

Groupe des Instituts Excel

Exercices

Exercice 1

Factoriser chacune des expressions littérales suivantes :

$$A = 36x^2 + 96x + 64$$

$$B = (-5x - 7)^2 - 49x^2$$

$$C = -(-7x + 1) \times (x + 4) + (-9x + 9) \times (-7x + 1)$$

$$D = 36x^2 - 4$$

$$E = (-7x - 8)^2 + (-7x - 8) \times (-9x + 10)$$

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

Exercice 2

Factoriser chacune des expressions littérales suivantes :

$$A = -(4x + 1)^2 + 16$$

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

$$C = (-3x + 9) \times (-x - 8) - (-3x + 9) \times (-2x + 8)$$

$$D = -49x^2 + 81$$

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

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

Exercice 3

Factoriser chacune des expressions littérales suivantes :

$$A = 49x^2 + 84x + 36$$

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

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

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

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

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

Exercice 4

Factoriser chacune des expressions littérales suivantes :

$$A = -36 + (-6x + 3)^2$$

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

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

$$D = (6x + 2) \times (4x + 3) + (6x + 2) \times (5x + 7)$$

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

$$F = (8x + 7) \times (10x + 4) + (10x + 4)^2$$

Exercice 5

Factoriser chacune des expressions littérales suivantes :

$$A = 100x^2 - 100x + 25$$

$$B = (9x + 8)^2 - 64x^2$$

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

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

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

$$F = 8x + 1 + (7x + 5) \times (8x + 1)$$

Exercice 6

Factoriser chacune des expressions littérales suivantes :

$$A = -(5x + 1) \times (6x + 8) + (6x + 8) \times (8x - 3)$$

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

$$C = (8x + 10)^2 - 64$$

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

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

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