

2.5.19

17.01.22

$$b) \begin{cases} 5x - 2y = 5 \\ 3x - y = 10 \end{cases} \quad \begin{array}{c|c} x \text{ ①} & y \text{ ②} \\ \hline \cdot 3 & \cdot 1 \\ \cdot (-5) & \cdot (-2) \end{array}$$

$$\text{①} \quad \begin{array}{r} 15x - 6y = 15 \\ -15x + 5y = -50 \\ \hline -y = -35 \end{array}$$

$$\Rightarrow \begin{cases} -y = -35 \\ -x = -15 \end{cases}$$

$$\text{②} \quad \begin{array}{r} 5x - 2y = 5 \\ -6x + 2y = -20 \\ \hline -x = -15 \end{array}$$

$$\Rightarrow \begin{cases} x = 15 \\ y = 35 \end{cases}$$

$$S = \{ (15; 35) \}$$

$$d) \left\{ \begin{array}{l} 2x - 4y = 2 \\ x - 2y = 1 \end{array} \right. \quad \div 2$$

$$\Leftrightarrow \left\{ \begin{array}{l} x - 2y = 1 \\ x - 2y = 1 \end{array} \right. \quad \Leftrightarrow x - 2y = 1 \quad \Leftrightarrow x = 2y + 1$$

Il y a une infinité de solutions

$$S = \{ (5; 2), (1; 0), (-13; -7), \dots \}$$

$$= \{ (2y + 1, y) \mid y \in \mathbb{R} \}$$

Les solutions sont données par les points de la droite $x = 2y + 1$

$$e) \left\{ \begin{array}{l} 2x + 4y = 5 \\ x + 2y = 2 \end{array} \right. \quad \begin{array}{l} \times \textcircled{1} \\ 1 \\ \cdot (-2) \end{array}$$

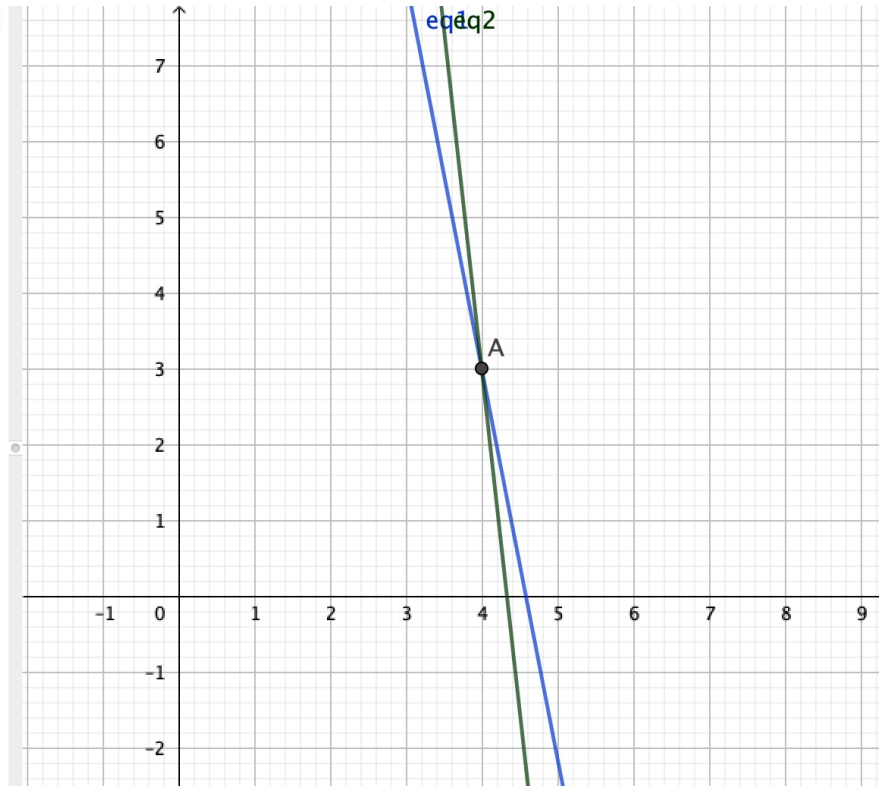
$$\begin{array}{r} \textcircled{1} \quad 2x + 4y = 5 \\ \quad -2x - 4y = 4 \\ \hline 0 = 1 \end{array}$$

$$S = \emptyset$$

Ces deux droites sont parallèles.

d)
$$\begin{cases} 72x + 14y = 330 \\ 63x + 7y = 273 \end{cases}$$

- eq1: $36x + 7y = 165$
- eq2: $9x + y = 39$
- A = (4, 3)



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

$$k) \begin{cases} x - y - z = 6 \\ x - 2y - 3z = 10 \\ 5x + 6y + z = 2 \end{cases} \begin{array}{c|c} X & X \\ \hline \cdot 1 & \cdot 5 \\ \cdot (-1) & \cdot (-1) \end{array} \begin{array}{c} \textcircled{1} \\ \textcircled{2} \end{array}$$

$$\begin{cases} y + 2z = -4 \\ -11y - 6z = 28 \\ x - y - z = 6 \end{cases} \begin{array}{c|c} & \\ \hline \cdot 11 & \cdot 1 \\ & \end{array} \begin{array}{c} \textcircled{3} \\ \\ \end{array}$$

$$\begin{cases} 16z = -16 \end{cases}$$

suite 18.02.22

$$\begin{array}{rcl} \textcircled{1} & x - y - z = 6 \\ & -x + 2y + 3z = -10 \\ \hline & y + 2z = -4 \end{array}$$

$$\begin{array}{rcl} \textcircled{2} & 5x - 5y - 5z = 30 \\ & -5x - 6y - z = -2 \\ \hline & -11y - 6z = 28 \end{array}$$

$$\begin{array}{rcl} \textcircled{3} & 11y + 22z = -44 \\ & -11y - 6z = 28 \\ \hline & 16z = -16 \end{array}$$