MTH 562

Homework 13
won’t be collected

Chapter 32 (the additional problem below may be useful in doing some of the following exercises): 16, 17, 22, 26

Additional Problem: Prove the Lemma I stated on the last day of class: If $E$ is the splitting field of a polynomial over a field $F$ of characteristic 0 then $E$ is a Galois extension of $F$. (Recall that in the definition of Galois extension of $F$ given in class, we required the polynomial to have no multiple roots. This lemma shows that if $F$ has characteristic 0 this requirement is not necessary.)