

MATH 307

Individual Homework 6

Instructions: Due the beginning of the next class (no late homework is accepted). Read textbook pages 34 to 37 before working on the homework problems. Show all steps to get full credits.

1. Textbook page 41, Chapter 3 problem 14.
2. Textbook page 41, Chapter 3 problem 16.
3. Textbook page 41, Chapter 3 problem 18.
4. Let m, n be two integers and let $A, B \in \mathbb{C}^{m \times n}$, prove that $\langle A, B \rangle = \sum_j \sum_k a_{jk} \overline{b_{jk}}$ defines an inner product. This is the default inner product in $\mathbb{C}^{m \times n}$.