

Corrigé de l'exercice 1

Développer et réduire chacune des expressions littérales suivantes :

$$A = 2 \times 6x$$

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

$A = 12x$

$$B = 8x \times 8$$

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

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

$B = 64x$

$$C = -10x + (10x + 1) \times 5$$

$$C = -10x + 10x \times 5 + 1 \times 5$$

$$C = -10x + 10 \times x \times 5 + 5$$

$$C = -10x + 10 \times 5 \times x + 5$$

$$C = -10x + 50x + 5$$

$$C = (-10 + 50)x + 5$$

$C = 40x + 5$

$$D = 3 + (7x + 9) \times 8$$

$$D = 3 + 7x \times 8 + 9 \times 8$$

$$D = 3 + 7 \times x \times 8 + 72$$

$$D = 3 + 7 \times 8 \times x + 72$$

$$D = 3 + 56x + 72$$

$$D = 56x + 3 + 72$$

$D = 56x + 75$

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

$$E = 8x + 9 + 5 \times 2x + 5 \times 2$$

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

$$E = 8x + 9 + 10x + 10$$

$$E = 8x + 10x + 9 + 10$$

$$E = (8 + 10)x + 19$$

$E = 18x + 19$

Corrigé de l'exercice 2

Développer et réduire chacune des expressions littérales suivantes :

$$A = 9x \times 9$$

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

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

$A = 81x$

$$B = 6 \times 3x$$

$$B = 6 \times 3 \times x$$

$B = 18x$

$$C = 6 + 7 \times (10x + 9)$$

$$C = 6 + 7 \times 10x + 7 \times 9$$

$$C = 6 + 7 \times 10 \times x + 63$$

$$C = 6 + 70x + 63$$

$$C = 70x + 6 + 63$$

$C = 70x + 69$

$$D = 5 \times (-x - 7) - 3x$$

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

$$D = 5 \times (-1) \times x - 35 - 3x$$

$$D = -5x - 3x - 35$$

$$D = (-5 - 3)x - 35$$

$D = -8x - 35$

$$E = 2x + 9 + (6x - 7) \times 2$$

$$E = 2x + 9 + 6x \times 2 - 7 \times 2$$

$$E = 2x + 9 + 6 \times x \times 2 - 14$$

$$E = 2x + 9 + 6 \times 2 \times x - 14$$

$$E = 2x + 9 + 12x - 14$$

$$E = 2x + 12x + 9 - 14$$

$$E = (2 + 12)x - 5$$

$E = 14x - 5$

Corrigé de l'exercice 3

Développer et réduire chacune des expressions littérales suivantes :

$$A = 3 \times 4x$$

$$A = 3 \times 4 \times x$$

$A = 12x$

$$B = 9 \times 2x$$

$$B = 9 \times 2 \times x$$

$B = 18x$

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

$$C = -5x - 2x \times 5 + 1 \times 5$$

$$C = -5x - 2 \times x \times 5 + 5$$

$$C = -5x - 2 \times 5 \times x + 5$$

$$\begin{aligned} C &= -5x - 10x + 5 \\ C &= (-5 - 10)x + 5 \\ C &= -15x + 5 \end{aligned}$$

$$\begin{aligned} D &= -x - 6 + 8 \times (-5x + 10) \\ D &= -x - 6 + 8 \times (-5x) + 8 \times 10 \\ D &= -x - 6 + 8 \times (-5) \times x + 80 \\ D &= -x - 6 - 40x + 80 \\ D &= -x - 40x - 6 + 80 \end{aligned}$$

$$\begin{aligned} D &= (-1 - 40)x + 74 \\ D &= -41x + 74 \end{aligned}$$

$$\begin{aligned} E &= 6 \times (-6x + 2) - 2 \\ E &= 6 \times (-6x) + 6 \times 2 - 2 \\ E &= 6 \times (-6) \times x + 12 - 2 \\ E &= -36x + 10 \end{aligned}$$

Corrigé de l'exercice 4

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 3x \times 4 \\ A &= 3 \times x \times 4 \\ A &= 3 \times 4 \times x \\ A &= 12x \end{aligned}$$

$$\begin{aligned} B &= 7x \times 4 \\ B &= 7 \times x \times 4 \\ B &= 7 \times 4 \times x \\ B &= 28x \end{aligned}$$

$$\begin{aligned} C &= 5x + 2 \times (x - 8) \\ C &= 5x + 2 \times x + 2 \times (-8) \\ C &= 5x + 2x - 16 \\ C &= (5+2)x - 16 \\ C &= 7x - 16 \end{aligned}$$

$$\begin{aligned} D &= 5 + (6x + 1) \times 6 \\ D &= 5 + 6x \times 6 + 1 \times 6 \\ D &= 5 + 6 \times x \times 6 + 6 \\ D &= 5 + 6 \times 6 \times x + 6 \\ D &= 5 + 36x + 6 \\ D &= 36x + 5 + 6 \\ D &= 36x + 11 \end{aligned}$$

$$\begin{aligned} E &= (-5x - 5) \times 3 - 3x - 8 \\ E &= -5x \times 3 - 5 \times 3 - 3x - 8 \\ E &= -5 \times x \times 3 - 15 - 3x - 8 \\ E &= -5 \times 3 \times x - 3x - 15 - 8 \\ E &= -15x - 3x - 15 - 8 \\ E &= (-15 - 3)x - 23 \\ E &= -18x - 23 \end{aligned}$$

Corrigé de l'exercice 5

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 2x \times 9 \\ A &= 2 \times x \times 9 \\ A &= 2 \times 9 \times x \\ A &= 18x \end{aligned}$$

$$\begin{aligned} B &= 2x \times 3 \\ B &= 2 \times x \times 3 \\ B &= 2 \times 3 \times x \\ B &= 6x \end{aligned}$$

$$\begin{aligned} C &= (-3x - 2) \times 9 + 1 \\ C &= -3x \times 9 - 2 \times 9 + 1 \\ C &= -3 \times x \times 9 - 18 + 1 \\ C &= -3 \times 9 \times x - 17 \\ C &= -27x - 17 \end{aligned}$$

$$\begin{aligned} D &= 4x + 8 \times (-4x + 3) \\ D &= 4x + 8 \times (-4x) + 8 \times 3 \\ D &= 4x + 8 \times (-4) \times x + 24 \\ D &= 4x - 32x + 24 \\ D &= (4 - 32)x + 24 \\ D &= -28x + 24 \end{aligned}$$

$$\begin{aligned} E &= (-10x - 7) \times 7 + 4x - 5 \\ E &= -10x \times 7 - 7 \times 7 + 4x - 5 \\ E &= -10 \times x \times 7 - 49 + 4x - 5 \\ E &= -10 \times 7 \times x + 4x - 49 - 5 \\ E &= -70x + 4x - 49 - 5 \\ E &= (-70 + 4)x - 54 \\ E &= -66x - 54 \end{aligned}$$