

問題 次の連立3元1次方程式を解け.

$$(1) \begin{cases} a + b + c = 0 & \dots \textcircled{1} \\ 4a + 2b + c = 0 & \dots \textcircled{2} \\ 9a + 3b + c = 4 & \dots \textcircled{3} \end{cases}$$

$$\textcircled{2} - \textcircled{1} \text{ をして } \begin{array}{r} 4a + 2b + c = 0 \\ -) \quad a + b + c = 0 \\ \hline 3a + b = 0 \quad \dots \textcircled{4} \end{array}$$

$$\textcircled{3} - \textcircled{2} \text{ をして } \begin{array}{r} 9a + 3b + c = 4 \\ -) \quad 4a + 2b + c = 0 \\ \hline 5a + b = 4 \quad \dots \textcircled{5} \end{array}$$

$\textcircled{4}$ と $\textcircled{5}$ を連立方程式'すると.

$$\begin{array}{r} 5a + b = 4 \\ -) \quad 3a + b = 0 \\ \hline 2a = 4 \\ \boxed{a = 2} \quad \text{とわかった.} \end{array}$$

$\textcircled{4}$ に $a = 2$ を代入すると.

$$3 \times 2 + b = 0 \\ \boxed{b = -6}$$

$\textcircled{1}$ に $a = 2$, $b = -6$ を代入すると.

$$\begin{array}{r} 2 + (-6) + c = 0 \\ 2 - 6 + c = 0 \\ -4 + c = 0 \\ \boxed{c = 4} \end{array}$$

こたえ. $a = 2$, $b = -6$, $c = 4$

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