Nepal Algebra Project(NAP)
Central Department of Mathematics
Tribhuvan University,Kirtipur, Kathmandu,Nepal
Fields and Galois Theory

Course Instructor: Prof. Nick Gill

Summary of NAP: Module 3, Lecture 6

1. We calculated the Galois group of $X^6 + 1$ over $\mathbb{Q}$, as this was requested by students.
2. We partially proved that if a number $z \in \mathbb{R}$ lies in a GALOIS extension of $\mathbb{Q}$ of degree a power of 2, then z is constructible. (The remainder of the proof is included as one of the exercises in the second homework.)
3. We proved that if p is a Fermat prime, then the regular p-gon is constructible.
4. The rest of the lecture was devoted to discussing the second homework exercises.