

**Sommersemester 2025 Homework 11**

1. QUESTIONS

- (1) What is your favourite theorem/topic in the course so far?
- (2) So far you have only worked with rings which are subrings of the complex numbers. This question deals with the ring of polynomials  $\mathbb{Q}[x]$  with rational coefficients. Show that this is a Euclidean ring with norm  $N(p) = 2^{\deg p}$ . You may assume that this is a ring, you only need to check the two conditions needed for the Euclidean property.