

Abstract

The main aim of this thesis is to study the Alexander's Polynomial and its construction. This polynomial is a knot invariant, that means, if we pick isotopic knots, they will have the same value. We will look at two methods of construction of the infinite cyclic cover of a knot group and in the process come up with an invariant - The Alexander's Polynomial as well as deduce a lower bound for the unknotting number of a knot. The subsequent chapters deal with applications of the Alexander Polynomial and alternate procedures through which we can construct the Alexander Polynomial.