

すきぷり 中学数学

連立方程式の問題【代入法】

もくじ

連立方程式の問題【 x に代入する問題】

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連立方程式の問題【代入法のまとめ】

問題

次の連立方程式を代入法で解いてみましょう。

$$\begin{cases} x = -9y - 5 \\ -5x + 8y = -28 \end{cases}$$

$$\begin{cases} x = -4y - 9 \\ -5x + 2y = 23 \end{cases}$$

$$\begin{cases} x + y = 3 \\ x = 5y - 33 \end{cases}$$

$$\begin{cases} -4x + 3y = 1 \\ x = -9y - 10 \end{cases}$$

$$\begin{cases} x = -9y - 5 & \dots\dots ① \\ -5x + 8y = -28 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -5 \times (-9y - 5) + 8y &= -28 \\ 45y + 25 + 8y &= -28 \\ 45y + 8y &= -28 - 25 \\ 53y &= -53 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= -9 \times (-1) - 5 \\ &= 9 - 5 \\ &= 4 \end{aligned}$$

答え $x = 4, y = -1$

$$\begin{cases} x = -4y - 9 & \dots\dots ① \\ -5x + 2y = 23 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -5 \times (-4y - 9) + 2y &= 23 \\ 20y + 45 + 2y &= 23 \\ 20y + 2y &= 23 - 45 \\ 22y &= -22 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= -4 \times (-1) - 9 \\ &= 4 - 9 \\ &= -5 \end{aligned}$$

答え $x = -5, y = -1$

$$\begin{cases} x + y = 3 & \dots\dots ① \\ x = 5y - 33 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 5y - 33 + y &= 3 \\ 5y + y &= 3 + 33 \\ 6y &= 36 \\ y &= 6 \end{aligned}$$

$y = 6$ を②に代入すると

$$\begin{aligned} x &= 5 \times 6 - 33 \\ &= 30 - 33 \\ &= -3 \end{aligned}$$

答え $x = -3, y = 6$

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

②を①に代入すると

$$\begin{aligned} -4 \times (-9y - 10) + 3y &= 1 \\ 36y + 40 + 3y &= 1 \\ 36y + 3y &= 1 - 40 \\ 39y &= -39 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

$$\begin{aligned} x &= -9 \times (-1) - 10 \\ &= 9 - 10 \\ &= -1 \end{aligned}$$

答え $x = -1, y = -1$

$$\begin{cases} -x - y = 8 \\ x = 3y - 4 \end{cases}$$

$$\begin{cases} x = -2y \\ -3x - y = 15 \end{cases}$$

$$\begin{cases} x = -6y + 23 \\ 2x + 5y = 25 \end{cases}$$

$$\begin{cases} x = -4y + 11 \\ -x + 3y = 24 \end{cases}$$

$$\begin{cases} -x - y = 8 & \cdots\cdots\textcircled{1} \\ x = 3y - 4 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (3y - 4) - y &= 8 \\ -3y + 4 - y &= 8 \\ -3y - y &= 8 - 4 \\ -4y &= 4 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

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

答え $x = -7, y = -1$

$$\begin{cases} x = -2y & \cdots\cdots\textcircled{1} \\ -3x - y = 15 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -3 \times (-2y) - y &= 15 \\ 6y - y &= 15 \\ 5y &= 15 \\ y &= 3 \end{aligned}$$

$y = 3$ を①に代入すると

$$\begin{aligned} x &= -2 \times 3 \\ &= -6 \end{aligned}$$

答え $x = -6, y = 3$

$$\begin{cases} x = -6y + 23 & \cdots\cdots\textcircled{1} \\ 2x + 5y = 25 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 2 \times (-6y + 23) + 5y &= 25 \\ -12y + 46 + 5y &= 25 \\ -12y + 5y &= 25 - 46 \\ -7y &= -21 \\ y &= 3 \end{aligned}$$

$y = 3$ を①に代入すると

$$\begin{aligned} x &= -6 \times 3 + 23 \\ &= -18 + 23 \\ &= 5 \end{aligned}$$

答え $x = 5, y = 3$

$$\begin{cases} x = -4y + 11 & \cdots\cdots\textcircled{1} \\ -x + 3y = 24 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-4y + 11) + 3y &= 24 \\ 4y - 11 + 3y &= 24 \\ 4y + 3y &= 24 + 11 \\ 7y &= 35 \\ y &= 5 \end{aligned}$$

$y = 5$ を①に代入すると

$$\begin{aligned} x &= -4 \times 5 + 11 \\ &= -20 + 11 \\ &= -9 \end{aligned}$$

答え $x = -9, y = 5$

$$\begin{cases} x + y = -11 \\ x = -8y - 39 \end{cases}$$

$$\begin{cases} x = -3y - 21 \\ -x + 3y = -33 \end{cases}$$

$$\begin{cases} x = 5y - 8 \\ 2x + 5y = 14 \end{cases}$$

$$\begin{cases} x = -y + 2 \\ -x + y = 14 \end{cases}$$

$$\begin{cases} x + y = -11 & \cdots\cdots\textcircled{1} \\ x = -8y - 39 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -8y - 39 + y &= -11 \\ -8y + y &= -11 + 39 \\ -7y &= 28 \\ y &= -4 \end{aligned}$$

$y = -4$ を②に代入すると

$$\begin{aligned} x &= -8 \times (-4) - 39 \\ &= 32 - 39 \\ &= -7 \end{aligned}$$

答え $x = -7, y = -4$

$$\begin{cases} x = -3y - 21 & \cdots\cdots\textcircled{1} \\ -x + 3y = -33 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-3y - 21) + 3y &= -33 \\ 3y + 21 + 3y &= -33 \\ 3y + 3y &= -33 - 21 \\ 6y &= -54 \\ y &= -9 \end{aligned}$$

$y = -9$ を①に代入すると

$$\begin{aligned} x &= -3 \times (-9) - 21 \\ &= 27 - 21 \\ &= 6 \end{aligned}$$

答え $x = 6, y = -9$

$$\begin{cases} x = 5y - 8 & \cdots\cdots\textcircled{1} \\ 2x + 5y = 14 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 2 \times (5y - 8) + 5y &= 14 \\ 10y - 16 + 5y &= 14 \\ 10y + 5y &= 14 + 16 \\ 15y &= 30 \\ y &= 2 \end{aligned}$$

$y = 2$ を①に代入すると

$$\begin{aligned} x &= 5 \times 2 - 8 \\ &= 10 - 8 \\ &= 2 \end{aligned}$$

答え $x = 2, y = 2$

$$\begin{cases} x = -y + 2 & \cdots\cdots\textcircled{1} \\ -x + y = 14 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-y + 2) + y &= 14 \\ y - 2 + y &= 14 \\ y + y &= 14 + 2 \\ 2y &= 16 \\ y &= 8 \end{aligned}$$

$y = 8$ を①に代入すると

$$\begin{aligned} x &= -1 \times 8 + 2 \\ &= -8 + 2 \\ &= -6 \end{aligned}$$

答え $x = -6, y = 8$

$$\begin{cases} -5x + 3y = -32 \\ x = 5y + 2 \end{cases}$$

$$\begin{cases} x - y = 8 \\ x = -y + 4 \end{cases}$$

$$\begin{cases} -7x + y = -24 \\ x = y \end{cases}$$

$$\begin{cases} -x - y = 3 \\ x = 2y + 18 \end{cases}$$

$$\begin{cases} -5x + 3y = -32 & \cdots\cdots\textcircled{1} \\ x = 5y + 2 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -5 \times (5y + 2) + 3y &= -32 \\ -25y - 10 + 3y &= -32 \\ -22y + 3y &= -32 + 10 \\ -22y &= -22 \\ y &= 1 \end{aligned}$$

$y = 1$ を②に代入すると

$$\begin{aligned} x &= 5 \times 1 + 2 \\ &= 5 + 2 \\ &= 7 \end{aligned}$$

答え $x = 7, y = 1$

$$\begin{cases} x - y = 8 & \cdots\cdots\textcircled{1} \\ x = -y + 4 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -y + 4 - y &= 8 \\ -y - y &= 8 - 4 \\ -2y &= 4 \\ y &= -2 \end{aligned}$$

$y = -2$ を②に代入すると

$$\begin{aligned} x &= -1 \times (-2) + 4 \\ &= 2 + 4 \\ &= 6 \end{aligned}$$

答え $x = 6, y = -2$

$$\begin{cases} -7x + y = -24 & \cdots\cdots\textcircled{1} \\ x = y & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -7 \times y + y &= -24 \\ -7y + y &= -24 \\ -6y &= -24 \\ y &= 4 \end{aligned}$$

$y = 4$ を②に代入すると

$$\begin{aligned} x &= 1 \times 4 \\ &= 4 \end{aligned}$$

答え $x = 4, y = 4$

$$\begin{cases} -x - y = 3 & \cdots\cdots\textcircled{1} \\ x = 2y + 18 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (2y + 18) - y &= 3 \\ -2y - 18 - y &= 3 \\ -2y - y &= 3 + 18 \\ -3y &= 21 \\ y &= -7 \end{aligned}$$

$y = -7$ を②に代入すると

$$\begin{aligned} x &= 2 \times (-7) + 18 \\ &= -14 + 18 \\ &= 4 \end{aligned}$$

答え $x = 4, y = -7$

$$\begin{cases} x = 8y - 9 \\ -4x - 7y = -3 \end{cases}$$

$$\begin{cases} x = -5y + 8 \\ -x + y = -2 \end{cases}$$

$$\begin{cases} -x - 2y = 4 \\ x = 8y + 6 \end{cases}$$

$$\begin{cases} x = -5y - 40 \\ -x + y = -14 \end{cases}$$

$$\begin{cases} x = 8y - 9 & \dots\dots ① \\ -4x - 7y = -3 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -4 \times (8y - 9) - 7y &= -3 \\ -32y + 36 - 7y &= -3 \\ -32y - 7y &= -3 - 36 \\ -39y &= -39 \\ y &= 1 \end{aligned}$$

$y = 1$ を①に代入すると

$$\begin{aligned} x &= 8 \times 1 - 9 \\ &= 8 - 9 \\ &= -1 \end{aligned}$$

答え $x = -1, y = 1$

$$\begin{cases} x = -5y + 8 & \dots\dots ① \\ -x + y = -2 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-5y + 8) + y &= -2 \\ 5y - 8 + y &= -2 \\ 5y + y &= -2 + 8 \\ 6y &= 6 \\ y &= 1 \end{aligned}$$

