Linear Algebra - Assignment 11

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1   Problem 1

1.

2   Problem 2

1. $\begin{pmatrix} 0 & 0 & 0 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \end{pmatrix}$ is not diagonalizable because it only has non-unique eigenvalues of 0.

3   Problem 3

1. $\begin{pmatrix} -2 & 12 \\ -1 & 5 \end{pmatrix}^2 = \begin{pmatrix} -8 & 36 \\ -3 & 13 \end{pmatrix}$