Wenfong Ke (wfke@mail.ncku.edu.tw), Tainan, 701, Taiwan, Po-Yi Huang (pyhuang@mail.ncku.edu.tw), Tainan, 701, Taiwan, and Günter F Pilz* (Guenter.Pilz@jku.at), Altenbergerstr. 69, 4040 Linz, Austria. The Cardinality of Some Symmetric Differences.
In this note, we prove that for positive integers $k$ and $n$, the cardinality of the symmetric differences of $\{1,2, \ldots, k\}$, $\{2,4, \ldots, 2 k\},\{3,6, \ldots, 3 k\}, \ldots,\{n, 2 n, \ldots, k n\}$ is at least $k$ or $n$ whichever is larger. This solved a problem raised in [Contributions to General Algebra 8, Hölder-Pichler-Tempsky, Vienna (1992), 233-238] where binary composition codes were studied. (Received June 26, 2009)

