

$$(i) \text{ ㊟ } \begin{pmatrix} a & 1 \\ b & c \end{pmatrix} \begin{pmatrix} 1 \\ 2 \end{pmatrix} = \begin{pmatrix} 1 \\ 2 \end{pmatrix}, \quad \begin{matrix} a+2=1 & a=-1 \\ b+2c=2 & b=-2c+2 \end{matrix} \quad \text{--- ①}$$

$$\begin{pmatrix} -1 & 1 \\ -2c+2 & c \end{pmatrix} \begin{pmatrix} 1 \\ 0 \end{pmatrix} = \begin{pmatrix} -1 \\ -2c+2 \end{pmatrix}, \quad \begin{pmatrix} -1 & 1 \\ -2c+2 & c \end{pmatrix} \begin{pmatrix} 0 \\ 1 \end{pmatrix} = \begin{pmatrix} 1 \\ c \end{pmatrix} \text{ ㊟ } A, B \text{ の座標は } (-1, -2c+2), (1, c)$$

$$\Delta OAB \text{ の面積は } \frac{1}{2} |-c+2c-2| = \frac{1}{2} |c-2|$$

$$(ii) \text{ ㊟ } \frac{1}{2} |c-2| = \frac{1}{2}, \quad |c-2|=1 \quad c=1, 3, \quad \text{㊟ } b=0, -4$$

$$\text{以上㊟ } (a, b, c) = (-1, 0, 1), (-1, -4, 3)$$