

# Homework 1

Deadline: Tuesday, October 14 at 14:00.

*Please submit your solutions either on paper at the beginning of the practicals or as a pdf-file in <https://owl.mff.cuni.cz/>. Everything that is not immediately obvious needs to be proved or quoted from lecture notes.*

1. Using Euclid's algorithm find a pair of polynomials  $u, v \in \mathbb{Z}_3[x]$  (i.e. computing modulo 3) such that  $u(x^3 + 1) + v(x^2 - x) = 1$ .