

EXERCICE 1

Factoriser :

$$A = 3x + 6$$

$$B = 3x^2 + x$$

$$C = x^5 + x^4$$

$$D = 3xy - x^2$$

$$E = 3a + 3b$$

$$F = 2a - 4b$$

$$G = a(a + b) - a$$

$$H = 5a^2 - 5b^2$$

$$I = ab^3 - a^5b^4$$

$$J = ab^7 - a^3b^2$$

$$K = a^3b - ab^3$$

$$L = 4a^2 - 9b^2$$

EXERCICE 2

Factoriser :

$$A = 15x^2 - 25x^4$$

$$B = 42y^5 - 49y^2$$

$$C = 12x^4y^2 - 18x^3y^5$$

$$D = 22x^9y^4 + 18x^4y^6$$

$$E = 24a^5b^2 - 32a^4b^8 + 36a^3b^5$$

$$F = 36x^7y^4 - 45x^{11}y^7 + 63x^9y^3$$

EXERCICE 3

Montrer que pour tout a et b on a :

$$1. (b^2 - 8b + 3) - (a^2 - 8a + 3) = (b - a)(a + b - 8)$$

$$2. (b^3 - 3b) - (a^3 - 3a) = (b - a)(a^2 + ab + b^2 - 3)$$

$$3. (-2b^2 + 4b + 1) - (-2a^2 + 4a + 1) = 2(a - b)(a + b - 2)$$