

# Chapitre 4 Equations 1<sup>er</sup> degré à plusieurs inconnues

**Exercice 1.** Résoudre les systèmes.

$$1. \begin{cases} x + y = 19 \\ 2x - y = 2 \end{cases}$$

$$2. \begin{cases} x + y = 4 \\ x - y = 6 \end{cases}$$

$$3. \begin{cases} 2x + 3y - 4 = 0 \\ 10x + 3y - 44 = 0 \end{cases}$$

$$4. \begin{cases} 5x + 3y = -1 \\ 4x + 5y = 7 \end{cases}$$

$$5. \begin{cases} x + \frac{2}{3}y = 7 \\ x - y = 2 \end{cases}$$

$$6. \begin{cases} \frac{x}{3} + \frac{y}{2} = \frac{5}{12} \\ x - \frac{3y}{4} = \frac{1}{4} \end{cases}$$

**Exercice 2.** Résoudre les systèmes.

$$1. \begin{cases} (x+2)(y-3) = xy \\ xy + 15 = (x+3)(y+2) \end{cases}$$

$$2. \begin{cases} (2x+1)(y-2) = 2xy \\ x(3y-2) - 3y(x-1) + 4 = 0 \end{cases}$$

$$3. \begin{cases} x - 2y = 1 \\ 2x - 4y = 2 \end{cases}$$

$$4. \begin{cases} -x + 2y - 1 = 0 \\ 2x - 4y - 2 = 0 \end{cases}$$

$$5. \begin{cases} 9(x-y) + 24x = 100 \\ 3(x-y) = 32 \end{cases}$$

$$6. \begin{cases} 4(x-7) + 9y = 80 \\ 2(x-7) = \frac{11}{2}y \end{cases}$$

$$7. \begin{cases} 5(3x+2y) = 90(x-y) \\ 3(6x-2y) = 3x+10y+2 \end{cases}$$

$$8. \begin{cases} 7(x+y) + 84 = 12(2x-3y) \\ 9(5x-8y) - 864 = 8(3x-5y) \end{cases}$$

$$9. \begin{cases} 2x - y = 7 \\ -4x + 2y = -14 \end{cases}$$

$$10. \begin{cases} 2x - y = 7 \\ 4x + 2y = -14 \end{cases}$$

$$11. \begin{cases} 2x - y = -7 \\ -4x + 2y = -14 \end{cases}$$

$$12. \begin{cases} \frac{x+2y-4}{4} = x-1 \\ \frac{x+1}{3} + \frac{y-2}{2} = \frac{x}{4} + \frac{y}{3} \end{cases}$$

$$13. \begin{cases} \frac{x+y}{3} + \frac{y-x}{2} = 9 \\ \frac{x}{2} + \frac{x+y}{9} = 5 \end{cases}$$

$$14. \begin{cases} \frac{x+y}{8} + \frac{x-y}{6} = 5 \\ \frac{x+y}{4} - \frac{x-y}{3} = 10 \end{cases}$$

$$15. \begin{cases} \frac{4x+5y}{40} = x-y \\ \frac{2x-y}{3} + 2y = \frac{1}{2} \end{cases}$$

$$16. \begin{cases} \frac{7+x}{5} - \frac{2x-y}{4} = 3y-5 \\ \frac{5y-7}{2} + \frac{4x-3}{6} = 18-5x \end{cases}$$