

Fiche : Factorisation : Niveau A

A1	$64x^2 - 49$
A2	$(2x+1)(3x+5) + (4x+2)(2x+1)$
A3	$16x^2 - 40x + 25$
A4	$(x-2)(x+3) + (x-2)(4x-1)$
A5	$x^2 + 4x + 4$

A6	$(5x-3)(2x-5) - x(5x-3)$
A7	$t^2 + 12t + 36$
A8	$(x+1)(x+3) - 5(x+3)$
A9	$y^2 - 81$
A10	$(x+4)(x-2) + (3x+1)(x+4)$

A11	$9x^2 - 24x + 16$
A12	$(x-3)(2x+1) + (2x+1)(3x-2)$
A13	$x^2 + 14x + 49$
A14	$(3x+2)(7x-1) - 10(7x-1)$
A15	$100t^2 - 121$

A16	$(x+2)(x+1) - 2x(x+1)$
A17	$9x^2 - 6x + 1$
A18	$2(6x-7) + (6x-7)(x+3)$
A19	$49x^2 - 42x + 9$
A20	$64x^2 - 81$

Fiche : Factorisation : Niveau A : réponses

A1	$64x^2 - 49 = (8x)^2 - 7^2 = (8x - 7)(8x + 7)$
A2	$(2x+1)(3x+5) + (4x+2)(2x+1) = (2x+1)[3x+5+4x+2]$ $= (2x + 1)(7x + 7)$
A3	$16x^2 - 40x + 25 = (4x)^2 - 2 \times 4x \times 5 + 5^2 = (4x - 5)^2$
A4	$(x-2)(x+3) + (x-2)(4x-1) = (x-2)[x+3+4x-1] = (x-2)(5x+2)$
A5	$x^2 + 4x + 4 = x^2 + 2 \times x \times 2 + 2^2 = (x + 2)^2$

A6	$(5x-3)(2x-5) - x(5x-3) = (5x - 3)[2x - 5 - x]$ $= (5x - 3)(x - 5)$
A7	$t^2 + 12t + 36 = t^2 + 2 \times t \times 6 + 6^2 = (t + 6)^2$
A8	$(x+1)(x+3) - 5(x+3) = (x+3)[x+1-5] = (x+3)(x-4)$
A9	$y^2 - 81 = y^2 - 9^2 = (y - 9)(y + 9)$
A10	$(x+4)(x-2) + (3x+1)(x+4) = (x+4)[x-2+3x+1] = (x+4)(4x-1)$

A11	$9x^2 - 24x + 16 = (3x)^2 - 2 \times 3x \times 4 + 4^2 = (3x - 4)^2$
A12	$(x-3)(2x+1) + (2x+1)(3x-2) =$ $(2x+1)[x-3 + 3x-2] = (2x+1)(4x-5)$
A13	$x^2 + 14x + 49 = x^2 + 2 \times x \times 7 + 7^2 = (x + 7)^2$
A14	$(3x+2)(7x-1) - 10(7x-1) = (7x-1)[3x+2-10] = (7x-1)(3x-8)$
A15	$100t^2 - 121 = (10t)^2 - 11^2 = (10t - 11)(10t + 11)$

A16	$(x+2)(x+1) - 2x(x+1) = (x+1)[x+2-2x] = (x+1)(-x+2)$
A17	$9x^2 - 6x + 1 = (3x)^2 - 2 \times 3x \times 1 + 1^2 = (3x - 1)^2$
A18	$2(6x-7) + (6x-7)(x+3) = (6x-7)[2+x+3] = (6x-7)(x+5)$
A19	$49x^2 - 42x + 9 = (7x)^2 - 2 \times 7x \times 3 + 3^2 = (7x - 3)^2$
A20	$64x^2 - 81 = (8x)^2 - 9^2 = (8x - 9)(8x + 9)$