

Homework 6

due on 10/17/11

Section Exercises

3.6 1ab,2defi,4b,5af

3.4 1,2,7,8,9,12,13

#1. Let $\mathbf{V}$ be a vector space and $(v_1, \dots, v_n)$ a linearly independent list in V . Show that the following two statements are equivalent:

- (a) $(v_1, \dots, v_n)$ is a basis for $\mathbf{V}$.
- (b) $(v_1, \dots, v_n, v)$ is linearly dependent for all $v \in V$.