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# ON THE CLASSIFICATION OF FINITE GROUPS

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## ABSTRACT

Finite groups are algebraic objects fundamental to the study of symmetry, and therefore widely applicable to most branches of mathematics concerned with finite objects. The comprehensive classification of finite simple groups is attributed to Daniel Gorenstein in 1983. However, it was not declared complete until revisions were made by Aschbacher and Smith correcting the proof, which initially totaled over 10000 pages. In this paper we will present the classification of finite groups. We begin by discussing basic definitions and theorems in group theory. We proceed to describe the groups with 4 and 6 elements and to determine the non-isomorphic groups with 8, 9, 10 and 12 elements.

**Keywords** Finite groups · Order of group · Classification of finite groups

## References

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