$y = 1$ を①に代入すると

$$\begin{aligned} x &= -5 \times 1 + 8 \\ &= -5 + 8 \\ &= 3 \end{aligned}$$

答え $x = 3, y = 1$

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

②を①に代入すると

$$\begin{aligned} -1 \times (8y + 6) - 2y &= 4 \\ -8y - 6 - 2y &= 4 \\ -8y - 2y &= 4 + 6 \\ -10y &= 10 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

$$\begin{aligned} x &= 8 \times (-1) + 6 \\ &= -8 + 6 \\ &= -2 \end{aligned}$$

答え $x = -2, y = -1$

$$\begin{cases} x = -5y - 40 & \dots\dots ① \\ -x + y = -14 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-5y - 40) + y &= -14 \\ 5y + 40 + y &= -14 \\ 5y + y &= -14 - 40 \\ 6y &= -54 \\ y &= -9 \end{aligned}$$

$y = -9$ を①に代入すると

$$\begin{aligned} x &= -5 \times (-9) - 40 \\ &= 45 - 40 \\ &= 5 \end{aligned}$$

答え $x = 5, y = -9$

$$\begin{cases} x - y = -3 \\ x = 7y - 45 \end{cases}$$

$$\begin{cases} x + y = -3 \\ x = -5y - 27 \end{cases}$$

$$\begin{cases} x - y = -1 \\ x = 6y - 26 \end{cases}$$

$$\begin{cases} x - y = -6 \\ x = 3y \end{cases}$$

$$\begin{cases} x - y = -3 & \dots\dots ① \\ x = 7y - 45 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 7y - 45 - y &= -3 \\ 7y - y &= -3 + 45 \\ 6y &= 42 \\ y &= 7 \end{aligned}$$

$y = 7$ を②に代入すると

$$\begin{aligned} x &= 7 \times 7 - 45 \\ &= 49 - 45 \\ &= 4 \end{aligned}$$

答え $x = 4, y = 7$

$$\begin{cases} x + y = -3 & \dots\dots ① \\ x = -5y - 27 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -5y - 27 + y &= -3 \\ -5y + y &= -3 + 27 \\ -4y &= 24 \\ y &= -6 \end{aligned}$$

$y = -6$ を②に代入すると

$$\begin{aligned} x &= -5 \times (-6) - 27 \\ &= 30 - 27 \\ &= 3 \end{aligned}$$

答え $x = 3, y = -6$

$$\begin{cases} x - y = -1 & \dots\dots ① \\ x = 6y - 26 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 6y - 26 - y &= -1 \\ 6y - y &= -1 + 26 \\ 5y &= 25 \\ y &= 5 \end{aligned}$$

$y = 5$ を②に代入すると

$$\begin{aligned} x &= 6 \times 5 - 26 \\ &= 30 - 26 \\ &= 4 \end{aligned}$$

答え $x = 4, y = 5$

$$\begin{cases} x - y = -6 & \dots\dots ① \\ x = 3y & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 1 \times 3y - y &= -6 \\ 3y - y &= -6 \\ 2y &= -6 \\ y &= -3 \end{aligned}$$

$y = -3$ を②に代入すると

$$\begin{aligned} x &= 3 \times (-3) \\ &= -9 \end{aligned}$$

答え $x = -9, y = -3$

$$\begin{cases} x = 5y - 1 \\ -3x + y = 17 \end{cases}$$

$$\begin{cases} x = y + 7 \\ 3x - 8y = 51 \end{cases}$$

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

$$\begin{cases} -9x - 2y = 24 \\ x = -y + 2 \end{cases}$$

$$\begin{cases} x = 5y - 1 & \dots\dots ① \\ -3x + y = 17 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -3 \times (5y - 1) + y &= 17 \\ -15y + 3 + y &= 17 \\ -15y + y &= 17 - 3 \\ -14y &= 14 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= 5 \times (-1) - 1 \\ &= -5 - 1 \\ &= -6 \end{aligned}$$

答え $x = -6, y = -1$

$$\begin{cases} x = y + 7 & \dots\dots ① \\ 3x - 8y = 51 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} 3 \times (y + 7) - 8y &= 51 \\ 3y + 21 - 8y &= 51 \\ 3y - 8y &= 51 - 21 \\ -5y &= 30 \\ y &= -6 \end{aligned}$$

$y = -6$ を①に代入すると

$$\begin{aligned} x &= 1 \times (-6) + 7 \\ &= -6 + 7 \\ &= 1 \end{aligned}$$

答え $x = 1, y = -6$

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

①を②に代入すると

$$\begin{aligned} -3 \times (4y - 3) + 2y &= -1 \\ -12y + 9 + 2y &= -1 \\ -12y + 2y &= -1 - 9 \\ -10y &= -10 \\ y &= 1 \end{aligned}$$

$y = 1$ を①に代入すると

$$\begin{aligned} x &= 4 \times 1 - 3 \\ &= 4 - 3 \\ &= 1 \end{aligned}$$

答え $x = 1, y = 1$

$$\begin{cases} -9x - 2y = 24 & \dots\dots ① \\ x = -y + 2 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -9 \times (-y + 2) - 2y &= 24 \\ 9y - 18 - 2y &= 24 \\ 9y - 2y &= 24 + 18 \\ 7y &= 42 \\ y &= 6 \end{aligned}$$

$y = 6$ を②に代入すると

$$\begin{aligned} x &= -1 \times 6 + 2 \\ &= -6 + 2 \\ &= -4 \end{aligned}$$

答え $x = -4, y = 6$

$$\begin{cases} x = 8y + 25 \\ -2x + y = 10 \end{cases}$$

$$\begin{cases} x = y - 1 \\ -9x + 5y = -11 \end{cases}$$

$$\begin{cases} x - 5y = 32 \\ x = -5y - 28 \end{cases}$$

$$\begin{cases} x = 2y - 16 \\ -x - 3y = -19 \end{cases}$$

$$\begin{cases} x = 8y + 25 & \cdots\cdots\textcircled{1} \\ -2x + y = 10 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2 \times (8y + 25) + y &= 10 \\ -16y - 50 + y &= 10 \\ -16y + y &= 10 + 50 \\ -15y &= 60 \\ y &= -4 \end{aligned}$$

$y = -4$ を①に代入すると

$$\begin{aligned} x &= 8 \times (-4) + 25 \\ &= -32 + 25 \\ &= -7 \end{aligned}$$

答え $x = -7, y = -4$

$$\begin{cases} x = y - 1 & \cdots\cdots\textcircled{1} \\ -9x + 5y = -11 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -9 \times (y - 1) + 5y &= -11 \\ -9y + 9 + 5y &= -11 \\ -9y + 5y &= -11 - 9 \\ -4y &= -20 \\ y &= 5 \end{aligned}$$

$y = 5$ を①に代入すると

$$\begin{aligned} x &= 1 \times 5 - 1 \\ &= 5 - 1 \\ &= 4 \end{aligned}$$

答え $x = 4, y = 5$

$$\begin{cases} x - 5y = 32 & \cdots\cdots\textcircled{1} \\ x = -5y - 28 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -5y - 28 - 5y &= 32 \\ -5y - 5y &= 32 + 28 \\ -10y &= 60 \\ y &= -6 \end{aligned}$$

$y = -6$ を②に代入すると

$$\begin{aligned} x &= -5 \times (-6) - 28 \\ &= 30 - 28 \\ &= 2 \end{aligned}$$

答え $x = 2, y = -6$

$$\begin{cases} x = 2y - 16 & \cdots\cdots\textcircled{1} \\ -x - 3y = -19 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (2y - 16) - 3y &= -19 \\ -2y + 16 - 3y &= -19 \\ -2y - 3y &= -19 - 16 \\ -5y &= -35 \\ y &= 7 \end{aligned}$$

$y = 7$ を①に代入すると

$$\begin{aligned} x &= 2 \times 7 - 16 \\ &= 14 - 16 \\ &= -2 \end{aligned}$$

答え $x = -2, y = 7$

$$\begin{cases} x = 9y - 12 \\ -x - 9y = -24 \end{cases}$$

$$\begin{cases} x = -y + 4 \\ -7x - y = 26 \end{cases}$$

$$\begin{cases} 3x + y = -16 \\ x = -4y - 9 \end{cases}$$

$$\begin{cases} -x + y = 1 \\ x = -2y + 23 \end{cases}$$

$$\begin{cases} x = 9y - 12 & \dots\dots ① \\ -x - 9y = -24 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (9y - 12) - 9y &= -24 \\ -9y + 12 - 9y &= -24 \\ -9y - 9y &= -24 - 12 \\ -18y &= -36 \\ y &= 2 \end{aligned}$$

$y = 2$ を①に代入すると

$$\begin{aligned} x &= 9 \times 2 - 12 \\ &= 18 - 12 \\ &= 6 \end{aligned}$$

答え $x = 6, y = 2$

$$\begin{cases} x = -y + 4 & \dots\dots ① \\ -7x - y = 26 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -7 \times (-y + 4) - y &= 26 \\ 7y - 28 - y &= 26 \\ 7y - y &= 26 + 28 \\ 6y &= 54 \\ y &= 9 \end{aligned}$$

$y = 9$ を①に代入すると

$$\begin{aligned} x &= -1 \times 9 + 4 \\ &= -9 + 4 \\ &= -5 \end{aligned}$$

答え $x = -5, y = 9$

$$\begin{cases} 3x + y = -16 & \dots\dots ① \\ x = -4y - 9 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 3 \times (-4y - 9) + y &= -16 \\ -12y - 27 + y &= -16 \\ -12y + y &= -16 + 27 \\ -11y &= 11 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

$$\begin{aligned} x &= -4 \times (-1) - 9 \\ &= 4 - 9 \\ &= -5 \end{aligned}$$

答え $x = -5, y = -1$

$$\begin{cases} -x + y = 1 & \dots\dots ① \\ x = -2y + 23 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (-2y + 23) + y &= 1 \\ 2y - 23 + y &= 1 \\ 2y + y &= 1 + 23 \\ 3y &= 24 \\ y &= 8 \end{aligned}$$

$y = 8$ を②に代入すると

$$\begin{aligned} x &= -2 \times 8 + 23 \\ &= -16 + 23 \\ &= 7 \end{aligned}$$

答え $x = 7, y = 8$

$$\begin{cases} x = 8y + 1 \\ -2x - y = 15 \end{cases}$$

$$\begin{cases} 2x - 3y = 12 \\ x = -3y - 3 \end{cases}$$

$$\begin{cases} x = y + 16 \\ 2x + 3y = -8 \end{cases}$$

$$\begin{cases} 3x + 7y = -34 \\ x = -9y - 18 \end{cases}$$

$$\begin{cases} x = 8y + 1 & \cdots\cdots\textcircled{1} \\ -2x - y = 15 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2 \times (8y + 1) - y &= 15 \\ -16y - 2 - y &= 15 \\ -16y - y &= 15 + 2 \\ -17y &= 17 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= 8 \times (-1) + 1 \\ &= -8 + 1 \\ &= -7 \end{aligned}$$

