

Name:

ID #:

Serial #:

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1. [8pts] Use elementary operations to find  $A^{-1}$  if  $A = \begin{bmatrix} 1 & 3 & -2 \\ 2 & 5 & -3 \\ -3 & 2 & -4 \end{bmatrix}$ .

2. [8pts] Determine if the vectors  $u = (2, -1, 0)$ ,  $v = (3, 1, 2)$ ,  $w = (0, 5, 4)$  are linearly independent.

If not, write  $w$  as a linear combination of  $u$  and  $v$ .