

1009-20-50

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Let F be a field, let A be a vector space over F and let $GL(F, A)$ denote the group of all automorphisms of A . Let H be a subgroup of $GL(F, A)$ and note that H acts on the quotient space $A/C_A(H)$ in a natural way. We define $\dim_F H$ to be $\dim_F(A/C_A(H))$ and say that H has *finite central dimension* if $\dim_F H$ is finite and has infinite central dimension otherwise. A group G is said to have *finite 0-rank* $r_0(G) = r$ if G has a finite subnormal series with exactly r infinite cyclic factors, all other factors being periodic. If p is a prime then the group G has finite p -rank $r_p(G) = r$ if every elementary abelian p -section of G is finite of order at most p^r and there is an elementary abelian p -section U/V such that $|U/V| = p^r$. Now let p denote a prime or 0. We discuss soluble groups G , of infinite central dimension and infinite p -rank for some fixed p , whose proper subgroups of infinite p -rank have finite central dimension. (Received July 29, 2005)