

ALGEBRAIC NUMBER THEORY

HOMEWORK 4

- (1) Compute the ideal class group of $\mathbb{Q}(\sqrt{-17})$.
- (2) Compute the ideal class group of $\mathbb{Q}(\sqrt{-47})$.
- (3) Show that $\mathbb{Q}(\sqrt{-163})$ has class number 1.
- (4) Compute the class number of $\mathbb{Q}(\sqrt{65})$.
- (5) Compute the class number of $\mathbb{Q}(\sqrt{221})$.