Brian Culberson

Linear Algebra Quiz 1 No notes, books or electronic devices

Your Name

1. (10 points). The system with augmented matrix:

$$\left[\begin{array}{cccc} 1 & 0 & 2 & 1 \\ 2 & 1 & 3 & 2 \\ 3 & 1 & 5 & -2 \end{array}\right]$$

is CONSISTENT.

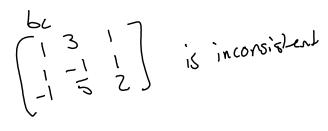
True



2. (10 points) The vector
$$\mathbf{y} = \begin{bmatrix} 1 \\ 1 \\ 2 \end{bmatrix}$$
 is in $Span \left\{ \begin{bmatrix} 1 \\ 1 \\ -1 \end{bmatrix}, \begin{bmatrix} 3 \\ -1 \\ 5 \end{bmatrix} \right\}$.

True





$$\begin{bmatrix} \frac{1}{2} & 0 & \frac{2}{3} & \frac{1}{3} & \frac{2}{2} \\ \frac{2}{3} & \frac{1}{3} & \frac{2}{2} & \frac{2}{3} & \frac{2}{3}$$

2. (10 points) The vector
$$\mathbf{y} = \begin{bmatrix} 1 \\ 1 \\ 2 \end{bmatrix}$$
 is in $Span \left\{ \begin{bmatrix} 1 \\ 1 \\ -1 \end{bmatrix}, \begin{bmatrix} 3 \\ -1 \\ 5 \end{bmatrix} \right\}$.