答え $x = -7, y = -1$

$$\begin{cases} 2x - 3y = 12 & \cdots\cdots\textcircled{1} \\ x = -3y - 3 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2 \times (-3y - 3) - 3y &= 12 \\ -6y - 6 - 3y &= 12 \\ -6y - 3y &= 12 + 6 \\ -9y &= 18 \\ y &= -2 \end{aligned}$$

$y = -2$ を②に代入すると

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

答え $x = 3, y = -2$

$$\begin{cases} x = y + 16 & \cdots\cdots\textcircled{1} \\ 2x + 3y = -8 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 2 \times (y + 16) + 3y &= -8 \\ 2y + 32 + 3y &= -8 \\ 2y + 3y &= -8 - 32 \\ 5y &= -40 \\ y &= -8 \end{aligned}$$

$y = -8$ を①に代入すると

$$\begin{aligned} x &= 1 \times (-8) + 16 \\ &= -8 + 16 \\ &= 8 \end{aligned}$$

答え $x = 8, y = -8$

$$\begin{cases} 3x + 7y = -34 & \cdots\cdots\textcircled{1} \\ x = -9y - 18 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 3 \times (-9y - 18) + 7y &= -34 \\ -27y - 54 + 7y &= -34 \\ -27y + 7y &= -34 + 54 \\ -20y &= 20 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

$$\begin{aligned} x &= -9 \times (-1) - 18 \\ &= 9 - 18 \\ &= -9 \end{aligned}$$

答え $x = -9, y = -1$

$$\begin{cases} x = y + 9 \\ x + y = -1 \end{cases}$$

$$\begin{cases} x = -9y - 11 \\ -x - 2y = 4 \end{cases}$$

$$\begin{cases} x = 2y - 6 \\ -3x - 4y = -22 \end{cases}$$

$$\begin{cases} x = y - 4 \\ 3x - 2y = -11 \end{cases}$$

$$\begin{cases} x = y + 9 & \dots\dots ① \\ x + y = -1 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} y + 9 + y &= -1 \\ y + y &= -1 - 9 \\ 2y &= -10 \\ y &= -5 \end{aligned}$$

$y = -5$ を①に代入すると

$$\begin{aligned} x &= 1 \times (-5) + 9 \\ &= -5 + 9 \\ &= 4 \end{aligned}$$

答え $x = 4, y = -5$

$$\begin{cases} x = -9y - 11 & \dots\dots ① \\ -x - 2y = 4 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-9y - 11) - 2y &= 4 \\ 9y + 11 - 2y &= 4 \\ 9y - 2y &= 4 - 11 \\ 7y &= -7 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= -9 \times (-1) - 11 \\ &= 9 - 11 \\ &= -2 \end{aligned}$$

答え $x = -2, y = -1$

$$\begin{cases} x = 2y - 6 & \dots\dots ① \\ -3x - 4y = -22 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -3 \times (2y - 6) - 4y &= -22 \\ -6y + 18 - 4y &= -22 \\ -6y - 4y &= -22 - 18 \\ -10y &= -40 \\ y &= 4 \end{aligned}$$

$y = 4$ を①に代入すると

$$\begin{aligned} x &= 2 \times 4 - 6 \\ &= 8 - 6 \\ &= 2 \end{aligned}$$

答え $x = 2, y = 4$

$$\begin{cases} x = y - 4 & \dots\dots ① \\ 3x - 2y = -11 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} 3 \times (y - 4) - 2y &= -11 \\ 3y - 12 - 2y &= -11 \\ 3y - 2y &= -11 + 12 \\ y &= 1 \end{aligned}$$

$y = 1$ を①に代入すると

$$\begin{aligned} x &= 1 \times 1 - 4 \\ &= 1 - 4 \\ &= -3 \end{aligned}$$

答え $x = -3, y = 1$

$$\begin{cases} x = 3y + 13 \\ 4x + 7y = 14 \end{cases}$$

$$\begin{cases} x = y + 1 \\ x - 9y = -31 \end{cases}$$

$$\begin{cases} x = y - 5 \\ -x + 3y = 17 \end{cases}$$

$$\begin{cases} x = 7y + 30 \\ x - 3y = 10 \end{cases}$$

$$\begin{cases} x = 3y + 13 & \cdots\cdots\textcircled{1} \\ 4x + 7y = 14 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 4 \times (3y + 13) + 7y &= 14 \\ 12y + 52 + 7y &= 14 \\ 12y + 7y &= 14 - 52 \\ 19y &= -38 \\ y &= -2 \end{aligned}$$

$y = -2$ を①に代入すると

$$\begin{aligned} x &= 3 \times (-2) + 13 \\ &= -6 + 13 \\ &= 7 \end{aligned}$$

答え $x = 7, y = -2$

$$\begin{cases} x = y + 1 & \cdots\cdots\textcircled{1} \\ x - 9y = -31 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} y + 1 - 9y &= -31 \\ y - 9y &= -31 - 1 \\ -8y &= -32 \\ y &= 4 \end{aligned}$$

$y = 4$ を①に代入すると

$$\begin{aligned} x &= 1 \times 4 + 1 \\ &= 4 + 1 \\ &= 5 \end{aligned}$$

答え $x = 5, y = 4$

$$\begin{cases} x = y - 5 & \cdots\cdots\textcircled{1} \\ -x + 3y = 17 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (y - 5) + 3y &= 17 \\ -y + 5 + 3y &= 17 \\ -y + 3y &= 17 - 5 \\ 2y &= 12 \\ y &= 6 \end{aligned}$$

$y = 6$ を①に代入すると

$$\begin{aligned} x &= 1 \times 6 - 5 \\ &= 6 - 5 \\ &= 1 \end{aligned}$$

答え $x = 1, y = 6$

$$\begin{cases} x = 7y + 30 & \cdots\cdots\textcircled{1} \\ x - 3y = 10 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 7y + 30 - 3y &= 10 \\ 7y - 3y &= 10 - 30 \\ 4y &= -20 \\ y &= -5 \end{aligned}$$

$y = -5$ を①に代入すると

$$\begin{aligned} x &= 7 \times (-5) + 30 \\ &= -35 + 30 \\ &= -5 \end{aligned}$$

答え $x = -5, y = -5$

問題

次の連立方程式を代入法で解いてみましょう。

$$\begin{cases} y = -8x - 8 \\ -x + 2y = 18 \end{cases}$$

$$\begin{cases} y = 6x - 48 \\ -5x + y = -39 \end{cases}$$

$$\begin{cases} 2x - y = 9 \\ y = 3x - 13 \end{cases}$$

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

$$\begin{cases} y = -8x - 8 & \cdots\cdots\text{①} \\ -x + 2y = 18 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x + 2 \times (-8x - 8) &= 18 \\ -x - 16x - 16 &= 18 \\ -x - 16x &= 18 + 16 \\ -17x &= 34 \\ x &= -2 \end{aligned}$$

$x = -2$ を①に代入すると

$$\begin{aligned} y &= -8 \times (-2) - 8 \\ &= 16 - 8 \\ &= 8 \end{aligned}$$

答え $x = -2, y = 8$

$$\begin{cases} y = 6x - 48 & \cdots\cdots\text{①} \\ -5x + y = -39 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -5x + 6x - 48 &= -39 \\ -5x + 6x &= -39 + 48 \\ x &= 9 \end{aligned}$$

$x = 9$ を①に代入すると

$$\begin{aligned} y &= 6 \times 9 - 48 \\ &= 54 - 48 \\ &= 6 \end{aligned}$$

答え $x = 9, y = 6$

$$\begin{cases} 2x - y = 9 & \cdots\cdots\text{①} \\ y = 3x - 13 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2x - 1 \times (3x - 13) &= 9 \\ 2x - 3x + 13 &= 9 \\ 2x - 3x &= 9 - 13 \\ -x &= -4 \\ x &= 4 \end{aligned}$$

$x = 4$ を②に代入すると

$$\begin{aligned} y &= 3 \times 4 - 13 \\ &= 12 - 13 \\ &= -1 \end{aligned}$$

答え $x = 4, y = -1$

$$\begin{cases} x - y = 7 & \cdots\cdots\text{①} \\ y = -5x + 5 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} x - 1 \times (-5x + 5) &= 7 \\ x + 5x - 5 &= 7 \\ x + 5x &= 7 + 5 \\ 6x &= 12 \\ x &= 2 \end{aligned}$$

$x = 2$ を②に代入すると

$$\begin{aligned} y &= -5 \times 2 + 5 \\ &= -10 + 5 \\ &= -5 \end{aligned}$$

答え $x = 2, y = -5$

$$\begin{cases} y = -9x - 43 \\ x + y = -3 \end{cases}$$

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

$$\begin{cases} y = -x - 1 \\ 7x - 6y = -20 \end{cases}$$

$$\begin{cases} y = x + 6 \\ -2x + 9y = 47 \end{cases}$$

$$\begin{cases} y = -9x - 43 & \cdots\cdots\textcircled{1} \\ x + y = -3 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x - 9x - 43 &= -3 \\ x - 9x &= -3 + 43 \\ -8x &= 40 \\ x &= -5 \end{aligned}$$

$x = -5$ を①に代入すると

$$\begin{aligned} y &= -9 \times (-5) - 43 \\ &= 45 - 43 \\ &= 2 \end{aligned}$$

答え $x = -5, y = 2$

$$\begin{cases} -x - y = -5 & \cdots\cdots\textcircled{1} \\ y = -2x + 7 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

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

$x = 2$ を②に代入すると

$$\begin{aligned} y &= -2 \times 2 + 7 \\ &= -4 + 7 \\ &= 3 \end{aligned}$$

答え $x = 2, y = 3$

$$\begin{cases} y = -x - 1 & \cdots\cdots\textcircled{1} \\ 7x - 6y = -20 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 7x - 6 \times (-x - 1) &= -20 \\ 7x + 6x + 6 &= -20 \\ 7x + 6x &= -20 - 6 \\ 13x &= -26 \\ x &= -2 \end{aligned}$$

