

Mathematics 223a Homework due November 13

November 4, 2008

1. Show that $\mathbb{Q}(\sqrt{-3}, \sqrt{-23})$ has class number 3.
2. Read section 1 of Chapter VIII of Frohlich-Taylor (“Dirichlet series.”)
3. Read the item on the web-page entitled *Imported notes and exercises for Tate’s 2006 lectures 1 and 2*. Note that (as explained there) “rdp” is short for *restricted direct product*, and if G is a locally compact group G' is the notation for its Pontrjagin dual. The reference ANT is Cassels-Frohlich and please do consult the pages referred to. Do, and hand in, all 9 numbered exercises.