

連立方程式 加減法2

連立方程式の計算

NO.4

学習日 月 日

名前

/5 点

◆次の連立方程式を解きなさい

$$(1) \quad \begin{cases} 2x + y = 12 \\ 3x - y = -2 \end{cases}$$

$$(2) \quad \begin{cases} 2x - 3y = -11 \\ x + 2y = -2 \end{cases}$$

$$(3) \quad \begin{cases} 4x - 5y = -18 \\ 2x + 3y = 2 \end{cases}$$

$$(4) \quad \begin{cases} 5x - 4y = 4 \\ -2x - y = 2 \end{cases}$$

$$(5) \quad \begin{cases} 2x + 7y = -26 \\ 5x - 9y = -12 \end{cases}$$

解答

$$(1) \quad \begin{cases} 2x + y = 12 & \cdots\textcircled{1} \\ 3x - y = -2 & \cdots\textcircled{2} \end{cases}$$

① $\times 1$ + ② $\times 1$ で、

$$\begin{array}{r} 2x + y = 12 \\ +) \quad 3x - y = -2 \\ \hline 5x = 10 \end{array}$$

$$x = 2$$

$x = 2$ を①に代入して、

$$2 \times 2 + y = 12$$

$$y = 8 \qquad x = 2 \quad y = 8$$

$$(2) \quad \begin{cases} 2x - 3y = -11 & \cdots\textcircled{1} \\ x + 2y = -2 & \cdots\textcircled{2} \end{cases}$$

① $\times 1$ - ② $\times 2$ で、

$$\begin{array}{r} 2x - 3y = -11 \\ -) \quad 2x + 4y = -4 \\ \hline -7y = -7 \end{array}$$

$$y = 1$$

$y = 1$ ②に代入して、

$$x + 2 = -2$$

$$x = -4 \qquad x = -4 \quad y = 1$$

$$(3) \quad \begin{cases} 4x - 5y = -18 & \cdots\textcircled{1} \\ 2x + 3y = 2 & \cdots\textcircled{2} \end{cases}$$

① $\times 1$ - ② $\times 2$ で、

$$\begin{array}{r} 4x - 5y = -18 \\ -) \quad 4x + 6y = 4 \\ \hline -11y = -22 \end{array}$$

$$y = 2$$

$y = 2$ を②に代入して、

$$2x + 3 \times 2 = 2$$

$$2x = -4$$

$$x = -2 \qquad x = -2 \quad y = -4$$

$$(4) \quad \begin{cases} 5x - 4y = 4 & \cdots \textcircled{1} \\ -2x + y = 2 & \cdots \textcircled{2} \end{cases}$$

① $\times 1$ + ② $\times 4$ で、

$$\begin{array}{r} 5x - 4y = 4 \\ +) -8x + 4y = 8 \\ \hline -3x = 12 \end{array}$$

$$x = -4$$

$x = -4$ を②に代入して、

$$-2 \times -4 + y = 2$$

$$y = -6 \quad x = -4 \quad y = -6$$

$$(5) \quad \begin{cases} 2x + 7y = -26 & \cdots \textcircled{1} \\ 5x - 9y = -12 & \cdots \textcircled{2} \end{cases}$$

① $\times 5$ - ② $\times 2$ で、

$$\begin{array}{r} 10x + 35y = -130 \\ -) 10x - 18y = -24 \\ \hline 53y = -106 \end{array}$$

$$y = -2$$

$y = -2$ を①に代入して、

$$2x + 7 \times (-2) = -26$$

$$2x = -12$$