



Also available at <http://amc-journal.eu>
ISSN 1855-3966 (printed edn.), ISSN 1855-3974 (electronic edn.)
ARS MATHEMATICA CONTEMPORANEA 8 (2015) 1–28

Odd-order Cayley graphs with commutator subgroup of order $p^\mu q^\nu$ are hamiltonian

Dave Witte Morris

Abstract: We show that if G is a nontrivial, finite group of odd order, whose commutator subgroup $[G, G]$ is cyclic of order $p^\mu q^\nu$, where p and q are prime, then every connected Cayley graph on G has a hamiltonian cycle.

Keywords: Cayley graph, hamiltonian cycle, commutator subgroup.

Math. Subj. Class.: 05C25, 05C45

Cayleyevi grafi lihega reda s komutatorsko podgrupo reda $p^{\mu}q^{\nu}$ so Hamiltonovi

Povzetek: Pokažemo, da če je G netrivialna, končna grupa lihega reda, katere komutatorska podgrupa $[G,G]$ je ciklična reda $p^{\mu}q^{\nu}$, kjer sta p in q praštevilici, potem ima vsak povezan Cayleyev graf grupe G hamiltonski cikel.

Ključne besede: Cayleyev graf, hamiltonski cikel, komutatorska podgrupa.