

Homework (Fall 2014) # 4

Due Tentatively, Wed. Nov. 5

The starred problems and my problems are for hand-in.

From Kaplansky: Section 1.6: 1 (this needs Zorn's Lemma), 2, 3, 5, 6*, 13, 14, 27*, 35*

Also hand-in the following:

- Let $R \subset T$ be rings, T integral over R . Show
 1. If $x \in R$ is a unit in T , then it is a unit in R .
 2. The Jacobson radical of R is the contraction of the Jacobson radical of T