

UNISERIALY EMBEDDING OF SUBGROUPS

HASSAN NARAGHI

Abstract

A subgroup H of a p -group G is n -uniserial if for each $i = 1, \dots, n$, there is a unique subgroup K_i such that $H \leq K_i$ and $|K_i : H| = p_i$. In case the subgroups of G containing H form a chain we say that H is uniserially embedded in G . We prove that if H is a n -uniserial subgroup of the cyclic p -group G , then H is uniserially embedded in G . We also show that if H is a n -uniserial subgroup of the p -group G such that $|G| = p^n$, then H is uniserially embedded in G .

Key Words : p -group, Soft subgroup, n -uniserial subgroup, uniserially embedding