1014-Z1-1266 **Bill Linderman*** (`wclinder@king.edu`), 1350 King College Road, Bristol, TN 37620. *Runs of Heads and Tails - Genuine or Bogus?*

Flip a coin 200 times and record the sequence of heads and tails or simply make up a sequence that appears to be genuine. If students are given this task, how easy is it to identify which sequences are real and which are fake? We approach this well-known problem by determining probabilities of long runs using matrices. Demonstrations are in *Mathematica*. (Received September 27, 2005)