Fiche d'entraînement : systèmes (par calculs)

Résoudre les systèmes suivants :

1)
$$\begin{cases} 3x + y = -3 \\ 2x - 5y = -19 \end{cases}$$

2)
$$\begin{cases} x + 2y = 7 \\ 5x - 6y = -45 \end{cases}$$

3)
$$\begin{cases} 4x - 7y = -36 \\ -2x - 5y = -16 \end{cases}$$

4)
$$\begin{cases} -x + 9y = -25 \\ 3x + 4y = 13 \end{cases}$$

$$\begin{cases} 2x - 5y = -36 \\ x + y = -4 \end{cases}$$

$$\begin{cases} 4x + 6y = 14 \\ 6x + 9y = 21 \end{cases}$$

7)
$$\begin{cases} -2x + 6y = 8 \\ -3x + 9y = 10 \end{cases}$$

8)
$$\begin{cases} 3x - 2y = -7 \\ 2x + 4y = 6 \end{cases}$$

9)
$$\begin{cases} -2x + 5y = 3 \\ 3x - y = 1 \end{cases}$$

$$10) \begin{cases} 2x + 7y = 36 \\ 3x - 10y = -69 \end{cases}$$

11)
$$\begin{cases} -2x + 7y = 5\\ 4x + 5y = -10 \end{cases}$$

12)
$$\begin{cases} -3x + 2y = -7 \\ 2x - 5y = 12 \end{cases}$$

13)
$$\begin{cases} 6x + 8y = 18 \\ 9x + 12y = 27 \end{cases}$$

$$\begin{cases}
10x + 4y = 6 \\
35x + 14y = 20
\end{cases}$$

Solutions

1)
$$S = \{(-2; 3)\}$$

2)
$$S = \{(-3; 5)\}$$

3)
$$S = \{(-2; 4)\}$$

4)
$$S = \{(7; -2)\}$$

5)
$$S = \{(-8; 4)\}$$

6)
$$S = \left\{ \left(x; -\frac{2}{3}x + \frac{7}{3} \right) / x \in \mathbb{R} \right\}$$

7)
$$S = \varnothing$$

9)
$$S = \left\{ \left(\frac{8}{13}; \frac{11}{13} \right) \right\}$$

10)
$$S = \{(-3; 6)\}$$

11)
$$S = \{(-2; 3)\}$$

12)
$$S = \{(-1; -2)\}$$

13)
$$S = \left\{ \left(x; -\frac{3}{4}x + \frac{9}{4} \right) / x \in \mathbb{R} \right\}$$

14)
$$S = \emptyset$$