

Mathematics 100C Homework 8

Due: Wednesday May 31 2023

Instructions: Please write clearly and fully explain your solutions. It is OK to work with others to solve the problems, but if you do so, you should write your solutions up separately. Copying solutions from your peers or a solutions manual will be deemed academic misconduct. Chapter and problem numbers refer to *Algebra*, second edition, by Michael Artin. Please feel free to reach out to me or the TAs if you have any questions.

1. Chapter 14, exercise 5.1
2. Chapter 14, exercise 5.2
3. Chapter 14, exercise 6.1 (Note that in this question, the $f_i \in \mathbf{C}[x_1, \dots, x_n]$.)
4. Chapter 14, exercise 6.2
5. Chapter 14, exercise 7.1
6. Chapter 14, exercise 7.2
7. Chapter 14, exercise 7.5
8. Chapter 14, exercise 8.1