

## 連立方程式 加減法2

NO.1

名前

/5 点

◆次の連立方程式を解きなさい

$$(1) \begin{cases} 2x + 3y = 12 \\ 5x + 3y = 21 \end{cases}$$

$$(2) \begin{cases} 2x - 3y = 0 \\ x + 4y = -11 \end{cases}$$

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

$$(4) \begin{cases} 3x + 5y = 11 \\ 6x - 3y = 9 \end{cases}$$

$$(5) \begin{cases} 2x + 7y = -3 \\ 5x - 9y = 19 \end{cases}$$

## 解答

$$(1) \quad \begin{cases} 2x + 3y = 12 & \dots\text{①} \\ 5x + 3y = 21 & \dots\text{②} \end{cases}$$

① - ② で,

$$\begin{array}{r} 2x + 3y = 12 \\ - ) 5x + 3y = 21 \\ \hline -3x = -9 \end{array}$$

$$x = 3$$

$x = 3$  を①に代入して,

$$\begin{array}{r} 2 \times 3 + 3y = 12 \\ 3y = 6 \\ y = 2 \end{array}$$

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

$$(2) \quad \begin{cases} 2x - 3y = 0 & \dots\text{①} \\ 1x + 4y = -11 & \dots\text{②} \end{cases}$$

① - ②  $\times 2$  で,

$$\begin{array}{r} 2x - 3y = 0 \\ - ) 2x + 8y = -22 \\ \hline -11y = 22 \end{array}$$

$$y = -2$$

$y = -2$  を①に代入して,

$$\begin{array}{r} 2x - 3 \times (-2) = 0 \\ x = -3 \end{array}$$

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

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

① - ②  $\times 2$  で,

$$\begin{array}{r} 4x + 5y = 2 \\ - ) 4x - 6y = -20 \\ \hline 11y = 22 \end{array}$$

$$y = 2$$

$y = 2$  を①に代入して,

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

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

$$(4) \begin{cases} 3x + 5y = 11 & \dots\text{①} \\ 6x - 3y = 9 & \dots\text{②} \end{cases}$$

$$\text{①} \times 2 - \text{②} \quad \text{で,}$$

$$6x + 10y = 22$$

$$- ) \quad 6x - 3y = 9$$

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$$13y = 13$$

$$y = 1$$

$$y = 1 \quad \text{を①に代入して,}$$

$$3x + 5 \times 1 = 11$$

$$x = 2$$

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

$$(5) \begin{cases} 2x + 7y = -3 & \dots\text{①} \\ 5x - 9y = 19 & \dots\text{②} \end{cases}$$

$$\text{①} \times 5 - \text{②} \times 2 \quad \text{で,}$$

$$10x + 35y = -15$$

$$- ) \quad 10x - 18y = 38$$

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$$53y = -53$$

$$y = -1$$

$$y = -1 \quad \text{を①に代入して,}$$

$$2x + 7 \times (-1) = -3$$

$$x = 2$$

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