Chapter 2. Ring Theory

Hu Zheng
Department of Mathematics, Zhejiang University

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1 Basic Notions

Problem 1.1 (Kaplansky)**.** *If some element in a unital ring has more than one right inverse, then it has infinitely many inverses.*

Solution: ◄

Problem 1.2. *(1) Suppose L is a noncommutative field, and a is out of the center of L, then L is generated by all the congruent elements of a.*

(2) Suppose L is a field and K its proper subfield, and $K^* = K - \{0\}$ is a normal subgroup of L^*, then K is contained in the center of L.

Solution: ◄