

$abc + ab + bc + ca + a + b + c + 1$  を因数分解せよ.

(98 奈良大)

解説

$$\begin{aligned} abc + ab + bc + ca + a + b + c + 1 &= a(bc + b + c + 1) + bc + b + c + 1 \\ &= (a + 1)(bc + b + c + 1) \\ &= (a + 1)\{b(c + 1) + c + 1\} \\ &= (a + 1)(b + 1)(c + 1) \end{aligned}$$