

Corrigé de l'exercice 1

Développer et réduire chacune des expressions littérales suivantes :

$$A = 8 \times 2x$$

$$A = 8 \times 2 \times x$$

$A = 16x$

$$B = 7x \times 4$$

$$B = 7 \times x \times 4$$

$$B = 7 \times 4 \times x$$

$B = 28x$

$$C = 5 + 10 \times (4x + 2)$$

$$C = 5 + 10 \times 4x + 10 \times 2$$

$$C = 5 + 10 \times 4 \times x + 20$$

$$C = 5 + 40x + 20$$

$$C = 40x + 5 + 20$$

$C = 40x + 25$

$$D = 3 \times (-2x + 7) - 6x$$

$$D = 3 \times (-2x) + 3 \times 7 - 6x$$

$$D = 3 \times (-2) \times x + 21 - 6x$$

$$D = -6x - 6x + 21$$

$$D = (-6 - 6)x + 21$$

$D = -12x + 21$

$$E = -5x + 5 + (-7x + 1) \times 5$$

$$E = -5x + 5 - 7x \times 5 + 1 \times 5$$

$$E = -5x + 5 - 7 \times x \times 5 + 5$$

$$E = -5x + 5 - 7 \times 5 \times x + 5$$

$$E = -5x + 5 - 35x + 5$$

$$E = -5x - 35x + 5 + 5$$

$$E = (-5 - 35)x + 10$$

$E = -40x + 10$

Corrigé de l'exercice 2

Développer et réduire chacune des expressions littérales suivantes :

$$A = 6x \times 2$$

$$A = 6 \times x \times 2$$

$$A = 6 \times 2 \times x$$

$A = 12x$

$$B = 3 \times 7x$$

$$B = 3 \times 7 \times x$$

$B = 21x$

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

$$C = 9x + 5x \times 6 + 6 \times 6$$

$$C = 9x + 5 \times x \times 6 + 36$$

$$C = 9x + 5 \times 6 \times x + 36$$

$$C = 9x + 30x + 36$$

$$C = (9 + 30)x + 36$$

$C = 39x + 36$

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

$$D = 8 - 8x \times 5 - 7 \times 5$$

$$D = 8 - 8 \times x \times 5 - 35$$

$$D = 8 - 8 \times 5 \times x - 35$$

$$D = 8 - 40x - 35$$

$$D = -40x + 8 - 35$$

$D = -40x - 27$

$$E = 2x - 6 + (-6x + 4) \times 3$$

$$E = 2x - 6 - 6x \times 3 + 4 \times 3$$

$$E = 2x - 6 - 6 \times x \times 3 + 12$$

$$E = 2x - 6 - 6 \times 3 \times x + 12$$

$$E = 2x - 6 - 18x + 12$$

$$E = 2x - 18x - 6 + 12$$

$$E = (2 - 18)x + 6$$

$E = -16x + 6$

Corrigé de l'exercice 3

Développer et réduire chacune des expressions littérales suivantes :

$$A = 9x \times 7$$

$$A = 9 \times x \times 7$$

$$A = 9 \times 7 \times x$$

$A = 63x$

$$B = 6x \times 5$$

$$B = 6 \times x \times 5$$

$$B = 6 \times 5 \times x$$

$B = 30x$

$$C = 8 \times (-9x - 10) - 10x$$

$$C = 8 \times (-9x) + 8 \times (-10) - 10x$$

$$\begin{aligned} C &= 8 \times (-9) \times x - 80 - 10x \\ C &= -72x - 10x - 80 \\ C &= (-72 - 10)x - 80 \\ C &= -82x - 80 \end{aligned}$$

$$\begin{aligned} D &= 10 \times (-4x + 6) - x - 5 \\ D &= 10 \times (-4x) + 10 \times 6 - x - 5 \\ D &= 10 \times (-4) \times x + 60 - x - 5 \\ D &= -40x - x + 60 - 5 \end{aligned}$$

$$\begin{aligned} D &= (-40 - 1)x + 55 \\ D &= -41x + 55 \end{aligned}$$

$$\begin{aligned} E &= (7x + 9) \times 9 - 7 \\ E &= 7x \times 9 + 9 \times 9 - 7 \\ E &= 7 \times x \times 9 + 81 - 7 \\ E &= 7 \times 9 \times x + 74 \\ E &= 63x + 74 \end{aligned}$$

Corrigé de l'exercice 4

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 3 \times 9x \\ A &= 3 \times 9 \times x \\ A &= 27x \end{aligned}$$

$$\begin{aligned} B &= 7x \times 8 \\ B &= 7 \times x \times 8 \\ B &= 7 \times 8 \times x \\ B &= 56x \end{aligned}$$

$$\begin{aligned} C &= -x - 5 + (-2x - 3) \times 5 \\ C &= -x - 5 - 2x \times 5 - 3 \times 5 \\ C &= -x - 5 - 2 \times x \times 5 - 15 \\ C &= -x - 5 - 2 \times 5 \times x - 15 \\ C &= -x - 5 - 10x - 15 \\ C &= -x - 10x - 5 - 15 \\ C &= (-1 - 10)x - 20 \end{aligned}$$

$$C = -11x - 20$$

$$\begin{aligned} D &= 3 \times (-9x - 2) - 4 \\ D &= 3 \times (-9x) + 3 \times (-2) - 4 \\ D &= 3 \times (-9) \times x - 6 - 4 \\ D &= -27x - 10 \end{aligned}$$

$$\begin{aligned} E &= (-10x + 9) \times 9 + 4x \\ E &= -10x \times 9 + 9 \times 9 + 4x \\ E &= -10 \times x \times 9 + 81 + 4x \\ E &= -10 \times 9 \times x + 4x + 81 \\ E &= -90x + 4x + 81 \\ E &= (-90 + 4)x + 81 \\ E &= -86x + 81 \end{aligned}$$

Corrigé de l'exercice 5

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 6x \times 4 \\ A &= 6 \times x \times 4 \\ A &= 6 \times 4 \times x \\ A &= 24x \end{aligned}$$

$$\begin{aligned} B &= 2 \times 5x \\ B &= 2 \times 5 \times x \\ B &= 10x \end{aligned}$$

$$\begin{aligned} C &= 9 + (-6x - 2) \times 9 \\ C &= 9 - 6x \times 9 - 2 \times 9 \\ C &= 9 - 6 \times x \times 9 - 18 \\ C &= 9 - 6 \times 9 \times x - 18 \\ C &= 9 - 54x - 18 \\ C &= -54x + 9 - 18 \\ C &= -54x - 9 \end{aligned}$$

$$\begin{aligned} D &= -8x + 5 + (-5x - 1) \times 3 \\ D &= -8x + 5 - 5x \times 3 - 1 \times 3 \\ D &= -8x + 5 - 5 \times x \times 3 - 3 \\ D &= -8x + 5 - 5 \times 3 \times x - 3 \\ D &= -8x + 5 - 15x - 3 \\ D &= -8x - 15x + 5 - 3 \\ D &= (-8 - 15)x + 2 \\ D &= -23x + 2 \end{aligned}$$

$$\begin{aligned} E &= (-7x + 7) \times 3 + 9x \\ E &= -7x \times 3 + 7 \times 3 + 9x \\ E &= -7 \times x \times 3 + 21 + 9x \\ E &= -7 \times 3 \times x + 9x + 21 \\ E &= -21x + 9x + 21 \\ E &= (-21 + 9)x + 21 \\ E &= -12x + 21 \end{aligned}$$