

# Quiz #1

*Please print your name:*

---

**Problem 1.** Diagonalize  $A = \begin{bmatrix} 5 & -2 & -2 \\ 4 & -1 & -2 \\ 0 & 0 & 1 \end{bmatrix}$ . (That is, determine matrices  $P$  and  $D$  such that  $A = PDP^{-1}$ .)