

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

$$(1) \quad \begin{cases} 2x - 3y = 5 \\ 3x + y = 13 \end{cases}$$

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

$$(3) \quad \begin{cases} 3x + y = 5 \\ 2x - 3y = 7 \end{cases}$$

$$(4) \quad \begin{cases} 4x + 3y = 9 \\ 2x - y = 7 \end{cases}$$

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

解答

$$(1) \quad \begin{cases} 2x - 3y = 5 & \dots ① \\ 3x + y = 13 & \dots ② \end{cases}$$

① $\times 1$ + ② $\times 3$ で,

$$\begin{array}{r} 2x - 3y = 5 \\ +) \quad 9x + 3y = 39 \\ \hline 11x \qquad \qquad = 44 \end{array}$$

$$x = 4$$

$x = 4$ を①に代入して,

$$2 \times 4 - 3y = 5$$

$$-3y = -3$$

$$y = 1$$

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

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

① $\times 1$ - ② $\times 2$ で,

$$\begin{array}{r} 2x + 3y = 5 \\ -) \quad 2x + 4y = 8 \\ \hline \qquad -y = -3 \end{array}$$

$$y = 3$$

$y = 3$ ②に代入して,

$$x + 6 = 4$$

$$x = -2$$

$$x = -2 \quad y = 3$$

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

① $\times 3$ + ② $\times 1$ で,

$$\begin{array}{r} 9x + 3y = 15 \\ +) \quad 2x - 3y = 7 \\ \hline 11x \qquad \qquad = 22 \end{array}$$

$$x = 2$$

$x = 2$ を①に代入して,

$$3 \times 2 + y = 5$$

$$y = -1$$

$$x = 2 \quad y = -1$$

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

① - ② × 2 で,

$$\begin{array}{r} 4x + 3y = 9 \\ -) \quad 4x - 2y = 14 \\ \hline 5y = -5 \\ y = -1 \end{array}$$

$y = -1$ を②に代入して,

$$2x + 1 = 7$$

$$2x = 6$$

$$x = 3$$

$$x = 3 \quad y = -1$$

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

① × 3 + ② × 2 で,

$$\begin{array}{r} 9x + 6y = 3 \\ +) \quad 8x - 6y = -20 \\ \hline 17x = -17 \\ x = -1 \end{array}$$

$x = -1$ を①に代入して,

$$3 \times -1 + 2y = 1$$

$$2y = 4$$

$$y = 2$$

$$x = -1 \quad y = 2$$