de l'exercice 5

Factoriser chacune des expressions littérales suivantes :

$$A = -49 + (-8x + 1)^2$$

$$A = -7^2 + (-8x + 1)^2$$

$$A = (-8x + 1 + 7) \times (-8x + 1 - 7)$$

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

$$B = (-6x - 2) \times (-6x - 6) + (10x + 9) \times (-6x - 2)$$

$$B = (-6x - 2) \times (-6x - 6 + 10x + 9)$$

$$B = (-6x - 2) \times (-6x + 10x - 6 + 9)$$

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

$$C = 81x^2 + 90x + 25$$

$$C = (9x)^2 + 2 \times 9x \times 5 + 5^2$$

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

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

$$D = 9^2 - (6x)^2$$

$$D = (6x + 9) \times (-6x + 9)$$

$$E = -(6x - 4) \times (10x + 4) + 10x + 4$$

$$E = -(6x - 4) \times (10x + 4) + (10x + 4) \times 1$$

$$E = (10x + 4) \times (-6x - 4) + 1$$

$$E = (10x + 4) \times (-6x + 4 + 1)$$

$$E = (10x + 4) \times (-6x + 5)$$

$$F = (-2x - 3)^2 + (7x + 9) \times (-2x - 3)$$

$$F = (-2x - 3) \times (-2x - 3) + (7x + 9) \times (-2x - 3)$$

$$F = (-2x - 3) \times (-2x - 3 + 7x + 9)$$

$$F = (-2x - 3) \times (-2x + 7x - 3 + 9)$$

$$F = (-2x - 3) \times (5x + 6)$$

Corrigé de l'exercice 6

Factoriser chacune des expressions littérales suivantes :

$$A = -(-2x + 10)^2 + 64x^2$$

$$A = -(-2x + 10)^2 + (8x)^2$$

$$A = (8x - 2x + 10) \times (8x - (-2x + 10))$$

$$A = (6x + 10) \times (8x + 2x - 10)$$

$$A = (6x + 10) \times (10x - 10)$$

$$B = -(-2x - 7) \times (6x + 6) + (-2x - 7) \times (-8x + 7)$$

$$B = (-2x - 7) \times (-6x + 6) - 8x + 7$$

$$B = (-2x - 7) \times (-6x - 6 - 8x + 7)$$

$$B = (-2x - 7) \times (-6x - 8x - 6 + 7)$$

$$B = (-2x - 7) \times (-14x + 1)$$

$$C = -4x^2 + 25$$

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

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

$$D = 64x^2 + 48x + 9$$

$$D = (8x)^2 + 2 \times 8x \times 3 + 3^2$$

$$D = (8x + 3)^2$$

$$E = (10x + 3)^2 + (2x - 10) \times (10x + 3)$$

$$E = (10x + 3) \times (10x + 3) + (2x - 10) \times (10x + 3)$$

$$E = (10x + 3) \times (10x + 3 + 2x - 10)$$

$$E = (10x + 3) \times (10x + 2x + 3 - 10)$$

$$E = (10x + 3) \times (12x - 7)$$

$$F = (5x + 3) \times (6x + 3) + 6x + 3$$

$$F = (5x + 3) \times (6x + 3) + (6x + 3) \times 1$$

$$F = (6x + 3) \times (5x + 3 + 1)$$

$$F = (6x + 3) \times (5x + 4)$$

Corrigé de l'exercice 7

Factoriser chacune des expressions littérales suivantes :

