CS 235: Algebraic Algorithms, Spring 2021

Discussion 8

Tuesday, April 13^{th}, 2021.

Problem 1. Let R be a non-trivial ring. Show that for some $a, b \in R$ such that $ab = 1$, if either a or b is a Zero Divisor then $ba = 1$.

Problem 2. Let S and T be subrings of ring R. Show that $S \cap T$ is also a subring of R.

Problem 3. Show that if F is a field, the units in $F[X]$ are exactly nonzero elements of F.