

MATH-332: Linear Algebra

Chapter: 2

Matrix AlgebraSection 2.1: Matrix Operations

pgs. 107-118

June 30, 2009

Lecture: Matrix Operations**Topics:**

Sums, scalar products

Matrix Product - 1. linear comb. of columns; 2. row - column

Properties

Transpose

Problems

Prac: 1, 2

Prob: 5, 9, 11, 21, 23

Section Goals

- Understand the algebra of matrices and how matrix multiplication relates to composition mapping.
- Understand the operation of matrix transposition and how its properties can be proven using row-column notation at the element level.

Section Objectives

- Define matrix multiplication and properties of the non-commutative algebra it forms.
- Define matrix transposition and prove its properties outlined in theorem 3.