Computeralgebra (2013)-Aalborg Universitet
Spiseseddel 1

Velkommen til kurset "Computer Algebra" for math 5. Grundbogen er: [GG] Joachim von zur Gathen, Jürgen Gerhard "Modern Computer Algebra", 3rd Edition, Cambridge University Press, June 2013. ISBN: 9781107039032.

Denne hjemmeside indeholder diverse informationer om kurset:
http://people.math.aau.dk/∼diego/CompAlg2013.html

Lauritzens bog (fra Algebra 1 and Algebra 2) og Kapitel 25 i [GG] kan være en god reference for algebraiske begreber.

1. gang , torsdag d. 5. september, 12:30–16:15 i lokale G4-102

- 8:15-10:00 Forelæsning: Big-O notation. Representation and addition of numbers and polynomials. Multiplication and division with remainder. Euclidean domains and the extended Euclidean algorithm. Cost analysis of Extended Euclidean Algorithm (pages 720–721, 29–41, 45–53).

- 10:00-12:00 Arbejde i grupper med følgende opgaver (fra [GG]): 2.8, 2.9, A, 2.1, 2.7, B, C, 3.19, D (some questions where answered in Algebra 2).

  Opgave A: Implement Algorithm 2.3 in Maple or Sage. Represent a polynomial by its coefficients. Consider the polynomial ring over the rings $\mathbb{Z}$ and $\mathbb{Z}/3\mathbb{Z}$.

  Opgave B: Self-study section 2.1, Algorithm 2.4 and the analogue of algorithm 2.5 for integers (see pages 40 and 41).

  Opgave C: Self-study Figures 2.1 and 2.2.

  Opgave D: Install Sage or use http://www.sagenb.org/. Install Maple.

Med venlig hilsen,

Diego