1056-20-1782 Lenny Jones (lkjone@ship.edu), Department of Mathematics, Shippensburg University, 1871 Old Main Drive, Shippensburg, PA 17257, and Kelly Toppin* (kt5638@ship.edu), Department of Mathematics, Shippensburg University, 1871 Old Main Drive, Shippensburg, PA 17257. On Some Conjectures Concerning Groups With Perfect Order Subsets. Preliminary report.
Let $G$ be a finite group, and for any element $x$ of $G$, define the order subset of $G$ determined by $x$ to be the set of all elements in $G$ with the same order as $x$. We say that $G$ has perfect order subsets if the number of elements in each order subset of $G$ divides the order of $G$. In this talk, we discuss some open questions concerning groups with perfect order subsets. (Received September 22, 2009)

