Groupe des Instituts Excel

Exercices

Exercice 1

Factoriser chacune des expressions littérales suivantes :

$A = 9x^2 - 81$
$B = (6x - 6) \times (2x - 2) + (-2x - 10) \times (2x - 2)$
$C = 100x^2 + 100x + 25$

$D = -100 + (-5x - 7)^2$
$E = (5x + 1)^2 + (5x + 1) \times (9x + 10)$
$F = (5x - 2) \times (7x - 5) - (5x - 2)$

Exercice 2

Factoriser chacune des expressions littérales suivantes :

$A = 36x^2 - 1$
$B = (9x + 4)^2 - 49x^2$
$C = -(8x - 6) \times (5x + 10) + (4x - 9) \times (5x + 10)$

$D = 9x^2 + 18x + 9$
$E = 5x + 10 + (5x + 10) \times (9x - 4)$
$F = (7x + 5) \times (-4x + 5) + (7x + 5)^2$

Exercice 3

Factoriser chacune des expressions littérales suivantes :

$A = -(-10x + 9)^2 + x^2$
$B = 25x^2 - 36$
$C = (4x - 7) \times (2x + 4) + (4x - 7) \times (2x - 7)$

$D = 100x^2 + 140x + 49$
$E = -(6x - 7) \times (x - 5) + x - 5$
$F = (4x + 7) \times (-3x + 5) + (4x + 7)^2$

Exercice 4

Factoriser chacune des expressions littérales suivantes :

$A = 81x^2 - 9$
$B = 81x^2 + 126x + 49$
$C = -(9x - 6)^2 + 1$

$D = (9x + 6) \times (9x + 9) + (5x + 5) \times (9x + 6)$
$E = (3x + 10) \times (5x - 6) + 3x + 10$
$F = (-10x + 3) \times (-10x + 8) - (-10x + 3)^2$

Exercice 5

Factoriser chacune des expressions littérales suivantes :

$A = 16x^2 + 8x + 1$
$B = -36x^2 + (-4x + 7)^2$
$C = -(6x + 7) \times (9x + 5) + (9x + 5) \times (-4x + 10)$

$D = -49x^2 + 1$
$E = 9x + 2 + (9x + 2) \times (6x + 2)$
$F = (-10x - 6)^2 + (-4x + 3) \times (-10x - 6)$

Exercice 6

Factoriser chacune des expressions littérales suivantes :

$A = -64x^2 + 36$
$B = (-9x + 4)^2 - 64x^2$
$C = 25x^2 + 20x + 4$

$D = (-3x + 2) \times (8x + 10) + (-3x + 2) \times (8x - 6)$
$E = 4x - 4 + (6x + 2) \times (4x - 4)$
$F = (-4x + 9)^2 - (-10x + 7) \times (-4x + 9)$