Math 410: Problem Set 2

Due Monday, April 12

A) Section 1.5: 5, 10, 14, 17 (3rd edition) OR 7, 13, 17, 20 (4th edition)

B) Section 1.6: 6, 11, [13, 17, 27, 32, 33 (3rd edition) OR 14, 18, 29, 34, 35 (4th edition)]. If you are using the 3rd edition, then in addition to Problem 32, you must do the following (which is 34b in the 4th edition):

Let $V = \mathbb{R}^2$ and $W_1 = \{(a_1, 0) \mid a_1 \in \mathbb{R}\}$. Give examples of two different subspaces $W_2$ and $W'_2$ such that $V = W_1 \oplus W_2$ and $V = W_1 \oplus W'_2$. 
