

$$(b) \begin{bmatrix} 1 \\ 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ 1 \\ 1 \end{bmatrix}, \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix}$$

$$C_1 \begin{bmatrix} 1 \\ 1 \\ 0 \end{bmatrix} + C_2 \begin{bmatrix} 0 \\ 1 \\ 1 \end{bmatrix} + C_3 \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$\begin{bmatrix} 1 & 0 & 1 \\ 1 & 1 & 0 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} C_1 \\ C_2 \\ C_3 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$\rightarrow \begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & -1 & 0 \\ 0 & 1 & 1 & 0 \end{array} \rightarrow \begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & -1 & 0 \\ 0 & 0 & 2 & 0 \end{array}$$

$$\rightarrow C_1 = C_2 = C_3 = 0$$

\rightarrow lin indep.

$$(c) \underbrace{\begin{bmatrix} 1 \\ -1 \\ 0 \end{bmatrix}}_x, \underbrace{\begin{bmatrix} 0 \\ 1 \\ -1 \end{bmatrix}}_y, \underbrace{\begin{bmatrix} -1 \\ 0 \\ 1 \end{bmatrix}}_z$$

$$\rightarrow x = -y - z$$

\rightarrow lin dep.