

## MATH 335 Quiz 2

Name: \_\_\_\_\_

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Show all work including any reduced matrix obtained by matlab. 10 points each.

1. Determine if the columns of the matrix  $\begin{bmatrix} 0 & -3 & 9 \\ 2 & 1 & -7 \\ -1 & 4 & -5 \\ 1 & -4 & -2 \end{bmatrix}$  form a linearly independent set.

Justify your answer.

2. Find the standard matrix for the linear transformation  $T$ , determine if the transformation is 1-1 and justify your answer.  $T(x_1, x_2, x_3) = (x_1 - 5x_2 + 4x_3, x_2 - 6x_3)$ .