$$A = 49x^2 - 25$$

$$A = (7x)^2 - 5^2$$

$$A = (7x + 5) \times (7x - 5)$$

$$B = (-4x + 2) \times (5x - 5) + (5x - 5) \times (9x + 7)$$

$$B = (5x - 5) \times (-4x + 2 + 9x + 7)$$

$$B = (5x - 5) \times (-4x + 9x + 2 + 7)$$

$$B = (5x - 5) \times (5x + 9)$$

$$C = 9x^2 + 42x + 49$$

$$C = (3x)^2 + 2 \times 3x \times 7 + 7^2$$

$$C = (3x + 7)^2$$

$$D = (3x + 4)^2 - 36x^2$$

$$D = (3x + 4)^2 - (6x)^2$$

$$D = (3x + 4 + 6x) \times (3x + 4 - 6x)$$

$$D = (3x + 6x + 4) \times (3x - 6x + 4)$$

$$D = (9x + 4) \times (-3x + 4)$$

$$E = (-2x + 8)^2 + (-2x + 8) \times (-10x + 9)$$

$$E = (-2x + 8) \times (-2x + 8) + (-2x + 8) \times (-10x + 9)$$

$$E = (-2x + 8) \times (-2x + 8 - 10x + 9)$$

$$E = (-2x + 8) \times (-2x - 10x + 8 + 9)$$

$$E = (-2x + 8) \times (-12x + 17)$$

$$F = -(x + 6) \times (5x - 1) + 5x - 1$$

$$F = -(x+6) \times (5x-1) + (5x-1) \times 1$$

$$F = (5x-1) \times (-(x+6) + 1)$$

$$F = (5x-1) \times (-x-6+1)$$

$$F = (5x-1) \times (-x-5)$$

Corrigé de l'exercice 8

Factoriser chacune des expressions littérales suivantes :

$$A = (-6x+5) \times (10x-4) + (-6x+5) \times (3x+4)$$

$$A = (-6x+5) \times (10x-4+3x+4)$$

$$A = (-6x+5) \times (10x+3x-4+4)$$

$$A = (-6x+5) \times 13x$$

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

$$B = 5^2 - (3x)^2$$

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

$$C = -16x^2 + (6x+6)^2$$

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

$$C = (6x+6+4x) \times (6x+6-4x)$$

$$C = (6x+4x+6) \times (6x-4x+6)$$

$$C = (10x+6) \times (2x+6)$$

$$D = 25x^2 + 100x + 100$$

$$D = (5x)^2 + 2 \times 5x \times 10 + 10^2$$

$$D = (5x+10)^2$$

$$E = 2x+7 + (2x+7) \times (6x-10)$$

$$E = (2x+7) \times 1 + (2x+7) \times (6x-10)$$

$$E = (2x+7) \times (1+6x-10)$$

$$E = (2x+7) \times (6x+1-10)$$

$$E = (2x+7) \times (6x-9)$$

$$F = (-x-7) \times (-2x+7) - (-2x+7)^2$$

$$F = (-x-7) \times (-2x+7) - (-2x+7) \times (-2x+7)$$

$$F = (-2x+7) \times (-x-7 - (-2x+7))$$

$$F = (-2x+7) \times (-x-7+2x-7)$$

$$F = (-2x+7) \times (-x+2x-7-7)$$

$$F = (-2x+7) \times (x-14)$$

Corrigé de l'exercice 9

Factoriser chacune des expressions littérales suivantes :

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

$$A = (5x)^2 - 3^2$$

$$A = (5x+3) \times (5x-3)$$

$$B = -(4x-4)^2 + 100x^2$$

$$B = -(4x-4)^2 + (10x)^2$$

$$B = (10x+4x-4) \times (10x-(4x-4))$$

$$B = (14x-4) \times (10x-4x+4)$$

$$B = (14x-4) \times (6x+4)$$

$$C = (2x+5) \times (x-10) + (x-10) \times (-4x-6)$$

$$C = (x-10) \times (2x+5-4x-6)$$

$$C = (x-10) \times (2x-4x+5-6)$$

$$C = (x-10) \times (-2x-1)$$

$$D = 9x^2 - 36x + 36$$

$$D = (3x)^2 - 2 \times 3x \times 6 + 6^2$$

$$D = (3x-6)^2$$

$$E = (10x+7) \times (5x+1) + (5x+1)^2$$

$$E = (10x+7) \times (5x+1) + (5x+1) \times (5x+1)$$

$$E = (5x+1) \times (10x+7+5x+1)$$

$$E = (5x+1) \times (10x+5x+7+1)$$

$$E = (5x+1) \times (15x+8)$$

$$F = 4x+8 - (4x+8) \times (x-7)$$

$$F = (4x+8) \times 1 - (4x+8) \times (x-7)$$

$$F = (4x+8) \times (1-(x-7))$$

$$F = (4x+8) \times (1-x+7)$$

$$F = (4x+8) \times (-x+1+7)$$

$$F = (4x+8) \times (-x+8)$$

Corrigé de l'exercice 10

Factoriser chacune des expressions littérales suivantes :

