

Exercices de factorisation

Exercice 1 : (base)

Factoriser les expressions suivantes :

$$A(x) = 27x^2 + 36x$$

$$I(x) = 4x^2 + 28x + 49$$

$$B(x) = 4x^2 - 8x^3 + 12x$$

$$J(x) = 49x^2 - 16$$

$$C(x) = (x + 5)(x - 2) + (x + 5)(x + 7)$$

$$K(x) = 36x^2 - 60x + 25$$

$$D(x) = 4x(x - 3) + (x + 7)(x - 3)$$

$$L(x) = x^2 + \frac{2}{3}x + \frac{1}{9}$$

$$E(x) = (x - 5)(x + 8) - (4x + 1)(x + 8)$$

$$M(x) = x^2 + 0, 2x + 0, 01$$

$$F(x) = x^2 + 20x + 100$$

$$N(x) = 5x^2 - 60x + 180$$

$$G(x) = x^2 - 16x + 64$$

$$O(x) = 2x^2 - 32$$

$$H(x) = x^2 - 121$$

$$P(x) = 8x^3 + 8x^2 + 2x$$

Exercice 2 : (plus difficile)

Factoriser les expressions suivantes :

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

$$R(x) = x(x + 1) + (x + 1)$$

$$S(x) = x^2(x + 3) + 2x(x + 3) + (x + 3)$$

$$T(x) = (x^2 - 4) - (x + 2)$$

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

$$V(x) = 4x^2 - 12x + 9 + (3 - 2x)(14x - 13)$$

$$W(x) = (3x - 2)^2 - (x + 3)^2$$

$$X(x) = (1 - x)(7x + 6) - (4 - 4x)(x + 1)$$

$$Y(x) = (7 - 2x)(x + 5) - (21 - 6x)(2x - 1)$$

$$Z(x) = 4x^2 - 1 - (3x - 3)(2x + 1) + 5(2x + 1)$$

$$\alpha(x) = -2(x - 3)^2 + (x - 3)(4x - 3) + x^2 - 9$$

$$\beta(x) = (x + 1)^3 + x^2 - 1$$

$$\delta(x) = 27 - 8x^3 + 12(2x - 3) - 4x^2 + 9$$