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Math 2250, Fall 2008, Quiz 12
Dec 5, 2008
(Take home - due Monday Dec 8)

1. Find an invertible matrix C and a diagonal matrix D such that $A = CDC^{-1}$, where

$$A = \begin{bmatrix} 2 & -1 & -1 \\ 0 & 3 & 1 \\ 0 & 1 & 3 \end{bmatrix}$$

2. Show that $A = \begin{bmatrix} 3 & 1 \\ -1 & 5 \end{bmatrix}$ cannot be diagonalized.