

1 次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} -6x - 11y = 24 & \dots\dots ① \\ 3x + 6y = -15 & \dots\dots ② \end{cases}$$

$$(2) \begin{cases} -2x - 3y = -2 & \dots\dots ① \\ -6x + 16y = 44 & \dots\dots ② \end{cases}$$

$$(3) \begin{cases} 6x + 5y = 17 & \dots\dots ① \\ 9x - 6y = 12 & \dots\dots ② \end{cases}$$

$$(4) \begin{cases} 6x + 5y = -27 & \dots\dots ① \\ -8x - 4y = 44 & \dots\dots ② \end{cases}$$

1 次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} -6x - 11y = 24 & \dots\dots ① \\ 3x + 6y = -15 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \qquad -6x - 11y = 24 \\ ② \times 2 \quad +) \quad 6x + 12y = -30 \\ \hline \qquad \qquad \qquad y = -6 \end{array}$$

$y = -6$ を②に代入すると、

$$\begin{aligned} 3x + 6 \times (-6) &= -15 \\ 3x &= 21 \\ x &= 7 \end{aligned}$$

$$\text{答} \begin{cases} x = 7 \\ y = -6 \end{cases}$$

$$(2) \begin{cases} -2x - 3y = -2 & \dots\dots ① \\ -6x + 16y = 44 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 3 \qquad -6x - 9y = -6 \\ ② \qquad \qquad -) \quad -6x + 16y = 44 \\ \hline \qquad \qquad \qquad -25y = -50 \\ \qquad \qquad \qquad y = 2 \end{array}$$

$y = 2$ を①に代入すると、

$$\begin{aligned} -2x - 3 \times 2 &= -2 \\ -2x &= 4 \\ x &= -2 \end{aligned}$$

$$\text{答} \begin{cases} x = -2 \\ y = 2 \end{cases}$$

$$(3) \begin{cases} 6x + 5y = 17 & \dots\dots ① \\ 9x - 6y = 12 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 3 \qquad 18x + 15y = 51 \\ ② \times 2 \quad -) \quad 18x - 12y = 24 \\ \hline \qquad \qquad \qquad 27y = 27 \\ \qquad \qquad \qquad y = 1 \end{array}$$

$y = 1$ を①に代入すると、

$$\begin{aligned} 6x + 5 \times 1 &= 17 \\ 6x &= 12 \\ x &= 2 \end{aligned}$$

$$\text{答} \begin{cases} x = 2 \\ y = 1 \end{cases}$$

$$(4) \begin{cases} 6x + 5y = -27 & \dots\dots ① \\ -8x - 4y = 44 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 4 \qquad 24x + 20y = -108 \\ ② \times 3 \quad +) \quad -24x - 12y = 132 \\ \hline \qquad \qquad \qquad 8y = 24 \\ \qquad \qquad \qquad y = 3 \end{array}$$

$y = 3$ を①に代入すると、

$$\begin{aligned} 6x + 5 \times 3 &= -27 \\ 6x &= -42 \\ x &= -7 \end{aligned}$$

$$\text{答} \begin{cases} x = -7 \\ y = 3 \end{cases}$$