

Corrigé de l'exercice 1

Développer et réduire chacune des expressions littérales suivantes :

$$A = 7 \times 7x$$

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

$$A = 49x$$

$$B = 5 \times 4x$$

$$B = 5 \times 4 \times x$$

$$B = 20x$$

$$C = 3x + (10x - 10) \times 10$$

$$C = 3x + 10x \times 10 - 10 \times 10$$

$$C = 3x + 10 \times x \times 10 - 100$$

$$C = 3x + 10 \times 10 \times x - 100$$

$$C = 3x + 100x - 100$$

$$C = (3 + 100)x - 100$$

$$C = 103x - 100$$

$$D = 6 \times (-x + 6) - 6$$

$$D = 6 \times (-x) + 6 \times 6 - 6$$

$$D = 6 \times (-1) \times x + 36 - 6$$

$$D = -6x + 30$$

$$E = (6x + 9) \times 4 + 4x - 10$$

$$E = 6x \times 4 + 9 \times 4 + 4x - 10$$

$$E = 6 \times x \times 4 + 36 + 4x - 10$$

$$E = 6 \times 4 \times x + 4x + 36 - 10$$

$$E = 24x + 4x + 36 - 10$$

$$E = (24 + 4)x + 26$$

$$E = 28x + 26$$

Corrigé de l'exercice 2

Développer et réduire chacune des expressions littérales suivantes :

$$A = 5 \times 3x$$

$$A = 5 \times 3 \times x$$

$$A = 15x$$

$$B = 4x \times 4$$

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

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

$$B = 16x$$

$$C = 10 \times (-4x + 5) - 6x - 9$$

$$C = 10 \times (-4x) + 10 \times 5 - 6x - 9$$

$$C = 10 \times (-4) \times x + 50 - 6x - 9$$

$$C = -40x - 6x + 50 - 9$$

$$C = (-40 - 6)x + 41$$

$$C = -46x + 41$$

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

$$D = -1 - x \times 7 - 4 \times 7$$

$$D = -1 - 1 \times x \times 7 - 28$$

$$D = -1 - 1 \times 7 \times x - 28$$

$$D = -1 - 7x - 28$$

$$D = -7x - 1 - 28$$

$$D = -7x - 29$$

$$E = -9x + 8 \times (-4x - 2)$$

$$E = -9x + 8 \times (-4x) + 8 \times (-2)$$

$$E = -9x + 8 \times (-4) \times x - 16$$

$$E = -9x - 32x - 16$$

$$E = (-9 - 32)x - 16$$

$$E = -41x - 16$$

Corrigé de l'exercice 3

Développer et réduire chacune des expressions littérales suivantes :

$$A = 9x \times 4$$

$$A = 9 \times x \times 4$$

$$A = 9 \times 4 \times x$$

$$A = 36x$$

$$B = 4 \times 9x$$

$$B = 4 \times 9 \times x$$

$$B = 36x$$

$$C = -3 + 8 \times (2x - 6)$$

$$C = -3 + 8 \times 2x + 8 \times (-6)$$

$$C = -3 + 8 \times 2 \times x - 48$$

$$C = -3 + 16x - 48$$

$$C = 16x - 3 - 48$$

$$C = 16x - 51$$

$$\begin{aligned}
 D &= 2x + 5 + (5x - 3) \times 10 \\
 D &= 2x + 5 + 5x \times 10 - 3 \times 10 \\
 D &= 2x + 5 + 5x \times 10 - 30 \\
 D &= 2x + 5 + 5 \times 10 \times x - 30 \\
 D &= 2x + 5 + 50x - 30 \\
 D &= 2x + 50x + 5 - 30 \\
 D &= (2+50)x - 25 \\
 D &= 52x - 25
 \end{aligned}$$

$$\begin{aligned}
 E &= (4x - 6) \times 6 + 6x \\
 E &= 4x \times 6 - 6 \times 6 + 6x \\
 E &= 4 \times x \times 6 - 36 + 6x \\
 E &= 4 \times 6 \times x + 6x - 36 \\
 E &= 24x + 6x - 36 \\
 E &= (24+6)x - 36 \\
 E &= 30x - 36
 \end{aligned}$$

Corrigé de l'exercice 4

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned}
 A &= 9x \times 7 \\
 A &= 9 \times x \times 7 \\
 A &= 9 \times 7 \times x \\
 A &= 63x
 \end{aligned}$$

$$\begin{aligned}
 B &= 4x \times 4 \\
 B &= 4 \times x \times 4 \\
 B &= 4 \times 4 \times x \\
 B &= 16x
 \end{aligned}$$

$$\begin{aligned}
 C &= (-x - 7) \times 4 + 5x \\
 C &= -x \times 4 - 7 \times 4 + 5x \\
 C &= -1 \times x \times 4 - 28 + 5x \\
 C &= -1 \times 4 \times x + 5x - 28 \\
 C &= -4x + 5x - 28 \\
 C &= (-4+5)x - 28 \\
 C &= x - 28
 \end{aligned}$$

$$\begin{aligned}
 D &= 10x - 9 + (-x - 1) \times 7 \\
 D &= 10x - 9 - x \times 7 - 1 \times 7 \\
 D &= 10x - 9 - 1 \times x \times 7 - 7 \\
 D &= 10x - 9 - 1 \times 7 \times x - 7 \\
 D &= 10x - 9 - 7x - 7 \\
 D &= 10x - 7x - 9 - 7 \\
 D &= (10-7)x - 16 \\
 D &= 3x - 16
 \end{aligned}$$

Corrigé de l'exercice 5

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned}
 A &= 3 \times 6x \\
 A &= 3 \times 6 \times x \\
 A &= 18x
 \end{aligned}$$

$$\begin{aligned}
 B &= 5x \times 7 \\
 B &= 5 \times x \times 7 \\
 B &= 5 \times 7 \times x \\
 B &= 35x
 \end{aligned}$$

$$\begin{aligned}
 C &= -3x + 9 \times (2x + 5) \\
 C &= -3x + 9 \times 2x + 9 \times 5 \\
 C &= -3x + 9 \times 2 \times x + 45 \\
 C &= -3x + 18x + 45 \\
 C &= (-3+18)x + 45 \\
 C &= 15x + 45
 \end{aligned}$$

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

$$\begin{aligned}
 E &= 6 \times (9x - 6) - 8x - 1 \\
 E &= 6 \times 9x + 6 \times (-6) - 8x - 1 \\
 E &= 6 \times 9 \times x - 36 - 8x - 1 \\
 E &= 54x - 8x - 36 - 1 \\
 E &= (54-8)x - 37 \\
 E &= 46x - 37
 \end{aligned}$$