$x = -2$ を①に代入すると

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

答え $x = -2, y = 1$

$$\begin{cases} y = x + 6 & \cdots\cdots\textcircled{1} \\ -2x + 9y = 47 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2x + 9 \times (x + 6) &= 47 \\ -2x + 9x + 54 &= 47 \\ -2x + 9x &= 47 - 54 \\ 7x &= -7 \\ x &= -1 \end{aligned}$$

$x = -1$ を①に代入すると

$$\begin{aligned} y &= 1 \times (-1) + 6 \\ &= -1 + 6 \\ &= 5 \end{aligned}$$

答え $x = -1, y = 5$

$$\begin{cases} y = x - 12 \\ -4x + y = -33 \end{cases}$$

$$\begin{cases} y = 4x - 10 \\ 9x + y = 3 \end{cases}$$

$$\begin{cases} y = x - 9 \\ -4x + 3y = -31 \end{cases}$$

$$\begin{cases} 2x + 3y = -18 \\ y = -3x - 13 \end{cases}$$

$$\begin{cases} y = x - 12 & \dots\dots ① \\ -4x + y = -33 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -4x + x - 12 &= -33 \\ -4x + x &= -33 + 12 \\ -3x &= -21 \\ x &= 7 \end{aligned}$$

$x = 7$ を①に代入すると

$$\begin{aligned} y &= 1 \times 7 - 12 \\ &= 7 - 12 \\ &= -5 \end{aligned}$$

答え $x = 7, y = -5$

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

①を②に代入すると

$$\begin{aligned} 9x + 4x - 10 &= 3 \\ 9x + 4x &= 3 + 10 \\ 13x &= 13 \\ x &= 1 \end{aligned}$$

$x = 1$ を①に代入すると

$$\begin{aligned} y &= 4 \times 1 - 10 \\ &= 4 - 10 \\ &= -6 \end{aligned}$$

答え $x = 1, y = -6$

$$\begin{cases} y = x - 9 & \dots\dots ① \\ -4x + 3y = -31 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -4x + 3 \times (x - 9) &= -31 \\ -4x + 3x - 27 &= -31 \\ -4x + 3x &= -31 + 27 \\ -x &= -4 \\ x &= 4 \end{aligned}$$

$x = 4$ を①に代入すると

$$\begin{aligned} y &= 1 \times 4 - 9 \\ &= 4 - 9 \\ &= -5 \end{aligned}$$

答え $x = 4, y = -5$

$$\begin{cases} 2x + 3y = -18 & \dots\dots ① \\ y = -3x - 13 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2x + 3 \times (-3x - 13) &= -18 \\ 2x - 9x - 39 &= -18 \\ 2x - 9x &= -18 + 39 \\ -7x &= 21 \\ x &= -3 \end{aligned}$$

$x = -3$ を②に代入すると

$$\begin{aligned} y &= -3 \times (-3) - 13 \\ &= 9 - 13 \\ &= -4 \end{aligned}$$

答え $x = -3, y = -4$

$$\begin{cases} y = 3x + 9 \\ x + y = 5 \end{cases}$$

$$\begin{cases} y = -2x - 11 \\ -3x + y = 19 \end{cases}$$

$$\begin{cases} y = -7x + 34 \\ -9x - y = -44 \end{cases}$$

$$\begin{cases} y = x - 2 \\ x + y = 0 \end{cases}$$

$$\begin{cases} y = 3x + 9 & \cdots\cdots\textcircled{1} \\ x + y = 5 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x + 3x + 9 &= 5 \\ x + 3x &= 5 - 9 \\ 4x &= -4 \\ x &= -1 \end{aligned}$$

$x = -1$ を①に代入すると

$$\begin{aligned} y &= 3 \times (-1) + 9 \\ &= -3 + 9 \\ &= 6 \end{aligned}$$

答え $x = -1, y = 6$

$$\begin{cases} y = -2x - 11 & \cdots\cdots\textcircled{1} \\ -3x + y = 19 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -3x - 2x - 11 &= 19 \\ -3x - 2x &= 19 + 11 \\ -5x &= 30 \\ x &= -6 \end{aligned}$$

$x = -6$ を①に代入すると

$$\begin{aligned} y &= -2 \times (-6) - 11 \\ &= 12 - 11 \\ &= 1 \end{aligned}$$

答え $x = -6, y = 1$

$$\begin{cases} y = -7x + 34 & \cdots\cdots\textcircled{1} \\ -9x - y = -44 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -9x - 1 \times (-7x + 34) &= -44 \\ -9x + 7x - 34 &= -44 \\ -9x + 7x &= -44 + 34 \\ -2x &= -10 \\ x &= 5 \end{aligned}$$

$x = 5$ を①に代入すると

$$\begin{aligned} y &= -7 \times 5 + 34 \\ &= -35 + 34 \\ &= -1 \end{aligned}$$

答え $x = 5, y = -1$

$$\begin{cases} y = x - 2 & \cdots\cdots\textcircled{1} \\ x + y = 0 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x + x - 2 &= 0 \\ x + x &= 2 \\ 2x &= 2 \\ x &= 1 \end{aligned}$$

$x = 1$ を①に代入すると

$$\begin{aligned} y &= 1 \times 1 - 2 \\ &= 1 - 2 \\ &= -1 \end{aligned}$$

答え $x = 1, y = -1$

$$\begin{cases} y = 4x + 13 \\ 7x - y = -16 \end{cases}$$

$$\begin{cases} y = -3x \\ -7x - y = 8 \end{cases}$$

$$\begin{cases} -3x + y = 7 \\ y = 7x + 27 \end{cases}$$

$$\begin{cases} -3x - y = 19 \\ y = -8x - 49 \end{cases}$$

$$\begin{cases} y = 4x + 13 & \cdots\cdots\text{①} \\ 7x - y = -16 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 7x - 1 \times (4x + 13) &= -16 \\ 7x - 4x - 13 &= -16 \\ 7x - 4x &= -16 + 13 \\ 3x &= -3 \\ x &= -1 \end{aligned}$$

$x = -1$ を①に代入すると

$$\begin{aligned} y &= 4 \times (-1) + 13 \\ &= -4 + 13 \\ &= 9 \end{aligned}$$

答え $x = -1, y = 9$

$$\begin{cases} y = -3x & \cdots\cdots\text{①} \\ -7x - y = 8 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -7x - 1 \times (-3x) &= 8 \\ -7x + 3x &= 8 \\ -4x &= 8 \\ x &= -2 \end{aligned}$$

$x = -2$ を①に代入すると

$$\begin{aligned} y &= -3 \times (-2) \\ &= 6 \end{aligned}$$

答え $x = -2, y = 6$

$$\begin{cases} -3x + y = 7 & \cdots\cdots\text{①} \\ y = 7x + 27 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -3x + 7x + 27 &= 7 \\ -3x + 7x &= 7 - 27 \\ 4x &= -20 \\ x &= -5 \end{aligned}$$

$x = -5$ を②に代入すると

$$\begin{aligned} y &= 7 \times (-5) + 27 \\ &= -35 + 27 \\ &= -8 \end{aligned}$$

答え $x = -5, y = -8$

$$\begin{cases} -3x - y = 19 & \cdots\cdots\text{①} \\ y = -8x - 49 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -3x - 1 \times (-8x - 49) &= 19 \\ -3x + 8x + 49 &= 19 \\ -3x + 8x &= 19 - 49 \\ 5x &= -30 \\ x &= -6 \end{aligned}$$

$x = -6$ を②に代入すると

$$\begin{aligned} y &= -8 \times (-6) - 49 \\ &= 48 - 49 \\ &= -1 \end{aligned}$$

答え $x = -6, y = -1$

$$\begin{cases} 2x - y = -10 \\ y = 7x + 30 \end{cases}$$

$$\begin{cases} y = 4x + 8 \\ -8x + y = 20 \end{cases}$$

$$\begin{cases} y = 4x + 27 \\ x - y = 0 \end{cases}$$

$$\begin{cases} y = -x + 14 \\ x + 4y = 41 \end{cases}$$

$$\begin{cases} 2x - y = -10 & \cdots\cdots\text{①} \\ y = 7x + 30 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2x - 1 \times (7x + 30) &= -10 \\ 2x - 7x - 30 &= -10 \\ 2x - 7x &= -10 + 30 \\ -5x &= 20 \\ x &= -4 \end{aligned}$$

$x = -4$ を②に代入すると

$$\begin{aligned} y &= 7 \times (-4) + 30 \\ &= -28 + 30 \\ &= 2 \end{aligned}$$

答え $x = -4, y = 2$

$$\begin{cases} y = 4x + 8 & \cdots\cdots\text{①} \\ -8x + y = 20 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -8x + 4x + 8 &= 20 \\ -8x + 4x &= 20 - 8 \\ -4x &= 12 \\ x &= -3 \end{aligned}$$

$x = -3$ を①に代入すると

$$\begin{aligned} y &= 4 \times (-3) + 8 \\ &= -12 + 8 \\ &= -4 \end{aligned}$$

答え $x = -3, y = -4$

$$\begin{cases} y = 4x + 27 & \cdots\cdots\text{①} \\ x - y = 0 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x - 1 \times (4x + 27) &= 0 \\ x - 4x - 27 &= 0 \\ x - 4x &= 27 \\ -3x &= 27 \\ x &= -9 \end{aligned}$$

$x = -9$ を①に代入すると

$$\begin{aligned} y &= 4 \times (-9) + 27 \\ &= -36 + 27 \\ &= -9 \end{aligned}$$

答え $x = -9, y = -9$

$$\begin{cases} y = -x + 14 & \cdots\cdots\text{①} \\ x + 4y = 41 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x + 4 \times (-x + 14) &= 41 \\ x - 4x + 56 &= 41 \\ x - 4x &= 41 - 56 \\ -3x &= -15 \\ x &= 5 \end{aligned}$$

