



# CHAPTER 1

The first part of the book is devoted to the study of the basic concepts of the theory of groups. In this chapter, we shall discuss the definition of a group, the properties of groups, and the construction of quotient groups. We shall also discuss the concept of a normal subgroup and the First Isomorphism Theorem. The second part of the chapter is devoted to the study of the structure of finite groups. We shall discuss the Sylow Theorems and the structure of solvable groups. The third part of the chapter is devoted to the study of the structure of simple groups. We shall discuss the classification of finite simple groups and the structure of the alternating groups.

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