QUIZ NUMBER 6 FOR MTH 221 AT 12:30

AYMAN BADAWI

Name——————————, Id. Num.————————————-, Score $\frac{}{15}$

QUESTION 1. *Let* $H = \{ \begin{bmatrix} a \\ b \\ 2a - b + 1 \end{bmatrix} \mid a, b \in R\}$. *Show that* H *is not a subspace of* R^3.

QUESTION 2. *Let* $D = \begin{bmatrix} 2 & 4 \\ -1 & 6 \end{bmatrix}$, *and let* $F = \{L \in R^{2 \times 2} \mid LD = DL\}$. *Show that* F *is a subspace of* $R^{2 \times 2}$.

QUESTION 3. *Let* $A = \begin{bmatrix} 1 & 2 & -2 & 6 \\ 0 & 1 & -3 & 2 \\ 0 & -1 & 3 & -2 \end{bmatrix}$. *Find* $N(A)$.

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