

Exercice 1

Réduire chacune des expressions littérales suivantes :

$$A = -(-10x + 6) - 4x + 5$$

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

$$C = -2x - 6 - (6x + 5)$$

$$D = 2x - (-3x - 1) + 3$$

$$E = 3x + 3 - (4x - 8)$$

$$F = (5x - 8) + 7 + 7x$$

Exercice 2

Développer et réduire chacune des expressions littérales suivantes :

$$A = 7 \times 6x$$

$$B = 8 \times 7x$$

$$C = -7 + (-10x - 5) \times 4$$

$$D = 9 \times (-4x + 3) - 3x + 5$$

$$E = (-2x + 7) \times 2 + 8x$$

Exercice 3

Développer et réduire chacune des expressions littérales suivantes :

$$A = 4x \times x$$

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

$$C = (-10x - 1) \times (10x + 1) + 8$$

$$D = (2x + 8) \times (-10x + 10) - x + 10$$

$$E = (-10x - 6) \times (5x - 10) - 5x^2$$

Corrigé de l'exercice 1

Réduire chacune des expressions littérales suivantes :

$$A = -(-10x + 6) - 4x + 5$$

$$A = 10x - 6 - 4x + 5$$

$$A = 10x - 4x - 6 + 5$$

$$A = (10 - 4)x - 1$$

$$A = 6x - 1$$

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

$$B = 3x + 5x + 3 - 2$$

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

$$B = 8x + 1$$

$$C = -2x - 6 - (6x + 5)$$

$$C = -2x - 6 - 6x - 5$$

$$C = -2x - 6x - 6 - 5$$

$$C = (-2 - 6)x - 11$$

$$C = -8x - 11$$

$$D = 2x - (-3x - 1) + 3$$

$$D = 2x + 3x + 1 + 3$$

$$D = (2 + 3)x + 4$$

$$D = 5x + 4$$

$$E = 3x + 3 - (4x - 8)$$

$$E = 3x + 3 - 4x + 8$$

$$E = 3x - 4x + 3 + 8$$

$$E = (3 - 4)x + 11$$

$$E = -x + 11$$

$$F = (5x - 8) + 7 + 7x$$

$$F = 5x - 8 + 7x + 7$$

$$F = 5x + 7x - 8 + 7$$

$$F = (5 + 7)x - 1$$

$$F = 12x - 1$$

Corrigé de l'exercice 2

Développer et réduire chacune des expressions littérales suivantes :

$$A = 7 \times 6x$$

$$A = 7 \times 6 \times x$$

$$A = 42x$$

$$B = 8 \times 7x$$

$$B = 8 \times 7 \times x$$

$$B = 56x$$

$$C = -7 + (-10x - 5) \times 4$$

$$C = -7 - 10x \times 4 - 5 \times 4$$

$$C = -7 - 10 \times x \times 4 - 20$$

$$C = -7 - 10 \times 4 \times x - 20$$

$$C = -7 - 40x - 20$$

$$C = -40x - 7 - 20$$

$$C = -40x - 27$$

$$D = 9 \times (-4x + 3) - 3x + 5$$

$$D = 9 \times (-4x) + 9 \times 3 - 3x + 5$$

$$D = 9 \times (-4) \times x + 27 - 3x + 5$$

$$D = -36x - 3x + 27 + 5$$

$$D = (-36 - 3)x + 32$$

$$D = -39x + 32$$

$$E = (-2x + 7) \times 2 + 8x$$

$$E = -2x \times 2 + 7 \times 2 + 8x$$

$$E = -2 \times x \times 2 + 14 + 8x$$

$$E = -2 \times 2 \times x + 8x + 14$$

$$E = -4x + 8x + 14$$

$$E = (-4 + 8)x + 14$$

$$E = 4x + 14$$

Corrigé de l'exercice 3

Développer et réduire chacune des expressions littérales suivantes :

$$A = 4x \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

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

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

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

$$B = 49x^2$$

$$C = (-10x - 1) \times (10x + 1) + 8$$

$$C = -10x \times 10x - 10x \times 1 - 1 \times 10x - 1 \times 1 + 8$$

$$C = -10 \times x \times 10 \times x - 10 \times x \times 1 - 1 \times 10 \times x - 1 + 8$$

$$C = -10 \times 10 \times x \times x - 10 \times x - 10x + 7$$

$$C = -100x^2 - 10x - 10x + 7$$

$$C = -100x^2 + (-10 - 10)x + 7$$

$$C = -100x^2 - 20x + 7$$

$$D = (2x + 8) \times (-10x + 10) - x + 10$$

$$D = 2x \times (-10x) + 2x \times 10 + 8 \times (-10x) + 8 \times 10 - x + 10$$

$$D = 2 \times x \times (-10) \times x + 2 \times x \times 10 + 8 \times (-10) \times x + 80 - x + 10$$

$$D = 2 \times (-10) \times x \times x + 2 \times 10 \times x - 80x - x + 80 + 10$$

$$D = -20x^2 + 20x + (-80 - 1)x + 90$$

$$D = -20x^2 + (20 + (-80) - 1)x + 90$$

$$D = -20x^2 - 61x + 90$$

$$E = (-10x - 6) \times (5x - 10) - 5x^2$$

$$E = -10x \times 5x - 10x \times (-10) - 6 \times 5x - 6 \times (-10) - 5x^2$$

$$E = -10 \times x \times 5 \times x - 10 \times x \times (-10) - 6 \times 5 \times x + 60 - 5x^2$$

$$E = -10 \times 5 \times x \times x - 10 \times (-10) \times x - 30x - 5x^2 + 60$$

$$E = -50x^2 - (-100x) - 5x^2 - 30x + 60$$

$$E = -50x^2 + 100x - 5x^2 - 30x + 60$$

$$E = -50x^2 - 5x^2 + 100x - 30x + 60$$

$$E = (-50 - 5)x^2 + (100 - 30)x + 60$$

$$E = -55x^2 + 70x + 60$$