

Corrigé de l'exercice 1

Réduire chacune des expressions littérales suivantes :

$$A = -(-4x - 7) + 9x + 9$$

$$A = 4x + 7 + 9x + 9$$

$$A = 4x + 9x + 7 + 9$$

$$A = (4 + 9)x + 16$$

$$A = 13x + 16$$

$$B = -5 + (-4x + 10) + 7x$$

$$B = -5 - 4x + 10 + 7x$$

$$B = -4x + 7x - 5 + 10$$

$$B = (-4 + 7)x + 5$$

$$B = 3x + 5$$

$$C = 3 - (-6x + 1) - 2x$$

$$C = 3 + 6x - 1 - 2x$$

$$C = 6x - 2x + 3 - 1$$

$$C = (6 - 2)x + 2$$

$$C = 4x + 2$$

$$D = 5x - (8x + 10) + 9$$

$$D = 5x - 8x - 10 + 9$$

$$D = (5 - 8)x - 1$$

$$D = -3x - 1$$

$$E = -8 + (6x - 4) - 9x$$

$$E = -8 + 6x - 4 - 9x$$

$$E = 6x - 9x - 8 - 4$$

$$E = (6 - 9)x - 12$$

$$E = -3x - 12$$

$$F = -(2x + 5) + 7x + 2$$

$$F = -2x - 5 + 7x + 2$$

$$F = -2x + 7x - 5 + 2$$

$$F = (-2 + 7)x - 3$$

$$F = 5x - 3$$

Corrigé de l'exercice 2

Réduire chacune des expressions littérales suivantes :

$$A = -9 - (-7x - 7) - 9x$$

$$A = -9 + 7x + 7 - 9x$$

$$A = 7x - 9x - 9 + 7$$

$$A = (7 - 9)x - 2$$

$$A = -2x - 2$$

$$B = 9x - (-9x - 8) + 2$$

$$B = 9x + 9x + 8 + 2$$

$$B = (9 + 9)x + 10$$

$$B = 18x + 10$$

$$C = 10x - 9 - (6x + 1)$$

$$C = 10x - 9 - 6x - 1$$

$$C = 10x - 6x - 9 - 1$$

$$C = (10 - 6)x - 10$$

$$C = 4x - 10$$

$$D = (10x - 3) - 7 + 3x$$

$$D = 10x - 3 + 3x - 7$$

$$D = 10x + 3x - 3 - 7$$

$$D = (10 + 3)x - 10$$

$$D = 13x - 10$$

$$E = -(5x + 8) - 5 - 2x$$

$$E = -5x - 8 - 5 - 2x$$

$$E = -5x - 2x - 8 - 5$$

$$E = (-5 - 2)x - 13$$

$$E = -7x - 13$$

$$F = (-2x + 5) + 6 + 7x$$

$$F = -2x + 5 + 7x + 6$$

$$F = -2x + 7x + 5 + 6$$

$$F = (-2 + 7)x + 11$$

$$F = 5x + 11$$

Corrigé de l'exercice 3

Développer et réduire chacune des expressions littérales suivantes :

$$A = x \times 7x$$

$$A = x \times 7 \times x$$

$$A = 7 \times x \times x$$

$$A = 7x^2$$

$$B = 8x \times 4x$$

$$B = 8 \times x \times 4 \times x$$

$$B = 8 \times 4 \times x \times x$$

$$B = 32x^2$$

$$C = 1 + (9x + 3) \times (4x - 8)$$

$$C = 1 + 9x \times 4x + 9x \times (-8) + 3 \times 4x + 3 \times (-8)$$

$$C = 1 + 9 \times x \times 4 \times x + 9 \times x \times (-8) + 3 \times 4 \times x - 24$$

