

Corrigé de l'exercice 1

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 9x \times 4 \\ A &= 9 \times x \times 4 \\ A &= 9 \times 4 \times x \\ A &= 36x \end{aligned}$$

$$\begin{aligned} B &= 7x \times 6 \\ B &= 7 \times x \times 6 \\ B &= 7 \times 6 \times x \\ B &= 42x \end{aligned}$$

$$\begin{aligned} C &= (2x + 3) \times 6 + 9x + 1 \\ C &= 2x \times 6 + 3 \times 6 + 9x + 1 \\ C &= 2 \times x \times 6 + 18 + 9x + 1 \\ C &= 2 \times 6 \times x + 9x + 18 + 1 \\ C &= 12x + 9x + 18 + 1 \\ C &= (12 + 9)x + 19 \end{aligned}$$

$$C = 21x + 19$$

$$\begin{aligned} D &= 6 \times (-6x + 2) - 5x \\ D &= 6 \times (-6x) + 6 \times 2 - 5x \\ D &= 6 \times (-6) \times x + 12 - 5x \\ D &= -36x - 5x + 12 \\ D &= (-36 - 5)x + 12 \\ D &= -41x + 12 \end{aligned}$$

$$\begin{aligned} E &= -3 + 8 \times (-5x - 8) \\ E &= -3 + 8 \times (-5x) + 8 \times (-8) \\ E &= -3 + 8 \times (-5) \times x - 64 \\ E &= -3 - 40x - 64 \\ E &= -40x - 3 - 64 \\ E &= -40x - 67 \end{aligned}$$

Corrigé de l'exercice 2

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 2 \times 8x \\ A &= 2 \times 8 \times x \\ A &= 16x \end{aligned}$$

$$\begin{aligned} B &= 5 \times 3x \\ B &= 5 \times 3 \times x \\ B &= 15x \end{aligned}$$

$$\begin{aligned} C &= (2x + 10) \times 3 + 3x \\ C &= 2x \times 3 + 10 \times 3 + 3x \\ C &= 2 \times x \times 3 + 30 + 3x \\ C &= 2 \times 3 \times x + 3x + 30 \\ C &= 6x + 3x + 30 \\ C &= (6 + 3)x + 30 \\ C &= 9x + 30 \end{aligned}$$

$$\begin{aligned} D &= 5x - 9 + (-10x - 3) \times 10 \\ D &= 5x - 9 - 10x \times 10 - 3 \times 10 \\ D &= 5x - 9 - 10 \times x \times 10 - 30 \\ D &= 5x - 9 - 10 \times 10 \times x - 30 \\ D &= 5x - 9 - 100x - 30 \\ D &= 5x - 100x - 9 - 30 \\ D &= (5 - 100)x - 39 \\ D &= -95x - 39 \end{aligned}$$

$$\begin{aligned} E &= 7 \times (-3x - 2) + 1 \\ E &= 7 \times (-3x) + 7 \times (-2) + 1 \\ E &= 7 \times (-3) \times x - 14 + 1 \\ E &= -21x - 13 \end{aligned}$$

Corrigé de l'exercice 3

Développer et réduire chacune des expressions littérales suivantes :

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

$$\begin{aligned} B &= 2 \times 2x \\ B &= 2 \times 2 \times x \\ B &= 4x \end{aligned}$$

$$\begin{aligned} C &= (7x + 6) \times 8 + x + 5 \\ C &= 7x \times 8 + 6 \times 8 + x + 5 \\ C &= 7 \times x \times 8 + 48 + x + 5 \\ C &= 7 \times 8 \times x + x + 48 + 5 \\ C &= 56x + x + 48 + 5 \\ C &= (56 + 1)x + 53 \\ C &= 57x + 53 \end{aligned}$$

$$\begin{aligned} D &= 7x + (8x - 2) \times 3 \\ D &= 7x + 8x \times 3 - 2 \times 3 \\ D &= 7x + 8 \times x \times 3 - 6 \\ D &= 7x + 8 \times 3 \times x - 6 \\ D &= 7x + 24x - 6 \\ D &= (7 + 24)x - 6 \end{aligned}$$

$$D = 31x - 6$$

$$\begin{aligned} E &= 8 \times (-x - 3) + 4 \\ E &= 8 \times (-x) + 8 \times (-3) + 4 \\ E &= 8 \times (-1) \times x - 24 + 4 \\ E &= -8x - 20 \end{aligned}$$

Corrigé de l'exercice 4

Développer et réduire chacune des expressions littérales suivantes :

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

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

$$\begin{aligned} C &= 8 \times (3x - 10) - 8 \\ C &= 8 \times 3x + 8 \times (-10) - 8 \\ C &= 8 \times 3 \times x - 80 - 8 \\ C &= 24x - 88 \end{aligned}$$

$$D = 4 \times (-6x + 3) + x - 8$$

$$\begin{aligned} D &= 4 \times (-6x) + 4 \times 3 + x - 8 \\ D &= 4 \times (-6) \times x + 12 + x - 8 \\ D &= -24x + x + 12 - 8 \\ D &= (-24 + 1)x + 4 \\ D &= -23x + 4 \end{aligned}$$

$$\begin{aligned} E &= -8x + (-4x - 9) \times 7 \\ E &= -8x - 4x \times 7 - 9 \times 7 \\ E &= -8x - 4 \times x \times 7 - 63 \\ E &= -8x - 4 \times 7 \times x - 63 \\ E &= -8x - 28x - 63 \\ E &= (-8 - 28)x - 63 \\ E &= -36x - 63 \end{aligned}$$

Corrigé de l'exercice 5

Développer et réduire chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 5 \times 9x \\ A &= 5 \times 9 \times x \\ A &= 45x \end{aligned}$$

$$\begin{aligned} B &= 8 \times 4x \\ B &= 8 \times 4 \times x \\ B &= 32x \end{aligned}$$

$$\begin{aligned} C &= -7 + (-7x - 9) \times 3 \\ C &= -7 - 7x \times 3 - 9 \times 3 \\ C &= -7 - 7 \times x \times 3 - 27 \\ C &= -7 - 7 \times 3 \times x - 27 \\ C &= -7 - 21x - 27 \\ C &= -21x - 7 - 27 \\ C &= -21x - 34 \end{aligned}$$

$$D = -8x - 1 + (5x + 6) \times 10$$

$$\begin{aligned} D &= -8x - 1 + 5x \times 10 + 6 \times 10 \\ D &= -8x - 1 + 5 \times x \times 10 + 60 \\ D &= -8x - 1 + 5 \times 10 \times x + 60 \\ D &= -8x - 1 + 50x + 60 \\ D &= -8x + 50x - 1 + 60 \\ D &= (-8 + 50)x + 59 \\ D &= 42x + 59 \end{aligned}$$

$$\begin{aligned} E &= (5x + 6) \times 5 + 8x \\ E &= 5x \times 5 + 6 \times 5 + 8x \\ E &= 5 \times x \times 5 + 30 + 8x \\ E &= 5 \times 5 \times x + 8x + 30 \\ E &= 25x + 8x + 30 \\ E &= (25 + 8)x + 30 \\ E &= 33x + 30 \end{aligned}$$