

EXERCICE N° 23 : Factoriser une expression en utilisant la distributivité



Factoriser au maximum les expressions suivantes :

$$A = 21x - 49x^2$$

$$C = (4x - 1)(3x + 2) + (4x - 1)(5x + 7) \quad E = (3x - 4)^2 - (3x - 4)(2x - 1)$$

$$B = 5x(3x - 1) + 10x$$

$$D = (1 - 7x)(2x + 5) - (1 - 7x)(3x + 8) \quad F = 5x(4x - 1) + (4x - 1)^2 + (4x - 1)$$



EXERCICE N° 23 : Calcul littéral— Factoriser

CORRECTION

Factoriser une expression en utilisant la distributivité

Factoriser au maximum les expressions suivantes :

$$A = 21x - 49x^2$$

$$A = 3 \times 7x - 7x \times 7x$$

$$A = 7x(3 - 7x)$$

$$B = 5x(3x - 1) + 10x$$

$$B = 5x \times (3x - 1) + 5x \times 2$$

$$B = 5x[(3x - 1) + 2]$$

$$B = 5x(3x - 1 + 2)$$

$$B = 5x(3x + 1)$$

$$C = (4x - 1)(3x + 2) + (4x - 1)(5x + 7) \quad E = (3x - 4)^2 - (3x - 4)(2x - 1)$$

$$C = (4x - 1) \times (3x + 2) + (4x - 1) \times (5x + 7) \quad E = (3x - 4) \times (3x - 4) - (3x - 4)(2x - 1)$$

$$C = (4x - 1)[(3x + 2) + (5x + 7)] \quad E = (3x - 4)[(3x - 4) - (2x - 1)]$$

$$C = (4x - 1)(3x + 2 + 5x + 7) \quad E = (3x - 4)(3x - 4 - 2x + 1)$$

$$C = (4x - 1)(8x + 9)$$

$$E = (3x - 4)(x - 3)$$

$$C = (4x - 1)(8x + 9)$$

$$D = (1 - 7x)(2x + 5) - (1 - 7x)(3x + 8)$$

$$D = (1 - 7x) \times (2x + 5) - (1 - 7x) \times (3x + 8)$$

$$D = (1 - 7x)[(2x + 5) - (3x + 8)]$$

$$D = (1 - 7x)(2x + 5 - 3x - 8)$$

$$D = (1 - 7x)(-x - 3)$$

$$F = 5x(4x - 1) + (4x - 1)^2 + (4x - 1)$$

$$F = 5x \times (4x - 1) + (4x - 1) \times (4x - 1) + 1 \times (4x - 1)$$

$$F = (4x - 1)[5x + (4x - 1) + 1]$$

$$F = (4x - 1)(5x + 4x - 1 + 1)$$

$$F = (4x - 1)(9x)$$

$$F = 9x(4x - 1)$$