

Ex 1 Factoriser les expressions suivantes :

$A = 5x + 5y$

$B = 15b - 15c$

$C = 2a + 2b - 2c$

$D = 6x - 6y$

$E = 6a - 30$

$F = 4a + 16b$

$G = 10a + 5c$

$H = 4x + 8$

$I = 3x + xy$

$J = 3c + 4bc$

$K = x^2 + 2x$

$L = x^3 + xy^2$

$M = \frac{2}{3}x + \frac{2}{3}y^2$

$N = \frac{1}{2}x + \frac{1}{2}$

$O = xy^2 + x^2y$

$P = -2x + 2y + 2$

Ex 2 Factoriser les expressions suivantes : (Reconnaître une égalité remarquable)

$A = x^2 + 2x + 1$

$B = x^2 - 6x + 9$

$C = x^2 + 8x + 16$

$D = a^2 - 12a + 36$

$E = 25 + 10x + x^2$

$F = 4 + 8x + 4x^2$

$G = x^2 - 100$

$H = 25 - x^2$

Ex 3 Complète :

$A = (2x + 1)(3x + 2) + (2x + 1)(4x + 3)$

$B = (2x - 5)(7x - 4) - (3 - 5x)(7x - 4)$

$A = (2x + 1)[(\dots\dots\dots) + (\dots\dots\dots)]$

$B = (7x - 4)[(\dots\dots\dots) - (\dots\dots\dots)]$

$A = (2x + 1)[\dots\dots\dots + \dots\dots\dots]$

$B = (7x - 4)[\dots\dots\dots - \dots\dots\dots]$

$A = (2x + 1)(\dots\dots\dots)$

$B = (7x - 4)(\dots\dots\dots)$

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

$D = (3a + 8)(5a - 1) - 2(3a + 8)$

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

$D = (3a + 8)[(\dots\dots\dots) - \dots\dots]$

$C = (x + 3)[(\dots\dots\dots) + (\dots\dots\dots)]$

$D = (3a + 8)[\dots\dots\dots - \dots\dots]$

$C = (x + 3)[\dots\dots\dots + \dots\dots\dots]$

$D = (3a + 8)(\dots\dots\dots)$

$C = (x + 3)(\dots\dots\dots)$

Ex 4 Factoriser les expressions suivantes :

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

$B = (5x + 11)(4y - 1) + (5x + 11)(3y + 2)$

$C = (7x - 3)(x + 1) + (7x - 3)(2x + 2)$

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

$E = (x - 2)(2x + 3) - (x - 2)(2x + 2)$

$F = (2x - 1)(2 + x) + 3(2 + x)$

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

$H = (5x + 2)(2x + 1) - (5x + 2)(x + 3)$

$I = (x + 1)(2x + 1) + (x + 1)(x + 2) + 3(x + 1)$

$J = 3(x - 2) + (x - 2)(x + 3)$

$K = (7x - 3)^2 + (7x - 3)(x + 2)$

$L = 2(x - 2)(y + 1) - (2y + 1)(x - 2)$

$M = (a - 3)(x + 1) - (a - 3)(2x + 2)$

$N = (x - 2)^2 - 3(x - 2)$

$O = (x - 3)(x + 1) - (x - 3)(x - 1)$

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