MATH 2P12, Fall, 2011

ASSIGNMENT #4

Due 4 pm. Friday, Dec. 2, 2011

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

Section 8.1 # 14(b), (c), 15(b), (c), 20(b), 24, 29.

section 8.2 # 7, 8(b).

Section 4.9, # 13(b).

Section 4.10, # 23.

Section 8.3, # 11(c),18.

Section 8.4, # 3, 5, 7, 11(a), (b).

Section 8.5 # 2, 12(b), 13, 16.

Section 5.3 # 27.

The following two questions are not from the text, but are related to Section 5.3.

1. Let $A = \begin{bmatrix} 3+2i & 0 \\ -i & 2 \\ 1+i & 1-i \end{bmatrix}$, and $B = \begin{bmatrix} -i & 2 \\ 0 & i \end{bmatrix}$. Compute $(1+i)AB + (3-4i)A$, where $i = \sqrt{-1}$.

2. Let $u = (1-i, 1+i, 2i, 3)$ and $v = (4+6i, -5i, -1+i, i)$ in $\mathbb{C}^4$ with complex Euclidean inner product $<,>$. Compute the dot product $< u, v >$.

Additional Practice Exercises. Not To Be Submitted.

Section 8.1 # 16, 17, 26, 28, 36, 37. Section 8.3, #9, 10, 12, 13, 15.

Section 8.4, #12, 16. Section 8.5, #4, 5,, 7, 8, 9, 10.

Section 5.3, # 7, 8, 15, 16.