

MATH 316 Quiz 3 NAME:

1. Find bases for the $\ker(A)$ and $\operatorname{im}(A)$ where $A = \begin{bmatrix} 1 & 2 \\ 2 & 3 \\ 3 & 4 \end{bmatrix}$.
2. Find a basis for the subspace of $\mathbb{R}^4$ that consists of all vectors perpendicular to both

$$\begin{bmatrix} 1 \\ 0 \\ -1 \\ 1 \end{bmatrix} \quad \text{and} \quad \begin{bmatrix} 0 \\ 1 \\ 2 \\ 3 \end{bmatrix}.$$