

Ex 1 Factoriser les expressions suivantes (reconnaître un facteur commun - niveau 1)

$A = 5x + 5y$	$B = 15b - 15c$	$C = 2a + 2b - 2c$	$D = 6x - 6y$
$E = 6a - 30$	$F = 4a + 16b$	$G = 10a + 5c$	$H = 4x + 8$
$I = 3x + xy$	$J = 3c + 4bc$	$K = x^2 + 2x$	$L = x^3 + xy^2$
$M = \frac{3}{4}x + \frac{3}{4}y^2$	$N = \frac{1}{2}x + \frac{1}{2}$	$O = xy^2 + x^2y$	$P = -2x + 2y + 2$

Ex 2 Compléter (reconnaître un facteur commun - niveau 2)

$A = (2x + 1)(3x + 2) + (2x + 1)(4x + 3)$	$B = (2x - 5)(7x - 4) - (3 - 5x)(7x - 4)$
$A = (2x + 1)[(\dots\dots\dots) + (\dots\dots\dots)]$	$B = (7x - 4)[(\dots\dots\dots) - (\dots\dots\dots)]$
$A = (2x + 1)[\dots\dots\dots + \dots\dots\dots]$	$B = (7x - 4)[\dots\dots\dots]$
$A = (2x + 1)(\dots\dots\dots)$	$B = (7x - 4)(\dots\dots\dots)$
$C = (x + 3)(2x - 7) + (x + 3)^2$	$D = (3a + 8)(5a - 1) - 2(3a + 8)$
$C = (x + 3)(2x - 7) + (x + 3)(x + 3)$	$D = (3a + 8)[(\dots\dots\dots) - \dots\dots]$
$C = (x + 3)[(\dots\dots\dots) + (\dots\dots\dots)]$	$D = (3a + 8)[\dots\dots\dots - \dots\dots]$
$C = (x + 3)[\dots\dots\dots + \dots\dots\dots]$	$D = (3a + 8)(\dots\dots\dots)$
$C = (x + 3)(\dots\dots\dots)$	

Ex 3 Factoriser les expressions suivantes (reconnaître une identité 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 4 Factoriser (choisir la méthode)

$A = (3x + 1)(5x + 3) + (3x + 1)(2x + 2)$	$B = (5x + 11)(4y - 1) + (5x + 11)(3y + 2)$
$C = (7x - 3)(x + 1) + (7x - 3)(2x + 2)$	$D = (8x - 2)(2 - x) + (2 - x)(x + 3)$
$E = (x - 2)(2x + 3) - (x - 2)(2x + 2)$	$F = (2x - 1)(2 + x) + 3(2 + x)$
$G = (x - 3)(x + 1) + (x + 1)^2$	$H = (5x + 2)(2x + 1) - (5x + 2)(x + 3)$
$I = (x + 1)(2x + 1) + (x + 1)(x + 2) + 3(x + 1)$	$J = 3(x - 2) + (x - 2)(x + 3)$
$K = (7x - 3)^2 + (7x - 3)(x + 2)$	$L = 2(x - 2)(y + 1) - (2y + 1)(x - 2)$
$M = (a - 3)(x + 1) - (a - 3)(2x + 2)$	$N = (x - 2)^2 - 3(x - 2)$
$O = (x - 3)(x + 1) - (x - 3)(x - 1)$	$P = (x - 4)^2 + 3(x - 4)(x + 3)$