1023-05-228   **Shalosh B. Ekhad** and **Doron Zeilberger*** (`zeilberg@math.rutgers.edu`), Dept. of Mathematics, Rutgers University, Piscataway, NJ 08854. *Symbol-Crunching the Gambler's Ruin Problem.*

We all know that if I have A dollars and you have B dollars and we keep tossing a fair coin that will tell us whether I will give YOU one dollar or YOU will give ME 1 dollar and we keep doing it until one of us goes broke, then my probability of going broke is A/(A+B). We also know that our game should expect to last AB coin-tosses.

But what if we have not a coin but a loaded die? And what about the variance and higher moments of the r.v. "duration of the game"? These questions are beyond the scope of mere humans, but, of course, a trivial piece of cake for machines.

This talk was inspired by, and is dedicated to, Gil and Michal Zeilberger. (Received August 28, 2006)