

1127-68-396

**Maggie E. Habeeb\*** (habeeb@calu.edu), 250 University Ave, #54, California, PA 15419. *A Verification Protocol using the Word Problem.*

Secret sharing schemes provide a method of distributing a secret among a group of participants. Typically a dealer distributes the shares to the participants, and is assumed to be honest. A secret sharing scheme using group presentations and the word problem was proposed by Habeeb, Kahrobaei and Shpilrain. Here we present a verification protocol to be used with the Habeeb-Kahrobaei-Shpilrain secret sharing scheme that allows participants to check if their shares are correct, solving the problem of a dishonest dealer. (Received February 07, 2017)