

Algebra 2 (2013)-Aalborg University

Lecture 22, April 25th

22nd Lecture (B): Thursday April 25th, 8:15-12:00 at room G5-112.

- 8:15-10:00 Repetition from last lectures + A beautiful identity (pages 171–173 + 173–176).
- 10:00-12:00 Work in groups: Exercises from [Lau], 4.10 (page 179): 32, 34, 37, 38, A, 7, 27, 28, 29, 30.

Exercise A: Let $f \in F[X]$ be a reducible polynomial. Show that $F[X]/\langle f \rangle$ is not a field (hint: one can easily show that it is not a domain). For instance, find a zero divisor in $\mathbb{F}_2[X]/\langle X^2 + 1 \rangle$.

Best regards,

Diego