

Homework 2 - MAS 5145 Fall 2011 NAME: _____

To receive credit you MUST SHOW ALL YOUR WORK.

1. (10 pts) Let V be the subset of $M_{3,3}(\mathbf{R})$ consisting of anti-symmetric matrices ($A^T = -A$). Show that V is a subspace of $M_{3,3}(\mathbf{R})$. What is the dimension of V ? Find a basis for V .
2. (10 pts) Problem 10, page 29, textbook.