

Fiche : Factorisation : Niveau B

B1	$(7x + 3)(3x - 2) + 3x - 2$
B2	$(x + 5)^2 - 25$
B3	$(6x - 1)(7x - 3) - (7x - 3)(x + 9)$
B4	$4(x - 5) - (x - 5)^2$
B5	$(x + 8)(x + 7) - (2x + 5)(x + 8)$

B6	$(2x + 3)^2 - 16$
B7	$(3x + 1)^2 + (2x + 7)(3x + 1)$
B8	$8x - 5 - (8x + 1)(8x - 5)$
B9	$5(3x - 4) - (x - 2)(3x - 4)$
B10	$x^2 + 10x + 25 + (x + 5)(2x + 1)$

B11	$(x + 3)^2 - (x + 3)(2x + 1)$
B12	$100 - (5x - 4)^2$
B13	$(3x - 7)^2 - 3x + 7$
B14	$(8x + 1)(x - 5) - (x - 5)(2x + 5)$
B15	$-3(x + 9) - (x + 9)(2x + 3)$

Fiche : Factorisation : Niveau B : Réponses

B1	$(7x + 3)(3x - 2) + 3x - 2 = (7x + 3)(\underline{3x - 2}) + 1 \times (\underline{3x - 2})$ $= (3x - 2)[7x + 3 + 1] = (3x - 2)(7x + 4)$
B2	$(x + 5)^2 - 25 = (x + 5)^2 - 5^2 = [x+5-5][x+5+5] = x(x + 10)$
B3	$(6x - 1)(7x - 3) - (7x - 3)(x + 9) = (6x-1)(\underline{7x-3}) - (\underline{7x-3})(x+9)$ $= (7x - 3)[6x-1 - (x+9)] = (7x - 3)[6x-1-x-9] = (7x - 3)(5x - 10)$
B4	$4(x - 5) - (x - 5)^2 = 4(\underline{x - 5}) - (x - 5)(\underline{x - 5}) = (x - 5) [4 - (x-5)]$ $= (x - 5)[4 - x + 5] = (x - 5)(-x + 9)$
B5	$(x + 8)(x + 7) - (2x + 5)(x + 8) = (\underline{x + 8})(x + 7) - (2x + 5)(\underline{x + 8})$ $= (x+8)[x+7 - (2x+5)] = (x + 8)[x + 7 - 2x - 5] = (x + 8)(-x + 2)$

B6	$(2x + 3)^2 - 16 = (2x + 3)^2 - 4^2 = [2x+3-4][2x+3+4] = (2x - 1)(2x + 7)$
B7	$(3x + 1)^2 + (2x + 7)(3x + 1) = (3x + 1)(\underline{3x + 1}) + (2x + 7)(\underline{3x + 1}) =$ $(3x + 1)[3x + 1 + 2x + 7] = (3x + 1)(5x + 8)$
B8	$8x - 5 - (8x + 1)(8x - 5) = 1 \times (\underline{8x - 5}) - (8x + 1)(\underline{8x - 5})$ $= (8x - 5)[1 - (8x + 1)] = (8x - 5)[1 - 8x - 1] = (8x - 5)(-8x)$
B9	$5(3x - 4) - (x - 2)(3x - 4) = 5(\underline{3x - 4}) - (x - 2)(\underline{3x - 4})$ $= (3x - 4)[5 - (x - 2)] = (3x - 4)(5 - x + 2) = (3x - 4)(-x + 7)$
B10	$x^2 + 10x + 25 + (x + 5)(2x + 1) = x^2 + 2 \times x \times 5 + 5^2 + (x + 5)(2x + 1)$ $= (x + 5)^2 + (x + 5)(2x + 1) = (x + 5)(\underline{x + 5}) + (\underline{x + 5})(2x + 1)$ $= (x + 5)[x + 5 + 2x + 1] = (x + 5)(3x + 6)$

B11	$(x + 3)^2 - (x + 3)(2x + 1) = (\underline{x + 3})(x + 3) - (\underline{x + 3})(2x + 1)$ $= (x + 3)[x+3 - (2x+1)] = (x + 3)[x + 3 - 2x - 1] = (x + 3)(-x + 2)$
B12	$100 - (5x - 4)^2 = 10^2 - (5x - 4)(5x - 4) = [10 - (5x-4)][10 + (5x-4)]$ $= (10 - 5x + 4)(10 + 5x - 4) = (-5x + 14)(5x + 6)$
B13	$(3x - 7)^2 - 3x + 7 = (3x - 7)(\underline{3x - 7}) - 1 \times (\underline{3x - 7}) =$ $(3x - 7)[3x - 7 - 1] = (3x - 7)(3x - 8)$
B14	$(8x + 1)(\underline{x - 5}) - (\underline{x - 5})(2x + 5) = (x - 5)[8x + 1 - (2x + 5)]$ $= (x - 5)[8x + 1 - 2x - 5] = (x - 5)(6x - 4)$
B15	$-3(x + 9) - (x + 9)(2x + 3) = -3(\underline{x + 9}) - (\underline{x + 9})(2x + 3) =$ $= (x + 9)[-3 - (2x + 3)] = (x + 9)(-3 - 2x - 3) = (x + 9)(-2x - 6)$