This quiz will be graded with partial credit.

1. (10 points) If possible, diagonalize

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

That is find matices P and D such that  $A = PDP^{-1}$  with D diagonal.