

M346 (56615), Homework #3

Due: 3:30pm, Tuesday, Feb. 05

Instructions: Questions are from the book "Applied Linear Algebra, 2nd ed." by Sadun. Please show all your work, not only your final answer, to receive credit. Keep answers organized in the same order the problems have been assigned.

Linear transformations and operators (3.1)

p. 41-42, #3, 6, 7

Matrix representation (3.2)

p. 47-48, #3, 4, 5, 8, 11

[Hint: For #5, use equation (3.5) on p. 40.]

Effect of a change of basis (3.3)

p. 50, #3, 5, 6, 7

Kernel and range (3.5)

p. 56, #4, 5, 7, 8