

A CONDITION SUFFICIENT FOR NILPOTENCY IN GROUPS

Andreev K.K.

Moscow State Institute for Electronics and Mathematics,
Russia, 109028, Moscow, B. Tryohsvyatitel'skiy pereulok, 3/12,
telephone: (499) 246-28-51, E-mail: kirill.andreyev@yandex.ru

In my old paper [1] two theorems were proved.

Theorem 1. Let G be a torsion-free group, in which every three elements generate a nilpotent subgroup of a bounded class. Then the group G is locally nilpotent.

Theorem 2. Let G be a group possessing non-trivial elements of finite order. If every three elements in G generate a nilpotent subgroup of a small class (i. e. less than the order of every non-trivial periodic element of the group), then the group G is locally nilpotent.

In the present work I strengthen the theorem 1.

Theorem 3. Let G be a torsion-free group, in which every three elements generate a nilpotent subgroup of a bounded class. Then the group G is nilpotent.

Reference.

1. *Andreev K.K.* Some sufficient conditions for local nilpotence in groups. // *Trudy MIEM. Mathematical Analysis and Its Applications*, issue 30. Moscow, MIEM, 1974. Pp. 19–43. (In Russian.)