



$$(a + b)(c + d) = ac + ad + bc + bd$$

Astuce

Développer les expressions suivantes : [2]

1. $(x + 2)(x + 3)$

2. $(2x - 1)(x + 4)$

3. $(x - 5)(x - 2)$

4. $(3x + 2)(2x - 1)$

5. $(x + 7)(x - 3)$

6. $(5x - 4)(x + 6)$

7. $(x - 1)(x + 1)$

8. $(4x + 5)(x - 2)$

9. $(x + 3)(2x - 5)$

10. $(6x - 3)(x + 1)$

11. $(x - 4)(3x + 2)$

12. $(2x + 1)(2x - 1)$

13. $(x + 9)(x + 2)$

14. $(x - 6)(x + 5)$

15. $(7x - 2)(x - 3)$

16. $(x + 8)(3x - 1)$

17. $(2x - 7)(x + 4)$

18. $(x - 1)(2x - 3)$

19. $(5x + 1)(x - 5)$

20. $(x - 2)(x - 7)$

Corrigé :

1. $(x+2)(x+3)$

$$\begin{aligned}(x+2)(x+3) &= x(x+3) + 2(x+3) \\ &= x^2 + 3x + 2x + 6 \\ &= x^2 + 5x + 6\end{aligned}$$

2. $(2x-1)(x+4)$

$$\begin{aligned}(2x-1)(x+4) &= 2x(x+4) - 1(x+4) \\ &= 2x^2 + 8x - x - 4 \\ &= 2x^2 + 7x - 4\end{aligned}$$

3. $(x-5)(x-2)$

$$\begin{aligned}(x-5)(x-2) &= x(x-2) - 5(x-2) \\ &= x^2 - 2x - 5x + 10 \\ &= x^2 - 7x + 10\end{aligned}$$

4. $(3x+2)(2x-1) = 6x^2 - 3x + 4x - 2 = 6x^2 + x - 2$

5. $(x+7)(x-3) = x^2 - 3x + 7x - 21 = x^2 + 4x - 21$

6. $(5x-4)(x+6) = 5x^2 + 30x - 4x - 24 = 5x^2 + 26x - 24$

7. $(x-1)(x+1) = x^2 + x - x - 1 = x^2 - 1$

8. $(4x+5)(x-2) = 4x^2 - 8x + 5x - 10 = 4x^2 - 3x - 10$

9. $(x+3)(2x-5) = 2x^2 - 5x + 6x - 15 = 2x^2 + x - 15$

10. $(6x-3)(x+1) = 6x^2 + 6x - 3x - 3 = 6x^2 + 3x - 3$

11. $(x-4)(3x+2) = 3x^2 + 2x - 12x - 8 = 3x^2 - 10x - 8$

12. $(2x+1)(2x-1) = 4x^2 - 2x + 2x - 1 = 4x^2 - 1$



13. $(x + 9)(x + 2) = x^2 + 2x + 9x + 18 = x^2 + 11x + 18$

14. $(x - 6)(x + 5) = x^2 + 5x - 6x - 30 = x^2 - x - 30$

15. $(7x - 2)(x - 3) = 7x^2 - 21x - 2x + 6 = 7x^2 - 23x + 6$

16. $(x + 8)(3x - 1) = 3x^2 - x + 24x - 8 = 3x^2 + 23x - 8$

17. $(2x - 7)(x + 4) = 2x^2 + 8x - 7x - 28 = 2x^2 + x - 28$

18. $(x - 1)(2x - 3) = 2x^2 - 3x - 2x + 3 = 2x^2 - 5x + 3$

19. $(5x + 1)(x - 5) = 5x^2 - 25x + x - 5 = 5x^2 - 24x - 5$

20. $(x - 2)(x - 7) = x^2 - 7x - 2x + 14 = x^2 - 9x + 14$