$$A = 36x^2 - 25$$

$$A = (6x)^2 - 5^2$$

$$A = (6x + 5) \times (6x - 5)$$

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

$$B = (10x)^2 + 2 \times 10x \times 8 + 8^2$$

$$B = (10x + 8)^2$$

$$C = (8x + 7) \times (2x - 6) + (6x + 6) \times (8x + 7)$$

$$C = (8x + 7) \times (2x - 6 + 6x + 6)$$

$$C = (8x + 7) \times (2x + 6x - 6 + 6)$$

$$C = (8x + 7) \times 8x$$

$$D = -(-9x + 7)^2 + 49x^2$$

$$D = -(-9x + 7)^2 + (7x)^2$$

$$D = (7x - 9x + 7) \times (7x - (-9x + 7))$$

$$D = (-2x + 7) \times (7x + 9x - 7)$$

$$D = (-2x + 7) \times (16x - 7)$$

$$E = (3x + 9) \times (8x - 4) + 8x - 4$$

$$E = (3x + 9) \times (8x - 4) + (8x - 4) \times 1$$

$$E = (8x - 4) \times (3x + 9 + 1)$$

$$E = (8x - 4) \times (3x + 10)$$

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

$$F = -(-8x + 4) \times (-8x + 4) + (-8x + 4) \times (6x + 4)$$

$$F = (-8x + 4) \times (-(-8x + 4) + 6x + 4)$$

$$F = (-8x + 4) \times (8x - 4 + 6x + 4)$$

$$F = (-8x + 4) \times (8x + 6x - 4 + 4)$$

$$F = (-8x + 4) \times 14x$$

Corrigé de l'exercice 11

Factoriser chacune des expressions littérales suivantes :

$$A = (-9x - 4) \times (9x - 9) - (8x - 2) \times (-9x - 4)$$

$$A = (-9x - 4) \times (9x - 9 - (8x - 2))$$

$$A = (-9x - 4) \times (9x - 9 - 8x + 2)$$

$$A = (-9x - 4) \times (9x - 8x - 9 + 2)$$

$$A = (-9x - 4) \times (x - 7)$$

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

$$B = (10x)^2 + 2 \times 10x \times 4 + 4^2$$

$$B = (10x + 4)^2$$

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

$$C = (7x)^2 - 2^2$$

$$C = (7x + 2) \times (7x - 2)$$

$$D = (8x - 10)^2 - 49$$

$$D = (8x - 10)^2 - 7^2$$

$$D = (8x - 10 + 7) \times (8x - 10 - 7)$$

$$D = (8x - 3) \times (8x - 17)$$

$$E = 4x + 8 + (10x + 2) \times (4x + 8)$$

$$E = (4x + 8) \times 1 + (10x + 2) \times (4x + 8)$$

$$E = (4x + 8) \times (1 + 10x + 2)$$

$$E = (4x + 8) \times (10x + 1 + 2)$$

$$E = (4x + 8) \times (10x + 3)$$

$$F = (-6x - 3) \times (-2x + 5) + (-6x - 3)^2$$

$$F = (-6x - 3) \times (-2x + 5) + (-6x - 3) \times (-6x - 3)$$

$$F = (-6x - 3) \times (-2x + 5 - 6x - 3)$$

$$F = (-6x - 3) \times (-2x - 6x + 5 - 3)$$

$$F = (-6x - 3) \times (-8x + 2)$$

Corrigé de l'exercice 12

Factoriser chacune des expressions littérales suivantes :

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

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

$$A = (10x + 1 + 3) \times (10x + 1 - 3)$$

$$A = (10x + 4) \times (10x - 2)$$

$$B = (-2x + 8) \times (-7x - 5) + (-2x + 8) \times (7x + 5)$$

$$B = (-2x + 8) \times (-7x - 5 + 7x + 5)$$

$$B = (-2x + 8) \times (-7x + 7x - 5 + 5)$$

$$B = (-2x + 8) \times 0$$

$$C = 4x^2 + 4x + 1$$

$$C = (2x)^2 + 2 \times 2x \times 1 + 1^2$$

$$C = (2x + 1)^2$$

$$D = 4x^2 - 64$$

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

$$D = (2x + 8) \times (2x - 8)$$

$$E = 10x + 9 + (4x + 7) \times (10x + 9)$$

$$E = (10x + 9) \times 1 + (4x + 7) \times (10x + 9)$$

$$E = (10x + 9) \times (1 + 4x + 7)$$

$$E = (10x + 9) \times (4x + 1 + 7)$$

$$E = (10x + 9) \times (4x + 8)$$

$$F = (-x + 7)^2 - (-x + 7) \times (8x + 10)$$

$$F = (-x + 7) \times (-x + 7) - (-x + 7) \times (8x + 10)$$

$$F = (-x + 7) \times (-x + 7 - (8x + 10))$$

$$F = (-x + 7) \times (-x + 7 - 8x - 10)$$

$$F = (-x + 7) \times (-x - 8x + 7 - 10)$$

$$F = (-x + 7) \times (-9x - 3)$$

Corrigé de l'exercice 13

Factoriser chacune des expressions littérales suivantes :

