Comments on Assignment 5

Question 1: Not a lot of problems in the proof, provided students thought through what they were writing, rather than regurgitation Farkas' lemma without thought. A few students could not write the dual correctly, which should be worrysome.

Question 2: Part a) a few students did not use 2 phase methods, and lost marks. Please read the question, and do what it asks. Be careful to choose an initial FEASIBLE solution for xb* (if you don't the final answer will not be feasible either). Part b) was easy if you changed the objective function into max form, which RSM uses....It was one iteration of the RSM, and the problem is NOT unbounded (i.e. this is where the change to max form helps)

Question 3: Why is it that almost everyone forgot to add slack (surplus) variables to the Diet problem before they began!?!? Remember that you need to be in standard equality form before you begin. Also, a lot of you could have saved yourself some work when it came to determining the marginal effect of changing resources. You don't need to go through all the calculations, you already have the answer once you have calculated y. The new optimal basis for part c) is $B = 7, 6$ with $x_B = [10\ 9.5]$ and $z^* = 209$. I'll leave the calculations up to you.

Question 4: Again, for part b) just look at the dual values y you have already calculated, it will save you some work.