

Week #3 Winter 2012

Reading James McManus's book "Positively Fifth Street, Murderers, Cheetahs, and Binion's World Series of Poker" should psych you just enough to attack the WSU Math Department's

PROBLEM
of the week

**SERGIO
HATES
POKER!!!**



Sergio found his calculus project group, Chris, Jesse and Dionicio, playing poker instead of seriously studying related rates. Enraged, Sergio bet them \$100 apiece that he could beat them 10 times in a row in the following game. A pile of 30 poker chips are placed on a table. Two players take turns removing chips from the pile. For his move, a player may remove 1 to 6 chips. The player who removes the last chip wins. Five minutes later, Sergio walked away with \$300. Given that Sergio always gets to decide who plays first, explain his winning strategy.

WSU undergraduates may submit solutions to the Mathematics Department office, 1150 FAB, by noon February 14. Include your name, ID number, and whether you have completed Math 2030 (or higher). Sorry, no fax or e-mail entries. For information, call 577-2479.