

Fifth Homework Assignment

9/29: Chapter 16 9,21,31

10/1: Chapter 17 3,5,9

10/4: Chapter 17 15,17,25

10/6: Chapter 17 27,31,33

Turn-in problems due 10/6: Chapter 16 18,22,40; Chapter 17 12,16,28,30,32,34,36

★ **problem:** Let F be a field with q elements, $F^* = \{a_1, a_2, \dots, a_{q-1}\}$ the set of non-zero elements of F . Show that $a_1 a_2 \cdots a_{q-1} = -1$ (Hint: use Corollary 3 of Chapter 16 with an appropriate polynomial.)