1035-55-1532 **Jane Holsapple Long*** (janelong@math.umd.edu), Dept. of Mathematics, University of Maryland, College Park, MD 20742. *$Qd(p)$ Groups and Free Actions on Products of Spheres.* Preliminary report.

Recent work of A. Adem, J.H. Smith, and M.A. Jackson indicates that the $Qd(p)$ groups, given by the semidirect product of $(Z/p)^2$ and $SL(2,p)$, p an odd prime, represent the biggest obstacle in determining whether every rank-2 finite group can act freely on a finite complex homotopy equivalent to a product of two spheres. We discuss the cohomology ring of $Qd(p)$ and progress in determining whether a free action can exist. (Received September 20, 2007)