Quiz 5

Multiple Choice

1 Find the Standard matrix of the following linear transformation:

$$T\begin{bmatrix}x_1\\x_2\end{bmatrix} = \begin{bmatrix}2x_2 - 3x_1\\x_1 - 4x_2\\0\\x_2\end{bmatrix}$$

2 (25 pts) Let $A = \begin{bmatrix} -1 & 2 \\ 0 & 1 \end{bmatrix}, B = \begin{bmatrix} 3 & 0 & 1 \\ 1 & 2 & 0 \end{bmatrix}$ Find the second column of $A^{-1}B$ (a) $\begin{bmatrix} -4 & -2 \end{bmatrix}'$ (b) $\begin{bmatrix} 2 & 4 \end{bmatrix}'$ (c) $\begin{bmatrix} 1 & 2 \end{bmatrix}'$ (d) $\begin{bmatrix} 0 & 2 \end{bmatrix}'$ (e) $\begin{bmatrix} 4 & 2 \end{bmatrix}'$