KFUPM/ Department of Mathematics & Statistics
MATH 260-05/ 141/ Quiz 3

Name:
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1. Determine whether or not the matrix $\begin{bmatrix} 3 & -2 & 0 \\ 0 & 1 & 0 \\ -4 & 4 & 1 \end{bmatrix}$ is diagonalizable. If it is, find a diagonalizing matrix P and a diagonal matrix D such that $D = P^{-1}AP$.

2. Use Cayley-Hamilton theorem to find A^{-1} if $A = \begin{bmatrix} 5 & -4 \\ 3 & -2 \end{bmatrix}$