

## Développements & factorisations

1. Réduire les expressions suivantes :

$$A = 12a - 3a \quad B = -6a - 7a \quad C = 5b \times 2b$$

$$D = 3b \times (-2b) \quad E = x^2 + 2x + 5x^2 + 7x$$

$$F = 3x^2 + 4x - 7 - 7x^2 - 3x - 2 \quad G = 5 - (2 - 3d) + (2d + 1)$$

$$H = -f - (2f + 3) - (1 - 2f) \quad I = 1 - (g^2 - g + 1) - 4 + (3g^2 + 5g - 7)$$

2. Développer puis réduire les expressions :

$$J = 3(2x + 5) \quad K = 7(-4x + 5) \quad L = -2(4x + 5)$$

$$M = -5(-2x + 1) \quad N = -x - 3(-x + 5) \quad O = x(2x + 3) - 1 - 2(x^2 + x + 4)$$

$$P = (2x + 3)(4x + 1) \quad Q = (3x - 1)(2x + 4) \quad R = (2x - 5)(4x - 3)$$

$$S = -(-2x - 6)(-5x + 10) \quad T = 3(5x - 2) + (x + 1)(5x - 2)$$

$$U = (2x - 3)(x + 2) - 5(2x - 3) \quad V = 9x^2 - 4 - (3x - 2)(x - 3)$$

3. Factoriser les expressions suivantes :

$$W = 5x^2 + 8x \quad X = 6x^2 - x \quad Y = 3b + 9 \quad Z = 12d^2 + 8d + 4$$

$$A' = (2x + 5)(3x + 2) + (2x + 5)(2x + 1)$$

$$B' = (4x + 5)(2x - 3) - (4x + 5)(5x + 2)$$

$$C' = (3x + 5)^2 - (3x + 5)(7x + 4)$$

## Résultats

$$1. A = 9a \quad B = -13a \quad C = 10b^2 \quad D = -6b^2 \quad E = 6x^2 + 9x$$

$$F = -4x^2 + x - 9 \quad G = 5d + 4 \quad H = -f - 4$$

$$I = 2g^2 + 6g - 11$$

$$2. J = 6x + 15 \quad K = -28x + 35 \quad L = -8x - 10$$

$$M = 10x - 5 \quad N = 2x - 15 \quad O = x - 9$$

$$P = 8x^2 + 14x + 3 \quad Q = 6x^2 + 10x - 4 \quad R = 8x - 26x + 15$$

$$S = -10x^2 - 10x + 60 \quad T = 5x^2 + 18x - 8 \quad U = 2x^2 - 9x + 9$$

$$V = 6x^2 + 11x - 10$$

$$3. W = x(5x + 8) \quad X = x(6x - 1) \quad Y = 3(b + 3)$$

$$Z = 4(3d^2 + 2d + 1) \quad A' = (2x + 5)(5x + 3)$$

$$B' = (4x + 5)(-3x - 5) \quad C' = (3x + 5)(-4x + 1)$$