

EXERCICE 1B.1

a. Factoriser en utilisant l'identité remarquable : $a^2 - b^2 = (a + b)(a - b)$

$Z = (x + 2)^2 - 81$ $Z = (x + 2)^2 - 9^2$ $Z = (x + 2 + 9)(x + 2 - 9)$ $Z = (x + 11)(x - 7)$	$A = (x + 1)^2 - 4$	$B = (x + 2)^2 - 9$
$C = (2x + 1)^2 - 25$	$D = 16 - (3x + 2)^2$	$E = 36 - (4 - 3x)^2$

b. Même consigne :

$Z = (x + 2)^2 - (2x - 3)^2$ $Z = [(x + 2) + (2x - 3)][(x + 2) - (2x - 3)]$ $Z = (x + 2 + 2x - 3)(x + 2 - 2x + 3)$ $Z = (3x - 1)(-x + 5)$	$A = (x + 1)^2 - (2x + 3)^2$	$B = (2x - 1)^2 - (5 + x)^2$
$C = (4x - 1)^2 - (3x + 4)^2$	$D = (3x - 4)^2 - (6x + 1)^2$	$E = (x + 6)^2 - (3x - 1)^2$

EXERCICE 1B.2 - Factoriser d'abord l'expression soulignée pour retrouver le facteur commun :

$Z = (x + 2)(x + 1) + \underline{x^2 - 1}$ $Z = (x + 2)(x + 1) + (x + 1)(x - 1)$ $Z = (x + 1)[(x + 2) + (x - 1)]$ $Z = (x + 1)(x + 2 + x - 1)$ $Z = (x + 1)(2x + 1)$	$A = (x + 2)(3x - 1) + \underline{x^2 - 4}$	$B = (x + 4)(2x - 1) + \underline{x^2 - 16}$
$C = (x - 3)(x + 1) - (\underline{x^2 - 9})$	$D = (2x + 1)(x - 2) - (\underline{x^2 - 4})$	$E = \underline{25 - x^2} - (x - 5)(2x + 3)$

CORRIGE – NOTRE DAME DE LA MERCI - MONTPELLIER**EXERCICE 1B.1**a. Factoriser en utilisant l'identité remarquable : $a^2 - b^2 = (a + b)(a - b)$

$Z = (x + 2)^2 - 81$	$A = (x+1)^2 - 4$	$B = (x+2)^2 - 9$
$Z = (x + 2)^2 - 9^2$	$A = (x+1)^2 - 2^2$	$B = (x+2)^2 - 3^2$
$Z = (x + 2 + 9)(x + 2 - 9)$	$A = (x+1+2)(x+1-2)$	$B = (x+2+3)(x+2-3)$
$Z = (x + 11)(x - 7)$	$A = (x+3)(x-1)$	$B = (x+5)(x-1)$
$C = (2x+1)^2 - 25$	$D = 16 - (3x+2)^2$	$E = 36 - (4-3x)^2$
$C = (2x+1)^2 - 5^2$	$D = 4^2 - (3x+2)^2$	$E = 6^2 - (4-3x)^2$
$C = (2x+1+5)(2x+1-5)$	$D = [4+(3x+2)][4-(3x+2)]$	$E = [6+(4-3x)][6-(4-3x)]$
$C = (2x+6)(2x-4)$	$D = [4+3x+2][4-3x-2]$	$E = [6+4-3x][6-4+3x]$
$C = 4(x+3)(x-2)$	$D = (3x+6)(2-3x)$	$E = (10-3x)(2+3x)$
	$D = 3(x+2)(2-3x)$	

b. Même consigne :

$Z = (x + 2)^2 - (2x - 3)^2$	$A = (x+1)^2 - (2x+3)^2$
$Z = [(x + 2) + (2x - 3)][(x + 2) - (2x - 3)]$	$A = [(x+1) + (2x+3)][(x+1) - (2x+3)]$
$Z = (x + 2 + 2x - 3)(x + 2 - 2x + 3)$	$A = [x+1+2x+3][x+1-2x-3]$
$Z = (3x - 1)(-x + 5)$	$A = (3x+4)(-x-2) = -(3x+4)(x+2)$
$B = (2x-1)^2 - (5+x)^2$	$C = (4x-1)^2 - (3x+4)^2$
$B = [(2x-1) + (5+x)][(2x-1) - (5+x)]$	$C = [(4x-1) + (3x+4)][(4x-1) - (3x+4)]$
$B = [2x-1+5+x][2x-1-5-x]$	$C = [4x-1+3x+4][4x-1-3x-4]$
$B = (3x+4)(x-6)$	$C = (7x+3)(x-5)$
$D = (3x-4)^2 - (6x+1)^2$	$E = (x+6)^2 - (3x-1)^2$
$D = [(3x-4) + (6x+1)][(3x-4) - (6x+1)]$	$E = [(x+6) + (3x-1)][(x+6) - (3x-1)]$
$D = [3x-4+6x+1][3x-4-6x-1]$	$E = [x+6+3x-1][x+6-3x+1]$
$D = (9x-3)(-3x-5) = -3(3x-1)(3x+5)$	$E = (4x+5)(-2x+7)$

EXERCICE 1B.2 - Factoriser d'abord l'expression soulignée pour retrouver le facteur commun :

$Z = (x+2)(x+1) + x^2 - 1$	$A = (x+2)(3x-1) + x^2 - 4$	$B = (x+4)(2x-1) + x^2 - 16$
$Z = (x+2)(x+1) + (x+1)(x-1)$	$A = (x+2)(3x-1) + (x+2)(x-2)$	$B = (x+4)(2x-1) + (x+4)(x-4)$
$Z = (x+1)[(x+2) + (x-1)]$	$A = (x+2)[(3x-1) + (x-2)]$	$B = (x+4)[(2x-1) + (x-4)]$
$Z = (x+1)(x+2+x-1)$	$A = (x+2)[3x-1+x-2]$	$B = (x+4)[2x-1+x-4]$
$Z = (x+1)(2x+1)$	$A = (x+2)(4x-3)$	$B = (x+4)(3x-5)$
$C = (x-3)(x+1) - (x^2 - 9)$	$D = (2x+1)(x-2) - (x^2 - 4)$	$E = 25 - x^2 - (x-5)(2x+3)$
$C = (x-3)(x+1) - (x+3)(x-3)$	$D = (2x+1)(x-2) - (x+2)(x-2)$	$E = (5+x)(5-x) - (x-5)(2x+3)$
$C = (x-3)[(x+1) - (x+3)]$	$D = (x-2)[(2x+1) - (x+2)]$	$E = (5+x)(5-x) + (5-x)(2x+3)$
$C = (x-3)[x+1-x-3]$	$D = (x-2)[2x+1-x-2]$	$E = (5-x)[(5+x) + (2x+3)]$
$C = -2(x-3)$	$D = (x-2)(x-1)$	$E = (5-x)[5+x+2x+3]$
		$E = (5-x)(3x+8)$

Je remercie Isaure pour son travail de relecture