

Laisse les traces de tes calculs. Attention aux signes !  
Vérifie tes réponses 😊

### 1) Simplification d'expressions algébriques

$$a) \left( \frac{1}{2} a^5 b^3 c^6 \right)^3 \left( -\frac{3}{5} a^2 b^8 c^7 \right) \left( \frac{5}{2} b^4 c^5 \right) =$$

$$b) (4 + x)(3 + y) - (7x - 9y + xy) =$$

$$c) 7 \left( \frac{1}{5} x + \frac{1}{14} \right) + \frac{11}{15} x =$$

$$d) \frac{5}{12} - \frac{4 - x}{3x} =$$

### 2) Equations de premier degré

$$e) 2(18x - 45) = -24 - 6(-6x + 11)$$

$$f) \frac{1}{4}(x + 4) - \frac{1}{20}(x - 60) = \frac{2}{5}(x + 15)$$

$$g) 12x - [2x + 3 - (x - 5) - 7] = 0$$

$$h) \frac{2x - 5}{3} - \frac{1 + 2x}{4} = 6$$

### 3) Systemes d'équation

$$i) \begin{cases} 3 \left( \frac{x - 2y}{2} \right) = -4 - \frac{3}{2}x \\ \frac{y}{4} = 8 + \frac{6x + 5}{3} \end{cases}$$

$$j) \begin{cases} - \left( \frac{y - 4}{6} \right) = 4 + \frac{x}{3} \\ \frac{-x + 2}{2} - \frac{y}{5} = -1 \end{cases}$$

## CORRIGE

### 1) Simplification d'expressions algébrique

$$a) \left(\frac{1}{2} a^5 b^3 c^6\right)^3 \left(-\frac{3}{5} a^2 b^8 c^7\right) \left(\frac{5}{2} b^4 c^5\right) = -\frac{3}{16} a^{17} b^{21} c^{30}$$

$$b) (4+x)(3+y) - (7x-9y+xy) = -4x + 13y + 12$$

$$c) 7\left(\frac{1}{5}x + \frac{1}{14}\right) + \frac{11}{15}x = \frac{32x}{15} + \frac{1}{2}$$

$$d) \frac{5}{12} - \frac{4-x}{3x} = \frac{9x-16}{12x}$$

### 2) Equations de premier degré

$$e) 2(18x-45) = -24-6(-6x+11) \quad S=R$$

$$f) \frac{1}{4}(x+4) - \frac{1}{20}(x-60) = \frac{2}{5}(x+15) \quad S=(-10)$$

$$g) 12x - [2x + 3 - (x - 5) - 7] = 0 \quad S = \left(\frac{1}{11}\right)$$

$$h) \frac{2x-5}{3} - \frac{1+2x}{4} = 6 \quad S=(47.5)$$

### 3) Systemes d'équation

$$i) \begin{cases} 3\left(\frac{x-2y}{2}\right) = -4 - \frac{3}{2}x \\ \frac{y}{4} = 8 + \frac{6x+5}{3} \end{cases} \quad S = \left(-\frac{16}{3}; -4\right)$$

$$j) \begin{cases} -\left(\frac{y-4}{6}\right) = 4 + \frac{x}{3} \\ \frac{-x+2}{2} - \frac{y}{5} = -1 \end{cases} \quad S = (60; -140)$$