$$A = (9x + 9) \times (x + 3) + (10x + 8) \times (x + 3)$$

$$A = (x + 3) \times (9x + 9 + 10x + 8)$$

$$A = (x + 3) \times (9x + 10x + 9 + 8)$$

$$A = (x + 3) \times (19x + 17)$$

$$B = 4x^2 - 16x + 16$$

$$B = (2x)^2 - 2 \times 2x \times 4 + 4^2$$

$$B = (2x - 4)^2$$

$$C = x^2 - 81$$

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

$$C = (x + 9) \times (x - 9)$$

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

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

$$D = (3 + 4x - 8) \times (3 - (4x - 8))$$

$$D = (4x + 3 - 8) \times (3 - 4x + 8)$$

$$D = (4x + 3 - 8) \times (-4x + 3 + 8)$$

$$D = (4x - 5) \times (-4x + 11)$$

$$E = -(5x + 1) \times (8x + 2) + (5x + 1)^2$$

$$E = -(5x + 1) \times (8x + 2) + (5x + 1) \times (5x + 1)$$

$$E = (5x + 1) \times (-8x + 2) + 5x + 1$$

$$E = (5x + 1) \times (-8x - 2 + 5x + 1)$$

$$E = (5x + 1) \times (-8x + 5x - 2 + 1)$$

$$E = (5x + 1) \times (-3x - 1)$$

$$F = 6x - 8 + (6x - 8) \times (4x + 5)$$

$$F = (6x - 8) \times 1 + (6x - 8) \times (4x + 5)$$

$$F = (6x - 8) \times (1 + 4x + 5)$$

$$F = (6x - 8) \times (4x + 1 + 5)$$

$$F = (6x - 8) \times (4x + 6)$$

Corrigé de l'exercice 14

Factoriser chacune des expressions littérales suivantes :

$$A = -(-5x - 4)^2 + 16$$

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

$$A = (4 - 5x - 4) \times (4 - (-5x - 4))$$

$$A = (-5x + 4 - 4) \times (4 + 5x + 4)$$

$$A = (-5x + 4 - 4) \times (5x + 4 + 4)$$

$$A = -5x \times (5x + 8)$$

$$B = (-8x - 3) \times (10x - 4) + (-8x - 3) \times (-10x - 2)$$

$$B = (-8x - 3) \times (10x - 4 - 10x - 2)$$

$$B = (-8x - 3) \times (10x - 10x - 4 - 2)$$

$$B = (-8x - 3) \times (-6)$$

$$C = -9x^2 + 49$$

$$C = 7^2 - (3x)^2$$

$$C = (3x + 7) \times (-3x + 7)$$

$$D = 9x^2 - 48x + 64$$

$$D = (3x)^2 - 2 \times 3x \times 8 + 8^2$$

$$D = (3x - 8)^2$$

$$E = (3x + 5) \times (4x + 2) + (3x + 5)^2$$

$$E = (3x + 5) \times (4x + 2) + (3x + 5) \times (3x + 5)$$

$$E = (3x + 5) \times (4x + 2 + 3x + 5)$$

$$E = (3x + 5) \times (4x + 3x + 2 + 5)$$

$$E = (3x + 5) \times (7x + 7)$$

$$F = -(4x + 8) \times (3x + 3) + 4x + 8$$

$$F = -(4x + 8) \times (3x + 3) + (4x + 8) \times 1$$

$$F = (4x + 8) \times (-3x + 3) + 1$$

$$F = (4x + 8) \times (-3x - 3 + 1)$$

$$F = (4x + 8) \times (-3x - 2)$$

Corrigé de l'exercice 15

Factoriser chacune des expressions littérales suivantes :

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

$$A = (2x)^2 + 2 \times 2x \times 8 + 8^2$$

$$A = (2x + 8)^2$$

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

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

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

$$B = (-4x + 3) \times (8x + 9)$$

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

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

$$C = (5x + 5) \times (5x - 5)$$

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

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

$$D = (-6x + 5 + 2x) \times (-6x + 5 - 2x)$$

$$D = (-6x + 2x + 5) \times (-6x - 2x + 5)$$

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

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

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

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

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

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

$$E = (-7x - 6) \times (-5x - 9)$$

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

$$F = (4x - 6) \times (4x + 9) + (4x - 6) \times 1$$

$$F = (4x - 6) \times (4x + 9 + 1)$$

$$F = (4x - 6) \times (4x + 10)$$

Corrigé de l'exercice 16

Factoriser chacune des expressions littérales suivantes :

