

**Exercice 1**

Développer et réduire les expressions suivantes.

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

$$B = 6 - (-10x - 9)(-11x + 5)$$

$$C = -2x + (-4x + 6)(11x - 8)$$

$$D = 6(-7x - 10) - (-8 - 5x)$$

$$E = -8x - 11(-2x + 2)$$

$$F = -8 + (-8x + 1)(x - 8)$$

$$G = -3x + (4x + 3)$$

$$H = 8 + (10x - 9)(-9x + 5)$$

$$I = (-3x \times 2)(10x - 4)$$

$$J = -7x + (8x + 3)(6x - 7)$$

$$K = -9(-8x + 7) - (-7 + 11x)$$

$$L = -1 - (6x - 3)(2x + 8)$$

$$M = -3x - 10(-9x - 8)$$

$$N = (3x \times 3)(-4x - 9)$$

$$O = 8(-9x - 2) - (8 - 8x)$$

$$P = -3x + (x - 7)(x + 5)$$

$$Q = -8 + (6x - 8)(-7x - 10)$$

$$R = -3 - (-2x + 1)(7x + 10)$$

$$S = (-2x \times 3)(6x - 11)$$

$$T = 5x + 6(10x - 7)$$

### Exercice 1

$$\begin{aligned} 1. \quad A &= (-x \times 2)(3x + 6) \\ &= -2x \times (3x + 6) \\ &= -6x^2 - 12x \end{aligned}$$

$$\begin{aligned} 2. \quad B &= 6 - (-10x - 9)(-11x + 5) \\ &= 6 - (110x^2 - 50x + 99x - 45) \\ &= 6 - 110x^2 + 50x - 99x + 45 \\ &= -110x^2 - 49x + 51 \end{aligned}$$

$$\begin{aligned} 3. \quad C &= -2x + (-4x + 6)(11x - 8) \\ &= -2x - 44x^2 + 32x + 66x - 48 \\ &= -44x^2 + 96x - 48 \end{aligned}$$

$$\begin{aligned} 4. \quad D &= 6(-7x - 10) - (-8 - 5x) \\ &= -42x - 60 - (-8 - 5x) \\ &= -42x - 60 + 8 + 5x \\ &= -37x - 52 \end{aligned}$$

$$\begin{aligned} 5. \quad E &= -8x - 11(-2x + 2) \\ &= -8x + 22x - 22 \\ &= 14x - 22 \end{aligned}$$

$$\begin{aligned} 6. \quad F &= -8 + (-8x + 1)(x - 8) \\ &= -8 - 8x^2 + 64x + x - 8 \\ &= -8x^2 + 65x - 16 \end{aligned}$$

$$\begin{aligned} 7. \quad G &= -3x + (4x + 3) \\ &= -3x + 4x + 3 \\ &= x + 3 \end{aligned}$$

$$\begin{aligned} 8. \quad H &= 8 + (10x - 9)(-9x + 5) \\ &= 8 - 90x^2 + 50x + 81x - 45 \\ &= -90x^2 + 131x - 37 \end{aligned}$$

$$\begin{aligned} 9. \quad I &= (-3x \times 2)(10x - 4) \\ &= -6x \times (10x - 4) \\ &= -60x^2 + 24x \end{aligned}$$

$$\begin{aligned} 10. \quad J &= -7x + (8x + 3)(6x - 7) \\ &= -7x + 48x^2 - 56x + 18x - 21 \\ &= 48x^2 - 45x - 21 \end{aligned}$$

$$\begin{aligned}
 11. \quad K &= -9(-8x + 7) - (-7 + 11x) \\
 &= 72x - 63 - (-7 + 11x) \\
 &= 72x - 63 + 7 - 11x \\
 &= 61x - 56
 \end{aligned}$$

$$\begin{aligned}
 12. \quad L &= -1 - (6x - 3)(2x + 8) \\
 &= -1 - (12x^2 + 48x - 6x - 24) \\
 &= -1 - 12x^2 - 48x + 6x + 24 \\
 &= -12x^2 - 42x + 23
 \end{aligned}$$

$$\begin{aligned}
 13. \quad M &= -3x - 10(-9x - 8) \\
 &= -3x + 90x + 80 \\
 &= 87x + 80
 \end{aligned}$$

$$\begin{aligned}
 14. \quad N &= (3x \times 3)(-4x - 9) \\
 &= 9x \times (-4x - 9) \\
 &= -36x^2 - 81x
 \end{aligned}$$

$$\begin{aligned}
 15. \quad O &= 8(-9x - 2) - (8 - 8x) \\
 &= -72x - 16 - (8 - 8x) \\
 &= -72x - 16 - 8 + 8x \\
 &= -64x - 24
 \end{aligned}$$

$$\begin{aligned}
 16. \quad P &= -3x + (x - 7)(x + 5) \\
 &= -3x + x^2 + 5x - 7x - 35 \\
 &= x^2 - 5x - 35
 \end{aligned}$$

$$\begin{aligned}
 17. \quad Q &= -8 + (6x - 8)(-7x - 10) \\
 &= -8 - 42x^2 - 60x + 56x + 80 \\
 &= -42x^2 - 4x + 72
 \end{aligned}$$

$$\begin{aligned}
 18. \quad R &= -3 - (-2x + 1)(7x + 10) \\
 &= -3 - (-14x^2 - 20x + 7x + 10) \\
 &= -3 + 14x^2 + 20x - 7x - 10 \\
 &= 14x^2 + 13x - 13
 \end{aligned}$$

$$\begin{aligned}
 19. \quad S &= (-2x \times 3)(6x - 11) \\
 &= -6x \times (6x - 11) \\
 &= -36x^2 + 66x
 \end{aligned}$$

$$\begin{aligned}
 20. \quad T &= 5x + 6(10x - 7) \\
 &= 5x + 60x - 42 \\
 &= 65x - 42
 \end{aligned}$$