

## FACTORISATIONS

**Exercice 1 :** Factorise les expressions suivantes :

$$A = 3(x + 3) + x(x + 3)$$

$$B = (2x + 7)(x - 2) + (2x + 7)(3x + 4)$$

$$C = (x - 2)(4x - 1) + (x - 2)(x + 3)$$

$$D = (x + 3)(2x + 2) - (x + 3)(x - 1)$$

$$E = (3x + 1)(-2x + 3) - (3x + 1)(5 - 2x)$$

$$F = 5 + 5x$$

$$G = 12 + 4x$$

$$H = 2(x + 1) + (x + 1)(x - 2) - 3x(x + 1)$$

**Exercice 2 :** Factorise les expressions suivantes :

$$I = (x + 1)^2 + (x + 1)(x - 5)$$

$$J = (4 - x)(2x + 1) - (2x + 1)^2$$

$$K = (-2x + 4)(x - 3) + 3(x - 3) - (x - 3)(x + 2)$$

$$L = 3(x - 5) + (x - 5)^2$$

$$M = -2(3x + 1) + (3x + 1)^2 - (3x + 1)(x + 3)$$

$$N = 3(x + 1)(x + 2) + (x + 1)(x - 7)$$

**Exercice 3 :** Factorise les expressions suivantes :

$$O = x^2 - 9$$

$$P = 4x^2 - 25$$

$$Q = 25x^2 - 36$$

$$R = 4 - 4x^2$$

$$S = 16 - 16x^2$$

**Exercice 4 :** Factorise les expressions suivantes :

$$T = (x + 3)^2 - 9$$

$$U = 25 - (x + 1)^2$$

$$V = (2x - 5)^2 - x^2$$

$$W = (x - 2)^2 - 4x^2$$

$$X = (2x + 1)^2 - (x + 2)^2$$

$$Y = 4x^2 - 9 + (2x - 3)(x + 5)$$

$$Z = (x + 1)^2 + x^2 - 1$$