

() 組 () 番 名前 ()

次の連立方程式を解きなさい。

$$(1) \begin{cases} 4x + y = 10 & \dots \textcircled{1} \\ 5x - 2(3x - y) = -7 & \dots \textcircled{2} \end{cases}$$

$$\textcircled{2} \text{より } 5x - 6x + 2y = -7 \\ -x + 2y = -7 \dots \textcircled{2}'$$

$$\textcircled{1} \times 2 - \textcircled{2}'$$

$$\begin{array}{r} 8x + 2y = 20 \\ -) -x + 2y = -7 \\ \hline 9x = 27 \end{array}$$

$$x = 3$$

$x = 3$ を $\textcircled{1}$ に代入すると

$$\begin{array}{r} 12 + y = 10 \\ y = -2 \end{array}$$

$$(x, y) = (3, -2)$$

$$(2) \begin{cases} 4x + 3y = -1 & \dots \textcircled{1} \\ \frac{1}{2}x - \frac{1}{3}y = 2 & \dots \textcircled{2} \end{cases}$$

$$\textcircled{2} \times 6 \quad 3x - 2y = 12 \dots \textcircled{2}'$$

$$\textcircled{1} \times 2 + \textcircled{2}' \quad \times 3$$

$$\begin{array}{r} 8x + 6y = -2 \\ +) 9x - 6y = 36 \\ \hline 17x = 34 \end{array}$$

$$x = 2$$

$x = 2$ を $\textcircled{1}$ に代入すると

$$\begin{array}{r} 8 + 3y = -1 \\ 3y = -9 \\ y = -3 \end{array}$$

$$(x, y) = (2, -3)$$

$$(3) \begin{cases} 0.2x + 0.3y = -0.2 & \dots \textcircled{1} \\ 5x + 2y = 17 & \dots \textcircled{2} \end{cases}$$

$$\textcircled{1} \times 10 \quad 2x + 3y = -2 \dots \textcircled{1}'$$

$$\textcircled{1}' \times 2 - \textcircled{2} \times 3$$

$$\begin{array}{r} 4x + 6y = -4 \\ -) 15x + 6y = 51 \\ \hline -11x = -55 \end{array}$$

$$x = 5$$

$x = 5$ を $\textcircled{2}$ に代入すると

$$\begin{array}{r} 25 + 2y = 17 \\ 2y = -8 \\ y = -4 \end{array}$$

$$(x, y) = (5, -4)$$

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

$$\textcircled{1} - \textcircled{2} \times 2$$

$$\begin{array}{r} 2x + y = 5 \\ -) 2x + 6y = 10 \\ \hline -5y = -5 \end{array}$$

$$y = 1$$

$y = 1$ を $\textcircled{1}$ に代入すると

$$\begin{array}{r} 2x + 1 = 5 \\ 2x = 4 \\ x = 2 \end{array}$$

$$(x, y) = (2, 1)$$