

1 次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} 6x + 6y = -18 & \dots\dots ① \\ -12x - y = 58 & \dots\dots ② \end{cases}$$

$$(2) \begin{cases} 3x + 4y = -10 & \dots\dots ① \\ -9x + 8y = 10 & \dots\dots ② \end{cases}$$

$$(3) \begin{cases} -4x - 3y = -19 & \dots\dots ① \\ -5x - 5y = -35 & \dots\dots ② \end{cases}$$

$$(4) \begin{cases} -3x + 8y = 2 & \dots\dots ① \\ 2x + 6y = -24 & \dots\dots ② \end{cases}$$

1 次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} 6x + 6y = -18 & \dots\dots ① \\ -12x - y = 58 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 2 \quad 12x + 12y = -36 \\ ② \quad \quad +) -12x - y = 58 \\ \hline \quad \quad \quad 11y = 22 \\ \quad \quad \quad \quad y = 2 \end{array}$$

$y = 2$ を①に代入すると、

$$\begin{aligned} 6x + 6 \times 2 &= -18 \\ 6x &= -30 \\ x &= -5 \end{aligned}$$

$$\text{答} \begin{cases} x = -5 \\ y = 2 \end{cases}$$

$$(2) \begin{cases} 3x + 4y = -10 & \dots\dots ① \\ -9x + 8y = 10 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 2 \quad 6x + 8y = -20 \\ ② \quad \quad -) -9x + 8y = 10 \\ \hline \quad \quad \quad 15x = -30 \\ \quad \quad \quad \quad x = -2 \end{array}$$

$x = -2$ を①に代入すると、

$$\begin{aligned} 3 \times (-2) + 4y &= -10 \\ 4x &= -4 \\ x &= -1 \end{aligned}$$

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

$$(3) \begin{cases} -4x - 3y = -19 & \dots\dots ① \\ -5x - 5y = -35 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 5 \quad -20x - 15y = -95 \\ ② \times 3 \quad -) -15x - 15y = -105 \\ \hline \quad \quad \quad -5x = 10 \\ \quad \quad \quad \quad x = -2 \end{array}$$

$x = -2$ を①に代入すると、

$$\begin{aligned} -4 \times (-2) - 3y &= -19 \\ -3y &= -27 \\ y &= 9 \end{aligned}$$

$$\text{答} \begin{cases} x = -2 \\ y = 9 \end{cases}$$

$$(4) \begin{cases} -3x + 8y = 2 & \dots\dots ① \\ 2x + 6y = -24 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 2 \quad -6x + 16y = 4 \\ ② \times 3 \quad +) 6x + 18y = -72 \\ \hline \quad \quad \quad 34y = -68 \\ \quad \quad \quad \quad y = -2 \end{array}$$

$y = -2$ を①に代入すると、

$$\begin{aligned} -3x + 8 \times (-2) &= 2 \\ -3x &= 18 \\ x &= -6 \end{aligned}$$

$$\text{答} \begin{cases} x = -6 \\ y = -2 \end{cases}$$