$x = 5$ を①に代入すると

$$\begin{aligned} y &= -1 \times 5 + 14 \\ &= -5 + 14 \\ &= 9 \end{aligned}$$

答え $x = 5, y = 9$

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

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

$$\begin{cases} y = x + 5 \\ 2x + y = 14 \end{cases}$$

$$\begin{cases} y = -3x + 7 \\ -5x - y = -13 \end{cases}$$

$$\begin{cases} 4x + 3y = -4 & \cdots\cdots\text{①} \\ y = -x & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$4x + 3 \times (-x) = -4$$

$$4x - 3x = -4$$

$$x = -4$$

$x = -4$ を②に代入すると

$$y = -1 \times (-4)$$

$$= 4$$

答え $x = -4, y = 4$

$$\begin{cases} x - 4y = -6 & \cdots\cdots\text{①} \\ y = -2x + 6 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$x - 4 \times (-2x + 6) = -6$$

$$x + 8x - 24 = -6$$

$$x + 8x = -6 + 24$$

$$9x = 18$$

$$x = 2$$

$x = 2$ を②に代入すると

$$y = -2 \times 2 + 6$$

$$= -4 + 6$$

$$= 2$$

答え $x = 2, y = 2$

$$\begin{cases} y = x + 5 & \cdots\cdots\text{①} \\ 2x + y = 14 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$2x + x + 5 = 14$$

$$2x + x = 14 - 5$$

$$3x = 9$$

$$x = 3$$

$x = 3$ を①に代入すると

$$y = 1 \times 3 + 5$$

$$= 3 + 5$$

$$= 8$$

答え $x = 3, y = 8$

$$\begin{cases} y = -3x + 7 & \cdots\cdots\text{①} \\ -5x - y = -13 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$-5x - 1 \times (-3x + 7) = -13$$

$$-5x + 3x - 7 = -13$$

$$-5x + 3x = -13 + 7$$

$$-2x = -6$$

$$x = 3$$

$x = 3$ を①に代入すると

$$y = -3 \times 3 + 7$$

$$= -9 + 7$$

$$= -2$$

答え $x = 3, y = -2$

$$\begin{cases} y = -9x - 34 \\ 4x + y = -14 \end{cases}$$

$$\begin{cases} -5x + 3y = -23 \\ y = 2x - 10 \end{cases}$$

$$\begin{cases} -x - 3y = -1 \\ y = 2x + 12 \end{cases}$$

$$\begin{cases} y = -3x - 2 \\ 2x - y = 12 \end{cases}$$

$$\begin{cases} y = -9x - 34 & \dots\dots ① \\ 4x + y = -14 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} 4x - 9x - 34 &= -14 \\ 4x - 9x &= -14 + 34 \\ -5x &= 20 \\ x &= -4 \end{aligned}$$

$x = -4$ を①に代入すると

$$\begin{aligned} y &= -9 \times (-4) - 34 \\ &= 36 - 34 \\ &= 2 \end{aligned}$$

答え $x = -4, y = 2$

$$\begin{cases} -5x + 3y = -23 & \dots\dots ① \\ y = 2x - 10 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -5x + 3 \times (2x - 10) &= -23 \\ -5x + 6x - 30 &= -23 \\ -5x + 6x &= -23 + 30 \\ x &= 7 \end{aligned}$$

$x = 7$ を②に代入すると

$$\begin{aligned} y &= 2 \times 7 - 10 \\ &= 14 - 10 \\ &= 4 \end{aligned}$$

答え $x = 7, y = 4$

$$\begin{cases} -x - 3y = -1 & \dots\dots ① \\ y = 2x + 12 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x - 3 \times (2x + 12) &= -1 \\ -x - 6x - 36 &= -1 \\ -x - 6x &= -1 + 36 \\ -7x &= 35 \\ x &= -5 \end{aligned}$$

$x = -5$ を②に代入すると

$$\begin{aligned} y &= 2 \times (-5) + 12 \\ &= -10 + 12 \\ &= 2 \end{aligned}$$

答え $x = -5, y = 2$

$$\begin{cases} y = -3x - 2 & \dots\dots ① \\ 2x - y = 12 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} 2x - 1 \times (-3x - 2) &= 12 \\ 2x + 3x + 2 &= 12 \\ 2x + 3x &= 12 - 2 \\ 5x &= 10 \\ x &= 2 \end{aligned}$$

$x = 2$ を①に代入すると

$$\begin{aligned} y &= -3 \times 2 - 2 \\ &= -6 - 2 \\ &= -8 \end{aligned}$$

答え $x = 2, y = -8$

$$\begin{cases} y = 4x - 4 \\ -x + 4y = -31 \end{cases}$$

$$\begin{cases} -x - 4y = 16 \\ y = 2x + 5 \end{cases}$$

$$\begin{cases} y = 3x - 32 \\ -x - y = -4 \end{cases}$$

$$\begin{cases} y = -4x + 16 \\ 6x + y = 22 \end{cases}$$

$$\begin{cases} y = 4x - 4 & \dots\dots ① \\ -x + 4y = -31 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x + 4 \times (4x - 4) &= -31 \\ -x + 16x - 16 &= -31 \\ -x + 16x &= -31 + 16 \\ 15x &= -15 \\ x &= -1 \end{aligned}$$

$x = -1$ を①に代入すると

$$\begin{aligned} y &= 4 \times (-1) - 4 \\ &= -4 - 4 \\ &= -8 \end{aligned}$$

答え $x = -1, y = -8$

$$\begin{cases} -x - 4y = 16 & \dots\dots ① \\ y = 2x + 5 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x - 4 \times (2x + 5) &= 16 \\ -x - 8x - 20 &= 16 \\ -x - 8x &= 16 + 20 \\ -9x &= 36 \\ x &= -4 \end{aligned}$$

$x = -4$ を②に代入すると

$$\begin{aligned} y &= 2 \times (-4) + 5 \\ &= -8 + 5 \\ &= -3 \end{aligned}$$

答え $x = -4, y = -3$

$$\begin{cases} y = 3x - 32 & \dots\dots ① \\ -x - y = -4 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x - 1 \times (3x - 32) &= -4 \\ -x - 3x + 32 &= -4 \\ -x - 3x &= -4 - 32 \\ -4x &= -36 \\ x &= 9 \end{aligned}$$

$x = 9$ を①に代入すると

$$\begin{aligned} y &= 3 \times 9 - 32 \\ &= 27 - 32 \\ &= -5 \end{aligned}$$

答え $x = 9, y = -5$

$$\begin{cases} y = -4x + 16 & \dots\dots ① \\ 6x + y = 22 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} 6x - 4x + 16 &= 22 \\ 6x - 4x &= 22 - 16 \\ 2x &= 6 \\ x &= 3 \end{aligned}$$

$x = 3$ を①に代入すると

$$\begin{aligned} y &= -4 \times 3 + 16 \\ &= -12 + 16 \\ &= 4 \end{aligned}$$

答え $x = 3, y = 4$

$$\begin{cases} -x + y = 9 \\ y = 8x + 37 \end{cases}$$

$$\begin{cases} x + y = 2 \\ y = 7x - 54 \end{cases}$$

$$\begin{cases} 9x + 2y = -33 \\ y = -2x - 4 \end{cases}$$

$$\begin{cases} y = 4x - 27 \\ -x - y = -18 \end{cases}$$

$$\begin{cases} -x + y = 9 & \cdots\cdots\text{①} \\ y = 8x + 37 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x + 8x + 37 &= 9 \\ -x + 8x &= 9 - 37 \\ 7x &= -28 \\ x &= -4 \end{aligned}$$

$x = -4$ を②に代入すると

$$\begin{aligned} y &= 8 \times (-4) + 37 \\ &= -32 + 37 \\ &= 5 \end{aligned}$$

答え $x = -4, y = 5$

$$\begin{cases} x + y = 2 & \cdots\cdots\text{①} \\ y = 7x - 54 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} x + 7x - 54 &= 2 \\ x + 7x &= 2 + 54 \\ 8x &= 56 \\ x &= 7 \end{aligned}$$

$x = 7$ を②に代入すると

$$\begin{aligned} y &= 7 \times 7 - 54 \\ &= 49 - 54 \\ &= -5 \end{aligned}$$

答え $x = 7, y = -5$

$$\begin{cases} 9x + 2y = -33 & \cdots\cdots\text{①} \\ y = -2x - 4 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 9x + 2 \times (-2x - 4) &= -33 \\ 9x - 4x - 8 &= -33 \\ 9x - 4x &= -33 + 8 \\ 5x &= -25 \\ x &= -5 \end{aligned}$$

$x = -5$ を②に代入すると

$$\begin{aligned} y &= -2 \times (-5) - 4 \\ &= 10 - 4 \\ &= 6 \end{aligned}$$

答え $x = -5, y = 6$

$$\begin{cases} y = 4x - 27 & \cdots\cdots\text{①} \\ -x - y = -18 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x - 1 \times (4x - 27) &= -18 \\ -x - 4x + 27 &= -18 \\ -x - 4x &= -18 - 27 \\ -5x &= -45 \\ x &= 9 \end{aligned}$$

$x = 9$ を①に代入すると

$$\begin{aligned} y &= 4 \times 9 - 27 \\ &= 36 - 27 \\ &= 9 \end{aligned}$$

答え $x = 9, y = 9$

$$\begin{cases} 7x + y = 42 \\ y = -3x + 22 \end{cases}$$

$$\begin{cases} y = 6x - 51 \\ x - y = 6 \end{cases}$$

$$\begin{cases} y = -9x - 8 \\ -4x + 3y = 7 \end{cases}$$

$$\begin{cases} y = 4x - 31 \\ x + y = 4 \end{cases}$$

$$\begin{cases} 7x + y = 42 & \cdots\cdots\text{①} \\ y = -3x + 22 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 7x - 3x + 22 &= 42 \\ 7x - 3x &= 42 - 22 \\ 4x &= 20 \\ x &= 5 \end{aligned}$$

$x = 5$ を②に代入すると

$$\begin{aligned} y &= -3 \times 5 + 22 \\ &= -15 + 22 \\ &= 7 \end{aligned}$$

答え $x = 5, y = 7$

$$\begin{cases} y = 6x - 51 & \cdots\cdots\text{①} \\ x - y = 6 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x - 1 \times (6x - 51) &= 6 \\ x - 6x + 51 &= 6 \\ x - 6x &= 6 - 51 \\ -5x &= -45 \\ x &= 9 \end{aligned}$$

$x = 9$ を①に代入すると

$$\begin{aligned} y &= 6 \times 9 - 51 \\ &= 54 - 51 \\ &= 3 \end{aligned}$$

答え $x = 9, y = 3$

$$\begin{cases} y = -9x - 8 & \cdots\cdots\text{①} \\ -4x + 3y = 7 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -4x + 3 \times (-9x - 8) &= 7 \\ -4x - 27x - 24 &= 7 \\ -4x - 27x &= 7 + 24 \\ -31x &= 31 \\ x &= -1 \end{aligned}$$

$x = -1$ を①に代入すると

$$\begin{aligned} y &= -9 \times (-1) - 8 \\ &= 9 - 8 \\ &= 1 \end{aligned}$$

答え $x = -1, y = 1$

$$\begin{cases} y = 4x - 31 & \cdots\cdots\text{①} \\ x + y = 4 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x + 4x - 31 &= 4 \\ x + 4x &= 4 + 31 \\ 5x &= 35 \\ x &= 7 \end{aligned}$$

