

Linear Algebra

Exercises for Lecture Seven: Solving $Ax = 0$: Pivot Variables, Special Solutions

Due Tuesday, October 8, 2013

1. Chapter 3.2, problem 16
2. Chapter 3.2, problem 23
3. Chapter 3.3, problem 2
4. (a) Find the reduced row echelon form of

$$A = \begin{pmatrix} 1 & 5 & 7 & 9 \\ 0 & 4 & 1 & 7 \\ 2 & -2 & 11 & -3 \end{pmatrix} \quad (1)$$

- (b) What is the rank of A ?
- (c) Find the special solutions to the equation $Ax = 0$.
5. Chapter 3.3, problem 8 (optional)