

Abstract

The groups theory is one of the important subjects in algebra, and for this important we choose this subject.

The definition of the homomorphism group with its applications determined in this research.

This research divided into two chapters. In chapter one, we introduce some basic definitions of the group with some properties and next that we devoted some basic facts and theorems about the center of the group, subgroup, and the quotient group.

In chapter two we introduce the definition of the homomorphism, isomorphism are devoted in this chapter with their propositions, theorems and illustrate that with examples.