ABSTRACT

THOMPSON’S GROUP F

The subject of this thesis is some algebraic and model-theoretic properties of Thompson's group F, a very popular object to work with in algebra for the last 40 years. Most of the results that are considered in the thesis are rather well-known, and our main goal is to present their rather detailed proofs and to make them available for the undergraduate students. We start with some introductory material, covering the standard realizations, generators, and relations of the elements of F. Then we study the tree and the forest diagrams of F and apply those to obtain the normal form for the elements of F. Finally, we reproduce a proof of one recent result stating that the first-order theory of F is undecidable.