

March 10, 2021

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 $\cos x$*)