Homework 20, Section 4.2: 4, 21, 26

Alex Gordon

March 21, 2014

Homework

4.

$x_4 = free,\ x_3 = 0, x_2 = 1, 0, x_1 = 3, 0 \begin{bmatrix} 3 \\ 1 \\ 0 \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ 0 \\ 0 \\ 1 \end{bmatrix}$

21.

The vector $\begin{bmatrix} 1 \\ 4 \end{bmatrix}$ is in Null A and Column A is zonzero and is a vector in Column A

26. A)

True. A subspace is a vector space by itself

26. B)

True through theorem 3

26. C)

False. Col A = $\{b : b = Ax$ for some X in R^n

26. D)

True. The kernal of such a T is the set of all u in V such that $T(u) = 0$

26. E)

True. A subspace is a vector space by itself

26. F)

True.