

Sixth Homework Assignment

10/15: Chapter 18 1,3,5

10/18: Chapter 18 11,13,17

10/20: Chapter 19 3,5,9

10/22: Chapter 19 15,19,25

Turn-in problems due 10/22: Chapter 18 8,18,20,26,32; Chapter 19 4,10,16,24,30

★ **problem:** Prove Fermat's Last Theorem for the case $n = 4$: There are no nontrivial integer solutions to $x^4 + y^4 = z^4$. Hint: you may use the fact that $\mathbb{Z}[i]$ is a UFD, and start with a 'minimal' solution to this problem and produce a smaller solution.