MATH 2P12, Fall, 2011

ASSIGNMENT #1

Due 4 p.m. Friday, September 30, 2011

The following questions are from the text book (10th edition):

Section 4.1, pg.178-179, #2, 4, 7, 26

Section 4.2, pg.188-190, # 1(c), (d), 2 (b), (c), (g), 9(a), 10(b), 13.

Section 4.3, pg.199-200, # 2(c), (d), 5(b), 9, 12.

The following question is not from the text book.

Question: For any three linearly independent vectors $\mathbf{u}, \mathbf{v}$ and $\mathbf{w}$ in a vector space $\mathbf{V}$, prove that the vectors $\mathbf{u} - \mathbf{v}, \mathbf{v} - \mathbf{w}$ and $\mathbf{u} + \mathbf{v} + \mathbf{w}$ form a linearly independent set.

Additional Practice Exercises. Not To Be Submitted.

Section 4.1, #1, 6, 9, 11, 12, 18, 25.

Section 4.2, # 1(a), (b), (e), 2(a), (d), 3, 9(b), (c), (d).

Section 4.3, # 3(a), 4(a), 7(a), 11, 17.