MATHEMATICS 329—RINGS AND FIELDS—SEPTEMBER 26, 2003

ASSIGNMENT 5

DUE FRIDAY, OCTOBER 3

Reading. Sections 3.9, 3.10, and 3.11 of Herstein.

Herstein problems.

- Section 3.9, problems 2 and 3.
- Section 3.10, problems 2 and 3.
- Section 3.11, problems 4, 5, and 7.

  Hint for number 7: recall the power series identity

  $$\frac{1}{1-z} = 1 + z + z^2 + z^3 + \dots,$$

  which is equivalent to

  $$(1-z)(1+z+z^2+z^3+\dots) = 1.$$

  While it's not directly applicable, the form might give you some ideas.