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

$$A = (2x)^2 + 2 \times 2x \times 5 + 5^2$$

$$A = (2x + 5)^2$$

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

$$B = 3^2 - x^2$$

$$B = (x + 3) \times (-x + 3)$$

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

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

$$C = (8x + 7 + 2) \times (8x + 7 - 2)$$

$$C = (8x + 9) \times (8x + 5)$$

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

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

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

$$D = (3x + 4) \times (2x + 7)$$

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

$$E = (2x + 3) \times (7x + 6) + (7x + 6) \times (7x + 6)$$

$$E = (7x + 6) \times (2x + 3 + 7x + 6)$$

$$E = (7x + 6) \times (2x + 7x + 3 + 6)$$

$$E = (7x + 6) \times (9x + 9)$$

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

$$F = -(4x + 2) \times 1 + (8x + 6) \times (4x + 2)$$

$$F = (4x + 2) \times (-1 + 8x + 6)$$

$$F = (4x + 2) \times (8x - 1 + 6)$$

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

Corrigé de l'exercice 17

Factoriser chacune des expressions littérales suivantes :

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

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

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

$$A = (2x + 10) \times (5x + 5)$$

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

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

$$B = (7x + 2) \times (7x - 2)$$

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

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

$$C = (-4x + 2 + 6) \times (-4x + 2 - 6)$$

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

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

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

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

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

$$E = (10x - 3) \times 1 - (8x + 6) \times (10x - 3)$$

$$E = (10x - 3) \times (1 - (8x + 6))$$

$$E = (10x - 3) \times (1 - 8x - 6)$$

$$E = (10x - 3) \times (-8x + 1 - 6)$$

$$E = (10x - 3) \times (-8x - 5)$$

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

$$F = (3x + 6) \times (3x + 6) + (3x + 6) \times (8x + 7)$$

$$F = (3x + 6) \times (3x + 6 + 8x + 7)$$

$$F = (3x + 6) \times (3x + 8x + 6 + 7)$$

$$F = (3x + 6) \times (11x + 13)$$

Corrigé de l'exercice 18

Factoriser chacune des expressions littérales suivantes :

$$A = x^2 - 64$$

$$A = x^2 - 8^2$$

$$A = (x + 8) \times (x - 8)$$

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

$$B = (3x)^2 - 2 \times 3x \times 4 + 4^2$$

$$B = (3x - 4)^2$$

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

$$C = -(-5x - 8)^2 + 3^2$$

$$C = (3 - 5x - 8) \times (3 - (-5x - 8))$$

$$C = (-5x + 3 - 8) \times (3 + 5x + 8)$$

$$C = (-5x + 3 - 8) \times (5x + 3 + 8)$$

$$C = (-5x - 5) \times (5x + 11)$$

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

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

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

$$D = (2x + 8) \times (12x + 14)$$

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

$$E = (7x + 9) \times 1 + (7x + 9) \times (8x + 7)$$

$$E = (7x + 9) \times (1 + 8x + 7)$$

$$E = (7x + 9) \times (8x + 1 + 7)$$

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

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

$$F = -(10x + 4) \times (-7x + 6) + (-7x + 6) \times (-7x + 6)$$

$$F = (-7x + 6) \times (-10x + 4 - 7x + 6)$$

$$F = (-7x + 6) \times (-10x - 4 - 7x + 6)$$

$$F = (-7x + 6) \times (-10x - 7x - 4 + 6)$$

$$F = (-7x + 6) \times (-17x + 2)$$

Corrigé de l'exercice 19

Factoriser chacune des expressions littérales suivantes :

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

$$A = 9^2 - (5x - 4)^2$$

$$A = (9 + 5x - 4) \times (9 - (5x - 4))$$

$$A = (5x + 9 - 4) \times (9 - 5x + 4)$$

$$A = (5x + 9 - 4) \times (-5x + 9 + 4)$$

$$A = (5x + 5) \times (-5x + 13)$$

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

$$B = (10x)^2 + 2 \times 10x \times 4 + 4^2$$

$$B = (10x + 4)^2$$

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

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

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

$$C = (2x + 4) \times (15x + 4)$$

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

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

$$D = (10x + 9) \times (-10x + 9)$$

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

$$E = (10x + 5) \times (2x + 3) + (10x + 5) \times (10x + 5)$$

$$E = (10x + 5) \times (2x + 3 + 10x + 5)$$

$$E = (10x + 5) \times (2x + 10x + 3 + 5)$$

$$E = (10x + 5) \times (12x + 8)$$

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

$$F = -(x + 2) \times 1 + (x + 2) \times (8x + 8)$$

$$F = (x + 2) \times (-1 + 8x + 8)$$

$$F = (x + 2) \times (8x - 1 + 8)$$

$$F = (x + 2) \times (8x + 7)$$

Corrigé de l'exercice 20

Factoriser chacune des expressions littérales suivantes :

