

Quiz 1; Friday, January 27
MATH 54 with Prof. Sethian
GSI: Alex Carney

Student name:

You have 15 minutes to complete the quiz. Calculators are not permitted.

1. (4 points) Write down two augmented matrices in row echeleon form, the first of which represents a consistent system with two free variables, and the second of which is inconsistent.

2. (2 points) Are the vectors

$$\begin{bmatrix} 2 \\ 2 \\ 1 \end{bmatrix}, \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix}, \begin{bmatrix} 3 \\ 4 \\ 4 \end{bmatrix}, \begin{bmatrix} 5 \\ 4 \\ 0 \end{bmatrix}$$

(a) linearly independent?

(b) Is their span all of \mathbb{R}^3 ?