

22A Homework 3

Due Friday April 20, 5pm Wellman Boxes

KILL \equiv Kolman/Hill, Edition 8, “*Introductory Linear Algebra*”

Question 1 What is an equivalence relation. Give three (original) examples.

Question 2 KILL 1.6, pp 85-89, qq 2, 6, 10, 14, 16, 18, 20, 22, 26, 28, 30, 32, 40, 44, 52, 54.

Question 3 KILL 1.6, p 89, qq T2, T4, T8, T12.

Question 4 KILL 1.7, pp 105-106, qq 2, 4, 6, 8, 12, 14, 16, 22.

Question 5 KILL 1.7, p 107-108, qq T4, T6, T10.

Question 6 Suppose that the matrix transformations of the 2×2 matrices M and N are rotations. Is it then true that $MN = NM$? Prove your answer! In three dimensions, do you expect the same property to hold? Explain.