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

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

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

$$A = (-5x + 3) \times (-8x - 2)$$

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

$$B = 7^2 - (4x)^2$$

$$B = (4x + 7) \times (-4x + 7)$$

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

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

$$C = (3x + 9 + 2x) \times (3x + 9 - 2x)$$

$$C = (3x + 2x + 9) \times (3x - 2x + 9)$$

$$C = (5x + 9) \times (x + 9)$$

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

$$D = (10x)^2 - 2 \times 10x \times 10 + 10^2$$

$$D = (10x - 10)^2$$

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

$$E = (-9x + 7) \times (4x + 10) + (4x + 10) \times (4x + 10)$$

$$E = (4x + 10) \times (-9x + 7 + 4x + 10)$$

$$E = (4x + 10) \times (-9x + 4x + 7 + 10)$$

$$E = (4x + 10) \times (-5x + 17)$$

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

$$F = (8x + 3) \times (10x + 4) - (10x + 4) \times 1$$

$$F = (10x + 4) \times (8x + 3 - 1)$$

$$F = (10x + 4) \times (8x + 2)$$

Corrigé de l'exercice 21

Factoriser chacune des expressions littérales suivantes :

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

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

$$A = (-7x - 9) \times (-10x - 7 - 2x - 9)$$

$$A = (-7x - 9) \times (-10x - 2x - 7 - 9)$$

$$A = (-7x - 9) \times (-12x - 16)$$

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

$$B = 6^2 - (9x)^2$$

$$B = (9x + 6) \times (-9x + 6)$$

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

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

$$C = (-6x + 4 + 6x) \times (-6x + 4 - 6x)$$

$$C = (-6x + 6x + 4) \times (-6x - 6x + 4)$$

$$C = 4 \times (-12x + 4)$$

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

$$D = (6x)^2 - 2 \times 6x \times 1 + 1^2$$

$$D = (6x - 1)^2$$

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

$$E = (3x - 10) \times (3x + 4) + (3x + 4) \times 1$$

$$E = (3x + 4) \times (3x - 10 + 1)$$

$$E = (3x + 4) \times (3x - 9)$$

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

$$F = (-8x - 2) \times (-8x - 2) + (3x + 3) \times (-8x - 2)$$

$$F = (-8x - 2) \times (-8x - 2 + 3x + 3)$$

$$F = (-8x - 2) \times (-8x + 3x - 2 + 3)$$

$$F = (-8x - 2) \times (-5x + 1)$$

Corrigé de l'exercice 22

Factoriser chacune des expressions littérales suivantes :

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

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

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

$$A = (3x + 5) \times (-11x - 9)$$

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

$$B = -(-x + 9)^2 + 4^2$$

$$B = (4 - x + 9) \times (4 - (-x + 9))$$

$$B = (-x + 4 + 9) \times (4 + x - 9)$$

$$B = (-x + 4 + 9) \times (x + 4 - 9)$$

$$B = (-x + 13) \times (x - 5)$$

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

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

$$C = (9x + 3) \times (9x - 3)$$

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

$$D = (6x)^2 - 2 \times 6x \times 1 + 1^2$$

$$D = (6x - 1)^2$$

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

$$E = -(5x + 9) \times (3x - 4) + (3x - 4) \times (3x - 4)$$

$$E = (3x - 4) \times (-5x + 9) + 3x - 4$$

$$E = (3x - 4) \times (-5x - 9 + 3x - 4)$$

$$E = (3x - 4) \times (-5x + 3x - 9 - 4)$$

$$E = (3x - 4) \times (-2x - 13)$$

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

$$F = (9x + 9) \times 1 + (9x + 9) \times (2x + 7)$$

$$F = (9x + 9) \times (1 + 2x + 7)$$

$$F = (9x + 9) \times (2x + 1 + 7)$$

$$F = (9x + 9) \times (2x + 8)$$

Corrigé de l'exercice 23

Factoriser chacune des expressions littérales suivantes :

