1) Determine whether or not the vectors below are linearly independent. If they are not linearly independent, find a largest subset of vectors that is linearly independent. Justify your answer.

$$\begin{bmatrix} 3 \\ -1 \\ 2 \end{bmatrix}, \begin{bmatrix} 0 \\ 4 \\ 1 \end{bmatrix}, \begin{bmatrix} 2 \\ 4 \\ 7 \end{bmatrix}$$

2) Determine whether or not the vectors below are linearly independent. If they are not linearly independent, find a largest subset of vectors that is linearly independent. Justify your answer.

$$\begin{bmatrix} 4 \\ -2 \\ 5 \\ -5 \end{bmatrix}, \begin{bmatrix} 3 \\ 0 \\ 5 \\ -4 \end{bmatrix}, \begin{bmatrix} -1 \\ 2 \\ 0 \\ 1 \end{bmatrix}, \begin{bmatrix} 1 \\ 8 \\ 3 \\ 3 \end{bmatrix}$$