

連立方程式「代入法」 答え

☆ 次の連立方程式を「代入法」で解きましょう。

※ 解答は一例です。

$$\textcircled{1} \begin{cases} 3x - 2y = 10 \\ y = 4x \end{cases}$$

$$\begin{aligned} 3x - 2(4x) &= 10 \\ 3x - 8x &= 10 \\ x &= -2 \end{aligned}$$

$$\begin{aligned} y &= 4x \text{ に代入} \\ y &= -8 \end{aligned}$$

$$(x, y) = (-2, -8)$$

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

$$\begin{aligned} x - (2x) &= 1 \\ x - 2x &= 1 \\ x &= -1 \end{aligned}$$

$$\begin{aligned} y &= 2x \text{ に代入} \\ y &= -2 \end{aligned}$$

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

$$\textcircled{3} \begin{cases} 3x = 5y \\ 3x + y = 18 \end{cases}$$

$$\begin{aligned} 3x + y &= 18 \text{ に代入} \\ (5y) + y &= 18 \\ y &= 3 \end{aligned}$$

$$\begin{aligned} 3x &= 5y \text{ に代入} \\ 3x &= 15 \\ x &= 5 \end{aligned}$$

$$(x, y) = (5, 3)$$

$$\textcircled{4} \begin{cases} y = -x + 6 \\ 3x - 2y = -2 \end{cases}$$

$$\begin{aligned} 3x - 2(-x + 6) &= -2 \\ 3x + 2x - 12 &= -2 \\ 5x &= 10 \\ x &= 2 \end{aligned}$$

$$\begin{aligned} y &= -x + 6 \text{ に代入} \\ y &= 4 \end{aligned}$$

$$(x, y) = (2, 4)$$

$$\textcircled{5} \begin{cases} x - y = 10 \\ x = 3y - 2 \end{cases}$$

$$\begin{aligned} x - y &= 10 \text{ に代入} \\ (3y - 2) - y &= 10 \\ 2y &= 12 \\ y &= 6 \end{aligned}$$

$$\begin{aligned} x &= 3y - 2 \text{ に代入} \\ x &= 16 \end{aligned}$$

$$(x, y) = (16, 6)$$

$$\textcircled{6} \begin{cases} 3x - 2y = 5 \\ y = -2x + 1 \end{cases}$$

$$\begin{aligned} 3x - 2(-2x + 1) &= 5 \\ 3x + 4x - 2 &= 5 \\ 7x &= 7 \\ x &= 1 \end{aligned}$$

$$\begin{aligned} y &= -2x + 1 \text{ に代入} \\ y &= -1 \end{aligned}$$

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

$$\textcircled{7} \begin{cases} y = -2x - 5 \\ y = x + 7 \end{cases}$$

$$\begin{aligned} x + 7 &= -2x - 5 \\ x + 2x &= -5 - 7 \\ 3x &= -12 \\ x &= -4 \end{aligned}$$

$$\begin{aligned} y &= x + 7 \text{ に代入} \\ y &= 3 \end{aligned}$$

$$(x, y) = (-4, 3)$$