

Name _____ Linear Algebra; Quiz 3

1) Find a matrix in reduced echelon form that is row-equivalent to $\begin{bmatrix} 2 & 6 & 0 \\ 3 & 9 & 17 \\ 0 & 14 & 28 \end{bmatrix}$

2) Are the vectors $\begin{bmatrix} 2 \\ 3 \\ 0 \end{bmatrix}$, $\begin{bmatrix} 6 \\ 9 \\ 14 \end{bmatrix}$, and $\begin{bmatrix} 0 \\ 17 \\ 28 \end{bmatrix}$ linearly independent or linearly dependent? No justification required.

3) Consider your answer to part (1) as a linear transformation. Apply this transformation to the vector $\begin{bmatrix} 2 \\ 5 \\ 1 \end{bmatrix}$.