

CORRIGE

1) Simplification d'expressions algébrique

$$a) \quad \frac{4a^4 b^2 m^3}{a^4 b m^5} \cdot \frac{a m^4}{8b^2} = 1m^2 / 2a^2b$$

$$b) \quad 4x - [7 - 3(2x - 4) - (-5x)] = 4x - (7 - 6x + 12 + 5x) = 4x - 7 + x - 12 = 5x - 19$$

$$c) \quad 2(5x + 2)^2 = 2(25x^2 + 20x + 4) = 50x^2 + 40x + 8$$

$$d) \quad 1 - (x + 1)(-x - 20) = 1 - (-x^2 - 20x - x - 20) = 1 - (-x^2 - 21x - 20) = 1 + x^2 + 21x + 20 = x^2 + 21x + 21$$

2) Equations de premier degré

$$e) \quad 3(x - 2) + (x - 4) = \frac{1}{2}(4x + 10) \quad S = \{7.5\}$$

$$f) \quad -5(-x + 1) - 3(x + 1) = 4(x - 2) \quad S = \{0\}$$

$$g) \quad 14x - [2x - 3 - 9(-x + 5)] = 0 \quad S = \{-16\}$$

$$h) \quad \frac{2x+1}{3} - \frac{x-1}{5} = \frac{7x-12}{15} \quad S = \text{impossible}$$

3) Systèmes d'équation

$$i) \quad \begin{cases} \frac{x}{3} - \frac{y-4}{6} = 4 \\ \frac{-x+2}{3} - \frac{y}{4} = -1 \end{cases} \quad S = \{8; -4\}$$

$$j) \quad \begin{cases} -2(-x+1) - 5y = -x+10 \\ 2(3x-y+1) = -4y+6 \end{cases} \quad S = \{11/9; -5/3\}$$