

Name:

Section (time):

Math 340 Quiz Oct 31

- 1.) What is the dimension of the space spanned by the vectors below?

$$\begin{pmatrix} 91 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 0 \\ 73 \end{pmatrix}$$

- 2.) Show that vectors $\begin{pmatrix} 1 \\ 0 \end{pmatrix}, \begin{pmatrix} 1 \\ 2 \end{pmatrix}$ form a basis for \mathbb{R}^2 .

3.) Are the following vectors linearly independent?

$$\begin{pmatrix} 91 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 91 \\ 10 \\ 73 \end{pmatrix}$$