

A note on the kernels of nonlinear irreducible characters

By PUJIN LI (Taiyuan)

Abstract. Let G be a finite nonabelian group, and $\text{Kern}(G)$ be the set of kernels of nonlinear irreducible complex characters of G . A nonabelian p -group such that all the elements of $\text{Kern}(G)$ have the same order is called a \mathbb{P} -group. We give a necessary and sufficient condition for a prime power order group to be a \mathbb{P} -group.

PUJIN LI
DEPARTMENT OF MATHEMATICS
SHANXI NORMAL UNIVERSITY
TAIYUAN, SHANXI 030031
CHINA

Mathematics Subject Classification: 20D15, 20C15.

Key words and phrases: finite p -groups, normal subgroups, kernel of a nonlinear irreducible character.