

In this bachelor thesis, we focus on the mathematical structure called quandle. The point of interest shall be to provide the solution to the isomorphism problem, i.e., to determine exactly when two quandles are isomorphic. We address this problem in the case of principal quandles. Firstly, we prove the abstract characterization of when two principal quandles are isomorphic, and secondly, we imply the results on dihedral groups and obtain a partial classification.