$x = 7$ を①に代入すると

$$\begin{aligned} y &= 4 \times 7 - 31 \\ &= 28 - 31 \\ &= -3 \end{aligned}$$

答え $x = 7, y = -3$

$$\begin{cases} y = 2x + 14 \\ -2x - 3y = 6 \end{cases}$$

$$\begin{cases} 3x - y = -27 \\ y = 7x + 59 \end{cases}$$

$$\begin{cases} y = 2x + 18 \\ -5x + 2y = 44 \end{cases}$$

$$\begin{cases} y = -3x + 3 \\ -x + y = -9 \end{cases}$$

$$\begin{cases} y = 2x + 14 & \cdots\cdots\text{①} \\ -2x - 3y = 6 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2x - 3 \times (2x + 14) &= 6 \\ -2x - 6x - 42 &= 6 \\ -2x - 6x &= 6 + 42 \\ -8x &= 48 \\ x &= -6 \end{aligned}$$

$x = -6$ を①に代入すると

$$\begin{aligned} y &= 2 \times (-6) + 14 \\ &= -12 + 14 \\ &= 2 \end{aligned}$$

答え $x = -6, y = 2$

$$\begin{cases} 3x - y = -27 & \cdots\cdots\text{①} \\ y = 7x + 59 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 3x - 1 \times (7x + 59) &= -27 \\ 3x - 7x - 59 &= -27 \\ 3x - 7x &= -27 + 59 \\ -4x &= 32 \\ x &= -8 \end{aligned}$$

$x = -8$ を②に代入すると

$$\begin{aligned} y &= 7 \times (-8) + 59 \\ &= -56 + 59 \\ &= 3 \end{aligned}$$

答え $x = -8, y = 3$

$$\begin{cases} y = 2x + 18 & \cdots\cdots\text{①} \\ -5x + 2y = 44 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -5x + 2 \times (2x + 18) &= 44 \\ -5x + 4x + 36 &= 44 \\ -5x + 4x &= 44 - 36 \\ -x &= 8 \\ x &= -8 \end{aligned}$$

$x = -8$ を①に代入すると

$$\begin{aligned} y &= 2 \times (-8) + 18 \\ &= -16 + 18 \\ &= 2 \end{aligned}$$

答え $x = -8, y = 2$

$$\begin{cases} y = -3x + 3 & \cdots\cdots\text{①} \\ -x + y = -9 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x - 3x + 3 &= -9 \\ -x - 3x &= -9 - 3 \\ -4x &= -12 \\ x &= 3 \end{aligned}$$

$x = 3$ を①に代入すると

$$\begin{aligned} y &= -3 \times 3 + 3 \\ &= -9 + 3 \\ &= -6 \end{aligned}$$

答え $x = 3, y = -6$

問題

次の連立方程式を代入法で解いてみましょう。

$$\begin{cases} -x + 6y = 23 \\ y = 3x + 1 \end{cases}$$

$$\begin{cases} x = -8y + 49 \\ x - y = 4 \end{cases}$$

$$\begin{cases} x + 2y = -9 \\ x = 5y + 26 \end{cases}$$

$$\begin{cases} y = 4x - 4 \\ -7x - 4y = 39 \end{cases}$$

$$\begin{cases} -x + 6y = 23 & \cdots\cdots\text{①} \\ y = 3x + 1 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x + 6 \times (3x + 1) &= 23 \\ -x + 18x + 6 &= 23 \\ -x + 18x &= 23 - 6 \\ 17x &= 17 \\ x &= 1 \end{aligned}$$

$x = 1$ を②に代入すると

$$\begin{aligned} y &= 3 \times 1 + 1 \\ &= 3 + 1 \\ &= 4 \end{aligned}$$

答え $x = 1, y = 4$

$$\begin{cases} x = -8y + 49 & \cdots\cdots\text{①} \\ x - y = 4 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -8y + 49 - y &= 4 \\ -8y - y &= 4 - 49 \\ -9y &= -45 \\ y &= 5 \end{aligned}$$

$y = 5$ を①に代入すると

$$\begin{aligned} x &= -8 \times 5 + 49 \\ &= -40 + 49 \\ &= 9 \end{aligned}$$

答え $x = 9, y = 5$

$$\begin{cases} x + 2y = -9 & \cdots\cdots\text{①} \\ x = 5y + 26 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 5y + 26 + 2y &= -9 \\ 5y + 2y &= -9 - 26 \\ 7y &= -35 \\ y &= -5 \end{aligned}$$

$y = -5$ を②に代入すると

$$\begin{aligned} x &= 5 \times (-5) + 26 \\ &= -25 + 26 \\ &= 1 \end{aligned}$$

答え $x = 1, y = -5$

$$\begin{cases} y = 4x - 4 & \cdots\cdots\text{①} \\ -7x - 4y = 39 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -7x - 4 \times (4x - 4) &= 39 \\ -7x - 16x + 16 &= 39 \\ -7x - 16x &= 39 - 16 \\ -23x &= 23 \\ x &= -1 \end{aligned}$$

$x = -1$ を①に代入すると

$$\begin{aligned} y &= 4 \times (-1) - 4 \\ &= -4 - 4 \\ &= -8 \end{aligned}$$

答え $x = -1, y = -8$

$$\begin{cases} x = -2y - 12 \\ 5x + 8y = -42 \end{cases}$$

$$\begin{cases} x = 4y - 20 \\ -2x + 3y = 5 \end{cases}$$

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

$$\begin{cases} -x - y = -10 \\ y = -8x + 45 \end{cases}$$

$$\begin{cases} x = -2y - 12 & \cdots\cdots\text{①} \\ 5x + 8y = -42 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 5 \times (-2y - 12) + 8y &= -42 \\ -10y - 60 + 8y &= -42 \\ -10y + 8y &= -42 + 60 \\ -2y &= 18 \\ y &= -9 \end{aligned}$$

$y = -9$ を①に代入すると

$$\begin{aligned} x &= -2 \times (-9) - 12 \\ &= 18 - 12 \\ &= 6 \end{aligned}$$

答え $x = 6, y = -9$

$$\begin{cases} x = 4y - 20 & \cdots\cdots\text{①} \\ -2x + 3y = 5 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2 \times (4y - 20) + 3y &= 5 \\ -8y + 40 + 3y &= 5 \\ -8y + 3y &= 5 - 40 \\ -5y &= -35 \\ y &= 7 \end{aligned}$$

$y = 7$ を①に代入すると

$$\begin{aligned} x &= 4 \times 7 - 20 \\ &= 28 - 20 \\ &= 8 \end{aligned}$$

答え $x = 8, y = 7$

$$\begin{cases} y = -2x + 4 & \cdots\cdots\text{①} \\ x + y = -2 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x - 2x + 4 &= -2 \\ x - 2x &= -2 - 4 \\ -x &= -6 \\ x &= 6 \end{aligned}$$

$x = 6$ を①に代入すると

$$\begin{aligned} y &= -2 \times 6 + 4 \\ &= -12 + 4 \\ &= -8 \end{aligned}$$

答え $x = 6, y = -8$

$$\begin{cases} -x - y = -10 & \cdots\cdots\text{①} \\ y = -8x + 45 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x - 1 \times (-8x + 45) &= -10 \\ -x + 8x - 45 &= -10 \\ -x + 8x &= -10 + 45 \\ 7x &= 35 \\ x &= 5 \end{aligned}$$

$x = 5$ を②に代入すると

$$\begin{aligned} y &= -8 \times 5 + 45 \\ &= -40 + 45 \\ &= 5 \end{aligned}$$

答え $x = 5, y = 5$

$$\begin{cases} x = 2y - 6 \\ -8x + 9y = 55 \end{cases}$$

$$\begin{cases} -2x + 5y = -2 \\ x = -8y - 20 \end{cases}$$

$$\begin{cases} x = -6y \\ -5x + 2y = -32 \end{cases}$$

$$\begin{cases} x - y = 0 \\ x = 6y + 5 \end{cases}$$

$$\begin{cases} x = 2y - 6 & \dots\dots ① \\ -8x + 9y = 55 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -8 \times (2y - 6) + 9y &= 55 \\ -16y + 48 + 9y &= 55 \\ -16y + 9y &= 55 - 48 \\ -7y &= 7 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= 2 \times (-1) - 6 \\ &= -2 - 6 \\ &= -8 \end{aligned}$$

答え $x = -8, y = -1$

$$\begin{cases} -2x + 5y = -2 & \dots\dots ① \\ x = -8y - 20 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} -2 \times (-8y - 20) + 5y &= -2 \\ 16y + 40 + 5y &= -2 \\ 16y + 5y &= -2 - 40 \\ 21y &= -42 \\ y &= -2 \end{aligned}$$

$y = -2$ を②に代入すると

$$\begin{aligned} x &= -8 \times (-2) - 20 \\ &= 16 - 20 \\ &= -4 \end{aligned}$$

答え $x = -4, y = -2$

$$\begin{cases} x = -6y & \dots\dots ① \\ -5x + 2y = -32 & \dots\dots ② \end{cases}$$

①を②に代入すると

$$\begin{aligned} -5 \times (-6y) + 2y &= -32 \\ 30y + 2y &= -32 \\ 32y &= -32 \\ y &= -1 \end{aligned}$$

$y = -1$ を①に代入すると

$$\begin{aligned} x &= -6 \times (-1) \\ &= 6 \end{aligned}$$

答え $x = 6, y = -1$

$$\begin{cases} x - y = 0 & \dots\dots ① \\ x = 6y + 5 & \dots\dots ② \end{cases}$$

②を①に代入すると

$$\begin{aligned} 6y + 5 - y &= 0 \\ 6y - y &= -5 \\ 5y &= -5 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

$$\begin{aligned} x &= 6 \times (-1) + 5 \\ &= -6 + 5 \\ &= -1 \end{aligned}$$

答え $x = -1, y = -1$

$$\begin{cases} -x + y = 7 \\ x = -7y - 23 \end{cases}$$

$$\begin{cases} y = -3x + 7 \\ -x + y = -13 \end{cases}$$

$$\begin{cases} -9x + y = -17 \\ y = 2x - 10 \end{cases}$$

$$\begin{cases} -x - 2y = 13 \\ y = 9x + 22 \end{cases}$$

$$\begin{cases} -x + y = 7 & \cdots\cdots\textcircled{1} \\ x = -7y - 23 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (-7y - 23) + y &= 7 \\ 7y + 23 + y &= 7 \\ 7y + y &= 7 - 23 \\ 8y &= -16 \\ y &= -2 \end{aligned}$$

