

1 次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} 14x + 6y = 24 & \dots\dots ① \\ -7x - 8y = 3 & \dots\dots ② \end{cases}$$

$$(2) \begin{cases} -x - 2y = -7 & \dots\dots ① \\ -3x - 16y = -71 & \dots\dots ② \end{cases}$$

$$(3) \begin{cases} -6x - 7y = 9 & \dots\dots ① \\ -4x - 3y = -9 & \dots\dots ② \end{cases}$$

$$(4) \begin{cases} 3x - y = -18 & \dots\dots ① \\ -2x + 6y = -36 & \dots\dots ② \end{cases}$$

1 次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} 14x + 6y = 24 & \dots\dots ① \\ -7x - 8y = 3 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \qquad \qquad 14x + 6y = 24 \\ ② \times 2 \quad +) -14x - 16y = 6 \\ \hline \qquad \qquad -10y = 30 \\ \qquad \qquad \qquad y = -3 \end{array}$$

$y = -3$ を②に代入すると、

$$\begin{aligned} -7x - 8 \times (-3) &= 3 \\ -7x &= -21 \\ x &= 3 \end{aligned}$$

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

$$(2) \begin{cases} -x - 2y = -7 & \dots\dots ① \\ -3x - 16y = -71 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 3 \qquad -3x - 6y = -21 \\ ② \qquad \qquad -) -3x - 16y = -71 \\ \hline \qquad \qquad \qquad 10y = 50 \\ \qquad \qquad \qquad \qquad y = 5 \end{array}$$

$y = 5$ を①に代入すると、

$$\begin{aligned} -x - 2 \times 5 &= -7 \\ -x &= 3 \\ x &= -3 \end{aligned}$$

$$\text{答} \begin{cases} x = -3 \\ y = 5 \end{cases}$$

$$(3) \begin{cases} -6x - 7y = 9 & \dots\dots ① \\ -4x - 3y = -9 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 2 \qquad -12x - 14y = 18 \\ ② \times 3 \quad -) -12x - 9y = -27 \\ \hline \qquad \qquad -5y = 45 \\ \qquad \qquad \qquad y = -9 \end{array}$$

$y = -9$ を②に代入すると、

$$\begin{aligned} -4x - 3 \times (-9) &= -9 \\ -4x &= -36 \\ x &= 9 \end{aligned}$$

$$\text{答} \begin{cases} x = 9 \\ y = -9 \end{cases}$$

$$(4) \begin{cases} 3x - y = -18 & \dots\dots ① \\ -2x + 6y = -36 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 2 \qquad \qquad 6x - 2y = -36 \\ ② \times 3 \quad +) -6x + 18y = -108 \\ \hline \qquad \qquad \qquad 16y = -144 \\ \qquad \qquad \qquad \qquad y = -9 \end{array}$$

$y = -9$ を①に代入すると、

$$\begin{aligned} 3x + 9 &= -18 \\ 3x &= -27 \\ x &= -9 \end{aligned}$$

$$\text{答} \begin{cases} x = -9 \\ y = -9 \end{cases}$$