$\begin{array}{c} \text{Math 4340, Spring 2025} \\ \text{Homework 9, due at 11.59pm on April 15th, 2025} \end{array}$

All problems are from:

Abstract Algebra: An Integrated Approach by J.H. Silverman.

The textbook is available online through Cornell library.

page 285–294: 9.3, 9.4, 9.5, 9.9, 9.13, 9.14 9.15, 9.16, 9.20

Do problem 9.14 not only for finite field extensions, but for algebraic extensions.