

例 12

連立方程式  $\begin{cases} 51x + 49y = 1 \\ 49x + 51y = 2 \end{cases}$  の解は,  $x = \square$ ,  $y = \square$  である。 [慶応義塾]

$$\begin{array}{r} 51x + 49y = 1 \\ +) 49x + 51y = 2 \\ \hline 100x + 100y = 3 \end{array}$$

$$\begin{array}{r} 51x + 49y = 1 \\ -) 49x + 51y = 2 \\ \hline 2x - 2y = -1 \end{array}$$

$$\begin{array}{r} 100x + 100y = 3 \\ +) 100x - 100y = -50 \\ \hline 200x = -47 \\ x = -\frac{47}{200} \end{array}$$

$$\begin{array}{r} 100x + 100y = 3 \\ -) 100x - 100y = -50 \\ \hline 200y = 53 \\ y = \frac{53}{200} \end{array}$$

$$(x, y) = \left( -\frac{47}{200}, \frac{53}{200} \right)$$