18.702 Problem Set 4

due Wednesday, March 17

1. Chapter 12, Exc. 2.8 (*division with remainder in \( \mathbb{Z}[i] \))*

2. Chapter 11, Exc. 8.1 (*principal ideals in \( \mathbb{Z}[x] \) that are maximal*)

3. Chapter 11, Exc. 9.12 (*polynomials without common zeros*)

4. Chapter 11, Exc. 6.8 (*Chinese Remainder Theorem*)

5. Chapter 11, Exc. M.3 (*maximal ideals in a ring of sequences*)

6. Chapter 12, Exc. M4. (*ring generated by \( \sin x \) and \( \cos x \]*)