



MODERN ALGEBRA
SPRING 2019

ASSIGNMENT 2.1
DUE JANUARY 30

Exercise 1. Construct multiplication tables for the groups \mathbb{Z}_7^\times , \mathbb{Z}_9^\times and \mathbb{Z}_{15}^\times .

Exercise 2. Construct a multiplication table for the dihedral group D_4 .

Exercise 3. Prove that if G is a group in which every element is its own inverse, then G is abelian.

Exercise 4. Lang, II.1.3.