

# Quiz 14

1. (2 points) Is  $\mathbb{R}^{217}$  a vector space?

2. (4 points) Is  $\left\{ \begin{bmatrix} 2a - 3c \\ a + b - c \\ 4c \end{bmatrix} : a, b, c \in \mathbb{R} \right\}$  a subspace of  $\mathbb{R}^3$ ? Show why or why not.

3. (4 points) Describe the Null Space of  $A = \begin{bmatrix} 1 & 0 & 5 \\ 2 & -3 & 1 \end{bmatrix}$ ?