

IDENTITES REMARQUABLES : NIVEAU C : DEVELOPPEMENTS

C1	$(2x + 1)^2 - (3x - 2)(3x + 2)$
C2	$(2x + 3)^2 - (2x + 3)(x - 7)$
C3	$3(7x - 4)^2 - (x + 2)^2$
C4	$(7x - 2)(3x + 1) - 2(2x + 1)^2$
C5	$5(3x - 9)(3x + 9) - (3x + 4)^2$

C6	$(2x - 1)^2 - (2x + 3)(2x - 5)$
C7	$(3x + 1)^2 - 2(3x - 1)^2$
C8	$2(2 - 14x)^2 - (7x - 1)^2$
C9	$2x(x - 5) - (x + 1)^2$
C10	$(x + 3)^2 - (2x + 1)(2x - 1)$

C11	$5x^2 - (x + 3)(x - 3)$
C12	$(3x + 2)^2 - (x - 1)^2$
C13	$5(x - 1)(x + 2) - (x + 3)^2$
C14	$(4x - 3)^2 + 7(x - 2)(x - 5)$
C15	$-3(x - 6)^2 - 7(3x - 4)(3x + 4)$

REponses : IDENTITES REMARQUABLES : NIVEAU C : DEVELOPPEMENTS

C1	$(2x + 1)^2 - (3x - 2)(3x + 2) = 4x^2 + 4x + 1 - [9x^2 - 4]$ $= 4x^2 + 4x + 1 - 9x^2 + 4 = -5x^2 + 4x + 5$
C2	$(2x + 3)^2 - (2x + 3)(x - 7) = 4x^2 + 12x + 9 - [2x^2 - 14x + 3x - 21]$ $= 4x^2 + 12x + 9 - 2x^2 + 14x - 3x + 21 = 2x^2 + 23x + 30$
C3	$3(7x - 4)^2 - (x + 2)^2 = 3(49x^2 - 56x + 16) - [x^2 + 4x + 4]$ $= 147x^2 - 168x + 48 - x^2 - 4x - 4 = 146x^2 - 172x + 44$
C4	$(7x - 2)(3x + 1) - 2(2x + 1)^2 = 21x^2 + 7x - 6x - 2 - 2[4x^2 + 4x + 1]$ $= 21x^2 + x - 2 - 8x^2 - 8x - 2 = 13x^2 - 7x - 4$
C5	$5(3x - 9)(3x + 9) - (3x + 4)^2 = 5[9x^2 - 81] - [9x^2 + 24x + 16]$ $= 45x^2 - 405 - 9x^2 - 24x - 16 = 36x^2 - 24x - 421$

C6	$(2x - 1)^2 - (2x + 3)(2x - 5) = 4x^2 - 4x + 1 - [4x^2 - 10x + 6x - 15]$ $= 4x^2 - 4x + 1 - 4x^2 + 10x - 6x + 15 = 16$
C7	$(3x + 1)^2 - 2(3x - 1)^2 = 9x^2 + 6x + 1 - 2[9x^2 - 6x + 1]$ $= 9x^2 + 6x + 1 - 18x^2 + 12x - 2 = -9x^2 + 18x - 1$
C8	$2(2 - 14x)^2 - (7x - 1)^2 = 2(4 - 56x + 196x^2) - [49x^2 - 14x + 1]$ $= 8 - 112x + 392x^2 - 49x^2 + 14x - 1 = 343x^2 - 98x + 7$
C9	$2x(x - 5) - (x + 1)^2 = 2x^2 - 10x - [x^2 + 2x + 1]$ $= 2x^2 - 10x - x^2 - 2x - 1 = x^2 - 12x - 1$
C10	$(x + 3)^2 - (2x + 1)(2x - 1) = x^2 + 6x + 9 - [4x^2 - 1]$ $= x^2 + 6x + 9 - 4x^2 + 1 = -3x^2 + 6x + 10$

C11	$5x^2 - (x + 3)(x - 3) = 5x^2 - [x^2 - 9] = 5x^2 - x^2 + 9 = 4x^2 - 9$
C12	$(3x + 2)^2 - (x - 1)^2 = 9x^2 + 12x + 4 - [x^2 - 2x + 1]$ $= 9x^2 + 12x + 4 - x^2 + 2x - 1 = 8x^2 + 14x + 3$
C13	$5(x - 1)(x + 2) - (x + 3)^2 = 5(x^2 + 2x - x - 2) - [x^2 + 6x + 9]$ $= 5x^2 + 10x - 5x - 10 - x^2 - 6x - 9 = 4x^2 - x - 19$
C14	$(4x - 3)^2 + 7(x - 2)(x - 5) = 16x^2 - 24x + 9 + 7[x^2 - 5x - 2x + 10]$ $= 16x^2 - 24x + 9 + 7x^2 - 35x - 14x + 70 = 23x^2 - 73x + 79$
C15	$-3(x - 6)^2 - 7(3x - 4)(3x + 4) = -3[x^2 - 12x + 36] - 7[9x^2 - 16]$ $= -3x^2 + 36x - 108 - 63x^2 + 112 = -66x^2 + 36x + 4$