

Math 380 – Homework 7

Due on Thursday, May 28

You are welcome to talk with other students in the class about problems but should write up solutions on your own. Solutions can be handwritten or typed but need to be legible and submitted via Gradescope by the end of the day on Thursday. You should justify all your answers in order to receive full credit.

Good practice problems (not to be turned in):

CLO Section 4.3, Exercises 3, 4, 7, 8, 12

CLO Section 4.4, Exercises 1, 4, 11, 14

Problem 1. CLO §4.3, Exercise 11 parts (a), (b), (c)

Hint: For (b), write $1 \in I + J$.

Problem 2. CLO §4.4, Exercise 8

Note: You need to work over an arbitrary field k , which may not be algebraically closed.