

962-J1-317

Thomas W Mattman* (TMattman@CSUChico.edu), Department of Mathematics, California State University, Chico, Chico, CA 95929-0525. *Galois Theory by Calculator*. Preliminary report.

Using Computer Algebra Systems, students can easily calculate the Galois groups of most rational polynomials up to degree seven. Indeed, to a large extent, these calculations can be carried out on an ordinary calculator. Such computations provide a concrete understanding of Galois theory as well as introducing a variety of finite groups “in their natural habitat.” We summarize the two main approaches to computing Galois groups and provide illustrative examples for use both with Computer Algebra Systems and ordinary calculators. (Received September 08, 2000)