

1077-VL-2402

Oscar Levin* (oscar.levin@unco.edu), School of Mathematical Sciences, University of Northern Colorado, Greeley, CO 80639. *Counting Liars and Truth-tellers: Binomial Identities through Logic Puzzles.*

We consider liar and truth-teller logic puzzles in which each speaker makes a claim regarding the number of liars or truth-tellers in the group. Our goal is to count the number of such puzzles, distinguishing between puzzles with no, multiple, or unique solutions. By counting these quantities in multiple ways, we uncover new combinatorial proofs of some well known (and lesser known) binomial identities. (Received September 22, 2011)