1049-20-199 **Hanna Bennett*** (hbennett@math.uchicago.edu), IL. *Area distortion in groups.*

Given a finite presentation for a group H, a word representing the identity in H can be written as a product of conjugates of relators. If H is a subgroup of a finitely presented group G, it may be the case that the number of relators needed in the presentation for H is much greater than the number needed for G. I will define the area distortion function, which measures this difference, and compute some key examples. (Received March 03, 2009)