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

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

$$A = (2 + 3x - 10) \times (2 - (3x - 10))$$

$$A = (3x + 2 - 10) \times (2 - 3x + 10)$$

$$A = (3x + 2 - 10) \times (-3x + 2 + 10)$$

$$A = (3x - 8) \times (-3x + 12)$$

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

$$B = 10^2 - (3x)^2$$

$$B = (3x + 10) \times (-3x + 10)$$

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

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

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

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

$$C = (x + 5) \times (x + 6)$$

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

$$D = (9x)^2 + 2 \times 9x \times 2 + 2^2$$

$$D = (9x + 2)^2$$

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

$$E = (5x - 9) \times 1 + (8x + 5) \times (5x - 9)$$

$$E = (5x - 9) \times (1 + 8x + 5)$$

$$E = (5x - 9) \times (8x + 1 + 5)$$

$$E = (5x - 9) \times (8x + 6)$$

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

$$F = (-7x - 10) \times (4x - 6) + (-7x - 10) \times$$

$$(-7x - 10)$$

$$F = (-7x - 10) \times (4x - 6 - 7x - 10)$$

$$F = (-7x - 10) \times (4x - 7x - 6 - 10)$$

$$F = (-7x - 10) \times (-3x - 16)$$

Corrigé de l'exercice 24

Factoriser chacune des expressions littérales suivantes :

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

$$A = 7^2 - (7x)^2$$

$$A = (7x + 7) \times (-7x + 7)$$

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

$$B = (2x)^2 + 2 \times 2x \times 7 + 7^2$$

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

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

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

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

$$C = (8x - 10) \times (-15x - 1)$$

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

$$D = -(-2x + 8)^2 + 7^2$$

$$D = (7 - 2x + 8) \times (7 - (-2x + 8))$$

$$D = (-2x + 7 + 8) \times (7 + 2x - 8)$$

$$D = (-2x + 7 + 8) \times (2x + 7 - 8)$$

$$D = (-2x + 15) \times (2x - 1)$$

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

$$E = (-6x - 4) \times (-6x - 4) - (-9x + 8) \times (-6x - 4)$$

$$E = (-6x - 4) \times (-6x - 4 - (-9x + 8))$$

$$E = (-6x - 4) \times (-6x - 4 + 9x - 8)$$

$$E = (-6x - 4) \times (-6x + 9x - 4 - 8)$$

$$E = (-6x - 4) \times (3x - 12)$$

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

$$F = (4x + 10) \times 1 + (10x + 4) \times (4x + 10)$$

$$F = (4x + 10) \times (1 + 10x + 4)$$

$$F = (4x + 10) \times (10x + 1 + 4)$$

$$F = (4x + 10) \times (10x + 5)$$

Corrigé de l'exercice 25

Factoriser chacune des expressions littérales suivantes :

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

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

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

$$A = (x - 6) \times (x + 15)$$

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

$$B = (8x)^2 - 2 \times 8x \times 10 + 10^2$$

$$B = (8x - 10)^2$$

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

$$C = (-6x + 2 + x) \times (-6x + 2 - x)$$

$$C = (-6x + x + 2) \times (-6x - x + 2)$$

$$C = (-5x + 2) \times (-7x + 2)$$

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

$$D = 3^2 - (10x)^2$$

$$D = (10x + 3) \times (-10x + 3)$$

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

$$E = -(7x + 4) \times 1 + (7x + 4) \times (7x + 7)$$

$$E = (7x + 4) \times (-1 + 7x + 7)$$

$$E = (7x + 4) \times (7x - 1 + 7)$$

$$E = (7x + 4) \times (7x + 6)$$

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

$$F = (8x - 5) \times (8x - 5) + (8x - 5) \times (9x - 10)$$

$$F = (8x - 5) \times (8x - 5 + 9x - 10)$$

$$F = (8x - 5) \times (8x + 9x - 5 - 10)$$

$$F = (8x - 5) \times (17x - 15)$$

Corrigé de l'exercice 26

Factoriser chacune des expressions littérales suivantes :

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

$$A = (7x)^2 + 2 \times 7x \times 4 + 4^2$$

$$A = (7x + 4)^2$$

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

$$B = (8x)^2 - 9^2$$

$$B = (8x + 9) \times (8x - 9)$$

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

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

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

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

$$C = (-3x + 1) \times (-7x + 3)$$

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

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

$$D = (1 + 3x - 2) \times (1 - (3x - 2))$$

$$D = (3x + 1 - 2) \times (1 - 3x + 2)$$

$$D = (3x + 1 - 2) \times (-3x + 1 + 2)$$

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

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

$$E = (8x + 6) \times (8x + 6) + (8x + 6) \times (-x - 4)$$

$$E = (8x + 6) \times (8x + 6 - x - 4)$$

$$E = (8x + 6) \times (8x - x + 6 - 4)$$

$$E = (8x + 6) \times (7x + 2)$$

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

$$F = (4x - 6) \times (7x + 8) + (7x + 8) \times 1$$

$$F = (7x + 8) \times (4x - 6 + 1)$$

$$F = (7x + 8) \times (4x - 5)$$

Corrigé de l'exercice 27

Factoriser chacune des expressions littérales suivantes :

