1073-05-144   **Dwight Duffus*** (`dwight@mathcs.emory.edu`), Math & CS Dept, Emory University, Atlanta, GA 30322, and **Jeremy McKibben-Sanders** (`jmckib2@gmail.com`) and **Kyle Thayer** (`kthayer@emory.edu`). *Some quotients of the Boolean lattice are symmetric chain orders.*

There are several well-known combinatorial problems that amount to determining whether quotients of the Boolean lattice B_n defined by subgroups of the symmetric group S_n have symmetric chain decompositions. Indeed, R. Canfield has conjectured that for all subgroups G of S_n, the quotient order $B(n)/G$ is a symmetric chain order.

We provide a straightforward proof of a generalization of a result of K. K. Jordan: namely, B_n/G is an SCO whenever G is generated by powers of disjoint cycles. The symmetric chain decompositions of Greene and Kleitman provide the basis for partitions of these quotients. We also show that some other "small" subgroups of S_n have the same property. (Received July 31, 2011)

1