

**Exercice 1**

Factoriser chacune des expressions littérales suivantes :

$$\begin{aligned} A &= -(3x - 8) \times (-x + 9) + (3x + 3) \times (-x + 9) \\ B &= 9x^2 + 12x + 4 \\ C &= 49x^2 - 1 \end{aligned}$$

$$\begin{aligned} D &= -(-6x - 9)^2 + 49x^2 \\ E &= (4x + 5)^2 + (7x + 7) \times (4x + 5) \\ F &= 9x - 5 + (9x - 5) \times (2x - 2) \end{aligned}$$

**Exercice 2**

Factoriser chacune des expressions littérales suivantes :

$$\begin{aligned} A &= -(9x + 3)^2 + 25 \\ B &= (4x - 9) \times (x - 3) + (4x - 9) \times (7x + 4) \\ C &= -81x^2 + 81 \end{aligned}$$

$$\begin{aligned} D &= 16x^2 + 24x + 9 \\ E &= 10x - 2 + (3x + 8) \times (10x - 2) \\ F &= (3x - 6)^2 - (3x - 6) \times (x - 8) \end{aligned}$$

**Exercice 3**

Factoriser chacune des expressions littérales suivantes :

$$\begin{aligned} A &= -(10x - 1)^2 + 36x^2 \\ B &= 64x^2 - 4 \\ C &= (7x + 6) \times (8x + 5) - (8x + 5) \times (7x + 3) \end{aligned}$$

$$\begin{aligned} D &= 100x^2 - 100x + 25 \\ E &= 9x + 10 + (9x + 10) \times (6x + 8) \\ F &= (5x + 10)^2 + (-7x - 2) \times (5x + 10) \end{aligned}$$

**Exercice 4**

Factoriser chacune des expressions littérales suivantes :

$$\begin{aligned} A &= (-x + 7) \times (-10x + 1) + (-x + 7) \times (-10x - 3) \\ B &= 100x^2 - 100x + 25 \\ C &= -36 + (-5x + 4)^2 \end{aligned}$$

$$\begin{aligned} D &= -36x^2 + 81 \\ E &= (x + 4) \times (4x - 7) + (x + 4)^2 \\ F &= -(3x + 4) + (6x + 7) \times (3x + 4) \end{aligned}$$

**Exercice 5**

Factoriser chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 36x^2 - 25 \\ B &= 4 - (3x + 4)^2 \\ C &= (x + 9) \times (8x + 5) + (8x + 5) \times (x - 10) \end{aligned}$$

$$\begin{aligned} D &= 16x^2 + 40x + 25 \\ E &= (4x + 9) \times (8x + 2) + 8x + 2 \\ F &= (2x + 4) \times (-5x + 10) - (-5x + 10)^2 \end{aligned}$$

**Exercice 6**

Factoriser chacune des expressions littérales suivantes :

$$\begin{aligned} A &= 64 - (7x + 8)^2 \\ B &= 36x^2 - 108x + 81 \\ C &= 25x^2 - 16 \end{aligned}$$

$$\begin{aligned} D &= (2x - 9) \times (10x + 1) + (-2x - 7) \times (10x + 1) \\ E &= -(5x + 9) + (5x + 9) \times (9x + 4) \\ F &= (-5x + 5)^2 + (-5x + 5) \times (-10x - 6) \end{aligned}$$