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

$$A = (7x)^2 - 2 \times 7x \times 1 + 1^2$$

$$A = (7x - 1)^2$$

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

$$B = (3x)^2 - 8^2$$

$$B = (3x + 8) \times (3x - 8)$$

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

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

$$C = (5x + 4x - 3) \times (5x - (4x - 3))$$

$$C = (9x - 3) \times (5x - 4x + 3)$$

$$C = (9x - 3) \times (x + 3)$$

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

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

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

$$D = (3x + 2) \times (4x - 4)$$

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

$$E = (-9x + 5) \times (-9x + 5) - (-9x + 5) \times (10x + 4)$$

$$E = (-9x + 5) \times (-9x + 5 - (10x + 4))$$

$$E = (-9x + 5) \times (-9x + 5 - 10x - 4)$$

$$E = (-9x + 5) \times (-9x - 10x + 5 - 4)$$

$$E = (-9x + 5) \times (-19x + 1)$$

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

$$F = (7x + 10) \times (9x + 6) + (9x + 6) \times 1$$

$$F = (9x + 6) \times (7x + 10 + 1)$$

$$F = (9x + 6) \times (7x + 11)$$

Corrigé de l'exercice 28

Factoriser chacune des expressions littérales suivantes :

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

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

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

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

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

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

$$B = (2x)^2 - 2 \times 2x \times 5 + 5^2$$

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

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

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

$$C = (4x + 9) \times (4x - 9)$$

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

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

$$D = (6 + 2x - 2) \times (6 - (2x - 2))$$

$$D = (2x + 6 - 2) \times (6 - 2x + 2)$$

$$D = (2x + 6 - 2) \times (-2x + 6 + 2)$$

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

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

$$E = (6x + 6) \times (5x - 10) + (5x - 10) \times 1$$

$$E = (5x - 10) \times (6x + 6 + 1)$$

$$E = (5x - 10) \times (6x + 7)$$

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

$$F = (x - 2) \times (x - 2) + (-3x + 4) \times (x - 2)$$

$$F = (x - 2) \times (x - 2 - 3x + 4)$$

$$F = (x - 2) \times (x - 3x - 2 + 4)$$

$$F = (x - 2) \times (-2x + 2)$$

Corrigé de l'exercice 29

Factoriser chacune des expressions littérales suivantes :

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

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

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

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

$$A = (5x + 10) \times (-6x - 5)$$

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

$$B = (3x)^2 - 5^2$$

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

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

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

$$C = (6x - 6x - 7) \times (6x - (-6x - 7))$$

$$C = -7 \times (6x + 6x + 7)$$

$$C = -7 \times (12x + 7)$$

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

$$D = (8x)^2 + 2 \times 8x \times 5 + 5^2$$

$$D = (8x + 5)^2$$

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

$$E = (x - 4) \times (-6x - 10) + (x - 4) \times (x - 4)$$

$$E = (x - 4) \times (-6x - 10 + x - 4)$$

$$E = (x - 4) \times (-6x + x - 10 - 4)$$

$$E = (x - 4) \times (-5x - 14)$$

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

$$F = (5x - 9) \times 1 + (5x - 9) \times (6x + 7)$$

$$F = (5x - 9) \times (1 + 6x + 7)$$

$$F = (5x - 9) \times (6x + 1 + 7)$$

$$F = (5x - 9) \times (6x + 8)$$

Corrigé de l'exercice 30

Factoriser chacune des expressions littérales suivantes :

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

$$A = (10x)^2 - 8^2$$

$$A = (10x + 8) \times (10x - 8)$$

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

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

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

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

$$B = (-8x + 8) \times (-6x + 1)$$

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

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

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

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

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

$$D = (9x + 10 + 4) \times (9x + 10 - 4)$$

$$D = (9x + 14) \times (9x + 6)$$

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

$$E = (5x + 5) \times 1 + (5x + 5) \times (5x - 7)$$

$$E = (5x + 5) \times (1 + 5x - 7)$$

$$E = (5x + 5) \times (5x + 1 - 7)$$

$$E = (5x + 5) \times (5x - 6)$$

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

$$F = (-6x + 10) \times (-6x + 10) + (-6x + 10) \times (-10x - 7)$$

$$F = (-6x + 10) \times (-6x + 10 - 10x - 7)$$

$$F = (-6x + 10) \times (-6x - 10x + 10 - 7)$$

$$F = (-6x + 10) \times (-16x + 3)$$