$$C = 1 + 9 \times 4 \times x \times x + 9 \times (-8) \times x + 12x - 24$$

$$C = 1 + 36x^2 - 72x + 12x - 24$$

$$C = 36x^2 - 72x + 12x + 1 - 24$$

$$C = 36x^2 + (-72 + 12)x - 23$$

$$C = 36x^2 - 60x - 23$$

$$D = 7x^2 + (-6x - 1) \times (7x - 1)$$

$$D = 7x^2 - 6x \times 7x - 6x \times (-1) - 1 \times 7x - 1 \times (-1)$$

$$D = 7x^2 - 6 \times x \times 7 \times x - 6 \times x \times (-1) - 1 \times 7 \times x + 1$$

$$D = 7x^2 - 6 \times 7 \times x \times x - 6 \times (-1) \times x - 7x + 1$$

$$D = 7x^2 - 42x^2 - (-6x) - 7x + 1$$

$$D = -35x^2 + 6x - 7x + 1$$

$$D = -35x^2 + (6 - 7)x + 1$$

$$D = -35x^2 - x + 1$$

$$E = (-4x - 1) \times (4x + 7) - 10x + 1$$

$$E = -4x \times 4x - 4x \times 7 - 1 \times 4x - 1 \times 7 - 10x + 1$$

$$E = -4 \times x \times 4 \times x - 4 \times x \times 7 - 1 \times 4 \times x - 7 - 10x + 1$$

$$E = -4 \times 4 \times x \times x - 4 \times 7 \times x - 4x - 10x - 7 + 1$$

$$E = -16x^2 - 28x + (-4 - 10)x - 6$$

$$E = -16x^2 + (-28 + (-4) - 10)x - 6$$

$$E = -16x^2 - 42x - 6$$

Corrigé de l'exercice 4

Développer et réduire chacune des expressions littérales suivantes :

$$A = 7x \times x$$

$$A = 7 \times x \times x$$

$$A = 7x^2$$

$$B = 6 \times x \times 7 \times x$$

$$B = 6 \times 7 \times x \times x$$

$$B = 42x^2$$

$$B = 6x \times 7x$$

$$C = 6x^2 + (2x + 2) \times (6x + 7)$$

$$C = 6x^2 + 2x \times 6x + 2x \times 7 + 2 \times 6x + 2 \times 7$$

$$C = 6x^2 + 2 \times x \times 6 \times x + 2 \times x \times 7 + 2 \times 6 \times x + 14$$

$$C = 6x^2 + 2 \times 6 \times x \times x + 2 \times 7 \times x + 12x + 14$$

$$C = 6x^2 + 12x^2 + 14x + 12x + 14$$

$$C = (6 + 12)x^2 + (14 + 12)x + 14$$

$$C = 18x^2 + 26x + 14$$

$$D = 7 + (-5x + 7) \times (-8x - 6)$$

$$D = 7 - 5x \times (-8x) - 5x \times (-6) + 7 \times (-8x) + 7 \times (-6)$$

$$D = 7 - 5 \times x \times (-8) \times x - 5 \times x \times (-6) + 7 \times (-8) \times x - 42$$

$$D = 7 - 5 \times (-8) \times x \times x - 5 \times (-6) \times x - 56x - 42$$

$$D = 7 - (-40x^2) - (-30x) - 56x - 42$$

$$D = 40x^2 + 30x + 7 - 56x - 42$$

$$D = 40x^2 + 30x - 56x + 7 - 42$$

$$D = 40x^2 + (30 - 56)x - 35$$

$$D = 40x^2 - 26x - 35$$

$$E = (-8x + 9) \times (-10x - 10) + 2x - 5$$

$$E = -8x \times (-10x) - 8x \times (-10) + 9 \times (-10x) + 9 \times (-10) + 2x - 5$$

$$E = -8 \times x \times (-10) \times x - 8 \times x \times (-10) + 9 \times (-10) \times x - 90 + 2x - 5$$

$$E = -8 \times (-10) \times x \times x - 8 \times (-10) \times x - 90x + 2x - 90 - 5$$

$$E = 80x^2 - (-80x) + (-90 + 2)x - 95$$

$$E = 80x^2 + 80x + (-90 + 2)x - 95$$

$$E = 80x^2 + (80 + (-90) + 2)x - 95$$

$$E = 80x^2 - 8x - 95$$