$y = -2$ を②に代入すると

$$\begin{aligned} x &= -7 \times (-2) - 23 \\ &= 14 - 23 \\ &= -9 \end{aligned}$$

答え $x = -9, y = -2$

$$\begin{cases} y = -3x + 7 & \cdots\cdots\textcircled{1} \\ -x + y = -13 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x - 3x + 7 &= -13 \\ -x - 3x &= -13 - 7 \\ -4x &= -20 \\ x &= 5 \end{aligned}$$

$x = 5$ を①に代入すると

$$\begin{aligned} y &= -3 \times 5 + 7 \\ &= -15 + 7 \\ &= -8 \end{aligned}$$

答え $x = 5, y = -8$

$$\begin{cases} -9x + y = -17 & \cdots\cdots\textcircled{1} \\ y = 2x - 10 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -9x + 2x - 10 &= -17 \\ -9x + 2x &= -17 + 10 \\ -7x &= -7 \\ x &= 1 \end{aligned}$$

$x = 1$ を②に代入すると

$$\begin{aligned} y &= 2 \times 1 - 10 \\ &= 2 - 10 \\ &= -8 \end{aligned}$$

答え $x = 1, y = -8$

$$\begin{cases} -x - 2y = 13 & \cdots\cdots\textcircled{1} \\ y = 9x + 22 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x - 2 \times (9x + 22) &= 13 \\ -x - 18x - 44 &= 13 \\ -x - 18x &= 13 + 44 \\ -19x &= 57 \\ x &= -3 \end{aligned}$$

$x = -3$ を②に代入すると

$$\begin{aligned} y &= 9 \times (-3) + 22 \\ &= -27 + 22 \\ &= -5 \end{aligned}$$

答え $x = -3, y = -5$

$$\begin{cases} -x - 2y = 11 \\ x = 2y + 9 \end{cases}$$

$$\begin{cases} x = y + 9 \\ -3x - 4y = 1 \end{cases}$$

$$\begin{cases} y = 6x - 8 \\ 2x - y = 0 \end{cases}$$

$$\begin{cases} x = 7y + 19 \\ 3x - 7y = 15 \end{cases}$$

$$\begin{cases} -x - 2y = 11 & \cdots\cdots\textcircled{1} \\ x = 2y + 9 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (2y + 9) - 2y &= 11 \\ -2y - 9 - 2y &= 11 \\ -2y - 2y &= 11 + 9 \\ -4y &= 20 \\ y &= -5 \end{aligned}$$

$y = -5$ を②に代入すると

$$\begin{aligned} x &= 2 \times (-5) + 9 \\ &= -10 + 9 \\ &= -1 \end{aligned}$$

答え $x = -1, y = -5$

$$\begin{cases} x = y + 9 & \cdots\cdots\textcircled{1} \\ -3x - 4y = 1 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -3 \times (y + 9) - 4y &= 1 \\ -3y - 27 - 4y &= 1 \\ -3y - 4y &= 1 + 27 \\ -7y &= 28 \\ y &= -4 \end{aligned}$$

$y = -4$ を①に代入すると

$$\begin{aligned} x &= 1 \times (-4) + 9 \\ &= -4 + 9 \\ &= 5 \end{aligned}$$

答え $x = 5, y = -4$

$$\begin{cases} y = 6x - 8 & \cdots\cdots\textcircled{1} \\ 2x - y = 0 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 2x - 1 \times (6x - 8) &= 0 \\ 2x - 6x + 8 &= 0 \\ 2x - 6x &= -8 \\ -4x &= -8 \\ x &= 2 \end{aligned}$$

$x = 2$ を①に代入すると

$$\begin{aligned} y &= 6 \times 2 - 8 \\ &= 12 - 8 \\ &= 4 \end{aligned}$$

答え $x = 2, y = 4$

$$\begin{cases} x = 7y + 19 & \cdots\cdots\textcircled{1} \\ 3x - 7y = 15 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 3 \times (7y + 19) - 7y &= 15 \\ 21y + 57 - 7y &= 15 \\ 21y - 7y &= 15 - 57 \\ 14y &= -42 \\ y &= -3 \end{aligned}$$

$y = -3$ を①に代入すると

$$\begin{aligned} x &= 7 \times (-3) + 19 \\ &= -21 + 19 \\ &= -2 \end{aligned}$$

答え $x = -2, y = -3$

$$\begin{cases} x - 8y = -23 \\ x = 3y - 8 \end{cases}$$

$$\begin{cases} x = -y - 12 \\ -x - 3y = 18 \end{cases}$$

$$\begin{cases} -x + 2y = 17 \\ x = -3y + 18 \end{cases}$$

$$\begin{cases} x = -y + 2 \\ -x + 4y = -17 \end{cases}$$

$$\begin{cases} x - 8y = -23 & \cdots\cdots\textcircled{1} \\ x = 3y - 8 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 3y - 8 - 8y &= -23 \\ 3y - 8y &= -23 + 8 \\ -5y &= -15 \\ y &= 3 \end{aligned}$$

$y = 3$ を②に代入すると

$$\begin{aligned} x &= 3 \times 3 - 8 \\ &= 9 - 8 \\ &= 1 \end{aligned}$$

答え $x = 1, y = 3$

$$\begin{cases} x = -y - 12 & \cdots\cdots\textcircled{1} \\ -x - 3y = 18 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-y - 12) - 3y &= 18 \\ y + 12 - 3y &= 18 \\ y - 3y &= 18 - 12 \\ -2y &= 6 \\ y &= -3 \end{aligned}$$

$y = -3$ を①に代入すると

$$\begin{aligned} x &= -1 \times (-3) - 12 \\ &= 3 - 12 \\ &= -9 \end{aligned}$$

答え $x = -9, y = -3$

$$\begin{cases} -x + 2y = 17 & \cdots\cdots\textcircled{1} \\ x = -3y + 18 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (-3y + 18) + 2y &= 17 \\ 3y - 18 + 2y &= 17 \\ 3y + 2y &= 17 + 18 \\ 5y &= 35 \\ y &= 7 \end{aligned}$$

$y = 7$ を②に代入すると

$$\begin{aligned} x &= -3 \times 7 + 18 \\ &= -21 + 18 \\ &= -3 \end{aligned}$$

答え $x = -3, y = 7$

$$\begin{cases} x = -y + 2 & \cdots\cdots\textcircled{1} \\ -x + 4y = -17 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (-y + 2) + 4y &= -17 \\ y - 2 + 4y &= -17 \\ y + 4y &= -17 + 2 \\ 5y &= -15 \\ y &= -3 \end{aligned}$$

$y = -3$ を①に代入すると

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

答え $x = 5, y = -3$

$$\begin{cases} -x - 4y = 38 \\ x = -y - 14 \end{cases}$$

$$\begin{cases} x - y = 0 \\ x = 7y - 42 \end{cases}$$

$$\begin{cases} 3x - 2y = 7 \\ y = -7x + 22 \end{cases}$$

$$\begin{cases} y = -6x + 11 \\ x + 3y = 16 \end{cases}$$

$$\begin{cases} -x - 4y = 38 & \cdots\cdots\textcircled{1} \\ x = -y - 14 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (-y - 14) - 4y &= 38 \\ y + 14 - 4y &= 38 \\ y - 4y &= 38 - 14 \\ -3y &= 24 \\ y &= -8 \end{aligned}$$

$y = -8$ を②に代入すると

$$\begin{aligned} x &= -1 \times (-8) - 14 \\ &= 8 - 14 \\ &= -6 \end{aligned}$$

答え $x = -6, y = -8$

$$\begin{cases} x - y = 0 & \cdots\cdots\textcircled{1} \\ x = 7y - 42 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 7y - 42 - y &= 0 \\ 7y - y &= 42 \\ 6y &= 42 \\ y &= 7 \end{aligned}$$

$y = 7$ を②に代入すると

$$\begin{aligned} x &= 7 \times 7 - 42 \\ &= 49 - 42 \\ &= 7 \end{aligned}$$

答え $x = 7, y = 7$

$$\begin{cases} 3x - 2y = 7 & \cdots\cdots\textcircled{1} \\ y = -7x + 22 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 3x - 2 \times (-7x + 22) &= 7 \\ 3x + 14x - 44 &= 7 \\ 3x + 14x &= 7 + 44 \\ 17x &= 51 \\ x &= 3 \end{aligned}$$

$x = 3$ を②に代入すると

$$\begin{aligned} y &= -7 \times 3 + 22 \\ &= -21 + 22 \\ &= 1 \end{aligned}$$

答え $x = 3, y = 1$

$$\begin{cases} y = -6x + 11 & \cdots\cdots\textcircled{1} \\ x + 3y = 16 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} x + 3 \times (-6x + 11) &= 16 \\ x - 18x + 33 &= 16 \\ x - 18x &= 16 - 33 \\ -17x &= -17 \\ x &= 1 \end{aligned}$$

$x = 1$ を①に代入すると

$$\begin{aligned} y &= -6 \times 1 + 11 \\ &= -6 + 11 \\ &= 5 \end{aligned}$$

答え $x = 1, y = 5$

$$\begin{cases} 2x - y = -11 \\ x = -4y - 19 \end{cases}$$

$$\begin{cases} x - 2y = -4 \\ x = -5y - 11 \end{cases}$$

$$\begin{cases} -7x - 2y = -23 \\ y = -x + 4 \end{cases}$$

$$\begin{cases} 2x - 5y = 22 \\ y = -5x + 1 \end{cases}$$

$$\begin{cases} 2x - y = -11 & \cdots\cdots\text{①} \\ x = -4y - 19 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2 \times (-4y - 19) - y &= -11 \\ -8y - 38 - y &= -11 \\ -9y - y &= -11 + 38 \\ -9y &= 27 \\ y &= -3 \end{aligned}$$

$y = -3$ を②に代入すると

$$\begin{aligned} x &= -4 \times (-3) - 19 \\ &= 12 - 19 \\ &= -7 \end{aligned}$$

答え $x = -7, y = -3$

$$\begin{cases} x - 2y = -4 & \cdots\cdots\text{①} \\ x = -5y - 11 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -5y - 11 - 2y &= -4 \\ -5y - 2y &= -4 + 11 \\ -7y &= 7 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

$$\begin{aligned} x &= -5 \times (-1) - 11 \\ &= 5 - 11 \\ &= -6 \end{aligned}$$

答え $x = -6, y = -1$

$$\begin{cases} -7x - 2y = -23 & \cdots\cdots\text{①} \\ y = -x + 4 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -7x - 2 \times (-x + 4) &= -23 \\ -7x + 2x - 8 &= -23 \\ -5x + 2x &= -23 + 8 \\ -3x &= -15 \\ x &= 3 \end{aligned}$$

