Group_____ Scribe_____

Other group members_____

Group Quiz for Section 3.5

Write the vector $\begin{bmatrix} 0 \\ 1 \\ 2 \end{bmatrix}$ as a linear combination of $\left(\begin{bmatrix} -2 \\ 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix} \right)$.

The fact that this is possible means that $\begin{bmatrix} 0 \\ 1 \\ 2 \end{bmatrix}$ is an element of $V = \left\langle \begin{bmatrix} -2 \\ 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix} \right\rangle$.

If we take $\mathcal{B} = \left(\begin{bmatrix} -2 \\ 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix} \right)$ as a basis of V, what are the coordinates of $\begin{bmatrix} 0 \\ 1 \\ 2 \end{bmatrix}$ with respect to $\mathcal{B}$?