Meeting: 1003, Atlanta, Georgia, MAA CP B1, MAA Session on My Favorite Demo: Innovative Strategies for Mathematics Instructors, I

1003-B1-111   **Norton Starr*** (`nstarr@amherst.edu`), Math & Comp Sci, Amherst College, Amherst, MA 01002-5000. *Three hands-on classroom demos: Counting, induction, and data analysis.*

This talk presents three favorite examples of hands-on mathematics as a way of enlivening textbook-based courses. 1: An elementary counting principle is illuminated by the so-called six-way floor lamp. This innumeracy has an obvious commercial application. 2: Mathematical induction is exemplified by a tiling problem. Nonnumerical examples of induction proofs are scarce, and this is one of the most attractive ones. It also provides an intriguing puzzle with many recreational possibilities. 3: Various ways to assess fairness in the 1969 draft lottery reveal a bias not evident in the standard scatterplot. This may have renewed relevance given current pressures on the United States military capacity. (Received August 07, 2004)