Turkish Journal of Mathematics

On Torsion-Free Barely Transitive Groups

Mahmut KUZUCUOĞLU
Middle East Technical University
Department of Mathematics,
06531 Ankara-TURKEY
e-mail matmah@metu.edu.tr

Abstract: B. Hartley asked the following question: Does there exist a torsion free barely transitive group? Existence of torsion free simple barely transitive group is also unknown. We answer the latter question negatively in a special case. Moreover we proved the following: Let G be a simple barely transitive group, and H be a stabilizer of a point. If for a non-identity element $x \in G$, $C_G(x)$ is infinite then, $C_G(x)$ cannot contain H.

Key Words: Barely transitive, commensurable.