

**MATHEMATIQUES - 3^{ème}**

Année Scolaire 2023-2024

Evaluation n°3 - Correction

Lundi 20 novembre 2023

Exercice 1**Question :** Les écritures des trois nombres en écriture scientifique donnent :

$$A = (-3 \times 10^5)^2 \qquad B = \frac{3 \times 10^{-4}}{2 \times 10^{-3}} \qquad C = 2 \times 3 \times 10^4 \times 10^{-2}$$

$$A = (-3)^2 \times (10^5)^2 \qquad B = \frac{3}{2} \times 10^{-4+3} \qquad C = 6 \times 10^{4-2}$$

$$A = 9 \times 10^{2 \times 5} \qquad B = \frac{3}{2} \times 10^{-1} \qquad C = 6 \times 10^2$$

Exercice 2**Question :** Les calculs de F_1 , F_2 et F_3 donnent :

$$F_1 = G \frac{mM}{r^2} \qquad F_2 = q(E + vB) \qquad F_3 = \eta S \frac{C}{t}$$

$$F_1 = 7 \times 10^{-11} \frac{10 \times 6 \times 10^{2nd4}}{(10^2)^2} \qquad F_2 = 3(5 + 100 \times 10^{-4}) \qquad F_3 = 10^{-3} \times (-5) \times \frac{2}{1}$$

$$F_1 = 6 \times 7 \times \frac{10^{-11+1+24}}{10^{2 \times 2}} \qquad F_2 = 3(5 + 10^2 \times 10^{-4}) \qquad F_3 = -10 \times 10^{-3}$$

$$F_1 = 42 \times \frac{10^{14}}{10^4} \qquad F_2 = 3(5 + 10^{2-4}) \qquad F_3 = -10^{-2}$$

$$F_1 = 42 \times 10^{14-4} \qquad F_2 = 15 + 3 \times 10^{-2}$$

$$F_1 = 42 \times 10^{10} \qquad F_2 = 15,03$$

Exercice 3**Question :** Le développement de chaque expression littérale donne :

$$D = (x+1)(-2+3x) \qquad E = (2x+3)^2 \qquad G = (1-7x)(1+7x)$$

$$D = x \times (-2) + 1 \times (-2) + x \times 3x + 1 \times 3x \qquad E = (2x)^2 + 2 \times 3 \times 2x + 3^2 \qquad G = 1^2 - (7x)^2$$

$$D = -2x - 2 + 3x^2 + 3x \qquad E = 4x^2 + 12x + 9 \qquad G = 1 - 49x^2$$

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



Exercice 4

Question : La factorisation de chaque expression littérale donne :

$$H = x^2 + 2x + 1$$

$$H = (x + 1)^2$$

$$I = 4x^2yz + 2x - 8xy$$

$$I = 2x(2xyz + 1 - 4y)$$

$$J = 36x^2 + 60x + 25$$

$$J = (6x)^2 + 2 \times 6x \times 5 + 5^2$$

$$J = (6x + 5)^2$$