

次の連立方程式を加減法で解きなさい。

$$(1) \begin{cases} -3x - y = -5 & \dots \textcircled{1} \\ 5x + y = 15 & \dots \textcircled{2} \end{cases}$$

(x, y) = (,)

$$(2) \begin{cases} -5x - 4y = -21 & \dots \textcircled{1} \\ x + y = 4 & \dots \textcircled{2} \end{cases}$$

(x, y) = (,)

$$(3) \begin{cases} 2x - y = -21 & \dots \textcircled{1} \\ -x - y = -3 & \dots \textcircled{2} \end{cases}$$

(x, y) = (,)

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

(x, y) = (,)

$$(5) \begin{cases} x + 3y = -24 & \dots \textcircled{1} \\ 2x + y = 2 & \dots \textcircled{2} \end{cases}$$

(x, y) = (,)

解 答

① + ②

$$(1) \quad \begin{array}{r} -3x - y = -5 \\ +) \quad 5x + y = 15 \\ \hline 2x = 10 \end{array}$$

$$x = 5$$

①に代入して

$$-3 \times 5 - y = -5 \qquad y = -10$$

$$(x, y) = (5, -10)$$

① + ② × 4

$$(2) \quad \begin{array}{r} -5x - 4y = -21 \\ +) \quad 4x + 4y = 16 \\ \hline -x = -5 \end{array}$$

$$x = 5$$

①に代入して

$$-5 \times 5 - 4y = -21 \qquad y = -1$$

$$(x, y) = (5, -1)$$

① - ②

$$(3) \quad \begin{array}{r} 2x - y = -21 \\ -) \quad -x - y = -3 \\ \hline 3x = -18 \end{array}$$

$$x = -6$$

①に代入して

$$2 \times (-6) - y = -21 \qquad y = 9$$

$$(x, y) = (-6, 9)$$

① - ② × 3

$$(4) \quad \begin{array}{r} -3x - 4y = -24 \\ -) \quad -3x + 3y = -3 \\ \hline -7y = -21 \end{array}$$

$$y = 3$$

①に代入して

$$-3x - 4 \times 3 = -24 \qquad x = 4$$

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

① × 2 - ②

$$(5) \quad \begin{array}{r} 2x + 6y = -48 \\ -) \quad 2x + y = 2 \\ \hline 5y = -50 \end{array}$$

$$y = -10$$

①に代入して

$$x + 3 \times (-10) = -24 \qquad x = 6$$

$$(x, y) = (6, -10)$$