$x = 3$ を②に代入すると

$$\begin{aligned} y &= -1 \times 3 + 4 \\ &= -3 + 4 \\ &= 1 \end{aligned}$$

答え $x = 3, y = 1$

$$\begin{cases} 2x - 5y = 22 & \cdots\cdots\text{①} \\ y = -5x + 1 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2x - 5 \times (-5x + 1) &= 22 \\ 2x + 25x - 5 &= 22 \\ 27x - 5 &= 22 + 5 \\ 27x &= 27 \\ x &= 1 \end{aligned}$$

$x = 1$ を②に代入すると

$$\begin{aligned} y &= -5 \times 1 + 1 \\ &= -5 + 1 \\ &= -4 \end{aligned}$$

答え $x = 1, y = -4$

$$\begin{cases} -2x + y = 9 \\ x = 5y - 18 \end{cases}$$

$$\begin{cases} x - y = 0 \\ x = 2y + 1 \end{cases}$$

$$\begin{cases} -x + 3y = -19 \\ y = 7x + 7 \end{cases}$$

$$\begin{cases} x = 7y + 29 \\ -x + 4y = -14 \end{cases}$$

$$\begin{cases} -2x + y = 9 & \cdots\cdots\text{①} \\ x = 5y - 18 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -2 \times (5y - 18) + y &= 9 \\ -10y + 36 + y &= 9 \\ -10y + y &= 9 - 36 \\ -9y &= -27 \end{aligned}$$

$$y = 3$$

$y = 3$ を②に代入すると

$$\begin{aligned} x &= 5 \times 3 - 18 \\ &= 15 - 18 \\ &= -3 \end{aligned}$$

答え $x = -3, y = 3$

$$\begin{cases} x - y = 0 & \cdots\cdots\text{①} \\ x = 2y + 1 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2y + 1 - y &= 0 \\ 2y - y &= -1 \\ y &= -1 \end{aligned}$$

$y = -1$ を②に代入すると

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

答え $x = -1, y = -1$

$$\begin{cases} -x + 3y = -19 & \cdots\cdots\text{①} \\ y = 7x + 7 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -x + 3 \times (7x + 7) &= -19 \\ -x + 21x + 21 &= -19 \\ -x + 21x &= -19 - 21 \\ 20x &= -40 \\ x &= -2 \end{aligned}$$

$x = -2$ を②に代入すると

$$\begin{aligned} y &= 7 \times (-2) + 7 \\ &= -14 + 7 \\ &= -7 \end{aligned}$$

答え $x = -2, y = -7$

$$\begin{cases} x = 7y + 29 & \cdots\cdots\text{①} \\ -x + 4y = -14 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -1 \times (7y + 29) + 4y &= -14 \\ -7y - 29 + 4y &= -14 \\ -7y + 4y &= -14 + 29 \\ -3y &= 15 \\ y &= -5 \end{aligned}$$

$y = -5$ を①に代入すると

$$\begin{aligned} x &= 7 \times (-5) + 29 \\ &= -35 + 29 \\ &= -6 \end{aligned}$$

答え $x = -6, y = -5$

$$\begin{cases} -x - y = -3 \\ x = 5y - 9 \end{cases}$$

$$\begin{cases} -x + y = -4 \\ x = 6y - 1 \end{cases}$$

$$\begin{cases} -x + 9y = 58 \\ x = 2y - 16 \end{cases}$$

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

$$\begin{cases} -x - y = -3 & \cdots\cdots\textcircled{1} \\ x = 5y - 9 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (5y - 9) - y &= -3 \\ -5y + 9 - y &= -3 \\ -5y - y &= -3 - 9 \\ -6y &= -12 \\ y &= 2 \end{aligned}$$

$y = 2$ を②に代入すると

$$\begin{aligned} x &= 5 \times 2 - 9 \\ &= 10 - 9 \\ &= 1 \end{aligned}$$

答え $x = 1, y = 2$

$$\begin{cases} -x + y = -4 & \cdots\cdots\textcircled{1} \\ x = 6y - 1 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (6y - 1) + y &= -4 \\ -6y + 1 + y &= -4 \\ -6y + y &= -4 - 1 \\ -5y &= -5 \\ y &= 1 \end{aligned}$$

$y = 1$ を②に代入すると

$$\begin{aligned} x &= 6 \times 1 - 1 \\ &= 6 - 1 \\ &= 5 \end{aligned}$$

答え $x = 5, y = 1$

$$\begin{cases} -x + 9y = 58 & \cdots\cdots\textcircled{1} \\ x = 2y - 16 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -1 \times (2y - 16) + 9y &= 58 \\ -2y + 16 + 9y &= 58 \\ -2y + 9y &= 58 - 16 \\ 7y &= 42 \\ y &= 6 \end{aligned}$$

$y = 6$ を②に代入すると

$$\begin{aligned} x &= 2 \times 6 - 16 \\ &= 12 - 16 \\ &= -4 \end{aligned}$$

答え $x = -4, y = 6$

$$\begin{cases} -6x - 5y = -3 & \cdots\cdots\textcircled{1} \\ y = -4x + 9 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -6x - 5 \times (-4x + 9) &= -3 \\ -6x + 20x - 45 &= -3 \\ -6x + 20x &= -3 + 45 \\ 14x &= 42 \\ x &= 3 \end{aligned}$$

$x = 3$ を②に代入すると

$$\begin{aligned} y &= -4 \times 3 + 9 \\ &= -12 + 9 \\ &= -3 \end{aligned}$$

答え $x = 3, y = -3$

$$\begin{cases} -3x + 2y = 24 \\ y = -x - 3 \end{cases}$$

$$\begin{cases} 2x + y = 7 \\ x = -2y + 17 \end{cases}$$

$$\begin{cases} y = -7x + 19 \\ 9x - y = 13 \end{cases}$$

$$\begin{cases} x = -2y \\ x - y = 12 \end{cases}$$

$$\begin{cases} -3x + 2y = 24 & \cdots\cdots\textcircled{1} \\ y = -x - 3 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} -3x + 2 \times (-x - 3) &= 24 \\ -3x - 2x - 6 &= 24 \\ -3x - 2x &= 24 + 6 \\ -5x &= 30 \\ x &= -6 \end{aligned}$$

$x = -6$ を②に代入すると

$$\begin{aligned} y &= -1 \times (-6) - 3 \\ &= 6 - 3 \\ &= 3 \end{aligned}$$

答え $x = -6, y = 3$

$$\begin{cases} 2x + y = 7 & \cdots\cdots\textcircled{1} \\ x = -2y + 17 & \cdots\cdots\textcircled{2} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 2 \times (-2y + 17) + y &= 7 \\ -4y + 34 + y &= 7 \\ -4y + y &= 7 - 34 \\ -3y &= -27 \\ y &= 9 \end{aligned}$$

$y = 9$ を②に代入すると

$$\begin{aligned} x &= -2 \times 9 + 17 \\ &= -18 + 17 \\ &= -1 \end{aligned}$$

答え $x = -1, y = 9$

$$\begin{cases} y = -7x + 19 & \cdots\cdots\textcircled{1} \\ 9x - y = 13 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 9x - 1 \times (-7x + 19) &= 13 \\ 9x + 7x - 19 &= 13 \\ 9x + 7x &= 13 + 19 \\ 16x &= 32 \\ x &= 2 \end{aligned}$$

$x = 2$ を①に代入すると

$$\begin{aligned} y &= -7 \times 2 + 19 \\ &= -14 + 19 \\ &= 5 \end{aligned}$$

答え $x = 2, y = 5$

$$\begin{cases} x = -2y & \cdots\cdots\textcircled{1} \\ x - y = 12 & \cdots\cdots\textcircled{2} \end{cases}$$

①を②に代入すると

$$\begin{aligned} 1 \times (-2y) - y &= 12 \\ -2y - y &= 12 \\ -3y &= 12 \\ y &= -4 \end{aligned}$$

$y = -4$ を①に代入すると

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

答え $x = 8, y = -4$

$$\begin{cases} y = -7x - 6 \\ -x + y = 10 \end{cases}$$

$$\begin{cases} 9x - 2y = -16 \\ y = x + 1 \end{cases}$$

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

$$\begin{cases} y = 3x + 14 \\ -2x - y = 11 \end{cases}$$

$$\begin{cases} y = -7x - 6 & \cdots\cdots\text{①} \\ -x + y = 10 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -x - 7x - 6 &= 10 \\ -x - 7x &= 10 + 6 \\ -8x &= 16 \\ x &= -2 \end{aligned}$$

$x = -2$ を①に代入すると

$$\begin{aligned} y &= -7 \times (-2) - 6 \\ &= 14 - 6 \\ &= 8 \end{aligned}$$

答え $x = -2, y = 8$

$$\begin{cases} 9x - 2y = -16 & \cdots\cdots\text{①} \\ y = x + 1 & \cdots\cdots\text{②} \end{cases}$$

②を①に代入すると

$$\begin{aligned} 9x - 2 \times (x + 1) &= -16 \\ 9x - 2x - 2 &= -16 \\ 9x - 2x &= -16 + 2 \\ 7x &= -14 \\ x &= -2 \end{aligned}$$

$x = -2$ を②に代入すると

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

答え $x = -2, y = -1$

$$\begin{cases} x = -2y + 1 & \cdots\cdots\text{①} \\ x - y = -5 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2y + 1 - y &= -5 \\ -2y - y &= -5 - 1 \\ -3y &= -6 \\ y &= 2 \end{aligned}$$

$y = 2$ を①に代入すると

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

答え $x = -3, y = 2$

$$\begin{cases} y = 3x + 14 & \cdots\cdots\text{①} \\ -2x - y = 11 & \cdots\cdots\text{②} \end{cases}$$

①を②に代入すると

$$\begin{aligned} -2x - 1 \times (3x + 14) &= 11 \\ -2x - 3x - 14 &= 11 \\ -2x - 3x &= 11 + 14 \\ -5x &= 25 \\ x &= -5 \end{aligned}$$

$x = -5$ を①に代入すると

$$\begin{aligned} y &= 3 \times (-5) + 14 \\ &= -15 + 14 \\ &= -1 \end{aligned}$$

答え $x = -5, y = -1$