



1. 次の連立方程式を解きなさい。

(1)
$$\begin{cases} x + 2y = 6 & \text{①} \\ 3x - y = -10 & \text{②} \end{cases}$$

 加減法① + ② × 2
 $7x = -14, x = -2 \quad y = 4$

(2)
$$\begin{cases} 2(x + y) - x = -5 & \text{①} \\ 4(x - y) + y = 13 & \text{②} \end{cases}$$

 ①を整理 $2x + 2y - x = -5$
 $x + 2y = -5 \cdot \cdot \text{①}'$
 ②を整理 $4x - 4y + y = 13$
 $4x - 3y = 13 \cdot \cdot \text{②}'$
 加減法①' × 3 + ②' × 2
 $11x = 11, x = 1 \quad y = -3$

(3)
$$\begin{cases} 0.7x + 1.3y = 5 & \text{①} \\ 1.1x - 0.4y = -6.8 & \text{②} \end{cases}$$

 加減法① × 4 + ② × 13
 $2.8x + 14.3x = 20 - 88.4$
 $17.1x = -68.4, x = -4 \quad y = 6$

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

 加減法① × 2 + ②
 $4x = \frac{20}{3}, x = \frac{5}{3} \quad y = \frac{4}{3}$

(5)
$$\begin{cases} 0.5x - 0.2y = -2.3 & \text{①} \\ \frac{1}{2}x + \frac{1}{4}y = -0.5 & \text{②} \end{cases}$$

 ②を小数になおす。
 $0.5x + 0.25y = -0.5 \cdot \cdot \text{②}'$
 加減法②' - ①
 $0.45y = 1.8, y = 4 \quad x = -3$

(6)
$$\begin{cases} \frac{3}{4}x + \frac{1}{3}y = \frac{7}{2} & \text{①} \\ 0.2x - 0.1y = 1.5 & \text{②} \end{cases}$$

 加減法① × 12 + ② × 40
 $9x + 8x = 42 + 60$
 $17x = 102, x = 6 \quad y = -3$

(7) $x + 2y = 4x + 3y = 5$
 $x + 2y = 5 \cdot \cdot \text{①}$
 $4x + 3y = 5 \cdot \cdot \text{②}$ の連立とみる
 加減法② - ① × 4
 $-5y = -15, y = 3 \quad x = -1$

(8)
$$\begin{cases} x + y + z = 3 & \text{①} \\ 2x - y + 3z = 7 & \text{②} \\ -x + 2y - z = 0 & \text{③} \end{cases}$$

 ① + ③より
 $3y = 3, y = 1$ これを①に代入 $x + z = 2 \cdot \cdot \text{①}'$
 $y = 1$ を②に代入 $2x + 3z = 8 \cdot \cdot \text{②}'$
 ②' - ①' × 2
 $z = 4, \text{これを①}'に代入して } x = -2$

(1) $x = -2$ $y = 4$	(2) $x = 1$ $y = -3$	(3) $x = -4$ $y = 6$
(4) $x = \frac{5}{3}$ $y = \frac{4}{3}$	(5) $x = -3$ $y = 4$	(6) $x = 6$ $y = -3$
(7) $x = -1$ $y = 3$	(8) $x = -2$ $y = 1$ $z = 4$	